# SMALL BUSINESS CREDIT SURVEY

# **Report on Employer Firms**





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<sup>1</sup> For a full list of community partners, please visit www.fedsmallbusiness.org/partnership.

<sup>2</sup> For complete information about the survey methodology, please see <u>p. 31</u>.

<sup>3</sup> 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; Alicia Williams, 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; Tony Davis, Federal Reserve Bank of New York; Michael Grover, Federal Reserve Bank of Minneapolis; Theresa Singleton, Federal Reserve Bank of Philadelphia; Sandy Tormoen, Federal Reserve Bank of Richmond; Daniel Davis, Federal Reserve Bank of St. Louis; and David Erickson, Federal Reserve Bank of San Francisco.

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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.

# **EXECUTIVE SUMMARY**

The Small Business Credit Survey (SBCS), a national collaboration of the 12 Federal Reserve Banks, provides timely information on small business financing needs, decisions, and outcomes to policy makers, researchers, lenders, and service providers.

The report findings provide an in-depth look at small business performance, debt holdings, and credit experiences. Fielded in Q3 and Q4 2017, the survey yielded 8,169 responses from small employer firms, businesses that have 1 to 499 full- or part-time employees (hereafter "firms"), in the 50 states and the District of Columbia. New features of this year's report include expanded time trend information and a detailed look at the credit experiences of firms by various segments including revenue size, age, and industry. The survey findings complement other national data on aggregate lending volumes and lender perceptions.<sup>1</sup>

Heading into 2018, small businesses reported stronger revenue growth and profitability but continued financial challenges for some segments of firms. Overall, the survey finds:

- Improved performance in 2017 and heightened optimism for revenue and employment growth in 2018.
- Comparatively weaker demand for new financing, with a smaller share of firms applying for new capital than in prior years and half of nonapplicants reporting that they had sufficient financing.
- Improved financing success for applicants, with a larger share receiving the full amount of financing requested and higher success rates for loan and line of credit applicants compared to 2016.
- A moderate increase in applications to online lenders<sup>2</sup> overall in 2017, with notably higher application rates among self-reported medium and high credit risk firms.

Continued financial challenges—most commonly, paying operating expenses and wages, and credit availability—for some firm segments, particularly recent credit applicants, micro firms (≤\$100K in annual revenues), startups (0-5 years), and firms in the leisure and hospitality industry.

More detailed findings include the following:

# IMPROVED PERFORMANCE AND HEIGHTENED OPTIMISM

- In 2017, the majority of firms reported they were profitable and had growing revenues. The net share of firms reporting profitability, revenue growth, and employment growth all increased from 2016 levels.
- Expectations for revenue and employment reached their highest levels since 2015.
   Reflective of this optimism, a net 66% of firms anticipate revenue growth in 2018, while a net 44% expect to hire new employees.

### WEAKER DEMAND FOR NEW FINANCING

- Demand for financing declined modestly, with 40% of firms applying for funding, down from 45% in 2016.
- As in previous years, most applicant firms (55%) were seeking \$100K or less in financing; three quarters sought \$250K or less.
- Though applicants most frequently sought credit for expansion (59%), borrowing needs also reflected uneven cash flow and cost pressures, with sizable shares borrowing to fund operating expenses including wages (43%), and to refinance (26%).
- Applicants on average continued to report a higher incidence of credit risk factors than nonapplicants: a smaller share were profitable, and larger shares reported low credit scores or reported experiencing financial challenges in the prior year.

- Firms sought financing most frequently at large banks (48%), small banks (47%), and online lenders (24%). However, a notable share (18%) turned to other lenders, including auto/equipment dealers, farm lending institutions, friends/family, nonprofits, private investors, and government entities.
- Among nonapplicants, 50% did not apply because they had sufficient financing.
   Another 26% were averse to taking on debt, and 13% did not apply because they believed they would be turned down.

# IMPROVED FINANCING SUCCESS BUT NOTEWORTHY GAPS

- A larger share of applicants received the full amount of financing requested—46 % in 2017, compared to 40% in 2016.
- Firms also reported higher success rates for loan and line of credit applications, with 58% receiving all of the credit requested, up from 53% in 2016.
- Financing shortfalls—receiving less than the amount requested—were more common among micro firms (annual revenues of \$100K or less) and startups (0–5 years). Seventy percent of micro firm applicants and 61% of startups experienced shortfalls.
- There were other notable funding short-falls that varied across self-reported credit-risk categories. Forty-four percent of firms with low credit risk experienced a financing gap, compared to 71% of medium credit risk firms and 90% of firms with high credit risk. Firms most frequently attributed these shortfalls to insufficient credit histories and insufficient collateral.

See, for example, the SBA Office of Advocacy's "Quarterly Lending Bulletin," the Federal Financial Institutions Examination Council's (FFIEC) "Consolidated Reports of Condition and Income" ("Call Reports"), the Board of Governors of the Federal Reserve System's "Senior Loan Officer Opinion Survey on Bank Lending Practices," and Kansas City Federal Reserve Bank "Small Business Lending Survey."

<sup>2</sup> The survey questionnaire asks about a range of nonbank online providers, including retail/payments processors, peer-to-peer lenders, merchant cash advance lenders, and direct lenders. For purposes of topline findings, nonbank online lenders are grouped into one category, "online lenders."

# **EXECUTIVE SUMMARY (CONTINUED)**

### MODERATELY INCREASED APPLICA-TIONS TO ONLINE LENDERS

Applications to online lenders increased to 24% in 2017, up from 21% in 2016.

This percentage is higher among self-reported medium/high credit risk firms, with 40% applying to online providers—nearly the same share that applied to large banks (49%) and small banks (47%).

Self-reported medium and high credit risk applicants were most successful in obtaining funding for loans, lines of credit, or cash advances from online sources; 71% were funded at online providers, compared with success rates of 35% at large banks, 47% at small banks, and 26% at credit unions.

Applicants to online lenders report being attracted by the speed of credit decisions, improved funding chances, and lack of collateral requirements. Net borrower satisfaction with online providers has also increased from 19% in 2015 to 35% in 2017.

However, applicants to online lenders cited challenges with high interest rates and unfavorable repayment terms more often than applicants to other lenders. Applicants to online lenders also remain the least satisfied among applicants at all types of lenders.

These findings are consistent with net satisfaction levels reported by nonapplicant debt holders, which ranged from a high of 81% for credit unions to a low of 43% for online lenders.

# CONTINUED FINANCIAL CHALLENGES FOR SOME SEGMENTS

Sixty-four percent of firms experienced financial challenges in the last year.

While the most common challenges overall were paying operating expenses (40%) and credit availability (30%), these challenges were particularly acute for firms with annual revenues of \$100K or less (52% and 36%, respectively), and for startups (46% and 39%, respectively).

For leisure and hospitality firms, 48% reported difficulty paying operating expenses, and another 38% had difficulty making payments on debt; these shares are higher than for firms in other industries.

Firms most often addressed financial challenges by using personal funds—67% of business owners used personal finances to do so, and 39% took out additional debt.

### **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<sup>3</sup> in the United States. 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 noteworthy 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.

Given the breadth of the 2017 survey data, the SBCS can shed light on various segments of the small business population, including startups and growing firms, microbusinesses, minority-owned firms, women-owned firms, and self-employed individuals (nonemployer firms). Future reports will focus on the financing needs and experiences of some of these segments.

# **PERFORMANCE**



# In 2017, employer firms reported stronger performance than in the 2016 survey.





### EMPLOYER FIRM PERFORMANCE, 2017 Survey (% of employer firms)



<sup>1</sup> For revenue and employment growth, the index is the share reporting growth minus the share reporting a reduction. For profitability, it is the share profitable minus the share not profitable.

<sup>2</sup> Approximately the second half of the prior year through the second half of the surveyed year.

<sup>3</sup> In order to make time series comparisons, the survey data have been re-weighted to maintain consistency over time. Therefore, the values and observation counts here may differ slightly from past reports and the <u>appendix</u> file for this report, which uses a different weighting scheme. Please see <u>p. 31</u> for more detail.

<sup>4</sup> Questions were asked separately, thus the number of observations may differ slightly between questions.

<sup>5</sup> Percentages may not sum to 100 due to rounding.

<sup>6</sup> Prior 12 months. Approximately the second half of 2016 through the second half of 2017.

# **GROWTH EXPECTATIONS**



# In the 2017 survey, employer firm expectations for future growth exceeded levels reported in prior surveys.



**29%** of employer firms are **growing**.

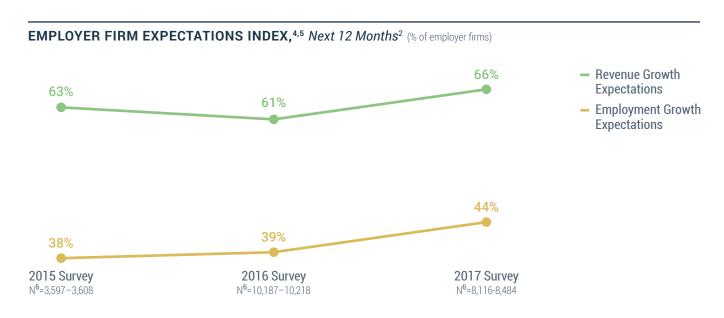
**Growing firms** are defined as those that:

☑ Increased revenues³

☑ Increased number of employees³

☑ Plan to increase or maintain number of employees<sup>2</sup>

N=7,444

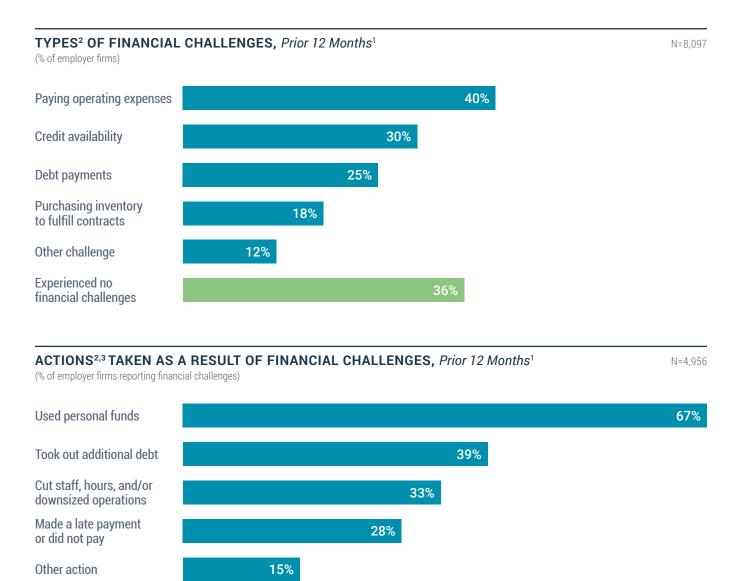


- 1 Percentages may not sum to 100 due to rounding.
- 2 Expected change in approximately the second half of the surveyed year through the second half of the following year.
- 3 Prior 12 months. Approximately the second half of 2016 through the second half of 2017.
- 4 The index is the share reporting expected growth minus the share reporting a reduction.
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- 6 Questions were asked separately, thus the number of observations may differ slightly between questions.

# **FINANCIAL CHALLENGES**



# **64%** of employer firms experienced financial challenges in the prior 12 months.<sup>1,2</sup>



<sup>1</sup> Approximately the second half of 2016 through the second half of 2017.

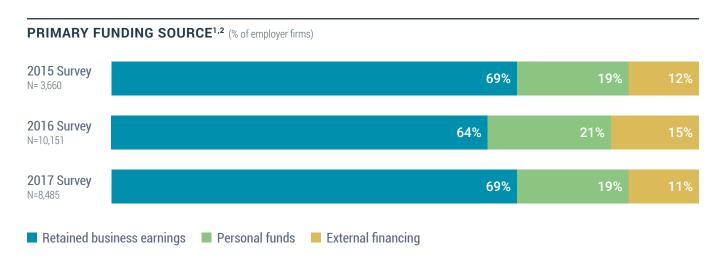
<sup>2</sup> Respondents could select multiple options.

<sup>3</sup> Response option 'unsure' not shown in chart. See <u>Appendix</u> for more detail.

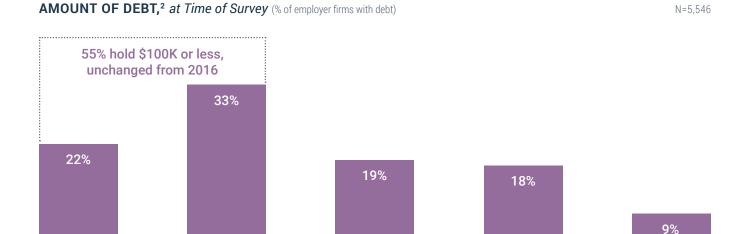
# **FUNDING BUSINESS OPERATIONS**



# In 2017, a larger share of employer firms funded their business through retained business earnings than in 2016.



# 68% of employer firms have outstanding debt. N=8,081



\$100K-\$250K

≤\$25K

>\$1M

\$25K-\$100K

\$250K-\$1M

<sup>\*</sup>Categories have been simplified for readability. Actual categories are: ≤\$25K, \$25,001K-\$100K, \$100,001K-\$250K, \$250,001K-\$1M, >\$1M.

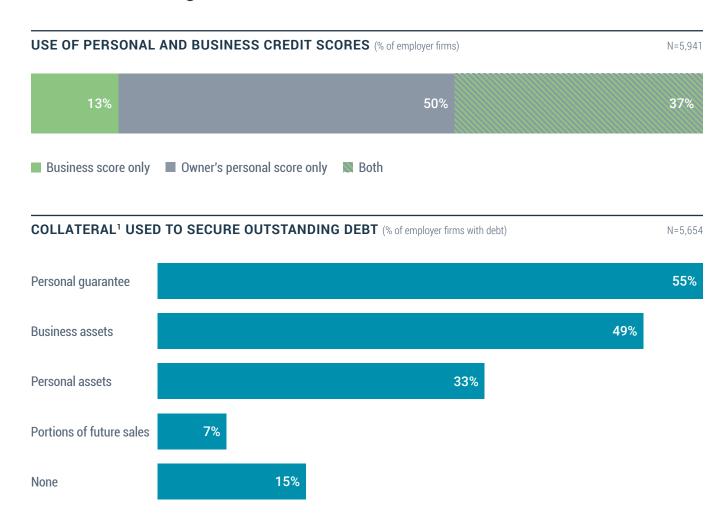
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<sup>2</sup> Percentages may not sum to 100 due to rounding.

# **RELIANCE ON PERSONAL FINANCES**



# **87**% of employer firms rely on the owners' personal credit scores to obtain financing.



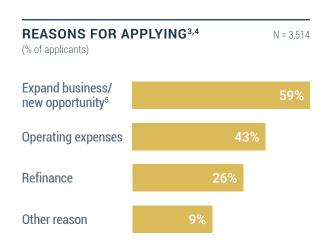
<sup>1</sup> Respondents could select multiple options. Response options 'unsure' and 'other' not shown in chart. See Appendix for more detail.

# **DEMAND FOR FINANCING**



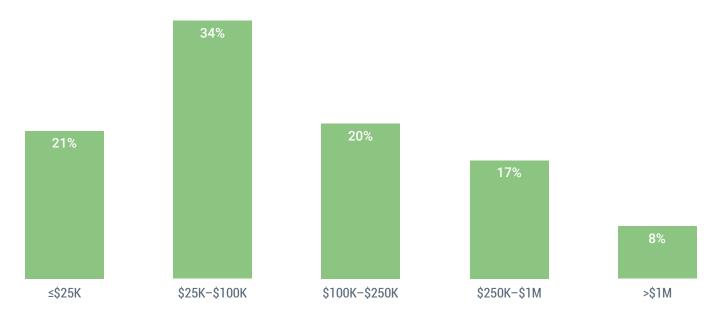
# The share of firms that applied for financing declined in the 2017 survey, relative to prior surveys.

# ### SHARE THAT APPLIED FOR FINANCING,1 Prior 12 Months² (% of employer firms) 46% 45% 2015 2016 2017 Survey N=3,660 N=10,303 N=8,597



### TOTAL AMOUNT OF FINANCING SOUGHT (% of applicants)

N = 3,434



<sup>\*</sup>Categories have been simplified for readability. Actual categories are: ≤\$25K, \$25,001K-\$100K, \$100,001K-\$250K, \$250,001K-\$1M, >\$1M.

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<sup>3</sup> Respondents could select multiple options.

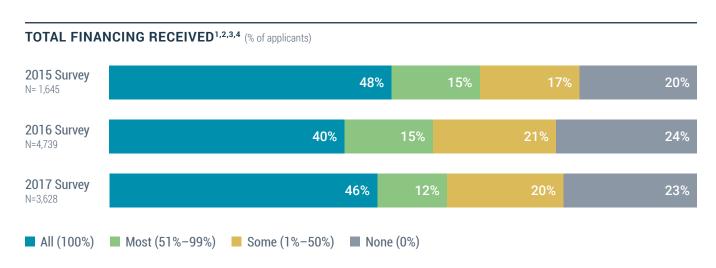
<sup>4</sup> Respondents who selected 'other' were asked to explain their reason for applying. They often indicated that they were looking to start a business or to obtain a credit line in case they needed it.

<sup>5</sup> Full answer choice is: 'Expand business, pursue new opportunity, or replace capital assets.'

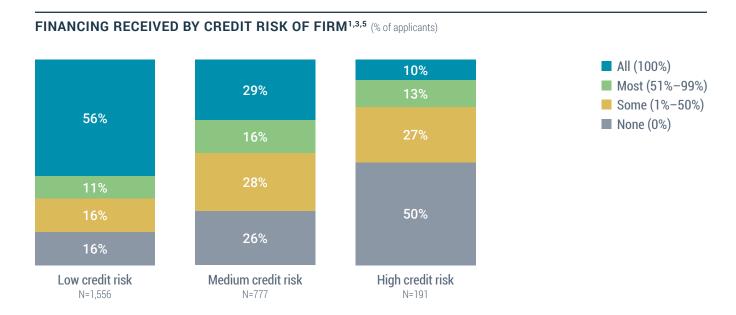
# **FINANCING RECEIVED**



# **46**% of employer firms that applied for credit received all the financing they sought.



# Low credit risk applicants were more likely to obtain all the financing sought, compared to medium or high credit risk applicants.



<sup>1</sup> Percentages may not sum to 100 due to rounding.

<sup>2</sup> In order to make time series comparisons, the survey data have been re-weighted to maintain consistency over time. Therefore, the values and observation counts here may differ slightly from past reports and the appendix file for this report, which uses a different weighting scheme. Please see p. 31 for more detail.

<sup>3</sup> Share of financing received across all types of financing. Response option 'unsure' excluded from chart.

<sup>4</sup> In the 2015 survey, the question was "How much of the TOTAL financing dollars your business applied for in the prior 12 months was approved?" In the 2016 and 2017 surveys, the question was "How much of the TOTAL financing dollars that your business sought in the prior 12 months did you obtain?"

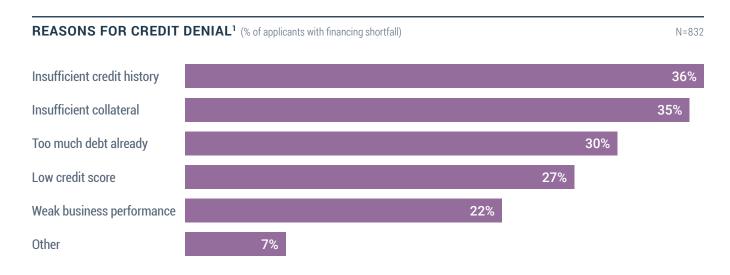
<sup>5</sup> Self-reported business credit score or personal credit score, depending on which is used to obtain financing for their business. If the firm uses both, the higher risk rating is used. 'Low credit risk' is a 80-100 business credit score or 720+ personal credit score. 'Medium credit risk' 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 SHORTFALLS

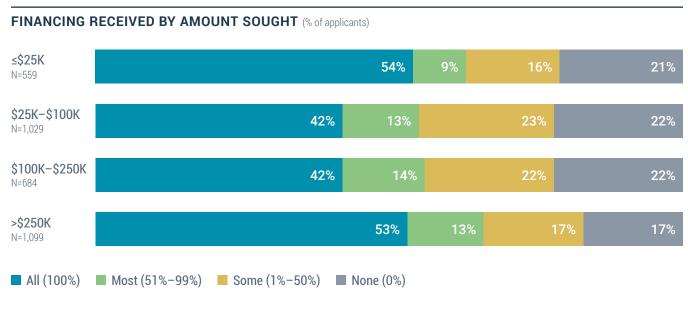


23% of applicants did not obtain any financing.

**54**% of applicants had a financing shortfall, meaning they obtained less than the amount for which they applied.



# Funding gaps were most acute for firms seeking \$25K-\$250K.



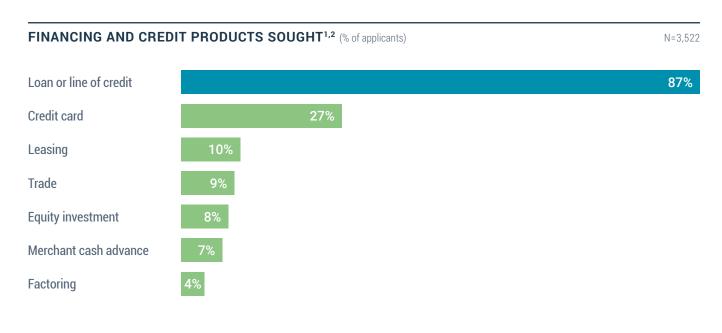
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<sup>1</sup> Respondents could select multiple options.

# **APPLICATIONS**

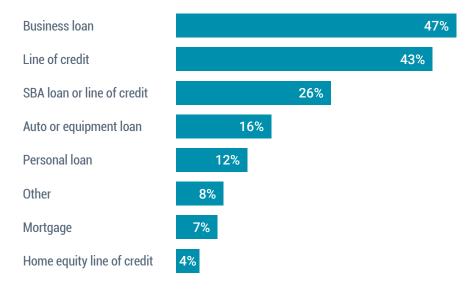


# Small employer firms most frequently applied for loans and lines of credit.





N=2,875



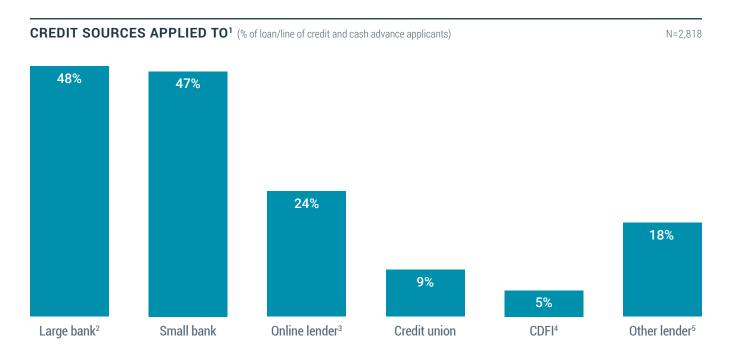
<sup>1</sup> Respondents could select multiple options.

<sup>2</sup> Response options 'other' and 'unsure' not shown. See <u>Appendix</u> for more detail.

# LOAN/LINE OF CREDIT SOURCES



# Banks are the most common source that small firms apply to for credit.



The share of applicants who seek loans, lines of credit, or cash advances from online lenders has grown over time.

# BORROWERS WHO APPLIED TO ONLINE LENDERS<sup>3,6</sup> (% of loan/line of credit and cash advance applicants)



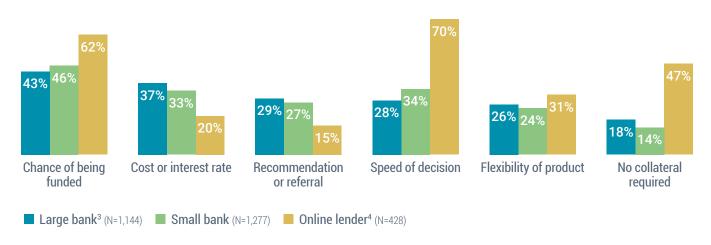
- 1 Respondents could select multiple options.
- 2 Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.
- 3 'Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.
- 4 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 U.S. Department of the Treasury.
- 5 Respondents who selected 'other' were asked to describe the source. They most frequently cited auto/equipment dealers, farm-lending institutions, friends/family/owner, nonprofit organizations, private investors, and government entities.
- 6 In order to make time series comparisons, the survey data have been re-weighted to maintain consistency over time. Therefore, the values and observation counts here may differ slightly from past reports and the appendix file for this report, which uses a different weighting scheme. Please see p. 31 for more detail.

# LOAN/LINE OF CREDIT SOURCES (CONTINUED)



Applicants tended to choose a lender based on their perceived chance of being funded, rather than on product cost.

# FACTORS INFLUENCING WHERE FIRMS APPLY<sup>1,2</sup> (% of loan/line of credit and cash advance applicants)



Medium/high credit risk applicants were more likely to apply to an online lender than low credit risk applicants.

### CREDIT SOURCES APPLIED TO BY CREDIT RISK OF FIRM 1,5,6 (% of loan/line of credit and cash advance applicants)

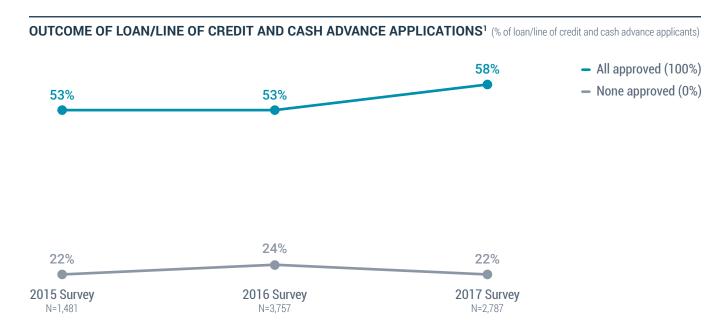


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- 6 Select lenders shown. See Appendix for more detail.
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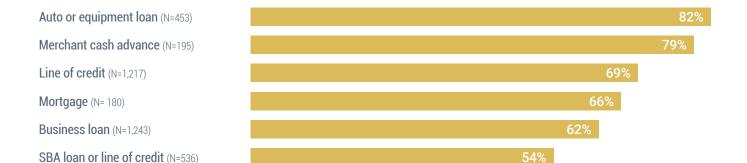
# LOAN/LINE OF CREDIT APPROVAL



Loan/line of credit and cash advance applicants in the 2017 survey reported greater success than applicants in previous surveys.



The share of applicants approved for at least some financing was highest for auto and equipment loans and merchant cash advances.



APPROVAL RATE BY TYPE OF LOAN/LINE OF CREDIT OR CASH ADVANCE<sup>2,3</sup> (% of loan/line of credit and cash advance applicants)

Personal loan (N=267)

Home equity line of credit (N=79)

<sup>1</sup> In order to make time series comparisons, the survey data have been re-weighted to maintain consistency over time. Therefore, the values and observation counts here may differ slightly from past reports and the appendix file for this report, which uses a different weighting scheme. Please see p. 31 for more detail.

<sup>2</sup> Percent of loan/line of credit and cash advance applications for each product type that were approved for at least some credit.

<sup>3</sup> Response option 'other' not shown in chart. See <u>Appendix</u> for more detail.

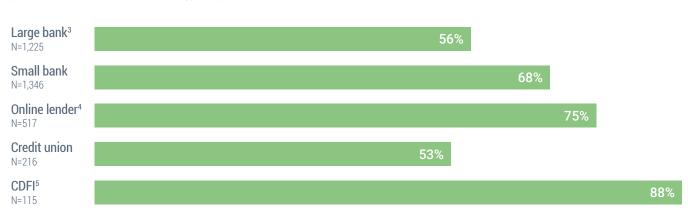
# LOAN/LINE OF CREDIT APPROVAL (CONTINUED)



# Loan/line of credit and cash advance applicants had greatest success obtaining financing at CDFIs, small banks, and online lenders.

# APPROVAL RATE BY SOURCE OF LOAN/LINE OF CREDIT OR CASH ADVANCE<sup>1,2</sup>

(% of loan/line of credit and cash advance applicants)



# Medium/high credit risk applicants had greatest success at online lenders.

### APPROVAL RATE BY CREDIT RISK OF FIRM AND SOURCE OF LOAN/LINE OF CREDIT OR CASH ADVANCE<sup>1,2,6,7</sup>

(% of loan/line of credit and cash advance applicants)



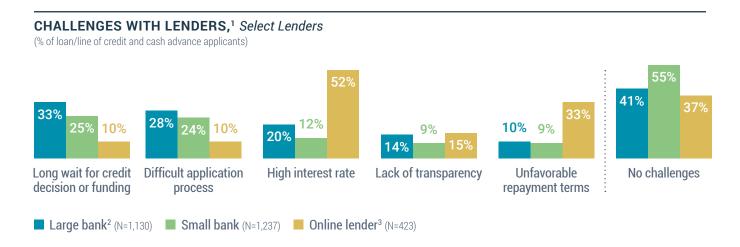
- 1 Percent of loan/line of credit and cash advance applications at each source that were approved for at least some credit.
- 2 Response option 'other' not shown. See <u>Appendix</u> for more detail.
- 3 Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.
- 4 'Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.
- 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 U.S. Department of the Treasury.
- 6 Response option "CDFI" not shown due to insufficient sample size.
- 7 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.

# **LENDER SATISFACTION**

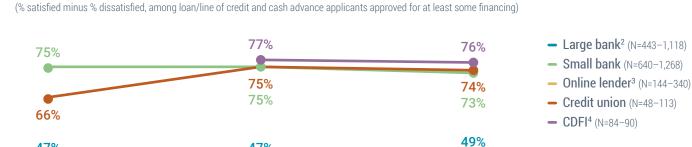
NET LENDER SATISFACTION OVER TIME<sup>5</sup>

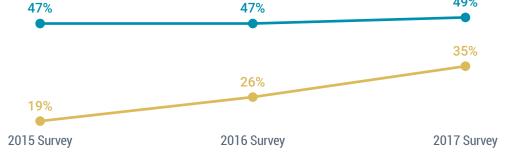


Bank applicants were most dissatisfied with wait times for credit decisions. Online lender applicants were most dissatisfied with high interest rates.



Borrower satisfaction is consistently highest with CDFIs, credit unions, and small banks, but satisfaction with online lenders has increased.

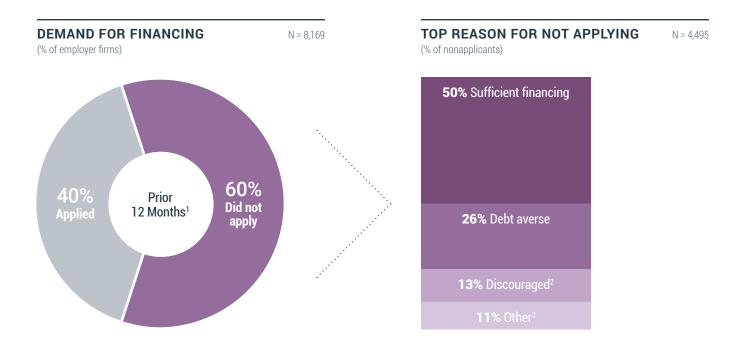




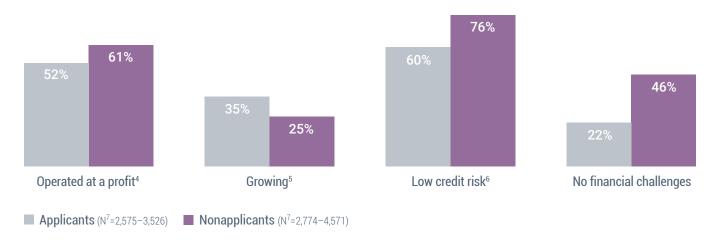
- 1 Respondents could select multiple options. Response option 'other' not shown in chart. See Appendix for more detail.
- 2 Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.
- 3 'Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.
- 4 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 U.S. Department of the Treasury.
- In order to make time series comparisons, the survey data have been re-weighted to maintain consistency over time. Therefore, the values and observation counts here may differ slightly from past reports and the appendix file for this report, which uses a different weighting scheme. Please see p. 31 for more detail.

# **NONAPPLICANTS AND CREDIT USE**





# PERFORMANCE OF APPLICANTS AND NONAPPLICANTS (% of employer firms)

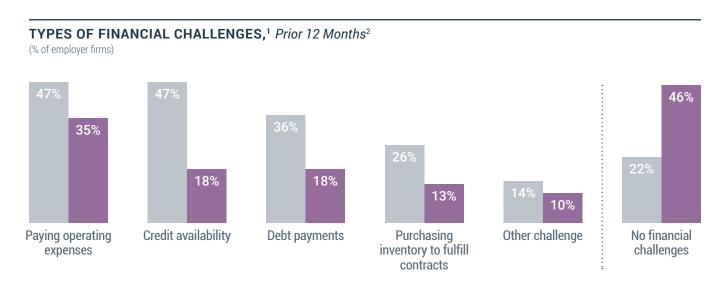


- 1 Approximately the second half of 2016 through the second half of 2017.
- 2 Discouraged firms are those that did not apply for financing because they believed they would be turned down.
- 3 Response option 'other' includes 'credit cost was too high,' application process was too difficult or confusing,' and 'other.' See Appendix for more detail.
- 4 At the end of 2016.
- 5 Firms that increased revenues and employees in the prior 12 months and that plan to increase or maintain their number of employees.
- 6 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.
- 7 The observation count varies by question.

# FINANCIAL CHALLENGES: NONAPPLICANTS AND APPLICANTS



# **54**% of nonapplicants experienced financial challenges in the prior 12 months, compared to **78**% of applicants.

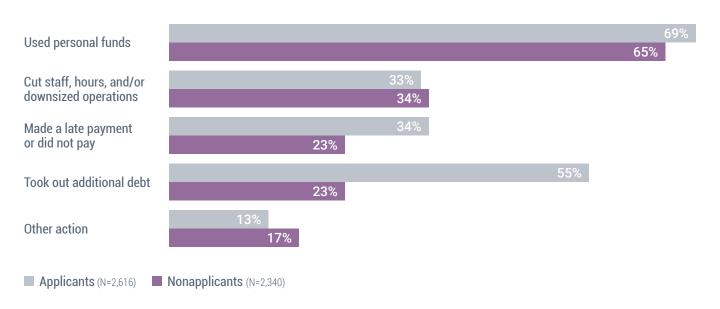


# ACTIONS TAKEN AS A RESULT OF FINANCIAL CHALLENGES, 1,3 Prior 12 Months<sup>2</sup>

■ Nonapplicants (N=4,571)

(% of employer firms with financial challenges)

Applicants (N=3,526)



<sup>1</sup> Respondents could select multiple options.

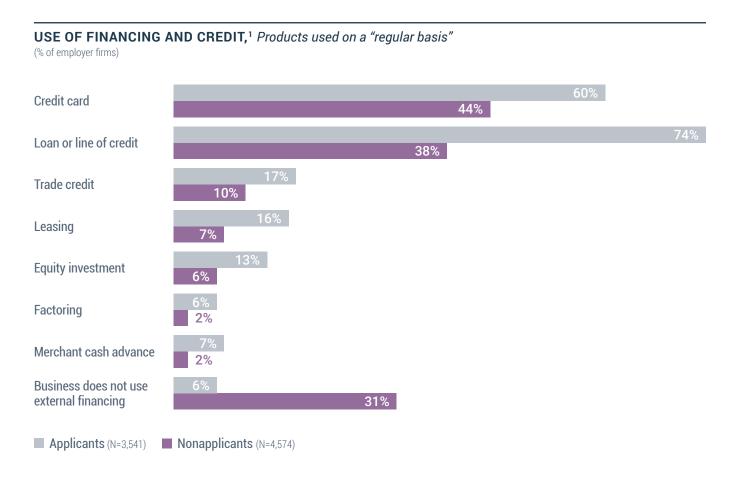
<sup>2</sup> Approximately the second half of 2016 through the second half of 2017.

<sup>3</sup> Response option 'unsure' not shown in chart. See <u>Appendix</u> for more detail.

# **NONAPPLICANT DEBT HOLDINGS**



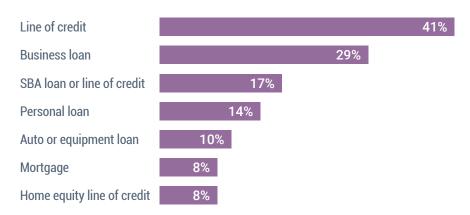
Nonapplicants commonly use credit cards or loans/lines of credit—but at lower rates than applicants.



### LOAN/LINE OF CREDIT PRODUCTS HELD BY NONAPPLICANTS<sup>1,2</sup>

N=1,544

(% of nonapplicants with loan/line of credit)



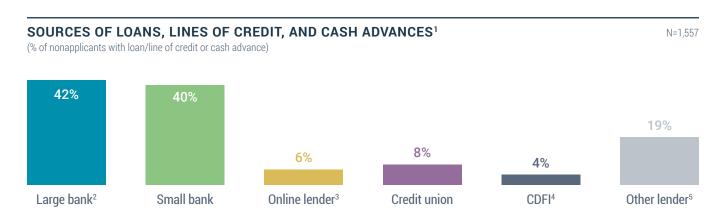
<sup>1</sup> Respondents could select multiple options.

<sup>2</sup> Response options 'other' and 'unsure' not shown in chart. See Appendix for more detail.

# **NONAPPLICANT LOAN/LINE OF CREDIT SOURCES**



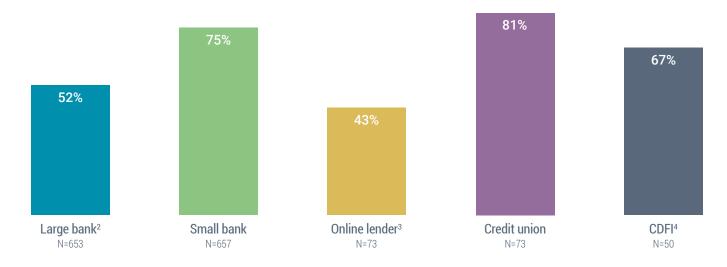
Like recent applicants, nonapplicants with debt are most likely to hold products that were originated at banks.



Similar to recent applicants, nonapplicants with debt were most often satisfied with their experiences at credit unions, small banks, and CDFIs.

### **NET LENDER SATISFACTION<sup>6</sup>**

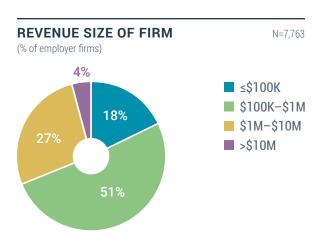
(% satisfied minus % dissatisfied, among nonapplicants with loan/line of credit or cash advance)



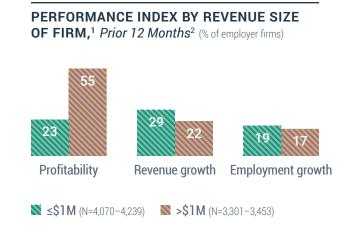
- 1 Respondents could select multiple options.
- 2 Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.
- 3 'Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.
- 4 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 U.S. Department of the Treasury.
- 5 Respondents who selected 'other' were asked to describe the source. They most frequently cited auto/equipment dealers, farm-lending institutions, friends/family/owner, nonprofit organizations, and private investors.
- 6 Response option 'other' not shown in chart. See Appendix for more detail.

# FIRM SIZE: PERFORMANCE AND CHALLENGES

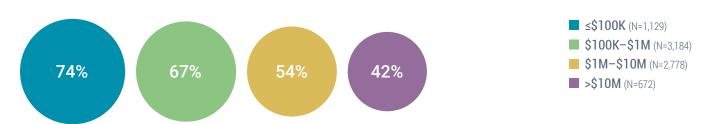








# SHARE OF FIRMS WITH FINANCIAL CHALLENGES BY REVENUE SIZE OF FIRM, *Prior 12 Months*<sup>2</sup> (% of employer firms)



# Smaller firms reported experiencing all types of financial challenges at higher rates than larger firms.

# TYPES OF FINANCIAL CHALLENGES BY REVENUE SIZE OF FIRM, Prior 12 Months<sup>2</sup> (% of employer firms)



- 1 For revenue and employment growth, the index is the share reporting growth minus the share reporting a reduction. For profitability, it is the share profitable minus the share not profitable.
- 2 Approximately the second half of 2016 through the second half of 2017.
- 3 Respondents could select multiple options. Response option 'other' not shown in chart. See Appendix for more detail.

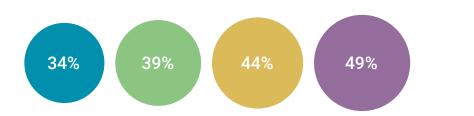
# FIRM SIZE: DEMAND FOR FINANCING

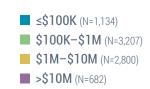


# Smaller-revenue firms applied for financing less frequently than largerrevenue firms.

# SHARE THAT APPLIED FOR FINANCING BY REVENUE SIZE OF FIRM, Prior 12 Months<sup>1</sup>

(% of employer firms)

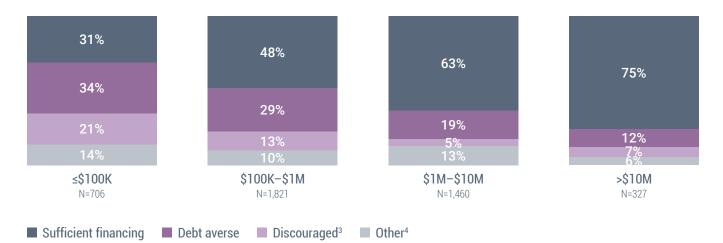




### REASONS FOR APPLYING BY REVENUE SIZE OF FIRM<sup>2</sup> (% of applicants)



### TOP REASON FOR NOT APPLYING BY REVENUE SIZE OF FIRM (% of nonapplicants)



<sup>1</sup> Approximately the second half of 2016 through the second half of 2017.

<sup>2</sup> Respondents could select multiple options. Response option 'other' not shown in chart. See Appendix for more detail.

<sup>3</sup> Discouraged firms are those that did not apply for financing because they believed they would be turned down.

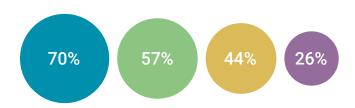
<sup>4</sup> Response option 'other' includes 'credit cost was too high,' 'application process was too difficult or confusing,' and 'other.' See Appendix for more detail.

# FIRM SIZE: CREDIT OUTCOMES



# Smaller revenue firms reported financing gaps more often than larger firms.

FINANCING SHORTFALLS BY REVENUE SIZE OF FIRM, Share receiving less than the amount sought (% of applicants)

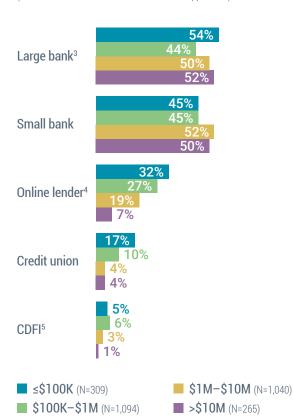


# \$100K-\$1M (N=1,325) \$1M-\$10M (N=1,262) \$10M (N=328)

**≤\$100K** (N=397)

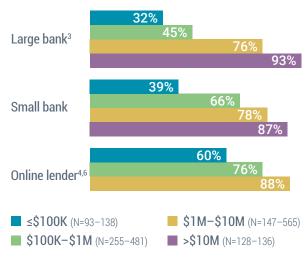
# LOAN/LINE OF CREDIT AND CASH ADVANCE SOURCES APPLIED TO BY REVENUE SIZE OF FIRM<sup>1,2</sup>

(% of loan/line of credit and cash advance applicants)



# LOAN/LINE OF CREDIT AND CASH ADVANCE APPROVALS BY SOURCE AND REVENUE SIZE OF FIRM

(% of loan/line of credit and cash advance applicants)



<sup>\*</sup>Other sources not shown due to insufficient sample size.

<sup>1</sup> Respondents could select multiple options.

<sup>2</sup> Response option 'other' not shown in chart. See Appendix for more detail.

<sup>3</sup> Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.

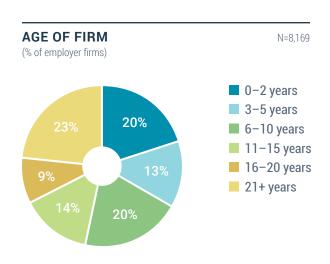
<sup>4 &#</sup>x27;Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.

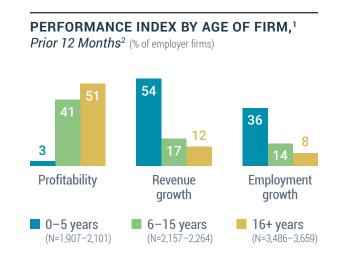
<sup>5</sup> Community development financial institutions (CDFIs) are financial institutions that provide credit and financial services to underserved markets and populations. CDFIs are certified by the CDFI Fund at the U.S. Department of the Treasury.

<sup>6</sup> Firms with >\$10M in annual revenue not shown due to insufficient sample size.

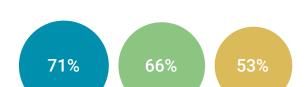
# FIRM AGE: PERFORMANCE AND CHALLENGES







# SHARE OF FIRMS WITH FINANCIAL CHALLENGES BY AGE OF FIRM, *Prior 12 Months*<sup>2</sup> (% of employer firms)

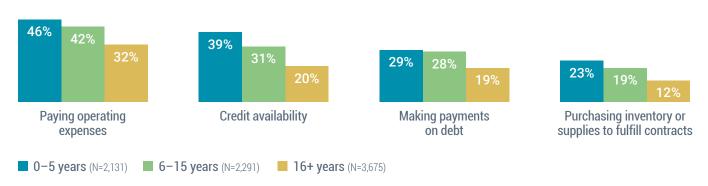


■ 0-5 years (N=2,131) ■ 6-15 years (N=2,291) ■ 16+ years (N=3,675)

Financial challenges, especially paying operating expenses, were common across all age segments but more pronounced among startups (0-5 year-old firms).

### TYPES OF FINANCIAL CHALLENGES BY AGE OF FIRM, 3 Prior 12 Months<sup>2</sup>

(% of employer firms)



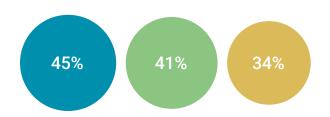
- 1 For revenue and employment growth, the index is the share reporting growth minus the share reporting a reduction. For profitability, it is the share profitable minus the share not profitable.
- 2 Approximately the second half of 2016 through the second half of 2017.
- 3 Respondents could select multiple options. Response option 'other' not shown in chart. See Appendix for more detail.

# FIRM AGE: DEMAND FOR FINANCING



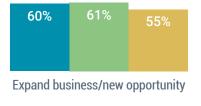
### SHARE THAT APPLIED FOR FINANCING BY AGE OF FIRM, Prior 12 Months<sup>1</sup>

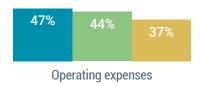
(% of employer firms)



0-5 years (N=2,149) 6-15 years (N=2,302) 16+ years (N=3,718)

### REASONS FOR APPLYING BY AGE OF FIRM<sup>2</sup> (% of applicants)



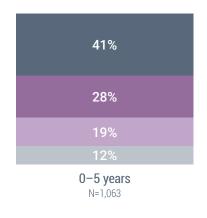


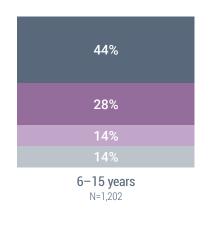


■ 0-5 years (N=1,044) ■ 6-15 years (N=1,060) ■ 16+ years (N=1,410)

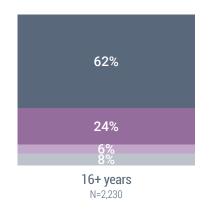
Among nonapplicants, younger firms were less likely to report having sufficient financing and more likely to be discouraged.

## TOP REASON FOR NOT APPLYING BY AGE OF FIRM (% of nonapplicants)





■ Other⁴



■ Sufficient financing ■ Debt averse ■ Discouraged<sup>3</sup>

<sup>1</sup> Approximately the second half of 2016 through the second half of 2017.

<sup>2</sup> Respondents could select multiple options. Response option 'other' not shown in chart. See Appendix for more detail.

<sup>3</sup> Discouraged firms are those that did not apply for financing because they believed they would be turned down.

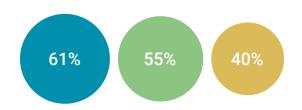
<sup>4</sup> Response option 'other' includes 'credit cost was too high,' 'application process was too difficult or confusing,' and 'other.' See Appendix for more detail.

# FIRM AGE: CREDIT OUTCOMES



# Younger firms were more likely to report financing gaps than more mature firms.

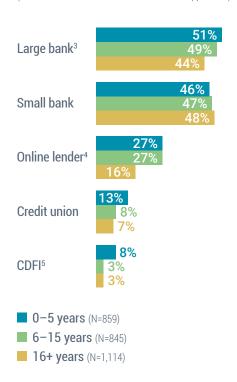
FINANCING SHORTFALLS BY AGE OF FIRM, Share receiving less than the amount sought (% of applicants)





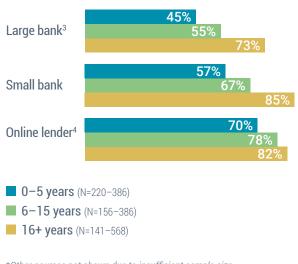
# LOAN/LINE OF CREDIT AND CASH ADVANCE SOURCES APPLIED TO BY AGE OF FIRM<sup>1,2</sup>

(% of loan/line of credit and cash advance applicants)



# LOAN/LINE OF CREDIT AND CASH ADVANCE APPROVALS BY SOURCE AND AGE OF FIRM

(% of loan/line of credit and cash advance applicants)



<sup>\*</sup>Other sources not shown due to insufficient sample size.

<sup>1</sup> Respondents could select multiple options.

<sup>2</sup> Response option 'other' not shown in chart. See Appendix for more detail.

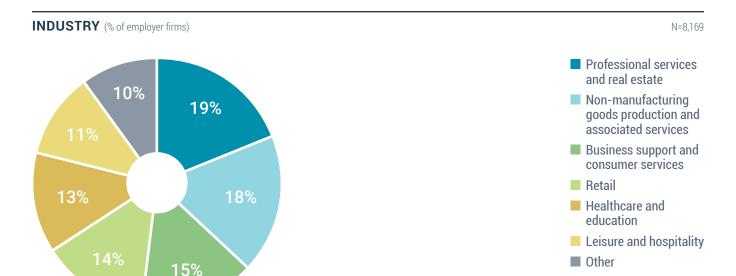
B. Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.

<sup>4 &#</sup>x27;Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.

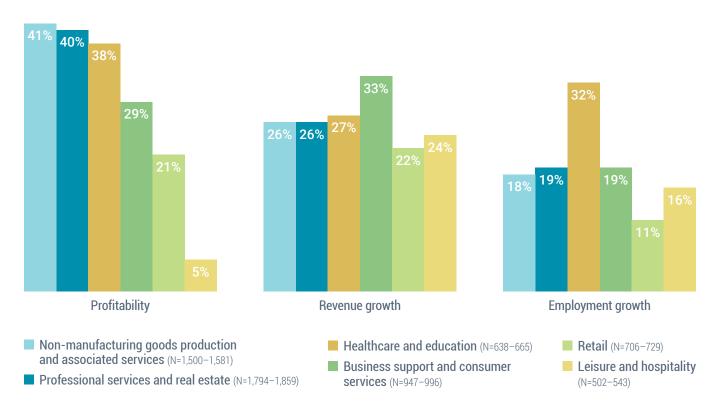
<sup>5</sup> Community development financial institutions (CDFIs) are financial institutions that provide credit and financial services to underserved markets and populations. CDFIs are certified by the CDFI Fund at the U.S. Department of the Treasury.

# **INDUSTRY: PERFORMANCE**





# PERFORMANCE INDEX BY INDUSTRY, 1 Prior 12 Months<sup>2</sup> (% of employer firms)



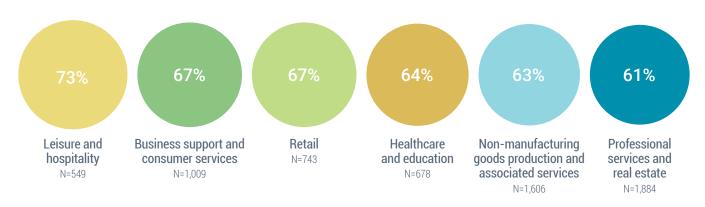
<sup>1</sup> For revenue and employment growth, the index is the share reporting growth minus the share reporting a reduction. For profitability, it is the share profitable minus the share not profitable.

<sup>2</sup> Approximately the second half of 2016 through the second half of 2017.

# **INDUSTRY: FINANCIAL CHALLENGES**



### SHARE OF FIRMS WITH FINANCIAL CHALLENGES BY INDUSTRY, Prior 12 Months1 (% of employer firms)



Financial challenges, especially paying operating expenses, were common across all industries, but most prevalent for leisure and hospitality firms.

# TYPES OF FINANCIAL CHALLENGES BY INDUSTRY, Prior 12 Months<sup>2</sup> (% of employer firms)



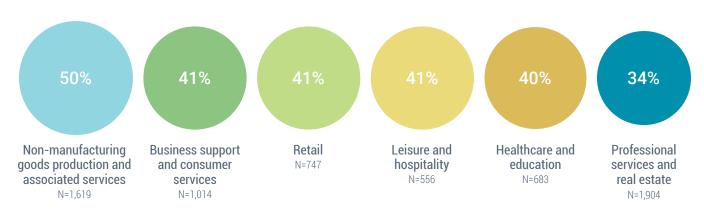
<sup>1</sup> Respondents could select multiple options. Response option 'other' not shown in chart. See <u>Appendix</u> for more detail.

<sup>2</sup> Approximately the second half of 2016 through the second half of 2017.

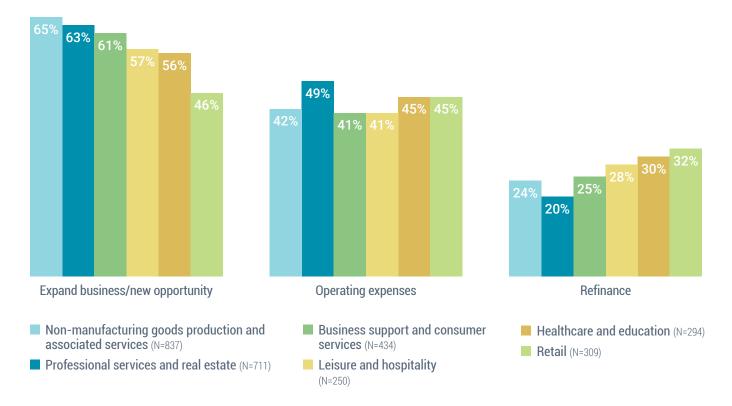
# **INDUSTRY: DEMAND FOR FINANCING**



## SHARE THAT APPLIED FOR FINANCING BY INDUSTRY, Prior 12 Months (% of employer firms)



# REASONS FOR APPLYING BY INDUSTRY<sup>2</sup> (% of applicants)



<sup>1</sup> Approximately the second half of 2016 through the second half of 2017.

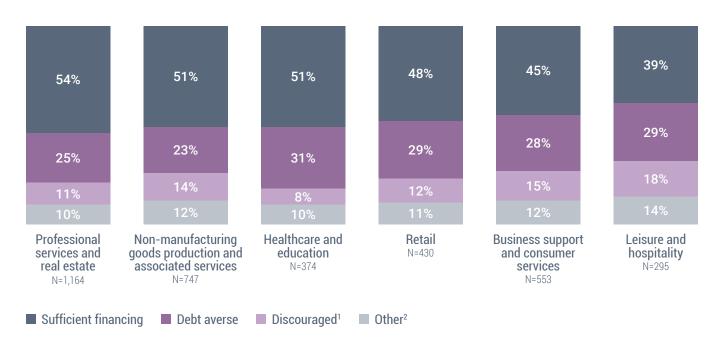
<sup>2</sup> Respondents could select multiple options. Response option 'other' not shown in chart. See <u>Appendix</u> for more detail.

# INDUSTRY: DEMAND FOR FINANCING AND CREDIT OUTCOMES



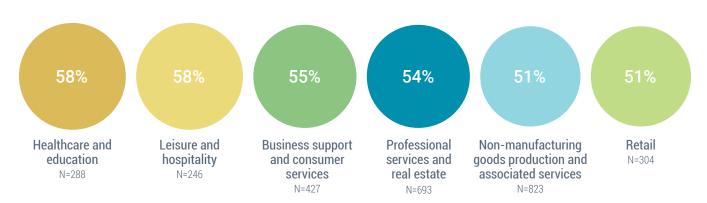
A sizable share of nonapplicant firms in each industry reported having sufficient financing, though notable shares also reported debt aversion.

### TOP REASON FOR NOT APPLYING BY INDUSTRY (% of nonapplicants)



# A majority of applicants in all industries reported financing shortfalls.

# FINANCING SHORTFALLS BY INDUSTRY, Share receiving less than the amount sought (% of applicants)



<sup>1</sup> Discouraged firms are those that did not apply for financing because they believed they would be turned down.

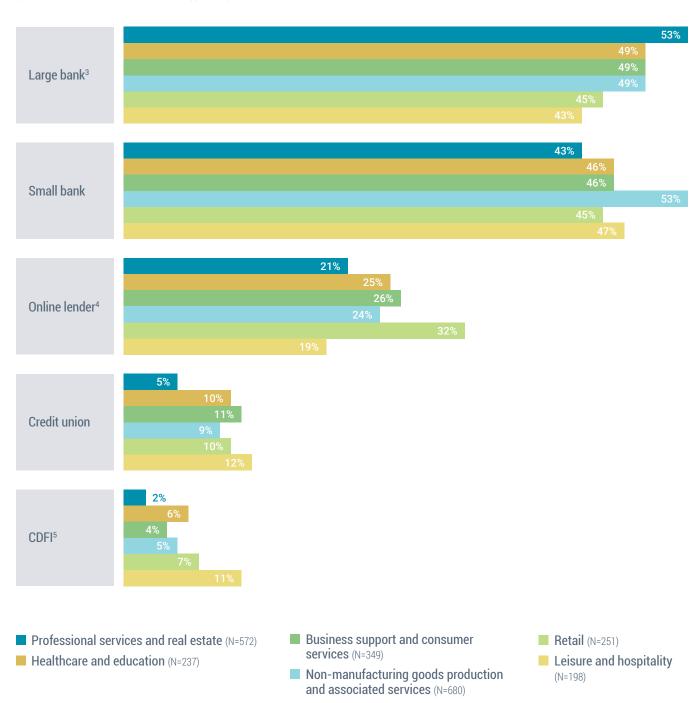
<sup>2</sup> Response option 'other' includes 'credit cost was too high,' 'application process was too difficult or confusing,' and 'other.' See Appendix for more detail.

# **INDUSTRY: CREDIT OUTCOMES**



### LOAN/LINE OF CREDIT AND CASH ADVANCE SOURCES APPLIED TO BY INDUSTRY1.2

(% of loan/line of credit and cash advance applicants)



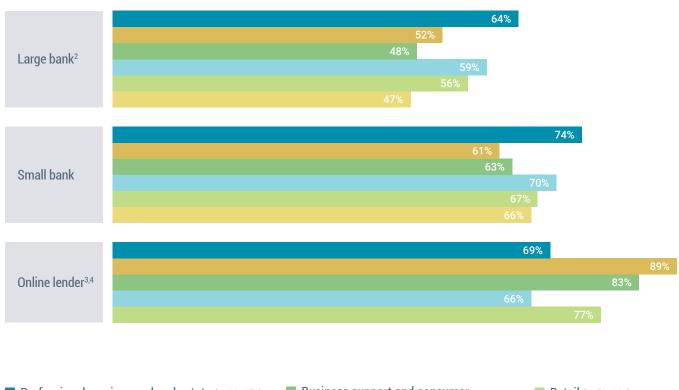
- 1 Respondents could select multiple options.
- 2 Response option 'other' not shown in chart. See Appendix for more detail.
- 3 Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.
- 4 'Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.
- 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 U.S. Department of the Treasury.

# **INDUSTRY: CREDIT OUTCOMES (CONTINUED)**



### LOAN/LINE OF CREDIT AND CASH ADVANCE APPROVALS BY SOURCE AND INDUSTRY<sup>1</sup>

(% of loan/line of credit and cash advance applicants)





■ Business support and consumer services (N=86-150)

Retail (N=59-124)Leisure and hospitality

(N=70-99)

Non-manufacturing goods production and associated services (N=117-343)

<sup>\*</sup>Other sources not shown due to insufficient sample size.

Other sources not shown due to insufficient sample size.

<sup>2</sup> Respondents were provided a list of large banks (those with at least \$10B in total deposits) operating in their state.

<sup>3 &#</sup>x27;Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.

<sup>4</sup> Leisure and hospitality firms not shown due to insufficient sample size.

# **METHODOLOGY**

### DATA COLLECTION

The Small Business Credit Survey (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<sup>2</sup> are also contacted directly by the Federal Reserve Banks. 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 select firms randomly. For example, there are likely small employer firms not on our contact lists and this may lead to a 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 (1 to 499 employees) firm

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).<sup>3</sup>

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 stratum4 (e.g., within the industry stratum, the share of firms in the sample that are manufacturers) to the share of small businesses in the nation that are 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 in order 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 for weighting come from data collected by the U.S. 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 percent of businesses with paid employees, we expect these assumptions align relatively closely with the true population.

In addition to the main 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 main weight. Festimates 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 above, but based on observations in the relevant states.

# RACE/ETHNICITY AND GENDER IMPUTATION

Sixteen percent of respondents completed the survey, but did not provide information on the gender, race, and/or the ethnicity of their business' owner(s). This information is needed to correct for differences between the sample and the population data. To avoid dropping these observations, a series of statistical models is used to attempt to impute the missing data. When the models are able to predict with an average accuracy of 80 percent in out-of-sample tests, 8 the predicted values

- 1 For more information on partnerships, please visit <u>www.fedsmallbusiness.org/partnership.</u>
- 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 Cross-time comparisons employ a slightly different weighting strategy, described later in this section.
- 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 2014 Business Dynamics Statistics. Industry, employee size, and geographic location data come from the 2015 County Business Patterns. Data from the Center for Medicare and Medicaid Services to classify a business' zip code as urban or rural. Data on the race, ethnicity, and gender of business owners are derived from the 2015 Annual Survey of Entrepreneurs.
- 6 U.S. Census Bureau, County Business Patterns, 2016.
- 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 is then compared with what the model predicts for the test group. On average, prediction 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)

from the models are used for the missing data. When the model is 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, 13 percent of observations have imputed values for either the gender, race, or ethnicity of a firm's ownership.

To impute for 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, a logistic probability model is used to predict whether the majority of a businesses' owners are of Hispanic ethnicity. Finally, the race for the majority of business owners is imputed separately for Hispanic and non-Hispanic firms using a multinomial logistic probability model.

A similar process is used to impute for the gender of a business' ownership. 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, the survey reports are not directly comparable across time. Geographic coverage and weighting strategies have varied from year to year. The employer report using 2015 survey data covers 26 states and is weighted by firm age, number of employees, and industry. The employer reports using 2016 and 2017 data include 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 additionally includes gender and race and ethnicity of the business owner(s), as described previously.

In addition to being weighted by different firm characteristics over time, the categories used within each characteristic have also differed across survey years. For instance, there were three employee size categories in 2015, and five employee size categories in 2016 and 2017. Finally, some of the survey questions have changed from year to year, making some question comparisons unreliable even when employing our time-consistent weighting strategy, which we discuss below.

### COMPARISONS OVER TIME: TIME-CONSISTENT WEIGHTING

Throughout this report, we compare select 2017 survey data to the results from the 2016 and 2015 surveys, where comparisons over time are possible and appropriate. To do so, we apply a time-consistent weighting approach to each year's data. We place respondents into one of five employee size categories, one of six age categories, one of eight industry categories, one of two geographic location categories (urban or rural), and into census divisions for the 2016, and 2017 survey data. Tinally, we employ the same statistical raking process as described previously to create the time-consistent weights.

<sup>9</sup> For some firms that were originally missing data on the race/ethnicity of their ownership, this information was gathered from public databases or past SBCS surveys.

<sup>10</sup> Such comparisons require consistency in the survey questions, as well as in the response options for such questions over the survey years that are being compared.

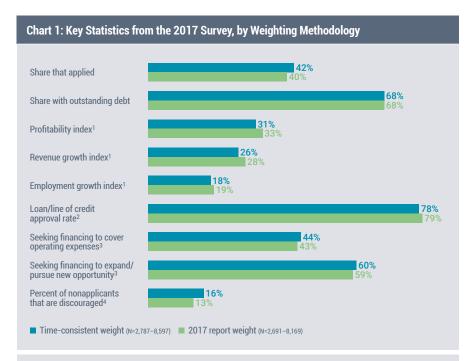
<sup>11</sup> Census divisions were not included to create the time-consistent weights for the 2015 survey data. For more information on the robustness checks employed to ensure the time-consistent weights for the 2015 survey data appropriately represented small employer businesses nationwide, please refer to the Methodology section on p. 21 of the 2016 SBCS Report on Employer Firms.

# **METHODOLOGY** (CONTINUED)

Because the time-consistent weighting methodology does not account for the owners' race, ethnicity, or gender, there are more observations for 2017 than are in the analysis that employs the primary weights. This occurs because observations missing information on the business owners' race, ethnicity, or gender that could not be imputed are not dropped in the time-consistent analysis. As Chart 1 shows, the difference in weighting methodology and observation counts leads to slight differences between the time-consistent and regularly weighted results. There is an average difference of one percentage point across these key survey questions between the two weighting methodologies.

### CREDIBILITY INTERVALS

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 be statistically significant. The results of these tests help guide our analysis and help us decide what ultimately is included in the report. In order to determine whether differences are statistically significant, we develop credibility intervals using a balanced half-sample approach. 12 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. 13 We list 95 percent credibility intervals for key statistics in Table 1. The intervals shown apply to all firms in the survey. More granular results with smaller observation counts will generally have larger credibility intervals.



### Chart notes:

- 1 For revenue and employment growth, the index is the share reporting growth minus the share reporting a reduction. For profitability, it is the share profitable minus the share not profitable during the 12 months prior to the survey.
- 2 The share of loan, line of credit, and cash advance applicants that were approved for at least some financing.
- 3 Percent of applicants.
- 4 Discouraged firms are those that did not apply for financing because they believed they would be turned down.

| Table 1: Credibility Intervals for Key Statistics in the 2017 Report on Employer Firms |         |                      |  |
|--|---------|----------------------|--|
|  | Percent | Credibility Interval |  |
| Share that applied   | 40.1%   | +/-1.7%              |  |
| Share with outstanding debt  | 67.7%   | +/-1.4%              |  |
| Profitability index <sup>1</sup>   | 32.9%   | +/-2.9%              |  |
| Revenue growth index <sup>1</sup>  | 27.8%   | +/-2.0%              |  |
| Employment growth index <sup>1</sup>   | 19.4%   | +/-1.7%              |  |
| Loan/line of credit and cash advance approval rate <sup>2</sup>                        | 79.3%   | +/-2.0%              |  |
| Seeking financing to cover operating expenses <sup>3</sup>                             | 43.2%   | +/-2.5%              |  |
| Seeking financing to expand/pursue new opportunity <sup>3</sup>                        | 59.2%   | +/-2.4%              |  |
| Percent of nonapplicants that were discouraged <sup>4</sup>                            | 12.8%   | +/-1.7%              |  |

### Table notes:

- 1 For revenue and employment growth, the index is the share reporting growth minus the share reporting a reduction. For profitability, it is the share profitable minus the share not profitable during the 12 months prior to the survey.
- 2 The share of loan and line of credit applicants that were approved for at least some financing.
- 3 Percent of applicants.
- 4 Discouraged firms are those that did not apply for financing because they believed they would be turned down.

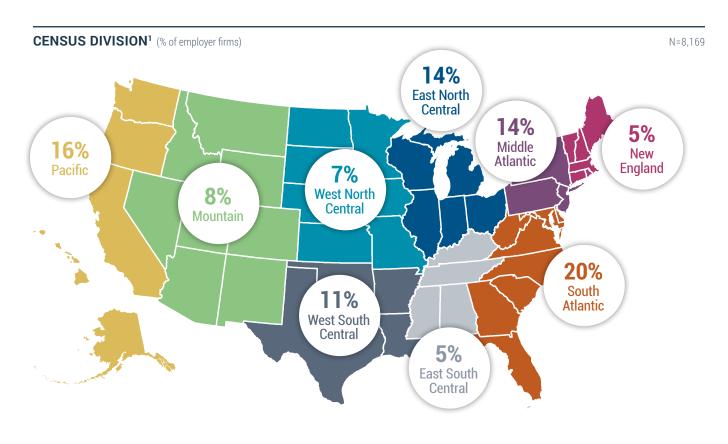
<sup>12</sup> Wolter (2007), "Survey Weighting and the Calculating of Sampling Variance."

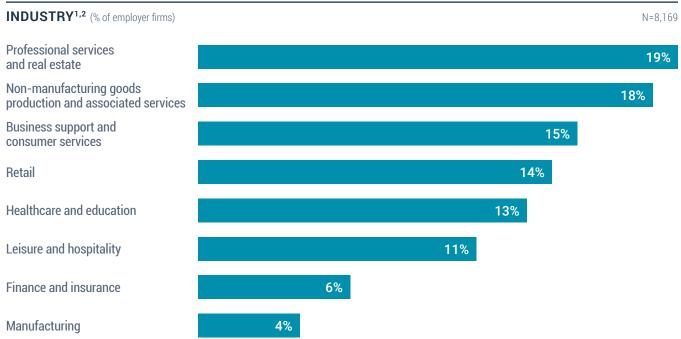
<sup>13</sup> AAPOR (2013), "Task Force on Non-probability Sampling."

# **DEMOGRAPHICS**



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





<sup>1</sup> SBCS responses throughout the report are weighted using Census data to represent the US small business population on the following dimensions: firm age, size, industry, geography, race/ethnicity of owner, and gender of owner. For details on weighting, see p. 31.

<sup>2</sup> 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.

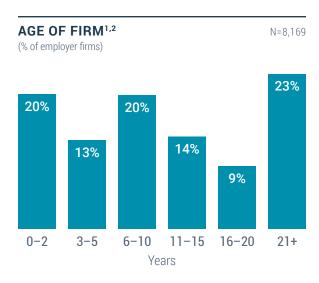
# **DEMOGRAPHICS** (CONTINUED)

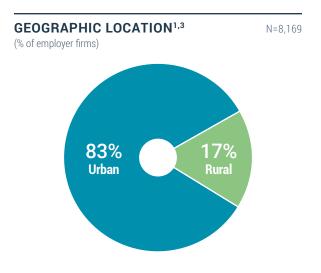


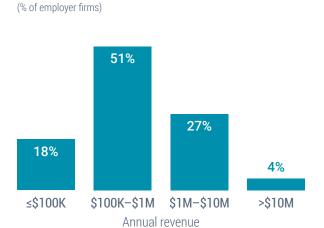
N=8,169

5%

50-499







**REVENUE SIZE OF FIRM** 



13%

10 - 19

**Employees** 

20 - 49

**NUMBER OF EMPLOYEES**1,2,4

18%

5-9

1 - 4

\*Categories have been simplified for readability. Actual categories are: ≤\$100K, \$100,001K-\$1M, \$1,000,001M-\$10M, >\$10M.

39% of employer firms use contract workers.

N=7,823

N=8,101

<sup>1</sup> SBCS responses throughout the report are weighted using Census data to represent the US small business population on the following dimensions: firm age, size, industry, geography, race/ethnicity of owner, and gender of owner. For details on weighting, see p. 31.

<sup>2</sup> Percentages may not sum to 100 due to rounding.

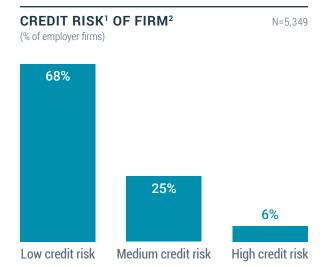
<sup>3</sup> Urban and rural definitions come from Centers for Medicare & Medicaid Services. See <u>Appendix</u> for more detail.

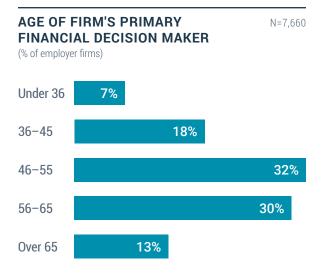
<sup>4</sup> Employer firms are those that reported having at least one full- or part-time employee. Does not include self-employed or firms where the owner is the only employee.

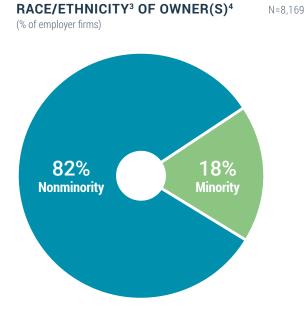
# **DEMOGRAPHICS** (CONTINUED)

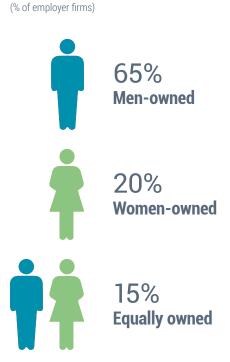


N=8,169









GENDER OF OWNER(S)4

<sup>1</sup> 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 highest 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.

<sup>2</sup> Percentages may not sum to 100 due to rounding.

<sup>3</sup> A firm is classified as minority-owned if at least half of the business is owned and controlled by minority group members.

<sup>4</sup> SBCS responses throughout the report are weighted using Census data to represent the US small business population on the following dimensions: firm age, size, industry, geography, race/ethnicity of owner(s), and gender of owner(s). For details on weighting, see p. 31.