2018

SMALL BUSINESS CREDIT SURVEY

Report on Nonemployer Firms

FEDERAL RESERVE BANKS *of*

New York • Cleveland • Richmond

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ACKNOWLEDGMENTS

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

2 *For complete information about the survey methodology, please see p. 25.*

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; Alicia Williams, Federal Reserve Bank of Chicago; Emily Garr Pacetti, Federal Reserve Bank of Cleveland; Roy Lopez, Federal Reserve Bank of Dallas; Jackson Winsett, 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; Matthew Martin, 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

Nonemployer firms[1] are important to the United States' economy, comprising 81% of all small businesses,[2] employing 17% of the American workforce,[3] and generating $1.2 trillion in annual sales.[4] While previous research has explored why individuals seek self-employment[5] or what conditions drive nonemployers to become employer firms,[6] less is understood about the financial experiences and challenges of nonemployers—namely, whether or not nonemployers are succeeding financially.

The Small Business Credit Survey (SBCS), a national collaboration of the 12 Federal Reserve Banks, provides an opportunity to fill this information gap on nonemployer firms.[7] Fielded in Q3 and Q4 2017, the survey yielded 5,547 responses from nonemployer firms, businesses in the 50 states and the District of Columbia that have no full- or part-time employees. This report provides an in-depth look at these firms' financial needs, decisions, and outcomes.

The 2017 survey data revealed nonemployer firms are performing positively overall despite notable financial challenges, especially for particular segments of firms. This executive summary highlights the key findings for nonemployer firms overall and for five subgroups of nonemployers.

SUMMARY FINDINGS FOR ALL NONEMPLOYER FIRMS

Nonemployer firms are unique from employers in key ways

- Nonemployer firms are small: 71% have $100,000 or less in annual revenue, compared to 18% of employer firms.
- Although, on average, nonemployer firms are younger than employer firms, more than half of nonemployers are more than four years old.
- Compared with employer firms, nonemployers exhibit less financial strength. On net, 8% of nonemployers report they operate at a profit, while among employers, a net share of 31% are profitable. Furthermore, nonemployers are more likely to rely on their owners' personal finances to fund their operations (41% of nonemployers compared to 19% of employers).
- Several characteristics of nonemployers illustrate the unique nature of these firms: 69% operate out of a home, 36% use their business for supplemental income, 39% are independent contractors, and 22% started their business when they lacked other employment options.

Shared Work and Employment Aspirations

- Slightly more nonemployers (44%) hire contract workers, compared to the share of employer firms (39%).
- More than 1 in 4 nonemployer firms plan to add employees in the next 12 months.

Performance and Growth Expectations Vary by Revenue Size

- A net 8% of nonemployer firms were profitable, driven mainly by very high profitability among larger-revenue firms:[8] a net 50% of larger-revenue firms were profitable, compared to a net –8% of smaller-revenue firms.
- Nonemployers overall have positive expectations for future revenue and employment growth. Smaller-revenue nonemployers are somewhat more optimistic about their future revenue growth than larger-revenue firms.

Financial Challenges

- Nonemployer firms cited paying operating expenses and accessing credit as their top financial challenges.
- Nearly three-quarters (74%) of nonemployer firms with financial challenges used personal funds to address the challenges.

Constrained Borrowing Opportunities

- Only one-quarter of nonemployer firms applied for financing. Of those that did not apply, 39% reported they have sufficient financing, and 31% were averse to taking on debt.
- Among applicants, 34% were approved for the full amount of financing sought. Two-thirds reported receiving less than the amount they applied for.
- Low credit scores and insufficient credit history are top barriers to nonemployer financing, particularly for smaller-revenue firms.
- Owners' personal creditworthiness is important for nonemployer firms. Personal guarantees and personal assets are the most frequently used collateral for acquiring debt, and 65% of credit card holders use a personal credit card for business financing.

Debt Holdings

- Among nonemployers that have taken on debt, most have borrowed $25,000 or less, though larger-revenue firms are more likely to borrow larger sums.

1 *In this report, we define nonemployers as firms without full-time or part-time workers on payroll. These firms may have more than one owner working for the business. Forty-four percent of nonemployers use contract workers.*

2 *Based on authors' calculations from U.S. Census Bureau's Statistics of U.S. Businesses and Nonemployer Statistics. 2015.*

3 *Jeff Larrimore et al. "Report on the Economic Well-Being of U.S. Households in 2017." Consumer and Community Development Research Section. Federal Reserve Board Division of Consumer and Community Affairs, May 2018.*

4 *U.S. Census Bureau, Nonemployer Statistics, 2016.*

5 *See Hamilton, "Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment." 2000; Acs, Headd, and Agwara. Nonemployer Start-Up Puzzle. 2009; Simoes, Moreira, and Crespo. "Individual Determinants of Self-Employment Entry—What do we Really Know?" 2013; Patrick, Stephens, and Weinstein. "Where Are All the Self-Employed Women? Push and Pull Factors Influencing Female Labor Market Decisions." 2016; Fisher and Lewin. "Push and Pull Factors and Hispanic Self-Employment in the USA." 2018.*

6 *See Davis at al. "Measuring the Dynamics of Young and Small Businesses: Integrating the Employer and Nonemployer Universes." 2007; Fairlie and Miranda, "Taking the Leap: The Determinants of Entrepreneurs Hiring their First Employee." 2016.*

7 *For more information about the Small Business Credit Survey, visit https://www.fedsmallbusiness.org/.*

8 *Nonemployer firms with more than $100,000 in annual revenues are 28% of all nonemployer firms.*

- Credit cards are the most commonly held financing product among nonemployer firms, with 45% reporting that they use credit cards regularly. Loans and lines of credit are also popular among larger-revenue nonemployers.

SUMMARY FINDINGS FOR FIVE TYPES OF NONEMPLOYER FIRMS, CATEGORIZED BY NATURE OF WORK

The sheer size of the nonemployer firm sector implies the diverse nature of work in which these firms are engaged. Indeed, nonemployer firms can include gig workers, startups that are planning to hire employees, and mature businesses that rely on contract workers as their workforce, among others. A key feature of this report is a deep dive into five different categories of nonemployer firms based on the nature of their work.[9]

- **Supplemental Work:** firms for which the business is not the owner's primary source of income and the owner has no plans to hire employees. These are 26 percent of nonemployers.
- **Contract Work:** firms working as independent contractors or 1099 workers, where the business is the owner's primary source of income, and the owner has no plans to hire employees. Of nonemployers, 20 percent are contract work firms.
- **Stable Nonemployer:** firms where the business is the owner's primary source of income and the owner has no plans to hire employees. These firms do not work as independent contractors or 1099 workers. These are 25 percent of nonemployers.
- **Early-Stage Potential Employer:** new firms, in business two years or less, planning to add employees in the next 12 months. These firms account for 13 percent of nonemployers.
- **Later-Stage Potential Employer:** firms that have been in business more than two years that plan to add employees in the next 12 months. These are 15 percent of nonemployers.

Categories of Nonemployer Firms Differ in Demographics and Performance

- Potential employers, and in particular early-stage potential employers, are more likely to be owned by someone younger than 46 or from a racial or ethnic minority group. Despite planning to hire employees in the future, potential employer firms are more likely to be higher credit risk and are more likely to report financial challenges (such as difficulty paying operating expenses or accessing credit).
- Contract work firms are most likely to have started because the owner lacked other employment options.
- Stable nonemployers tend to be more established firms, have higher revenues, and are least likely to seek funds for expansion. When stable nonemployers apply for financing, the reason is often to pay operating expenses.
- Most stable nonemployers and contract work firms were profitable in 2016, compared to only 34% of supplemental work firms and 23% of early-stage potential employers.
- While supplemental work firms have low rates of profitability, they also have the lowest levels of outstanding debt and the best credit risk profiles of all nonemployer groups.

Nonemployer Segments Cite Divergent Financial Needs and Funding Success

- Potential employers are more likely than the others to seek financing, and they often report they sought funding to expand their business. Among both early- and later-stage potential employers, 32% applied for financing, compared to only 18% of supplemental work firms and 20% of contract work firms.
- Of all nonemployers, potential employers are most likely to have potentially unmet funding needs. More than half of potential employers either were not funded for the full amount needed, or they chose not to apply even though they may have needed funds. Only one-quarter of all potential employers have had their funding needs met, compared to more than 40% for all other nonemployers.
- Supplemental work firms are the least likely to apply for financing, but those that do apply have the highest rate of success among all nonemployer segments, despite only one-third reporting that they are profitable.
- In contrast, later-stage potential employers have the highest application rate but the lowest rate of successfully securing funds.

ABOUT THE SURVEY

The SBCS is an annual survey of firms with fewer than 500 employees. 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.

9 *See p. 19 for detailed definitions of these groups.*

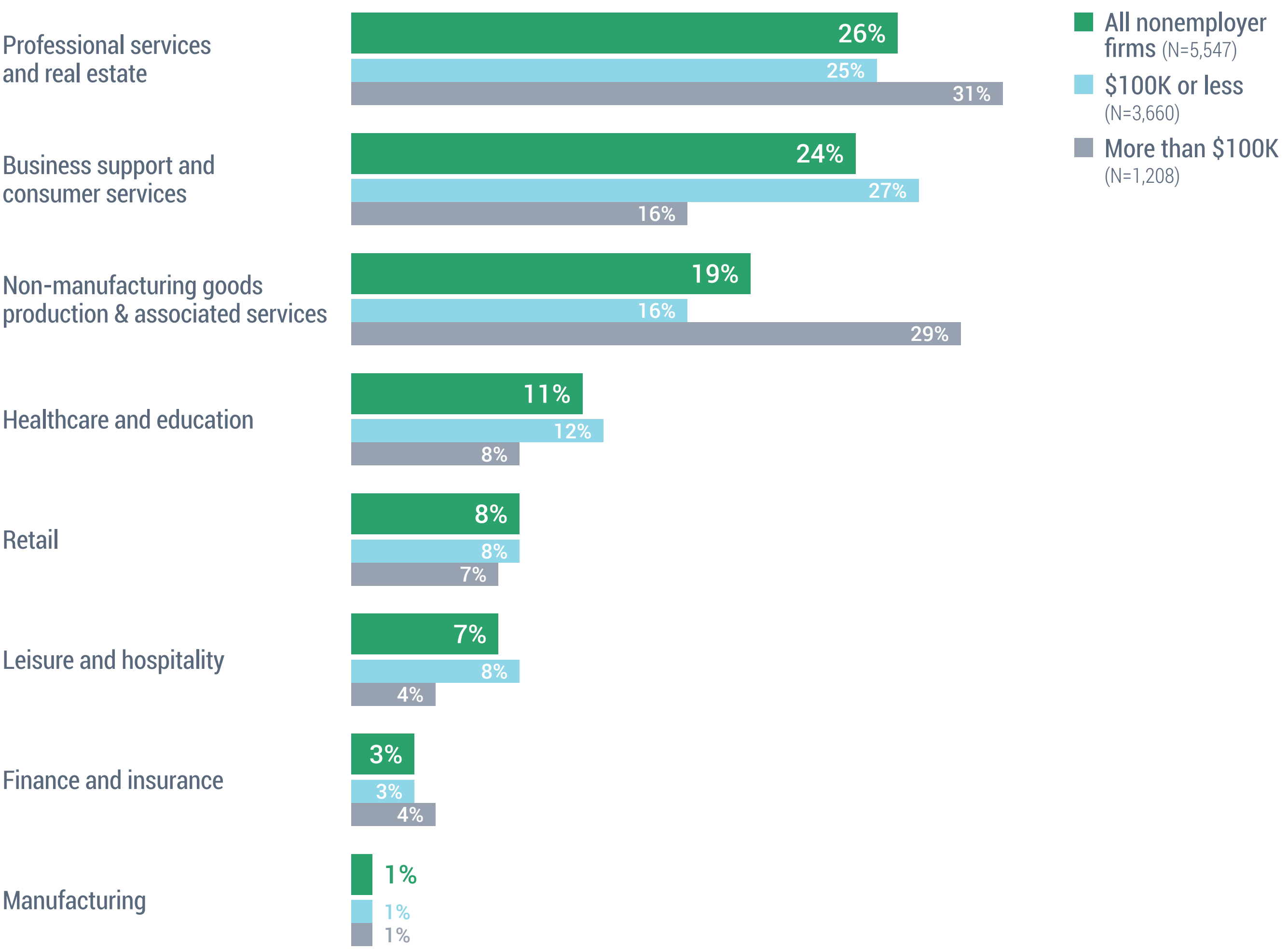
DEMOGRAPHICS

71% of nonemployer firms have $100,000 or less in annual revenue.

REVENUE SIZE OF FIRM[1] (% of nonemployer firms)

N=4,868

INDUSTRY BY REVENUE SIZE OF FIRM[1,2] (% of nonemployer firms)

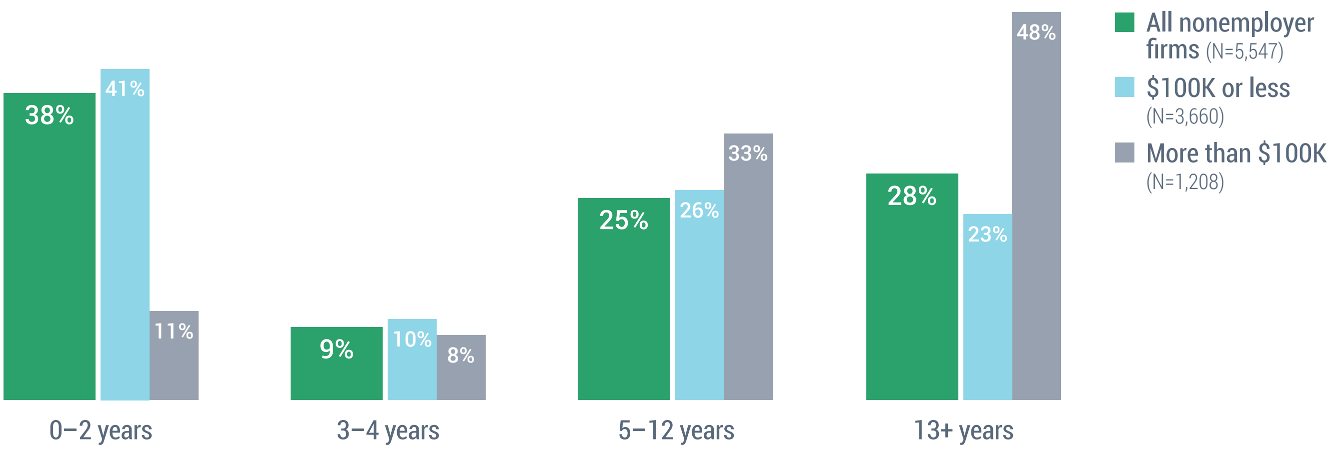


1 *Percentages may not sum to 100 due to rounding.*
2 *Firm industry is classified based on the description of what the business does, as provided by the survey participant. See Appendix for definitions of each industry.*

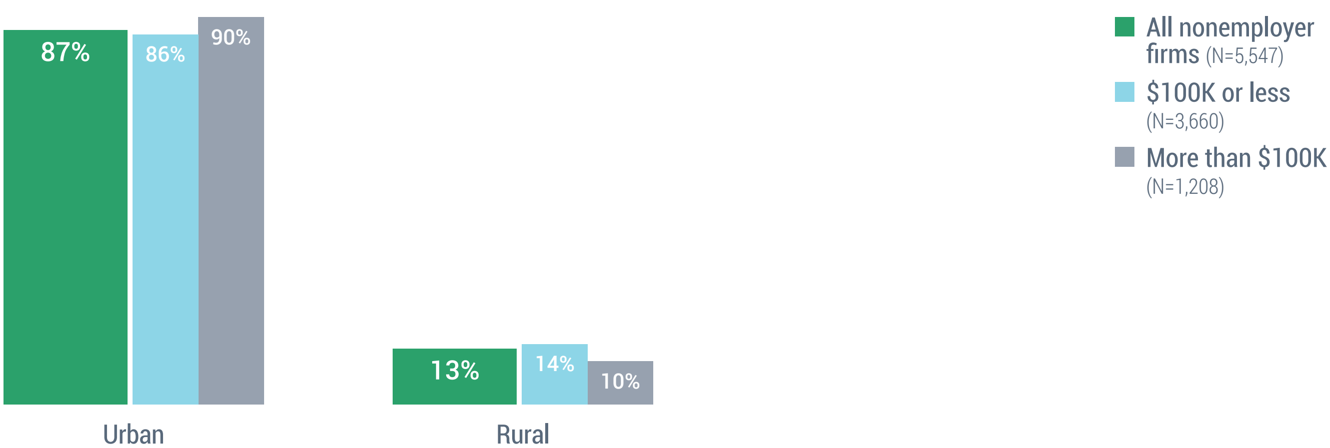
Source: 2017 Small Business Credit Survey, Federal Reserve Banks

More than half of nonemployer firms have been in business for more than four years. Larger-revenue firms are much more likely to be longer established.

AGE OF FIRM BY REVENUE SIZE OF FIRM (% of nonemployer firms)

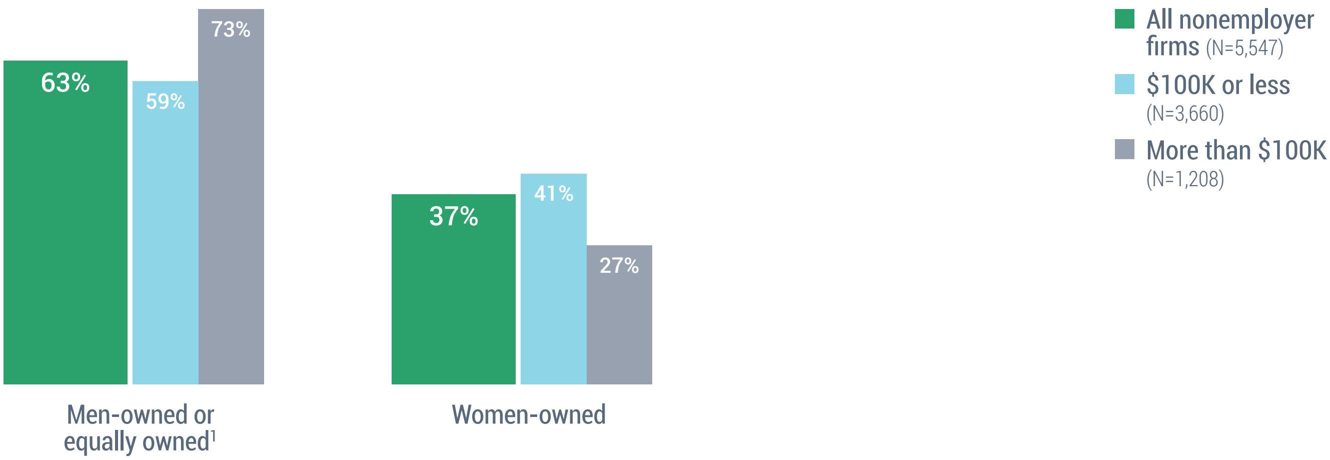


GEOGRAPHIC LOCATION BY REVENUE SIZE OF FIRM[1] (% of nonemployer firms)

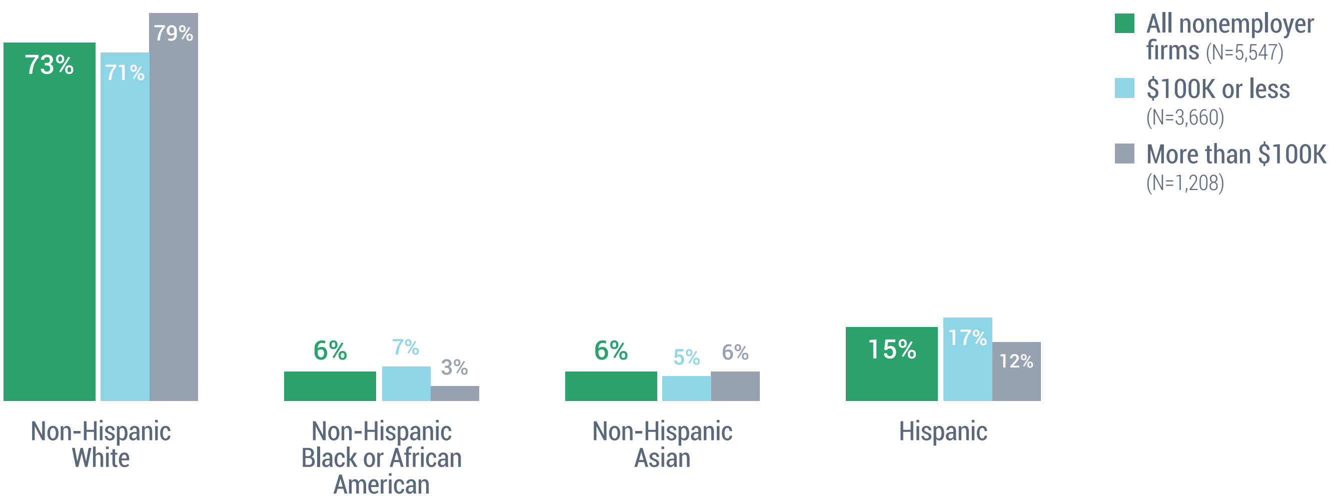


1 *Urban and rural definitions come from Centers for Medicare & Medicaid Services. See Appendix for more detail.*

GENDER OF OWNER(S) BY REVENUE SIZE OF FIRM (% of nonemployer firms)



RACE/ETHNICITY OF OWNER(S) BY REVENUE SIZE OF FIRM[2] (% of nonemployer firms)



1 *Men-owned and equally owned categories are combined to reflect the weighting scheme. For details on weighting, see p. 25.*

2 *Non-Hispanic Native American-owned nonemployer firms comprise less than 0.5% and are not shown in chart. See Appendix for details.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

DEMOGRAPHICS (CONTINUED)

BUSINESS CHARACTERISTICS (% of nonemployer firms)

N=3,805–5,497

69% Operate out of a home

44% Use contract workers

74% Legally incorporated

83% Owner has health insurance

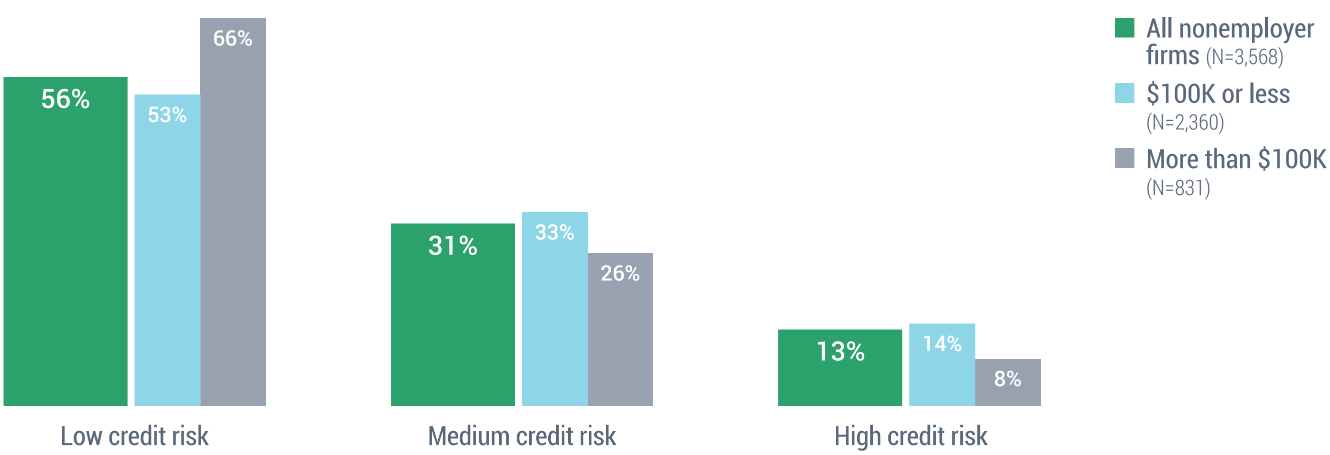
64% Business is owner's primary source of income

39% Work as independent contractor or 1099 worker

22% Owner lacked other employment options when starting business

12% Most sales through app or online marketplace

CREDIT RISK OF FIRM BY REVENUE SIZE OF FIRM[1] (% of nonemployer firms)



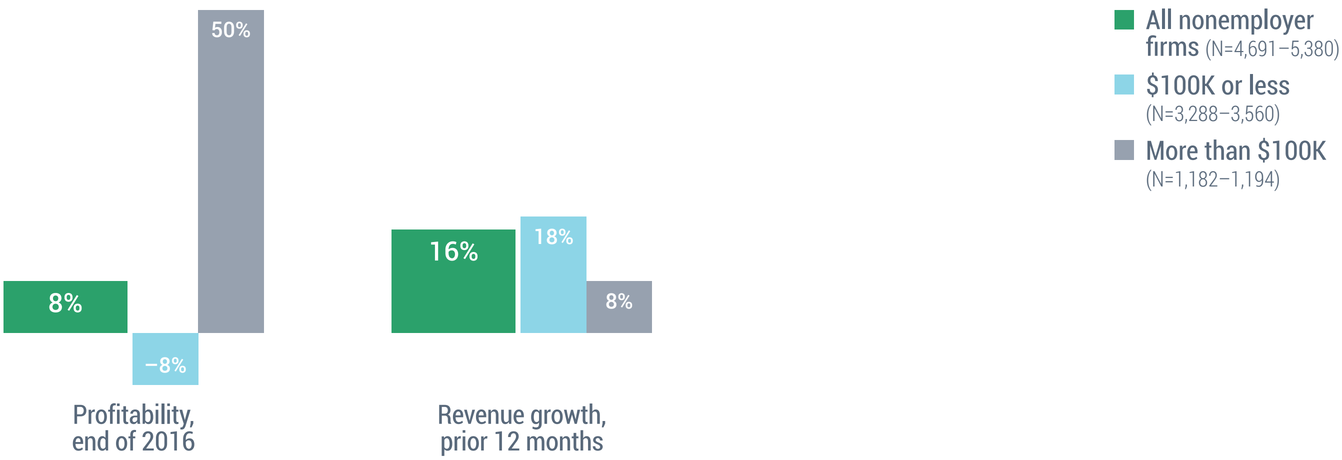
1 *Self-reported business credit score or personal credit score, depending on which is used to obtain financing for their business. If the firm uses both, the higher risk rating is used. 'Low credit risk' is a 80–100 business credit score or a 720+ personal credit score. 'Medium credit risk' is a 50–79 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.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

PERFORMANCE

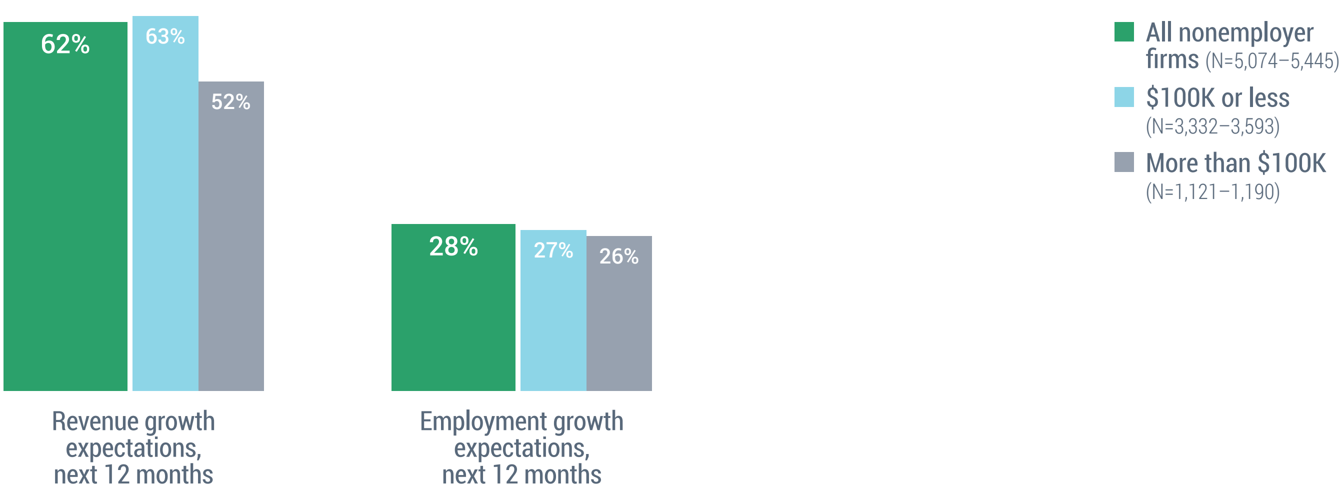
Larger-revenue nonemployer firms are more likely to be profitable than smaller-revenue nonemployers.

NONEMPLOYER FIRM PERFORMANCE INDEX BY REVENUE SIZE OF FIRM[1,2] (% of nonemployer firms)



The majority of nonemployer firms expect to grow their revenues in the coming year.

NONEMPLOYER FIRM EXPECTATIONS INDEX BY REVENUE SIZE OF FIRM[3,4] (% of nonemployer firms)

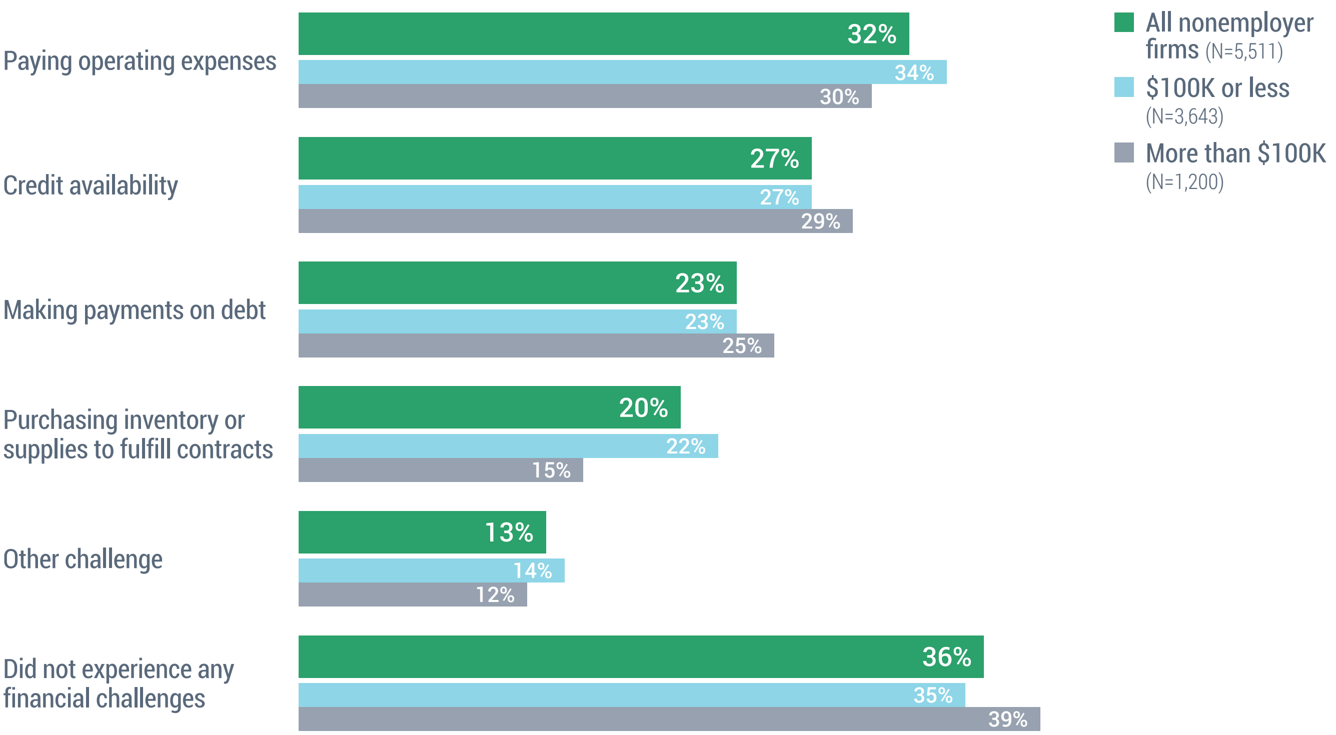


1 *Prior 12 Months is approximately Q4 2016 through Q4 2017.*
2 *For profitability, the index is the share profitable minus the share not profitable. For revenue growth, the index is the share reporting growth minus the share reporting a reduction.*
3 *Next 12 Months is approximately Q4 2017 through Q4 2018.*
4 *The index is the share reporting expected growth minus the share reporting a reduction.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

Regardless of revenue size, nonemployer firms often experienced challenges with credit availability and paying operating expenses.

TYPES[1] OF FINANCIAL CHALLENGES BY REVENUE SIZE OF FIRM, *Prior 12 Months*[2] (% of nonemployer firms)



ACTIONS[3] TAKEN TO ADDRESS FINANCIAL CHALLENGES, *Prior 12 Months*[2]

(% of nonemployer firms reporting financial challenges)

N=3,558

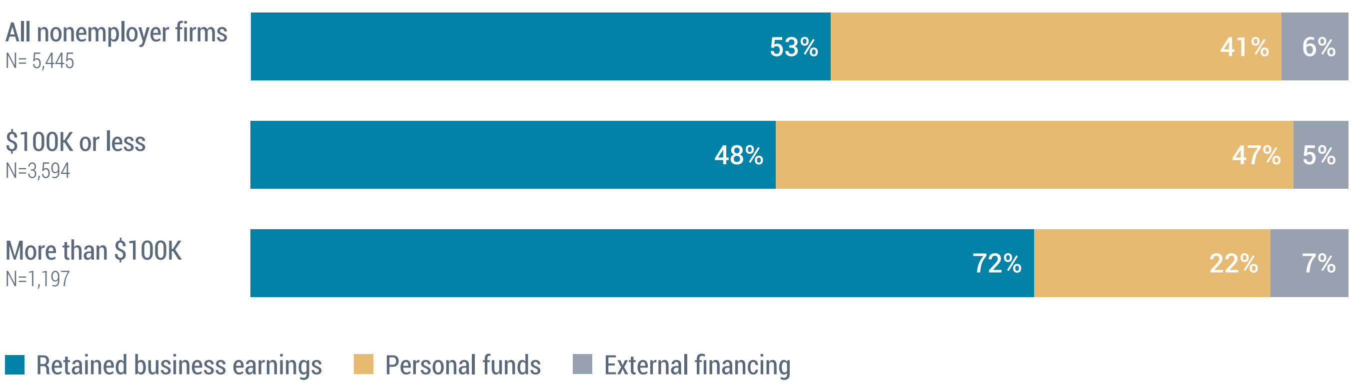
1 *Respondents could select multiple options.*
2 *Prior 12 Months is approximately Q4 2016 through Q4 2017.*
3 *Respondents could select multiple options. Response option 'unsure' not shown in chart. See Appendix for more detail.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

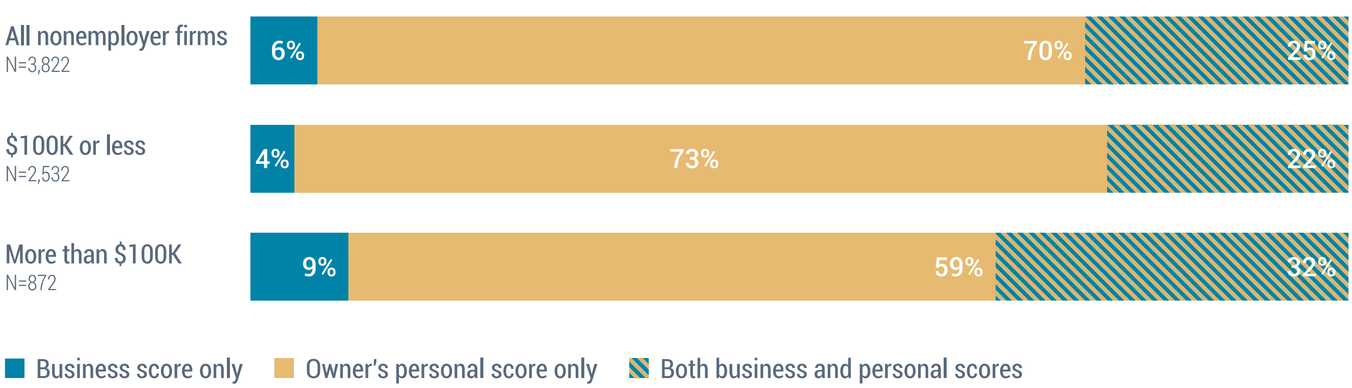
FUNDING BUSINESS OPERATIONS

Larger-revenue nonemployer firms are more likely than smaller-revenue firms to rely on retained business earnings to fund their business operations. A higher share of smaller-revenue firms rely on personal funds.

PRIMARY FUNDING SOURCE BY REVENUE SIZE OF FIRM[1] (% of nonemployer firms)



USE OF PERSONAL AND BUSINESS CREDIT SCORES BY REVENUE SIZE OF FIRM[1] (% of nonemployer firms)



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

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

Larger-revenue nonemployer firms are more likely to have outstanding debt than smaller-revenue nonemployer firms.

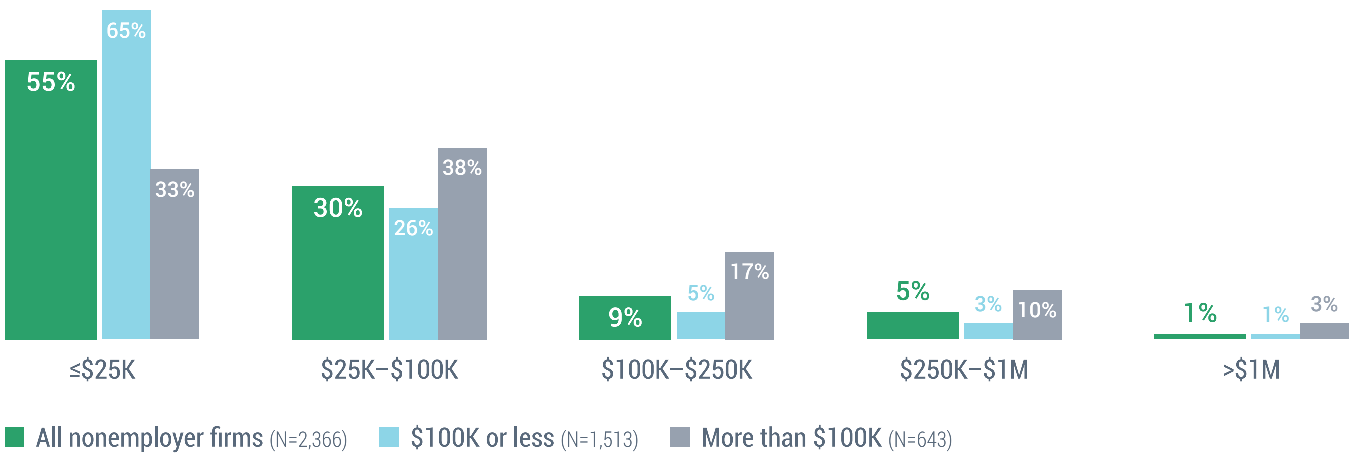
SHARE WITH OUTSTANDING DEBT BY REVENUE SIZE OF FIRM (% of nonemployer firms)

45%
All nonemployer firms (N=5,474)

42%
$100K or less (N=3,616)

55%
More than $100K (N=1,203)

AMOUNT OF DEBT BY REVENUE SIZE OF FIRM,[1] *at Time of Survey* (% of nonemployer firms with debt)



**Categories have been simplified for readability. Actual categories are: ≤$25K, $25,001–$100K, $100,001–$250K, $250,001–$1M, >$1M.*

COLLATERAL[2] USED TO SECURE DEBT (% of nonemployer firms with debt)

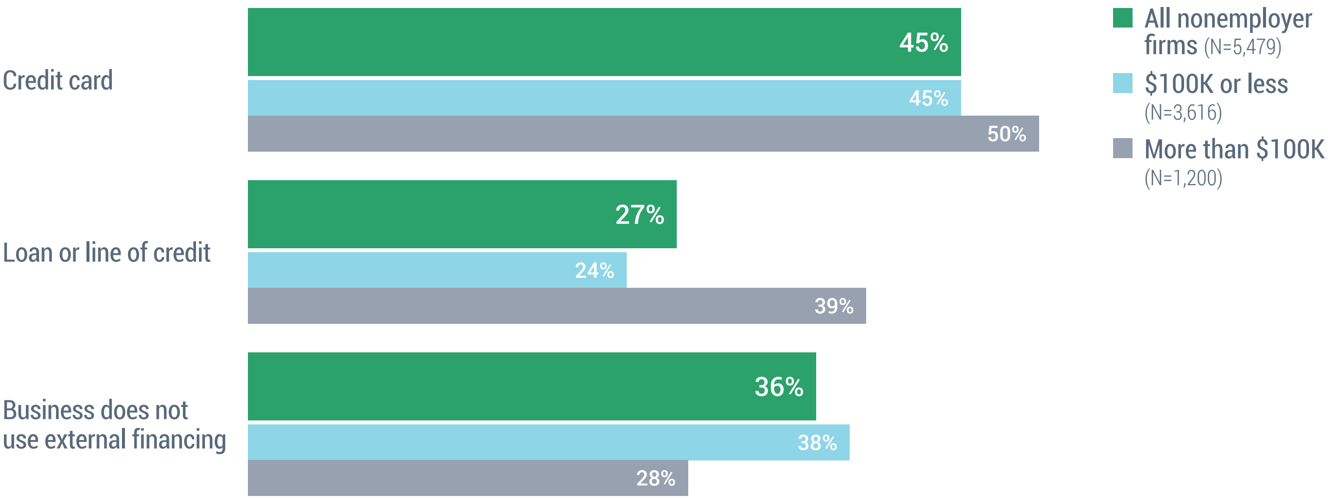
N=2,414

1 *Percentages may not sum to 100 due to rounding.*
2 *Respondents could select multiple options. Response options 'other' and 'unsure' not shown in chart. See Appendix for more detail.*

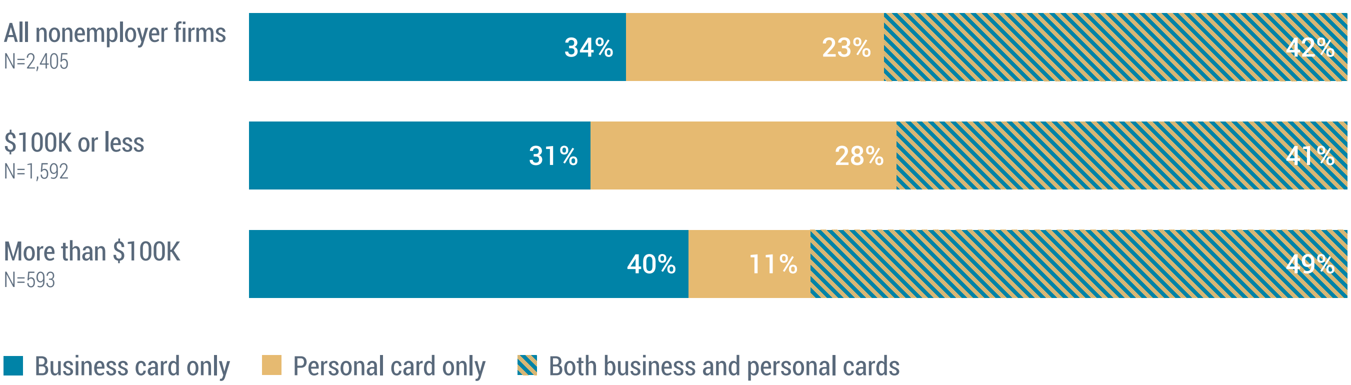
Source: 2017 Small Business Credit Survey, Federal Reserve Banks

Credit cards are the most commonly held financing product among nonemployer firms. Loans or lines of credit are more popular among larger-revenue nonemployers than smaller-revenue nonemployers.

TOP TWO EXTERNAL FINANCING PRODUCTS[1] REGULARLY USED BY REVENUE SIZE OF FIRM
(% of nonemployer firms)



TYPE OF CREDIT CARD REGULARLY USED BY REVENUE SIZE OF FIRM[2]
(% of nonemployer firms that hold or regularly use a credit card)

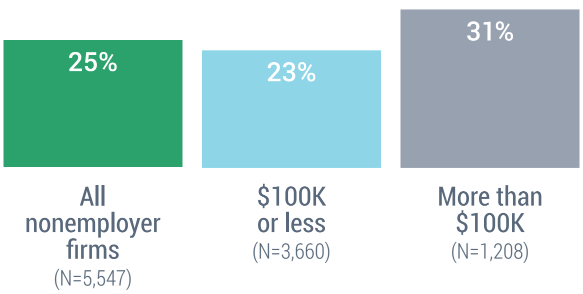


1 *Respondents could select multiple options. Select response options shown in chart. See Appendix for more detail.*
2 *Percentages may not sum to 100 due to rounding.*

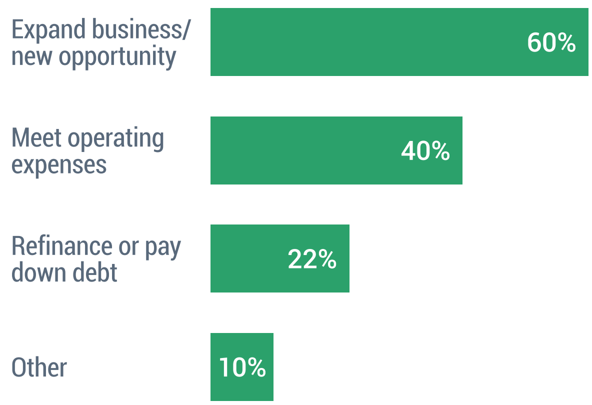
Source: 2017 Small Business Credit Survey, Federal Reserve Banks

Larger-revenue nonemployer firms are more likely to apply for financing than smaller-revenue firms.

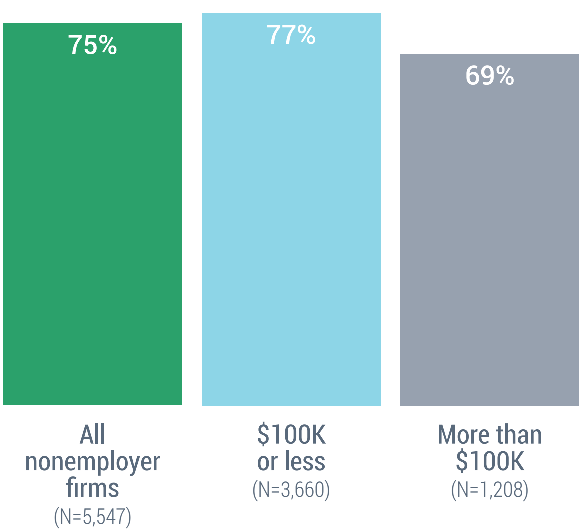
SHARE THAT APPLIED FOR FINANCING BY REVENUE SIZE OF FIRM, *Prior 12 Months*[1]
(% of nonemployer firms)



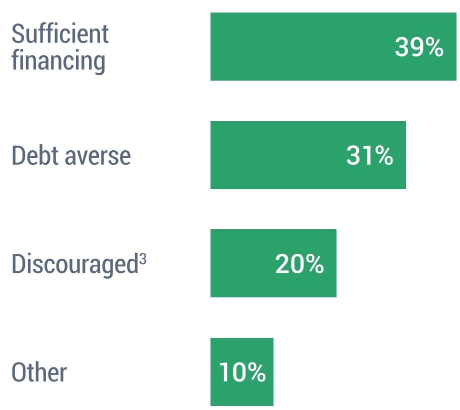
REASONS FOR APPLYING[2]
N = 1,369
(% of applicants)



SHARE THAT DID NOT APPLY FOR FINANCING BY REVENUE SIZE OF FIRM, *Prior 12 Months*[1] (% of nonemployer firms)



REASONS FOR NOT APPLYING
N = 4,082
(% of nonapplicants)



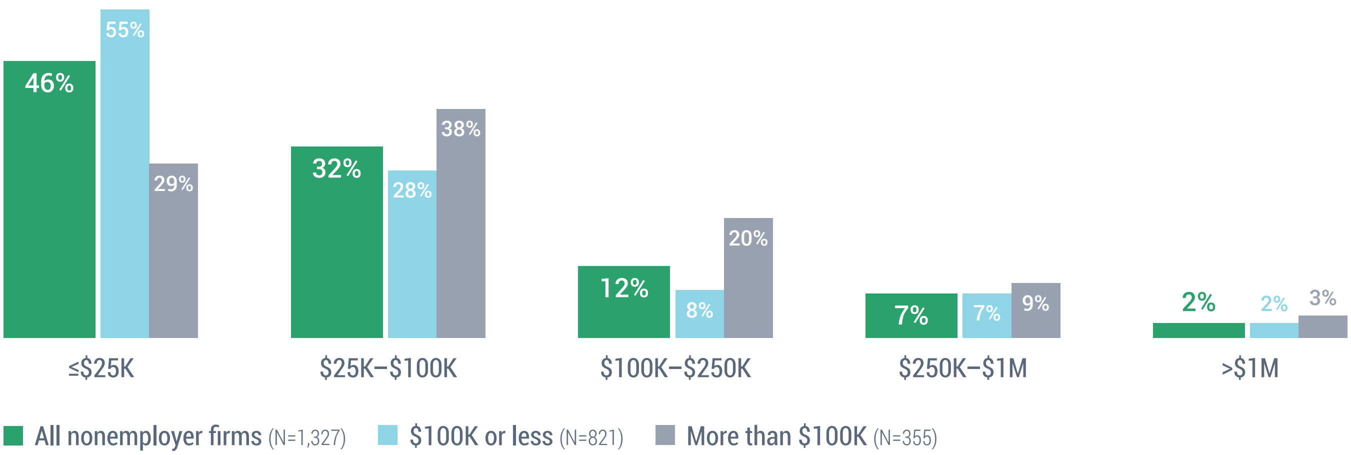
1 *Prior 12 Months is approximately Q4 2016 through Q4 2017.*
2 *Respondents could select multiple options.*
3 *Discouraged firms are those that did not apply for financing because they believed they would be turned down.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

AMOUNT OF FINANCING SOUGHT AND RECEIVED

46% of nonemployer firms that applied for financing sought $25,000 or less. **70%** of larger-revenue applicants sought more than $25,000.

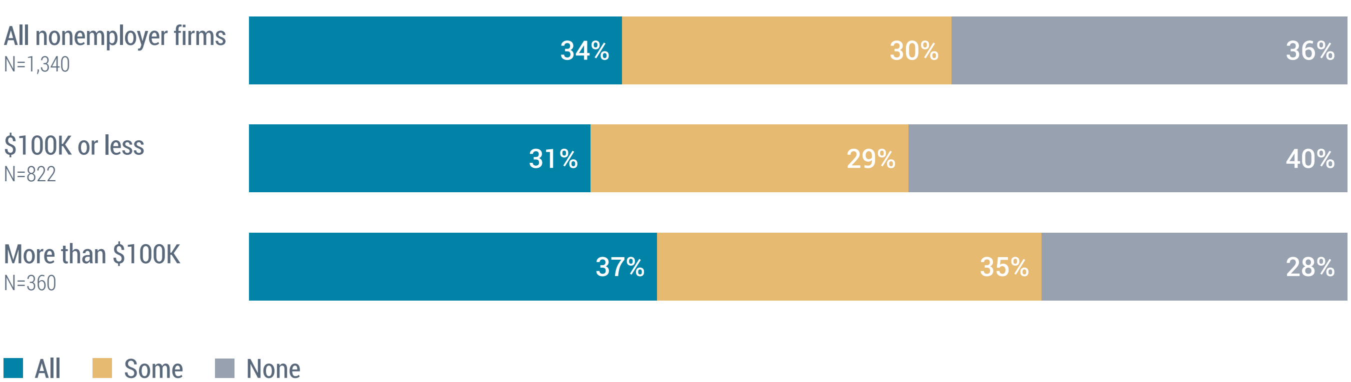
TOTAL AMOUNT OF FINANCING SOUGHT BY REVENUE SIZE OF FIRM[1] (% of applicants)



**Categories have been simplified for readability. Actual categories are: ≤$25K, $25,001–$100K, $100,001–$250K, $250,001–$1M, >$1M.*

Financing shortfalls (receiving less financing than the amount sought) were more common for applicants with smaller annual revenues. For these firms, **40%** received none of the financing sought, compared to **28%** for larger-revenue applicants.

TOTAL FINANCING RECEIVED BY REVENUE SIZE OF FIRM[2] (% of applicants)



1 *Percentages may not sum to 100 due to rounding.*
2 *Share of financing received across all types of financing.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

FUNDING NEEDS AND OUTCOMES[1] (% of nonemployer firms)

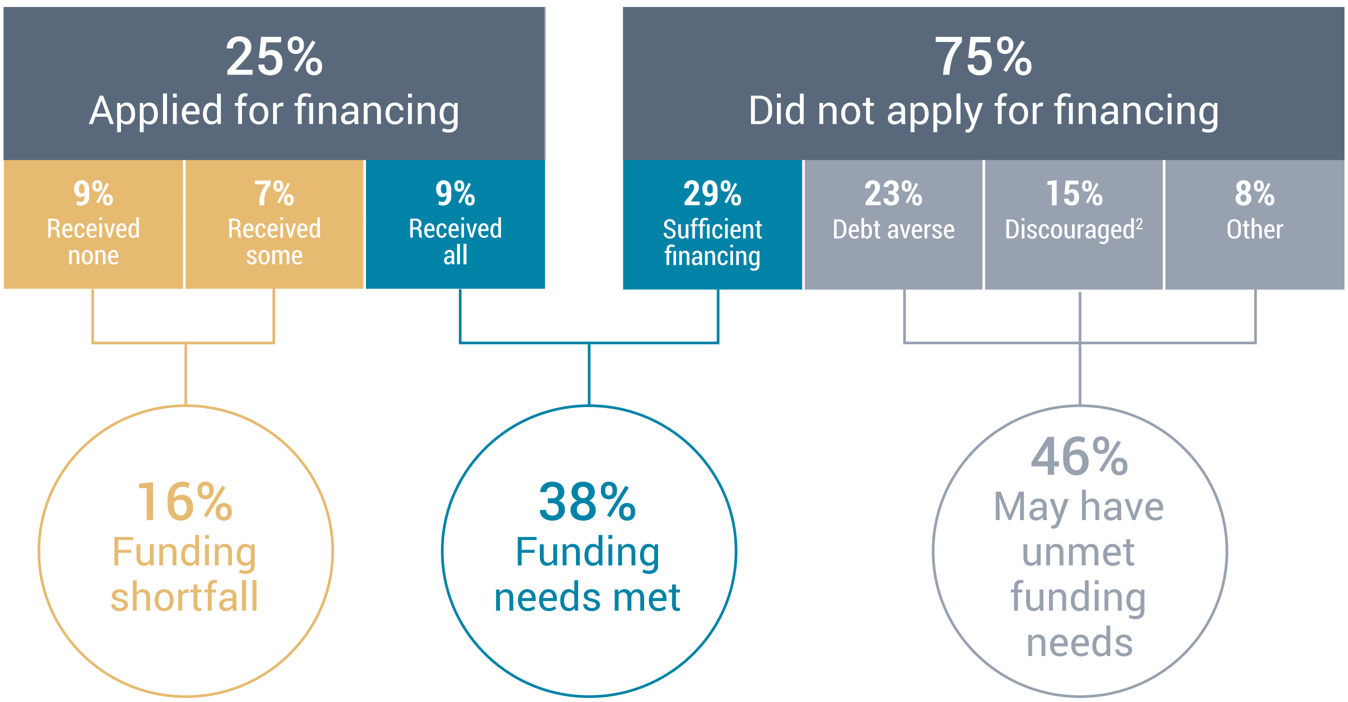
N =5,422

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 may or may not have had 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 did not report they had sufficient financing, we consider them to have potentially unmet funding needs.



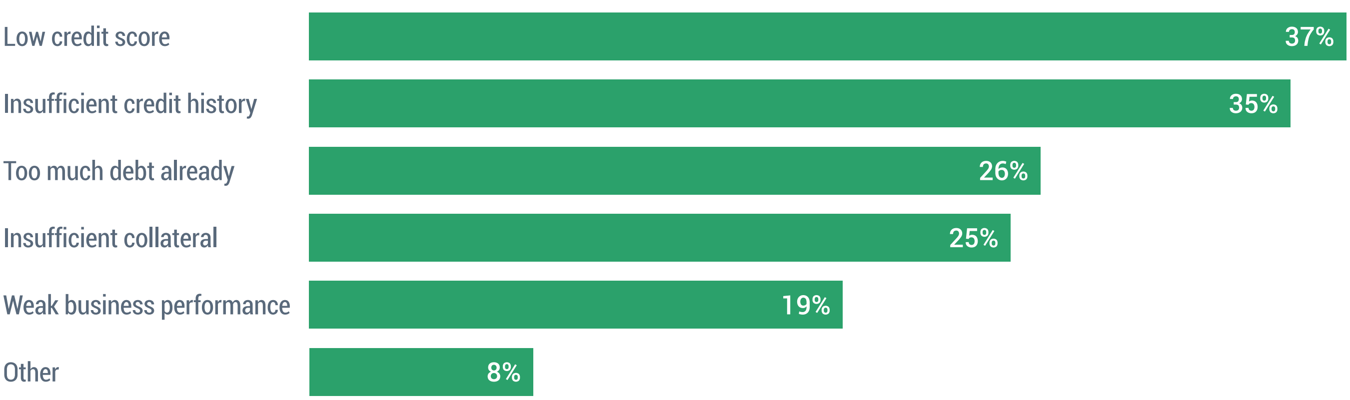
1 *Based on the prior 12 months, which is approximately Q4 2016 through Q4 2017.*
2 *Discouraged firms are those that did not apply for financing because they believed they would be turned down.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

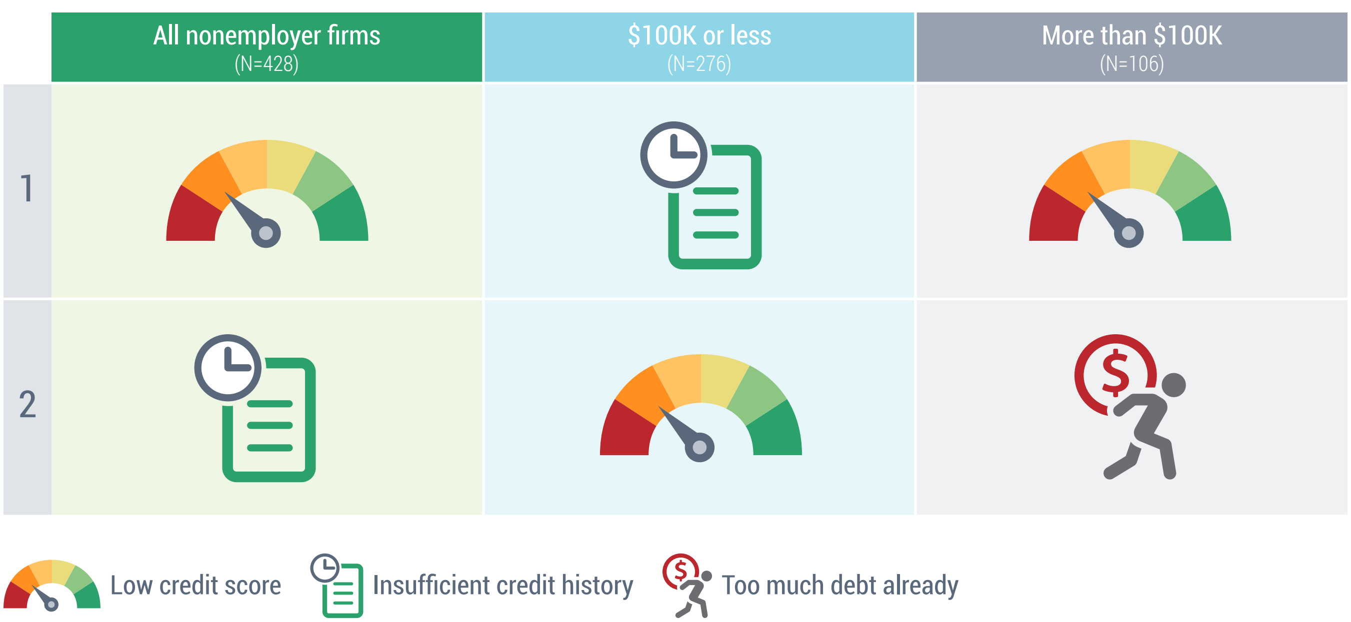
FINANCING SHORTFALLS

Nonemployer firms most often cited low credit scores and insufficient credit histories as reasons for being denied credit.

REASONS FOR CREDIT DENIAL[1] (% of applicants with financing shortfall) N=428



TOP TWO REASONS FOR CREDIT DENIAL BY REVENUE SIZE OF FIRM (% of applicants with financing shortfall)

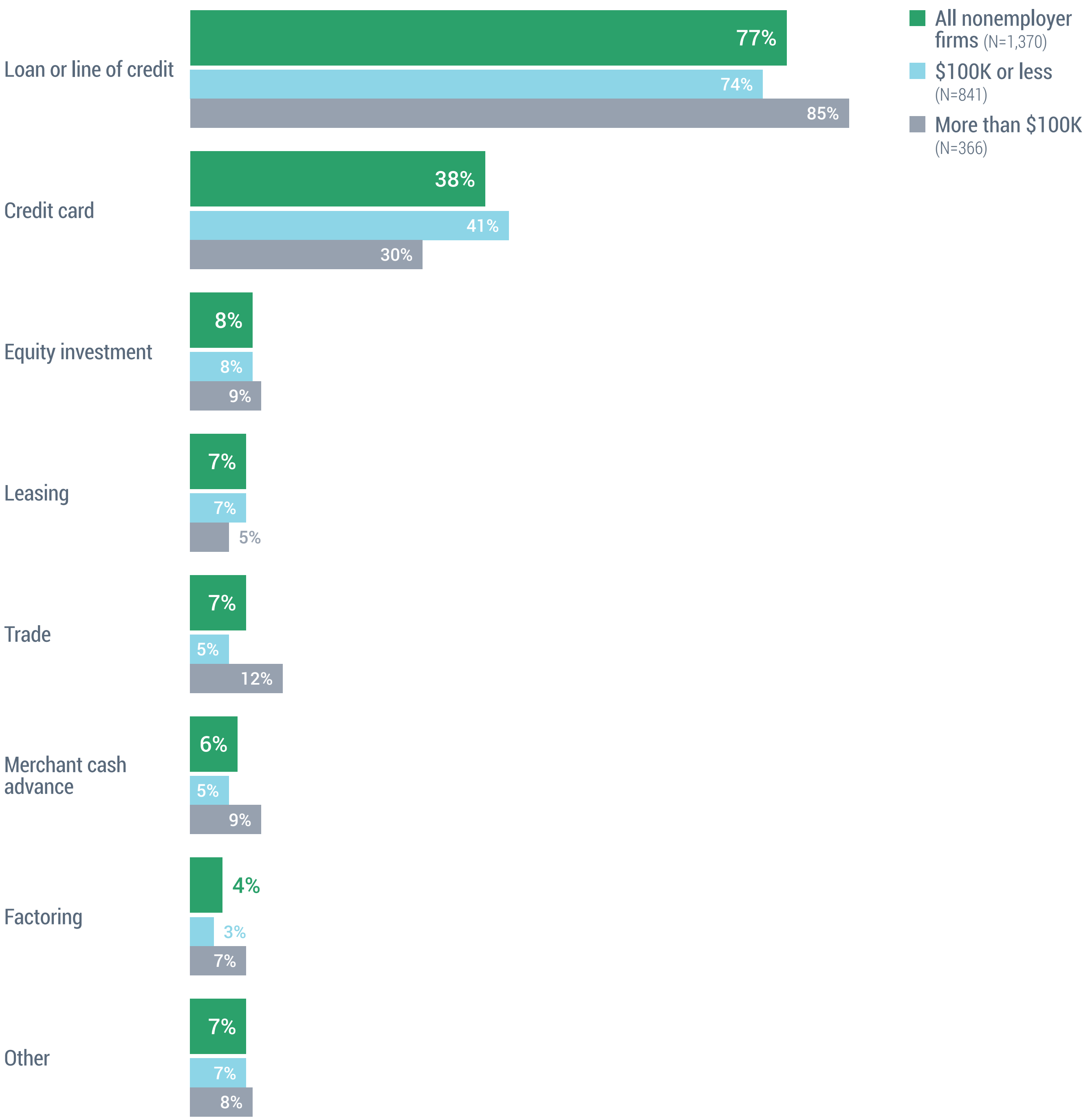


1 *Respondents could select multiple options. Response option 'unsure' not shown in chart. See Appendix for more detail.*

FINANCING & CREDIT PRODUCTS SOUGHT

Nonemployer firms most frequently applied for loans and lines of credit. However, credit card applications were also common.

FINANCING AND CREDIT PRODUCTS SOUGHT BY REVENUE SIZE OF FIRM[1] (% of applicants)



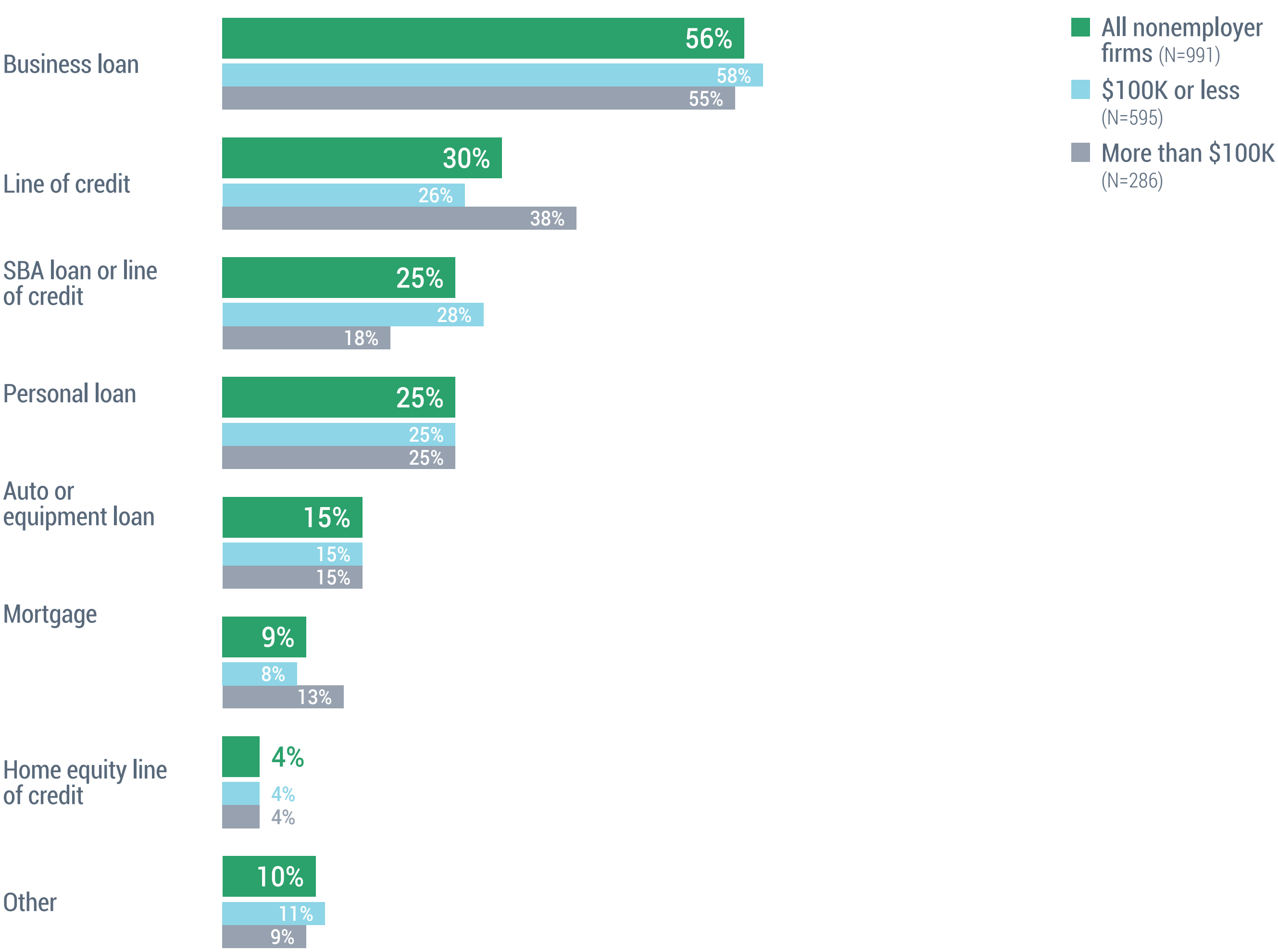
1 *Respondents could select multiple options. Response option 'unsure' not shown in chart. See Appendix for more detail.*

LOAN/LINE OF CREDIT APPLICATIONS

Among loan and line of credit applicants, most sought business loans. Larger-revenue nonemployers were more likely to apply for lines of credit and less likely to apply for SBA loans.

FINANCING AND CREDIT PRODUCTS SOUGHT BY REVENUE SIZE OF FIRM[1] (% of applicants)

APPLICATION RATES FOR LOANS AND LINES OF CREDIT BY REVENUE SIZE OF FIRM[1]
(% of loan/line of credit applicants)

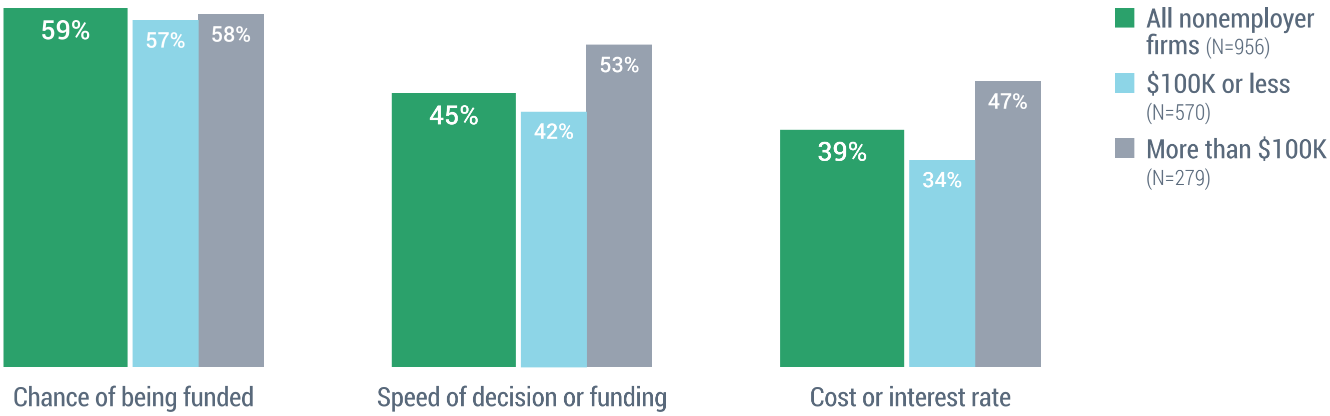


1 *Respondents could select multiple options.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

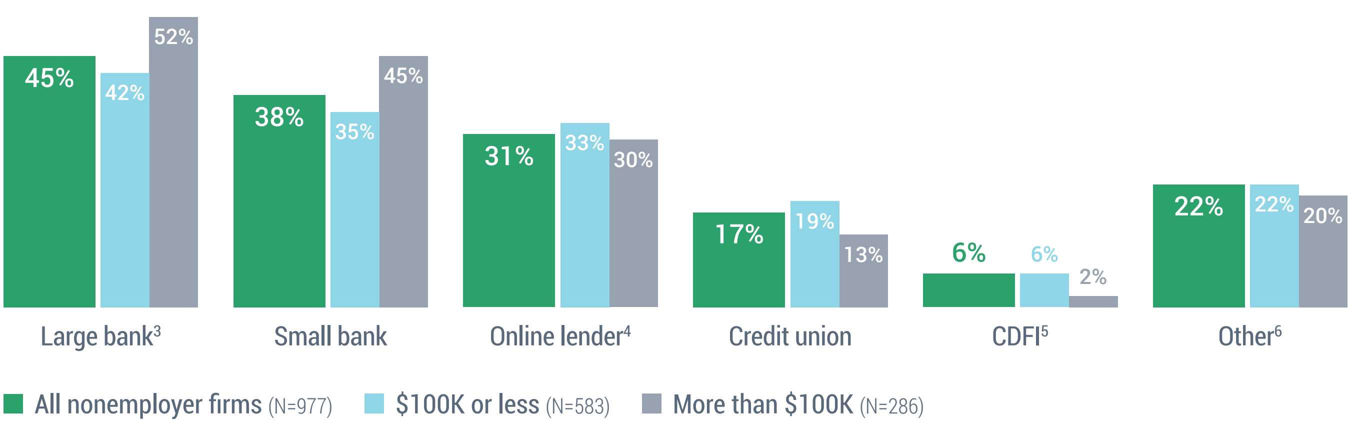
Larger-revenue applicants were more likely to choose lenders based on speed of decision or cost compared to smaller-revenue applicants.

TOP THREE FACTORS INFLUENCING WHERE FIRMS APPLY BY REVENUE SIZE OF FIRM[1,2]
(% of loan/line of credit and cash advance applicants)



Larger-revenue applicants were more likely to apply for loans or lines of credit at large banks and small banks compared to smaller-revenue applicants.

CREDIT SOURCES APPLIED TO BY REVENUE SIZE OF FIRM[1] (% of loan/line of credit and cash advance applicants)



1 *Respondents could select multiple options.*
2 *Select response options 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.*
6 *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.*

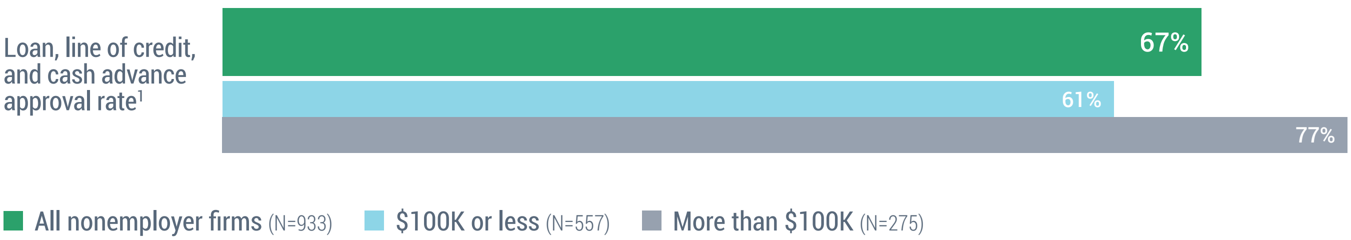
Source: 2017 Small Business Credit Survey, Federal Reserve Banks

LOAN/LINE OF CREDIT APPROVALS

Larger-revenue applicants had higher rates of success when applying for loans, lines of credit, or cash advances than smaller-revenue applicants.

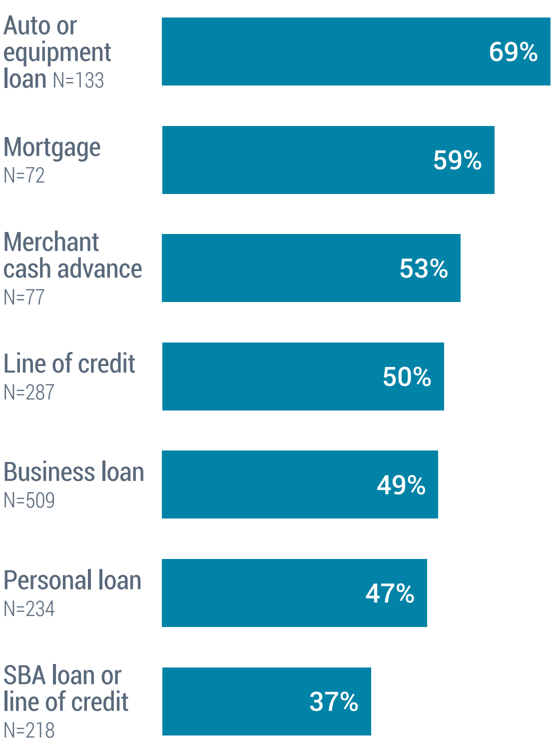
APPROVAL RATE FOR LOANS, LINES OF CREDIT, AND CASH ADVANCES BY REVENUE SIZE OF FIRM

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



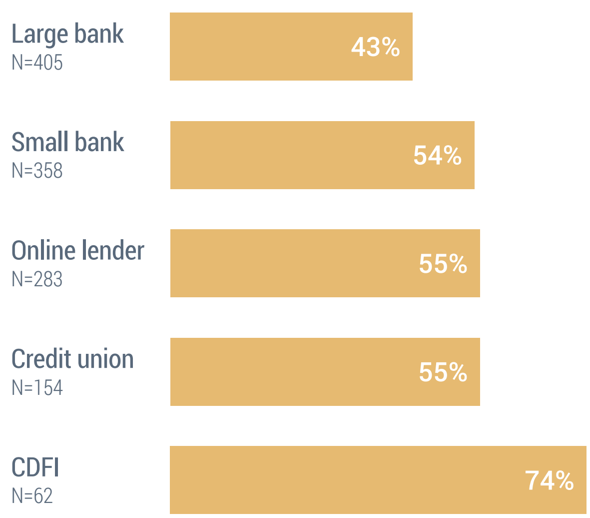
APPROVAL RATE BY TYPE OF LOAN, LINE OF CREDIT, OR CASH ADVANCE[1,2,3]

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



APPROVAL RATE BY SOURCE OF LOAN, LINE OF CREDIT, OR CASH ADVANCE[1,2]

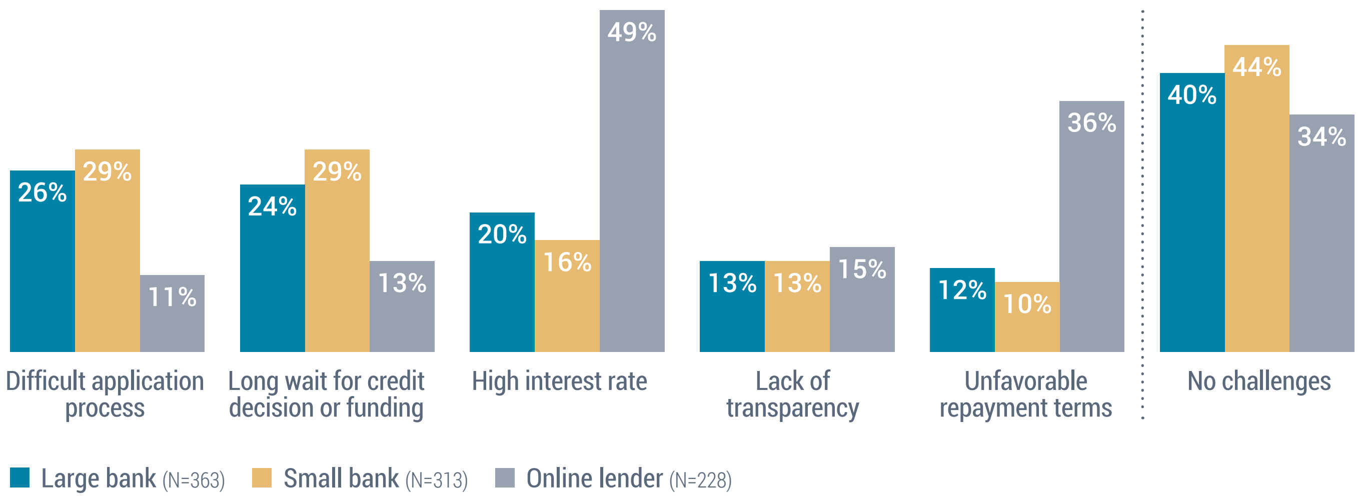
(% of loan/line of credit and cash advance applicants at each source)



1 *Percent of loan/line of credit and cash advance applicants that were approved for at least some credit.*
2 *Response option 'other' not shown in chart. See Appendix for more detail.*
3 *Response option 'Home equity line of credit' not shown in chart due to insufficient sample size.*

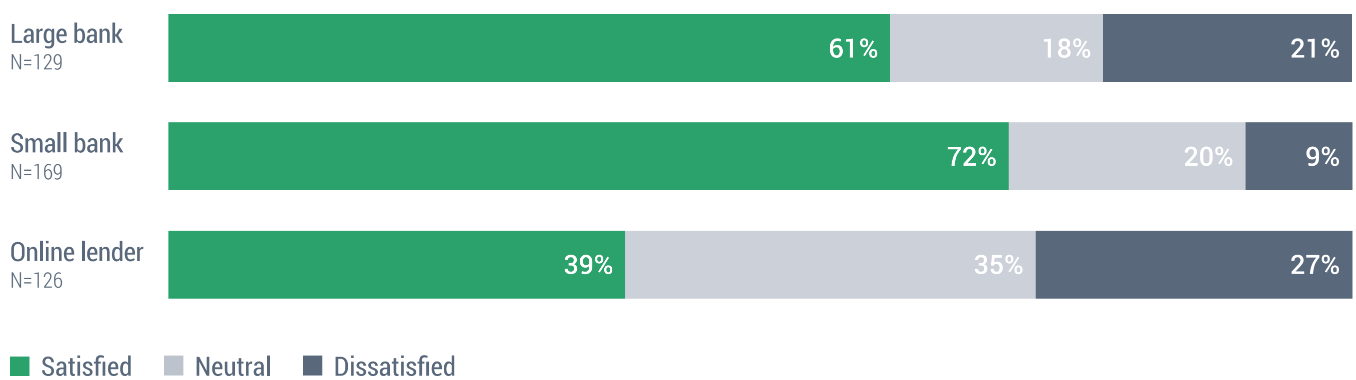
Source: 2017 Small Business Credit Survey, Federal Reserve Banks

CHALLENGES WITH LENDERS,[1] *Select Lenders*
(% of loan/line of credit and cash advance applicants at each source)



Successful nonemployer applicants were least satisfied with online lenders, driven by challenges with high interest rates and unfavorable repayment terms.

LENDER SATISFACTION[2,3]
(% of loan/line of credit and cash advance applicants approved for at least some financing at source)



1 *Respondents could select multiple options. Response option 'other' not shown in chart. See Appendix for more detail.*
2 *Percentages may not sum to 100 due to rounding.*
3 *Other lenders not shown in chart due to insufficient sample size.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

NATURE OF WORK

NATURE OF WORK[1] (% of nonemployer firms)

N =3,335

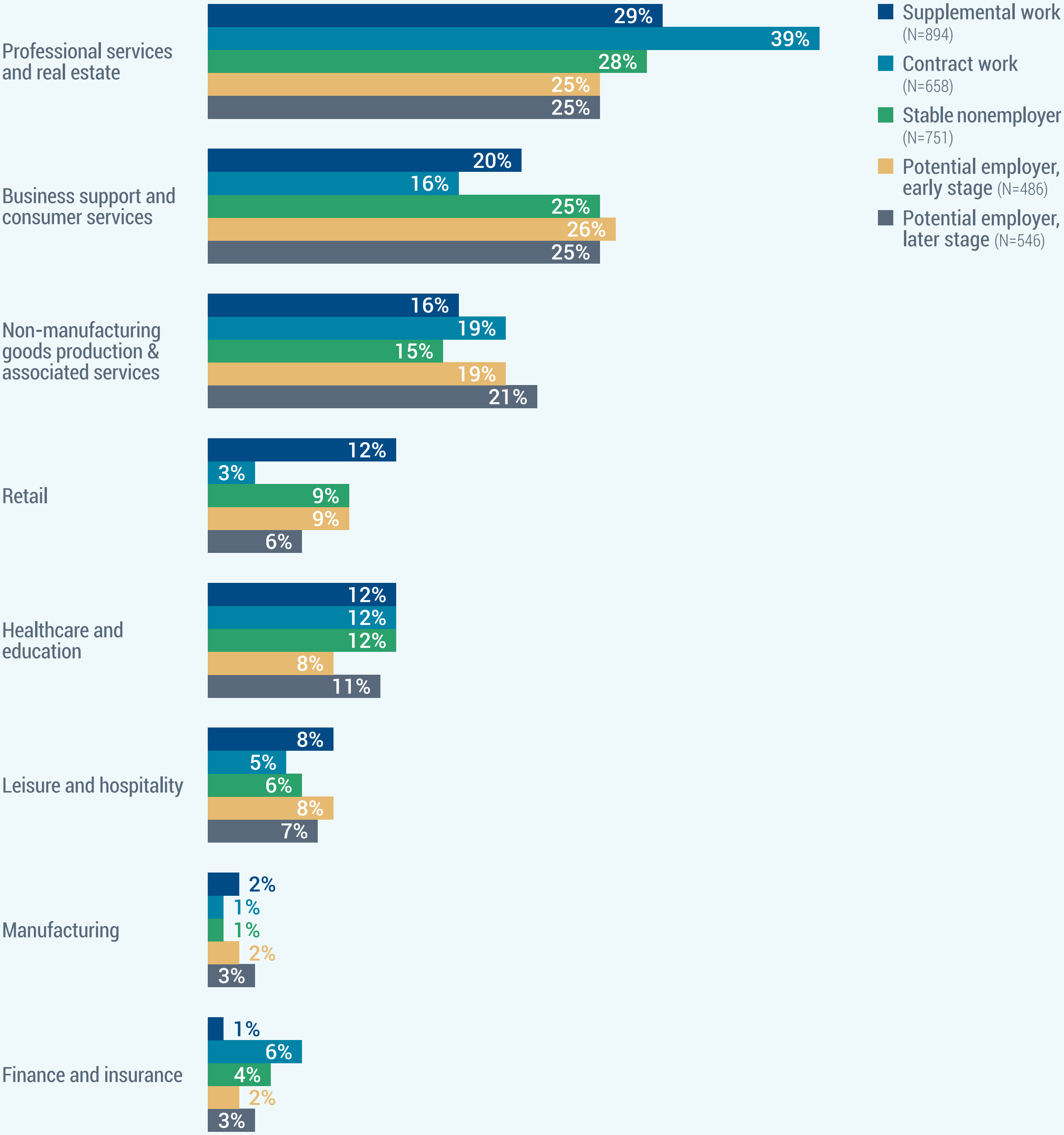
Nonemployer firms				
26% Supplemental work	**20% Contract work**	**25% Stable nonemployer**	**13% Early-stage potential employer**	**15% Later-stage potential employer**
Supplemental work firms are nonemployer firms for which the business is not the owner's primary source of income and the owner has no plans to hire employees.	Contract work firms are nonemployer firms working as independent contractors or 1099 workers, the business is the owner's primary source of income, and the owner has no plans to hire employees.	Stable nonemployer firms are firms that do not work as independent contractors or 1099 workers, the business is the owner's primary source of income, and the owner has no plans to hire employees.	Early-stage potential employers are new firms, in business 2 years or fewer, that plan to add employees in the next 12 months.	Later-stage potential employers are firms that have been in business more than two years that plan to add employees in the next 12 months.
Sample businesses: • Independent artist • Pet care services • Videography-photography • Graphic design services • Personal training • Lawn care	**Sample businesses:** • Management consulting • Information system security • Marketing research • Tax preparation services • Public relations • Solar construction	**Sample businesses:** • Florist • General automotive repair • Private practice psychologist • Exam preparation and tutoring • Handyman • Farming	**Sample businesses:** • Software publisher • Mobile app development • Caterer • Advertising agency • Hospitality	**Sample businesses:** • Interior design • Veterinarian • Beauty salon • Child day care • Residential remodeler
43% 0–2 years in business	**30%** 0–2 years in business	**25%** 0–2 years in business	**100%** 0–2 years in business	**0%** 0–2 years in business
69% low credit risk	**60%** low credit risk	**64%** low credit risk	**44%** low credit risk	**47%** low credit risk
64% $25K or less in annual revenue	**28%** $25K or less in annual revenue	**21%** $25K or less in annual revenue	**70%** $25K or less in annual revenue	**30%** $25K or less in annual revenue
21% minority-owned	**21%** minority-owned	**15%** minority-owned	**41%** minority-owned	**30%** minority-owned
25% financial decision maker younger than 46	**23%** financial decision maker younger than 46	**27%** financial decision maker younger than 46	**52%** financial decision maker younger than 46	**28%** financial decision maker younger than 46
13% lacked other employment options when starting business	**31%** lacked other employment options when starting business	**28%** lacked other employment options when starting business	**20%** lacked other employment options when starting business	**20%** lacked other employment options when starting business
69% have bachelor's degree or higher	**64%** have bachelor's degree or higher	**65%** have bachelor's degree or higher	**59%** have bachelor's degree or higher	**63%** have bachelor's degree or higher

1 *Only firms that answered all relevant questions to classify them by their nature of work are included in this section. Therefore, the sample size is smaller than that for all nonemployer firms.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

NATURE OF WORK (CONTINUED)

INDUSTRY BY NATURE OF WORK[1,2] (% of nonemployer firms)



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

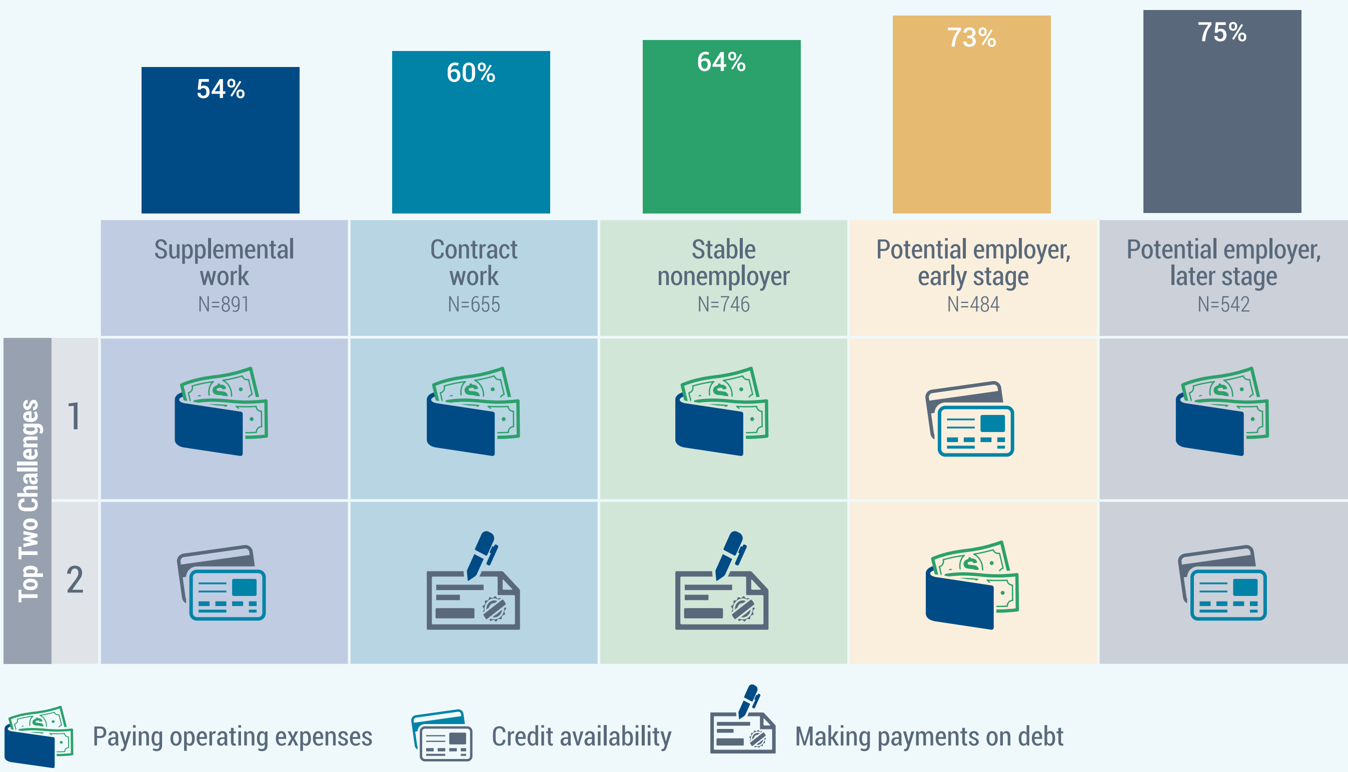
Source: 2017 Small Business Credit Survey, Federal Reserve Banks

SHARE PROFITABLE BY NATURE OF WORK, *End of 2016* (% of nonemployer firms)

Supplemental work	Contract work	Stable nonemployer	Potential employer, early stage	Potential employer, later stage
34%	57%	53%	23%	43%
N=746	N=594	N=682	N=311	N=530

Potential employers were more likely to experience financial challenges compared to other types of nonemployers.

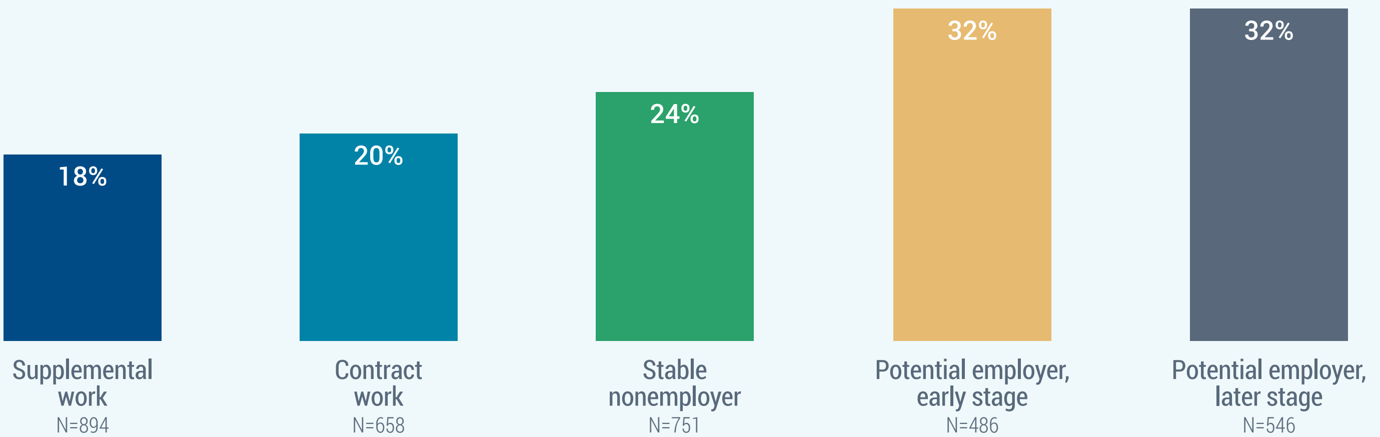
SHARE WITH FINANCIAL CHALLENGES BY NATURE OF WORK, *Prior 12 Months*[1] (% of nonemployer firms)



1 *Prior 12 Months is approximately Q4 2016 through Q4 2017.*

While potential employers are more likely to apply for financing, more than half may have unmet funding needs.

SHARE THAT APPLIED FOR FINANCING BY NATURE OF WORK, *Prior 12 Months*[1] (% of nonemployer firms)



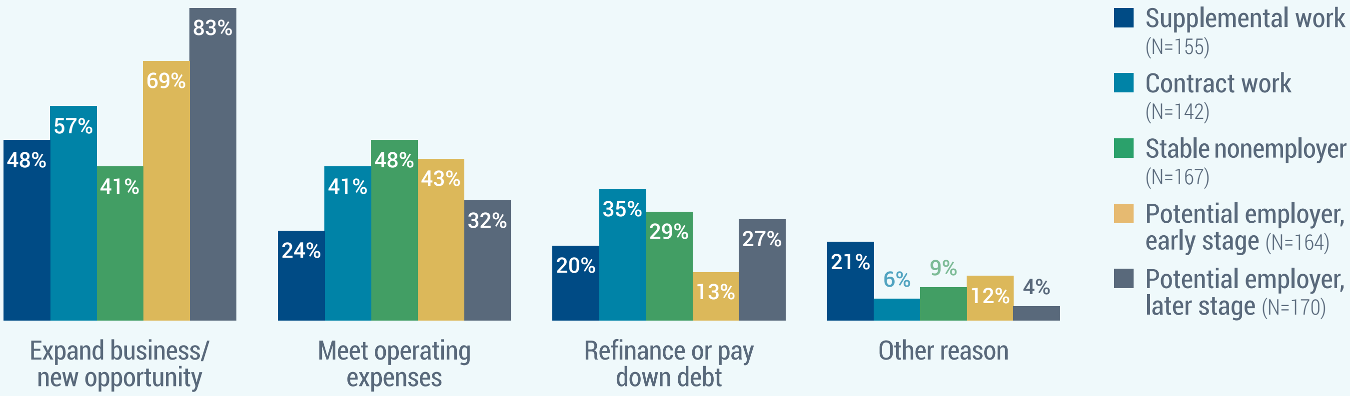
FUNDING NEEDS AND OUTCOMES BY NATURE OF WORK[2] (% of nonemployer firms)

	Supplemental work N=881	Contract work N=648	Stable nonemployer N=741	Potential employer, early stage N=483	Potential employer, later stage N=537
Funding needs met	45%	46%	41%	26%	25%
Funding shortfall	10%	14%	15%	23%	23%
May have unmet funding needs	45%	40%	44%	51%	52%

1 *Prior 12 Months is approximately Q4 2016 through Q4 2017.*
2 *See p. 12 for description of funding needs and outcomes.*

Business expansion was the most common reason nonemployers sought funds, especially among potential employers.

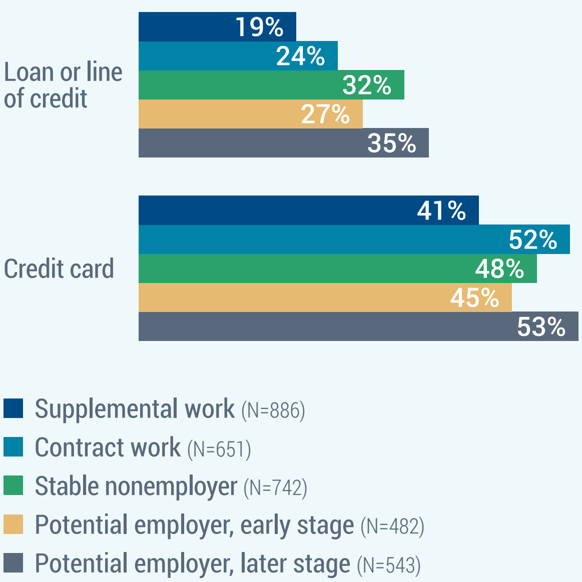
REASONS FOR APPLYING BY NATURE OF WORK[1] (% of applicants)



TOP TWO FINANCING PRODUCTS BY NATURE OF WORK

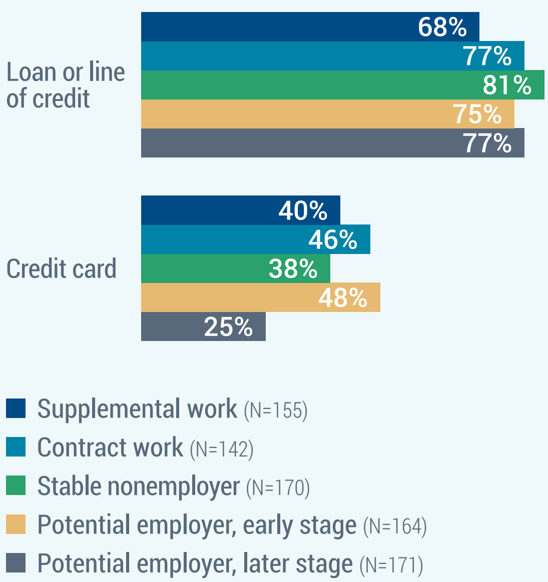
EXTERNAL FINANCING REGULARLY USED[1,3]

(% of nonemployer firms)



FINANCING PRODUCTS SOUGHT,[1,3]

Prior 12 Months[2] (% of applicants)

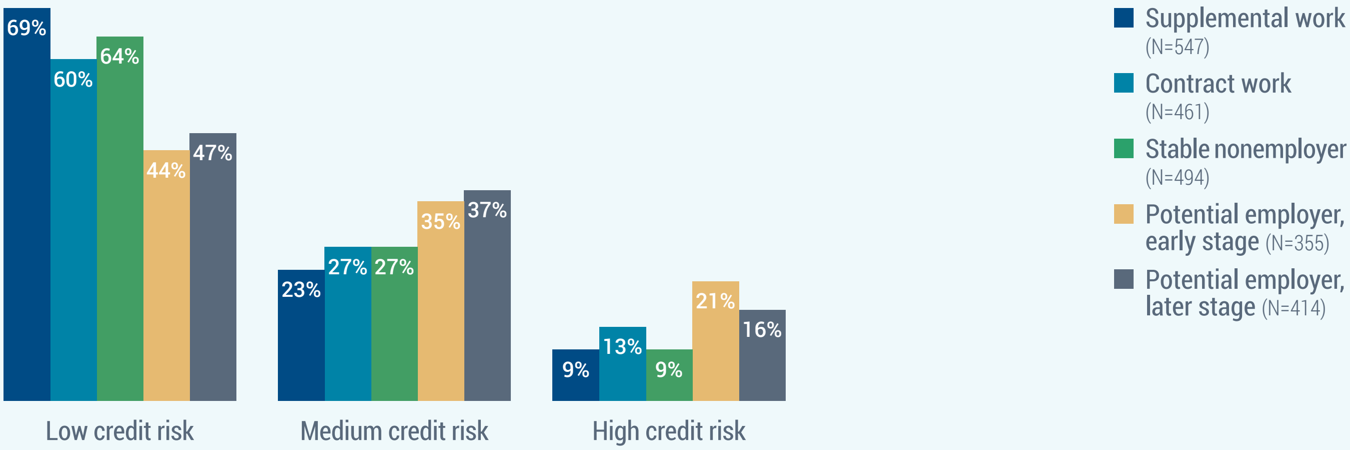


1 *Respondents could select multiple options.*
2 *Prior 12 Months is approximately Q4 2016 through Q4 2017.*
3 *Select financing products shown. See Appendix for more detail.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

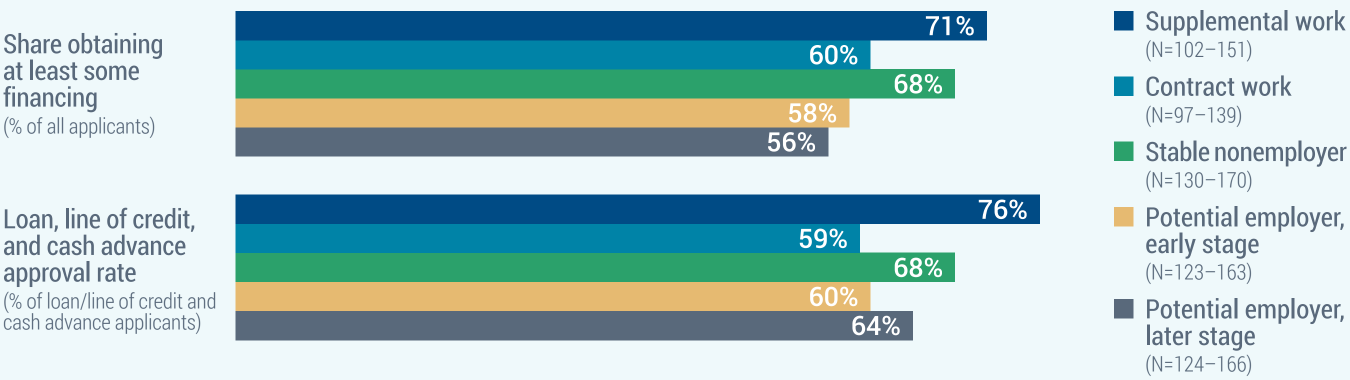
Potential employers are more likely to be medium or high credit risk.

CREDIT RISK OF FIRM BY NATURE OF WORK[1,2] (% of nonemployer firms)



Though they are least likely to have applied, supplemental work firms have the highest rates of success at obtaining financing.

SUCCESS RATES FOR OVERALL FINANCING VERSUS FOR LOANS, LINES OF CREDIT, AND CASH ADVANCES BY NATURE OF WORK (Share obtaining or approved for at least some financing)



1 *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 a 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.*

Source: 2017 Small Business Credit Survey, Federal Reserve Banks

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] Previous SBCS participants and small businesses on publicly available email lists[2] 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 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 nonemployer firm population in the United States by age, industry, geographic location (urban or rural location), gender of owner(s), and race or ethnicity of owner(s).

We first limit the sample in each year to only nonemployer 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[3] (for example, within the industry stratum, the share of firms in the sample that are manufacturers) to the share of nonemployer 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.[4]

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,[5] the predicted values 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 of nonemployers, 9 percent of observations have imputed values for 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 incorporates a variety of firm characteristics, as well as demographic information on the business owner's 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,[6] a logistic probability model is used to predict if business owners are of Hispanic ethnicity. Finally, the race for the business owner is imputed separately for Hispanic and non-Hispanic firms using a multinomial logistic probability model.

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 *Age strata are 0–2 years, 3–4 years, 5–12 years, and 13+ 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 or equally owned and women-owned. See Appendix for industry definitions and urban and rural definitions.*

4 *Data on industry and urban/rural location come from the U.S. Census Bureau's 2015 Nonemployer Statistics. Data from the Center for Medicare and Medicaid Services are used to classify a business's zip code as urban or rural. Data on firm age come from the U.S. Census Bureau's 2012 Survey of Business Owners. Data on the race, ethnicity, and gender of business owners are derived from the U.S. Census Bureau's 2016 1-Year American Community Survey.*

5 *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.*

6 *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.*

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

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. For example, the 2016 data were not weighted by race, ethnicity, or gender of owner(s), whereas the 2017 data (presented in this report) include these owner demographics in the weighting scheme, 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. 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.

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, we perform additional checks on the data to determine whether such differences are 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.[7] 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.[8] 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.

Table 1: Credibility Intervals for Key Statistics in the 2017 Report on Nonemployer Firms

	Percent	Credibility Interval
Share that applied	25.0	+/-1.5%
Share with outstanding debt	45.1	+/-1.9%
Profitability index[1]	8.2	+/-1.7%
Revenue growth index[1]	15.9	+/-1.5%
Loan/line of credit and cash advance approval rate[2]	66.9	+/-2.1%
Seeking financing to cover operating expenses[3]	40.2	+/-2.3%
Seeking financing to expand/pursue new opportunity[3]	60.4	+/-2.4%
Percent of nonapplicants that were discouraged[4]	19.7	+/-2.8%

Table notes:

1 For revenue 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.

7 *Wolter. Survey Weighting and the Calculating of Sampling Variance. 2007.*
8 *AAPOR. Task Force on Non-probability Sampling. 2013.*