

2017

SMALL BUSINESS CREDIT SURVEY

Report on Disaster-Affected Firms



FEDERAL RESERVE BANKS *of*

Dallas • New York • Richmond • San Francisco

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The Small Business Credit Survey (SBCS) is made possible through collaboration with nearly 500 business organizations in communities across the United States. The Federal Reserve Banks thank the national, regional, and community partners who collaborate with us to promote and distribute the survey, and we thank the small business owners who generously share their experiences. Their collective responses provide unique insight on financing and credit conditions that helps policymakers, service providers, and lenders identify opportunities for product and service innovation. We also thank the National Opinion Research Center (NORC) at the University of Chicago for assistance with weighting the survey data to be statistically representative of the nation's small business population.

In developing this report on the effects of natural disasters on small businesses, we sought expert guidance from individuals who have formulated and executed disaster recovery efforts. Their insights about business' financing needs following an emergency, ways to streamline disaster assistance and credit application processes, and the importance of formulating disaster relief protocols *before a crisis strikes* are highlighted in the following pages. We hope that these insights may serve as a beginning template for regions that are considering how best to prepare for future disasters.

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EXECUTIVE SUMMARY

Financial damages caused by natural disasters in the United States broke records in 2017, according to the National Oceanic and Atmospheric Administration. 2017's three largest hurricanes alone cost local economies \$265 billion, \$125 billion of which was caused by Hurricane Harvey in August.¹ Including other billion-dollar disasters, such as flooding, wildfires, and severe storms, U.S. natural disasters caused \$306.2 billion of damage in 2017.² This price tag is the highest on record, and climate studies indicate these costs will only increase due to the impacts of climate change.³

As disaster-affected regions grapple with rebuilding, small businesses⁴ factor prominently in recovery efforts. Small businesses employ half of private sector workers⁵ and are the primary creators of new jobs in the United States.⁶ Therefore, understanding the impact of disasters on small businesses—the size of their losses and their ability to finance recovery through insurance, savings, or credit—is core to understanding regional economic recovery.

This report examines the business conditions, insurance coverage, and credit environment of small businesses located in FEMA-designated disaster zip codes. It draws upon a unique dataset of small businesses from the *Small Business Credit Survey*⁷ to assess the impact of natural disasters on more than 1,800 small businesses in these designated areas, nearly

750 of which faced natural disaster-related losses. It compares the demographics, experiences, and needs of firms that were located in natural disaster-affected areas but did not face damages to those that did. In doing so, the report highlights that business losses were fairly widespread in FEMA-designated disaster areas and that affected firms experienced sizable revenue and employment effects. It also finds that firms' insurance holdings appeared to be mismatched to the sources of their damages, leaving uncovered losses. And, in light of insurance gaps, it highlights the importance of credit financing for recovery. More affected firms applied for credit financing, including Small Business Administration (SBA) loans, than disaster relief.

Economic Impact of Natural Disasters

The true total costs of natural disasters vary by the type and severity of the hazard, and their impacts are not distributed evenly across demographic groups and economic sectors. Prior research has attempted to measure the effects of disasters on national and local economies, decipher who is particularly vulnerable to financial losses, and identify how government policies can best advance local recovery. Generally, there is not a clear consensus on disasters' long-term economic impacts. For example, using international data, one study found evidence that disaster events negatively impact a country's gross domestic product (GDP)

up to five years after the event, and these macroeconomic consequences are exacerbated by the size of the shock and the economic vulnerability of the country.⁸ However, an analysis of cross-country panel data determined some moderate disasters can actually have a positive effect on economic growth, at least for some sectors. Floods, for instance, show positive impacts on agricultural output, possibly due to increased water supply and fertilization, while earthquakes and storms may spur businesses in the industrial sector to rebuild stronger than before. Still, the study finds that severe disasters remain damaging.⁹

Other research has focused on individual financial stability and credit access in the aftermath of a natural event. An assessment of credit demand and access in Ecuador after a volcanic eruption found a significant decline in credit access, despite increasing demand.¹⁰ Edmiston (2017) estimated the impact of hurricanes on financial well-being in the United States, as measured by tract-level debt performance, personal income, and poverty levels. He found proximity to hurricanes is positively associated with lower credit scores and financial vulnerability.¹¹ However, in some cases, individuals located more than 15 miles but less than 25 miles away from a hurricane's path may benefit from a boost through economic stimulus via government aid.¹²

1 "U.S. Billion-Dollar Weather and Climate Disasters," National Centers for Environmental Information, National Oceanic and Atmospheric Administration, 2018. <https://www.ncdc.noaa.gov/billions/>

2 *Ibid.*

3 "Our Changing Planet: The U.S. Climate Change Science Program for Fiscal Year 2008," Climate Change Science Program and the Subcommittee on Global Change Research, 2007; "Atmospheric Warming and the Amplification of Precipitation Extremes," by Richard P. Allan and Brian J. Soden, September 2008; "Projected Increases in North Atlantic Tropical Cyclone Intensity from CMIP5 Models," by Gabriele Villarini and Gabriel A. Vecchi, May 2013; "Downscaling CMIP5 climate models shows increased tropical cyclone activity over the 21st century," by Kerry A. Emanuel, July 2013.

4 In this report, small businesses are defined as firms having fewer than 500 employees. The report data include both the self-employed and firms with employees in addition to the owner.

5 "The State of Small Business Lending: Innovation and Technology and the Implications for Regulation," by Karen Gordon Mills and Brayden McCarthy, Harvard Business School, Working Paper 17-042, 2016. Available at: http://www.hbs.edu/faculty/Publication%20Files/17-042_30393d52-3c61-41cb-a78a-ebbe3e040e55.pdf.

6 "Small Business Facts," by Brian Headd, Office of Advocacy, U.S. Small Business Administration, September 2017. https://www.sba.gov/sites/default/files/Job_Creation_fact_sheet_FINAL_0.pdf

7 The Small Business Credit Survey (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 insight into the dynamics behind lending trends and shed light on noteworthy segments of small businesses. The SBCS is not a random sample; results should be analyzed with awareness of potential biases that are associated with convenience samples.

8 "Assessing the Macroeconomic Impacts of Natural Disasters," by Stefan Hochrainer, June 2009.

9 "Natural Disasters and Growth: Going Beyond the Averages," by Norman V. Loayza, Eduardo Olaberria, Jamele Rigolini, and Luc Christiaensen, 2012.

10 "Access to Credit, Natural Disasters, and Relationship Lending," by Gunhild Berg and Jan Schrader, 2012.

11 "Financial Vulnerability and Personal Finance Outcomes of Natural Disasters," by Kelly D. Edmiston, Federal Reserve Bank of Kansas City, September 2017.

12 *Ibid.*

EXECUTIVE SUMMARY (CONTINUED)

Disaster Effects on Small Firms and Local Jobs

A robust body of research surrounds disasters' specific impact on small businesses. Small businesses create two out of three new jobs in the private sector,¹³ represent 99.7% of all U.S. businesses,¹⁴ and provide essential goods and services to local communities. As a result, their vitality is essential for communities' recovery after disasters; however, up to 40% of small businesses never reopen after a major disaster.¹⁵ In fact, the lasting impacts of disasters on small businesses are well-documented. In 2007, for example, two years after Hurricanes Katrina and Rita, 60% of local small businesses that remained open were earning less revenue than they were before the events.¹⁶

Business recovery studies have sought to identify which kinds of small businesses are most vulnerable to disasters and their aftereffects, and how subsidized loans can minimize those impacts. Subsidized disaster loans generally hasten small business recovery, but these benefits may differ by the type of disaster. For example, one study found that utilization of post-disaster aid, including SBA disaster loans, after earthquakes significantly increased business owners' likelihood of feeling "worse off" in the long-term;¹⁷ however, a separate analysis found that after a flood, every additional dollar spent on federal disaster loans per establishment

in a county induced four additional small businesses to survive.¹⁸

Recovery studies have also found differences in business resiliency depending on firm characteristics. For example, business resiliency differs by sector. Corey and Deitch (2011) found small businesses in the retail and wholesale industries are most vulnerable to disaster risk, but are also among the quickest to adapt to new market conditions and reopen.¹⁹ They also found construction firms actually tend to experience temporary benefits from disasters, as reconstruction efforts boost demand for their services. The manufacturing industry often faces lasting damages, as disasters can permanently disrupt supply chains.²⁰ Robinson and Jarvie (2008) found that although businesses that depend on the environment, such as fishing or tourism, generally suffer over the short term, those in the tourism industry typically rebound quickly, as perceptions about the safety of an affected area quickly change.²¹ A 2017 study found additional evidence for some benefit to the construction industry in disaster aftermath; after hurricanes Harvey and Irma, construction firms experienced the fastest rebound of cash balances.²²

The surrounding investment climate also has a large impact on business resiliency. Hernandez Montes de Oca (2011) found less red tape and corruption facilitated the implementation of adaptive measures that

decreased small business disaster risk.²³ Healthy investment climates also promote market linkages that reduce isolation and improve resiliency from disasters.²⁴

Disaster recovery research has also demonstrated business size can impact vulnerability to hazards, although results tell a nuanced story. For example, after Hurricane Katrina, multiple studies found business size did not significantly impact business performance after the event, but did impact survival rates.²⁵ However, other analyses found the smallest businesses tend to have unique pressures during disasters, due to fewer financial resources, smaller customer bases, and their tendency to be excluded from government recovery programs.²⁶

Finally, small business location and age can impact disaster resiliency. Specifically, small businesses located in flood plains, densely populated urban areas, and historic neighborhoods are more likely to experience physical damage from disasters, although there is some evidence that locating in dense areas improves recovery, due to stronger networks and peer support.²⁷ There is inconclusive evidence on the impact of firm age on disaster resiliency,²⁸ although a 2016 study on the aftermath of Hurricane Sandy indicated younger businesses experience greater financial shock because they are less likely to insure against natural disaster events.²⁹

13 "Small Business Facts," by Brian Headd, Office of Advocacy, U.S. Small Business Administration, September 2017. https://www.sba.gov/sites/default/files/Job_Creation_fact_sheet_FINAL_0.pdf

14 "Small Business Profile: United States," Office of Advocacy, U.S. Small Business Administration, 2017. https://www.sba.gov/sites/default/files/advocacy/United_States_1.pdf

15 "Hurricane Ready Business Toolkit," FEMA, Department of Homeland Security. Available at <https://www.fema.gov/media-library/assets/documents/152381>.

16 "Hurricane Preparedness as Anticipatory Adaptation: A Case Study of Community Businesses," by Peter D. Howe, May 2011.

17 "Winners and Losers: Predicting Business Disaster Recovery Outcomes Following the Northridge Earthquake," by James Dahlmhamer and Kathleen Tierney, 1996.

18 "Small Business Vulnerability to Floods and the Effects of Disaster Loans," by Meri Davlasheridze and Pinar C. Geylani, May 2017.

19 "Factors Affecting Business Recovery Immediately after Hurricane Katrina," by Christy M. Corey and Elizabeth A. Deitch, September 2011.

20 "Small Businesses: Impact of disasters and Building Resilience," United Nations Development Programme Crisis Prevention and Recovery, 2013.

21 "Post-Disaster Community Tourism Recovery: the Tsunami and Arugam Bay, Sri Lanka," by Lyn Robinson and Jim K. Jarvie, December 2008.

22 "Bend, Don't Break. Small Business Financial Resilience after Hurricanes Harvey and Irma," JPMorgan Chase Institute, February 2018.

23 "Post-Disaster Damages and Drivers of Coping and Adaptive Strategies in Small and Medium Community Businesses," by Paola Hernandez Montes de Oca, 2011.

24 "Natural Hazards Unnatural Disasters: The Economics of Effective Prevention," by World Bank and United Nations, 2010.

25 "Post Disaster Community Recovery: Linking Environmental and Economic Recovery," by Marleen Carolijn de Ruiter, 2011. Factors Affecting Business Recovery Immediately after Hurricane Katrina," by Christy M. Corey and Elizabeth A. Deitch, September 2011.

26 "Modeling and Managing the Vulnerability of Community Businesses to Environmental Disasters," by Yang Zhang, Michael Lindell, and Carla Prater, June 2007.

27 "Post-Disaster Damages and Drivers of Coping and Adaptive Strategies in Small and Medium Community Businesses," by Paola Hernandez Montes de Oca, 2011.

28 "Hurricane Preparedness as Anticipatory Adaptation: A Case Study of Community Businesses," by Peter D. Howe, May 2011.

29 "United Nations International Strategy for Disaster Reduction" by UNISDR. Available at <https://www.unisdr.org/archive/26614>. "Factors Affecting Business Recovery Immediately after Hurricane Katrina," by Christy M. Corey and Elizabeth A. Deitch, September 2011.

29 "Firm Age and Size and the Financial Management of Infrequent Shocks," by Benjamin Collier, Andrew Haughwout, Howard Kunreuther, Erwann Michel-Kerjan, and Michael Stewart, August 2016.

EXECUTIVE SUMMARY (CONTINUED)

Spotlight on Small Businesses in FEMA-Designated Disaster Areas: Evidence from the SBCS

The *Small Business Credit Survey* (SBCS), an annual survey fielded by the 12 Federal Reserve Banks, offers a unique opportunity to evaluate which types of firms are hit hardest by natural disasters, the magnitude and source of their losses, and the types of financial assistance they seek. The survey's main questionnaire focuses on firms' financing and credit needs and outcomes. In 2017, following widespread natural disasters, the SBCS included a special module of questions for firms located in FEMA-designated disaster zip codes.

This report draws on Census data and the SBCS dataset to understand the unique attributes of FEMA-designated disaster areas in late 2016 and 2017, and the performance, experiences, and financing needs of firms with natural disaster-related losses. Our analysis compares firms that were located in natural disaster-affected areas but did not face damages (defined below as "unaffected firms") to those that did (defined below as "affected firms"). The charts in the report were selected for inclusion based on regression analyses that enabled us to test which relationships were meaningful, controlling for multiple factors. Statistical differences highlighted in the charts are statistically significant. For details about the statistical models and significance levels, please consult the [Appendix](#).

Note on credit applications: survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications may include applications filed before the storm losses. We attempt to control for the effects of the storms by comparing affected and

unaffected firms in storm-affected areas, with the unaffected firms serving as a baseline of "normal credit application behavior." However, the analysis should be interpreted as suggestive of correlations, not as an interpretation of causation.

Note: This report does not include data for Puerto Rico or the U.S. Virgin Islands, areas that experienced extensive damage in 2017 from Hurricanes Irma and Maria. The business experiences and needs on these islands differ considerably from those on the mainland. With that in mind, we conduct a separate annual small business survey to gauge the needs of Puerto Rico specifically.³⁰

The following are key findings from our analysis.

Finding 1: Natural disaster-affected areas in 2016 and 2017 differed from the U.S. overall in notable ways³¹

- The natural disasters that struck during this time period were concentrated in the Southeast (North Carolina, South Carolina, Georgia, and Florida), Michigan, Mississippi, Arkansas, Texas, and California.
- FEMA-designated disaster zip codes contained a higher share of individuals who identify as Hispanic or African American.
- These zip codes were also more likely to contain individuals who were foreign born and speak a language other than English at home.
- These zip codes also had a slightly lower mean income than the U.S. overall.
- In other ways, including employment and educational attainment, the demographics in disaster-affected zip codes were not substantially different from the U.S. overall.

Finding 2: In disaster-affected areas, losses were fairly common

- 40% of small firms within FEMA-designated zip codes reported natural disaster-related losses.

Finding 3: Disasters struck small firms across the age and income spectrum, but losses were concentrated among Hispanic-owned firms and firms in the retail and leisure & hospitality industries

- Women- and men-owned firms were equally likely to report natural disaster-related losses (41% and 38%, respectively), as were firms in low- and medium-to-high income zip codes (40% and 39%, respectively).
- 54% of Hispanic-owned firms in affected areas reported natural disaster-related losses, compared to 40% of White-owned firms and 35% of Black or African American-owned firms.
- More than half of leisure & hospitality firms (52%) and 47% of retail firms in affected areas reported natural disaster-related losses, the highest shares of all industries.

Finding 4: Foregone revenues, not assets, were the largest source of losses

- Of the affected firms, 36% did not lose any assets, 45% had asset losses ranging from \$1-\$25,000, and only 19% lost more than \$25,000.
- Of the affected firms, only 4% did not have any revenue losses, 61% had revenue losses ranging from \$1-\$25,000, and 35% lost more than \$25,000.

³⁰ Analysis from the Puerto Rico Small Business Survey will be released later in 2018.

³¹ "DP02: Selected Social Characteristics in the United States," 2012-2016 American Community Survey 5-Year Estimates, U.S. Census Bureau's American Community Survey Office.

EXECUTIVE SUMMARY (CONTINUED)

Finding 5: Affected firms reported sizable revenue and employment gaps and elevated incidence of financial challenges compared to unaffected firms

- Among affected firms, the net percent reporting revenue gains was half that of unaffected firms (15% compared with 30%).
- Similarly, affected firms were slightly less likely to report net employment gains (8% compared to 12%).
- Affected firms were more likely to experience difficulties with paying operating expenses, credit availability, making payments on debt, and purchasing inventory than firms without losses.

Finding 6: Firms' insurance holdings appear to be mismatched to the sources of their damages, leaving uncovered losses

- 65% of affected firms cited loss of power or utilities as the source of their losses. However, only 17% of affected firms had business disruption insurance at the time of the disaster.
- Flood damage (38%) and wind damage (36%) were also common sources of losses, but only 16% of affected firms had specific flood insurance coverage and only 21% had wind insurance.

Finding 7: More affected firms applied for credit financing, including SBA loans, than disaster relief. The hardest hit firms tended to hedge, applying for both disaster assistance and financing

- Nearly half of affected firms (48%) reported they would not apply for disaster relief.

- Firms with both large and small revenue losses were more likely to apply for credit financing than to seek disaster assistance. 76% of firms with high revenue losses applied for external financing, compared to 48% that sought disaster assistance. Of the firms with low revenue losses, 11% sought disaster assistance, but 34% applied for external financing.
- Nearly half (45%) of firms with the highest revenue losses applied for both disaster assistance and external financing.

Finding 8: Affected firms sought credit at higher rates than unaffected firms

- Affected firms were 1.5 times as likely to apply for credit as unaffected firms (48% applied compared to 30%).
- Affected firms had small financing needs (62% applied for \$100k or less).
- Affected firms were most likely to apply to large banks. They were also more likely to seek financing from alternative sources: 31% applied online, compared to 23% of firms without losses, and 34% went to "other lenders"³² compared to 15% of firms without losses.
- For affected firms, SBA loans and lines of credit were important products. They were the second most commonly applied for product: 45% of firms applied for them, compared to 27% of firms without losses.

Finding 9: Affected firms are higher risk and experience notable funding gaps

- Affected firms exhibited several higher risk factors, including higher credit risk, lower profitability, and greater incidence of financial challenges.

- 66% of affected firms that applied for financing experienced a funding gap, receiving less than the amount requested, compared to 55% of unaffected firms.
- For loan, line of credit, and cash advance applications, affected firms were also less successful at obtaining funding (65% compared to 72%). This gap persists for the most popular loan/line of credit products: business loans (43% success compared to 54%), lines of credit (53% success compared to 70%), and SBA loans/lines of credit (37% success compared to 46%).

Finding 10: High levels of optimism for 2018 among affected firms

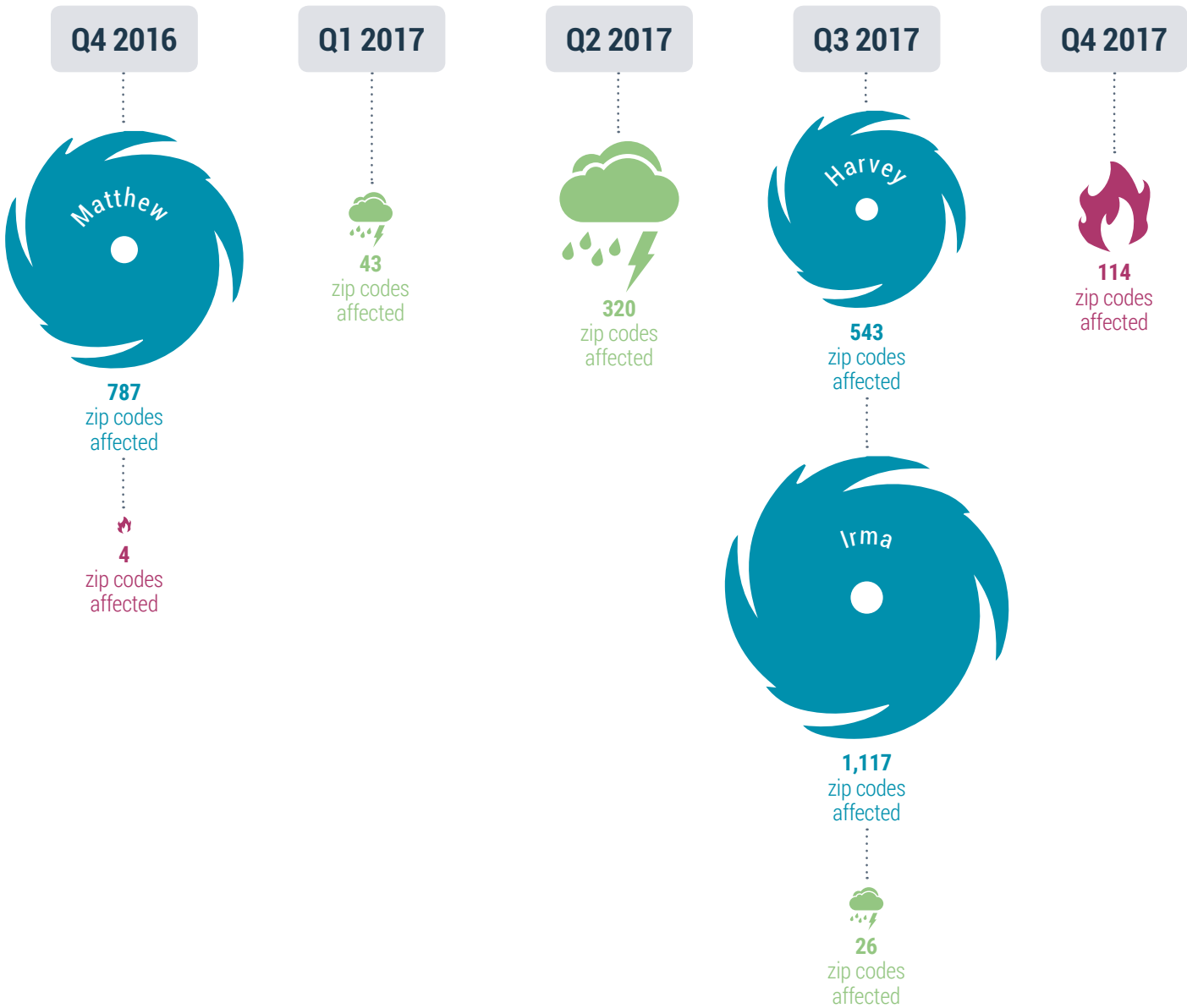
- Despite recent challenges, affected firms expressed consistent levels of optimism about future employment and revenue growth compared to unaffected firms.
- For sectors where losses were more highly concentrated, including retail and leisure, these findings are consistent with previous studies that found these sectors were quick to adapt and reopen.

³² 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, or government entities.

TIMELINE OF EVENTS

NUMBER OF ZIP CODES AFFECTED BY NATURAL DISASTERS,^{1,2} Q4 2016 through Q4 2017

 Hurricane
  Severe Storm
  Wildfire

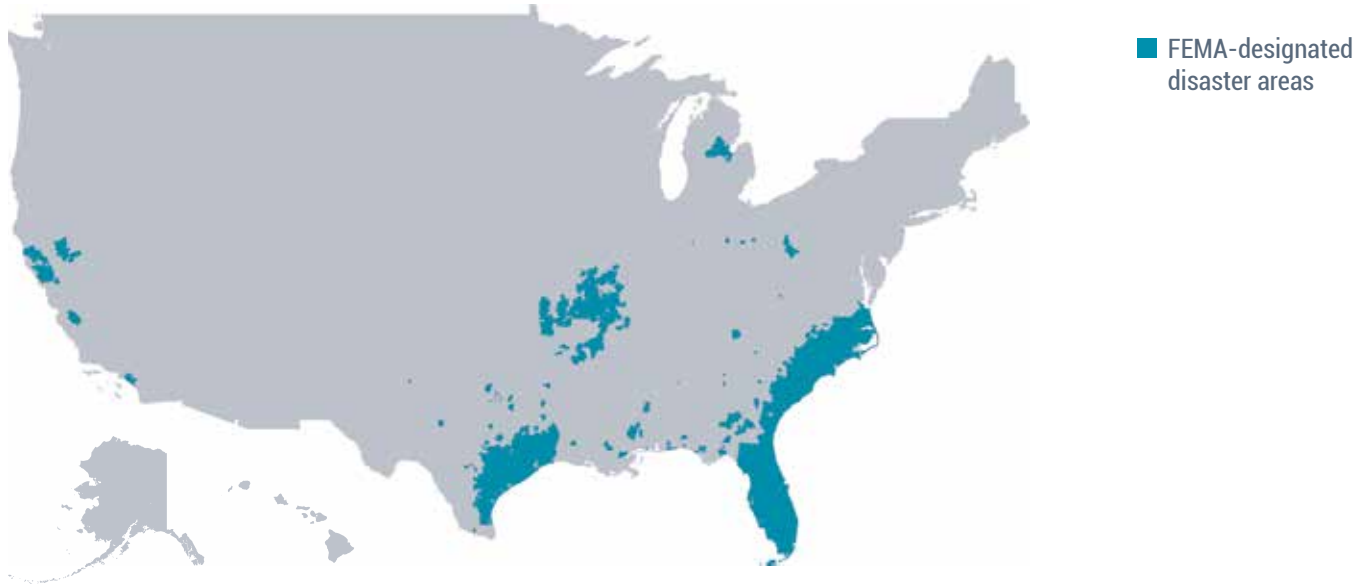


1 The analysis in this report covers the mainland United States, Alaska, and Hawaii, but does not include territories or island areas (such as Puerto Rico or the US Virgin Islands).

2 Zip codes designated as affected are defined as having one or more residents approved for assistance under FEMA's IHP program for natural disasters with classifications of Major Disaster Declaration and incident start dates between 22 September 2016 and 31 December 2017. Zip codes were retrieved from FEMA Housing Assistance Program Data (<https://www.fema.gov/media-library/assets/documents/34758>), updated 9 March 2018, and were matched on FEMA Disaster Declarations Summary (<https://www.fema.gov/media-library/assets/documents/28318>), updated 6 March 2018. FEMA and the Federal Government cannot vouch for the data or analyses derived from these data after the data have been retrieved from the Agency's website(s) and/or Data.gov.

AFFECTED AREAS

GEOGRAPHIC DISTRIBUTION OF ZIP CODES AFFECTED BY NATURAL DISASTERS,^{1,2} Prior 12 Months



SELECT CENSUS³ DEMOGRAPHICS OF RESIDENTS, Affected Zip Codes² Versus the United States

■ FEMA-designated disaster areas ■ United States

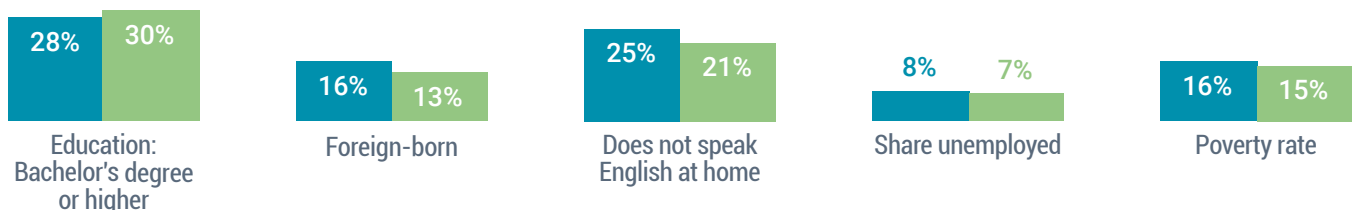
Race & Ethnicity⁴



Mean Household Income



Other



1 The analysis in this report covers the mainland United States, Alaska, and Hawaii, but does not include territories or island areas (such as Puerto Rico or the US Virgin Islands).

2 Zip codes designated as affected are defined as having one or more residents approved for assistance under FEMA's IHP program for natural disasters with classifications of Major Disaster Declaration and incident start dates between 22 September 2016 and 31 December 2017. Zip codes were retrieved from FEMA Housing Assistance Program Data (<https://www.fema.gov/media-library/assets/documents/34758>), updated 9 March 2018, and were matched on FEMA Disaster Declarations Summary (<https://www.fema.gov/media-library/assets/documents/28318>), updated 6 March 2018. FEMA and the Federal Government cannot vouch for the data or analyses derived from these data after the data have been retrieved from the Agency's website(s) and/or Data.gov.

3 Census data retrieved from "DP02: Selected Social Characteristics in the United States," 2012-2016 American Community Survey 5-Year Estimates, U.S. Census Bureau's American Community Survey Office.

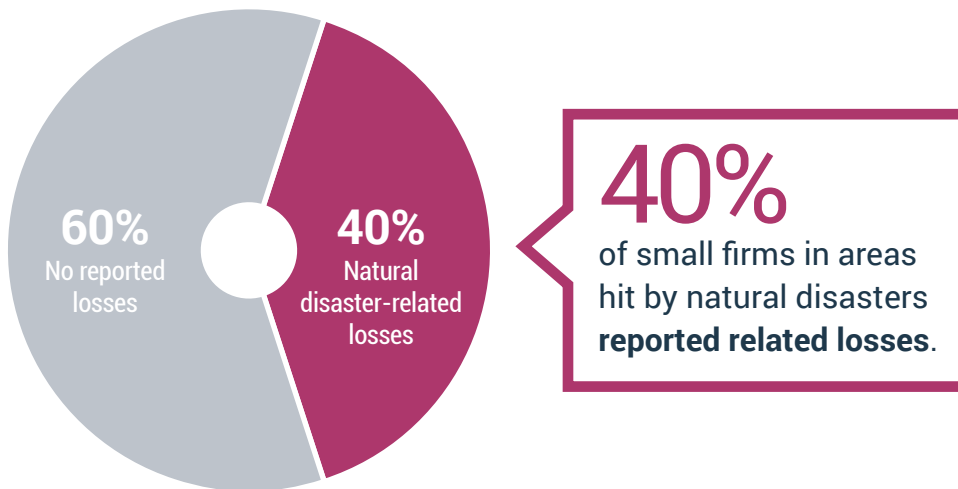
4 FEMA-designated disaster areas and the U.S. overall did not have notable differences for residents identifying as White, Asian, or another race/ethnicity.



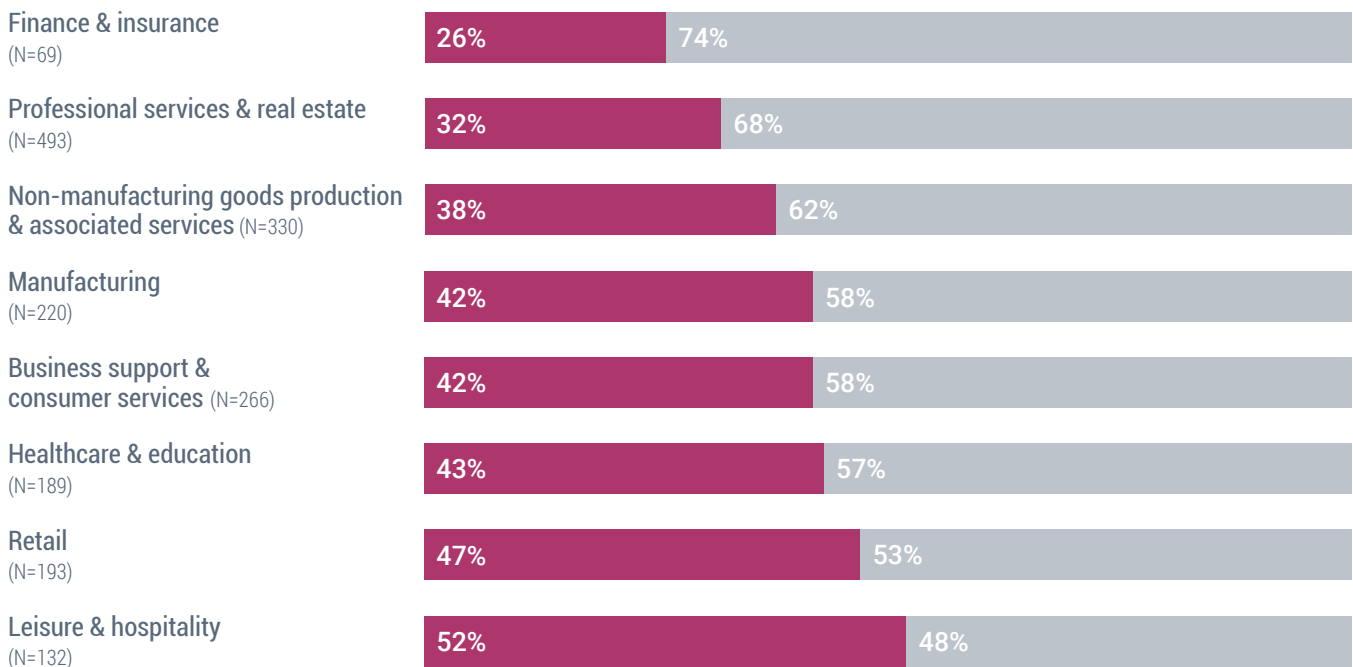
SHARE OF FIRMS REPORTING LOSSES FROM A NATURAL DISASTER, *Prior 12 Months*¹

N=1,892

(% of firms in affected zip codes)



SHARE OF FIRMS REPORTING LOSSES FROM A NATURAL DISASTER BY INDUSTRY (% of firms in affected zip codes)



■ Natural disaster-related losses ■ No reported losses

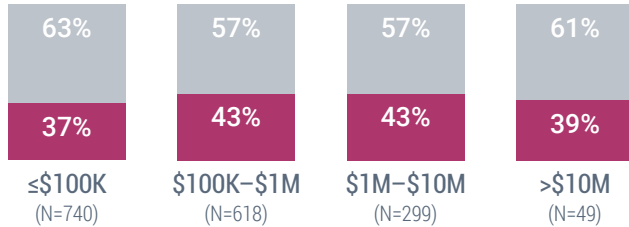
¹ Approximately Q4 2016 through Q4 2017.

DEMOGRAPHICS (CONTINUED)



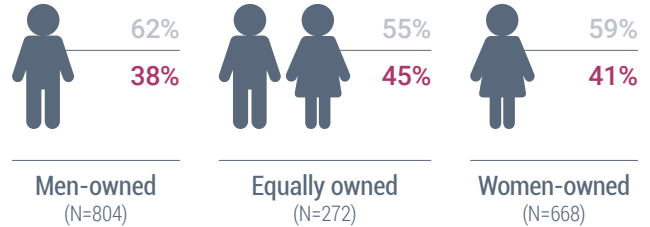
SHARE OF FIRMS REPORTING LOSSES FROM A NATURAL DISASTER BY REVENUE SIZE OF FIRM

(% of firms in affected zip codes)



SHARE OF FIRMS REPORTING LOSSES FROM A NATURAL DISASTER BY GENDER OF OWNER(S)

(% of firms in affected zip codes)



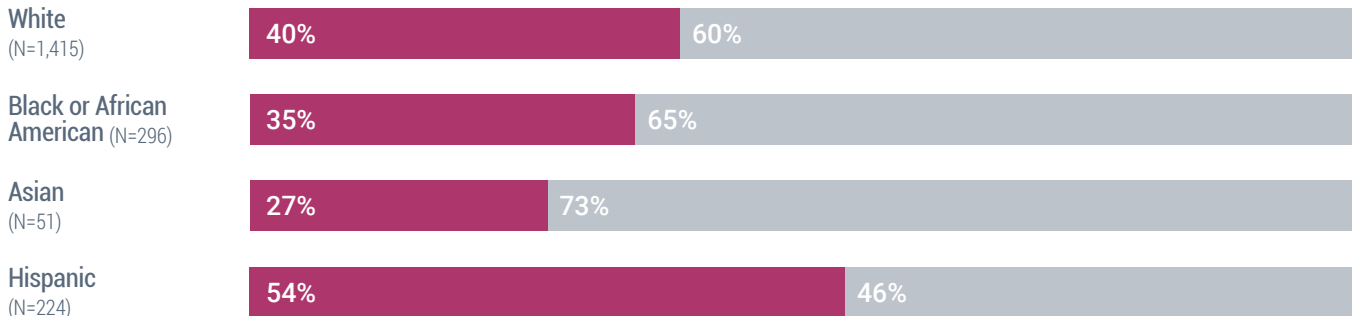
*Categories have been simplified for readability. Actual categories are: ≤\$100K, \$100,001–\$1M, \$1,000,001–\$10M, >\$10M.

■ Natural disaster-related losses ■ No reported losses

■ Natural disaster-related losses ■ No reported losses

SHARE OF FIRMS REPORTING LOSSES FROM A NATURAL DISASTER BY RACE AND ETHNICITY OF OWNER(S)^{1,2}

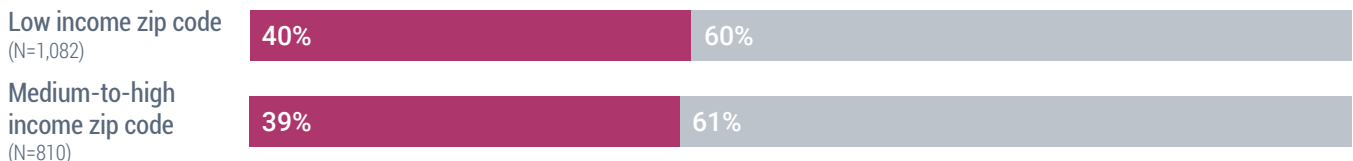
(% of firms in affected zip codes)



■ Natural disaster-related losses ■ No reported losses

SHARE OF FIRMS REPORTING LOSSES FROM A NATURAL DISASTER BY ZIP CODE³

(% of firms in affected zip codes)



■ Natural disaster-related losses ■ No reported losses

¹ Race and ethnicity are not mutually exclusive categories. Therefore, individuals in the Hispanic category are also represented in the race categories.

² Response option 'Native American' not shown due to insufficient sample size.

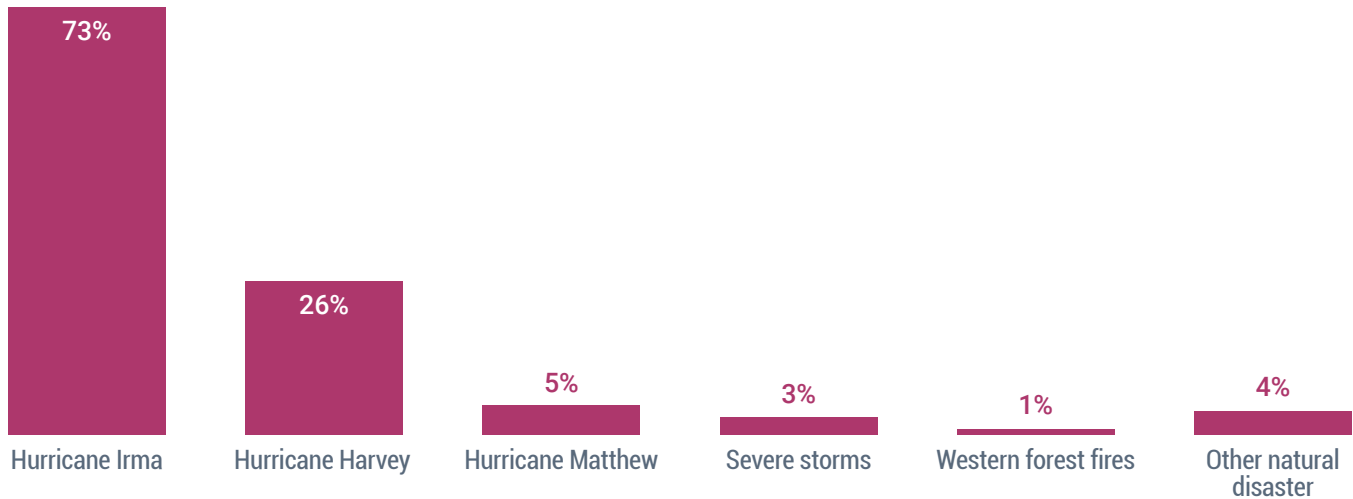
³ Zip codes are classified as low income based on Centers for Medicare & Medicaid Services designations of 'Low Income Area' or 'Low Income Area/HPSA.' Database retrieved from: <https://data.cms.gov/Marketplace-Qualified-Health-Plan-QHP-/Database-of-HPSA-and-Low-Income-ZIP-Codes-for-Issu/8wk5-pp5m>, and last updated 11 December 2017.



SHARE OF FIRMS AFFECTED BY EACH NATURAL DISASTER,^{1,2} Prior 12 Months³

(% of firms with natural disaster-related losses)

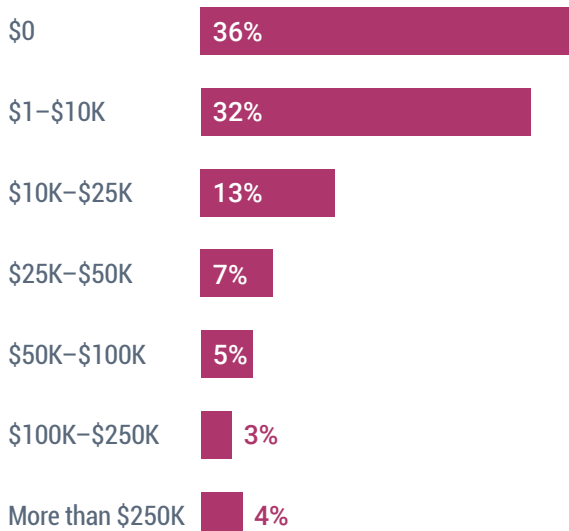
N=591



Firms affected by natural disasters were more likely to report revenue losses than asset losses.

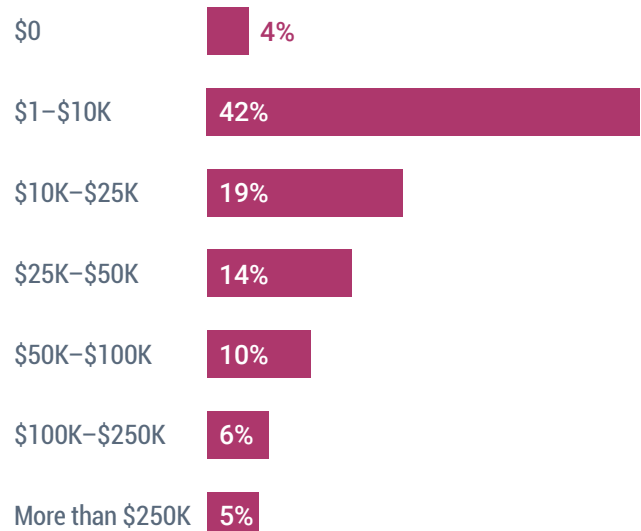
ESTIMATED NATURAL DISASTER-RELATED LOSSES IN ASSETS, Prior 12 Months

N=558
(% of firms with natural disaster-related losses)



ESTIMATED NATURAL DISASTER-RELATED LOSSES IN REVENUE, Prior 12 Months

N=564
(% of firms with natural disaster-related losses)



*Categories have been simplified for readability. Actual categories are: \$0, \$1–\$10K, \$10,001–\$25K, \$25,001–\$50K, \$50,001–\$100K, \$100,001–\$250K, >\$250K.

1 Response option 'unsure' not shown in chart. See [Appendix](#) for more detail.
 2 Respondents could select multiple options.
 3 Approximately Q4 2016 through Q4 2017.

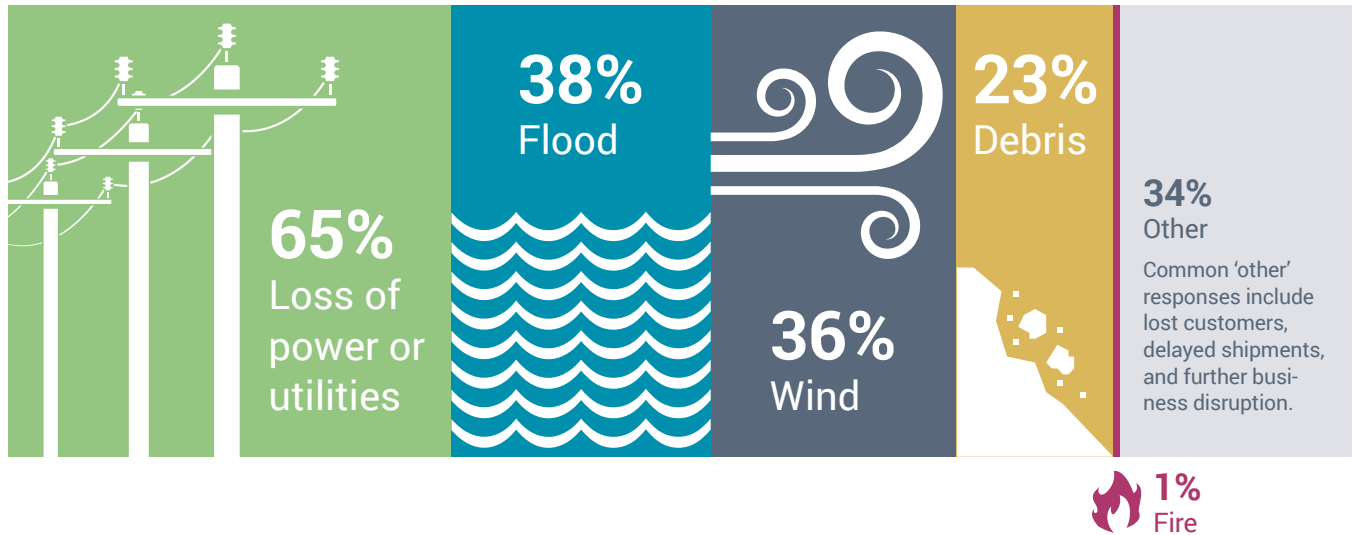
DEMOGRAPHICS (CONTINUED)



CAUSES OF DAMAGE OR LOSSES^{1,2}

(% of firms with natural disaster-related losses)

N=590

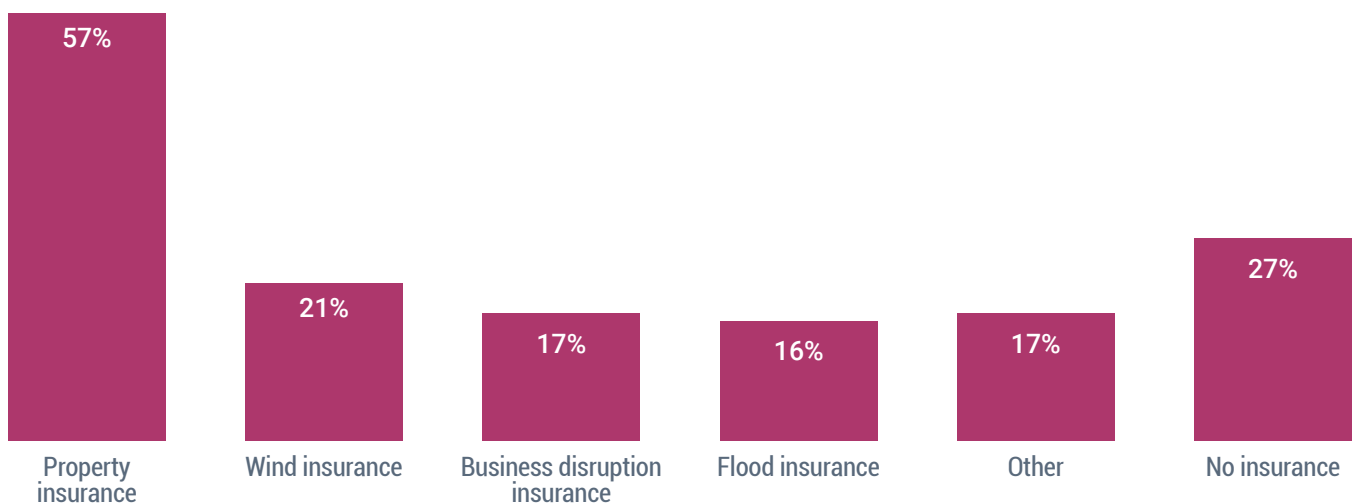


Affected firms' insurance holdings appear mismatched to the sources of their damages, leaving uncovered losses.

TYPE OF INSURANCE AT TIME OF DISASTER²

(% of firms with natural disaster-related losses)

N=588



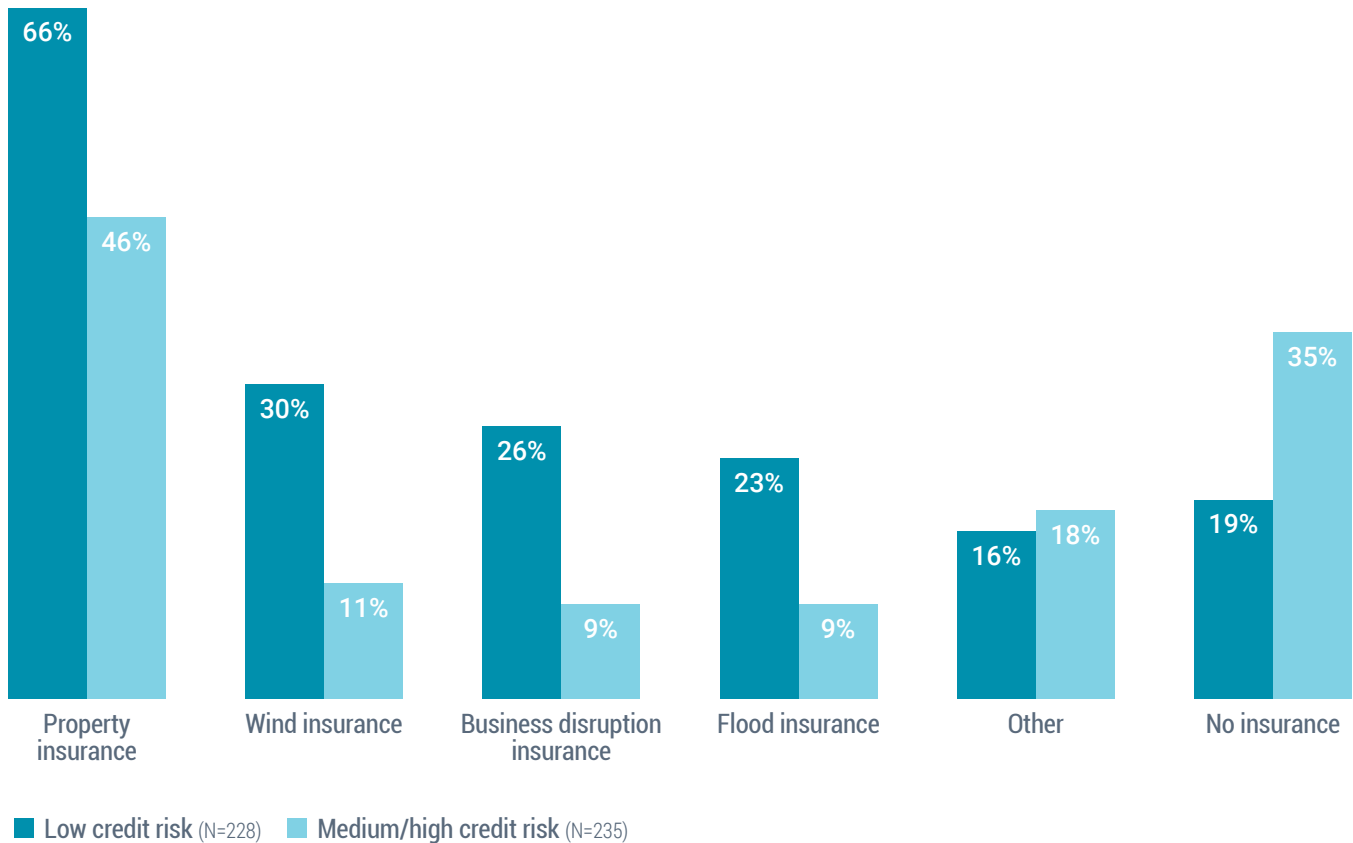
¹ Response option 'drought' was selected by 0% of respondents, and is not shown in the chart.
² Respondents could select multiple options.



Higher credit risk firms affected by natural disasters were less likely to hold insurance at the time of disaster.

TYPE OF INSURANCE AT TIME OF DISASTER BY CREDIT RISK^{1,2}

(% of firms with natural disaster-related losses)



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 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.

2 Respondents could select multiple options.

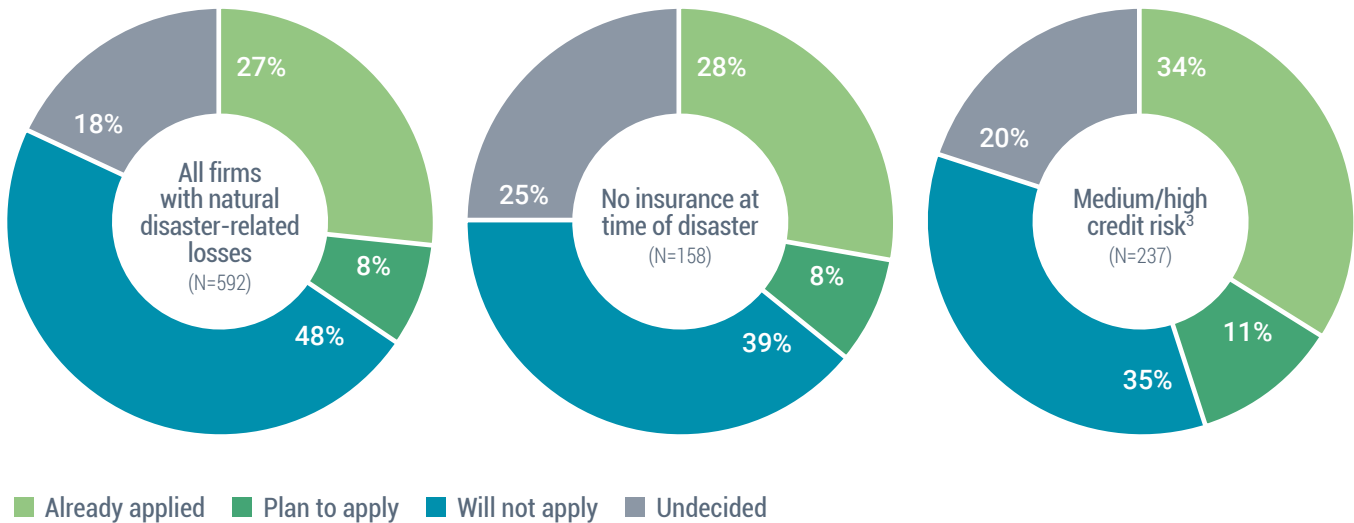


Many firms affected by natural disasters did not apply for disaster relief assistance.

DEMAND FOR DISASTER RELIEF ASSISTANCE^{1,2}

N=589

(% of firms with natural disaster-related losses)



SOURCES OF DISASTER RELIEF ASSISTANCE^{1,4,5}

N=204

(% of firms that applied or plan to apply for assistance)



¹ Disaster relief assistance refers to grant or loan assistance used to respond to and recover from major disasters or emergencies.

² Percentages may not sum to 100 due to rounding.

³ 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.

⁴ Response option 'unsure' not shown in chart. See [Appendix](#) for more detail.

⁵ Respondents could select multiple options.

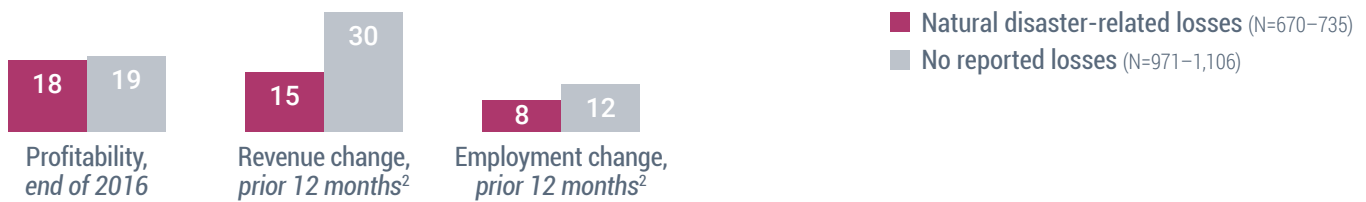
IMPACT ON FIRM PERFORMANCE



Firms affected by natural disasters reported sizeable revenue and employment gaps, and elevated incidence of financial challenges compared to firms without losses.

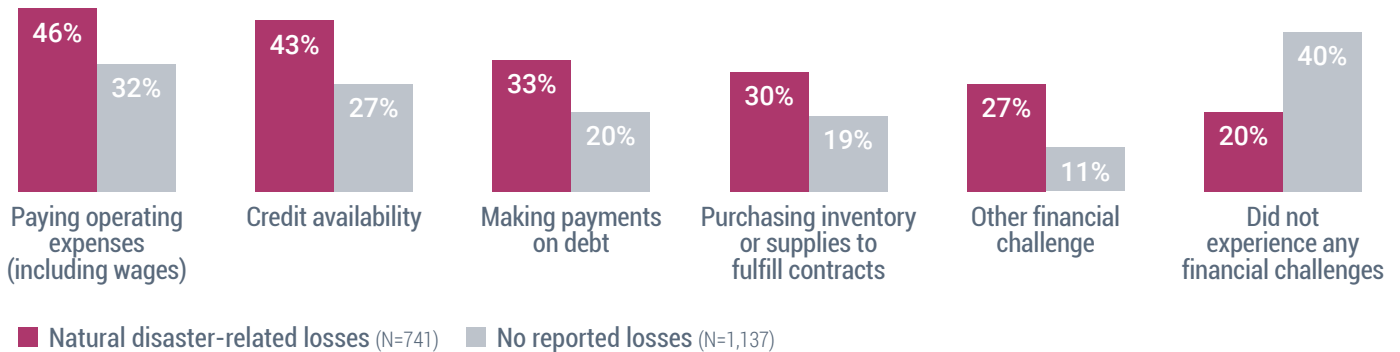
PERFORMANCE DIFFUSION INDEX¹

(% of firms in affected zip codes)



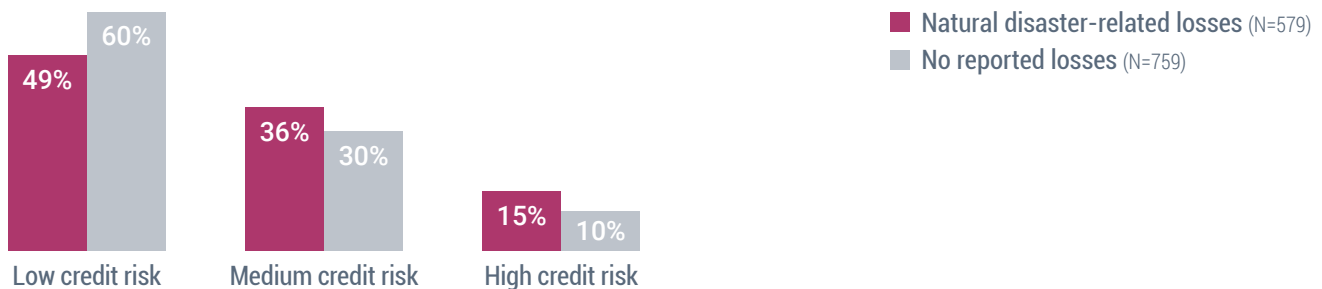
FINANCIAL CHALLENGES,³ Prior 12 Months²

(% of firms in affected zip codes)



CREDIT RISK OF FIRM⁴

(% of firms in affected zip codes)



1 For profitability, the index is the share profitable minus the share not profitable. For revenue and employment growth, the index is the share reporting positive growth minus the share reporting negative growth.

2 Approximately Q4 2016 through Q4 2017.

3 Respondents could select multiple options.

4 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.

DEMAND FOR FINANCING



Affected firms sought credit at higher rates than unaffected firms, but typically had small financing needs.

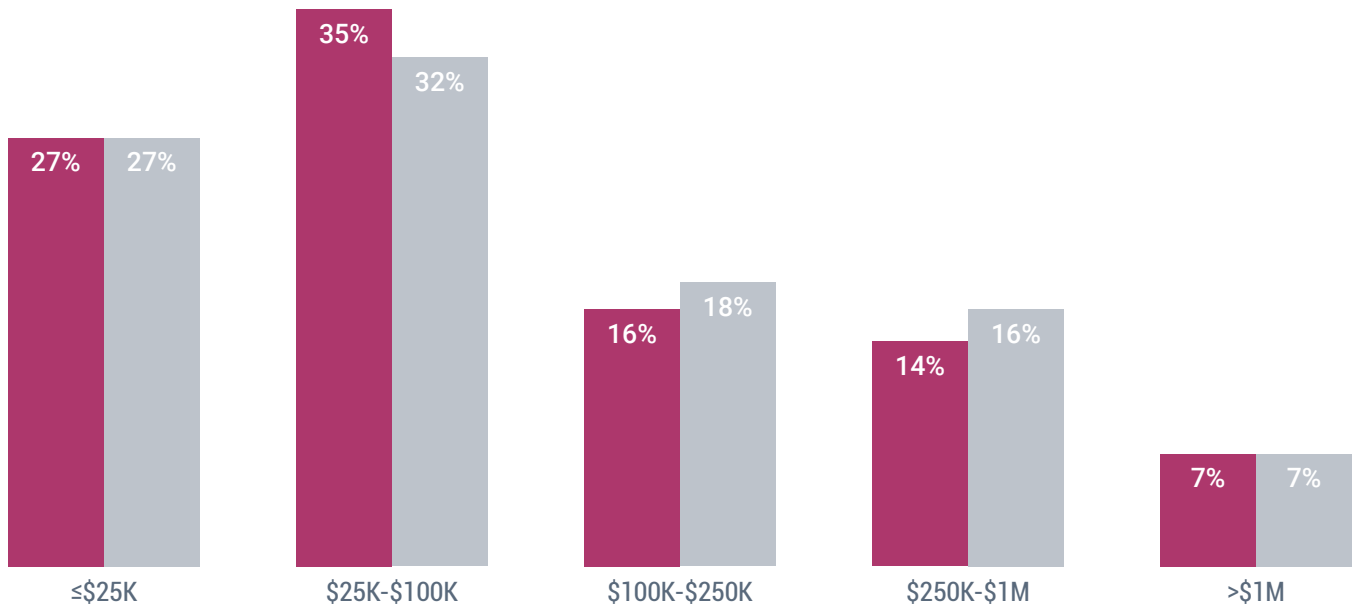
SHARE THAT APPLIED FOR FINANCING,¹ Prior 12 Months²

(% of firms in affected zip codes)



TOTAL AMOUNT OF FINANCING SOUGHT^{1,3}

(% of applicants in affected zip codes)



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

■ Natural disaster-related losses (N=350) ■ No reported losses (N=324)

1 Survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications/outcomes may include applications filed before the storm losses.
 2 Approximately Q4 2016 through Q4 2017.
 3 Percentages may not sum to 100 due to rounding.

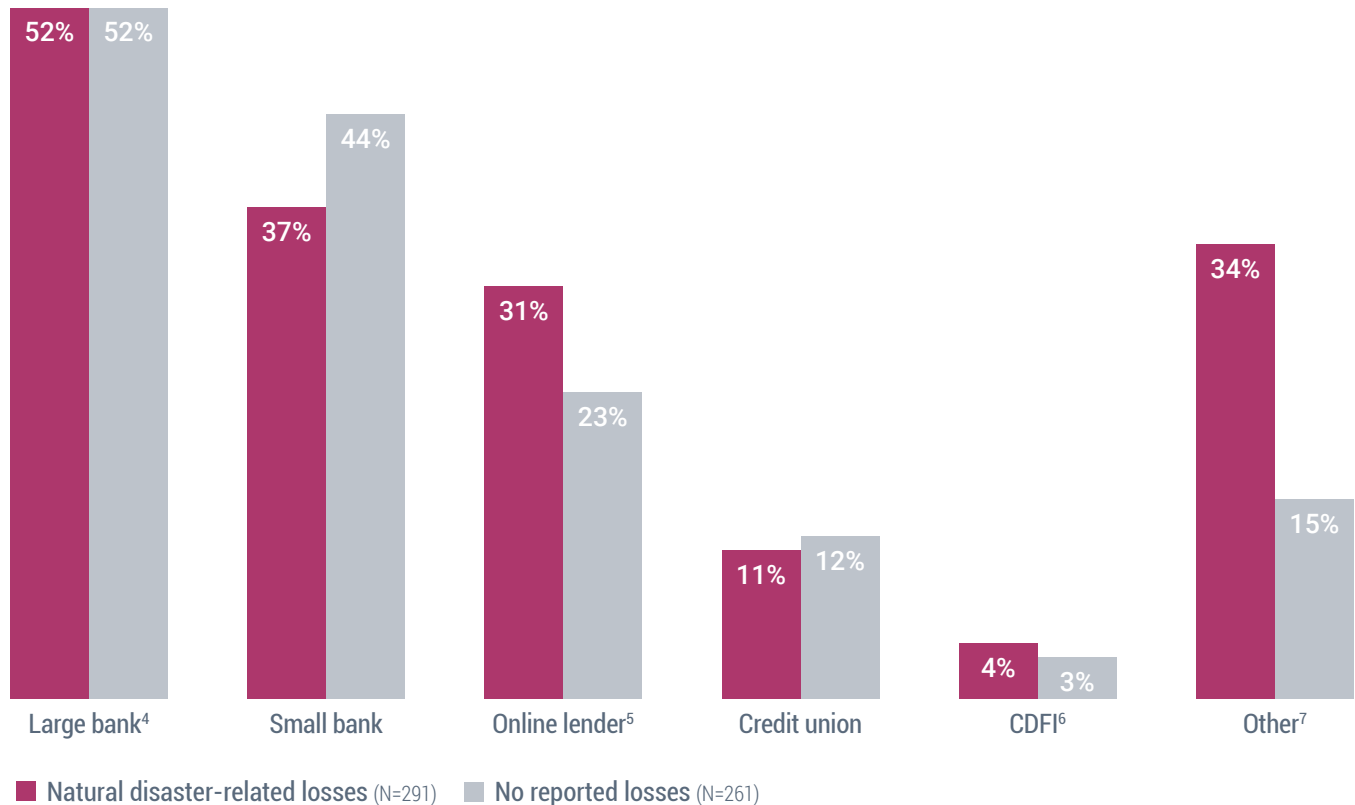
DEMAND FOR FINANCING (CONTINUED)



Among affected firms that applied for financing, **88%** applied for a loan, line of credit, or cash advance in the prior 12 months.¹ (N=361)

LOAN AND LINE OF CREDIT SOURCES² APPLIED TO³

(% of loan/line of credit applicants in affected zip codes)



1 Approximately Q4 2016 through Q4 2017.

2 Respondents could select multiple options. Loan/line of credit includes cash advance.

3 Survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications/outcomes may include applications filed before the storm losses.

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

5 'Online lenders' are defined as nonbank alternative and marketplace lenders, including Lending Club, OnDeck, CAN Capital, and PayPal Working Capital.

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

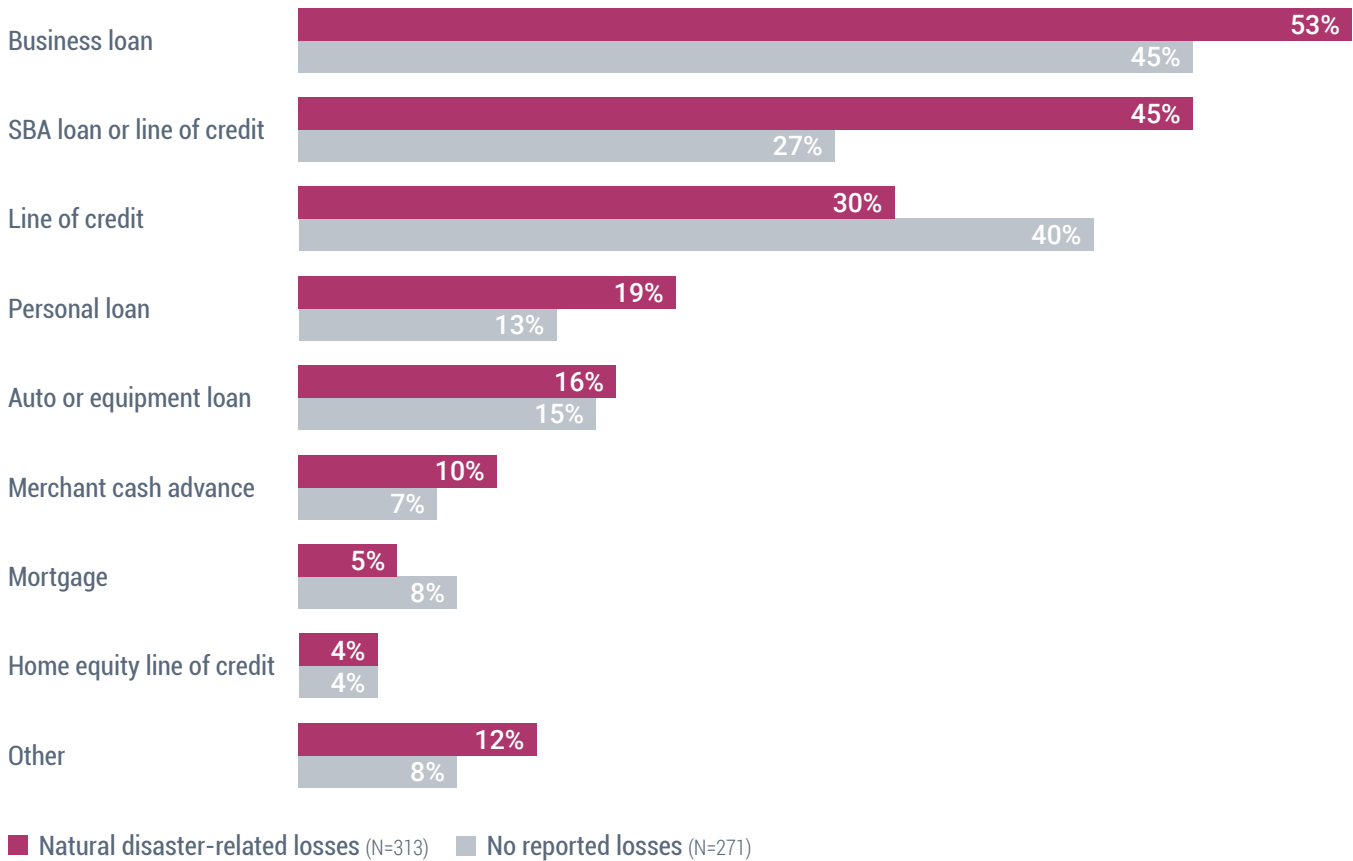
7 Respondents who selected 'other' were asked to describe the source. They most frequently cited auto/equipment dealers, farm-lending institutions, friends/family/owner, nonprofit organizations, private investors, or government entities.



SBA loans and lines of credit were important products for firms affected by natural disasters.

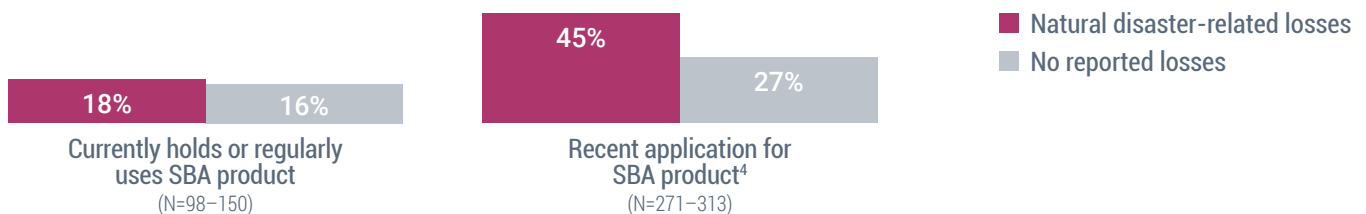
APPLICATION RATES FOR LOAN AND LINE OF CREDIT PRODUCTS^{1,2}

(% of loan/line of credit applicants in affected zip codes)



SBA LOANS AND LINES OF CREDIT: EXISTING DEBT VERSUS RECENT APPLICATIONS^{2,3}

(In affected zip codes: % of firms with existing loan/line of credit; % of loan/line of credit applicants)

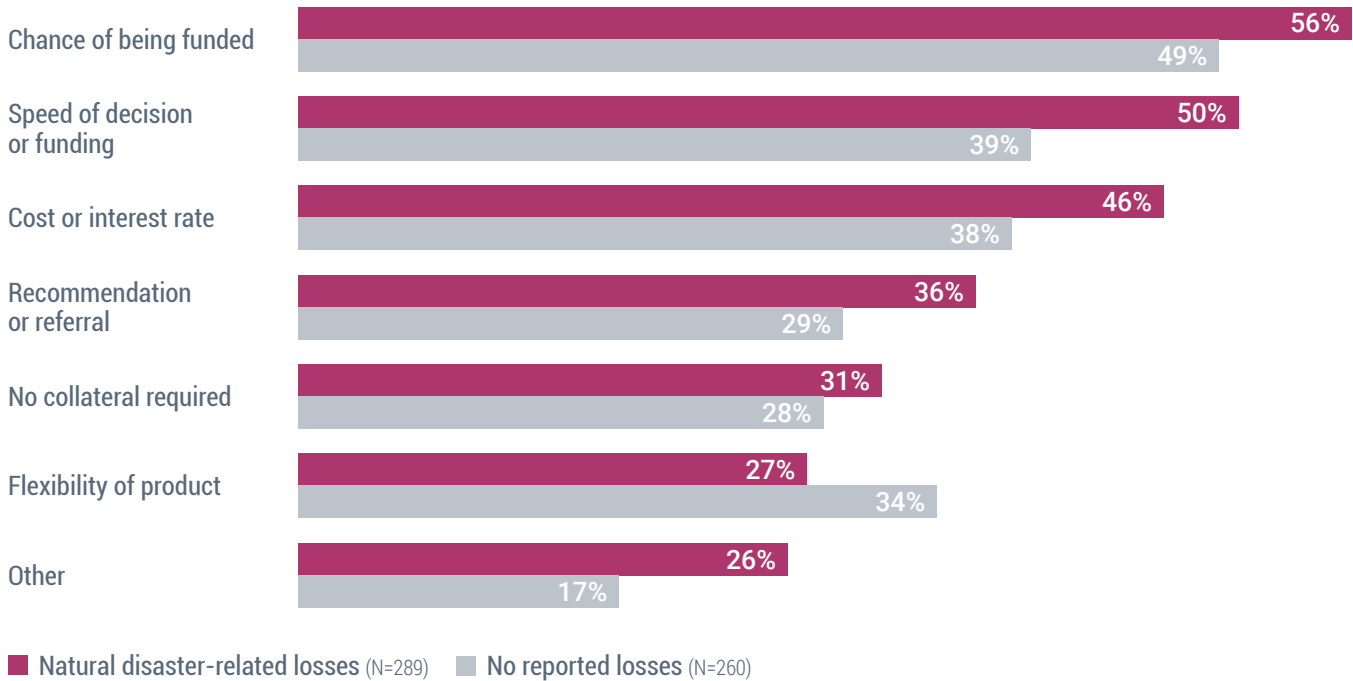


1 Respondents could select multiple options. Loan/line of credit includes cash advance.
 2 Survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications/outcomes may include applications filed before the storm losses.
 3 Firms that applied for a loan or line of credit product in the prior 12 months were not asked to detail other pre-existing loan or line of credit holdings, if any. Therefore, loan/line of credit applicants are not included in the 'currently holds or regularly uses SBA product' option.
 4 Prior 12 Months. Approximately Q4 2016 through Q4 2017.



REASONS FOR PURSUING A LOAN OR LINE OF CREDIT PRODUCT^{1,2,3}

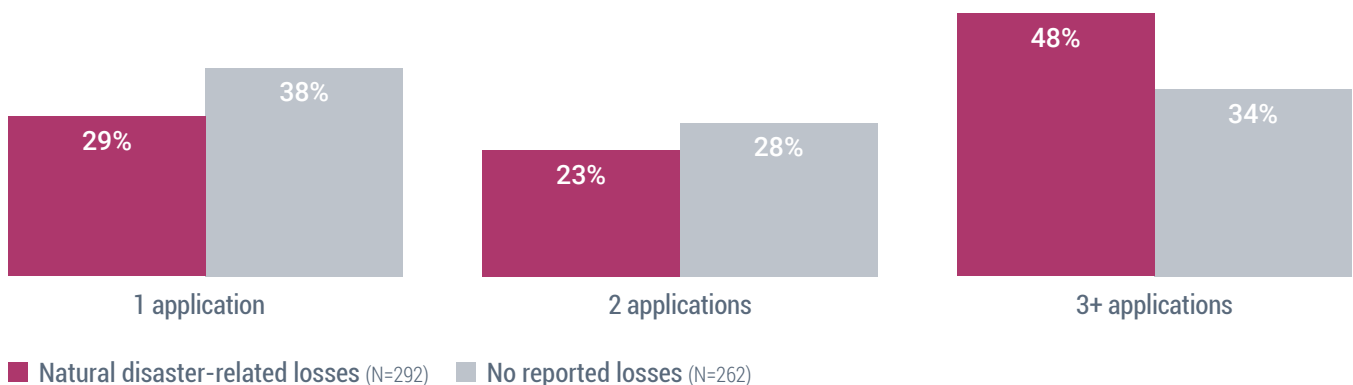
(% of loan/line of credit applicants in affected zip codes)



Firms affected by natural disasters tended to base their borrowing strategy on the chance of being funded or the speed of decision or funding, and often submitted multiple applications.

NUMBER OF LOAN OR LINE OF CREDIT APPLICATIONS SUBMITTED^{2,3}

(% of loan/line of credit applicants in affected zip codes)



1 Respondents could select multiple options.

2 Loan/line of credit includes cash advance.

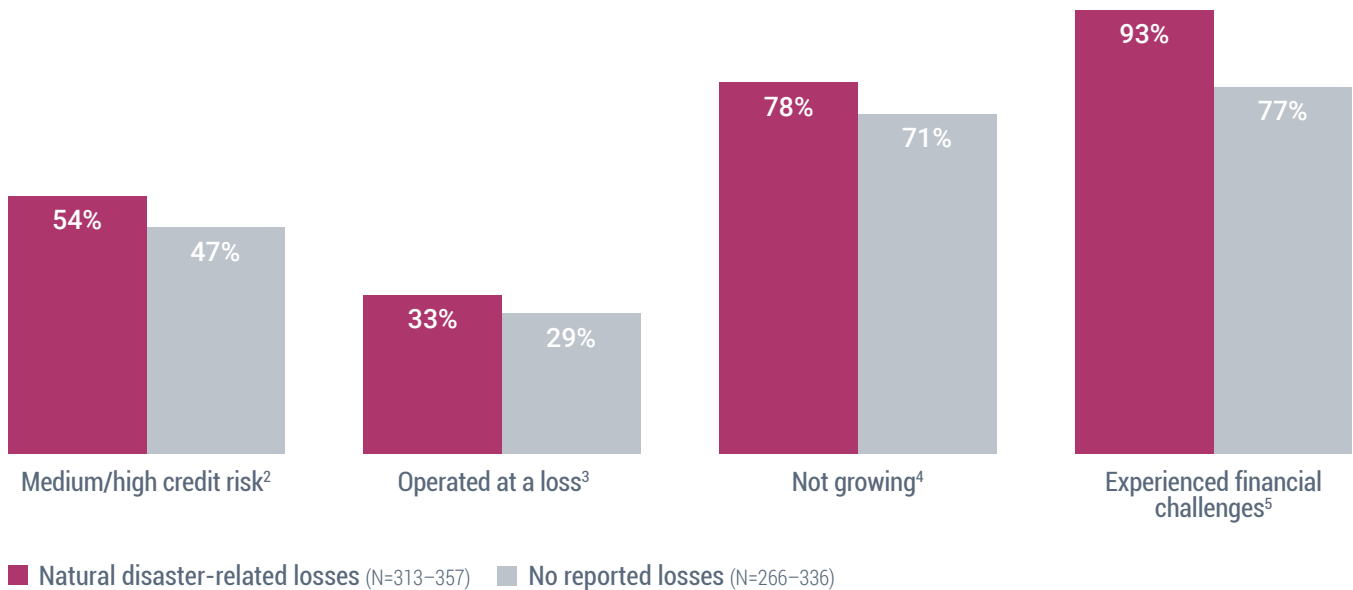
3 Survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications/outcomes may include applications filed before the storm losses.

FINANCING OUTCOMES



PERFORMANCE OF APPLICANTS¹

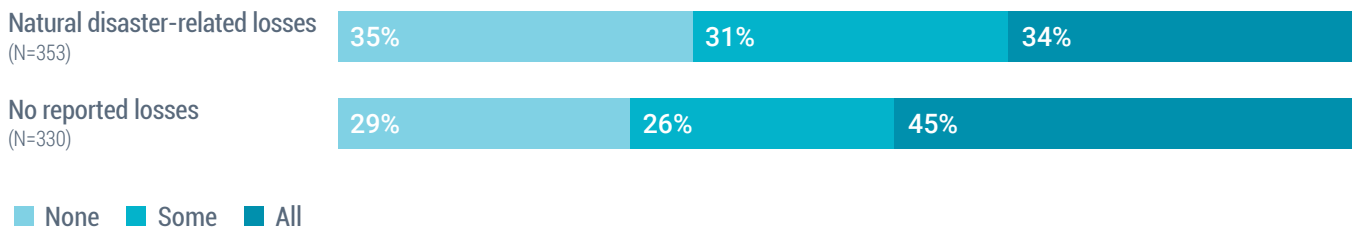
(% of applicants in affected zip codes)



Perhaps reflecting their higher risk factors, firms affected by natural disasters were less likely to receive all the funding they applied for.

TOTAL FINANCING RECEIVED¹

(% of applicants in affected zip codes)



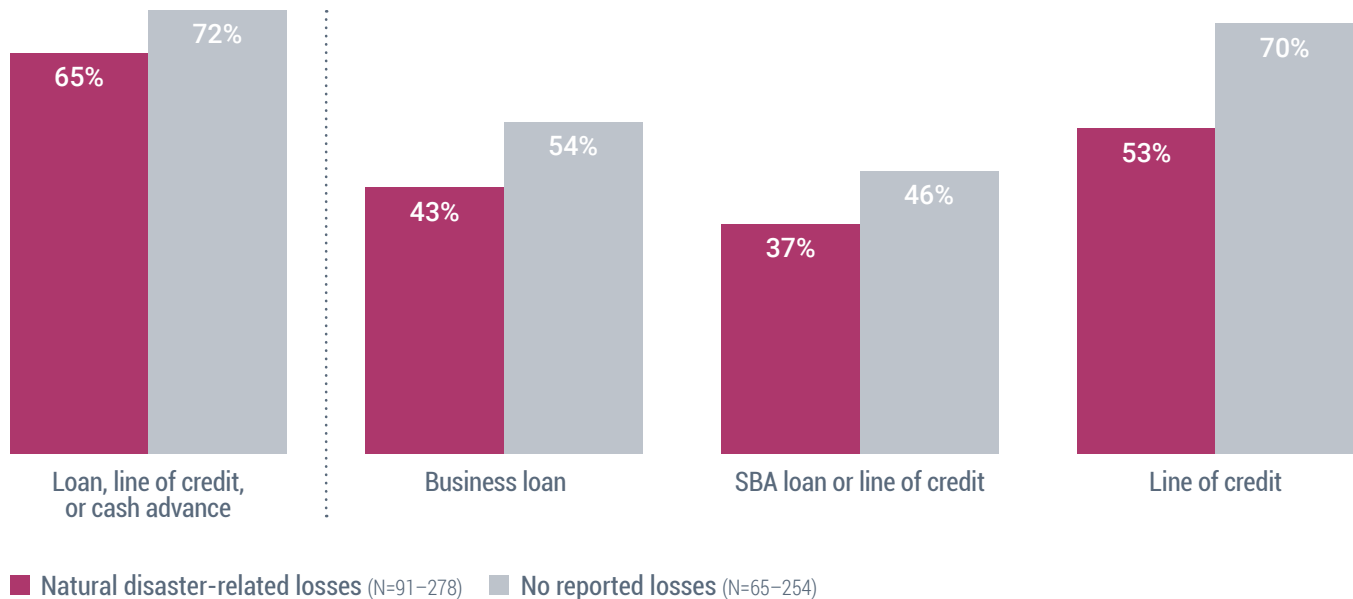
1 Survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications/outcomes may include applications filed before the storm losses.
 2 Self-reported business credit score or personal credit score, depending on which is used to obtain financing 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.
 3 At the end of 2016.
 4 Firms that did not increase revenues and employees in the prior 12 months, nor planned to increase or maintain their number of employees.
 5 In the prior 12 months. Approximately Q4 2016 through Q4 2017.

FINANCING OUTCOMES & SUMMARY



APPROVAL RATE BY TYPE OF LOAN/LINE OF CREDIT^{1,2,3}

(% of loan/line of credit applications from firms in affected zip codes)



FINANCING SUMMARY BY EXTENT OF REVENUE AND ASSET LOSSES^{3,4}

(% of firms with natural disaster-related losses)

	Extent of revenue losses			Extent of asset losses		
	Low N=82-239	Medium N=102-183	High N=90-121	Low N=77-180	Medium N=69-112	High N=65
Held business disruption, wind, flood, or property insurance at time of disaster	52%	64%	71%	54%	63%	72%
Applied for disaster relief assistance	11%	36%	48%	22%	38%	57%
Applied for financing, prior 12 months	34%	56%	76%	43%	63%	66%
Applied for both disaster assistance & financing	7%	28%	45%	16%	31%	48%
Approved for financing	59%	71%	71%	58%	67%	

*Grey areas indicate an insufficient number of observations.

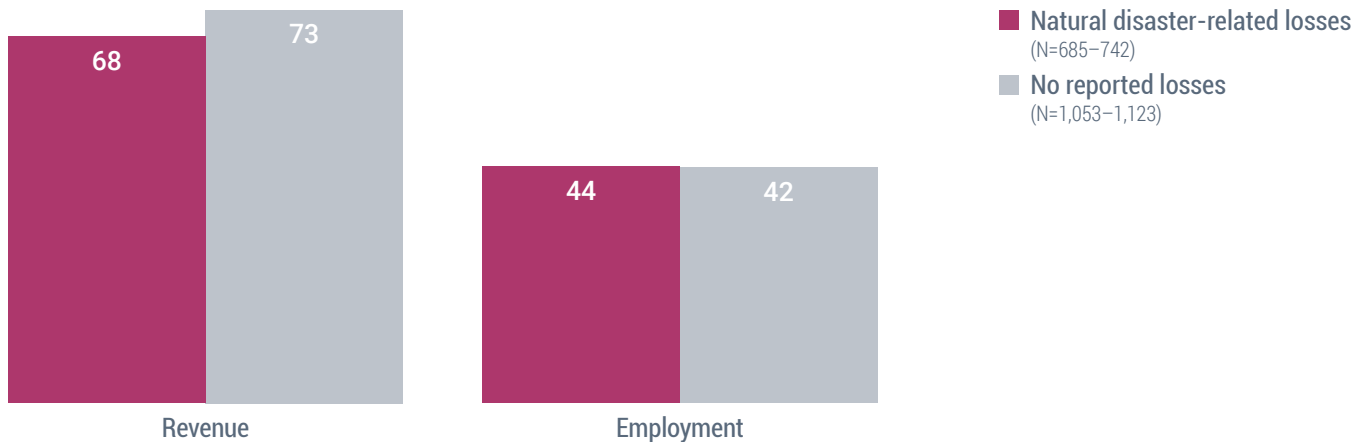
- 1 Percent of loan/line of credit applications for each product type that were approved for at least some financing. Loan/line of credit includes cash advance.
- 2 Other loan/line of credit products not shown due to insufficient sample size.
- 3 Survey respondents were asked about their credit applications during the prior 12 months. Affected firms' credit applications/outcomes may include applications filed before the storm losses.
- 4 'Low' refers to \$1-\$10K in losses, 'Medium' refers to \$10K-\$50K in losses, and 'High' refers to >\$50K in losses.

CONCLUSION

Affected firms expressed consistent levels of optimism to unaffected firms.

EXPECTATIONS DIFFUSION INDEX,¹ Next 12 Months²

(% of firms in affected zip codes)



CONCLUSION

A natural disaster can last minutes or days, but the road to recovery for communities—and for small businesses—can take months or years. Planning for community and economic resilience will look different based on whether a region is more prone to fires, earthquakes, tornadoes, flooding, or other events. However, in all cases, proactive preparation and risk mitigation requires building partnerships and plans across sectors and disciplines well in advance of the next emergency. By working together, the community development field can support small business recovery after natural disasters, ensuring that these businesses continue to be important engines of the American economy.

KEY OPPORTUNITIES TO SUPPORT SMALL BUSINESS RECOVERY AND RESILIENCE

Support Holistic and Equitable Recovery in the Aftermath of Disaster

After a disaster, small business owners have a variety of immediate needs, from the need for shelter and emergency services for themselves and their employees, to getting back up and running. On a personal level, there may be opportunities to connect individuals to other critical services in the community, such as emergency shelter or pro bono legal assistance. Such holistic supports could be especially significant for lower-income small business owners and employees, who may otherwise lack robust social and profes-

sional networks and connections to such services. In terms of getting businesses back up and running, the community development response will differ depending on whether the need is for relocating, rebuilding, making repairs and replacing equipment, or simply resuming operations.

Access to funds in the weeks, months, and years after a disaster influences the ability of small businesses to survive and to minimize disruption. As the data in this report reveal, poor credit can impact a small business owner's ability to secure financing in the aftermath of a disaster. This finding is particularly relevant for minority business owners, who tend to have more difficulty securing financing. This suggests the ongoing

¹ The index is the share reporting expected positive growth minus the share reporting expected negative growth.

² Approximately Q4 2017 through Q4 2018.

CONCLUSION (CONTINUED)

ing importance of building credit scores and providing alternatives to predatory lenders. Having a plan in place that considers these issues can help ensure that recovery efforts are inclusive.

The most significant funding for recovery after a disaster comes from the federal government. When there is a federal disaster declaration, the Small Business Administration (SBA) administers low-interest loans for businesses, homeowners, and renters who have suffered damage. The Federal Emergency Management Agency (FEMA) provides grants to small businesses through the same application process as the SBA. The federal Housing and Urban Development Department (HUD) administers Community Development Block Grant Disaster Recovery (CDBG-DR) grants that can be used to provide small business loans. However, federal disaster relief funds can take weeks, months, or even years to reach communities. They also come with expiration dates, specific eligibility requirements, and restrictions on how they are spent. For example, if a small business owner uses a credit card for disaster-related expenses, they cannot use federal funds to repay it. Furthermore, most state and local governments do not have funds set aside for disasters, and must appropriate funds after a declaration is made, which can take time. This highlights the **need for small loans and grants that can provide a bridge for small businesses** between the time when a disaster strikes and state and federal funds first become available, as well as after they are no longer available.

Leverage Partnerships to Rapidly Deploy Funds when a Disaster Strikes

Demand for early and ongoing disaster recovery funding from small businesses creates an **opportunity for innovation** in the community development field. The landscape of non-federal funding for disaster recovery is sparse and varied. The State of Florida has a small business emergency bridge loan that can be activated by the governor. After flood-

ing in 2016, business organizations in Louisiana organized a fund for small business disaster recovery called the Louisiana Small Business Rebirth Fund. The Texas Small Business Rebuild Initiative, developed after Hurricane Harvey, is a partnership between the public, private, and philanthropic sectors to provide no interest loans up to \$25,000 to small businesses. The North Carolina Small Business Recovery fund combines public, private, and philanthropic dollars to make rapid, low-interest loans to small businesses in the immediate aftermath of a storm. In addition to these examples, two other innovative approaches to disaster relief for small businesses come from California and New York, states that have both experienced significant disasters in recent years.

In response to the Northern California wildfires in late 2017, the California Infrastructure and Economic Development Bank (IBank) committed funding to the Disaster Relief Loan Guarantee Program, which offers **loan guarantees** to help small business owners secure term loans or lines of credit. Although California had a small business loan guarantee program, including the Disaster Relief Loan Guarantee Program, in place for decades, the availability of funds set aside for disaster recovery was unpredictable. The increasing severity and regularity of natural disasters prompted the IBank Board to approve a commitment of \$10 million in permanent funding specifically for disaster relief loan guarantees. The funding is available on a **rolling basis**, providing both gap funds in the immediate aftermath of an event and long-term disaster relief, even after the deadlines for other sources of disaster funding have passed. IBank is able to guarantee up to 90-95% of a qualified disaster relief loan, allowing small businesses to secure more favorable interest rates from private lenders and funding that might otherwise not be available. IBank's nonprofit Financial Development Corporation partners, located across the state, work closely with local banks to find the best fit for small businesses. Loans are considered by the IBank and

lenders on an individual basis, with typical activities including repairs and recovery from economic injury, such as loss of income.

When Hurricane Sandy hit the New York region in 2012, an existing small business revolving loan fund became the New York State Small Business Recovery Fund (Recovery Fund). The Recovery Fund began giving out loans within a week of the storm, providing 1 percent interest loans of up to \$25,000 and grants of up to \$10,000 to small businesses for operations and repairs. The city's Economic Development Corporation established the fund with public capital in the first-loss (highest risk) position, and then **leveraged private loan capital** totaling \$30 million, coordinated through the New York State Bankers Association. New York Business Development Corporation (NYBDC), managed the Recovery Fund at no cost, reaching 600 small businesses affected by the storm. They made decisions on loan applications within one day by using only public records—credit reports and tax returns—rather than individual records that were often lost in the storm. Site visits helped reduce fraud. Given NYBDC's experience in early-phase disaster recovery efforts, the city and state each independently selected them to manage federal recovery dollars, lending continuity to mid-term recovery work.

The experience of the Recovery Fund also highlights the importance of support services to help small businesses access these funds. Staff at the New York City's Department of Small Business Services (SBS) were already trained to help navigate the loan application process and could quickly pivot from general business services to disaster response, serving as a conduit between business owners and the Recovery Fund. SBS' Business Solutions Centers used their existing customer relationship management system to efficiently reach out on recovery services to businesses in impacted areas, and manage intake of new businesses post-storm. In addition to the Recovery Fund, a public-private micro-grant fund distrib-

CONCLUSION (CONTINUED)

uted small dollar grants (under \$5,000) to businesses for equipment and repairs not covered by insurance.

Help Small Businesses Recover at the Neighborhood Scale

Once small businesses are able to re-establish operations, they may need further support to fully recover. Depending on the nature of the disaster and the location, it may be more effective to provide this assistance on a neighborhood or corridor level. Federal and state dollars can help with neighborhood-level infrastructure repairs and upgrades that will make small businesses resilient in the long run. CDBG-DR funding often goes toward neighborhood-wide projects.

If only a handful of small businesses in a commercial district receive disaster recovery assistance, it may not actually help a business survive and thrive unless their neighbors are open for business too. After Hurricane Sandy, New York City's Storefront Improvement Program bundled public and private dollars for small (up to \$20,000) exterior repair grants to businesses along damaged corridors. The grants were grouped strategically to bring back foot traffic to an entire corridor. The program's public-private funding also supported marketing efforts to let customers know that the shops in these corridors were open for business. Community groups and business improvement districts, with which SBS had strong previous relationships, helped get the word out by walking the commercial corridors and by reaching out to their members.

Neighborhood level planning efforts in the wake of a disaster will affect small businesses in the long term. For example, following the Northern California wildfires in 2017, Sonoma County is developing a Renewal Enterprise District, creating a countywide joint power authority to plan for and finance new housing in areas within walking distance of transit and shopping districts.

Foster Collaboration and Develop a Community-Wide Plan Ahead of Time

Public dollars can help leverage private investment in disaster recovery. Banks can receive Community Reinvestment Act credit for loans and grants, as well as in-kind investment such as providing underwriting services and work space, in FEMA-declared disaster areas. If needs are being met within the geography that a bank normally serves, this investment can take place [in other parts of the country](#).

In some cases, it may be appropriate for regional stakeholders to establish a recovery fund with commitments from different sectors such as banks, CDFIs, and philanthropy before a disaster strikes. The ratio of public to private or philanthropic capital reserve in the fund and the ratio of loans to grants will depend on regional needs and capacity. In some cases, assembling different sources of funding into a single fund can help overcome the limitations of each source (e.g. strictly private or public funds) and provide a bridge to other public and private revenue streams that may become available later. It is critical to ensure that these different sources of funding are complementary and not so restrictive that they are hard to get out the door quickly.

Whether developing a new program or redesigning an existing one to meet disaster recovery needs, the ability of multiple partners to quickly come to agreement on numerous decisions requires a foundation of trust. Cross-sector collaboration requires intentional relationship building and a shared understanding of the various partners' motivations and constraints.

Build Small Business Resilience and Mitigate Future Risk

To prepare for future disasters, small businesses will need support and guidance in assessing their own risk and taking steps to mitigate it. Typically, resources for storm

preparation and resilience cater to larger businesses. Cross-sector, cross-agency collaboration can help address this gap. For example, New York City SBS partners with a third party consulting firm to conduct individualized small business risk assessments and provides a small grant to help implement the recommendations. SBS works with the city's Office of Emergency Management and the Mayor's Office of Recovery and Resilience to offer disaster preparation seminars and planning materials specifically tailored to meet the needs of small businesses. Businesses can use these materials to generate their own preparedness plan, including making sure they have adequate insurance, such as property, casualty, and business interruption coverage. Small businesses that elect to go through a free, on-site risk [assessment](#) become eligible for grants up to \$3,000, for example, to pay for digitizing their records or purchasing a generator.

CONCLUSION

In the midst of a changing climate, the increasing frequency and severity of extreme weather events makes disaster preparation even more urgent. Generating interest in setting aside funds and making plans for something that has not yet happened is a challenge, but a major lesson of the examples above is that collaboration matters. The innovative responses to disasters highlighted here grew out of devastating events. Yet public sector staff, lenders, and community members rose to the occasion and gave their time, creativity, and resources beyond their normal capacity—whether it was a shopkeeper opening up their space for a community meeting or people working overtime to help businesses and individuals get back on their feet. Sustaining a drive to work across the boundaries of our normal roles, and plan ahead utilizing the lessons of past disasters, is a goal that the community development field can work towards.

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 are also contacted directly by one of 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 according to how many firms receive and complete a particular question.

DATA ANALYSIS

Survey respondents provided the zip code of their business' headquarters. We matched these zip codes to those designated by FEMA as having one or more residents approved for assistance under its IHP program for natural disasters with classifications of Major Disaster Declaration and incident start dates between 22 September 2016 and 31 December 2017.² Businesses not headquartered in these designated zip codes were excluded from this report's analysis in order to control for external circumstances

related to specific disasters and geographic variation. The FEMA-designated zip codes were also matched to U.S. Census data for individuals³ in order to compare these zip codes to the United States on various demographic variables.

Survey respondents were asked whether their business suffered losses from a natural disaster during the prior 12 months. The analysis in this report uses this variable to segment firms in FEMA-designated disaster areas that reported natural disaster-related losses from firms in FEMA-designated disaster areas that did not report related losses.⁴ Additional analysis also focuses on natural disaster-related impacts and outcomes specifically of firms in FEMA-designated disaster areas that reported natural disaster-related losses. We do not provide estimates for any firms located outside a FEMA-designated disaster area, even if they reported natural disaster-related losses in the prior 12 months.

Finally, the data presented in this report represent the experiences of both employer and nonemployer firms.⁵ We recognize differences exist between these two types of firms, but both are included in this analysis to 1) provide a more complete picture of natural disaster-related impacts and outcomes for all small firms and 2) provide information about a sufficiently large sample of small firms to increase the confidence in our estimates.

COMPARISONS TO OTHER SBCS REPORTS

The data presented in this report are **not weighted**. 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 firms not on one of our contact lists, which may lead to a non-coverage bias. However, weighting the survey responses for this analysis would require an understanding of the actual distribution by demographic variables of small firms affected and not affected by natural disasters within the time period and geographic areas analyzed. Because such a database does not exist to our knowledge, the data in this report are not weighted.

Typically, data presented in other SBCS reports are weighted, and have historically varied in terms of population scope, geographic coverage, and survey question wording, making the results in this report **not comparable to past or future SBCS reports**. Although we attempt to minimize biases by confining our analysis to firms located in zip codes designated as affected by natural disasters, the SBCS is still potentially affected by nonresponse and non-coverage biases, which should be taken into consideration when interpreting the results.

1 Small businesses are defined as having fewer than 500 full- or part-time employees in addition to the owner(s).

2 Zip codes designated as affected are defined as having one or more residents approved for assistance under FEMA's IHP program for natural disasters with classifications of Major Disaster Declaration and incident start dates between 22 September 2016 and 31 December 2017. Zip codes were retrieved from FEMA Housing Assistance Program Data (<https://www.fema.gov/media-library/assets/documents/34758>), updated 9 March 2018, and were matched on FEMA Disaster Declarations Summary (<https://www.fema.gov/media-library/assets/documents/28318>), updated 6 March 2018. FEMA and the Federal Government cannot vouch for the data or analyses derived from these data after the data have been retrieved from the Agency's website(s) and/or Data.gov.

3 "DP02: Selected Social Characteristics in the United States." 2012-2016 American Community Survey 5-Year Estimates. U.S. Census Bureau's American Community Survey Office.

4 Logistic regressions were performed to guide the analysis and help determine which data was ultimately presented in this report. For logistic regression results, see the [Appendix](#).

5 Employer firms have at least one full- or part-time employee in addition to the owner(s). Nonemployer firms do not have any additional employees.