Small Business Owner Race, Liquidity, and Survival

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Abstract

The contributions of the small businesses sector to the U.S. economy are often noted in periods of economic growth, and the fragility of the sector is a core focus of policy in an economic downturn. The sector is important not only because of its contributions to job growth, real economic activity, innovation, and economic dynamism, but also because of the impact it makes on the financial lives of the 30 million families whose household income and wealth is tied to the suc cess or failure of the businesses they own. Black and Hispanic Americans comprise a substantial and growing share of small business owners. A view of the financial performance of the firms they own is critical to understanding the extent to which the sector can deliver broad-based growth during an expansion, or where to focus policy attention and resources during a downturn. However, little recent data exists on differences in financial performance by owner race.

This report attempts to fill this gap by leveraging voter registration data from Florida, Georgia, and Louisiana to create a sample of nearly 150,000 small businesses with self-identified owner race. We use this new data asset to inform differences in small business financial outcomes and survival by owner race from 2013 to 2019. Based on a cohort of firms founded from 2013 through 2014 and their financial outcomes during the first several years, we find that Black- and Hispanic-owned firms are well-represented among a segment of dynamic firms with organic growth but underrepresented among firms using external financing. We also find that Black- and Hispanic-owned businesses face challenges of lower revenues, profit margins, and cash liquidity. Firms with Black owners, particularly owners under the age of 35, were the most likely to exit in the first three years. However, firm exits can be better explained by revenue levels and cash liquidity: firms with com parable revenues and cash reserves are predicted to have similar exit probabilities, regardless of owner race.

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Executive Summary

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The financial challenges small businesses face may be even more substantial for businesses with Black and Hispanic owners.

The contributions of the small businesses sector to the U.S. economy are often noted in periods of economic growth, and the fragility of the sector is a core focus of policy in an economic downturn. The sector is important not only because of its contributions to job growth, real economic activity, innovation, and economic dynamism, but also because of the impact it makes on the financial lives of the 30 million families whose household income and wealth is tied to the success or failure of the businesses they own. Black and Hispanic Americans comprise a substantial and growing share of small business owners. A view of the financial performance of the firms they own is critical to understanding the extent to which the sector can deliver broad-based growth during an expansion, or where to focus policy attention and resources during a downturn, yet little recent data exists on differences in financial performance by owner race.

This report attempts to fill this gap by leveraging voter registration data from Florida, Georgia, and Louisiana to create a sample of nearly 150,000 small businesses with self-identified owner race. We use this new data asset to inform differences in small business financial outcomes and survival by owner race from 2013 to 2019.

Black and Hispanic Americans comprise a substantial and growing share of small business owners.

Our findings are five-fold:

Finding 1: Black- and Hispanic-owned businesses are well-represented among firms that grow organically, but underrepresented among firms with external financing.

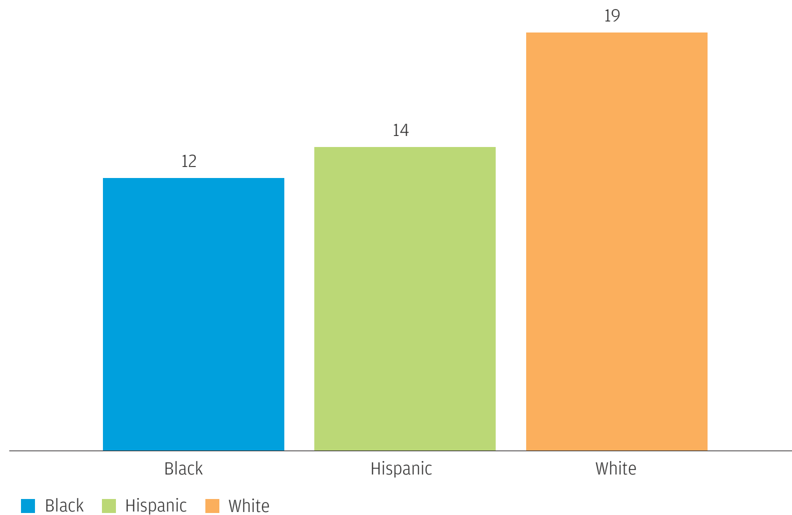
Finding 2: Black- and Hispanic-owned businesses face challenges of lower revenues, profit margins, and cash liquidity.

Finding 3: Firms with Black owners, particularly owners under the age of 35, were the most likely to exit in the first three years.

Finding 4: Black- and Hispanic-owned businesses with comparable revenues and cash reserves are just as likely to survive as White-owned businesses.

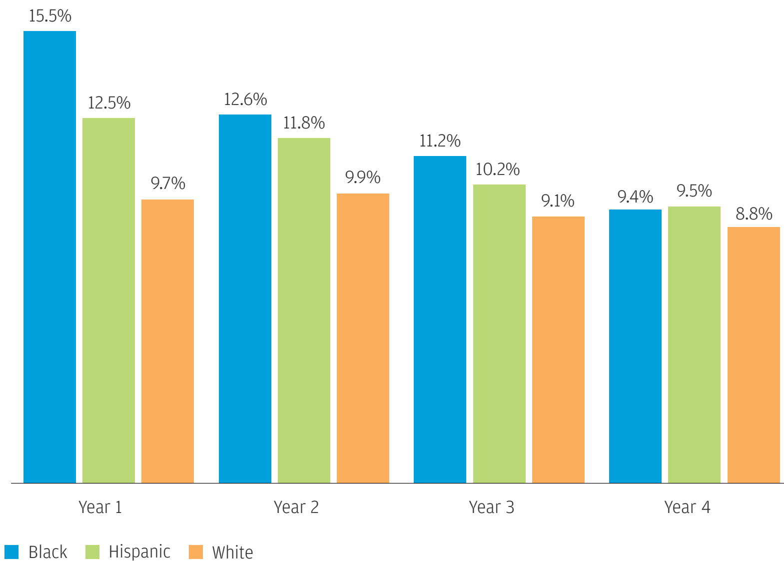
Finding 5: Racial gaps in small business outcomes are evident across cities, even in cities with large Black or Hispanic populations.

Our findings suggest that Black- and Hispanic-owned businesses may be disproportionately affected during the current economic downturn, though support to these businesses through liquid assets and access to markets could materially support their survival. Moreover, while these findings suggest that opportunity for the small business sector to deliver substantial wealth creation to Black and Hispanic families may be limited, policies that target smaller small businesses, businesses with younger owners, and businesses owned by women may best support broad-based growth during a recovery.



Note: Sample includes firms founded in 2013 and 2014. Cash buffer days are calculated as the number of days during which a firm could cover its typical outflows in the event of a total disruption in revenues.

Source: JPMorgan Chase Institute



Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

Introduction

Over the last five years, the JPMorgan Chase Institute has provided insights on the challenges small businesses face in order to survive and grow (Farrell, Wheat, and Mac 2020). Their profit margins are slim and their revenue growth, moderate. They struggle with managing irregular cash flows and maintaining adequate cash reserves that could mitigate adverse shocks to those cash flows. Despite these challenges, small businesses are dynamic, and those that survive make substantial economic contributions to their communities (Farrell and Wheat 2019).

This dynamism is a source of optimism for the aggregate economy and suggests that small business ownership could provide opportunities to earn income or build wealth, particularly for those who have been disadvantaged in the labor market (Klein 2017, Horstman and Lee 2018). However, the substantial financial challenges small businesses face may be even more substantial for businesses with Black and Hispanic owners.[1] Historically, Black-owned firms were more likely to close, less profitable, generated less revenue, and had fewer employees than White-owned firms (Robb and Fairlie 2007). Moreover, small businesses in majority Black and Hispanic neighborhoods have had less cash liquidity and been less profitable than those in majority-White neighborhoods (Farrell, Wheat, and Grandet 2019).

Understanding the differences in small business outcomes by owner race is an important part of formulating policies that support small business ownership as one route to upward mobility and financial health. For example, policies targeting certain sectors may inadvertently affect some racial groups disproportionately. Moreover, the often tight coupling between small business and household financial outcomes suggests that lower household liquidity and greater vulnerability to financial shocks among Black and Hispanic families (Farrell, Greig, et al. 2020) may affect the financial outcomes of any businesses they own.

Even in an expansionary economy, minority-owned businesses may not fare as well as their White-owned counterparts (Didia 2008). These differences may be even more important to understand during an economic downturn, which can exacerbate those challenges. For example, during the COVID-19 pandemic, many small businesses were required to close. Many laid off employees, and even more changed the way they served their customers, all of which may have resulted in sudden decreases in revenues (Bartik, et al. 2020; Humphries, Neilson, and Ulyssea 2020). Even after restrictions were eased, many small businesses continued to struggle as their customers remained cautious in their spending. The data presented in this report provide a view of existing differences in small business outcomes by owner race before the current economic crisis that is substantially more recent than the view offered in existing public data sources. The most comparable publicly available data are over a decade old, and the intervening years included not only the Great Recession but also a long recovery period.[2] Our analyses start in 2013 and extend through the end of 2019. This baseline will be indispensable in gauging the small business outcomes during the crisis as well as the recovery period.

Accordingly, the findings provided here, in conjunction with our prior research, offer decision makers insights in two areas: a recent snapshot of small business financial outcomes and their owners, and a longitudinal view of the critical initial years after small businesses are founded.

First, our data provide recent insights about the financial positions of small businesses using administrative data from nearly 150,000 firms. Our findings show that a sizable share of small businesses have Black and Hispanic owners, and their financial outcomes—measured by revenues, profit margins, and cash liquidity—were typically weaker than those of White-owned firms in the same industries and cities. Therefore, they may be less able to withstand large adverse shocks and be disproportionately affected during economic downturns, such as the one resulting from the 2020 pandemic.

Second, our longitudinal view of the critical initial years after small businesses are founded can inform policies to support new businesses. New small businesses are an important part of a dynamic economy, and it is a role that can be particularly vital during an economic recovery. The small business sector can rebound during a recovery, but there will be obstacles. With depleted cash balances after a downturn, even seasoned small businesses may have difficulty regaining their previous financial positions, and some may use this opportunity to reinvent their businesses. Support for new small businesses and their owners is critical, and our research highlights the challenges young businesses face. Black and Hispanic small business owners often face such challenges disproportionately, even in more favorable economic conditions. Targeted assistance could support new small businesses and afford them the opportunity to survive, grow, and contribute to their communities.

Using this new data asset, we find that Black- and Hispanic-owned businesses are well-represented among firms that grow organically without substantial levels of external finance, but less well-represented among those that do. Black- and Hispanic-owned firms have less revenue, lower profits, and less cash liquidity than firms with White owners, and exit at higher rates, especially in their early years. Notably, these large differences in exit rates are minimized or disappear among firms with similar cash liquidity and revenues. The gaps that we do observe are fairly consistent across cities, even in places with large Black or Hispanic populations. Our findings suggest that there are opportunities for important interventions by policymakers, not only to support small businesses that might otherwise exit during an economic downturn, but also to promote broader-based growth during an economic recovery.

Race and Small Business Ownership

Small business ownership is one way to earn a livelihood and potentially build wealth. However, this practice is not necessarily found in representative shares by race. Across the U.S., Black and Hispanic business owners are underrepresented, while White and Asian business owners are overrepresented. Table 1 illustrates that while 64 percent of residents in 2012 were White, 71 percent of firms were White-owned. In the same year, 16 percent of residents were Hispanic, while 12 percent of firms were Hispanic-owned. Similarly, 13 percent of residents were Black, but 9 percent of firms were Black-owned.

Table 1: Population and business ownership in 2012, by race

	Resident population by race American Community Survey, 2012*				Firms by owner race Survey of Business Owners, 2012*			
	United States	**Florida**	**Georgia**	**Louisiana**	**United States**	**Florida**	**Georgia**	**Louisiana**
White, not Hispanic	64%	58%	56%	60%	71%	55%	60%	69%
Hispanic (of any race)	16%	23%	9%	4%	12%	29%	6%	4%
Black	13%	16%	31%	32%	9%	11%	28%	23%
Asian	5%	3%	3%	2%	7%	4%	6%	4%

Note: * Does not sum to 100 percent because not all race and ethnicities are listed and respondents may choose more than one race.

Source: U.S. Census Bureau

The population distribution by race varies by region, and that variation is also reflected in business ownership. The majority—59 percent—of minority-owned businesses in 2012 were located in five states: California, Texas, Florida, New York, and Georgia.[3] Due to the availability of data, our research sample consists of small businesses located in Florida, Georgia, and Louisiana (see Box 1). Although our sample is geographically limited, it nevertheless includes states with sizable shares of the nation's minority-owned businesses.

In each of these states, the distribution of business owners by race is somewhat different from the national distribution. Hispanic-owned businesses were overrepresented in Florida and relatively uncommon in Georgia and Louisiana. Black-owned businesses were underrepresented relative to each state's residents, but they were more common than they were nationwide. The Asian population in these three states was lower than it was nationwide, and Asian-owned businesses there may not be representative of Asian-owned businesses nationwide. For this reason, and also because of the relatively small number of Asian-owned firms in our sample, this report focuses on Black, Hispanic, and White business owners.

While our sample of small business owners is restricted to registered voters in Florida, Georgia, and Louisiana, it is nevertheless consistent with the demographic composition of business owners in those states. Table 2 compares the distribution of small businesses by owner race in our sample in 2013 to the Survey of Business Owners (SBO) distribution, restricted to Black, Hispanic, and White business owners. Across the three states, our sample included a similar percentage of White-owned businesses. However, our sample in Georgia had a smaller share of White-owned businesses than observed in the SBO. Overall, our sample included a larger share of Hispanic-owned businesses than the SBO and a smaller share of Black-owned businesses. In Georgia, our sample had a larger share of Black-owned businesses.

Table 2: Comparison of JPMCI sample in 2013 with Census Survey of Business Owners (SBO) benchmark in 2012

	Florida		Georgia		Louisiana		Total	
	JPMCI	**SBO**	**JPMCI**	**SBO**	**JPMCI**	**SBO**	**JPMCI**	**SBO**
White	54%	58%	46%	64%	79%	72%	59%	61%
Hispanic	38%	31%	7%	7%	3%	4%	27%	21%
Black	8%	12%	46%	30%	17%	24%	14%	18%
All	100%	100%	100%	100%	100%	100%	100%	100%

Source: U.S. Census Bureau, JPMorgan Chase Institute

Table 3: Share of firms owned by women in JPMCI sample in 2013 and the 2012 Census Survey of Business Owners (SBO)

	Florida		Georgia		Louisiana		Total		United States
	JPMCI	**SBO**	**JPMCI**	**SBO**	**JPMCI**	**SBO**	**JPMCI**	**SBO**	**SBO**
White	35%	33%	35%	33%	37%	29%	36%	32%	32%
Hispanic	41%	43%	39%	43%	44%	42%	41%	43%	44%
Black	42%	59%	45%	60%	42%	60%	43%	60%	59%
All	38%	40%	40%	41%	39%	37%	38%	40%	37%

Source: U.S. Census Bureau, JPMorgan Chase Institute

Nationwide, Black- and Hispanic-owned businesses are also more likely to be owned by women. Therefore, analyses of small business outcomes by owner race would not be complete without considering the interaction between race and gender. Firms founded by women are smaller than those founded by men, though they are just as likely to survive (Farrell, Wheat, and Mac 2019). Table 3 shows that about 60 percent of Black-owned firms were owned by women, compared to 32 percent of White-owned businesses nationwide. Among Hispanic-owned firms, over 40 percent were also female-owned.

Our sample of small businesses in Florida, Georgia, and Louisiana in 2013 shows a similar pattern where women are more commonly the owners of Black- and Hispanic-owned businesses than White-owned ones. Thirty-six percent of White-owned firms were owned by women, compared to 41 and 43 percent of Hispanic- and Black-owned firms, respectively. However, the differences between racial groups in our sample were not as large as observed in the SBO sample. In the SBO, women owned about 60 percent of Black-owned firms, compared to 43 percent in our sample.

Based on the SBO benchmark, our sample is representative of Black-, Hispanic-, and White-owned businesses in Florida, Georgia, and Louisiana. The findings of this report should be considered in light of these distributions.

Owner Race and Small Business Outcomes

A large body of existing social science literature analyzes economic outcomes by demographic groups. Topics such as education, labor market outcomes, and household finances and the differential outcomes by race are of particular interest in light of historical inequities. Researchers often find evidence of persistent racial disparities in the opportunities in education (Darling-Hammond 1998), the job market (Chetty, et al. 2019, Bertrand and Mullainathan 2004, Grodsky and Pager 2001), and personal wealth (Emmons and Ricketts 2017; Shapiro, Meschede, and Osoro 2013). Self-employment or small business ownership is sometimes considered as an alternative to traditional labor markets (Fairlie and Marion 2012, Rissman 2003, Heilman and Chen 2003) but race can affect small business outcomes through these same channels as well as through differences in business prospects.

Education, prior work experience, and personal financial resources—all of which may have been shaped by race—can affect whether individuals start a small business and the types of small businesses they found. Black Americans are less likely to enter self-employment than White Americans, and both educational background and household assets are important predictors of entry into self-employment, depending on the barriers to entry (Lofstrom and Bates 2013). Perhaps due to such barriers, minority business owners are more likely to operate in industries such as construction or support services (Gibson, et al. 2012).

After founding, minority-owned small businesses often lag behind White-owned firms in financial outcomes. Black-owned firms were more likely to close, less profitable, generated less revenue, and had fewer employees than White-owned firms, although the same pattern was not evident for Hispanic-owned firms (Fairlie and Robb 2008). Fewer minorities in high-growth sectors achieve the high growth of their industry peers (Brown, Earle, and Kim 2017). Asian-owned firms have stronger performance than White-owned ones (Bates 1989), but there is much within-race heterogeneity, particularly between immigrants and native born workers (Lunn and Steen 2005, Fairlie 2012). These differential business outcomes by owner race are often attributed in part to characteristics—such as education and household wealth—where racial differences have been documented.

Owner characteristics can also affect firm prospects through channels such as the differential availability of credit and funding opportunities through social networks. Some researchers find that minority firm owners were just as likely to apply for loans but significantly less likely to be approved (Coleman 2002, Federal Reserve Banks 2017), while others note that Black business owners were both less likely to apply for and obtain credit (Cavalluzzo, Cavalluzzo, and Wolken 2002; Robb, Fairlie, and Robinson 2009). Blanchflower, et al. (2003) found that Black-owned businesses are twice as likely to be denied credit after controlling for creditworthiness and are charged higher interest rates when approved. Black owners rely more on informal borrowing from family members (Fairlie, Robb, and Robinson 2016).

Minority-owned businesses are also concentrated in minority neighborhoods, either by choice or because those markets are more accessible, and this affects their outcomes (Bates and Robb 2014). Small businesses in majority Black and Hispanic neighborhoods have had less cash liquidity and been less profitable than those in majority White neighborhoods (Farrell, Wheat, and Grandet 2019; Perry, Rothwell, and Harshbarger 2020). Other researchers have found that Black-owned businesses in areas with more Black residents were more likely to survive, although that was not true for every industry (Boden and Headd 2002). Nevertheless, there may be advantages for Hispanic-owned firms to be located in ethnic enclaves (Aguilera 2009).

Data Asset

Our data asset consists of firms with Chase Business Banking deposit accounts that were active between October 2012 and December 2019. The appendix provides additional details about the process used to construct the de-identified sample. Our sample is based on business deposit accounts and not on employment records,[4] which allows our data to provide insights on the vast majority of small businesses that do not have paid employees. The firms in our sample are nevertheless sufficiently formal to have business banking accounts. We do not capture informal businesses that operate only through cash or personal deposit accounts.

In our data asset of 1.8 million small firms, we were able to identify the owner race and gender using voter registration records for nearly 150,000 businesses in Florida, Georgia, and Louisiana. These are states where race/ethnicity data are collected in publicly available voter registration records and where we have a sufficiently large sample of firms. We limit our analyses in this report to firms with Black, Hispanic, and White owners due to the limited sample of owners of other races. (See Box 1.)

Box 1: Identifying small business owner race and gender

Our sample of small businesses is based on business banking deposit accounts (see the Appendix for details about the sample construction). The authorized signer(s) for those accounts are considered the owner(s) in this research. In cases where there are multiple owners, we cannot discern legal ownership shares, so we use the demographic information of the oldest owner.

For this and other JPMorgan Chase Institute research,[5] voter registration records from Florida, Georgia, and Louisiana were matched to the customers of banking deposit accounts in those states.[6] These are states where race/ethnicity data are collected in publicly available voter registration records and where Chase had a branch footprint in 2018. (See Farrell, Greig, et al. (2020) for details about the matching algorithm.) Institute researchers used the de-identified records to conduct the analyses for this report.

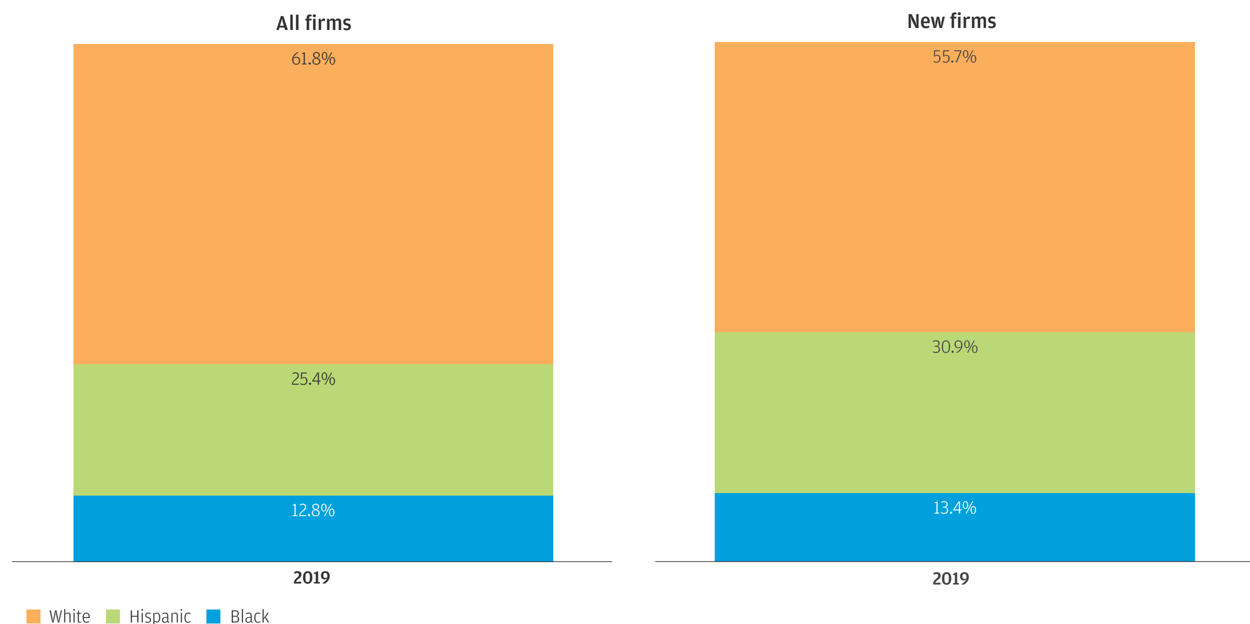
The voter registration records contain self-identified race and gender, both of which were used in this research. Respondents chose among categories that did not treat ethnicity and race separately.[7] For this reason, we cannot treat Hispanic ethnicity separately from race.

This report uses two samples: the first includes all firms in a given year, and the second is a cohort of firms that were founded in 2013 and 2014. The former is a snapshot of all firms that were operating in a calendar year, which may include new firms as well as those that have been in business for many years. This sample is always noted by its calendar year, such as "2018." However, a newly founded business faces different challenges and opportunities than one that is more seasoned. Our longitudinal data allow us to follow a panel of firms that were founded in 2013 and 2014 as they navigate their first five years. Those years are always relative to their founding months, so a firm's first year is its first twelve months of operations. This cohort sample is always designated by its year of operations, such as "year 1." Firms need not survive all five years to be included in this sample.

Distributional statistics for the sample can provide context for the findings in this report. Thirty-eight percent of firms in our sample in 2019 are Black- or Hispanic-owned, with nearly 13 percent having Black owners and over 25 percent having Hispanic owners. The distribution for new firms is different: in 2019, 31 percent of new firms were founded by Hispanic owners, a share that has increased since 2013. The difference between the share of new firms and the share of all firms suggests that there may be differential exit rates. Black owners founded 13 percent of new firms in 2019, a share that has remained consistent. The share of all firms that are Black-owned has decreased slightly since 2013. The distributions for all years is available in the appendix.

The Census Bureau's Survey of Business Owners (SBO) has previously documented an upward trend in minority-owned businesses: in 2007, nearly 22 percent of businesses were minority-owned. By 2012, it was over 29 percent (McManus 2016). The survey has been discontinued, but our data suggest that the share of Black- and Hispanic-owned firms has been relatively stable in subsequent years, although an increasing share of new firms are founded by Black and Hispanic owners.

Figure 1: Share of small businesses in 2019, by owner race



Source: JPMorgan Chase Institute

Nationwide and in our sample, Black and Hispanic business owners are more likely to be women, which may be pertinent in interpreting our findings. Among Black-owned businesses in 2019, 45 percent were owned by women, compared to 37 percent of White-owned firms. White-owned firms in our sample were more likely to have owners that were at least 55 years old. Hispanic owners were typically younger, with nearly 40 percent of them in the 55 and over group.

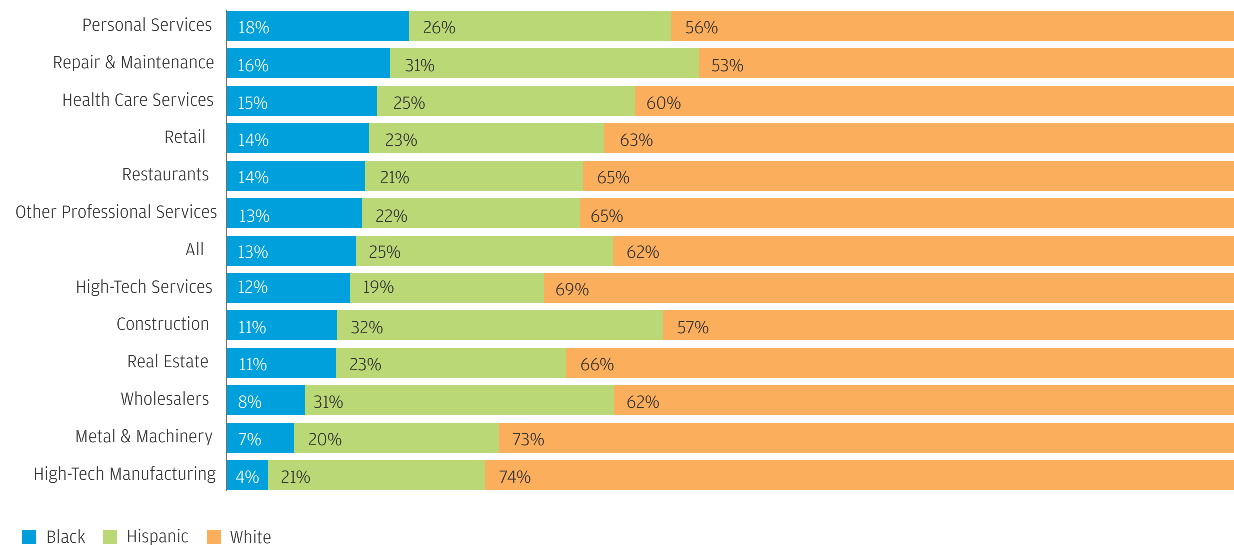
Black- and Hispanic-owned small businesses operate in all industries but are more common in some. For example, 25 percent of small firms in 2019 had Hispanic owners, but 32 percent of firms in construction and 31 percent of wholesalers had Hispanic owners. Thirteen percent of small businesses were Black-owned in 2019, but 18 percent of those in personal services had Black owners. White-owned firms were overrepresented in high-tech manufacturing and metal and machinery industries. Industry choice plays a role in small business outcomes, but as our findings illustrate, racial gaps can persist even after controlling for firm characteristics.

Table 4: Gender and age of business owners by race, 2019

	Female	Male	Under 35	34-54	55 and over
All	39%	61%	6%	44%	50%
Black	45%	55%	7%	50%	43%
Hispanic	41%	59%	8%	52%	39%
White	37%	63%	6%	39%	55%

Source: JPMorgan Chase Institute

Figure 2: Owner race distributions by industry, 2019



Note: Sample includes all firms operating in 2019.

Source: JPMorgan Chase Institute

Finding One

Black- and Hispanic-owned businesses are well-represented among firms that grow organically, but underrepresented among firms with external financing.

In a prior study, we introduced a new segmentation of the small business sector which highlighted the variations in dynamism, size, and complexity exhibited by small businesses (see Box 2). Importantly, we found that substantial numbers of small businesses were able to grow dynamically without large amounts of external financing, and that these organic growth firms made substantial contributions to the economy. After four years, organic growth firms generated the majority of the cohort's aggregate revenues and payroll (Farrell, Wheat, and Mac 2018), and overwhelmingly made the largest contributions to aggregate revenue growth (Farrell and Wheat 2019).

Box 2: A segmentation of the small business sector

We previously developed a segmentation of the small business sector based on distinctions in employer status, growth potential, and financing utilization among firms in their first few years of operation (Farrell, Wheat, and Mac 2018). Specifically, we treated growth potential and employment status as first order distinctions, but widened our lens on growth potential to identify not only a small segment of financed growth firms that leverage external capital to grow, but also a much larger segment of organic growth firms that may achieve similar growth rates without depending on external financing at all or to as large of an extent. Our previous report included details and fictional examples that illustrate the four mutually exclusive segments, but we summarize their characteristics here.

Source: JPMorgan Chase Institute

Financed growth – These firms engage in financial behaviors consistent with the intention to make early investments in assets that would serve as the basis for a scale-based competitive advantage (e.g., investments in technology, brand, learning curve, or customer networks). Specifically, we identify a firm as a member of the financed growth segment if it has at least $400,000 in financing cash inflows during its first year—a level consistent with financing amounts used by small businesses that take in investment capital.[8]

Organic growth – Firms in this segment also have growth intentions, but they primarily attain that growth organically out of operating profits rather than through the use of external financing. In order to capture both firms that intend to grow and succeed and those that intend to grow but fail, we leverage post hoc observations of revenue growth and define this segment as those firms with less than $400,000 in financing cash inflows in their first year that either achieve average revenue growth of at least 20 percent per year from their first year to their fourth year, or those that see revenue declines of at least 20 percent per year. We also include firms that exit prior to four years that average above 20 percent revenue growth or 20 percent revenue declines per year prior to exit.

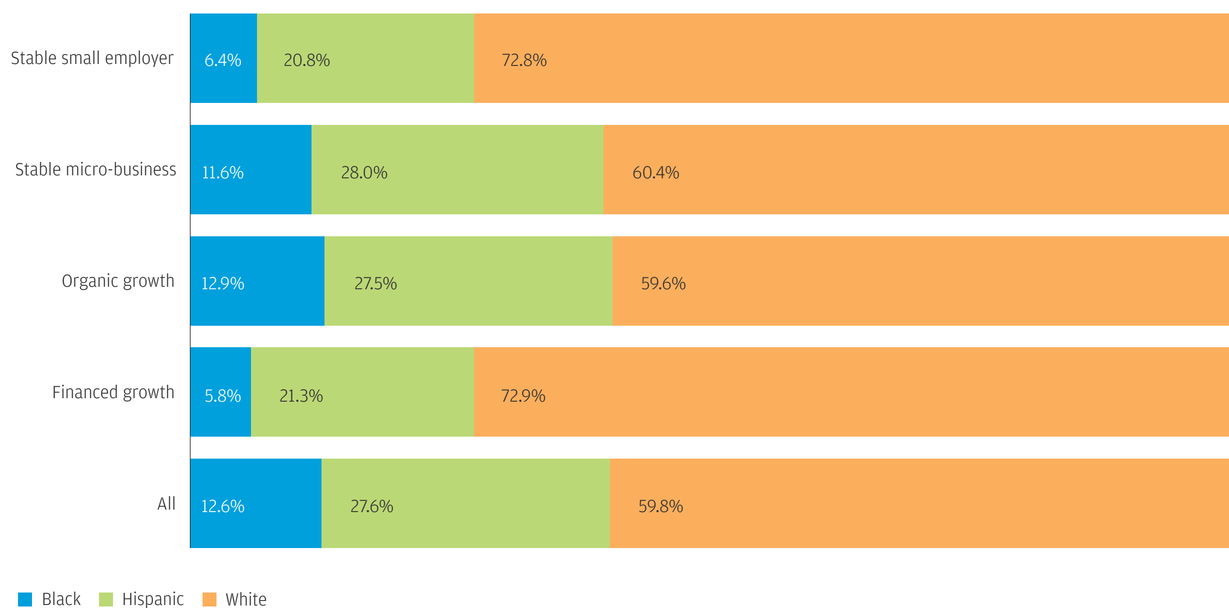
Stable small employer – Firms in this segment are less dynamic: they are in neither the financed growth nor the organic growth segments and likely have a stable growth strategy and a business model premised on the employment of others. We define stable small employers as those firms that have electronic payroll outflows in six months or more of their first year. To capture larger small employers who do not use electronic payroll, we also include firms that have over $500,000 in expenses in their first year—approximately equivalent to payroll expenses for ten employees—in this segment.[9]

Stable micro – Firms in this segment have either no or very few employees and do not exhibit behaviors consistent with growth intentions. We define the stable micro segment as containing those businesses that do not have electronic payroll outflows for six months of their first year and have less than $500,000 in expenses.

Figure 3 shows the owner race of each of these key small business segments for firms founded in 2013 and 2014. The mutually-exclusive segments were defined using the first four years of firm performance. Twenty-eight percent of the firms in this cohort were founded by Hispanic owners, while 13 percent were founded by Black owners. The composition of the organic growth segment is similar, indicating that Black- and Hispanic-owned businesses are well-represented in this dynamic segment. However, both Black- and Hispanic-owned businesses are underrepresented in the financed growth segment, in which firms use substantial amounts of external financing in their first year.

The organic growth of Black- and Hispanic-owned firms is promising, but the dearth of external financing—through household savings, social networks, or bank financing—implies that Black- and Hispanic-owned firms have fewer opportunities for building businesses with a scale-based competitive advantage. This suggests that small businesses may be less likely to be a substantial source of wealth for their Black and Hispanic owners.

Figure 3: Owner race by small business segment



Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

Overall, 38 percent of firms in this cohort was female-owned, but larger shares of Black- and Hispanic-owned firms were founded by women. Among Black-owned firms, 45 percent had women founders, compared to 36 percent of White-owned firms with women founders. Among Hispanic-owned firms, 40 percent had women owners.

We previously found that female-owned firms were underrepresented in the financed growth and stable small employer segments (Farrell, Wheat, and Mac 2019). However, among owners of the same race in a segment, that pattern does not always hold. Among Hispanic-owned firms, women founders were well-represented in all but the financed growth segment.

For Black-owned firms, women founders were well-represented in every segment. While the total number of Black-owned firms in the financed growth segment is relatively small, it is nevertheless encouraging that Black women are participating proportionately within that segment.

This segmentation combines several firm characteristics into a profile that reflects the small business outcomes of our cohort sample and provides a lens into the heterogeneity of the small business sector. The characteristics of owners supplement this perspective by showing how owner race and gender play a role in shaping the early growth trajectories of small businesses. In the next finding, we disaggregate these broad profiles into individual financial measures to more precisely characterize the extent to which owner race, gender, and age correlate with small business outcomes through their early years.

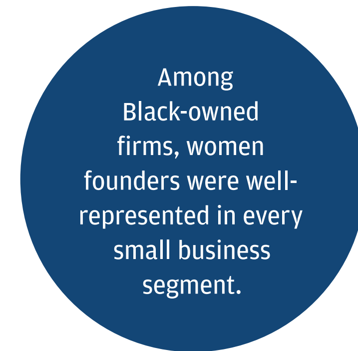


Table 5: Share of female-owned firms in each small business segment

	Black	Hispanic	White	All
All	45%	40%	36%	38%
Stable small employer	47%	37%	33%	35%
Stable micro	45%	41%	38%	40%
Organic growth	44%	40%	36%	38%
Financed growth	44%	32%	28%	30%

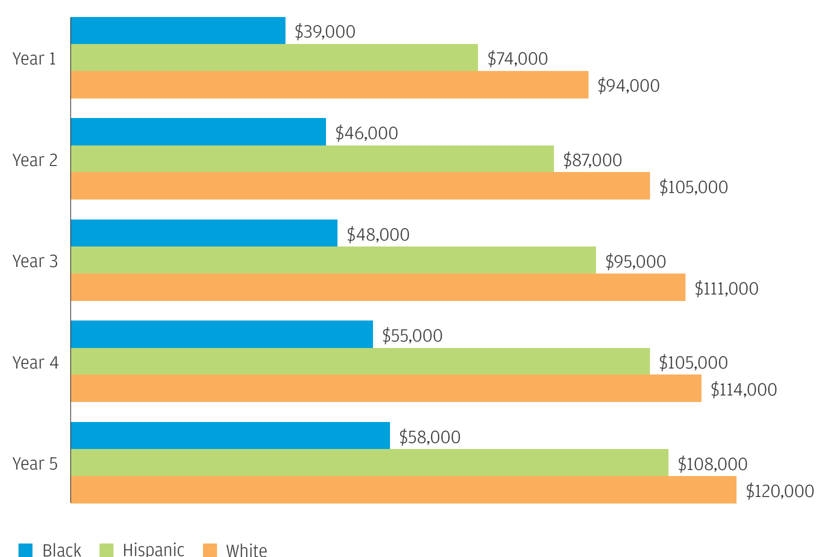
Source: JPMorgan Chase Institute

Finding Two

Black- and Hispanic-owned businesses face challenges of lower revenues, profit margins, and cash liquidity.

The flow of cash through a small business can be a key indicator of its financial health. Small businesses with healthy demand and strong access to markets generate large and growing revenues, and to the extent that a firm achieves relatively low costs, it generates higher profits. Some of these profits can be retained within the business to invest in assets, including a cash buffer that can be critical to weathering uncertainty in revenues and expenses. Profits also contribute to the wealth of business owners, while losses could potentially diminish household wealth. The impact of these processes on business success and household financial well-being make differences in cash-flow outcomes by owner race especially important to understand.

Figure 4: Median revenues for small businesses in the 2013 and 2014 cohort



Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

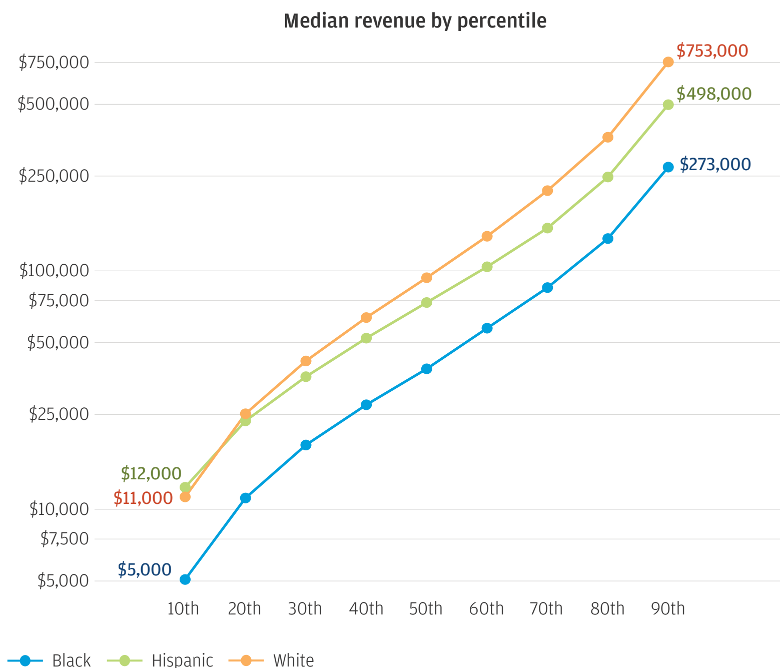
The typical Black- or Hispanic-owned small business generated lower revenues than White-owned businesses. The difference between Black- and White-owned firms was particularly striking. Figure 4 shows that the median Black-owned firm earned $39,000 in revenues during its first year, 59 percent less than the $94,000 in first-year revenues of a typical White-owned firm. Small businesses founded by Hispanic owners earned $74,000 in revenues, or 21 percent less than the median for White-owned firms. The larger shares of Black- and Hispanic-owned firms with women founders did not drive these differences. Figure A2 in the appendix shows that in their first year, firms owned by Black men and women earned similar revenues. The gap between firms owned by Hispanic men and White men was similar to the overall gap between Hispanic- and White-owned firms.

Over the first five years, the gap between a typical Hispanic-owned firm and a White-owned firm narrowed considerably. However, a typical Black-owned firm generated $58,000 in revenues in its fifth year, 52 percent less than the $120,000 a typical White-owned firm earns.

The revenue gap is evident not only at the median but also throughout the distribution, as shown in the top panel of Figure 5. First-year revenues in the 90th percentile of Black-owned firms were nearly $273,000, compared to nearly $753,000 in the 90th percentile of White-owned firms and $498,000 in the 90th percentile of Hispanic-owned firms. At the lower end of the revenue distribution, White- and Hispanic-owned firms had similar revenue levels, over $11,000, while Black-owned firms generated less than half that amount.

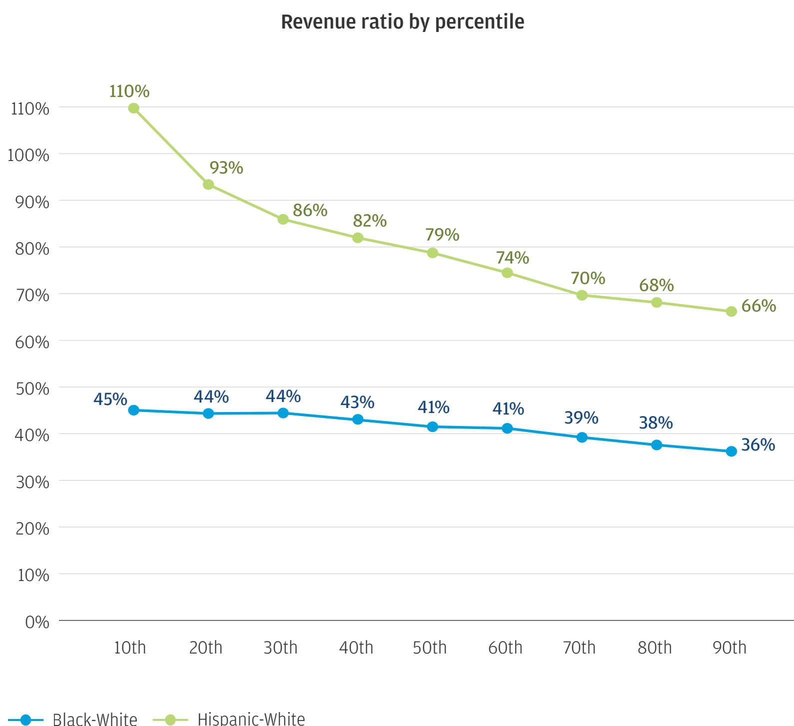
Moreover, the distance between these lines, plotted on a logarithmic scale, is fairly consistent across deciles. The distance between two points on a logarithmic scale corresponds to the ratio of their respective values. The relative consistency of these distances across deciles suggests that it is reasonable to think of revenue gaps in terms of ratios rather than absolute dollar differences. The bottom panel of Figure 5 confirms this by directly plotting Black-White and Hispanic-White revenue ratios for each within-group decile. Black-White revenue gaps by decile are quite consistent, only varying by 9 percentage points from the 10th to the 90th percentile. Hispanic-White revenue ratios vary substantially more by decile—the gap is 31 percentage points less at the 10th percentile than it is at the median, such that the lowest revenue Hispanic-owned businesses have more revenue than White-owned businesses in their first year.

Figure 5: First-year revenue gaps are highest among larger firms



Note: Sample includes firms founded in 2013 and 2014. In the left panel, the vertical axis is the natural log of revenues and has been labeled with dollar values for convenience.

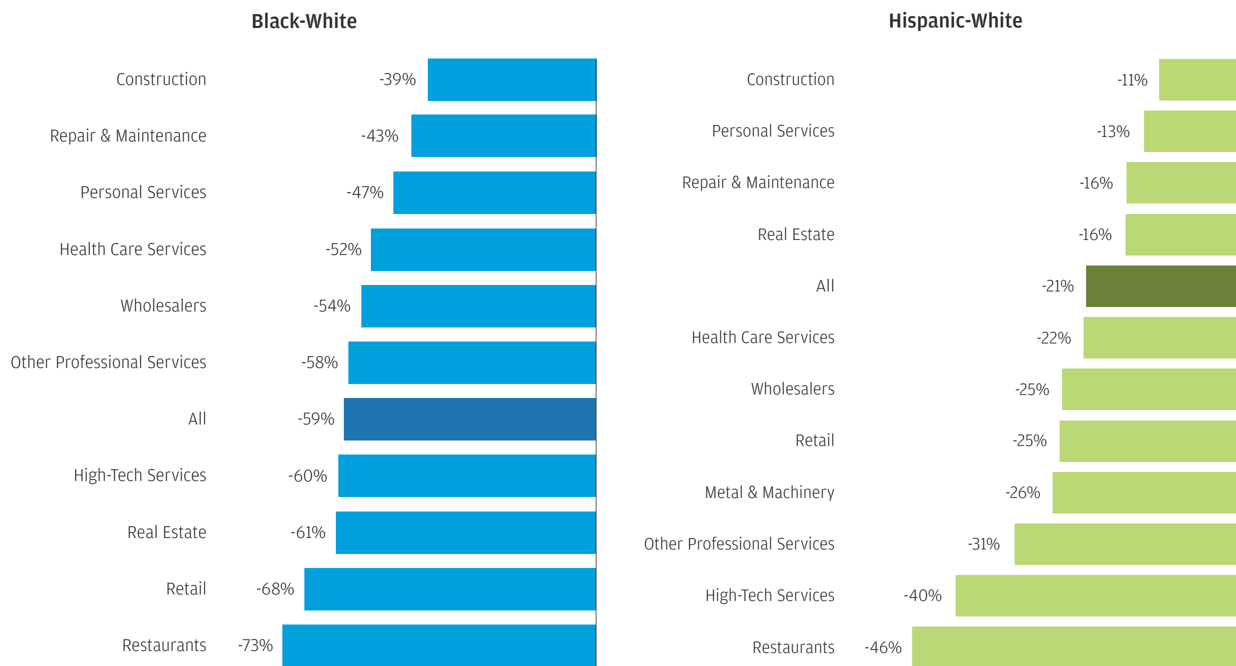
Source: JPMorgan Chase Institute



Source: JPMorgan Chase Institute

Some of this differential is related to the industries in which Black- and Hispanic-owned businesses are more prevalent (see Figure 2). However, even within the same industry, Black- and Hispanic-owned firms generated lower revenues than their White-owned counterparts. Figure 6 shows the first-year revenue gap between typical Black- and White-owned firms in the same industry. The gap is especially pronounced for restaurants, where first-year revenues of Black- and Hispanic-owned firms were 73 percent lower and 46 percent lower than those of White-owned firms, respectively. In construction, the industry with the smallest gap, the typical Black-owned firm nevertheless generated first-year revenues that were 39 percent lower than the typical White-owned firm. Hispanic-owned construction firms fared better, but their first-year revenues were nevertheless 11 percent lower than the typical White-owned construction firm.

Figure 6: Gap in median first-year revenues, by industry



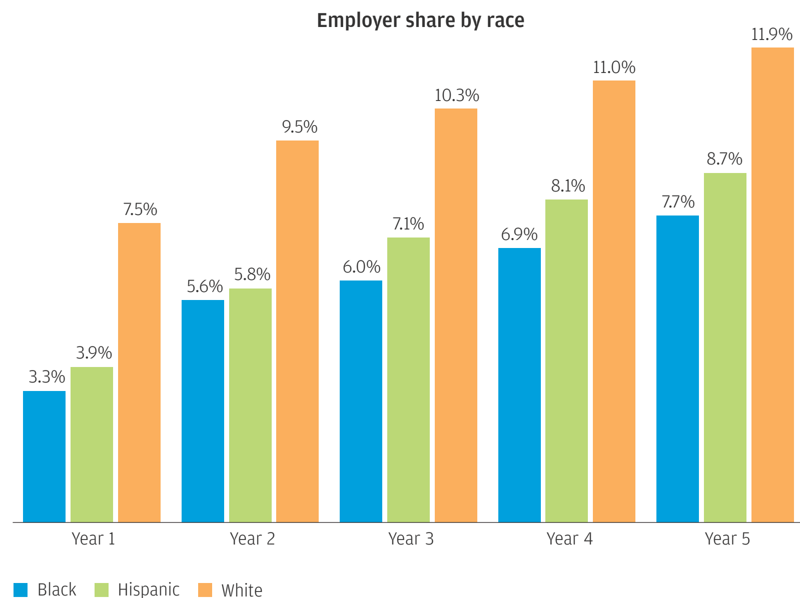
Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

Firms with lower revenues are also less likely to be employer firms, and Figure 7 shows that lower shares of Black- and Hispanic-owned firms were employers in each year. As the cohort matured, a larger share were employer firms. However, by the fifth year, the 7.7 percent of Black-owned firms that were employers was meaningfully lower than the 11.9 percent of White-owned firms that were employers. Notably, differences in employer shares over time within a cohort are largely driven by higher exit rates among nonemployer businesses rather than by transitions from nonemployer to employer status (Farrell, Wheat, and Mac 2018).

Revenue levels and employer status are both indicators of firm size. Small and nonemployer firms make important contributions to the economy and provide livelihoods to their owners and their families. However, policies and programs aimed at larger small businesses or employer firms will exclude a disproportionate share of Black- and Hispanic-owned small businesses, which are less likely to have employees. Revenue levels are an important measure of business conditions and outcomes, but even robust revenues are not guaranteed to cover expenses. Profit margins are a measure of how much firms have left after expenses either to maintain cash reserves or to reinvest in their business. Figure 8 shows that Black- and Hispanic-owned small businesses had lower profit margins than White-owned firms in each year of operations, making it more difficult to save earnings for the future. After the initial year, profit margins decreased for each group, but the differences between their profit margins remained substantial.

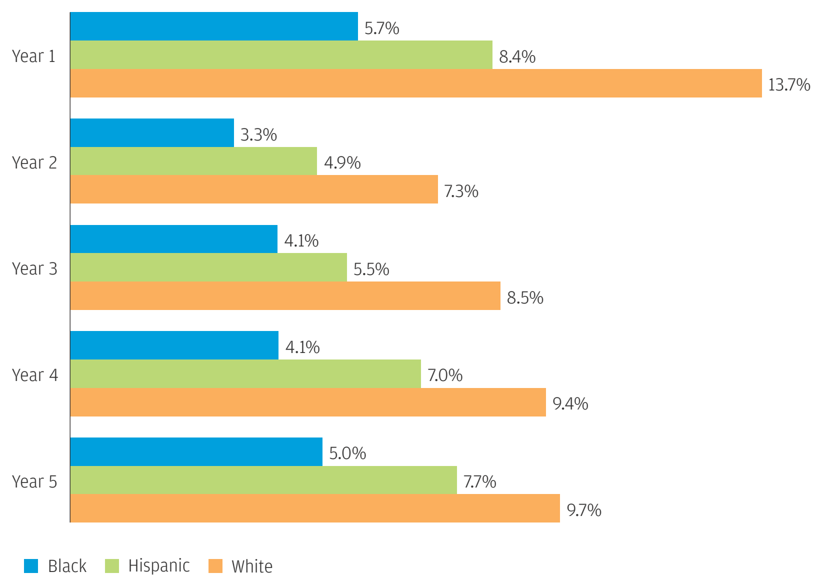
Figure 7: Black- and Hispanic-owned businesses are less likely to be employers



Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

Figure 8: Profit margins for the 2013 and 2014 cohort



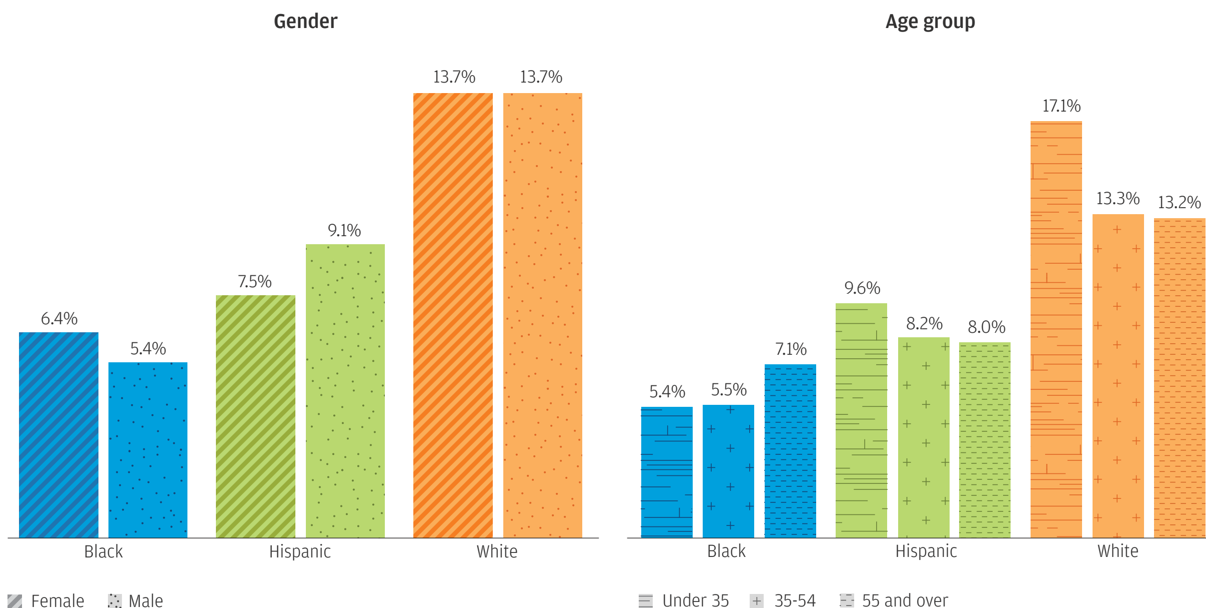
Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

The concentration of female-owned firms in potentially less profitable industries (Farrell, Wheat, and Mac 2019) suggests that the lower profit margins observed in Black- and Hispanic-owned firms might be attributed to larger shares of female-owned firms, but that is not the case. Firms founded by Black women had higher profit margins than those founded by Black men. Hispanic-owned firms owned by men experienced meaningfully lower profit margins than firms owned by White men. The difference was also not due to larger shares of owners under 55. Among Hispanic-owned firms, those with founders under 35 had higher profit margins. Among Black-owned firms, the median profit margin for each age group was lower than the median profit margins for corresponding White-owned firms.

Cash-flow management is a continual challenge for small businesses. Having sufficient cash liquidity allows firms to weather adverse shocks to their cash flow, including natural disasters or equipment needs. Cash buffer days—the number of days during which a firm could cover its typical outflows in the event of a total disruption in revenues—measure the amount of cash liquidity available to small businesses relative to its outflows. Firms with more cash buffer days are more likely to survive. In previous research, we found that small businesses have cash buffer days of about two weeks, with firms in majority-Black and majority-Hispanic communities having fewer than those operating in majority-White communities (Farrell, Wheat, and Grandet 2019).

Figure 9: Profit margins in the first year of the 2013 and 2014 cohort



Note: Sample includes firms founded in 2013 and 2014.

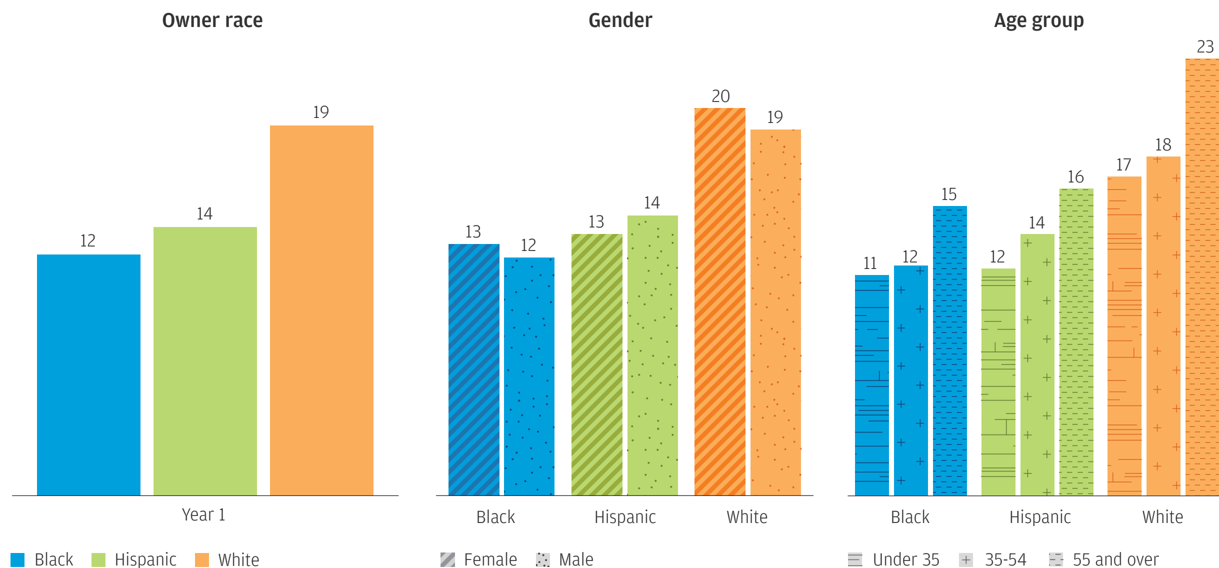
Source: JPMorgan Chase Institute

Figure 10 shows a similar pattern by small business owner race. Black-owned firms had 12 cash buffer days during their first year of operations, compared to 14 for Hispanic-owned firms and 19 for White-owned businesses. Typical White-owned firms could cover an additional week of outflows without revenues compared to their Black-owned counterparts. The results were similar for each year (see Figure A3 in the appendix).

While differences in cash liquidity by owner race were substantial, within-race differences by gender were relatively small, consistent with prior findings about overall differences in cash liquidity by gender and age (Farrell, Wheat, and Mac 2019). The difference in median cash buffer days between male- and female-owned firms in the same racial group was just one day. Firms with owners 55 and over typically maintained more cash buffer days than their younger counterparts within the same race.

Black- and Hispanic-owned firms are typically smaller and less profitable than White-owned ones. They also maintain less cash liquidity. Consequently, they may be more financially fragile than their White-owned counterparts. The next two findings investigate firm exits for each demographic group.

Figure 10: Cash buffer days in year 1 for the 2013 and 2014 cohort



Note: Sample includes firms founded in 2013 and 2014. Cash buffer days are calculated as the number of days during which a firm could cover its typical outflows in the event of a total disruption in revenues.

Source: JPMorgan Chase Institute

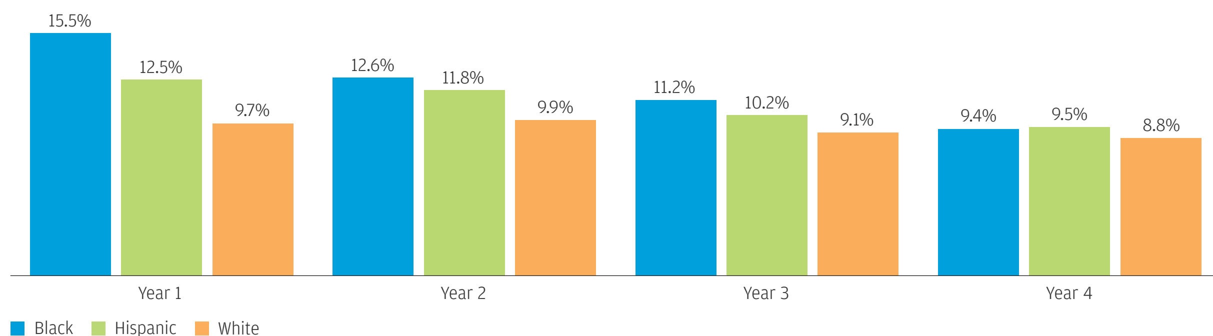
Finding
Three

Firms with Black owners, particularly owners under the age of 35, were the most likely to exit in the first three years.

Small business exits are not necessarily indicators of distress. The exit of existing firms is an important part of business dynamism, since resources devoted to failing firms can be reallocated to new firms. However, promising new businesses may not have the opportunity to prove themselves if they do not survive the initial critical years after founding. In fact, many small businesses struggle to survive—most small businesses exit in less than six years (Farrell, Wheat, and Mac 2018). Black- and Hispanic-owned firms generate less revenue, face lower profit margins, and hold smaller cash buffers than White-owned firms, and as a result, may be more likely to exit. Understanding the specific circumstances in which exit rates are highest could help target assistance to those businesses which are least likely to survive.

Figure 11 shows the exit rates for small businesses over the first five years of operations. These exit rates were highest in the initial years and decreased as firms matured. Black and Hispanic-owned businesses experienced particularly high exit rates: 15.5 percent of Black-owned firms that survived the first year exited in the following year, compared to 9.7 percent of White-owned firms. Among Hispanic-owned firms, 12.5 percent exited after their first year. As firms matured, the differences narrowed, particularly between Black- and Hispanic-owned firms. By the fourth year, Black- and Hispanic-owned firms exited at the same rate, and their exit rate was within 1 percentage point of White-owned firms.

Figure 11: Share of firms exiting in the following year, by owner race



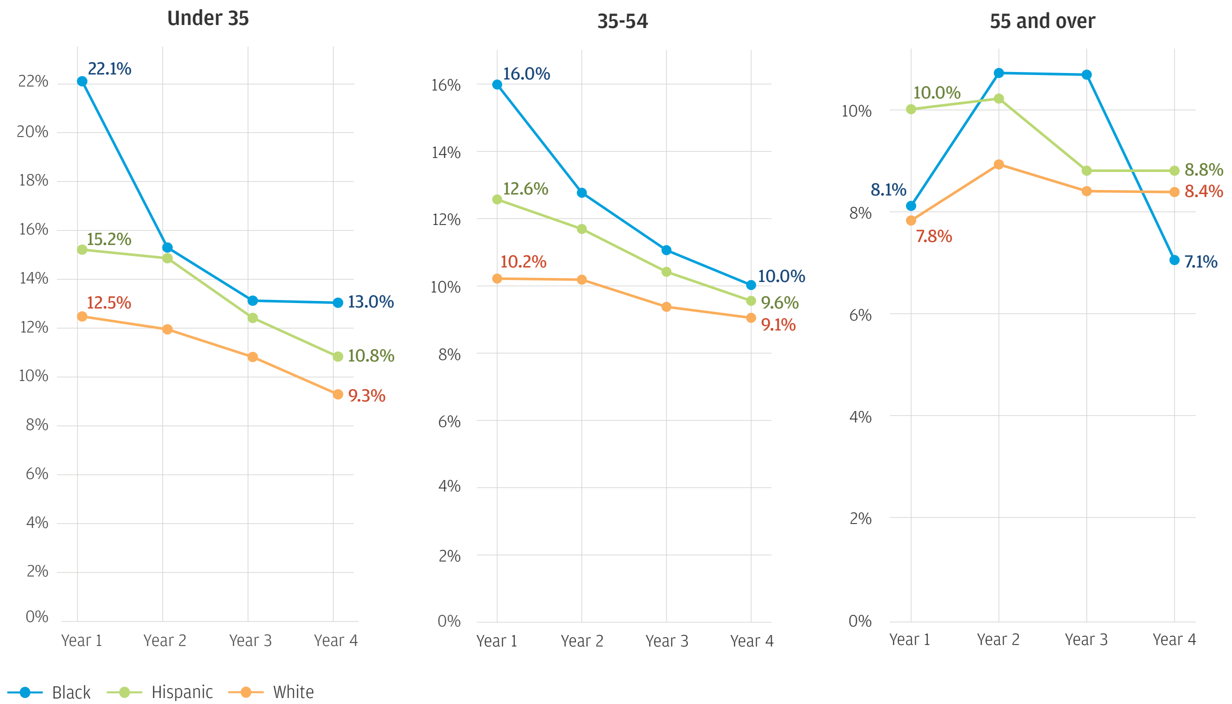
Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

This pattern of decreasing exit rates is even more pronounced among owners under the age of 35. The left panel of Figure 12 shows the exit rates of firms with owners under 35. Over 22 percent of small businesses with Black owners under 35 exited after the first year, compared to 15 percent of Hispanic-owned firms and less than 13 percent of White-owned firms. The difference narrowed by the third year, but convergence did not continue in the fourth year.

A similar, but less pronounced difference in exit rates was observed among owners aged 35 to 54, as shown in the center panel of Figure 12. By the fourth year, the exit rate for Black-owned firms was 1 percentage point higher than that of White-owned firms. The difference had been nearly 6 percentage points in the first year. Among owners aged 55 and over, the racial differences in exit rates are smaller, and the trend is not evident, particularly for Black-owned firms.

Figure 12: Share of firms exiting in the following year, by owner race and age group



Note: Sample includes firms founded in 2013 and 2014.

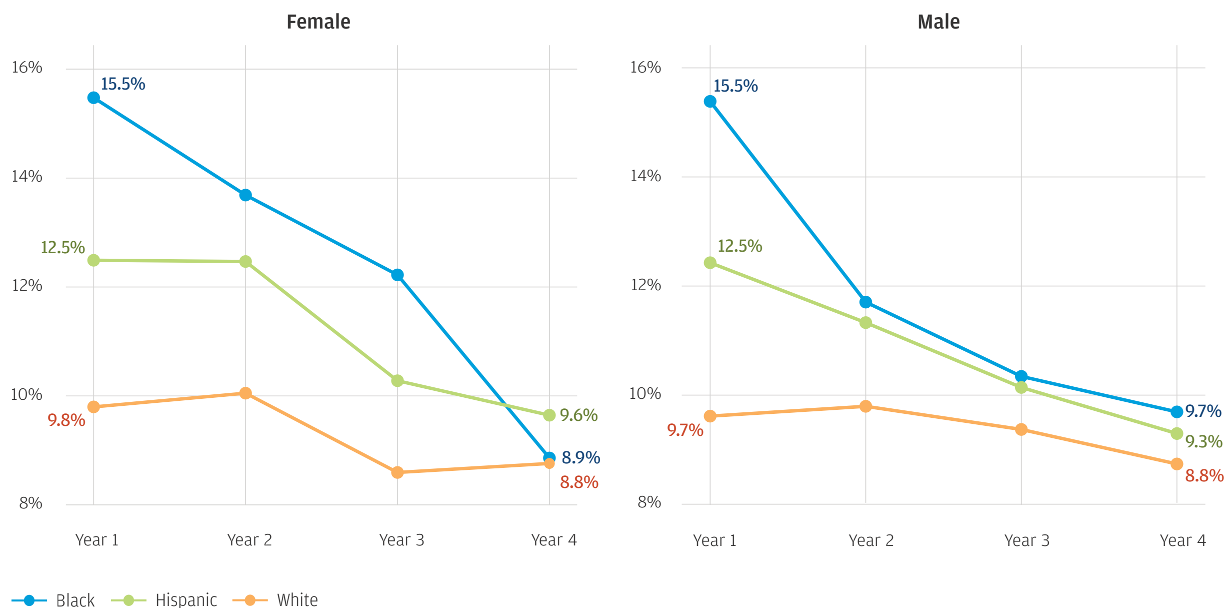
Source: JPMorgan Chase Institute

Small businesses founded by women initially exited at the same rate as those founded by men of the same race, but as the firms matured, the exit rates of those founded by Black and Hispanic women did not decline as quickly as those founded by Black and Hispanic men. Figure 13 shows the shares of firms in one year that exited by the following year. Despite differences between races in the first year, there was no difference by gender among businesses with owners of the same race. Firms founded by Black women exited at the same rate, 15.5 percent, as those founded by Black men. The same was true for male and female Hispanic owners as well as male and female White business owners.

In the second and third years, although the share of firms exiting declined for each group, they declined more for firms owned by Black and Hispanic men than Black and Hispanic women. For example, 12.2 percent of firms in their third year owned by Black women exited in the following year, compared to 10.4 percent of those owned by Black men. However, by the fourth year, the differences narrowed, leaving a 1 percentage point difference in exit rates between gender and race groups.

Small businesses typically exit at lower rates as firms mature, and we observed this pattern within most demographic groups of our cohort sample. The racial differences in exit rates were largest in the first year and were noticeable through the third year, suggesting that Black- and Hispanic-owned firms were particularly vulnerable in the first three years relative to their White-owned counterparts. Although exit rates converged by the fourth year for most groups, the racial difference for firms with owners under 35 remained sizable.

Figure 13: Share of firms exiting in the following year, by owner race and gender



Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

Finding

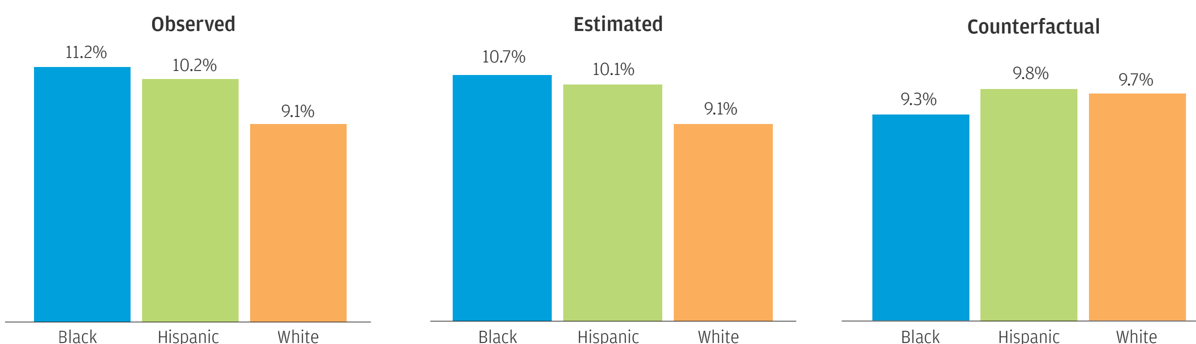
Four

Black- and Hispanic-owned businesses with comparable revenues and cash reserves are just as likely to survive as White-owned businesses.

The lower revenues, profit margins, and cash buffer days reflect both the business outcomes and conditions under which Black- and Hispanic-owned small businesses operate. The revenues firms generate and the profit margins they maintain feed into the cash buffers they support. Those cash buffers are instrumental in helping firms weather shocks to their cash flows, whether they are disruptions to their revenues or increases to expenditures. These operating characteristics—strong revenues and cash buffers—greatly improve a small firm's ability to survive, and we used regression models to quantify the effects and separate them from other firm and owner characteristics.

For each year of our cohort sample, we estimated the probability of exit in the following year. In the first specification, we included owner characteristics (race, gender, and age group) and firm characteristics (industry and metro area). This statistically controls for the effect of industry and metro area on firm exit and isolates the effect of owner characteristics. The coefficients for the race variables were statistically significant and positive, indicating that Black- and Hispanic-owned businesses were significantly more likely to exit relative to White-owned firms.

Figure 14: Shares of firms in year 3 exiting in the following year



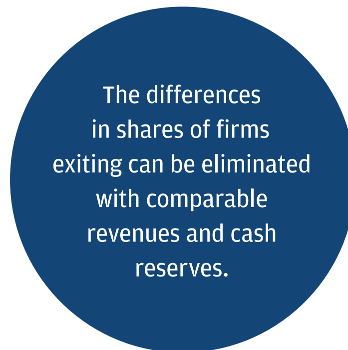
Note: Sample includes firms founded in 2013 and 2014. Estimated exit rates control for industry, metro area, owner age, and gender. Counterfactual exit rates assume that all firms have the median revenues and cash buffer days.

Source: JPMorgan Chase Institute

Figure 14 shows the observed exit rates for firms in their third year in the left panel, and the predicted exit rates in the other panels illustrate two points. First, Black- and Hispanic-owned firms are less likely to survive than their White-owned counterparts even after controlling for industry and city. Second, that gap in survival could be eliminated if each had comparable revenues and cash buffers.

The center panel of Figure 14 illustrates the predicted probabilities of firm exit for firms after controlling for industry, metro area, gender, and age group. The predicted probabilities for Black- and Hispanic-owned firms were lower than their observed exit rates, implying that these variables explained a meaningful share of the differential exit rates by owner race. For example, while 11.2 percent of Black-owned firms actually exited after their third year, 10.7 percent were predicted to exit after controlling for firm and owner characteristics. For Hispanic- and White-owned firms, the predicted rates were similar to their observed rates.

In our second model specification, we added financial measures from the firm's prior year (revenues and cash buffer days) as explanatory variables. For example, for firms operating in their third year, we estimated the probability of exit in the following year based on owner and firm characteristics as well as the revenues and cash buffer days observed in their second year.[10] Compared to the first model, the coefficients for the owner race and age variables were no longer significant once the prior year revenues and cash buffer days were included in the model, suggesting that revenues and cash buffer days can better explain the likelihood of firm exit than race or age. (See Table A1 in the Appendix.)[11]



The right panel of Figure 14 shows the predicted probabilities using this model and a counterfactual assumption that all firms experienced the same median revenues of $101,000 and 16 cash buffer days. The industries, metro areas, and owner characteristics of Black-, Hispanic-, and White-owned firms in the sample remained unchanged. For example, we did not assume a Black-owned firm in the sample operated in a different industry with a higher survival rate. We only transformed the prior-year revenue and cash buffer days. In this counterfactual, the difference between the share of Black- and Hispanic-owned firms exiting and that of White-owned firms was eliminated in the third year. Regardless of owner race, the predicted exit probability is less than 10 percent. This illustrates that the racial differences in firm survival could be eliminated with comparable revenues and cash buffers.

It may be expected that similar firms, but for the race of the owner, have similar probabilities of exit. However, Black- and Hispanic-owners are more likely to found businesses in some industries, such as repair and maintenance, which have lower firm life expectancies (Farrell, Wheat, and Mac 2018). We might expect the industry composition or other unobserved features of small businesses founded by Black and Hispanic owners to result in higher shares of Black- and Hispanic-owned firms exiting even if their financial measures like revenues and cash buffer days were similar, but our counterfactual analysis implies this is not the case. The differences in the actual shares of firms exiting can be eliminated with sufficient revenues and cash reserves and without changing the industry composition or other features.

This analysis shows how important revenues and cash reserves are for the survival of small businesses during the critical initial years, particularly for Black- and Hispanic-owned firms. Comparable revenues and cash buffers are associated with comparable survival rates, suggesting a lever for providing equal opportunity for small business success. Policies that facilitate Black- and Hispanic-owned businesses access to larger markets could support their survival.

Finding
Five

Racial gaps in small business outcomes are evident across cities, even in cities with large Black or Hispanic populations.

One hypothesis about the racial gap in small business outcomes is that Black and Hispanic owners face greater opportunities in locations where customers and other community members are often of the same race or ethnicity (Portes and Jensen 1989, Aldrich and Waldinger 1990). In "ethnic enclaves" where entrepreneurs share race, culture, and/or language with their fellow residents, business owners might have advantages in attracting and retaining employees and differential insight into market opportunities. Moreover, Black and Hispanic entrepreneurs might face less discrimination in areas with large Black and Hispanic populations.

The relative effects of neighborhood racial composition and owner race on small business outcomes is an important research question. However, it is outside the scope of this report. Nevertheless, we might expect smaller racial gaps in small business outcomes in metro areas with larger Black or Hispanic populations. However, we actually observe similar patterns across cities. In this section, we use the sample of all firms—which includes firms of all ages—in each metropolitan area to provide the most recent snapshot of the small business sector.

Most of the firms in our sample are located in six metropolitan areas, some of which have large Hispanic populations (Miami) or sizable Black populations (Atlanta, Baton Rouge, and New Orleans). Our sample of firms in these cities generally reflect the resident populations.[12] However, Black-owned firms were underrepresented in all but Atlanta. While some cities appear to have narrower race gaps in small business outcomes, we nevertheless observe similar patterns where Black- and Hispanic-owned firms are more likely to exit, Black-owned firms generate lower revenues and profit margins, and White-owned firms maintain the most cash buffer days.

Table 6: Racial composition in metropolitan areas and small business owners in 2019

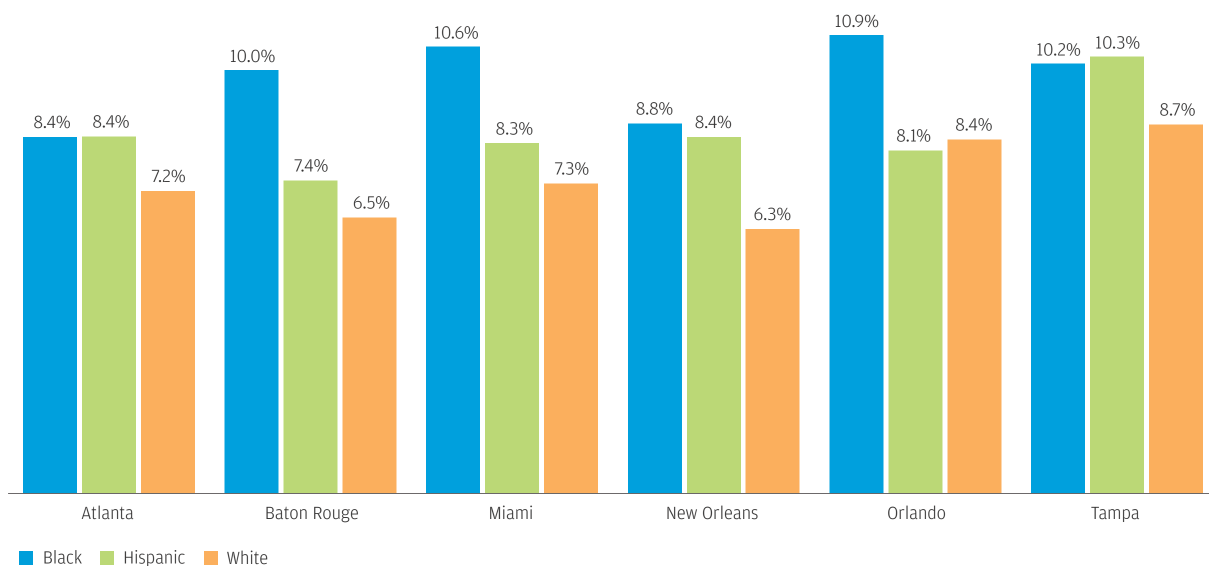
	American Community Survey 2018 share of population*			JPMCI Sample 2019 share of firms		
	White	**Hispanic****	**Black**	**White**	**Hispanic**	**Black**
Atlanta	48%	11%	33%	50%	9%	42%
Baton Rouge	57%	4%	35%	79%	2%	19%
Miami	31%	45%	20%	44%	48%	8%
New Orleans	52%	9%	35%	76%	5%	19%
Orlando	48%	30%	15%	57%	33%	10%
Tampa	64%	19%	11%	77%	16%	6%

Note: JPMCI sample includes firms operating in 2019 in each metropolitan area. *Does not sum to 100 percent due to omitted races. ** Hispanic may be of any race.

Source: JPMorgan Chase Institute

Figure 15 shows the shares of firms operating in 2018 that exited in 2019 in each metropolitan area. In most cities, a larger share of Black-owned firms exited compared to Hispanic- or White-owned firms. For example, while Black- and Hispanic-owned firms exited at similar rates in Atlanta and Tampa in 2019, Black-owned firms nevertheless had the highest exit rates in other years. White-owned firms often exited at the lowest rates.

Figure 15: Share of firms in 2018 exiting in the following year



Note: Sample includes firms operating in 2018.

Source: JPMorgan Chase Institute

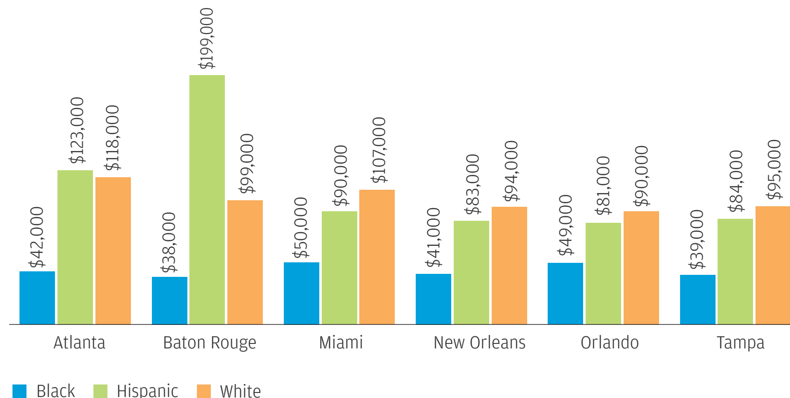
Median revenues for each city, shown in Figure 16, show a similar pattern. Typical Black-owned firms generated revenues that were less than half of the typical White-owned firm. Hispanic-owned firms in most cities had median revenues that were somewhat lower than White-owned firms but substantially higher than Black-owned firms. In Baton Rouge and Atlanta, median revenues of Hispanic-owned firms in our sample were higher than those of White-owned firms. However, the relatively small number of Hispanic-owned firms in those cities, especially in Baton Rouge, suggests that these figures may not be representative.

Figure 17 shows a similar pattern for profit margins across cities. White-owned firms had profit margins that were often several percentage points higher than Hispanic- and Black-owned firms. In each city, Black-owned firms had the lowest profit margins. Lower revenues, coupled with lower profit margins imply that Black- and Hispanic-owned firms have fewer resources to reinvest in their businesses or save in their cash reserves.

We observe a similar pattern for cash liquidity across cities: Typical Black-owned firms held 9 to 12 cash buffer days, while typical Hispanic-owned firms held 11 to 14 days. White-owned firms held substantially more in cash reserves, enough to cover 17 to 21 days of outflows in the event of revenue disruptions.

These six metropolitan areas may vary in size and racial composition, but we nevertheless observe similar differences in small business outcomes based on owner race. This implies two things: first, it is likely that the differences we observe in these three states also occur nationwide, in many metropolitan areas. Second, Black- and Hispanic-owned firms trail their White-owned counterparts, even in cities where the Black or Hispanic population is large and there are many Black and Hispanic business owners, such as Atlanta or Miami.

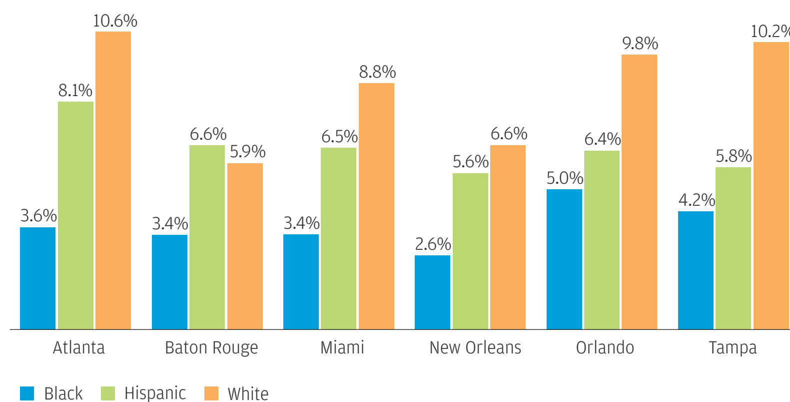
Figure 16: Median revenue of small businesses in 2019



Note: Sample includes firms operating in 2019.

Source: JPMorgan Chase Institute

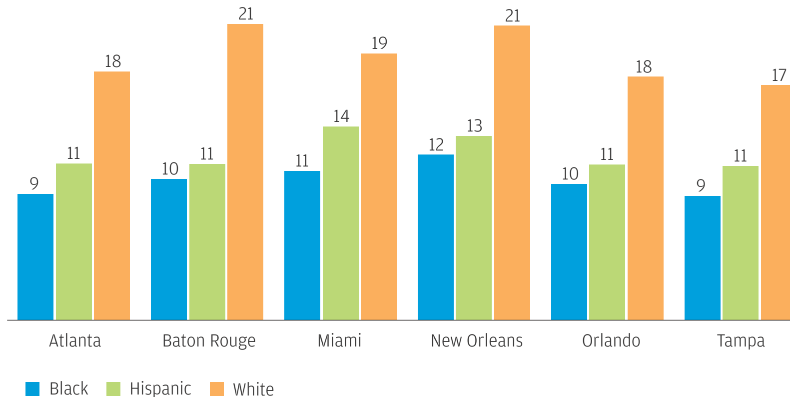
Figure 17: Median profit margins of small businesses in 2019



Note: Sample includes firms operating in 2019.

Source: JPMorgan Chase Institute

Figure 18: Median cash buffer days of small businesses in 2019



Note: Sample includes firms operating in 2019.

Source: JPMorgan Chase Institute

Conclusions and Implications

We provide a recent snapshot of differences in financial outcomes of Black-, Hispanic-, and White-owned small businesses using unique administrative banking data coupled with self-identified race from voter registration records. Our longitudinal analyses of a cohort of firms founded in 2013 and 2014 provide valuable insights into the critical initial years of the small business life cycle. Despite operating during an expansionary period, Black- and Hispanic-owned firms were less likely to survive, operated with lower revenues and profit margins, and maintained lower cash reserves than their White-owned counterparts. These results are consistent with results obtained more than a decade ago, suggesting that the differential challenges that Black- and Hispanic-owned firms face are persistent. However, we also find evidence that Black- and Hispanic-owned firms that achieve comparable levels of scale and cash liquiditiy are just as likely to survive as White-owned firms.

Policies and programs that can help Black- and Hispanic-owned businesses survive are often also ones that help them grow and thrive. With these objectives in mind, we offer the following implications for leaders and decision makers:

Chances for survival

Black- and Hispanic-owned firms may be disproportionately affected during economic downturns. Even in an expansionary period, such as 2013 through 2019, Black- and Hispanic-owned firms were smaller and less profitable, limiting the ability of their owners to build business assets and maintain the cash reserves that can mitigate adverse shocks. During an economic downturn, they may have fewer business and personal assets to deploy towards sustaining their businesses. In particular, lower revenues among Black- and Hispanic-owned restaurants and small retail establishments may leave them particularly vulnerable in the current economic downturn.

Insufficient liquid assets are a key constraint to small business survival. All new firms struggle to survive, but Black- and Hispanic-owned firms are significantly more likely to exit in the first few years, compared to their White-owned counterparts. Small businesses with more cash are better able to withstand shorter- and longer-term disruptions to revenue or other cash inflows. Black- and Hispanic-owned firms hold materially less cash than White-owned firms, but Black-, and Hispanic-owned firms are just as likely to survive as White-owned firms when they have the same revenues and cash reserves. Policy choices that ensure equitable access to capital, especially during an economic downturn, could meaningfully improve survival rates across the sector.

Policies and programs that direct market opportunities at Black- and Hispanic-owned businesses could also materially support small business survival. Across the size spectrum, Hispanic- and especially Black-owned businesses generate significantly lower revenues than White-owned businesses. In addition to cash liquidity, scale is a significant predictor of small business survival. Access to larger markets, such as through private and government contracts, can help them achieve the scale needed not only to survive but also to mitigate adverse shocks and build wealth. To the extent that policymakers use contracting as a mechanism to promote economic recovery, equitable allocation could broaden the base of recovery in the small business sector.

Prospects for growth

Black and Hispanic business owners have limited opportunities to build substantial wealth through their firms. The organic growth of Black- and Hispanic-owned firms is promising, but the dearth of external financing—through household savings, social networks, or bank financing—implies that Black- and Hispanic-owned firms have fewer opportunities for building businesses with a scale-based competitive advantage. Moreover, Black- and Hispanic-owned businesses are smaller and less profitable than their White-owned counterparts, making them less likely to be a substantial source of wealth for their owners.

Small business programs and policies based on firm size, payroll, or industry may miss smaller small businesses, including many Black- and Hispanic-owned firms. The typical Black- and Hispanic-owned firm is smaller and less likely to be an employer firm than a White-owned firm. Programs intended for larger small businesses with payroll would disproportionately exclude Black and Hispanic owners. Similarly, some industry-specific programs, such as those promoting the high-tech industry, would include few Black- and Hispanic-owned businesses. As compared to policies and programs based on payroll expenses or employee counts, policies based on revenues may reach more smaller small businesses and especially more Black- and Hispanic-owned businesses.

Policies to help Black and Hispanic business owners also help women and younger entrepreneurs, and vice versa. Larger shares of Black and Hispanic business owners are female or under 55, compared to White business owners. Addressing their needs, such as affordable child care and training/education, can create an environment where small businesses can thrive.

Appendix

Box 3: JPMC Institute—Public Data Privacy Notice

The JPMorgan Chase Institute has adopted rigorous security protocols and checks and balances to ensure all customer data are kept confidential and secure. Our strict protocols are informed by statistical standards employed by government agencies and our work with technology, data privacy, and security experts who are helping us maintain industry-leading standards.

There are several key steps the Institute takes to ensure customer data are safe, secure, and anonymous:

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Sample Construction

Full sample – Our data include over 6 million firms. From this, we constructed a sample of over 1.8 million firms who hold Chase Business Banking deposit accounts and meet our criteria for small operating businesses in core metropolitan areas. We then used over 4.6 billion anonymized transactions from these businesses to produce a daily view of revenues, expenses, and financing flows for the period between October 2012 and December 2019. In addition, all 1.8 million firms must meet the following conditions:

Hold a Chase Business Banking accounts between October 2012 and December 2019

Satisfy the following criteria for every month of at least one consecutive twelve-month period:

- Hold at most two business deposit accounts
- Start-of-month combined balances never exceed $20 million

Operate in one of the twelve industries that are characteristic of the small business sector: construction, healthcare services, metals and machinery manufacturing, real estate, repair and maintenance, restaurants, retail, personal services (e.g. dry cleaning, beauty salons, etc.), other professional services (e.g. lawyers, accountants, consultants, marketing, media, and design), wholesalers, high-tech manufacturing, and high-tech services

- Operate in one of 386 metropolitan areas where Chase has a representative footprint
- Show no evidence of operating in more than a single location or industry

Satisfy criteria that indicate they are operating businesses by having, in at least one consecutive twelve-month period, three months with the following activity in each month:

- At least $500 in outflows
- At least 10 transactions

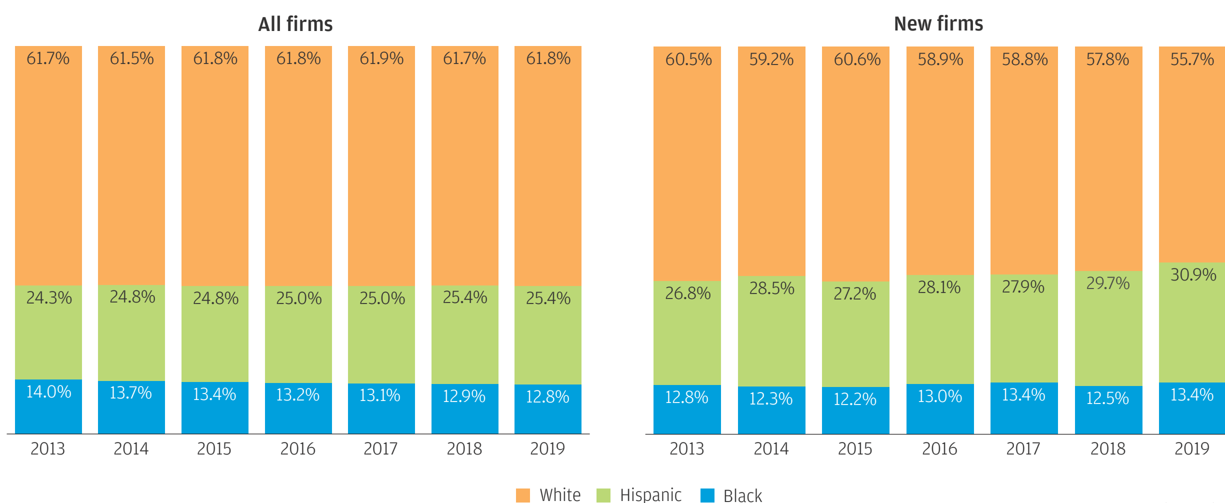
Our full sample in this report includes nearly 150,000 firms for which we could identify the race of the owner from voter registration data.

2013 and 2014 Cohort – Out of those 1.8 million firms, we identified a cohort of 27,000 firms that were founded in 2013 or 2014. Our longitudinal view allows us to fully observe up to the first five years of these firms' operation.

Employers – We classify firms as employers if, in a twelve-month period, we observe electronic payroll outflows for at least six months out of those twelve. We call firms that are not employers "nonemployers." Eighty-eight percent of firms in our sample are never considered employers and 83 percent never have an electronic payroll outflow. Details on how we identify payroll outflows can be found in our report on small business employment (Farrell and Wheat 2017). Additionally, we classify firms where we observe electronic payroll outflows for at least six months out of twelve or at least $500,000 in outflows in the first four years as "stable small employers" when classifying a firm based on its small business segment.

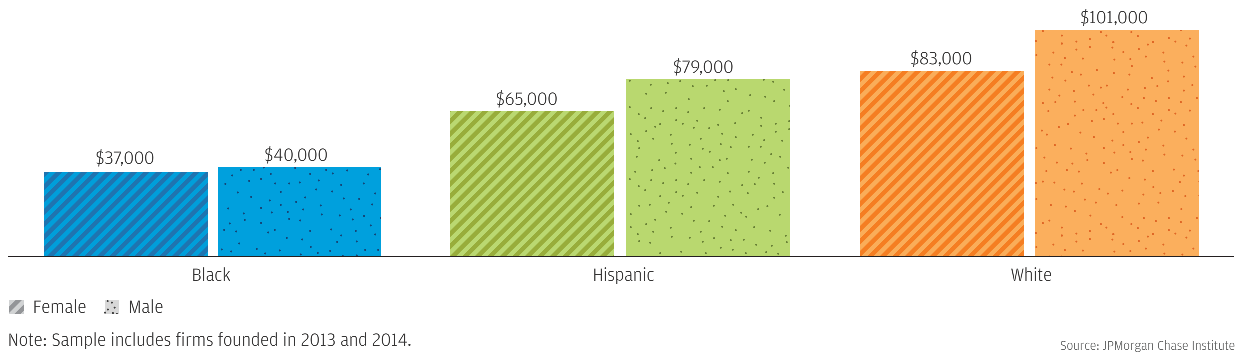
Supplemental Results

Figure A1: Distribution of firms by owner race



Source: JPMorgan Chase Institute

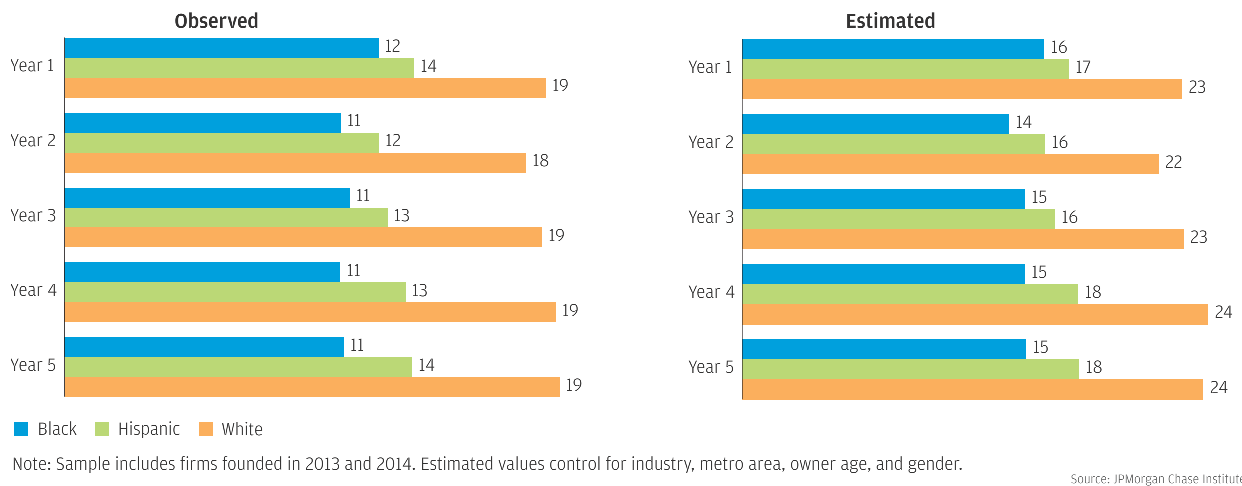
Figure A2: Median first-year revenues, by owner race and gender



Note: Sample includes firms founded in 2013 and 2014.

Source: JPMorgan Chase Institute

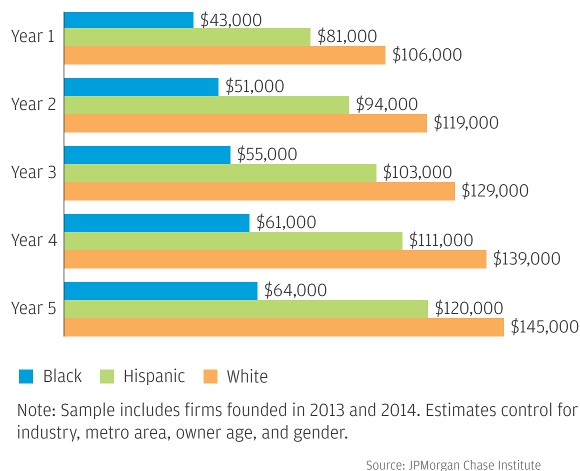
Figure A3: Cash buffer days in each year of operations



Note: Sample includes firms founded in 2013 and 2014. Estimated values control for industry, metro area, owner age, and gender.

Source: JPMorgan Chase Institute

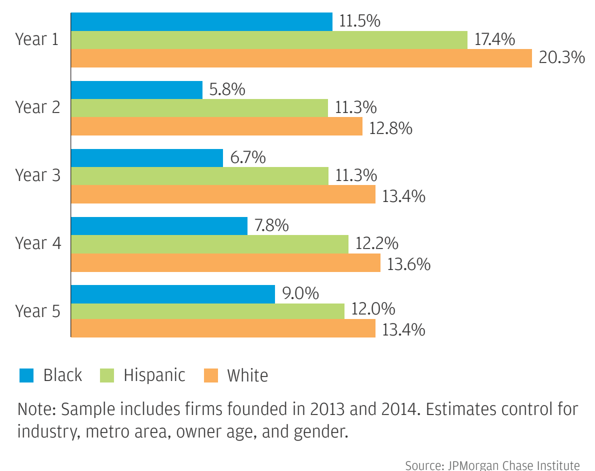
Figure A4: Estimated revenues for the cohort



Note: Sample includes firms founded in 2013 and 2014. Estimates control for industry, metro area, owner age, and gender.

Source: JPMorgan Chase Institute

Figure A5: Estimated profit margins for the cohort



Note: Sample includes firms founded in 2013 and 2014. Estimates control for industry, metro area, owner age, and gender.

Source: JPMorgan Chase Institute

Regression Models

Firm exit: We estimated linear probability models of firm exit in the following year, controlling for firm and owner characteristics in the current and prior year. We estimated separate models for the second, third, and fourth years of operations for the cohort of firms founded in 2013 and 2014. Logistic regression models yielded very similar results.

Table A1 shows that for each year, coefficients for the prior year's cash buffer days and revenues are negative and statistically significant. Each decreases the probability of exit. The owner race variables are not statistically significant, and owner age under 35 is significantly positive only in year 2. Interaction effects between owner race and lag cash buffer days and lag revenues were not statistically significant and were omitted in the final specification.

Counterfactual analysis: To produce the counterfactual, we took the sample of firms used to estimate the probability models described above and calculated the predicted probability of exit using the median number of cash buffer days and the median revenues for all firms in the respective years. All other variables, including owner characteristics, industry, and metro area, were unchanged.

Table A1: Linear probability models of firm exit for the cohort founded in 2013 and 2014

Dependent variable: exit within the following twelve months
standard errors in parentheses

	Year 2	Year 3	Year 4
Owner Gender=Female	0.006 (0.0044)	-0.004 (0.0045)	-0.000 (0.0046)
Owner Age=55 and Over	-0.005 (0.0048)	-0.002 (0.0047)	-0.002 (0.0047)
Owner Age=Under 35	0.018** (0.0065)	0.013 (0.0071)	0.004 (0.0074)
Owner Race=Black	0.012 (0.0071)	-0.001 (0.0073)	-0.010 (0.0074)
Owner Race=Hispanic	0.008 (0.0054)	-0.002 (0.0055)	-0.004 (0.0056)
Log (Lag Cash Buffer Days)	-0.022*** (0.0017)	-0.020*** (0.0017)	-0.017*** (0.0017)
Log (Lag Revenue)	-0.009*** (0.0013)	-0.014*** (0.0013)	-0.014** (0.0012)
Intercept	0.267*** (0.0185)	0.318*** (0.0180)	0.301*** (0.0181)
Industry	√	√	√
Establishment CBSA	√	√	√
Observations	21,264	18,635	16,739
Adjusted R^2	0.02	0.02	0.02

Note: ** p < .01, *** p < .001

Source: JPMorgan Chase Institute

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Endnotes

1. Businesses with Asian owners historically have had stronger financial performance than those with White owners (Robb and Fairlie 2007), and businesses in majority-Asian neighborhoods have larger cash buffers and are more profitable than those in majority-White neighborhoods (Farrell, Wheat, and Grandet 2019). However, in the economic downturn related to COVID-19, Asian-owned businesses may be disproportionately affected due to their concentration in higher-risk industries (Kochhar 2020).

2. The Federal Reserve's Survey of Small Business Finances was last conducted in 2003 (https://www.federalreserve.gov/pubs/oss/oss3/nssbftoc.htm); their Small Business Credit Survey is more recent but has fewer items that quantitatively inform small business financial outcomes.

3. 2012 State of Minority Business Enterprises, which tabulates the 2012 Survey of Business Owners. Statistics are for all U.S. firms, but counts are driven by the large numbers of small businesses. Both employer and nonemployer firms are included.

4. The U.S. Census Bureau's Business Dynamic Statistics measures businesses with paid employees. https://www.census.gov/programs-surveys/bds/documentation/methodology.html

5. Voter registration data was obtained in 2018 for the exclusive purpose of enabling the JPMorgan Chase Institute to conduct research examining financial outcomes by race and not to identify party affiliation. Voter registration records and bank records were matched based on name, address, and birthdate. The matched file that contains personal identifiers, banking records, and self-reported demographic information has been deleted. The remaining de-identified file that contains banking records and self-reported demographic information is only available to the JPMorgan Chase Institute and is not being maintained by or made available to our business units or other parts of the firm.

6. While eight states collect race during voter registration (https://www.eac.gov/sites/default/files/eac_assets/1/6/Federal_Voter_Registration_ENG.pdf), Chase has branches in three: Florida, Georgia, and Louisiana.

7. For example, responses in Florida were coded as "White, not Hispanic," "Black, not Hispanic," "Hispanic," "Asian or Pacific Islander," "American Indian or Alaskan Native," "Multi-racial," and "Other." https://dos.myflorida.com/media/696057/voter-extract-file-layout.pdf.

8. For example, the SBA Small Business Investment Company program provides debt and equity finance to small businesses, typically ranging from $250,000 to $10 million for financing, that includes debt, with an average award of $3.3M in FY2013 https://www.sba.gov/funding-programs/investment-capital https://www.sba.gov/sites/default/files/files/SBIC_Annual_Report_FY2013_508Compliant_1.pdf. In our data, $400,000 reflected approximately the 95th percentile of annual financing inflows among businesses in our sample for which we observed any financing inflows at all.

9. We classify firms with more than $500,000 in expenses as likely employers to capture firms that may pay employees either by methods other than electronic payroll payments, or by using smaller electronic payroll services that we have not yet classified in our transaction data. While this threshold may capture some nonemployer businesses high costs of goods sold, we consider this a conservative threshold. The average small business employee in 2015 earned $45,857, which means that $500,000 in expenses would be more than enough to cover payroll for ten employees.

10. Revenues and cash buffer days from the prior year are used to address the possibility of confounding circumstances, in which low revenues or cash buffer days in the current year could be leading indicators of exit in the following year. Consequently the first year for the regression model is year 2, in which we estimate the probability of exit in year 3.

11. Estimates from ordinary least squares (OLS) and logistic regressions were very similar.

12. The distribution of owner race in the JPMCI sample was similar in 2018 and 2019. The most recent American Community Survey data was for 2018.

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