

ISSUE BRIEF

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Minority Business Ownership: Data from the 2012 Survey of Business Owners

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Introduction

The U.S. minority population has grown rapidly. According to the U.S. Census Bureau, 37% of the U.S. population identifies as part of at least one minority class. The populations of five states, including the two largest, California and Texas, are now over 50% minorities.¹ Many other states, counties, and cities are approaching this threshold, thus understanding minority business ownership is increasingly important.

Nationwide, 29% of businesses are majority-owned by minorities, and this share is quickly increasing. The recently released 2012 Survey of Business Owners (SBO) provides a unique opportunity to examine how specific minority groups are performing in the economy as a whole, the disparities they face in sales and employment, and the business characteristics that distinguish them.

Topline Statistics

Minority-owned businesses form a significant portion of the U.S. economy. In 2012, 8.0 million minorityowned businesses contributed \$1.38 trillion in revenue and 7.2 million jobs to the economy. Their importance was also emphasized during the recent economic recession when minority-owned businesses were an important source of business growth. From 2007 to 2012, the five years enveloping the economic recession, a net 2 million minority-owned businesses were created, while a net 1 million nonminorityowned businesses closed. During that time, minorities increased their share of overall business ownership from 22% to 29%. Further minority-owned businesses represented an additional \$335 billion in sales and 1.35 million in employment.

Increasing Entrepreneurship. Minority entrepreneurs are currently underrepresented compared with their share of the population, but entrepreneurship within minority groups is on the rise. The largest minority groups, Black/African Americans and Hispanics, own disproportionately fewer businesses than their non-Hispanic White counterparts. The share of smaller groups, such as Asians and American Indians, is closer or equal to parity (See Table 1).

^{1.} Based on percent of the population not identifying as solely non-Hispanic white. The other three majority-minority states are: the District of Columbia, Hawaii and New Mexico.

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	Number of Businesses	% of U.S. Businesses	Population	% of U.S. Population
Black/African American	2,584,403	9.5	39,697,782	12.6
American Indian and Alaska Native	272,919	1.0	2,574,388	0.8
Asian	1,917,902	7.1	15,578,065	5.0
Native Hawaiian and Other Pacific Islander	54,749	0.2	530,525	0.2
Hispanic	3,305,873	12.2	52,932,483	16.9
Minority	7,952,386	29.3	116,638,306	37.2
Non-Hispanic White	19,278,260	70.9	197,275,734	62.8

Table 1. Comparative Shares of Minority Business Ownership and Total Population, 2012

Note: Percentages may not sum to 100% due to those identifying as two or more races, or an "other" race.

The increase in minority-owned businesses greatly outpaced their population growth from 2007 to 2012. For example, while the Black/African American population increased by 6%, their business ownership increased by an impressive 34%. The Hispanic pop-

ulation increased by 17% while Hispanic-owned businesses increased by 46%.

Minority and nonminority entrepreneurship can also be compared using a ratio of population per business (Table 2). Among, nonminorities there is about one business for every 8 adults. For the large minority groups the entrepreneurship ratio has historically been much larger, but this gap has narrowed substantially in recent years. The minority ratio is now coming closer to the nonminority ratio. In 2007, there was only one Hispanic-owned

Table 2. Ratio of Adult Population per Business

	2007	2012
Black/African American	13.8	11.3
American Indian and Alaska Native	7.2	6.8
Asian	6.7	6.4
Native Hawaiian and Other Pacific Islander	8.6	7.1
Hispanic	13.3	10.7
Non-Hispanic White	7.7	8.2

Note: Smaller ratios indicate a higher level of entrepreneurship.

business for every 13 Hispanic adults. Similarly, for Black/African Americans, there was one business for every 14 adults. However in 2012, there was one Hispanic or Black-owned business for every 11 members of their respective groups, a 20% increase in entrepreneurship for both groups. Asians have also seen their entrepreneurship ratio go from 7 adults per business to 6, which is notable due to their distinction of already having the smallest ratio among all major racial and ethnic groups.

Disparity. The entrepreneurship ratio is only one measure of minority performance in the business sector. Revenue and employment shares are other key indicators. Observers of the SBO data often note that minority businesses account for a much smaller share of revenue and employment than their share of all businesses (Table 3). For example, while Hispanic-owned firms represent over 12% of all businesses, they only account for 4% of all sales and employment. This gap between the share of businesses and sales/ employment can be described as a "disparity"; it is expressed as a ratio between a minority group's share of sales or employment and its share of businesses. For example, Hispanic-owned businesses have a 33% sales disparity ratio (.04/.12); meaning their share of sales is only one third of their share of businesses. All minority businesses have sales and employment disparity ratios under 100%, and therefore have larger shares of businesses than of sales or employment.

	% of		% of	Disparity Ratios	
Minority Group	Businesses	% of Sales	Employment	% Sales/ % Businesses	%Employment/ %Businesses
Black/African American	9.5	1.3	1.7	13	18
American Indian and Alaska Native	1.0	0.3	0.4	32	37
Asian	7.1	5.8	6.4	83	90
Native Hawaiian and Other Pacific Islander	0.2	0.1	0.1	34	35
Hispanic	12.2	4.0	4.2	33	34
Non-Hispanic White	70.9	88.0	86.5	124	122

Table 3. Minority Group Shares of Total Business Ownership, Sales, and Employment, 2012

Note: The sales (employment) disparity ratio is the ratio of the minority group's share of sales (employment) over their share of businesses. A ratio of less than 100% indicates that group generates a smaller share of sales (employment) than their share of businesses. Disparity ratios calculated on unrounded data.

While the 2012 SBO data demonstrate large increases in minority business ownership, sales and employment disparities persist. Despite adding over \$300 billion in sales and a million employees, disparities in sales and employment for minority-owned businesses have widened from 2007 to 2012 (Table 4). Every major minority group faces a disparity in both sales and employment; however Asian-owned businesses, while still having a disparity, performed markedly better on both metrics. Further, they are one of the few groups whose sales and employment disparities shrunk between 2007 and 2012.

Table 4. Percentage Point Change in Sales and Employment Disparity Ratios, 2007-2012				
	Sales Disparity Ratio Change	Employment Disparity Ratio Change		
Black/African American	4 pt. increase	4 pt. increase		
American Indian and Alaska Native	3 pt. increase	1 pt. decrease		
Asian	4 pt. decrease	6 pt. decrease		
Native Hawaiian and Other Pacific Islander	7 pt. increase	12 pt. increase		
Hispanic	5 pt. increase	5 pt. increase		

Table 4. Percentage Point Change in Sales and Employment Disparity Ratios, 2007-2012

Sales Disparities. Evaluating disparities using per-firm sales average shows the stark difference between minority and nonminority firms. It also highlights key variations between minority groups (Table 5). For example, a Black/African American-owned firm averages about \$58,000 in sales per firm, while a Hispanic-owned firm generates two and a half times this amount; an Asian-owned firm, 6 times as much; and a nonminority-owned firm, over 9 times this amount.

Table 5. Sales Recei	nts Per Firm h	ny Minority G	roun 2012
Table J. Jaies Recei	різ геі гіпіі і	Jy willionly G	oup, 2012

	Receipts per Firm (\$1,000)	Receipts per Employer Firm (\$1,000)
Black/African American	58	948
American Indian and Alaska Native	142	1,209
Asian	365	1,305
Native Hawaiian and Other Pacific Islander	149	1,375
Hispanic	143	1,322
Non-Hispanic White	546	2,326

Employer and Nonemployer Disparities. While large differences between minority groups are evident when evaluating all firms (both employer and nonemployer), the disparities are smaller when comparing sales among minority-owned employer firms. As seen in Table 5, Hispanic- and Asian-owned employer firms' sales per firm are similar, but just over half of their nonminority-owned counterparts' level. Black/African American-owned firms generate slightly less — 41% of the nonminority-owned firms average sales.

In regards to employment, minority-owned businesses are far less likely to be employers, with the exception of Asian-owned firms (Table 6). About 22% of nonminority businesses have at least one paid employee. For Black/African American-owned firms that figure is only 4%, making them 81% less likely to be employers than nonminority firms. Similarly Hispanic-, Native American-, and Pacific Islander-owned firms are about 40% as likely to be employers.

Even when a minority business is an employer, it tends to have fewer employees on average than a nonminority firm. This is one of the few areas where Asian-owned businesses lag behind other minority groups, with an average of 7.4 employees per firm, compared to about 8.1 for Hispanic-owned and 8.9 for Black/African American-owned businesses. However, since Asian-owned firms are far more likely to be employers, they employ more individuals than both Hispanic and Black/African American-owned firms combined.

	% Employer Firms	Number of Employees per Firm		
Black/African American	4.2	8.9		
American Indian and Alaska Native	9.6	8.0		
Asian	25.1	7.4		
Native Hawaiian and Other Pacific Islander	8.6	8.3		
Hispanic	8.7	8.1		
Non-Hispanic White	21.8	11.6		

Table 6. Percent of Employer Firms and Average Employment Size by Minority Group, 2012

Industries

There are many possible explanations for the disparities between minority- and nonminority-owned businesses' topline employment and revenue statistics. One is that minority-owned businesses tend to be in industries that have smaller sales and employ fewer people regardless of minority status. The SBO data provides some evidence of this industry distribution when evaluating the top 20 and bottom 20 industries by sales and employment. However, a further analysis of high-minority represented industries shows that there are also disparities within industries, regardless of the industry-wide sales or employment performance.

Industry Distribution.

Sales. Businesses' sales receipts vary widely depending on the industry in which they operate. Evaluating the distribution of minority ownership in the 20 highest and lowest sales industries provides some insight on the disparities in the SBO data.² The lowest 20 industries tend to be service industries such as child day care services, taxi service, and personal goods repair. (Appendix A contains the expanded list.) All 20 industries rank below the seventh percentile in average sales receipts per firm, ranging from \$32,000 to

^{2.} See Methodology Notes for the determinations of top and bottom sales and employment industries.

\$115,000 per firm. These industries combined make up 35% of all U.S. businesses, but only 5% of business revenue (Table 7).

The top 20 industries in terms of sales have considerably fewer firms; they contain only 0.3% of all businesses, but account for 9% of sales. These industries include insurance carriers, chemical manufacturing and plastics manufacturing, and their average sales range from \$7.6 million to \$54.2 million per firm.

20 Lowest Sales Industries		20 Highest Sa	les Industries		
% of All Businesses	% of All Sales	% of All Businesses	% of All Sales		
35.4	5.2	0.3	9		

Table 7. Characteristics of the 20 Lowest and Highest Sales Industries

While the number of minority-owned businesses is growing rapidly, disproportionate amounts are in the lowest 20 industries in terms of sales. In aggregate almost 58.9% of all African American-owned businesses es are in the 20 lowest sales-generating industries, as are about 44.5% of all Hispanic-owned businesses. In contrast, only 30.6% of all nonminority businesses are in these industries.

In the high sales industries on the other hand, there is a disproportionately small share of minority businesses ownership. On average, 13.1% of businesses in these industries are owned by minorities, with nine industries having less than 10% minority ownership. Further a minority-owned business is 64% less likely to be part of the top 20 sales industries compared to a nonminority business.

Table 8 shows both the share of a group's businesses within these highest/lowest industries and also the share of these industries owned by that group. For example, 43.3% of all American Indian-owned businesses are in the lowest 20 sales industries. However, due to that group's size, American Indian-owned businesses only make up 1.2% of those industries.

Minority-owned businesses' concentration in low sales industries and sparse representation in high sales industries may partly explain the very large sales disparity between minorities and nonminorities.

	20 Industries with	the Lowest Sales	20 Industries wit	th the Highest Sales
	% of Minority Businesses in Industry	% of Industry Owned by Minorities	% of Minority Businesses in Industry	% of Industry Owned by Minorities
Minority	47.0	38.9	0.1	13.1
Black/African American	58.9	15.8	0.1*	2.2*
American Indian and Alaska Native	43.3	1.2	0.1*	0.5*
Asian	37.2	7.4	0.2	4.8
Native Hawaiian and Other Pacific Islander	46.9*	0.3*	0.1*	0.1*
Hispanic	44.5	15.3	0.1*	5.6*
Non-Hispanic White	30.6	60.4	0.3	85.9

Table 8. Percent of All Minority-owned Businesses in the Lowest and Highest Sales Industries & Percent of those Industries Owned by Minorities

*These groups have high relative standard errors (>30) or no industry representation in 50% or more of the 20 industries.

Employment. A similar trend appears when evaluating employment by industry, although the differences between minority groups are less apparent. The lowest 20 industries by employment are businesses that can often be run independently, for instance child day care services, independent artists, and fisheries. (Appendix B contains the complete list.) They account for 35% of all businesses, but employ less than 6% of the workforce.

The high employment industries, similar to the top sales industries, account for a small share of businesses, 0.5%, but generate almost 11% of all employment. These industries, which are often in manufacturing sectors, employ 27 to 143 workers per firm on average (Table 9).

20 Lowest Employment Industries		20 Highest Emplo	oyment Industries
% of All Businesses	% of All Employment	% of All Businesses	% of All Employment
35.3	5.9	0.5	10.6

Table 9. Characteristics of the 20 Lowest and Highest Employment Industries

Unlike the previous sales industry data, minority-owned firms are not greatly over- or underrepresented in the lowest 20 employment industries. Only Black/African-owned businesses are notably more likely to be in these low-employment industries (30% more likely). However, minority firms are less likely to be in the top 20 employment industries. Minority-owned businesses make up only 16.8% of businesses in these industries, far less than the 29% average across all industries (Table 10).

Table 10 shows both the share of a group's businesses within these highest/lowest employment industries and also the share of these industries owned by that group. For example, 0.3% of all Hispanic-owned businesses are in the highest 20 employment industries. However, since these industries are relatively small, Hispanic-owned businesses make up 6.2% of those industries.

While the top and bottom industries in sales show a clear pattern of minority firms' over-representation in lower revenue industries, the employment statistics are less clear. The distribution of business ownership in the bottom 20 employment industries show close to average results, while the distribution in the top 20 industries shows minorities are fairly underrepresented. While to a smaller magnitude than sales, this may be partly the reason minority-owned businesses have large disparities in employment.

	-			
	20 Industries with the Lowest Employment		20 Industries wi Employ	
	% of Minority Businesses in Industry	% of Industry Owned by Minority	% of Minority Businesses in Industry	% of Industry Owned by Minority
Minority	38.4	31.8	0.3	16.8
Black/African American	45.7	12.3	0.2*	4.0*
American Indian and Alaska Native	37.9	1.1	0.3*	0.7*
Asian	37.0	7.4	0.4	5.9
Native Hawaiian and Other Pacific Islander	38.0*	0.2*	0.2	0.1
Hispanic	34.0	11.7	0.3	6.2
Non-Hispanic White	34.0	67.3	0.6	82.1

 Table 10. Percent of All Minority-owned Businesses in the Lowest and Highest Employment Industries &

 Percent of those Industries Owned by Minorities

*These groups have high relative standard errors (>30) or no industry representation in 50% or more of the 20 industries.

Disparity Within Industries. The industry distribution seen in the above analysis does not fully explain why minority groups experience a sales and employment disparity. Evaluating minority businesses within individual industries shows that large sales and employment disparities are seen in almost every industry, even those that have very high minority ownership (Table 11). For example, minority-owned businesses account for two-thirds of the taxi/limousine industry, but only account for 16% of employment and less than 50% of sales.

In the top 10 minority industries, minority-owned businesses make only 24 cents for every dollar in sales that a nonminority-owned business makes on average. In these sectors, nonminority businesses also employ over five people for every one person a minority business employs.

Industry	Minority Share of Industry (%)	Minority Share of Sales (%)	Minority Share of Employment (%)
Taxi and limousine service	67	46	16
Home health care services	61	29	27
Child day care services	60	35	23
Personal care services	58	39	21
Urban transit systems	56	11	6
Interurban and rural bus transportation	55	26	23
Seafood product preparation and packaging	53	13	9
Drycleaning and laundry services	52	26	24
Grocery stores	51	20	17
Charter bus industry	51	16	11

 Table 11. Top 10 Minority Industries by Share of Businesses Minority-Owned

Further analysis into more detailed industry groupings at the 6-digit NAICS level shows that out of 438 industries, minorities face a disparity of some kind in all but 8% of them.³ These data show that it is not only industry distribution which accounts for the revenue and employment disparity, but also business characteristics within industries. Minority businesses within industries may differ from their nonminority counterparts due to such characteristics as age of the firm, number of owners, financing, and so forth.

Minority Business Characteristics

Due to SBO data restrictions, data on business characteristics are only available at the 2-digit NAICS industry sector level. These 21 groups are far broader than the 4-digit level used in the previous analysis, and the covered industries may be vastly different from one another.⁴ For example, the "health care and social assistance" group contains 18 4-digit subgroups including child daycares, which is one of the largest and lowest-revenue industries, and hospitals, one of the smallest and highest-revenue industries. This creates a challenge when trying to understand how minority-owned firms differ from their nonminority partners within an industry. However, understanding these differences in the overall economy can still prove useful.

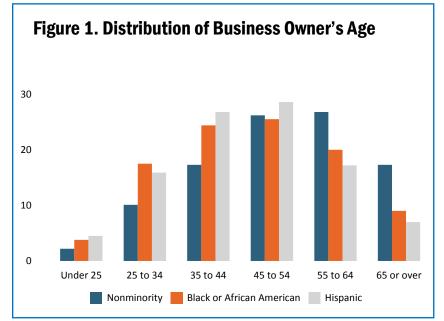
Age of Owner. Minority-owned businesses are more likely to have a younger owner than nonminority firms. This is true for every minority group, even after accounting for the age distribution of that group.

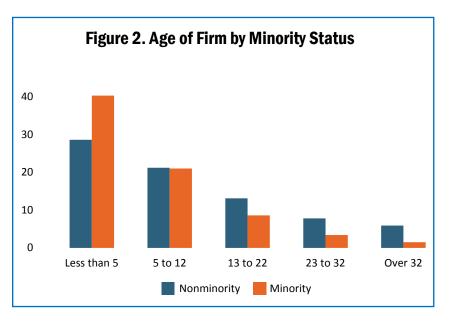
^{3.} Analysis of the 6-digit industry groups includes only those with 100 or more minority-owned businesses that are not missing sales or employment data.

^{4. 282 4-}digit NAICS industries were used in the previous analysis.

For example, Census shows that Black/African Americans are 25% more likely to be between 18 and 34 than nonminorities, but Black/ African American business owners are 75% more likely to be younger than 35. A similar trend appears in all minority groups (Figure 1). Regardless of race or ethnicity, businesses with older owners are more likely to be an employer firm; however, that may be due to other factors, such as firm age.

Age of Firm. The age of the business closely parallels the age of the business owner. As such, minority firms tend to be much younger, and are 41% more likely be less than five years old (Figure 2). Over 26% of nonminority firms are over 12 years old, while, conversely, only about 13% of Asian, Hispanic and Black-owned firms have reached that age. This difference may be a driver of the revenue and employment disparity seen within industries. Regardless of minority status, older firms are far more likely to have higher revenues, be employers, and have more employees. A minority-owned firm over 22 years old earns on average almost 10 times more than one that is less than five years old; it is three times more likely to be an employer firm and employs almost three times as many people as the young firm.





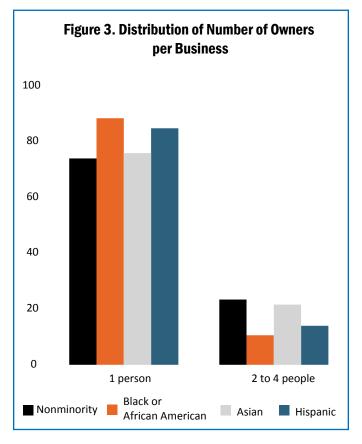
Over the years, as minority firms age, they may close this gap, however this is not guaranteed. The SBO data does not provide information on survival rates for minority firms. The firm age gap could result from the increased levels of minority entrepreneurship, but it could also be from a higher closure rate for minority businesses

Number of Owners/Family Ownership. Minority firms are more likely to be owned by a single individual, instead of a family or more than one business partner (Figure 3). While apparent in all minority groups, the trend is most significant in the larger minority groups, Hispanic and Black/African American. Asian-owned firms on the other hand are far more likely than other minorities to have multiple owners, which could be driven by the large quantity of family-owned businesses in that group. Almost one-fifth of

Asian-owned businesses are family owned (19%), compared to 9% for Black/African American-owned and 13% for Hispanic-owned businesses.

While firms with multiple owners only account for about 17% of all minority businesses, they greatly outperform single-owner businesses in sales and employment. Regardless of minority status, firms with multiple owners earn about five times more revenue and employ almost five times more workers than single-owner firms. These marked differences in revenue and employment may explain some of the disparities within an industry. Further, they may help explain why Asianowned firms perform better on these metrics than their minority counterparts.

Source of Finance. The ability to raise capital to launch or expand a business is an indicator of future success. In many respects the sources of financing are similar between nonminority and minority groups. For business startup, roughly 25% of both groups used no financing. For those businesses that did, about 57% of both groups used family or personal savings. However, minor-



ity businesses appear less likely to use a business loan as a source of startup financing than nonminority businesses. While 8% of nonminority businesses used private business loans as part of their financing, only 5% of minority groups did.

This holds true for owners looking to expand their firms as well. Minority-owned firms are more likely than nonminorities to seek financing to expand their business (49% to 41%), but are less likely to use private business loans as part of the financing (3% to 5%). Minority businesses are more likely to rely on personal financing such as family savings, assets, and personal credit cards. Research also finds that minority business owners are more likely to feel discouraged from seeking private loans. In a Census survey, only 16% of nonminorities felt discouraged from seeking a loan, while almost 30% of minorities felt the same way. These, in combination with other reasons, may be why minority business owners have a heavier reliance on personal finances.⁵

Irrespective of minority grouping, businesses that report acquiring a private loan to start or expand tend to have higher sales and employment. The 5% of minority businesses that reported receiving private startup loans represented about 17% of sales and 19% of employment.

^{5.} Christine Kymn, January 2014, "Access to Capital for Women- and Minority-owned Businesses: Revisiting Key Variables." U.S. Small Business Administration, Office of Advocacy. https://www.sba.gov/sites/default/files/Issue%20 Brief%203%20Access%20to%20Capital.pdf

Conclusion

Key Findings. Minority firms are a vital part of the U.S. economy. Their importance will continue to grow as the minority population continues to grow and minority entrepreneurship rises. Currently, at least 40% of all businesses in seven states are minority-owned.⁶ However, the recently released SBO data shows that minority businesses continue to face significant employment and sales disparities.

On average a minority-owned firm's revenue is only 32% that of a nonminority-owned business. Nonminority firms are twice as likely to be employers and hire 50% more workers as minority firms. These disparities persist among every major racial and ethnic group. The 2012 SBO provides some data that may explain these large disparities:

First, minority businesses tend to be in industries with far lower sales as compared to nonminority groups. Almost 50% of all minority businesses are in the 20 industries with the lowest sales, compared to only 30% of all nonminority businesses.

Second, minority firms are less likely to be in high sales or high employment industries. While minorityowned firms comprise 29% of all businesses they make up only 17% of the businesses in the top 20 employment industries and 13% of the top 20 revenue-generating industries.

Third, minority-owned firms are much younger than nonminority businesses, both in the age of the firm and the age of the owner. Older firms earn far more in sales and are more likely to be employers.

Fourth, minority-owned firms tend to have fewer owners than nonminority firms and are less likely to be family owned. Firms with multiple owners have four times the revenue and six times the employment than businesses with a single owner.

Fifth, to start or expand their businesses, minority-owned businesses are less likely to procure financing from private banks or financial institutions. The SBO data show that regardless of demographics, businesses that procure private bank loans are more likely to have higher sales and employment.

Future Research Directions. The data provided every five years by the SBO is vast, allowing for numerous research pursuits. This Issue Brief has delved into minority business ownership and the sales and employment disparities these businesses face. However, an understanding of these disparities is incomplete without information on business profits, which is not collected by the SBO. Without more research into business profitability by demographics, it is unknown whether minorities face a smaller return on investment than nonminority-owned firms. Sales disparities may not necessarily be a negative indicator if minority-owned businesses are receiving equivalent returns to their investments.

Future research will also need to focus on causation. The descriptive statistics provided above help us understand the current state of minority-owned businesses and how they differ from their non-Hispanic white counterparts. However, these statistics are limited in explaining what causes minority-owned businesses to employ fewer people and have lower sales. Further, they cannot show the relative importance of the different variables—such as age or financing— or how they interact with each other.

^{6.} Those states are: Hawaii (64%), the District of Columbia (50%), California (46%), Texas (46%), Florida (45%), New Mexico (41%) and Georgia (41%).

Methodology Notes

The U.S. Census Bureau collects data on the demographics of businesses owners and characteristics of businesses every five years. Unless otherwise noted, all data provided is public and from the 2007 and 2012 Survey of Business Owners (SBO) as well as the 2012 American Community Survey (ACS) oneyear estimates. Data was retrieved using American FactFinder and the Census DataFerrett in April and May of 2016. Calculations were performed by Advocacy to obtain percentages and ratios.

For use in this brief, "all firms" refers to all firms that can be classified by race and ethnicity, thereby excluding all publicly held and other non-classifiable firms. Ethnic and racial ownership is defined by the Survey of Business Owners as owning 51% or more of a business. A "minority" firm or business is defined as a firm that is not majority held by a non-Hispanic White owner. Analysis presented for minority-owned businesses as a whole uses the "minority" subtotal provided by the SBO and may not equal the summation of the listed minority groups.

In this brief, the terms "non-Hispanic White" and "nonminority" are used interchangeably. However, industry and business characteristics calculations use the "nonminority" subgroup calculated by the Census Bureau, instead of the specific "non-Hispanic White" group due to data limitations. Within the SBO data, these groups are not completely synonymous; however there is less than 2% difference between the groups in every data category. The term used in the data table or graph is the group used for respective calculations.

Industry distribution analysis was performed on 282 4-digit NAICS industries. Sales percentile calculation was performed on the metric "sales receipts per firm" to find the top and bottom 20 industries. Forty-one industries with fewer than 1,000 total firms were then filtered out.⁷ The employment percentile calculation was performed on the metric "employees per firm." Sixty-four industries with fewer than 1,000 total employees per firm."

Analysis of sales and employment disparities at the 6-digit NAICS level evaluated 960 industries using the "minority" demographic tag. The analysis filtered out industries with fewer than 100 minority-owned firms and more than 30 percent relative standard error on the number of minority firms. Additionally, industries with no information on sales or employment were eliminated. A final total of 438 industry groups were examined.

^{7.} See definition of "total firms" above.

Appendix A

Top 20 Industries by Sales

100 20 1110030	Dottom 20				
Industry Title	NAICS	Sales Percentile	Percent of Industry Owned by Group		Industry Title
			Nonminority	Minority	
Petroleum and petroleum products merchant wholesalers	4247	99	88	11	Other personal services
Petroleum and coal products manufacturing	3241	96	88	11	Child day care services
Basic chemical manufacturing	3251	94	82	17	Personal care services
Insurance carriers	5241	94	90	8	Hunting and trapping
Wired telecommunications carriers	5171	94	86	13	Independent artists, writers, and per- formers
Dairy product manufacturing	3115	93	69	30	Community food and housing; relief services
Converted paper product manufacturing	3222	93	92	7	Personal and household goods repair and maintenance
Motor vehicle body and trailer manufacturing	3362	92	94	5	Rooming and boarding houses
Resin, synthetic rubber, and artificial synthetic fibers manufacturing	3252	91	84	16	Taxi and limousine service
Boiler, tank, and shipping container mfg	3324	91	91	9	Support activities for animal production
Beer, wine, and distilled alc bev wholesalers	4248	90	78	20	Fishing
Animal slaughtering and processing	3116	90	85	14	Direct selling establishments
Nursing care facilities (skilled nursing facilities)	6231	89	83	16	Services to buildings and dwellings
Agriculture, construction, and mining machinery manufacturing	3331	88	97	3	Other professional, scientific, and technical services
Motor vehicle parts manufacturing	3363	88	90	9	Performing arts companies
Plastics product manufacturing	3261	87	90	9	Specialized design services
Foundries	3315	87	95	4	Individual and family services
Metal and mineral (except petroleum) merchant wholesalers	4235	86	82	16	Home health care services
Electric power generation, transm and distrib	2211	86	87	12	Special food services
Aerospace product and parts manufacturing	3364	86	89	9	Offices of real estate agents and brokers
		Average:	86%	13%	

Bottom 20 Industries by Sales

NAICS

Percentile

Average:

Percent of Industry

Owned by Group

Minority

39%

Nonminority

60%

Appendix B

Top 20 Industries by Employment

Industry Title	NAICS	Employment Percentile	Percent of Industry Owned by Group	
			Nonminority	Minority
Nursing care facilities (skilled nursing facili- ties)	6231	98	83	16
Motor vehicle body and trailer manufacturing	3362	96	94	5
Employment services	5613	95	76	23
Converted paper product manufacturing	3222	95	92	7
Wired telecommunications carriers	5171	94	86	13
Foundries	3315	94	95	4
Management of companies and enterprises	5511	93	92	7
Plastics product manufacturing	3261	93	90	9
Residential disability, mental health facilities	6232	92	59	37
Veneer, plywood, and engineered wood product manufacturing	3212	92	92	7
Motor vehicle parts manufacturing	3363	91	90	9
Agriculture, construction, and mining machinery manufacturing	3331	91	97	3
HVAC and commercial refrigeration equip- ment manufacturing	3334	91	87	11
Ship and boat building	3366	89	92	8
Forging and stamping	3321	89	92	7
Semiconductor and other electronic compo- nent manufacturing	3344	88	79	18
Aerospace product and parts manufacturing	3364	88	89	9
Animal slaughtering and processing	3116	87	85	14
Rubber product manufacturing	3262	86	90	9
Electrical equipment manufacturing	3353	86	91	8
		Average:	82%	17%

Employment Percent of Industry **Industry Title** NAICS **Owned by Group** Percentile Nonminority Minority Independent artists, writers, and performers Fishing Other personal services Personal and household goods repair and maintenance Direct selling establishments Offices of real estate agents and brokers Support activities for animal production Agents/managers for other public figures Lessors of real estate Taxi and limousine service Specialized design services Spectator sports Personal care services Other professional, scientific, and technical services Performing arts companies Sound recording industries Oil and gas extraction Child day care services Support activities for forestry Residential building construction 67% 32% Average:

Bottom 20 Industries by Employment