# CHARACTERISTICS OF MINORITY BUSINESSES AND ENTREPRENEURS

## AN ANALYSIS OF THE 2002 SURVEY OF BUSINESS OWNERS


MINORITY BUSINESS DEVELOPMENT AGENCY

RONALD N. LANGSTON, NATIONAL DIRECTOR



MARCH 2008

U.S. DEPARTMENT OF COMMERCE

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# PREFACE

Minority business enterprises are an engine of employment growth and economic expansion in America. As minority businesses grow in size, scale, and capacity, so does the American economy.

Although the number of minority firms continued to increase at a fast rate between 1997 and 2002, and it is at a historic height of 4 million firms, their growth rate in gross receipts has lagged behind their growth in number of firms. Minorities also have yet to achieve entrepreneurial parity in relation to their proportional share of the U.S. population.

This report, *Characteristics of Businesses and Entrepreneurs,* analyzes minority businesses to identify trends that may have impacted their performance in 2002.

The report uncovers a positive trend in the growth of average gross receipts for minority firms with employees. It also reveals that minority firms are more likely to export compared to non-minority businesses. These trends support the premise that minority firms are uniquely positioned to compete in the global economy, due in part to language capabilities and understanding of other cultures by many minority entrepreneurs.

The report also examines some of the challenges minorities may be facing in growing their businesses, such as adequate capital to start and expand the business, entrepreneurial experience and educational attainment. It also highlights that minority firms are less likely to sell goods and services to businesses and organizations. This is an opportunity for growth for minority entrepreneurs.

With a fast growing minority population that will approach 50 percent of the Nation's population by 2050 and a highly competitive global market, America's competitiveness will increasingly depend on the innovation and strength of minority business enterprises.

The Minority Business Development Agency remains committed to working with public and private sector partners to strengthen programs that effectively support the expansion and growth of minority owned businesses. America's full economic potential and global competitiveness demand no less.

Ronald N. Langston
National Director
Minority Business Development Agency

## EXECUTIVE SUMMARY

In this second review of the Census's *2002 Survey of Business Owners (SBO)*, we analyzed the characteristics of minority-owned businesses and those that influence business survival to try to find factors that may have contributed to the business performance of minority-owned businesses in 2002. To accomplish this, we analyzed the data from the Census's *SBO Company Summary, Characteristics of Businesses,* and *Characteristics of Business Owners*, among other sources.

Some key findings include:

**Average Gross Receipts of Minority Employer Firms Increased** [1]

- Average gross receipts of minority employer firms increased by 5.4 percent, from $840,000 in 1997 to $886,000 in 2002, unlike all minority firms. All minority firms had declining average gross receipts during the same period.

**Capital Costs to Start, Acquire, Expand, or Finance Capital Improvements of Firm**

- A greater proportion of minority respondent firms (9.8%) used credit cards to start or acquire their business compared to non-minority respondent firms (8.8%).

- A lesser proportion of minority respondent firms used bank loans to start or acquire the business (7.2%) or to expand or finance capital improvements of the firm (5.7%) compared to non-minority firms (12% and 9.7%, respectively).

- A lower proportion of larger minority respondent firms (gross receipts of $500,000 or more) used bank loans to start or acquire the business (23.3%), or to expand or finance capital improvements of the firm (24.7%) compared to larger non-minority respondent firms of the same size (29.2% and 30.2%, respectively).

- Excluding firms owned by Native Hawaiian and Other Pacific Islanders, a greater proportion of larger minority firms (gross receipts of $500,000 or more) used bank loans to start, acquire, expand, and finance the capital improvement of the firm compared to smaller minority respondent firms (receipts under $500,000). [2] For example, 25 percent of larger African American firms used bank loans to start or acquire the business compared to 5.2 percent of smaller African American firms.

- A large proportion of minority firms in retail trade and information[3] used credit cards to start or acquire the firm (14% in retail and 12% in information), and for the expansion or capital improvement of the firm (14.8% and 14.3%, respectively). These industries also

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[1] All differences on this page are statistically significant at a 90% confidence level, unless noted differently.
[2] These differences are statistically significant at a 90% confidence level excluding statistics for Native Hawaiians and Other Pacific Islanders.
[3] The information industry includes firms in publishing, motion picture and sound recording, broadcasting, Internet publishing and broadcasting, telecommunications, Internet service providers, web search portal, and data processing services.

exhibited relatively low survival rates. A lower proportion of minority firms in industries with higher survival rates such as health care and social assistance used credit cards to start/acquire the firm (6.8%), and for the expansion/capital improvements of the firm (8.5%, excluding data for Native Hawaiian and Other Pacific Islanders)[4] compared to those in retail trade and information.

Likewise, a larger proportion of non minority-owned firms in retail trade (12.7%) and information (10.7%) used credit cards to start/acquire the business and for the expansion/capital improvements of the firm (15%, retail trade and 14.6%, information), compared to non-minority firms in health care and social assistance (7% to start/acquire, 10.3% for expansion/capital improvements).

**Greater Incidence of Single Ownership when Family-Owned [5]**

- Among family-owned firms, a greater proportion of minority firms operating in 2002 were owned by only one individual (70.7%) compared to non-minority firms (64.4%) operating in the same year.

- A greater proportion of larger minority, family-owned firms (receipts of $500,000 or more) were owned by only one individual (49.3%) compared to non-minority, family-owned firms of the same size (41.74%).

- A smaller proportion of larger, family-owned minority firms (receipts of $500,000 or more) had only one owner (49.3%) compared to smaller, family-owned minority firms with receipts under $500,000 (71.9%).

**Less Home-Based and More Franchised**

- Minority respondent firms were less likely to operate from the home (42.5%) compared to non-minority respondent firms (51.9).[6]
- Minority respondent firms were more likely to operate as franchises (2.7%) compared to non-minority respondent firms (1.8%).

**More Exporters and Fewer Businesses Selling to Other Businesses**

- Minority respondent firms were more likely to generate 10 percent of their sales through exports (2.5% of firms) compared to non-minority firms (1.2%).

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[4] A statistical test conducted at a 90% confidence level found that minority firms in other industries, such as wholesale trade, may have similar rates of credit card usage as those in information and retail trade.
[5] The two 2002 survey forms provided slightly different response options to the question about family ownership. The difference in response wording may have caused different interpretations by respondents. Therefore, firms that reported being family-owned and also as having only one owner were counted in both categories; they were not reclassified as nonfamily-owned businesses. All remaining differences on this and the following page are statistically significant at a 90% confidence level.
[6] A statistical significance test for some of these differences could not be performed because standard errors were not available.

- Minority respondent firms were less likely to generate 10 percent of their receipts through sales to businesses (22.6%) compared to non-minority firms (33.9%).

- Larger minority respondent firms (receipts of $500,000 or more) were less likely to generate 10 percent of their receipts through sales to businesses (34.2% of firms) compared to lager non-minority firms of the same size (46.7%).

***Implications***

The key findings reviewed in this paper point to characteristics that may have contributed to the survival and growth in receipts of minority firms. A study by Brian Headd[7] indicates that firms with employees, better financing, multiple ownership, and a variety of customers enjoy higher rates of survival compared to those which do not have these characteristics, among other factors.

Minority entrepreneurs were more likely to use more expensive sources of capital, such as credit cards, and less likely to use lower-cost capital, such as bank loans to start or acquire a business compared to non-minority entrepreneurs. Minorities were also less likely to use bank loans to finance the expansion or capital improvement of the business compared to non-minorities. *The higher cost of capital placed an additional burden on minority entrepreneurs who were trying to grow their businesses.*

In addition, businesses with multiple owners can tap into the experience and resources of other business partners, unlike businesses with only one owner. Among family-owned businesses, minority firms were more likely to be owned by one person compared to non-minority firms. *The absence of additional resources and experience offered by other partners could have curtailed the performance of some minority family-owned businesses.*

On the other hand, average gross receipts of minority employer firms increased between 1997 and 2002, while those of all minority firms decreased during the same period. Employer firms are defined as firms with payroll.

Because employer firms have a higher rate of business survival, employer firms operating in 2002 had the time to grow in gross receipts over the years. However, further research is necessary to find why minority firms had lower employee productivity rates[8] compared to non-minorities in 2002. *The firms' industry, lifecycle stage, and management capabilities among many other factors can impact employee productivity.*

Minority respondent firms were less likely to have businesses and other organizations among their customer base compared to non-minority firms. It is essential to step up business development and business-to-business brokering services, such as those provided by MBDA, to increase the opportunities for minority firms to contracts with the private sector.

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[7] Brian Headd, "Redefining Business Success: Distinguishing Between Closure and Failure," *Small Business Economics* 21 (2003): 51-61.

[8] Employee productivity was measured as the average gross receipts of employer firms per paid employee.

Minority firms were more likely to export compared to non-minority respondent firms. The finding supports the concept that minority firms have a unique competitive advantage and opportunity based on cultural and family ties, among other factors, to engage in international trade. *Minority businesses can play a vital role in reversing the national trade imbalance.*

Finally, minority firms were less likely to be home-based and more likely to operate franchised businesses compared to non-minorities. Franchised businesses may offer essential management and marketing assistance that can support the growth of the firm.

Further research is necessary to confirm and suggest possible explanations for the correlation between the higher cost of capital to start, acquire, expand or finance the capital expansion of the business and the firm's performance.

With a fast growing minority population and relatively high unemployment rates among some minority groups, the strategic growth of minority businesses may be an essential element to strengthening local and regional economies nationally.

# INTRODUCTION

*"The success or failure of minority-owned businesses will increasingly drive the success or failure of the overall U.S. economy,"*[9]

In 2006, the Minority Business Development Agency (MBDA) produced the first analysis of the initial release of the U.S. Census Bureau's *2002 Survey of Business Owners* (*SBO*) entitled, *The State of Minority Businesses.*[10] In that analysis, we concluded that minority-owned businesses continued to thrive in number of firms, growth receipts, and paid employment between 1997 and 2002; however their growth in gross receipts lagged behind the growth in number of firms.

Between 1997 and 2002, the number of minority firms grew by 30 percent, surpassing the growth rate in number of all U.S. firms and of the minority population during the same period. Despite the tremendous growth rate, average gross receipts of minority firms declined by 14 percent between 1997 and 2002, compared to a decline of 2 percent for non-minority firms during the same period.[11] The decrease in average gross receipts was possibly led by a greater growth of minority firms with receipts under $500,000 (36% growth) compared to those with receipts of $500,000 or more (15% growth), unlike in previous five-year periods, among other factors.[12]

Moreover, minority businesses continued to have less overall receipts compared to non-minority-owned firms. In 2002, average gross receipts of minority firms were about $167,000, while those of non-minority firms surpassed $438,000.[13]

The five-year period between 1997 and 2002 saw enormous economic growth, particularly in the information technology sector, which ended with the dot.com bust in 2001. Many companies were acquired or became publicly held through initial public offerings between 1997 and 2001; however, others were challenged to survive past 2001. These economic factors could have influenced the performance of minority and non-minority firms during this period.

Economic factors aside, the subsequent release of the Census *2002 SBO* reports, *Characteristics of Businesses* and *Characteristics of Business Owners,* provides us with an opportunity to analyze data and identify trends that may have influenced the success of minority and non-minority businesses in 2002. Some of these characteristics will be analyzed in view of factors that may influence a business survival rate, and therefore success. It is also important to understand that the life cycle of a minority firm could determine the firm's performance.

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[9] Andrew B Bernard and Matthew J. Slaughter, *The Life Cycle of a Minority-Owned Business: Implications for the American Economy*. Prepared in collaboration with the Minority Business Development Agency. (2004).

[10] U.S. Department of Commerce, Minority Business Development Agency, *The State of Minority Business Enterprises, An Overview of the 2002 Survey of Business Owners, Number of Firms, Gross Receipts, and Paid Employees* (2006).

[11] Data based on MBDA's analysis of a U.S. Census Bureau's special tabulation of minority-owned firms operating in 2002 released in 2007 and the *1997 Survey of Minority-Owned Business Enterprises (SMOBE)*.

[12] U.S. Department of Commerce, Minority Business Development Agency, *The State of Minority Business Enterprises*.

[13] Data based on MBDA's analysis of a Census' special tabulation released in 2007.

### *Life Cycle of Minority Firms*

Bernard and Slaughter[14] introduced the concept of the life cycle of minority firms and proposed that its analysis is necessary to address the questions behind the business performance of these firms. According to Bernard and Slaughter, the four stages of a firm's life cycle include birth, adolescence, maturity, and death.

Minority firms in their birth stage are "start-up firms." Generally, a start-up firm generates lower gross receipts compared to similar firms, which are in their adolescence or maturity stage.

A minority firm in its adolescence would still have additional growth potential, while one that reaches maturity would be at its peak in growth of receipts and employees. Minority firms in their "death stage" would have ceased operations for a variety of reasons, such as bankruptcy, acquisition by another company, or the company having gone public. In addition, if the firm is acquired by a non-minority owner, it would no longer be counted among the minority firms in operation.

The life cycle stage is critical to all firms and particularly for those with high-growth potential because firms that survive, prosper, and grow to scale generate much larger receipts—and jobs—during their life compared to micro enterprises.

The life cycle stage and survival rate of businesses that were operating in 1997 should have affected the growth of gross receipts generated by these firms and the growth of paid workers employed by these firms between 1997 and 2002. However, the *2002 SBO* did not track results on the life cycle of firms beyond data on the year the business was acquired, which does not necessarily represent when it was first launched as a new business. Firms that closed operations before 2002, would no longer be included in the *2002 SBO* survey but may have been included in the 1997 survey.

The Census did not specify the life cycle phase of the minority firms analyzed in their survey. However, we should note that these firms were at all different stages of their life cycle, and their performance would have been affected accordingly.

A longitudinal study of minority and non-minority firms, and these firms' gross receipts, number of employees, and other business characteristics would provide valuable information regarding the performance of these firms over their life cycle stages.

[14] Bernard and Slaughter, 14-17.

### ***Survival Rates of Firms***

According to a study by the U.S. Small Business Administration (SBA),[15] minority-owned firms had lower survival rates compared to non-minority firms. The study included firms that were operating in 1997 through 2001 based on a special tabulation from the Census. The survival rate for all minority businesses was 69 percent compared to 72.6 percent for all non-minority firms during the same period. Of these firms, African American firms had the lowest survival rate at 61 percent, followed by American Indian and Native Alaskan firms, 67 percent; Hispanic, 68.6 percent; and Asian and Pacific Islander, 72.1 percent.

The SBA study found a correlation between the size of the firm and its survival, expansion and contraction rates. Between 1997 and 2001, larger firms (with gross receipts of $500,000 or more) had higher four-year survival, expansion, and contraction rates, compared to smaller firms (with gross receipts of under $500,000) during the same period. The findings revealed that larger firms are more dynamic because they undergo higher expansion and contraction rates compared to smaller firms.

The SBA study also analyzed survival rates by industry. Industry survival rates for all U.S. firms can be used as a benchmark for minority firms in the same industry. According to the study, the rate of survival for all U.S. firms in the **manufacturing** (74%) and **services** (72%) industries were higher between 1997 and 2001 compared to the survival rates of all U.S. firms in other industries. On the other hand, all U.S. firms in the **transportation**, **communication**, and **utilities** industries had the lowest survival rate (65% for all three) compared to other industries.

A separate study by Amy E. Knaup,[16] found slightly lower survival rates for establishments that started operations in the second quarter of 1998, compared to the SBA's analysis that analyzed firm between 1997 and 2001. Knaup analyzed data from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages program. Bureau of Labor Statistics analysts constructed a longitudinal database to track these establishments. According to Knaup's study, 66 percent of new establishments were still operating two years after their birth, and 44 percent four years after.

Knaup also analyzed firms by industry. She found that firms in the **information industry** that started operating in 1998 had the lowest survival rates during the two-year and four-year periods compared to other industries. Meanwhile, firms in the **education** and **health services** industries had the highest survival rates in the same period intervals. Firms in **natural resources**, **mining**, and **other services** also had slightly higher tendencies of survival.

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[15]. U.S. Small Business Administration, Office of Advocacy. *Dynamics of Minority-Owned Employer Establishments*, *1997-2001, Y*ing Lowrey, (2005), http://www.sba.gov/advol (accessed in 2007).
[16] Amy E. Knaup. "Survival and longevity in the Business Employment Dynamics," *Monthly Labor Review*. (May 2005): 50-56.

Minority firms have been found to be concentrated in industries with relatively low entry barriers. Among these, the services sector requires lower capital investments compared to manufacturing and other industries.[17]

According to the *2002 SBO* data, Minority firms were more highly concentrated in the following industry sectors:[18] other services[19] (17%), health care and social services (14%), professional, scientific and technical services (11%), and administrative support, waste management and remediation services (10%), and construction (9%). About 2.6 percent of minority firms were in manufacturing and only 1 percent in the information industry in 2002.

Nevertheless, the dot.com bust and mild recession of 2001 disproportionately affected the survival of firms in the information industry and may have impacted firms in other industries. However, further analysis is necessary to understand the variability of survival rates among other industries and by racial and ethnic group. In the next section we will review findings from some scholars who have identified factors that affect business survival.

### *Characteristics of Businesses with High Survival Rates*

A study conducted by Brian Headd[20] examined the survival rates of firms and characteristics of successful and unsuccessful business closures. Headd analyzed data from the Census's Business Information Tracking Series, which followed employer firms from 1989 through 1996, and the previously released *Characteristics of Business Owners* report for firms that started operations between 1989 and 1992 and closed between 1992 and 1996.

According to Headd's study, about half of new employer firms survived more than four years, and a third of closed businesses were successful at closure. Success at closure was defined by the owners and involved executing a planned exit strategy, such as selling a viable business, closing a business without excess debt, or retiring from the work force.

Headd also found that larger, better financed firms with employees and start-up capital of $50,000 or more had a greater rate of survival compared to firms that did not have these characteristics. In addition, employer firms with start-up capital of $50,000 or more had a greater likelihood of closing operations successfully, such as through mergers and acquisitions.

Although Headd's study contradicts the results found by SBA regarding firms in the services industry and their likelihood of survival, the difference in results may stem from the fact that the two reports studied firms during different time periods, and firms included in the services industry sector may have been defined differently by each author.

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[17] U.S. Department of Commerce, Economics and Statistics Administration and the Minority Business Development Agency, *Keys to Minority Entrepreneurial Success: Capital, Education, and Technology,* Patricia Buckley, (2002), 5-7.

[18] Industry sectors included in the Census 2002 Survey of Business Owners (SBO) are based on the North American Industry Classification System (NAICS).

[19] Other services includes firms not provided for elsewhere in the NAICS classification system that are engaged in activities such as equipment and machinery repairing, promoting religious activities, grant-making, advocacy, providing dry-cleaning and laundry services, personal care services, and dating services

[20] Headd, 51-61.

Some of the factors Headd found that influenced business survival are included in the following table. (Table 1)

**Table 1: Characteristics of Business Survival and Closure**

| More Likely to Survive | More Likely to Close |
| --- | --- |
| • **Employer firms**<br>• **Start-up capital of $50,000+**<br>• **Owner with college degree**<br>• **Owner previously owned a business**<br>• **Started a business for personal reasons** ("gives the owner increased motivation to keep a business going.")<br>• **Had multiple owners**<br>• **Home-based at start-up** (costs are kept low)<br>• **Firms in manufacturing** | • **No start-up capital**<br>• **Owner's age under 35** (owner may have other opportunities)<br>• **Firms in urban/suburban areas**<br>• **Firms in the services industry**<br>• **Firms in retail trade** |

Headd found that not all business closures were failures. Of the firms that started operations between 1989 and 2002, and closed between 1992 and 2002, about 29 percent were successful at closure. These businesses had the following characteristics. (Table 2)

**Table 2: Characteristics of Successful Business Closures**

| More Likely To Be Successful at Closure | Less Likely To Be Successful at Closure |
| --- | --- |
| • **Start-up capital of zero or $50,000+**<br>• **Female owners**<br>• **Owner previously owned a business**<br>• **Owner's age under 35**<br>• **Firms in the services industry** | • **Start-up capital under $50,000, but not zero**<br>• **Owner with high school diploma or less education**<br>• **Started a business for personal reasons** (when it fails, less likely to be successful at closure)<br>• **Firms in retail trade** |

Besides the characteristics of businesses discussed before, Leonard Greenhalgh, Professor of Management, Tuck School of Business at Dartmouth College, has found a pattern of weaknesses typical among minority-owned businesses. Greenhalgh's analysis is based on his clinical work with minority-owned businesses. **Poor cash flow management** and **narrow portfolio of products, services, and customers** are common weaknesses exhibited by minority-owned businesses.[21] Other factors present in minority firms included lack of strategic direction, ineffective empowerment of employees, underutilized control systems, inefficient processes, ineffective organizational structure, and inattention to customer service. The following table lists Greenhalgh's findings. (Table 3)

**Table 3: Weaknesses of Minority Businesses**

| Weaknesses of Minority Businesses |
|---|
| • Poor cash flow management<br>• Narrow portfolio of products, services and customers<br>• Lack of strategic direction<br>• Control systems underutilized<br>• Inefficient processes<br>• Organizational structure as an impediment<br>• Not empowering employees effectively<br>• Not customer-oriented |

Greenhalgh's findings are consistent with anecdotal information from MBDA's service delivery programs to minority businesses and a paper by the Economics Statistics Administration and MBDA, which identified the three keys to entrepreneurial success for minority business enterprises: access to capital, education and technology.[22] As discussed before, capital and education are factors that influence business survival.

The life cycle stage of firms and their business characteristics are important because they can affect a firm's performance and survival. It is outside the scope of this publication to analyze all the studies and characteristics that influence business success and closure or to determine the life cycle of the firms measured in the *2002 Survey of Business Owners* (*SBO*). However, through the analysis of data from the *SBO Company Summary, Characteristics of Businesses* and *Characteristics of Business Owners,* we will try to identify factors that could have contributed to the success and performance of minority businesses in 2002.

[21] Leonard Greenhalgh, lectures from the Tuck Executive Program at Dartmouth held in partnership with MBDA, (2003-2007).
[22] U.S. Department of Commerce, Economics and Statistics Administration and the Minority Business Development Agency. *Keys to Minority Entrepreneurial Success: Capital, Education, and Technology*, 2.

## DATA AND METHODOLOGY

In this report, MBDA analyzed business measures for firms with employees from the U.S. Census Bureau's *2002 Survey of Business Owners'* (*SBO*) *Company Summary*, *1997 Survey of Minority Owned Business Enterprises,* and a Census' 2007 special tabulation for minority firms in 2002.

In addition, we also analyzed data from the *2002 SBO*'s reports: *Characteristics of Businesses and Characteristics of Business Owners.* The reports include data on businesses that were operating in 2002. We analyzed statistics from these reports on the following variables:

- sources of capital to start a business and acquire the business;
- sources of capital to expand the firm and finance capital improvements;
- home-based, franchised, family-owned firms, and owned by one owner;
- customer categories of firms; and
- education and age of sole proprietors

The *2002 Survey of Business Owners (SB0)* includes results from a survey conducted by mail to a random sample of 2.3 million businesses selected from a list of all firms operating during 2002 with receipts of $1,000 or more.

According to the Census, the list of firms was compiled from a combination of tax returns and other data. The survey excluded firms classified in a few industries, such as crop and animal production; scheduled air transportation; rail transportation; postal service; funds; trusts; public administration; and religious, grant-making, civic, and professional organizations.

The Census mailed one of two separate surveys to the list of firms, one to partnerships and corporations and a second to sole proprietors and self-employed individuals. About 81 percent of the 2.3 million firms in the sample responded to the survey. For the remaining non-respondents, some data were imputed by the Census from donor respondents with similar characteristics.

### *Minority-Owned Firms*

The source for 1997 data on minority-owned firms is the Census's *1997 Survey of Minority-Owned Business Enterprises* (SMOBE), which included totals for business measures of minority-owned businesses.

The source for 2002 data on minority firms, when specified, is a 2007 special tabulation prepared by the Census at the request of MBDA. Otherwise, business measures for minority firms were estimated by adding up measures for all five minority groups included in the Census's *2002 SBO*: African Americans, American Indian and Alaska Natives, Asians, Hispanics, and Native Hawaiian and Pacific Islanders.

The above mentioned methodology was used because the *2002 SBO* did not include data for all minority firms. In this case, the total number of minority firms is slightly overrepresented because businesses that are owned by Hispanic or Latinos may be of any race. In addition, in accordance with the Office of Management and Budget guidelines, each owner in 2002 had the option of selecting more than one race; so, therefore, businesses could be tabulated in more than one racial group. Owners that reported more than one race may be counted more than once in the report.

Comparisons between 1997 and 2002 estimates for minority-owned should be interpreted with caution. Minority-owned data include estimates for American Indian and Alaska Native-owned firms. However, new questions in the *2002 SBO* survey allowed for the exclusion of tribally-owned firms that may have been included in the 1997 estimates.

The methodology employed in the analysis of data from the *Characteristics of Businesses and Characteristics of Businesses* is similar to the methodology stated above. In this case, MBDA converted percentages from all minority groups represented in the report into absolute numbers. Absolute numbers were added up and converted once again into a percentage to demonstrate the proportion of minority-owned firms, which had a particular business characteristic as defined by the Census report.

### ***Non-Minority-Owned Firms***

The source for 1997 data on non-minority firms is the Census's *1997 SMOBE*. MBDA calculates the number of non-minority-owned firms by deducting from the number of all U.S. firms, the number of minority-owned firms and the number of publicly held firms, and other firms whose ownership cannot be classified by race or ethnicity.

When specified, the source for 2002 data on non-minority firms was derived from a 2007 special tabulation prepared by the Census at the request of MBDA. The estimate is calculated by deducting from the 2002 total number of all U.S. firms, the number of minority firms from the special tabulation and the number of publicly held firms, and other firms whose ownership cannot be classified by race or ethnicity from the *2002 SBO* report.

Because the *2002 SBO* data for all minority firms, all other measures for non-minority firms were derived with a different methodology. In this instance, totals for all minority firms were calculated by adding up measures for all racial and ethnic groups of firms. Measures for non-minority firms were derived by deducting the estimate of minority firms and publicly held firms. Because business measures for minority-owned firms, including the number of firms, may be slightly overestimated, business measures for non-minority firms could also be underestimated by the same degree.

A similar methodology was used to calculate the percentages for non-minority firms from the *2002 Characteristics of Businesses* and *Characteristics of Business Owners*. In this case, MBDA converted percentages from the Census report into absolute numbers for all U.S. firms, publicly held firms, and all minority groups. Absolute numbers for minority groups were added up. The absolute number for publicly held firms, and the new total for minority-owned firms are deducted from those of all U.S. firms to calculate the number of non-minority firms with a particular characteristic. The absolute number of non-minority firms was converted into a percentage to demonstrate the proportion of non-minority firms that had a particular business characteristic as defined by the Census report.

### *American Indian and Alaska Native*

The 1997 SMOBE survey data on firms owned by American Indian and Alaska Natives is not directly comparable to the data from the *2002 SBO* survey. MBDA reports this data but makes no comparisons between those years because it would not be statistically valid. New questions in the *2002 SBO* survey may have allowed for the exclusion of tribally owned firms that may have been included in the 1997 survey.

### *Comparability of 2002 Characteristics of Business and Business Owners and 1992 Characteristics of Business Owners*

The *2002 Characteristics of Business and Business Owners (CB/CBO)* is not directly comparable to the previous reports because the methodology employed by the Census changed significantly. Prior to the 2002 CB/CBO, the last *Characteristics of Business Owners* was conducted for 1992. For this reason, no comparisons between the 1992 and 2002 reports were made in this analysis.

### *Relative Standard Errors*

The relative standard error (RSE) of an estimate is a measure of the reliability or precision of that estimate. Relative standard error is defined as the ratio of the standard error to the survey estimate. For example, a relative standard error of 10 percent implies that the standard error is one-tenth as large as the survey estimate.

The RSE of an estimate is calculated by dividing the standard error of the estimate [SE(r)] by the estimate itself (r). This quantity is expressed as a percent of the estimate.

The sample estimate and an estimate of its standard error allow us to construct interval estimates with prescribed confidence that the interval includes the average result of all possible samples with the same size and design. When a RSE is not available for a particular estimate, we cannot define with precision the ratio of the standard error of the estimate.

For additional information on the reliability of individual minority group estimates and their relative standard errors, and on the methodology used by the U.S. Census to produce the *2002 SBO Company Summary*, *Characteristics of Businesses, Characteristics of Business Owners,* and *1997 SMOBE*, please visit the U.S. Census Bureau website at http://www.census.gov/csd/sbo/index.html.

## BUSINESS CHARACTERISTICS

### *Employer Firms*

> ***Average gross receipts of minority employer firms increased between 1997 and 2002, while those of all minority firms decreased. The finding supports Headd's study which indicated employer firms have higher rates of survival, therefore a longer life cycle, and an opportunity to grow in size, compared to non-employer firms.***

In this section, MBDA analyzed the business performance of minority employer firms between 1997 and 2002 compared to other firms during the same period. As discussed before, MBDA derived the data on non-minority firms from the U.S. Census Bureau's *1997 Survey of Minority-Owned Business Enterprises (SMOBE)* and the *2002 Survey of Business Owners (SBO)*. MBDA also derived the data on minority firms from the *2002 SBO*, unless specified that a 2007 Census' special tabulation on minority firms in 2002 was used.[23]

Minority employer firms exhibited a stronger performance between 1997 and 2002, compared to non-minority employer firms. Average gross receipts of minority employer firms increased by 5 percent, from $840,000 in 1997 to $886,000 in 2002.[24] On the other hand, average gross receipts of non-minority employer firms stayed at about the same at $1.65 million during the same period.[25] (Table 5)

The finding is relevant particularly since average gross receipts for all minority-owned firms and for larger minority firms (with gross receipts of $500,000 and more), declined during the same period, by 14 percent and 3 percent, respectively.[26] Larger minority firms included employer and non-employer firms.

While gross receipts of larger minority firms lagged behind their growth rate in number of firms between 1997 and 2002, gross receipts generated by minority employer firms outpaced their growth in number of firms during the same period.

The business performance of minority employer firms supports the findings by Headd, which indicated employer firms have higher rates of survival, therefore a longer life cycle, and an opportunity to grow in size, compared to non-employer firms.
Further analysis is necessary to find why average gross receipts of employer firms owned by Asians and Native Hawaiian and Other Pacific Islanders decreased between 1997 and 2002, unlike other minority employer firms during the same period.

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[23] For more information, please refer to the data and methodology section.
[24] Data based on MBDA's analysis of U.S. Census Bureau's special tabulation released in 2007 and the *1997 Survey of Minority Owned Business Enterprises.* These differences are statistically significant at a 90% confidence level.
[25] Ibid.
[26] U.S. Department of Commerce, Minority Business Development Agency, *The State of Minority Business Enterprises.*

**Table 4: Growth in Number of Firms, and Receipts of <u>Employer Firms</u>, 1997-2002**[27]

| Group | Year | Number of Firms | Percent Change | Year | Annual Gross Receipts ($1,000s) | Percent Change |
|---|---|---|---|---|---|---|
| African American | 2002 | 94,518 | 1.4% | 2002 | $65,799,425 | 16.7% |
| | 1997 | 93,235 | | 1997 | $56,377,860 | |
| American Indian and Alaska Native | 2002 | 24,498 | Not comparable | 2002 | $21,986,696 | Not comparable |
| | 1997 | 33,277 | | 1997 | $29,226,260 | |
| Asian | 2002 | 319,468 | 11.3% | 2002 | $291,162,771 | 6.0% |
| | 1997 | 286,976 | | 1997 | $274,569,397 | |
| Hispanic | 2002 | 199,542 | -5.8% | 2002 | $179,507,959 | 13.1% |
| | 1997 | 211,884 | | 1997 | $158,674,537 | |
| Native Hawaiian and Pacific Islander | 2002 | 3,693 | 22.2% | 2002 | $3,502,157 | -6.0% |
| | 1997 | 3,023 | | 1997 | $3,724,948 | |
| Total Minority | 2002 | 629,831 | 2.4% | 2002 | $557,774,029 | 7.9% |
| | 1997 | 615,222 | | 1997 | $516,979,920 | |
| Non-Minority | 2002 | 4,542,233 | 3.0% | 2002 | $7,481,478,680 | 2.7% |
| | 1997 | 4,411,988 | | 1997 | $7,286,902,820 | |
| All U.S. Firms | 2002 | 5,524,784 | 4.3% | 2002 | $21,836,249,354 | 21.9% |
| | 1997 | 5,295,151 | | 1997 | $17,907,940,321 | |

**Table 5: Growth in Average Gross Receipts, and Employees of <u>Employer Firms</u>, 1997-2002**

| Group | Year | Average Gross Receipts ($1,000s) | Percent Change | Year | Employees | Percent Change |
|---|---|---|---|---|---|---|
| African American | 2002 | $696 | 15.1% | 2002 | 753,978 | 5.0% |
| | 1997 | $605 | | 1997 | 718,341 | |
| American Indian and Alaska Native | 2002 | $897 | Not comparable | 2002 | 191,270 | Not comparable |
| | 1997 | $878 | | 1997 | 298,661 | |
| Asian | 2002 | $911 | -4.7% | 2002 | 2,213,948 | 2.1% |
| | 1997 | $957 | | 1997 | 2,169,032 | |
| Hispanic | 2002 | $900 | 20.1% | 2002 | 1,536,795 | 10.7% |
| | 1997 | $749 | | 1997 | 1,388,746 | |
| Native Hawaiian and Pacific Islander | 2002 | $948 | -23.0% | 2002 | 29,319 | -13.9% |
| | 1997 | $1,232 | | 1997 | 34,047 | |
| Total Minority | 2002 | $886 | 5.4% | 2002 | 4,675,382 | 3.6% |
| | 1997 | $840 | | 1997 | 4,514,699 | |
| Non-Minority | 2002 | $1,647 | -0.3% | 2002 | 50,692,834 | -6.8% |
| | 1997 | $1,652 | | 1997 | 54,386,713 | |
| All U.S. Firms | 2002 | $3,952 | 16.9% | 2002 | 110,766,605 | 7.2% |
| | 1997 | $3,382 | | 1997 | 103,359,815 | |

[27] 2002 Total Minority estimates in Table 4 and 5 were based on a Census' special tabulation requested by MBDA and released in 2007. Percent changes for American Indian and Alaska Natives firms are not represented because data from the *1997 Survey of Minority Owned Business Enterprises* (*SMOBE*) and *2002 SBO* surveys on these firms is not directly comparable. Available relative standard errors from which the reliability of the estimates can be determined can be found in Table 4b and 5b in the Appendix section.

## *Employee Productivity*

*In 2002, employee productivity remained lower for minority employer firms compared to non-minority employer firms. Further research is necessary to find answers to this discrepancy, which may affect the long-term growth of a firm.*

A firm's employee productivity provides additional insight regarding the ability it may have to continue growing in size and scale. In this section we analyzed employee productivity by all groups of employer firms.

**Table 6: Employee Productivity, 1997-2002**[28]

| Group | Year | Average Number of Employees per Firm | Average Receipts Per Employee ($1,000s) |
|---|---|---|---|
| African American | 2002 | 8.0 | $87 |
| | 1997 | 7.7 | $78 |
| American Indian and Alaska Native | 2002 | 7.8 | $115 |
| | 1997 | 9.0 | $98 |
| Asian | 2002 | 6.9 | $132 |
| | 1997 | 7.6 | $127 |
| Hispanic | 2002 | 7.7 | $117 |
| | 1997 | 6.6 | $114 |
| Native Hawaiian and Pacific Islander | 2002 | 7.9 | $119 |
| | 1997 | 11.3 | $109 |
| Total Minority | 2002 | 7.4 | $119 |
| | 1997 | 7.3 | $115 |
| Non-Minority | 2002 | 11.2 | $148 |
| | 1997 | 12.3 | $134 |
| All U.S. Firms | 2002 | 20.0 | $197 |
| | 1997 | 19.5 | $173 |

Employee productivity was measured as the average gross receipts of employer firms per paid employee. Minority employer firms had lower employee productivity, generating about $119,000 receipts per employee in 2002, compared to non-minority employer firms, $148,000 per employee. (Table 6)

Further research is necessary to find the reasons behind the discrepancy in employee productivity between minority and non-minority firms.

[28] A statistical significance test could not be performed on these differences. The source of the 2002 Total Minority estimates is a 2007 U.S. Census Bureau Special Tabulation requested by MBDA. Percent changes for American Indian and Alaska Natives firms are not represented because data from the *1997 SMOBE* and *2002 SBO* surveys on these firms is not directly comparable.

## *Sources of Capital to Start or Acquire Business*

> *For firms operating in 20002, minority-owned firms were more likely to use credit cards and less likely to use bank loans to start or acquire their business compared to non-minority firms. The findings suggest minority entrepreneurs may be financing long-term liabilities with short-term debt that often carries higher interest rates. The practice may have created a larger financial burden for minority entrepreneurs compared to non-minorities.*

In this section, we analyzed data from the *2002 SBO Characteristics of Businesses* on the sources of capital to start or acquire a business by firm size and industry. For the purposes of this report, the industry sectors were based on the North American Industry Classification System (NAICS).

The *2002 SBO Characteristics of Businesses* included data from a random sample of 2.3 million firms that were operating in 2002. Only data from respondent firms were included in estimates. MBDA derived the data on firms owned by minorities, non-minorities, and classifiable firms[29] from the Census surveys unless specified otherwise.[30]

According to MBDA's estimates, most minority and non-minority respondent firms used personal savings to start or acquire the business, 54 percent and 56 percent, respectively. The usage of personal savings was followed by credit cards for minority respondent firms (10% of firms), and business loans for non-minority respondent firms, (12%).[31] (Chart 1)

Moreover, a greater proportion of minority respondent firms were started or acquired by using credit cards (10% of firms) among other sources of capital, compared to non-minority respondent firms (9%). On the other hand, a greater proportion of non-minority respondent firms were started or acquired by using business loans (12%) compared to minority respondent firms (7%).[32]

Of all minority-owned respondent businesses, Native Hawaiian and Other Pacific Islanders and American Indian and Alaska Natives had the largest proportion of firms (13% and 12%, respectively) that used credit cards for the same purpose compared to other minority respondent firms. (Table 7)

A greater proportion of Asian respondent firms used personal savings (61%) and bank loans (10%) to start or acquire a business compared to other minority firms. Asian firms also had the

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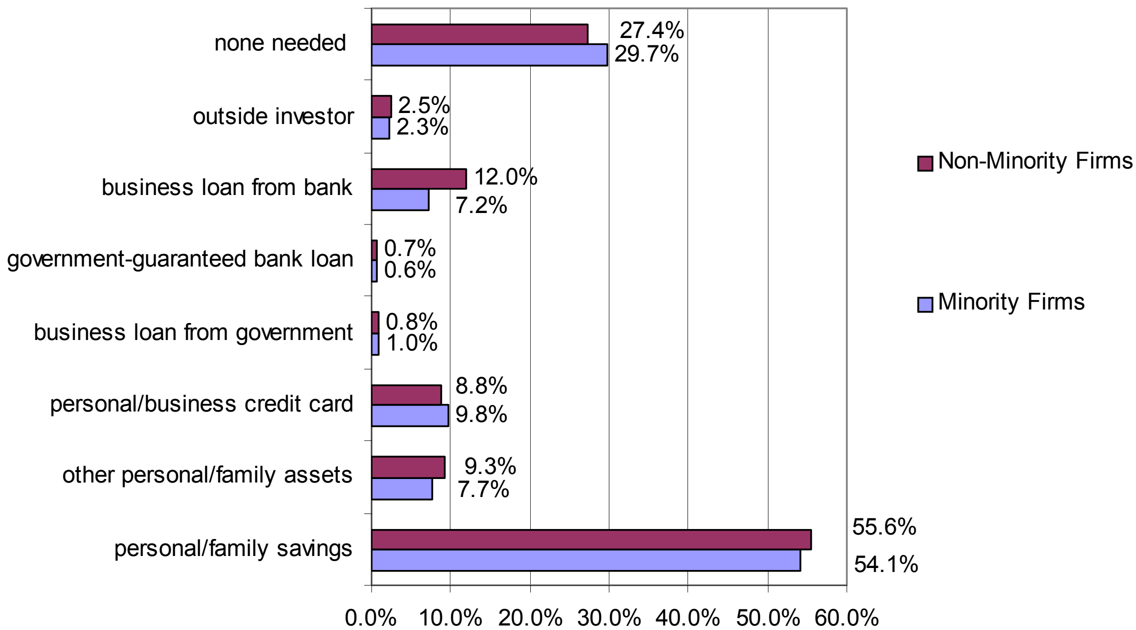
[29] Classifiable firms include all U.S. firms except publicly held, foreign owned, non-profit, and other firms whose ownership cannot be classified by gender, race or ethnicity.
[30] For more information, please review the data and methodology section.
[31] These differences are statistically significant at a 90% confidence level.
[32] Ibid.

highest percentage of firms that used outside investors (3%) for the same purpose compared to other minorities, excluding businesses owned by Native Hawaiian and Pacific Islanders.[33]

**Chart 1: Respondent Firms by Sources of Capital Used to Start or Acquire the Business, 2002[34]**




In 2002, Asian firms also had larger average gross receipts compared to other minority groups. This finding may suggest a correlation between the sources of capital accessed to start or acquire a business and the firm size. For example, the less costly the source of capital used for acquiring or starting the business, the larger the subsequent size of the firm in gross receipts. More research is necessary to test this relationship.

The findings suggest that a greater proportion of minority firms financed their long-term investment of starting or acquiring a business with short-term debt (credit cards), instead of long-term debt (bank loans). Entrepreneurs who use credit cards to start or acquire a business may be exposed to higher operating costs because credit cards tend to charge, on average, higher interest rates compared to other sources of capital. Firms started by using credit cards for capital are usually at a cost disadvantage compared to firms that were started with other sources of capital. Further research is necessary to confirm this statement.

Moreover, smaller firms and firms in the services sector generally lack the collateral to access traditional bank loans but could benefit from guaranteed loan products. As discussed earlier, firms in services sector generally have lower barriers to entry because these require relatively

[33] Due to a larger standard error, Native Hawaiians and Other Pacific Islander firms could have similar rates of outside investors to start or acquire a business compared to Asians at a 90% confidence level.
[34] A statistical significance test for some of these differences could not be performed because standard errors were not available.

lower capital investments compared to firms in other industries, such as manufacturing and mining.[35]

Minority firms were highly concentrated in the services industry sector and smaller in size. About 95 percent of these firms generated $500,000 or less in 2002, compared to 90 percent for non-minority firms. Minority entrepreneurs may have depended more on credit cards to start or acquire their business possibly because some of them may have lacked the collateral to obtain a traditional loan, among other possible factors. Further study is necessary to identify factors that may have influenced the access to bank loans by minority firms compared to non-minority firms.

**Table 7: Sources of Capital Used to Start or Acquire the Business by Race/Ethnic Group, 2002[36]**

| Respondent Group | Personal/ Family Savings | Other Personal/ Family Assets | Personal/ Business Credit Card | Business Loan from Government | Government-guaranteed Bank Loan | Business Loan from Bank | Outside Investor | None Needed |
|---|---|---|---|---|---|---|---|---|
| African American | 50.2% | 7.1% | 10.1% | 1.1% | 0.5% | 5.7% | 2.1% | 33.0% |
| American Indian and Alaska Native | 51.9% | 10.0% | 12.2% | 1.0% | 0.8% | 7.8% | 2.0% | 30.8% |
| Asian | 61.4% | 8.9% | 9.6% | 1.0% | 0.8% | 10.2% | 3.1% | 22.6% |
| Hispanic | 51.2% | 6.7% | 9.4% | 0.8% | 0.4% | 5.6% | 1.8% | 33.1% |
| Native Hawaiian and Other Pacific Islander | 52.6% | 10.3% | 12.7% | 2.3% | 0.4% | 5.2% | 2.1% | 29.9% |
| Minority Firms | 54.1% | 7.7% | 9.8% | 1.0% | 0.6% | 7.2% | 2.3% | 29.7% |
| Non-Minority Firms | 55.6% | 9.3% | 8.8% | 0.8% | 0.7% | 12.0% | 2.5% | 27.4% |
| All Respondents | 54.6% | 9.0% | 8.8% | 0.9% | 0.7% | 11.4% | 2.7% | 27.7% |
| Publicly Held* | 26.5% | 6.7% | 2.8% | 2.6% | 1.2% | 14.0% | 11.8% | 27.5% |

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[35] U.S. Department of Commerce, Economics and Statistics Administration and the Minority Business Development Agency, *Keys to Minority Entrepreneurial Success: Capital, Education, and Technology*, 5-7.

[36] Available standard errors from which the reliability of the estimates in this table can be determined can be found in Table 7b in the Appendix section.

***Sources of Capital Used by Size of Firm and Employment***

> *For firms operating in 2002, larger minority firms (with receipts of $500,000 or more) and minority employer firms were more likely to use bank loans than credit cards to start or acquire their businesses. These firms may have benefited from lower-cost capital sources and as result grew their receipts to $500,000 or more and acquired employees by 2002. However, larger minority firms used bank loans at lower rates compared to non-minority firms of similar size. Further research is necessary to identify factors that may have influenced the access to bank loans by larger minority firms compared to non-minority firms of the same size.*

MBDA's analysis of the *2002 SBO* also revealed that larger minority firms (with annual gross receipts of $500,000 or more) performed better in their growth of gross receipts between 1997 and 2002 compared to smaller minority firms (with receipts under $500,000) during the same period. However, larger minority firms had a smaller rate of decline (-3%) in average gross receipts between 1997 and 2002, compared to larger non-minority firms (-9%) during the same period.[37]

Strategic Growth Initiative (SGI) firms are larger minority businesses with annual gross receipts of $500,000 or above. The Minority Business Development Agency has identified SGI firms, and those with high-growth potential, as businesses that offer the greatest opportunity for economic impact and employment.

Larger firms had a greater need of capital, regardless of its source, to start or acquire the business compared to smaller firms. A greater proportion of larger minority firms operating in 2002 used personal savings; credit cards; outside investors; and bank, government, and guaranteed loans to start or acquire the business compared to smaller minority firms operating in the same year. However, larger minority firms used bank loans to a lesser extent (23.3% of firms), compared to larger non-minority firms (29.2% of firms).[38] (Table 8)

In general, employer firms owned by minorities and non-minorities were more likely to use less costly sources of capital, such as bank loans, to start or acquire the business compared to non-employer firms owned by minorities and non-minorities. However, fewer minority employer firms (18% of firms) used bank loans for the same purpose compared to non-minority employer firms (23.5%).[39]

Personal savings continued to be the most prevalent source of capital used to start or acquire a minority-owned business, which eventually generated $500,000 or more in gross receipts in 2002, followed by bank loans and credit cards.

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[37] U.S. Department of Commerce, Minority Business Development Agency, *The State of Minority Business Enterprise*. Standard errors for these business measures were not available, therefore,a statistical significance test could not be performed.

[38] These differences are statistically significant at a 90% confidence level.

[39] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.

**Table 8: Sources of Capital Used to Start or Acquire the Business by Size of Firm, 2002**[40]

| Respondent Group | Size of Firm | Personal/ Family Savings | Other Personal/ Family Assets | Personal/ Business Credit Card | Business Loan from Government | Government-guaranteed Bank Loan | Business Loan from Bank | Outside Investor |
|---|---|---|---|---|---|---|---|---|
| African American | Larger | 68.2 | 14.2 | 13.2 | 3.1 | 4.1 | 25 | 4.9 |
| | Smaller | 49.8 | 6.9 | 10 | 1 | 0.5 | 5.2 | 2.1 |
| American Indian and Alaska Native | Larger | 66.8 | 17.3 | 12 | 3.1 | 3.9 | 22.1 | 5.7 |
| | Smaller | 51.3% | 9.6 | 12.2 | 0.9 | n/a | 7.2 | 1.9 |
| Asian | Larger | 73.2 | 13.7 | 9.8 | 2.2 | 2.7 | 25.7 | 5.6 |
| | Smaller | 60.2 | 8.4 | 9.5 | 0.9 | 0.6 | 8.6 | 2.8 |
| Hispanic | Larger | 69 | 13.9 | 11.6 | 1.9 | 2.3 | 19.1 | 4.4 |
| | Smaller | 50.3 | 6.3 | 9.3 | 0.7 | 0.3 | 4.9 | 1.7 |
| Native Hawaiian and Other Pacific Islander | Larger | 66.5 | 15.8 | n/a | n/a | n/a | 20.3 | 4 |
| | Smaller | 51.9 | n/a | 13 | n/a | n/a | n/a | n/a |
| Minority Firms | Larger | 71 | 14 | n/a | n/a | n/a | 23.3 | 5.1 |
| | Smaller | 53.1 | n/a | 9.8 | n/a | n/a | n/a | n/a |
| Non-Minority Firms | Larger | 64.9 | 14.8 | n/a | n/a | n/a | 29.2 | 5.4 |
| | Smaller | 53.5 | n/a | 8.8 | n/a | n/a | n/a | n/a |
| Classifiable Firms | Larger | 65.5 | 14.7 | 7.5 | 1.8 | 2.2 | 28.7 | 5.4 |
| | Smaller | 53.5 | 8.3 | 8.9 | 0.7 | n/a | 9.0 | 2.1 |
| All Respondent Firms | Larger | 60.6 | 13.7 | 6.8 | 1.9 | 2.1 | 27.6 | 6.5 |
| | Smaller | 53.9 | 8.5 | 9.0 | 0.8 | 0.5 | 9.6 | 2.3 |

Larger firms owned by Asians used personal savings at greater rates (73.2% of firms) compared to larger firms owned by any other group, including non-minorities.

Larger African American and Hispanic firms, which operated in 2002, used credit cards to a greater extent to start or acquire the business (13% and 12%, respectively) compared to larger firms owned by any other group. (Table 8)

The data suggests a relationship exists between less costly sources of capital used to start or acquire minority businesses and the firms' receipts size and employer status. As discussed before, the SBA study also suggested a correlation exists between the size of firms, and their survival, expansion, and contraction rates.

Firms with sound business plans, more experienced management, and greater capital resources may be better positioned to attract investors and secure bank or government loans to start a business. In addition, larger minority firms and those with employees may have benefited from lower-cost financial sources to start or acquire the business in the first place, and as result grew their receipts to $500,000 or acquired employees by 2002.
Further research is necessary to test this theory and find out if these firms would have generated higher gross receipts compared to other firms that did not have the same characteristics.

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[40] A statistical significance test for some of these differences could not be performed because standard errors were not available.

Additional studies would also add insight into the factors that may have influenced access to bank loans by larger minority firms compared to non-minority firms of similar size.

***Sources of Capital Used by Industry***

*Minority-owned firms operating in 2002 in selected industries used bank loans to start or acquire their business at lower rates compared to non-minority firms in the same industries. Minority firms in information and retail trade, and sectors with lower survival rates compared to other industries, used credit cards at relatively high rates compared to minority firms in other sectors. Findings suggest a correlation may exist between types of capital used and business survival. Further research is necessary to test this relationship.*

In general, minority respondent firms in most industries used bank loans to start or acquire the business at lower rates compared to non-minority businesses in the same industries.[41] (Chart 2)

Classifiable firms (minority and non-minority-owned firms)[42] operating in 2002 in the retail trade (13%) and information (11%) industries had a higher proportion of respondent firms that used credit cards to start or acquire the business, compared to classifiable firms in industries with higher survival rates such as health care and social assistance (7%). Minority firms in the retail trade (14%), information (12%), and wholesale trade (12%) industries also had a higher proportion of respondent firms that used credit cards to start or acquire their business, compared to minority firms in health care and social assistance (6.8%).[43]

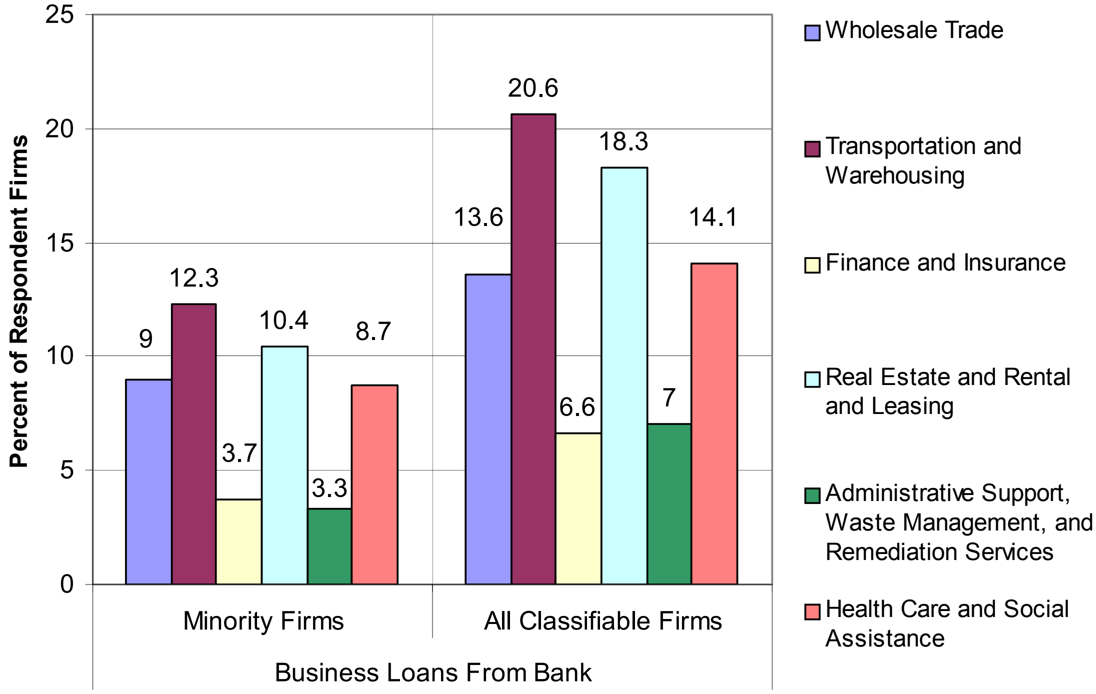
Likewise, non-minority firms had a higher proportion of firms in retail trade (12.7%) and information (10.7%) that used credit cards to start or acquire the business compared to non-minority firms in health care and social assistance (7%).[44]

Classifiable firms in educational services (36.7%); health care and social assistance (46.5%); and administrative support, waste management, and remediation services (36.3%) operating in 2002 had higher rates of respondents firms that needed no capital to start or acquire the business compared to classifiable firms in other industries.[45] These industries may require relatively less capital to start operations compared to firms in other industries, such as mining and utilities.

As discussed earlier, other studies have found that firms in the information and retail trade industries had lower survival rates compared to firms in other industries, while those in education and health services had higher rates of survival compared to firms in other industries.

[41] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[42] Classifiable firms are all U.S. firms excluding publicly held, foreign owned, non-profit, and other firms whose ownership can not be classified by gender, race, or ethnicity.
[43] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[44] Ibid.
[45] Ibid.

**Chart 2: Business Bank Loan Usage to Start or Acquire the Firm for Selected Industries, 2002 (in percentage)[46]**




The same industries that had lower survival rates also had a high proportion of businesses which used credit cards to start or acquire the business.

We also noted earlier that entrepreneurs who use credit cards as a source of capital to start or acquire a business are more likely exposed to higher interest rates and, therefore, encounter higher operating costs compared to other entrepreneurs who may have used less costly financial sources, such as bank and government loans and outside investors.

There may be a correlation between a greater use of high-cost sources of capital to start or acquire a business in the information and retail trade industries and their lower survival rates. Firms in these industries could have been negatively impacted by a higher cost of capital to start or acquire the business in the first place. More research is necessary to confirm this relationship.

[46] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.

## *Sources of Capital Used for Expansion or Capital Improvements*

> *For firms operating in 20002, minority-owned firms were more likely to use credit cards than bank loans to expand or finance the capital improvement of the business. Moreover, minority firms used bank loans for the same purpose at lower rates compared to non-minority-owned firms. Entrepreneurs who used more costly sources of capital to expand or finance the capital improvement of the business would have faced a greater financial burden compared to those who used less costly sources for the same purpose.*

As in the case of capital used to finance start-ups and business acquisitions, personal savings were the most cited source of capital used for the expansion or capital improvement of the business according to firms that responded to the *2002 SBO Characteristics of Businesses*.

An analysis of the data indicated that nearly 29 percent of minority firms that responded to the survey used personal savings to finance the expansion or capital improvement of the business, compared to 25 percent of non-minority firms. These were lower percentages compared to the proportion of minority (54%) and non-minority firms (56%) that used personal savings to start or acquire the business.[47]

Credit cards were the second most popular source of capital used to finance business expansions or capital improvements by minority firms (11%), and non-minority firms (12%), according to the analysis of the survey. [48] (Table 9)

Bank loans were the third most popular source of capital used to finance business expansions or capital improvements. About 6 percent of minority firms used bank loans to finance the expansion or capital improvement of the business, compared to 10 percent of non-minority firms.[49] These are slightly lower percentages compared to those of minority and non-minority firms that used bank loans to start or acquire the business.

Similar to Asian start-ups and acquisitions, a greater proportion of Asian firms used bank loans to finance the capital expansion and improvement of the business compared to other minority groups. Asians, American Indian and Alaska Natives had the largest proportion of firms (7.3% and 7.6%, respectively) that used bank loans to finance the expansion or capital improvement of the business, compared to other minority firms, excluding Native Hawaiian and Other Pacific Islanders.[50]

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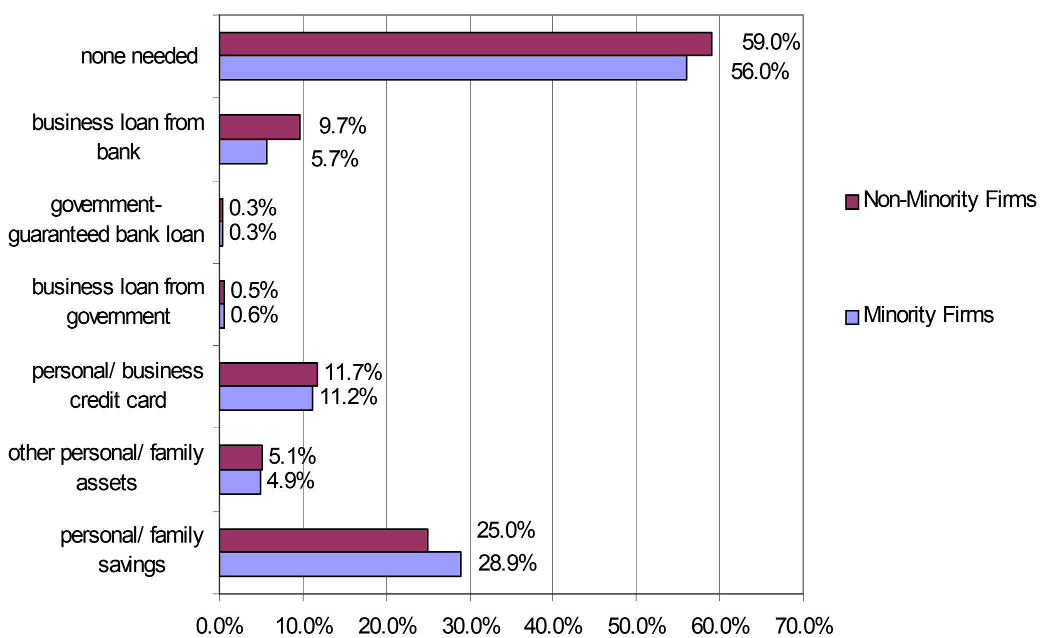
[47] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[48] Ibid.
[49] These differences are statistically significant at a 90% confidence level.
[50] At the 90% confidence level, due to a larger standard error, Native Hawaiians and Other Pacific Islander firms could have similar rates of bank loan usage to finance capital expansions compared to Asians and American Indian and Alaska Natives.

As discussed before, Asian firms generated more than double the average gross receipts ($296,000) of any other minority group in 2002, while African American firms grossed on average the lowest amount in receipts ($74,000) in the same year. Average gross receipts of non-minority firms surpassed $438,000 in 2002.[51]

A greater proportion of Asian and non-minority respondent firms also used bank loans to finance the start-up, acquisition, expansion or capital improvement of their businesses, compared to other groups with the exception of American Indian and Alaska Natives who used bank loans for capital improvements at similar percentages.

Bank and government loans offer generally lower borrowing costs compared to credit cards, which usually charge higher interest rates and, therefore, generate greater operating costs. The data suggests a correlation between less costly financing sources used by the business and firm size. Further research is necessary to confirm this relationship.

**Chart 3: Sources of Capital Used for Capital Expansion of Capital Improvements of the Business, 2002[52]**




[51] Data derived form a 2007 Census special tabulation requested by MBDA.
[52] A statistical significance test for some of these differences could not be performed because standard errors were not available.

**Table 9: Sources of Capital Used for Expansion or Capital Improvements, 2002**[53]

| Respondent Group | Personal/ Family Savings | Other Personal/ Family Assets | Personal/ Business Credit Card | Business Loan from Government | Government-guaranteed Bank Loan | Business Loan from Bank | Outside Investor | None Needed |
|---|---|---|---|---|---|---|---|---|
| African American | 29.1 | 4.8 | 11.5 | 0.7 | 0.3 | 4.1 | 1.3 | 56.3 |
| American Indian and Alaska Native | 30.8 | 7.1 | 15.5 | 0.7 | 0.3 | 7.6 | 1.3 | 52.7 |
| Asian | 31.4 | 5.3 | 10.6 | 0.6 | 0.4 | 7.3 | 1.5 | 53.6 |
| Hispanic | 26.5 | 4.4 | 10.9 | 0.5 | 0.3 | 5.2 | 1.3 | 58.4 |
| Native Hawaiian and Other Pacific Islander | 28.6 | 5.6 | 13.6 | 1.2 | 0.9 | 5.6 | S | 55.3 |
| Minority Firms | 28.9 | 4.9 | 11.2 | 0.6 | 0.3 | 5.7 | n/a | 56 |
| Non-Minority Firms | 25 | 5.1 | 11.7 | 0.5 | 0.3 | 9.7 | n/a | 59 |
| All Respondents | 25.5 | 5 | 11.4 | 0.5 | 0.3 | 9.2 | 1.2 | 58.5 |
| Publicly held, and other firms | 9.3 | 2.4 | 3.5 | 1 | 0.6 | 11.1 | 4.2 | 56.3 |

### *Sources of Capital Used by Size of Firm and Employment*

*Larger firms and employer firms were more likely to use bank loans to finance the expansion and capital improvement of the business compared to smaller firms and non-employer firms. However, larger minority firms and minority employer firms operating in 2002 were less likely to use bank loans and more likely to use credit cards for the same purpose compared to non-minority firms of the same size and with employees. Further research is necessary to identify factors which may have influenced the access to bank loans and other capital by larger minority firms compared to non-minority firms of similar size.*

We further analyzed the use of capital for the expansion or capital improvement of the business by receipts size and firms with employees. Trends by receipts size and employer firms may provide more information regarding their possible correlation to less costly sources.

An analysis of the data showed that a much greater proportion of larger firms (with gross receipts of $500,000 or more) operating in 2002 used bank loans to finance the business expansion or capital improvement compared to smaller firms (with receipts under $500,000) operating in the same year. (Table 10)

[53] Available standard errors from which the reliability of the estimates in this table can be determined can be found in Table 9b in the Appendix section.

In addition, a greater proportion of larger firms operating in 2002 also used bank loans to finance the expansion or capital improvement of the business compared to their use of credit cards for the same purpose, regardless of group ownership.[54]

However, larger minority firms used credit cards at greater rates (11.8% of firms) compared to larger non-minority firms (9.8% of firms).[55] Larger firms owned by African Americans (14.3%), American Indians and Alaska Natives (13%), Hispanics (13.2%), and Native Hawaiian and Other Pacific Islanders (17.5%) also used credit cards at greater rates compared to larger firms owned by non-minorities (9.8%). (Table 10)

**Table 10: Sources of Capital Used to Finance Expansion or Capital Improvement of the Business by Size of Firms, 2002**

| Respondent Group | Size of Firm | Personal/ Family Savings | Other Personal/ Family Assets | Personal/ Business Credit Card | Business Loan from Government | Government guaranteed Bank Loan | Business Loan from Bank | Outside Investor | None Needed |
|---|---|---|---|---|---|---|---|---|---|
| African American | Larger | 28% | 6.5 | 14.3 | 1.8 | 2.1 | 24.7 | 1.7 | 43.2 |
| | Smaller | 29.2 | 4.8 | 11.5 | 0.6 | 0.2 | 3.7 | 1.3 | 56.6 |
| American Indian and Alaska Native | Larger | 28.1 | 9.8 | 13.0 | 1.1 | n/a | 29.7 | n/a | 40.7 |
| | Smaller | 30.9 | 7.0 | 15.6 | 0.7 | n/a | 6.7 | 1.3 | 53.2 |
| Asian | Larger | 27.5 | 6.7 | 10.2 | 1.2 | 1.1 | 22.6 | 2.4 | 47.2 |
| | Smaller | 31.8 | 5.2 | 10.7 | 0.5 | n/a | 5.7 | 1.4 | 54.3 |
| Hispanic | Larger | 26.8 | 6.7 | 13.2 | 1.6 | 1.1 | 27.4 | 2.4 | 41.8 |
| | Smaller | 26.4 | 4.3 | 10.8 | 0.5 | 0.2 | 4.0 | 1.3 | 59.2 |
| Native Hawaiian and Other Pacific Islander | Larger | 27.4 | n/a | 17.5 | n/a | n/a | 23.4 | n/a | 42.0 |
| | Smaller | 28.7 | n/a | 13.4 | n/a | n/a | n/a | n/a | 55.9 |
| Minority Firms | Larger | 27.4 | n/a | 11.8 | n/a | n/a | 24.7 | n/a | 44.7 |
| | Smaller | 29 | n/a | 11.2 | n/a | n/a | n/a | n/a | 56.7 |
| Non-Minority Firms | Larger | 21.2 | n/a | 9.8 | n/a | n/a | 30.2 | n/a | 48.8 |
| | Smaller | 25.9 | n/a | 11.9 | n/a | n/a | n/a | n/a | 60.1 |

Moreover, a greater proportion of larger firms owned by African Americans, Hispanics, and Native Hawaiian and Other Pacific Islanders used credit cards to finance business expansions or capital improvements, compared to smaller firms owned by these same groups. This was not the case for firms owned by Asians and American Indians and Alaska Natives. [56]

In addition, a greater proportion of minority employer firms (14.3%) said they used credit cards to finance the expansion or capital improvement of the business compared to non-minority employer firms (13.3%). On the other hand, a lesser proportion of minority employer firms

[54] Standard errors for related business measures were not available; therefore, a statistical significance test could not be performed.
[55] These differences are statistically significant at a 90% confidence level.
[56] Standard errors for related business measures were not available; therefore, a statistical significance test could not be performed.

(15.5%) used bank loans for the same purpose compared to non-minority employer firms (21.3%).[57]

In summary, MBDA found a correlation between the need for capital and the receipts size and employment status of the business. Larger and employer firms needed more capital to expand or finance the capital improvement of the business, compared to smaller or non-employer firms, regardless of ownership group.

MBDA also found a correlation between the use of less costly sources of capital--such as bank loans--to finance the expansion or capital improvement of the business, and the firm size and employment status. A greater proportion of larger and employer firms used bank loans to finance the expansion or capital improvement of the business instead of credit cards, while a greater proportion of smaller respondent firms used credit cards instead of bank loans for the same purpose.

As indicated earlier, smaller firms and those in the services industry generally lack the collateral to access traditional bank loans, but could benefit from guaranteed loan products. Minority firms, which were highly concentrated in the services sector and smaller in size compared to non-minority firms, may have depended more on credit cards to start or expand their business, possibly because some of them may have lacked the collateral to obtain a traditional loan, among other possible factors. However, larger minority firms, which may have had the collateral to obtain a traditional loan, were less likely to use bank loans compared to non-minority firms of similar size.

Further study is necessary to identify factors that may have influenced the access to bank loans by minority firms compared to non-minority firms of similar size. In addition, more studies could also add insight as to why more larger firms owned by African Americans, Hispanics, and Native Hawaiian and Other Pacific Islanders depend more frequently on credit cards to expand the business or make capital improvements, compared to smaller minority firms owned by the same groups.

In the next section we will discuss the use of capital for the expansion and capital improvement of the business by industry.

[57] Standard errors for related business measures were not available; therefore, a statistical significance test could not be performed.

***Sources of Capital Used by Industry***

> *Once again, firms in industry sectors with lower survival rates, such as retail trade and information, used credit cards to expand or finance the capital improvement of the business at relatively high rates compared to firms in other industries. The findings suggest a correlation may exist between firms with lower survival rates and their use of more costly sources of capital to finance the expansion or capital improvement of the business. Further research by industry is necessary to add insight into this relationship.*

A greater proportion of minority firms in retail trade (14%) and information (14.3%) used credit cards to finance their business expansion or capital improvement compared to minority firms in industries with higher survival rates, such as health care and social services (8.5%, excluding Native Hawaiian and Other Pacific Islanders). Non-minority firms in retail trade (15%) and information (14.6%) also had a higher proportion of firms that used credit cards for the same purpose compared to non-minority respondent firms in health care and social services (10%).[58]

In addition, a relatively low proportion of classifiable firms in educational services (8.7%) and health care and social assistance (9.9%), responded they used credit cards for the same purpose.[59] Firms in these industries also exhibited higher survival rates compared to firms in other industries according to Knaup's study.

Classifiable firms, in most industries, were more likely to use bank loans to finance the expansion or capital improvement of the business compared to minority firms in the same industries. Average gross receipts for classifiable firms in all industries in 2002 were higher compared to minority firms in the same industries. (Chart 4)

For respondent firms in manufacturing, a larger proportion of classifiable firms used bank loans (18.5%) to finance the expansion or capital improvement of the business compared to minority firms (11.3%) in the same industry.[60] As stated before, firms in manufacturing also had higher survival rates compared to other industries.

In summary, respondent firms in retail trade and information used credit cards to start, acquire, expand, or finance the capital improvement of the business at relatively high rates. High dependency on credit cards as a source of capital may place a business at a disadvantage since this kind of capital usually carries higher interest rates compared to others, such as bank loans. Firms in retail trade and information industries also exhibited lower survival rates compared to other industries, according to the studies previously discussed in this report.

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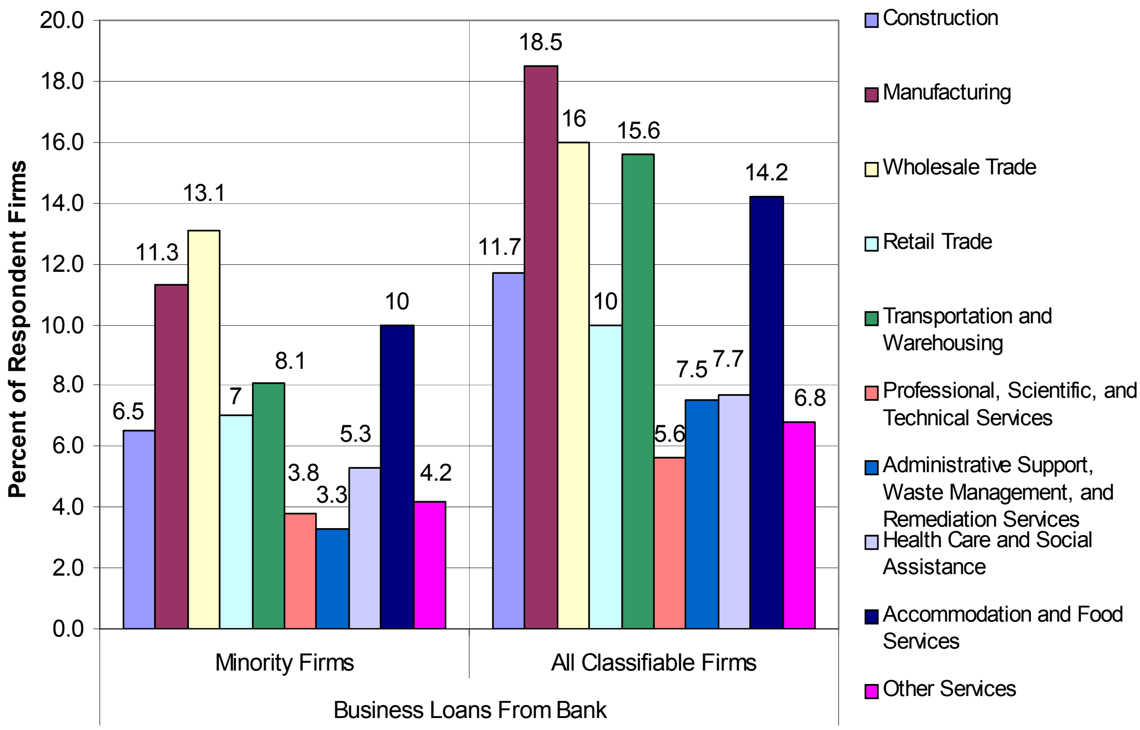
[58] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[59] Ibid.
[60] Ibid.

**Chart 4: Usage of Business Bank Loans to Finance Expansion or Capital Improvement for Selected Industries, 2002**[61]




The data analysis may suggest a correlation between less costly sources of capital used to start, acquire, expand, and finance capital improvements of the business and a stronger business performance by industry. High average gross receipts and survival rates were measures for business strong performance in this report. Further analysis by industry and minority group would add insight into this relationship.

[61] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.

### *Business Ownership and Structure: Home-Based, One Owner, and Franchised*

> *Minority firms operating in 2002 were less likely to be home-based and owned by one individual and more likely to be a franchised business compared to non-minority firms. Minority firms owned by one individual may have not benefited from the additional experience, education, and resources multiple owners can offer to grow a business. On the other hand, franchises may have offered additional managerial and marketing resources to minority entrepreneurs who operated franchised businesses.*

Minority firms (43% of firms) were less likely to be home-based compared to non-minority firms (52%).[62] Asian firms were the least home-based in 2002, among all groups of firms with only 28.2 percent of their businesses home-based. (Chart 5)

Minority firms (2.7% of firms) were more likely to be franchised compared to non-minority firms (1.8%).[63] Asian firms had the highest proportion of franchised businesses (3.9%) among all other group of firms, excluding Native Hawaiian and Other Pacific Islanders.[64]

Compared to non-minority firms (64.4%), minority firms had higher rates of family-owned firms with only one owner (70.7%).[65] Asian-owed firms reported lower rates (64.8%) of family-owned businesses with one owner compared to other minority groups.

Many home-based firms are start-ups, smaller firms, or lifestyle businesses that were launched to replace an individual's salary and not for the purpose of creating wealth. Start-ups firms that operate from the home have the advantage of lower operating costs and therefore, a greater likelihood of staying in business.[66]

It is interesting that minority firms were less likely to be home-based compared to non-minority firms since minority firms were smaller in size, generating about a third of the receipts grossed by non-minority firms in 2002. In addition, minority firms experienced a much greater growth in number (30%) between 1997 and 2002 compared to non-minority firms (6%).[67] The growth could suggest that many minority firms were start-ups in 2002. Unfortunately, the survey data did not distinguish how many of the home-based firms started operations in 2002.

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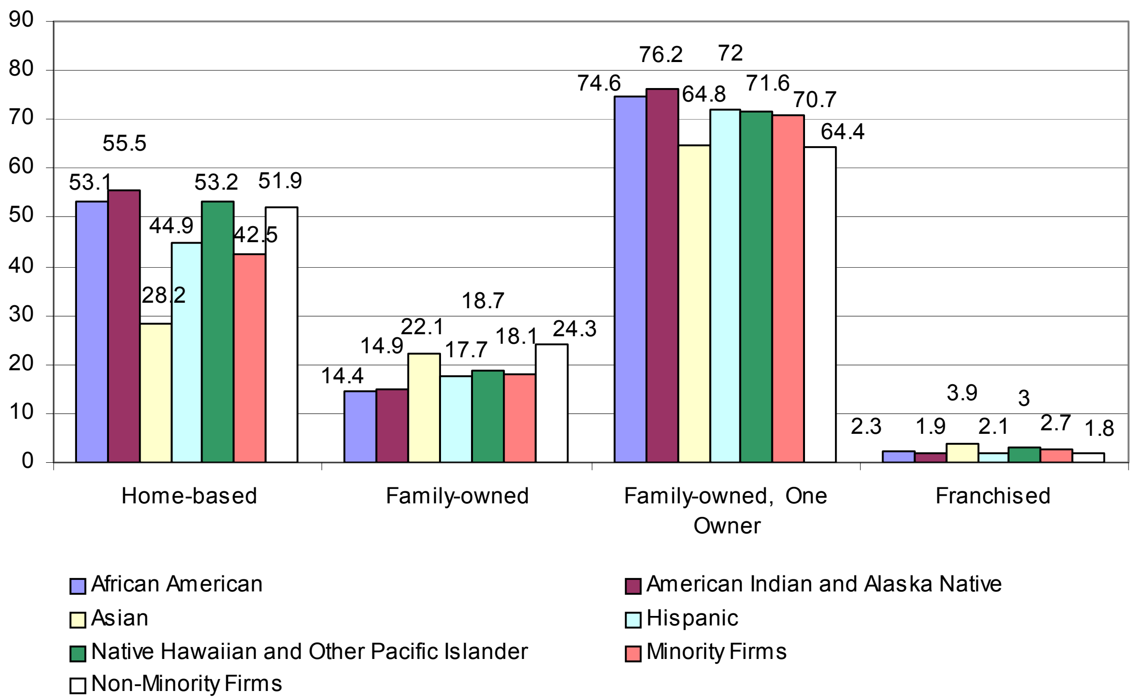
[62] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[63] These differences were statistically significant at a 90% confidence level.
[64] Due to a larger standard error, Native Hawaiians and Other Pacific Islander firms could have greater rates of franchised businesses compared to Asians at a 90% confidence level.
[65] These differences were statistically significant at a 90% confidence level. The two 2002 survey forms provided slightly different response options to the question about family ownership. The difference in response wording may have caused different interpretations by respondents. Therefore, firms that reported being family-owned and also as having only one owner were counted in both categories; they were not reclassified as nonfamily-owned businesses.
[66] Headd, 51-61.
[67] Data derived from a 2007 Census special tabulation and the 1997 Survey of Minority-Owned Business Enterprises.

As discussed before, larger, well financed firms with multiple owners have better survival rates compared to smaller, poorly financed companies.[68] The higher rates of single ownership may have placed minority family-owned firms at a disadvantage compared to non-minority family-owned firms that had lower rates of single ownership. Minority firms owned by one family member would have not benefited from the additional experience, education, and resources multiple owners can offer to grow a business.

Minority firms were also more likely to be franchised compared to non-minority firms in 2002. Generally speaking, franchises offer name recognition, management and marketing training, and other support services to the franchise owner. For some entrepreneurs, franchises are a good option to start a business.

Asian firms, which had the largest average gross receipts in 2002 compared to other minority firms, also had the lowest rate of home-based firms compared to any other group of firms, and the lowest percentage of single ownership when family-owned compared to other minority firms. These firms also had the highest percentage of franchised business (excluding Native Hawaiian and Other Pacific Islanders).

**Chart 5: Firms Operated as Home-Based, Family-Owned, or Franchised, 2002[69]**

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[68] Headd, 51-61.

[69] Available relative standard errors from which the reliability of the estimates in this chart can be determined can be found in Table 14b in the Appendix section. Standard errors for business measures of minority and non-minority firms were not available; therefore, a statistical significance test could not be performed, with the exception of measures for franchised businesses for which a test was performed. The two 2002 survey forms provided slightly different response options to the question about family ownership. The difference in response wording may have caused different interpretations by respondents. Therefore, firms that reported being family-owned and also as having only one owner were counted in both categories; they were not reclassified as nonfamily-owned businesses.

In the next section, we will analyze respondent firms that were home-based, family-owned with one owner and franchised, by receipts size and employment.

***Business Ownership and Structure by Size of Firm and Employment***

> *Larger minority firms operating in 2002 were more likely to be franchised and less likely to be owned by only one individual when family-owned, while smaller minority firms operating in the same year were more likely to be home-based. Larger minority and family-owned firms that had multiple owners would have benefitted from the additional human resources to grow and stay in business.*

Larger firms (annual gross receipts of $500,000 or more) in 2002 were less likely to be home-based or have only one owner if family-owned, and more likely to be franchised compared to smaller firms (annual gross receipts of under $500,000). This was the case for all minority groups of firms, non-minority firms, and all U.S. firms.[70] (Table 11)

**Table 11: Firms Operated as Home-Based, Family-Owned, or Franchised by Size, 2002[71]**

| Respondent Group | Size of Firms | Home-based | Not Home-based | Family-Owned | Not Family-Owned | Family-Owned, One Owner | Franchised | Not Franchised |
|---|---|---|---|---|---|---|---|---|
| African American | Larger | 8.5 | 87.2 | 23.0 | 17.0 | 56.1 | 8.0 | 87.8 |
| | Smaller | 54.2 | 39.1 | 14.2 | 4.7 | 75.1 | 2.2 | 89.3 |
| American Indian and Alaska Native | Larger | 17.0 | 79.1 | 31.8 | 16.0 | 48.7 | 4.3 | 90.9 |
| | Smaller | 57.1 | 37.1 | 14.2 | 3.7 | 77.3 | 1.8 | 91.7 |
| Asian | Larger | 5.7 | 91.4 | 29.1 | 21.0 | 46.2 | 10.0 | 86.8 |
| | Smaller | 30.5 | 65.3 | 21.3 | 7.8 | 66.7 | 3.2 | 92.0 |
| Hispanic | Larger | 12.3 | 84.1 | 30.4 | 15.0 | 51.8 | 4.5 | 91.1 |
| | Smaller | 46.7 | 47.7 | 17.1 | 4.5 | 73.1 | 1.9 | 90.6 |
| Native Hawaiian and Other Pacific Islander | Larger | | 79.3 | 18.3 | 22.0 | 55.7 | n/a | 92.5 |
| | Smaller | 55.1 | 39.9 | 17.0 | | 59.1 | n/a | 91.8 |
| Minority Firms | Larger | n/a | 88.0 | 28.9 | 18.0 | 49.3 | n/a | 88.5 |
| | Smaller | 44.6 | 49.9 | 17.4 | n/a | 71.9 | n/a | 90.8 |
| Non-Minority Firms | Larger | n/a | 87.0 | 32.1 | 24.0 | 41.7 | n/a | 92.0 |
| | Smaller | 56.3 | 40.1 | 23.5 | n/a | 66.9 | n/a | 94.6 |
| Classifiable Firms | Larger | 10.3 | 87.1 | 31.8 | 23.3 | 42.4 | 5.2 | 91.7 |
| | Smaller | 54.5 | 41.6 | 22.6 | 6.6 | 67.6 | 1.6 | 94.0 |
| All Respondent Firms | Larger | 9.5 | 87 | 30.1 | 28.0 | 38.2 | 4.9 | 91.1 |
| | Smaller | 53.8 | 42.1 | 22.7 | 7.3 | 66.4 | 1.6 | 93.8 |

[70] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[71] Ibid.

A greater proportion of larger minority, family-owned firms were owned by only one individual (49.3%) compared to larger non-minority, family-owned firms (41.74%).[72]
Among employer firms, a greater proportion of minority firms were franchised (14.3%) and owned by one owner (59.1%), compared to non-minority firms (13.3% franchised, 54.5% owned by one owner). However, a lesser proportion of minority employer firms (17.2%) were home-based compared to non-minority employer firms (23.8%).[73]

The findings support the assumption that franchised businesses tend to be larger in size of receipts, and home-based firms are most likely smaller firms. In addition, the correlation between larger firms that are family-owned and single ownership could imply that some of these larger businesses do in fact have a greater proportion of multiple owners, and, therefore, may be benefiting from the additional human resources to grow and stay in business. Further research is necessary to test these assumptions.

***Business Ownership and Structure by Industry***

*While firms in information and retail trade had low survival rates, firms in information were more likely to be home-based compared to those in retail trade.*
*Findings suggest that the business structure of a firm, be them home-based or not, was not correlated to the firm's survival rate.*

A greater proportion of classifiable firms in construction (68%), information (62%), and arts and entertainment (62%) were operating in 2002 from the home, compared to firms in other industries operating in the same year. The same is true for minority firms in these industries: construction (58%), information (58%), and arts and entertainment (58%).[74]

A smaller proportion of firms in industry sectors with high survival rates, such as manufacturing, and health care and social assistance, responded that their firms were home-based, 35 percent and 44 percent, respectively. A notable exception were respondent firms in educational services, which also had a high survival rate; however, 57 percent of their firms were home-based.[75]

Of the firms in industries with low survival rates, only 46 percent in retail trade and 62 percent in information were home-based.[76]
Among franchised firms, classifiable respondent firms in the management of companies and enterprises industry had the greatest proportion of franchised businesses (14%), followed by those in accommodation and food services (12%).[77]

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[72] These differences were statistically significant at a 90% confidence level. The two 2002 survey forms provided slightly different response options to the question about family ownership. The difference in response wording may have caused different interpretations by respondents. Therefore, firms that reported being family-owned and also as having only one owner were counted in both categories; they were not reclassified as nonfamily-owned businesses.
[73] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[74] Ibid.
[75] Ibid.
[76] Ibid.

For minority respondent firms, a greater proportion of firms in accommodation and food services (12%), and management of companies and enterprises (11%),[78] were most likely to be franchised, compared to minority firms in other industries.

In this section we analyzed respondent firms in industries with high or low survival rates and their business characteristics according to the 2002 survey to try to offer additional insight regarding their business performance.  In summary, we found no correlation between home-based firms and survival rate of firms by industry.

[77] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[78] The data does not include figures for Native Hawaiian and Other Pacific firms because responses for these firms were suppressed in the Census report.

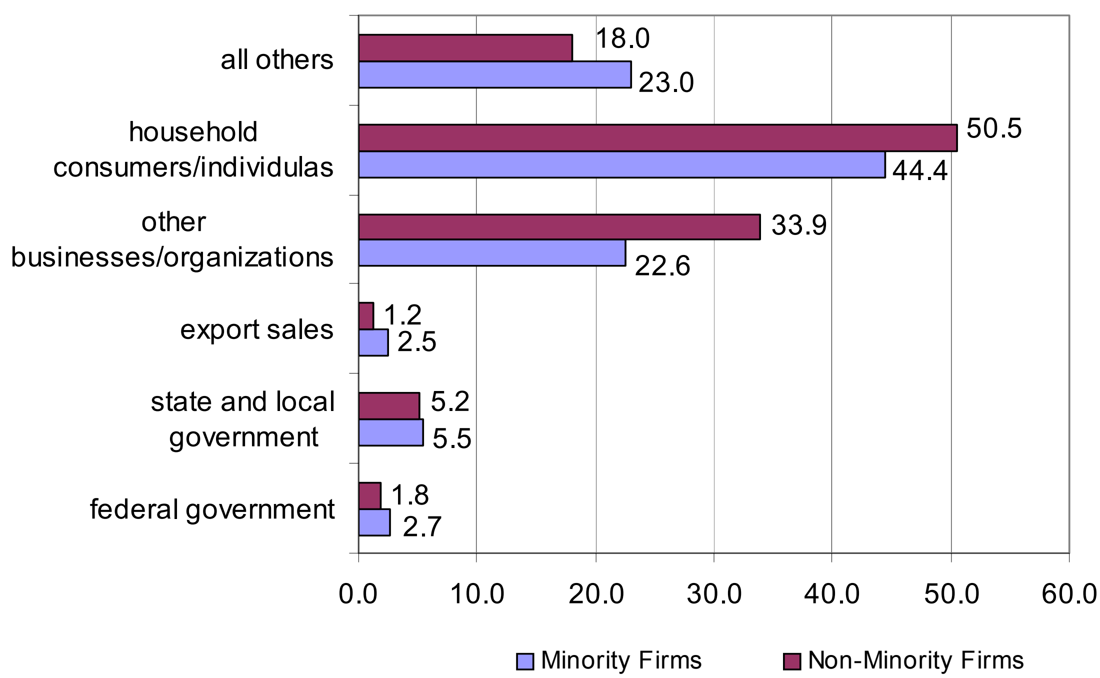
## *Customer Categories*

> *In 2002, minority firms were less likely to sell goods and services to businesses and organizations, but more likely to export compared to non-minority firms. The participation rate of minority firms in global commerce can contribute to reverse the national trade imbalance. Business development services, such as those provided by MBDA, are vital in facilitating additional contracting opportunities for minority firms in the private and public sector, as well as the global economy and, therefore, supporting the growth and expansion of minority businesses.*

Minority and non-minority firms operating in 2002 had a variety of customers that accounted for 10 percent or more of their sales. Most minority firms (44.4%) and non-minority firms (50.5%) sold goods or services to household consumers and individuals. Businesses and organizations were the second most popular customer group of minority (22.6%) and non-minority firms (33.9%).[79]

However, minority firms were less likely to generate 10 percent of their receipts through sales to businesses (22.6%) compared to non-minority firms (33.9%).[80] (Chart 6)

**Chart 6: Percentage of Firms with Sales by Customer, 2002[81]**

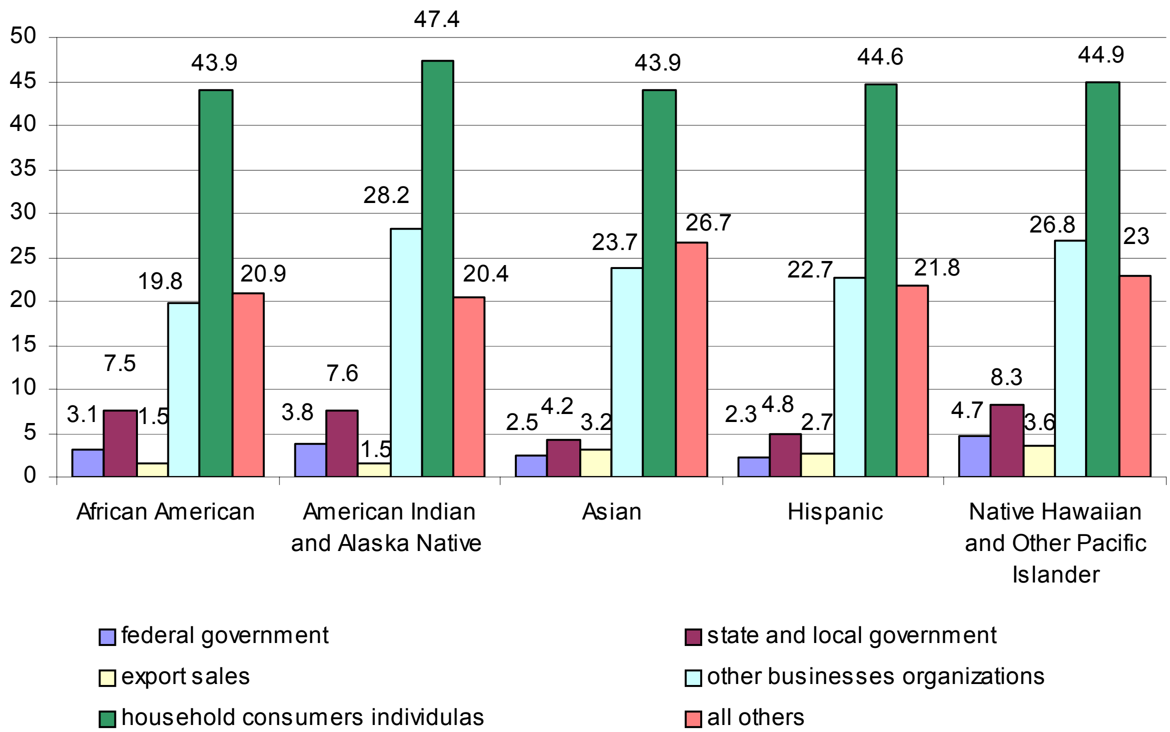



[79] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[80] These differences are statistically significant at a 90% confidence level.
[81] Customers represented 10 percent or more of the firm's sales. A statistical significance test for some of these differences could not be performed because standard errors were not available.

A larger percentage of minority firms (2.5%) responded that export sales accounted for 10 percent or more of their sales of goods and services, compared to non-minority businesses (1.2%).[82] A greater proportion of minority firms also generated 10 percent or more of their receipts in sales to the federal, state, and local governments, compared to non-minority firms.[83]

An overview of customers by minority group indicated American Indian and Alaska Native respondent firms had the highest proportion of firms with 10 percent or more of their sales to household consumers/individuals (47.4%) compared to any other minority group, excluding Native Hawaiian and Other Pacific Islanders.[84] (Chart 7)

**Chart 7: Percentage of Firms with Sales by Customer, 2002[85]**




American Indian and Alaska Natives and Native Hawaiian and Other Pacific Islanders also had a greater incidence of sales to businesses and organizations (28.2% and 26.8%, respectively) and the federal government (3.8% and 4.7%, respectively), compared to any other minority respondent group.

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[82] These differences are statistically significant at a 90% confidence level.

[83] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.

[84] Due to a relatively large standard error, Native Hawaiians and Other Pacific Islander firms could have similar rates of sales to household consumers/individuals compared to American Indians and Alaska Natives at a 90% confidence level

[85] Customers represented 10 percent or more of the firm's sales. Available relative standard errors from which the reliability of the estimates in this chart can be determined can be found in Table 15b in the Appendix section.

In addition, Asian firms had the highest percentage of firms with 10 percent or more of their sales in exports (3.2%) compared to any other minority group, excluding Native Hawaiian and Pacific Islanders.[86] (Chart 7)

As mentioned before, one of the weaknesses exhibited by minority-owned firms included having a narrow portfolio of customers and products according to Professor Greenhalgh from the Tuck School of Business at Dartmouth. Certainly, having a diverse customer base may help a firm stay viable because the loss of a major customer would create less of a negative impact on the business. Further research is necessary to determine if minority firms indeed have adequate diversity of customers.

Although minority firms were more like to generate receipts through sales to the federal government (2.7% of firms), compared to non-minority firms (1.8%), in absolute terms, a much smaller number of minority firms received federal contracts compared to non-minority firms. In 2002, there were 3.9 million minority firms in the United States, compared to 18.5 million non-minority firms.[87]

In addition, in fiscal year 2006, 50 percent of the federal agencies rated by the SBA did not meet their small business contracting goals as of August that year.[88] The small business contracting goals include contracts to small and disadvantaged firms and those certified under the 8(a) program, of which many are minority firms.

Minority firms were also less likely to sell goods and services to other businesses and organizations compared to non-minority firms. Through brokering and business development services programs, such as those facilitated by the Minority Business Development Agency, minority-owned firms can benefit in securing additional federal and public sector contracting opportunities.

The greater participation rate of minority firms as exporters suggests that a larger proportion of minority firms are engaged in export trade compared to non-minority firms. This finding may have implications regarding the contributions minority firms can make to the national trade imbalance. It also supports the theory advanced by John Owens and Robert Pazornik in their paper,[89] which proposed that minority firms may have a unique competitive advantage in international trade, especially in developing economies and in those geographic areas where minorities may have cultural and family ties.

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[86] Due to a relatively large standard error, Native Hawaiians and Other Pacific Islander firms could have similar rates of export sales compared to Asians at a 90% confidence level.
[87] The number of non-minority firms represents MBDA estimates derived from a 2007 Special Tabulation from the U.S. Census.
[88] August 2007 press release issued by the Small Business Administration: *SBA Scores Federal Small Business Procurement Efforts.*
[89] John Owens and Robert Pazornik, *Minority Business Enterprises in the Global Economy: The Business Case*. Prepared in collaboration with the Minority Business Development Agency (2003).

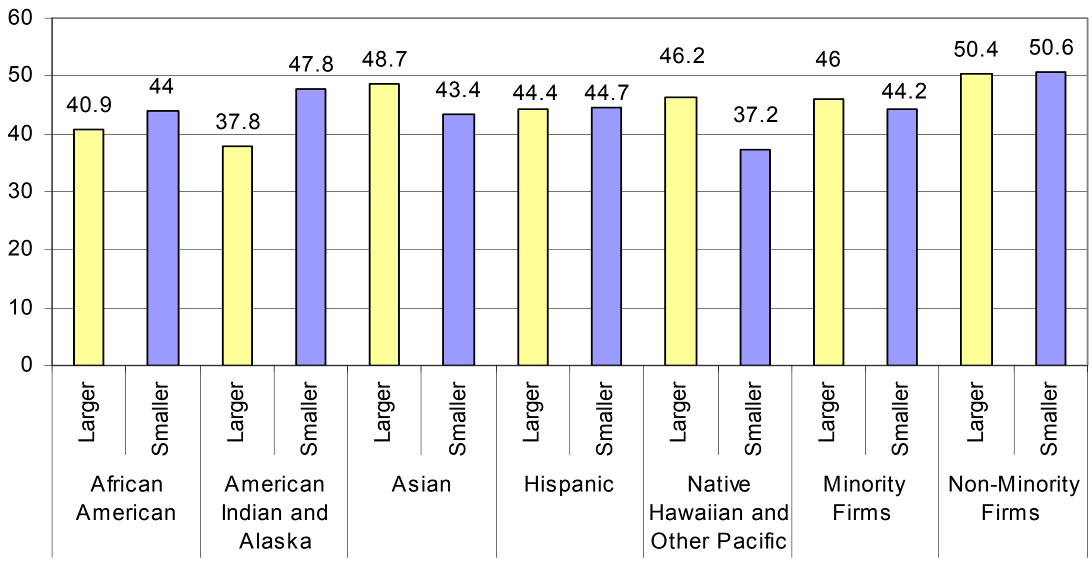
***Customer Categories by Size of Firm and Employment***

*Larger minority firms had a greater proportion of receipts generated through export sales, and sales to other businesses, organizations, and the federal, state and local governments, compared to smaller minority firms. The more a minority firm included among its customers other businesses and organizations, federal, state or local governments, and international clients, the greater the chances the firm generated $500,000 or more in gross receipts in 2002.*

*Household Consumers/Individuals*

In this section, MBDA analyzed the data by receipts size of firm and customers served to identify any trends. Larger respondent firms (with gross receipts of $500,000 or more) and smaller respondent firms (with gross receipts under $500,000) had about an even proportion of their firms with 10 percent or more of their sales to household consumers/individuals in 2002.

**Chart 8: Percentage of Firms with Sales to Household Consumers/Individuals, 2002[90]**




However, larger minority firms (46% of firms) and minority employer firms (50.6%) were less likely to have 10 percent or more of their receipts generated through sales to household consumers and individuals compared to larger non-minority firms (50.4%) and non-minority employer firms (55.5%).[91]

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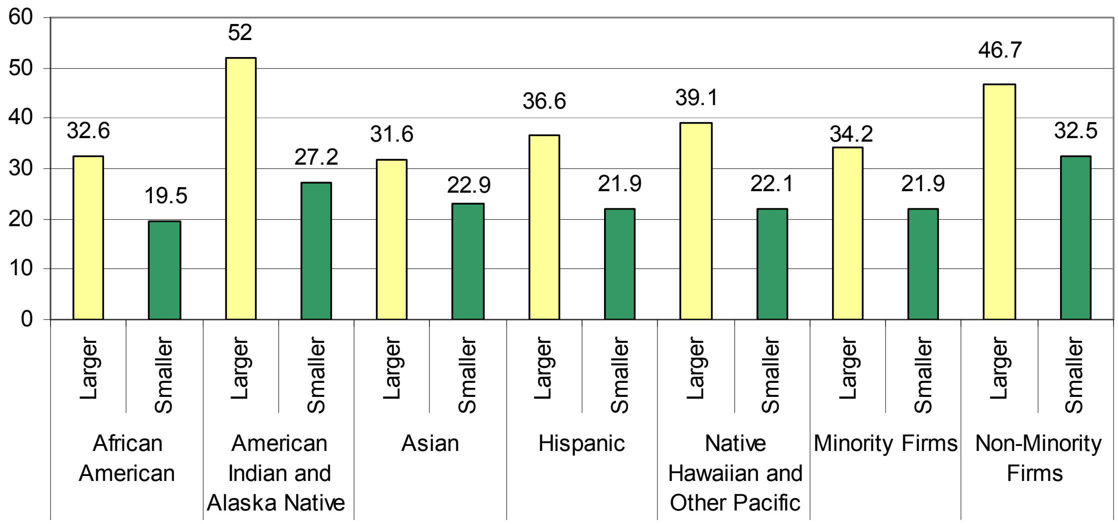
[90] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[91] Ibid.

*Other Businesses/Organizations*

A greater proportion of larger firms had 10 percent or more of their receipts generated through sales to other businesses and organizations compared to smaller firms operating in the same year. Larger minority respondent firms (receipts of $500,000 or more) were less likely to generate 10 percent of their receipts through sales to businesses (34.2% of firms) compared to lager non-minority firms of the same size (46.7%).[92]

**Chart 9: Percentage of Firms with Sales to Business/Organizations, 2002[93]**



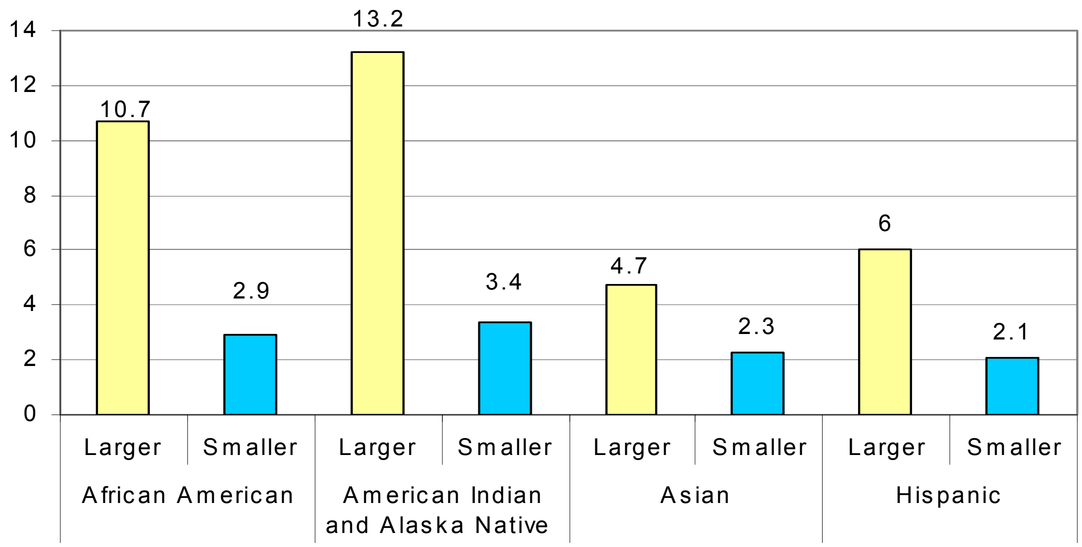

Larger minority firms (34.2%) and minority employer firms (27.6%) were less likely to have 10 percent or more of their receipts generated through sales to business and organizations compared to larger non-minority firms (46.7%) and non-minority employer firms (41.4%).[94]

[92] These differences are statistically significant at a 90% confidence level.
[93] A statistical significance test for some of these differences could not be performed because standard errors were not available.
[94] Ibid.

*Federal Government*

A greater proportion of larger firms had 10 percent or more of their receipts generated through sales to the federal government, compared to smaller firms operating in the same year. Larger firms owned by American Indians and Alaska Natives and African Americans had the largest proportion of their firms (3.2% and 10.7%, respectively) with sales of 10 percent or more to the federal government, compared to any other group of larger firms operating in 2002.[95]

**Chart 10: Percentage of Firms with Sales to the Federal Government, 2002[96]**




Minority employer firms (4.2%) were also more likely to have 10 percent or more of their receipts generated through sales to the federal government compared to non-minority employer firms (2.6%).[97] However, a much smaller number of minority employer firms received federal contracts compared to non-minority employer firms. In 2002, there were about 630,000 minority employer firms, compared to 4.5 million non-minority firms.[98]

In addition, in fiscal year 2006, 50 percent of the federal agencies rated by the SBA did not meet their small business contracting goals as of August this year. The Minority Business Development Agency should continue to play its vital role in facilitating federal contracting opportunities for minority firms with the federal government.

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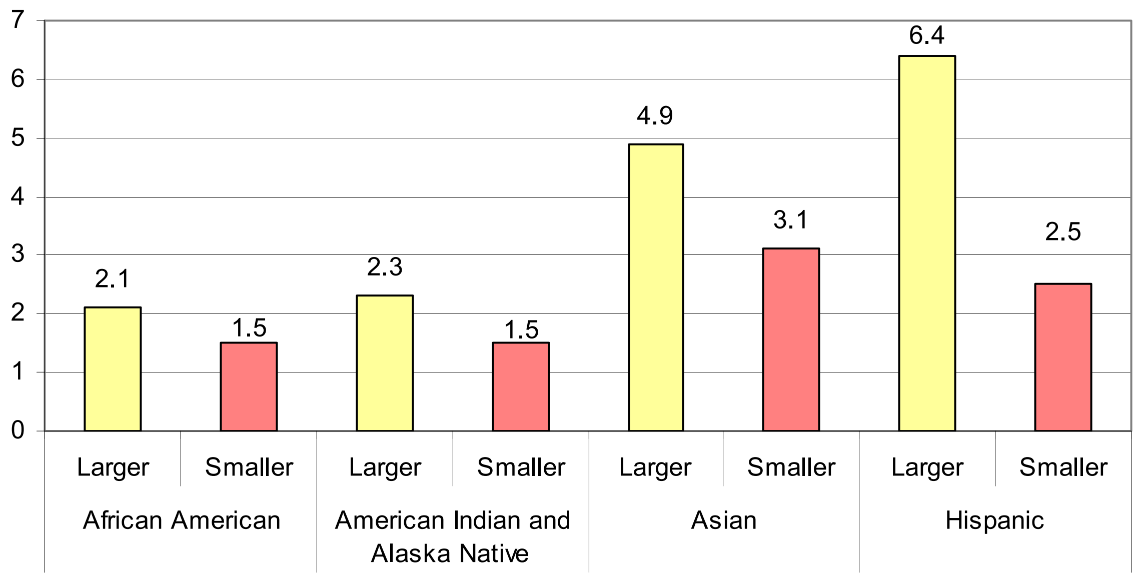
[95] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[96] Ibid.
[97] Ibid.
[98] The number of non-minority firms represents MBDA estimates derived from a special tabulation by the U.S. Census released in 2007.

*Export Sales*

A greater proportion of larger firms generated 10 percent or more of their sales in exports compared to smaller firms. Larger Hispanic and Asian firms operating in 2002 were most likely to export (6.4% and 4.9% of their firms, respectively) compared to other larger firms. In addition, a greater proportion of smaller Hispanic and Asian firms operating in 2002 were more likely to have 10 percent or more of their sales in exports, compared to other smaller firms operating in the same year. [99]

**Chart 11: Percentage of Firms with Export Sales, 2002[100]**




Minority employer firms (3.3%) were also more likely to have 10 percent or more of their receipts generated through export sales compared to non-minority employer firms (1.5%).[101]

As indicated before, most firms regardless of receipts size, generated 10 percent or more of their receipts in sales to household consumers/individuals. However, larger firms had a greater proportion of their firms with receipts of 10 percent or more generated through export sales, sales to other businesses/organizations, and sales to the federal, state and local governments, compared to smaller firms for all groups of firms.

The data suggests that the greater the likelihood a minority firm has among its customers other businesses and organizations, federal, state or local governments, and international clients, the greater the chances the firm generated $500,000 or more in gross receipts in 2002. Further research may be necessary to explore this relationship.

In the next section we will review respondent firms by industry and the customers they serve.

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[99] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[100] Ibid.
[101] Ibid.

*__Customer Categories by Industry__*

*A less predictable customer base could have contributed to the retail trade industry low survival rate, among other factors. Firms in retail trade were more likely to generate receipts through sales to household consumers. Those in educational services and health care and social assistance, industries with higher survival rates, were more likely to sell goods and services to state and local governments.*

Classifiable firms and minority firms in retail trade were more likely to generate receipts through sales to household consumers/individuals compared to those in other industries.

Minority firms in the management of companies and enterprises[102] industry had the highest proportion of firms (13%) with sales to the federal government, compared to minority firms in any other industry. In comparison, only 3 percent of non-minority firms in the same industry had sales to the federal government.[103]

In addition, classifiable and minority firms in educational services and health care and social assistance had the largest proportion of firms with sales to state and local governments compared to those in other industries.

Minority firms in manufacturing (49%), professional, scientific, and technical services (47%), information (46%) and wholesale trade (46%) were more likely to sell to other businesses or organizations, compared to minority firms in other industries.[104] However, a larger proportion of non-minority firms in manufacturing (64.5%), wholesale trade (63.5%), information (61.1%), and professional, scientific, and technical services (56.1%) had sales to other businesses or organizations, compared to minority firms in the same industries.[105]

Classifiable and minority firms in wholesale trade were the most likely to export, compared to those in other industries. However, a much larger proportion of minority firms in wholesale trade (17.7%) had export sales, compared to non-minority firms in the same industry (4.9%).[106]

As discussed before, in addition to their higher rate of sales to households and consumers, firms in retail trade had the largest proportion of firms that used credit cards to start, acquire, expand, or finance capital improvements of the business compared to firms in other industries.

Generally, sales to household consumers and individuals could suffer more variability compared to sales to the government. Consumers' tastes and needs change and are also influenced by fashion and price, among other factors, on a yearly basis. The less predictable customer base and

[102] These are firms that hold the securities of an enterprise and/or administer, oversee, and manage other establishments of the company (except government establishments).
[103] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[104] Ibid.
[105] Ibid.
[106] Ibid.

greater use of costlier capital sources by retail trade firms, compared to non-retail industries, could have contributed to the retail trade industry low survival rate, among other factors.[107]

Federal, state, and local governments have tended to be fairly stable customers for minority firms and often repeat their purchases on a yearly basis. Firms in the educational services and health care and social assistance industries enjoyed a higher rate of sales to state and local government customers. These firms also had a lesser need for capital to start or expand the business, compared to firms in other industries. The stability of these firms' customer base and their lesser need for capital may have contributed to their higher survival rate compared to firms in other industries.[108]

Further research may be necessary to confirm the relationship between the survival rates of firms in certain industries and their customer base.

In general, minority firms benefited from a wide variety of customers in 2002. Although small in absolute numbers, a larger proportion of minority firms had the federal government among their clients, while non-minority firms benefited from having a greater percentage of firms that generated receipts through sales to businesses and organizations, as well as household consumers and individuals. The larger the firm, for any group, the greater the incidence the group of firms in that size sold goods and services to businesses and organizations, the federal government, and internationally.

[107] Standard errors for these business measures were not available; therefore, a statistical significance test could not be performed.
[108] Knaup, 50-56.

## *Owner's Education*

> *In 2002, Asian business owners were more likely to have a higher education, while Hispanic business owners were less likely to hold a bachelor's or master degree. The disparity in college attainment by minority group may have contributed to that group's business performance. Through executive training, technical assistance, and other educational programs, MBDA is increasing the business management knowledge of minority entrepreneurs and helping them succeed.*

The Census *2002 Survey of Business Owners* released in 2006 also includes a report on the *Characteristics of Business Owners*. This report surveyed about 20.5 million owners of the 16.7 million businesses that responded to the survey by gender, racial, and ethnic group. About 15 million were owners of non employer firms.

According to the analysis of the data, Hispanic business owners were disproportionately less educated than any other group of business owners. Only 23 percent of Hispanic business owners who responded to the survey indicated they had received a bachelor's degree or a more advanced degree. Among all minority groups, Asians had the highest proportion of business owners who had received at least a bachelor's degree, 51 percent. (Table 12)

**Table 12: Educational Attainment of Business Owners, 2002**[109]

| Owner's Group | H.S. or less education | Technical, Some College or Associate Degree | Bachelor's Degree | Master's Degree | Item not reported |
|---|---|---|---|---|---|
| All Respondent Firms | 27% | 31% | 23% | 17% | 2% |
| African American | 29% | 37% | 17% | 15% | 2% |
| American Indian and Alaska Native | 32% | 39% | 15% | 11% | 2% |
| Asian | 26% | 22% | 27% | 24% | 2% |
| Hispanic | 44% | 30% | 13% | 10% | 2% |
| Native Hawaiian and Other Pacific Islander | 30% | 39% | 17% | 12% | 2% |

Minority business owners were more educated compared to the minority population in general. In 2002, of a population age 25 and over, only 10 percent of Hispanics had earned a bachelor's or higher degree, 11 percent of American Indian and Alaska Natives, 14 percent of African Americans, and 44 percent of Asians/Pacific Islanders.[110]

[109] Available relative standard errors from which the reliability of the estimates can be determined can be found in Table 12b in the Appendix section.
[110] U.S. Census Bureau, *A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000,* http://www.census.gov/population/www/socdemo/education/introphct41.html, (accessed January 15, 2008).

As discussed before, the level of educational attainment of an entrepreneur may influence business survival.[111] In his study, Brian Headd found that business owners with a college education had companies that were more likely to continue operating after four years in business. On the other hand, entrepreneurs with high school or less education were more likely to close business operations unsuccessfully.

The disparity in college attainment by minority group may be a contributing factor to that group's business performance. Lack of education in business management, finance, marketing, and accounting, among other areas, can pose a greater difficulty for success for most entrepreneurs. Through executive training, technical assistance, and other educational programs, MBDA is contributing to increasing the business management knowledge of minority entrepreneurs and helping them succeed.

[111] Headd, 51-61.

## *Owner's Age*

> *In 2002, minority business owners were younger compared to their non-minority counterparts. The younger age of minority entrepreneurs may have posed a greater challenge to remain in business. Studies indicate owners age 34 and under are more likely to close operations within four years compared to those 55 and above.*

According to the analysis of the data from the *Characteristics of Business Owners*, more than half of all sole proprietors, regardless of race or ethnicity, are in the 35-to-54 age bracket. This is followed by entrepreneurs who are 55 years old and older.

Hispanic firms have a larger proportion of entrepreneurs who are under 35 years old (22%) compared to other firms, excluding Native American and Other Pacific Islanders.[112] All respondent firms, which include sole proprietors of any race or ethnicity, had the highest percentage of business owners age 55 and above, (31%) compared to other firms.

**Table 13: Age of Business Owners, 2002[113]**

| Owner's Group | Under 35 | 35-54 | 55 and above | Item not reported |
|---|---|---|---|---|
| All Respondent Firms | 14% | 53% | 31% | 3% |
| African American | 17% | 55% | 24% | 4% |
| American Indian and Alaska Native | 17% | 55% | 24% | 3% |
| Asian | 18% | 58% | 21% | 3% |
| Hispanic | 22% | 56% | 18% | 3% |
| Native Hawaiian and Other Pacific Islander | 21% | 54% | 21% | 3% |

It is not surprising to find that most entrepreneurs are in the 35-to-54 age bracket, followed by 55 or older. As described in the beginning of this paper, a factor that may support the survival of a business is the age and experience of the business owner.[114]
Businesses owners under 35 were more likely to close operations within four years compared to entrepreneurs age 55 and above. [115]

The lower educational attainment and relatively younger age of Hispanic business owners may pose a greater challenge to remain in business compared to other business owners. Without adequate education or business experience, entrepreneurs may be at a greater disadvantage to succeed in a knowledge-based economy and highly competitive global business environment.

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[112] Native Hawaiians and Other Pacific Islander firms could have similar proportion of business owners under 35 years old compared to Hispanics at a 90% confidence level.
[113] Available relative standard errors from which the reliability of the estimates can be determined can be found in Table 13b in the Appendix section.
[114] Headd, 51-61.
[115] Ibid.

## CONCLUSION

A firm's business performance may be impacted by many factors, including the life cycle stage of the firm,[116] its industry survival rate, sources and cost of capital used,[117] number of owners, and the owner's education[118] and age, among other factors.

Minority firms have been growing at a fast pace but their growth in gross receipts lagged behind their increase in number of firms between 1997 and 2002. The decrease in average gross receipts of minority firms was possibly led by a greater growth in number of firms with receipts under $500,000 compared to those that generate $500,000 or more in receipts during that same period. Moreover, average gross receipts of minority firms continued to fall behind those of non-minority firms, $167,000 compared to $438,000, respectively in 2002.[119]

In this second analysis of the *2002 Survey of Business Owners* (*SBO*), MBDA analyzed data on business and business owners' characteristics from respondent firms to identify factors that could have impacted the business performance of minority firms in 2002.

We found a greater proportion of minority businesses operating in 2002 used more expensive sources of capital, such as credit cards, to start or acquire the business, compared to non-minority businesses. Minority firms were also less likely to use bank loans to start, acquire, expand or finance the capital improvement of the business compared to non-minority firms. The costlier sources of capital used by minority entrepreneurs to start, acquire, expand, or finance the capital expansion of the business is likely to have negatively impacted their growth.

We also found that capital source influenced the size of firms. A correlation was found between a firm's receipts size and the use of capital. Larger minority firms with gross receipts of $500,000 or more were more likely to use lower-cost capital sources to start, acquire, expand, or finance the expansion of the business compared to smaller minority firms with receipts under $500,000. The use of lower cost financing sources to start or acquire a business in the first place may have provided an advantage to minority firms that eventually grew in size and generated $500,000 or more in gross receipts in 2002. Further research is necessary to explore this relationship, as well as to identify factors that may have influenced the use of more costly sources of capital by minority firms compared to non-minority firms.

Different to all minority firms, average gross receipts of minority employer firms increased between 1997 and 2002. Additionally, employer firms have a greater survival rate compared to non-employer firms according to Brian Headd's study.
The behavior of minority employer firms is particularly important for advocates of minority-owned business enterprises. As Headd points out "firms that manage to survive do grow." Thus,

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[116] Bernard and Slaughter, 18-27
[117] U.S. Department of Commerce, Minority Business Development Agency, *Accelerating Job Creation and Economic Productivity, Expanding Financing Opportunities for Minority Businessess,* (2003).
[118] U.S. Department of Commerce, Economics and Statistics Administration and the Minority Business Development Agency. *Keys to Minority Entrepreneurial Success: Capital, Education, and Technology*, 2.
[119] Data from MBDA's analysis of a 2007 special tabulation of minority-owned firms operating in 2002 and the *1997 Survey of Minority-Owned Business Enterprises,* both produced by the U.S. Census Bureau.

entrepreneurs with the fundamentals to manage their business successfully would have the greater potential for survival and growth. Compared to minority firms with no employees, minority employer firms would offer a greater potential for continued growth in revenues and new jobs, as well as a sustained, long-term impact on the nation's economy and well-being.

Another significant finding is that a greater proportion of minority firms generated 10 percent or more of their sales through exports compared to non-minority firms. Minority firms have a unique competitive advantage[120] and opportunity to contribute to reversing the international trade imbalance through their export activity. In coordination with the International Trade Administration, the U.S. Patent and Trademark Office, and the Overseas Private Investment Corporation among other partners, MBDA can continue to contribute to increasing the level of export sales of minority businesses through trade missions and MBDA's international business-to-business linkage program.

It is vital that minority firms expand and diversify their sales to other businesses and organizations and to federal, state, and local governments. Through business development and brokering services, such as those provided by MBDA and its network of funded centers, minority firms can benefit from securing additional procurement opportunities with the public and private sectors.

The lower educational attainment of minority business owners, with the notable exception of certain Asian entrepreneurs, may have impacted their firms' business performance. Franchised businesses could be a viable option for minority entrepreneurs who stand to benefit from the management training and "turn-key" operations that franchisors provide. In addition, educational and business support programs, like those facilitated by MBDA and the Tuck School of Business at Dartmouth, among other partners, can help bridge the opportunity gap particularly for minorities with lesser educational attainment including, African Americans, American Indian and Alaska Natives, Hispanics, and Native Hawaiian and Other Pacific Islanders.

Today, one third of the nation's population is minority and by the year 2050 this group will represent more than half the people living in this country. Unquestionably, the future economic success of our nation in the global market will depend on the growth and expansion of minority owned businesses.

The findings in this report provide an opportunity for the public and private sectors to understand better the characteristics of minority business enterprises. We acknowledge the immense value of the Census' *Survey of Business Owners* without which this analysis would not have been possible.

MBDA's objective is that the report would lead to greater collaboration and the reengineering of existing programs and services, which would result in the growth and expansion of minority business enterprises more effectively. Moreover, the findings, combined with existing literature, shed light on public policy opportunities for federal, state, and local government decision makers.

[120] Owens and Pazornik, 1.

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## APPENDIX: GLOSSARY OF TERMS

**All U.S. Firms:** All firms surveyed in the Census' 2002 *Survey of Business Owners.* Include firms owned by American Indians, Asians, African Americans, Hispanics, Non-Hispanics, White, and publicly owned.

**Classifiable Firms:** All U.S. firms except publicly held, foreign owned, non-profit, and other firms whose ownership cannot be classified by gender, race, or ethnicity. These include firms owned by minorities and non-minorities.

**Minority Firms:** Firms owned by American Indian and Alaska Natives, Asians, African Americans, Hispanics, and Native Hawaiian and Other Pacific Islanders. See methodology for more information on data derivation.

**n/a:** Not available. Many of the cells in the tables included in the report show this designation because statistics necessary to derive the data were suppressed in the Census' *2002 SBO* to protect the privacy of individual firms or for quality standards, among other factors.

**Non-Minority Firms:** Firms owned by individuals who are not American Indian and Alaska Natives, Asians, African Americans, Hispanics, or Native Hawaiian and Other Pacific Islanders. See methodology for more information on data derivation.

## APPENDIX: ADDITIONAL TABLES

### Table 4b: Relative Standard Error Estimate (Percent) for Number of Employer Firms, Receipts of Employer Firms, and Number of Employees

| Group | Year | RSE of Estimate (percent) for Number of Firms | RSE of Estimate (percent) for Annual Gross Receipts ($1,000s) | RSE of Estimate (percent) for Employees |
|---|---|---|---|---|
| African American | 2002 | 1 | 1 | 3 |
| | 1997 | 2 | 3 | 4 |
| American Indian and Alaska Native | 2002 | 2 | 4 | 3 |
| | 1997 | 4 | 7 | 13 |
| Asian | 2002 | 1 | 2 | 1 |
| | 1997 | 1 | 4 | 5 |
| Hispanic | 2002 | 1 | 3 | 3 |
| | 1997 | 1 | 4 | 3 |
| Native Hawaiian and Pacific Islander | 2002 | 7 | 10 | 10 |
| | 1997 | 12 | 5 | 10 |
| Total Minority | 2002 | 0 | 1 | 1 |
| | 1997 | 1 | 3 | 3 |
| Total Non-Minority | 2002 | n/a | n/a | n/a |
| | 1997 | n/a | n/a | n/a |
| All Firms | 2002 | 0 | 0 | 0 |
| | 1997 | 0 | 0 | 0 |

### Table 7b: Standard Error Estimate (Percent) for Percentage of Respondent Firms which Used Sources of Capital to Start or Acquire the Business, 2002

| Respondent Group | SE of Estimate (percent) for Personal/ Family Savings | SE of Estimate (percent) for Other Personal/ Family Assets | SE of Estimate (percent) for Personal/ Business Credit Card | SE of Estimate (percent) for Business Loan from Government | SE of Estimate (percent) for Government-guaranteed Bank Loan | SE of Estimate (percent) for Business Loan from Bank | SE of Estimate (percent) for Outside Investor | SE of Estimate (percent) for None Needed |
|---|---|---|---|---|---|---|---|---|
| African American | .3 | .2 | .3 | .1 | 0 | .1 | .1 | .4 |
| American Indian and Alaska Native | 1.0 | .3 | .4 | .1 | .1 | .4 | .2 | .7 |
| Asian | .3 | .1 | .1 | 0 | 0 | .1 | .1 | .3 |
| Hispanic | .3 | .2 | .1 | 0 | 0 | .1 | .1 | .3 |
| Native Hawaiian and Other Pacific Islander | 1.3 | 1.7 | .7 | .7 | .2 | .8 | .5 | 1.7 |
| Minority Firms | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Non-Minority Firms | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| All Respondents | .1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Publicly Held* | .2 | .1 | .1 | .1 | .1 | .1 | .2 | .3 |

**Table 9b: Standard Error of Estimate (Percent) for Percentage of Respondent Firms which Used Sources of Capital for Expansion or Capital Improvements, 2002**

| Respondent Group | SE of Estimate (percent) for Personal/ Family Savings | SE of Estimate (percent) for Other Personal/ Family Assets | SE of Estimate (percent) for Personal/ Business Credit Card | SE of Estimate (percent) for Business Loan from Government | SE of Estimate (percent) for Government-guaranteed Bank Loan | SE of Estimate (percent) for Business Loan from Bank | SE of Estimate (percent) for Outside Investor | SE of Estimate (percent) for None Needed |
|---|---|---|---|---|---|---|---|---|
| African American | .2 | .2 | .3 | 0 | 0 | .1 | .1 | .3 |
| American Indian and Alaska Native | .8 | .2 | .4 | .1 | .1 | .2 | .2 | .7 |
| Asian | .2 | .1 | .1 | 0 | 0 | .1 | .1 | .2 |
| Hispanic | .3 | .1 | .2 | 0 | 0 | .1 | .1 | .4 |
| Native Hawaiian and Other Pacific Islander | 1.4 | .8 | 1.2 | .4 | .4 | 1.0 | S | 1.5 |
| Minority Firms | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Non-Minority Firms | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| All Respondents | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Publicly held, and other firms | .1 | .1 | .1 | 0 | 0 | .1 | .1 | .1 |

**Table 12b: Standard Error of Estimate (Percent) for Educational Attainment of Business Owners, 2002**

| Owner's Group | Less than High School | High School | Technical Degree | Some College | Associate Degree | Bachelor's Degree | Master's Degree | Item not reported |
|---|---|---|---|---|---|---|---|---|
| All Respondent Firms | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| African American | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| American Indian and Alaska Native | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Asian | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hispanic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Native Hawaiian and Other Pacific Islander | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |

**Table 13b: Standard Error of Estimate (Percent) for Age of Business Owners, 2002**

| Owner's Group | Under 25 | 25 to 34 | 35 to 44 | 45 to 54 | 55 to 65 | 65 and over | Item not reported |
|---|---|---|---|---|---|---|---|
| All Respondent Firms | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| African American | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| American Indian and Alaska Native | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Asian | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hispanic | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Native Hawaiian and Other Pacific Islander | 1 | 1 | 2 | 1 | 1 | 1 | 1 |

**Table 14b: Standard Error of Estimate (Percent) for Percentage of Respondent Firms Operated as Home-Based, Family-Owned, or Franchised, 2002**

| Respondent Group | SE of Estimate (percent) for Home-Based | SE of Estimate (percent) for Family-Owned | SE of Estimate (percent) for Family-Owned, One Owner | SE of Estimate (percent) for Franchised |
|---|---|---|---|---|
| African American | .5 | .3 | .4 | .1 |
| American Indian and Alaska Native | 1.0 | .8 | .8 | .2 |
| Asian | .3 | .2 | .3 | .1 |
| Hispanic | .3 | .2 | .3 | .1 |
| Native Hawaiian and Other Pacific Islander | 2.1 | 1.3 | 1.4 | .8 |
| Minority Firms | n/a | n/a | n/a | n/a |
| Non-Minority Firms | n/a | n/a | n/a | n/a |

**Table 15b: Standard Error of Estimate (Percent) for Percentage of Respondent Firms with Sales of 10 Percent or More to Customer Categories, 2002**

| Respondent Group | SE of Estimate (percent) for Federal Government | SE of Estimate (percent) for State and Local Government | SE of Estimate (percent) for Export Sales | SE of Estimate (percent) for Other Businesses/ Organizations | SE of Estimate (percent) for Household Consumers/ Individuals | SE of Estimate (percent) for All Others |
|---|---|---|---|---|---|---|
| African American | .1 | .2 | .1 | .2 | .3 | .3 |
| American Indian and Alaska Native | .3 | .4 | .1 | .8 | .9 | .6 |
| Asian | .1 | .1 | .1 | .2 | .4 | .2 |
| Hispanic | .1 | .2 | .1 | .1 | .3 | .2 |
| Native Hawaiian and Other Pacific Islander | .5 | 1.0 | 1.0 | 1.2 | 1.4 | 1.2 |

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