

# EXAMINING MINORITY BUSINESS ENTERPRISES AS GOVERNMENT CONTRACTORS

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## ABSTRACT

*The current study examines contracts awarded by Johnson Space Center to Minority Business Enterprises from 2005 – 2007 with the goal of better understanding the degree to which MBE status was associated with specific industrial categories when compared with non-minority enterprises. Using NAICS code categories, findings indicated that MBEs are more-likely to serve as contractors within Construction (NA23), Administrative, Support, and Waste Management (NA56), and Educational Services (NA61). Within these NAICS codes, Socially Disadvantaged Businesses (SDB) were significantly more likely to be Construction (NA23) and Administrative, Support, and Waste Management (NA56) firms than were the other minority groups. Women Owned Businesses (WOB) were the most likely providers of Educational Services (NA61). Metal Manufacturing (NA33) is characterized by significantly more non-minority-owned small businesses contractors.*

## INTRODUCTION

As is frequently noted, entrepreneurship plays a significant role in the economy of the United States. It is known to be a powerful source of economic growth and innovation (Reynolds & White, 1997) and as a result, we all have a vested interest in promoting the success of small business enterprise. By providing job growth, technological innovation, increasing economic diversity, providing for increased local spending and loyalty, small businesses play a seminal role in local, regional, and the national economy (Luke, Ventriss, Reed, & Reed, 1988). According to the Small Business Administration (SBA) Office of Advocacy, more than 99% of all current employers are classified as small businesses, and that much of the new job growth necessary for economic recovery will come from the small business sector (SBA Office of Advocacy,

2010). The current study aims to examine the categories of small business contractors to a large government agency.

## **BACKGROUND**

Despite the many virtues of small businesses, significant obstacles to their long term success exist. One way that small businesses seek to survive and prosper is by seeking out government agencies as customers – acting as federal contractors. Given the significant role that small business plays in our economy, the responsibility to ensure their success extends to the government as well. In fact, Section 2(a) of the Small Business Act states that:

“...security (of our Nation) and wellbeing cannot be realized unless the actual and potential capacity of small business is encouraged and developed...” (Jenkins, 2009).

This acknowledgement underscores the myriad special programs that assist small business; from start-up resources to ongoing customer relationships, the government and other institutions are intertwined with small business enterprise. Specifically, included in SBA’s mission is the mandate to increase Federal prime and subcontracting opportunities for small businesses in general, as well as specifically women-owned, services-disabled veteran-owned, small businesses owned by socially and economically disadvantaged individuals, and small businesses located in Historical Underutilized Business Zones (HUBZone).

### **Mandate to Government Agencies**

In order to meet its mission with regard to small businesses, the federal government utilizes several procurement preference programs for small businesses, including: Small Business Set-asides, which restrict procurements to small businesses, and the Small Disadvantaged Business Program, which favors certified SDBs in prime and subcontracting activities (United States Department of Labor, 2011). The goals of these preferential procurement policies are to stimulate and equalize opportunities for minority owned businesses. The federal government focuses procurement efforts on small businesses out of recognition of the significant economic impact and job creation typical of small ventures. Current guidelines from the federal government set targets for federal direct procurement contracts awards for small business. This target has grown since inception and currently sits at 23% of direct procurement (Reardon, Nicosia, and Moore, 2007). The system is having a large impact. From Fiscal Year (FY) 2000 through FY 2007, total Federal procurement increased from approximately \$200 billion to more than \$378 billion. During this time period, the small business share almost doubled, increasing from \$44.7 billion to \$83.3 billion. Subcontracting dollars going to small business in FY 2007 totaled \$64 billion.

For that same period, contract awards to: small disadvantaged businesses increased from \$7.3 billion to \$24.9 billion, women-owned small businesses from \$4.6 billion to \$12.9 billion, HUBZone certified businesses from \$663 million to \$8.5 billion, and service-disabled veteran-owned small businesses from \$554 million to \$3.8 billion. Of the top 100 firms awarded small-business contracts in FY 2010, 39 were small businesses according to an analysis by the American Small Business League. These firms received nearly 40% of the \$14 billion that went to the top 100 companies, ASBL reports (Chacko, 2011).

### **Categories of Small Business Contractors**

The Small Business Administration (SBA) provides the definitions of the various categories of small business and also manages the certification of the special categorical programs. In order to be designated as a “small business” an organization typically must meet a “size” standard; the SBA uses both number of employees and annual sales revenues for this purpose. Categorization also depends on an organization’s North American Industry Classification System (NAICS) code. Depending on NAICS classification, a firm is considered small if its sales are under \$12 million. However, for some industries (such as construction or technical/scientific) this threshold is higher. The employee metric utilized is typically that organizations must have fewer than 500 employees, although this may also vary somewhat based upon industry. Organizations are considered “large businesses” if they do not meet the qualifications of a “small business” as described herein.

Within the small business category exists several sub-categories of business contractors. These categories were formed to identify historical underrepresentation, challenges in terms of capital acquisition, and propensity toward innovation. The government also identifies rules and targets for each category related to the distribution of federally awarded contracts and, in some instances, provides for additional support mechanisms such as mentoring. The six major small business set-aside designations include: minority business enterprises (MBE), women owned businesses (WOB), veteran, disabled veteran, HUB, and socially disadvantaged/8a businesses (SDB). Each of these requires that the business meet the definition of “small” and also provide documentation of 51% ownership by a member of the group identified. Socially disadvantaged/8a businesses require an additionally certification process that includes at least two years of business tenure and a lengthy application process.

The current study focuses on MBE, WOB, and SDB firms. An overview of each is provided next.

MBE. Minority business enterprises are self-designated as meeting the parameters set forth by the SBA. Although a growing segment of the small

business category, between 1997 and 2002, the number of minority firms grew by 30%, surpassing the growth rate in number of all U.S. firms and of the minority population during the same period, MBEs are known to face many obstacles.

Despite the tremendous growth rate, average gross receipts of minority firms declined by 14% between 1997 and 2002, compared to a decline of 2% for non-minority firms during the same period. According to a study by the U.S. Small Business Administration (SBA), 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% compared to 72.6% for all non-minority firms during the same period. Of these firms, African American firms had the lowest survival rate at 61%, followed by American Indian and Native Alaskan firms, 67%; Hispanic, 68.6%; and Asian and Pacific Islander, 72.1%. (Lowrey, 2004).

Past research suggests that Caucasian business owners often have a resource advantage; minorities are faced with more obstacles in the entrepreneurial process, such as less education and business experience, limited resources, and fewer mentors and advisors (Kourilsky & Esfandiari, 1997; Heilman & Chen, 2003; Chu, Zhu & Chu, 2010). In addition, minorities have greater difficulty obtaining traditional financing for their business endeavors (Verheul & Thurik, 2001; Coleman, 2002) and are more likely to have shorter, or inadequate, credit history (Shaw, Carter & Brierton, 2001). As a result of this, 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 places an additional burden on minority entrepreneurs who were trying to grow their businesses.

Research has also indicated that minorities are less interested in starting a business (Matthews & Moser, 1995; Kourilsky & Walstad, 1997). When minorities do choose to start a small business, it tends to be smaller and is frequently within the retail or service sectors (Perry, 2002), where failure rates are much higher than other business sectors (Brush & Chaganti, 1999). Robb (2002) and Marlow and Patton (2005) suggests that this occupational segregation may result from the capital restraints faced by many minority entrepreneurs.

WOB. The SBA defines a firm as woman owned if it meets the parameters for a small business and if a 51% ownership position is held by a woman. Federal procurement procedures provide preferential selection practices towards firms who are woman-owned and additional preferential programs are

available for firms whose minority owner is woman owned and economically disadvantaged (Reardon et al., 2007).

Women owners comprise a significant percentage of small businesses. Facing slow gains in employment opportunities and inequality in larger firms, women increasingly turn to self-employment. White females (8.3%) are the fourth highest demographic likely to own or operate their own business (following white males (14.4%), Asians (10.2%) and Hispanics (8.5%)) (Blanchflower, 2009). Through 1997, the growth of women owned businesses was roughly three times that of male owned businesses and the magnitude of change is projected to increase (Daniel, 2004).

While Robb (2002) reports mortality rates for women owned businesses as 2-3% more prevalent than male owned counterparts, other evidence suggests that these mortalities may not represent firm failures. Indeed, discontinued firms with female ownership are substantially less likely to have entered bankruptcy than their male owned counterparts (Robinson, 2007), suggesting that this difference is driven by higher risk-aversion in female entrepreneurs. While Robinson concludes that lower risk of firm failure should result in favorable capital access, women owned firms have historically proven less likely to receive financing and receive lower financing amounts from institutional sources (Treichel & Scott, 2006).

There are other issues that face women owned businesses including less early startup capital (Carter & Rosa, 1998), more difficulty securing loans (Verheul, Risseuw, & Bartelse, 2002), and less credit history (Shaw, Carter, & Brierton, 2001). In addition, many women owned businesses also have less managerial and technical experience (Chaganti & Parasuraman, 1996) which may play a role in the higher mortality rate as indicated above. When these constraints are coupled with the fact that women owned businesses are more likely to enter industry sectors with higher failure rates (Carter & Williams, 1997), it is easy to see why problems may exist.

In terms of federal procurement awards, woman owned businesses are targeted for 5% of all contracts. However, Reardon et al. (2007) cautions that this target has never been realized and women owned businesses actually receive approximately 3.5% of all federal contracts. They additionally note that women typically receive fewer and smaller awards than their male counterparts. Additionally, women owned businesses are significantly underrepresented in virtually all industry categories when examining contracts awarded. Some of these findings may be the result of women owned businesses not having the capital nor being able to secure the financing necessary to win these contracts.

SDB. The SBA classifies socially disadvantaged businesses as unconditionally owned by U.S. citizens from socially and economically disadvantaged groups. Under current classification, this includes (but may not be

limited to) Black Americans, Hispanic Americans, Native Americans, and Asian Pacific Americans. Groups receiving this classification are deemed socially and economically disadvantaged because of historical discrimination in capital and credit opportunities.

Robb (2002) notes that small businesses with ownership from SDB categories have significantly higher mortality rates. Blanchflower (2009) further notes that black owned businesses are significantly underrepresented in virtually every industry and only notes a growth in construction - and this following roughly a decade of contraction in the construction industry as a whole. He reports substantial differences in access to capital sources, with minority owners facing systematically lower opportunities for funding. These findings are consistent with other evidence that black entrepreneurs face higher denial rates than white counterparts (Cavalluzzo, Cavalluzzo, & Wolken, 2002).

Unlike some other programs (e.g. SBIR), SDB's are allowed to enter into partnerships and joint ventures with non-disadvantaged owners in a mentor-protégé relationship (Abramowicz & Sparks, 2007). The program sets a 10% funding goal for any federal agency awarding contracts in excess of \$250,000. While this establishes favorable evaluation of disadvantaged and 8(a) disadvantaged firms, judicial requirements mandate that distribution of awards must be race neutral in order to minimize discrimination against white owned small businesses and other non-disadvantaged businesses (Myers Jr & Ha, 2009). The 8(a) program additionally extends to sub-contracting relationships. Under this program, large primary contractors receive bonus payments if they subcontract with 8(a) disadvantaged firms (Abramowicz & Sparks, 2007).

## **Industry Categories of Small Business Contractors**

In addition to helping define the concept of “small” for SBA designation purposes, the NAICS codes identify the nature of the business product or service that a small business provides to a government entity. A NAICS code is actually a two- through six-digit hierarchical classification system, offering five levels of detail. Each digit in the code is part of a series of progressively narrower categories, and the more digits in the code signify greater classification detail. For example NA23 refers to the construction industry; however within the NA23 designation exists 72 more detailed components of the industry that separate categories of construction related of residential, commercial, highway, etc. Below in Table 1 are the NAICS categories utilized for the current study, along with a brief description of each:

**TABLE 1: NAICS CATEGORY DESCRIPTIONS**

Code	Industry	Description
NA23	Construction	The construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Construction work done may include new work, additions, alterations, or maintenance and repairs. Activities of these establishments generally are managed at a fixed place of business, but they usually perform construction activities at multiple project sites.
NA32	Wood Product Manufacturing	Industries in the Wood Product Manufacturing subsector manufacture wood products, such as lumber, plywood, veneers, wood containers, wood flooring, wood trusses, manufactured homes (i.e., mobile homes), and prefabricated wood buildings.
NA33	Metal Manufacturing	Industries in the Primary Metal Manufacturing subsector smelt and/or refine ferrous and nonferrous metals from ore, pig or scrap, using electrometallurgical and other process metallurgical techniques.
NA44	Retail	The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and nonstore retailers.
NA48	Transportation and Warehousing	The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline.
NA54	Professional,	The Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing

	Scientific, and Technical Services	professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. The establishments in this sector specialize according to expertise and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services.
NA56	Administrative, Support, and Waste Management	The Administrative and Support and Waste Management and Remediation Services sector comprises establishments performing routine support activities for the day-to-day operations of other organizations. These essential activities are often undertaken in-house by establishments in many sectors of the economy. The establishments in this sector specialize in one or more of these support activities and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.
NA61	Educational Services	The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. They may also offer food and/or accommodation services to their students

## **CURRENT STUDY**

The current study examines the nature of the contracts awarded by a large federal enterprise; we examine all of the contracts awarded by Johnson Space Center (JSC), a NASA directorate located in Houston, TX, between the years of 2005 and 2007. JSC engages in a number of public-private partnerships with both large and small firms. This includes funding for ongoing projects such as Space Station Freedom, emerging R&D and general facilities development and



management. The purpose of this study is to determine if specific subcategories of small business contractors dominate specific types (by industry designation) of contractual awards.

Capital-intensive industries generally require organizations with more formal processes that provide the necessary operational support. The more successful small business owners understand the importance of adopting strategic practices that allow them to become viable providers of products and services to governmental agencies. These internal practices and processes needed for success require critical resources to ensure the business relationship is mutually beneficial.

As suggested by Fairlie and Robb (2008), much is still unknown about why some minority groups are more successful than others. However, previous research indicates that because of real or perceived obstacles, minorities often operate in a segregated environment where they are highly dependent on minority customers for survival (Sriram, Mersha, & Herron, 2007). For example, African American entrepreneurs are often located in urban areas that are plagued by serious financial constraints and socio-economic concerns. The inability to penetrate more traditional markets often forces African Americans to be involved in micro enterprises in industries with low capital requirements and higher failure rates (Sriram, Mersha, & Herron, 2007).

A 2009 study entitled *The Economic Impact of Women-Owned Businesses in the United States*, published by the Center for Women's Business Research, reported that women-owned businesses created or maintained 23 million jobs and added approximately \$3 trillion to the national economy. Categories of women-owned businesses with the highest revenues are professional, scientific and technical services; retail, and business services; communication, media; and administrative, support, and remediation (Pordeli, Wynkoop, & Martin, 2009). While these service-related industries require important skills and credentials, they tend to require minimal capital and equipment investments.

Boden and Nucci (2000) argue that start-up and survival rates for minorities may be due to differences in human and financial capital initially brought to such new ventures. Similarly, Kepler and Shane (2007) and Coleman (2007) found that several factors, including differing expectations, reasons for starting a business, motivations, types of business started, do vary by gender and ethnicity.

Based on different motivations, expectations and resource capabilities denoted in past studies, we offer the following propositions for exploration:

1. Minority business enterprises (those that are designated as MBE, WOB, or SDB) are more likely to be found in service-intensive industries.

2. Non-minority owned small businesses are more likely to characterize capital-intensive industries.

## **METHODOLOGY**

### **Sample**

Primary contractual data is available online through the NASA Acquisition Internet Service (NAIS). This website allows for ad-hoc queries on all direct relationships between NASA (and its directorates) and the various organizations it awards funding. This includes for-profits, not for-profits, NGO's, educational institutions, along with state and municipal governments. For purposes of our study, we omit contracts awarded to educational and governmental institutions. Further, in our examination of small business performance, we also omit not-for profits and NGO's.

NAIS provides categorization data for small businesses. Beginning in 2005, this information was uniformly reported to include designation for woman-owned businesses, disadvantaged businesses, 8(a) disadvantaged businesses, SBIR firms, thereby allowing examination of various combinations of categories (e.g. minority versus not, woman-owned, disadvantaged businesses, etc.). Table 2 characterizes the sample utilized for the current study.

### **Analyses**

In order to examine the propositions put forth, a one-way analysis of variance was conducted. Given the nature of the propositions, the categories of small businesses were dichotomized to reflect the minority business status of organizations.

## **RESULTS**

The first proposition posited that MBEs would most-likely serve as contractors within those industries characterized as service-intensive. This was found to be the case in that Construction (NA23), Administrative, Support, and Waste Management (NA56), and Educational Services (NA61) were all more likely to be minority-owned firms. Within these NAICS codes, firms holding the designations of SDB were significantly more likely to be Construction (NA23) and Administrative, Support, and Waste Management (NA56) firms than were the other minority groups. Women owned businesses (WOB) were the most likely providers of Educational Services (NA61). All differences were statistically significant at the  $p < .05$  level.

Similarly, and in partial support of our second proposition, Metal Manufacturing (NA33) had significantly more non-minority-owned small

businesses among its contractors ( $p < .05$ ). No other significant differences existed in terms of firm-ownership for the NAICS codes examined here.

**TABLE 2: NAICS CATEGORY BY SBA BUSINESS CATEGORY**

		SBA Business Category				Total
		Large Business	Non-Minority Owned Small Business	Woman Owned Small Business	Socially Disadvantaged Small Business	
NAICS Category	NA54	70	201	22	21	314
	NA23	5	10	2	13	30
	NA33	107	255	29	16	407
	NA56	3	3	0	10	16
	NA48	7	1	0	0	8
	NA42	11	33	6	7	57
	NA51	22	35	3	5	65
	NA81	6	9	1	0	16
	NA44	18	27	0	2	47
	NA61	9	11	13	3	36
	NA31	1	6	1	0	8
	NA32	17	18	1	3	39
	Other NA	205	432	83	17	737
Total		481	1041	161	97	1780

## DISCUSSION AND IMPLICATIONS

Prior research has highlighted the challenges encountered by minority business owners. As previously stated, some of these substantive differences include resource constraints, less access to capital and credit, and fewer mentors and business networks (Coleman, 2002; Heilman & Chen, 2003; Marlow & Patton, 2005). These obstacles have often forced minority business owners to focus on industries with less capital and equipment requirements and lower entry barriers. Our results offer additional support to these claims, as minority firms were more prevalent in service industries, while Caucasian-owned contracting firms were more involved in the manufacturing sector.

Because of such difficulties for minority entrepreneurs, research suggests that government intervention may also be able to assist with the possible effects

of inequity and provide mechanisms that allow for greater access to start-up resources (Bowen & Hisrich, 1986). Examples of such assistance programs for disadvantaged businesses include certain prequalification loan programs and training and counseling services offered by organizations such as the SBA and Small Business Development Centers (Dolinsky, Caputo, Pasumarty, & Quazi, 1993). These government initiatives can help provide needed networking opportunities and the formation of business alliances that can possibly offset financial and equipment restrictions. Such programs can help minorities better compete in the more capital intensive manufacturing sector.

Future studies should focus on identifying the best initiatives for assisting minority business owners and replicating these programs at the state and local level. Although minorities are still underrepresented in the small business sector, the growth rate of these businesses is on the rise (Martin, Wech, Sandefur & Pan, 2006). Interestingly, research has shown that minority business owners can be reluctant to seek help and advice from business support agencies (Dyer & Ross, 2007); but these programs can play an important role in helping prepare minorities for business success and open new avenues for resource allocation. Effective assistance programs can not only help minorities recognize entrepreneurship as a viable career choice, but also provide them with a better understanding of venture creation and sustainability. If prospective entrepreneurs are given a better skill set then perhaps future help from small business assistance programs can be more targeted and have even greater impact.

## CONCLUSIONS

There has been a call for additional research to better understand the business practices of minority small business owners. A more detailed understanding of their needs can offer important practical implications for policy makers and service providers (Mazzarol, Reboud & Soutar, 2009; Ruynan, Huddleston & Swinney, 2006). In addition to any outside assistance from federal, state or local programs, Sandberg (2003) suggests that minority business owners adopt a long-term strategic approach to business development and expansion. While minorities have often focused on intangible resources, such as informal networks and connections, to offset financial constraints (Runyan, Huddleston & Swinney, 2006), they need to also consider developing strategic alliances in order to acquire the necessary resources for entrance into more capital-intensive business opportunities, particularly the manufacturing sector (McDowell, Harris & Zhang, 2009). Mazzarol, Reboud and Soutar (2009) argue that small business development is directly related to the blending of an owner's strategic planning skills and resource availability. Governmental programs can offer the necessary assistance for aspiring minority business owners to grow in both areas.

The federal government needs to continue to offer small business opportunities to minority contractors via specialized programs. Targeted programs such as the Small Disadvantaged Business Program can help stimulate opportunities for minority owned businesses. Sriram, Mersha, and Herron (2007) found that minority groups are now more motivated to consider business ownership due to limited options in the mainstream labor market; however, to date it seems that many of these opportunities are in the service and retail sectors. The next step for minority business owners is to broaden their efforts to grow their business through government contracting while identifying the resources necessary to gain a stronger foothold in the more resource intensive industry sectors.

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