Increasing the Capacity of the Nation's Small and Disadvantaged Businesses (SDBs)

FINAL REPORT

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Prepared by: **EuQuant**
(Formerly Boston Research Group, Inc.)

EUQUANT

Increasing the Capacity of the Nation's Small Disadvantaged Businesses (SDBs)

A EuQuant Report

Commissioned by the Congressional Black Caucus Foundation

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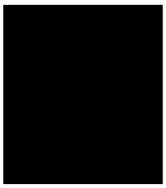

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Table of Contents

List of Tables/Figures

Executive Summary

EuQuant (formerly Boston Research Group) was commissioned by the Congressional Black Caucus Foundation to conduct a comprehensive study of the Small Disadvantaged Business (SDB) Program run by the U.S. Small Business Administration. The report seeks to increase the national and global competitiveness of SDBs by offering recommendations that are designed to increase their capacity and success in federal procurement and in corporate supply chain relations. The primary recommendation is that the $750,000 personal net worth ceiling of the SDB program should be adjusted so that participants can build greater capacity. By building greater capacity, SDBs are able to operate more successfully in the public and private sectors. Their greater success adds significant value to overall economic output and generates jobs, income, and wealth in the general economy and especially in underserved communities.

Background and Purpose

- The government's Small Disadvantaged Business (SDB) Program was established to help mitigate the effects of discrimination on the performance of businesses owned by minorities and other socially and economically disadvantaged individuals.

- This comprehensive report assesses the impact of the SDB Program on minority-owned businesses and examines the contribution of SDBs to national output and employment.

- A major section of the report is devoted to exploring how the SDB Program's $750,000 personal net worth (PNW) ceiling affects SDBs.

- After determining that the PNW ceiling is too low and that it adversely affects the operation of SDBs, new program changes are proposed.

- The recommendations are designed to increase the capacity of SDBs so they will become more competitive in federal procurement and in corporate supply chains.[1]

- The results are based on an examination of 47,254 Small Business Concerns (SBCs)[2] listed with the government's Central Contractor Registration (CCR) in 2006.

What the Reader can Expect

The report has thirteen sections. These sections describe the current status of minority-owned businesses, document the critical importance of government contracting to minority business viability, and examine the plight of more than 10,000 minority-owned SBCs that are listed in the CCR but have never participated in the SDB program. The report considers how the U.S. Supreme Court Adarand Decision has changed the SDB Program. It measures the impact of the SDB Program on minority business performance and analyzes how the $750,000 PNW ceiling has affected SDB capacity. Finally, it estimates the influence of the SDB Program on national output and employment and it analyzes where minority and non-minority-owned firms are located in relation to the most distressed areas of central cities.

[1] As used in this report, capacity is synonymous with the three-year average revenue of a firm.

[2] A Small Business Concern (SBC) means any for-profit business that meets the industry and employment size standards as determined by the Office of Small Business Standards of the Small Business Administration (See Federal Acquisition Regulation FAR 19.101, at: http://acquisition.gov/far/current/html/FARTOCP19.html). This report does not examine SBCs that register with CCR as Women-owned Small Business Concerns, Veteran-owned or Disabled Veteran-owned Small Business Concerns.

Findings[3]

In 2006, the SDB Program had an economic impact of $5.5 billion on U.S. final demand and created over 124,000 jobs.

Minority-owned small businesses also contributed to the economic development of distressed central cities. In 2006, 31% of minority-owned businesses listed in CCR were located in high poverty areas of central cities as compared to 24% of non-minority-owned companies.[4]

In some central cities a very high percentage of minority-owned businesses were located in high poverty areas: In Baltimore (69%), Philadelphia (60%), Detroit (50%) and Boston (48%).

Despite the significant contribution that minority-owned businesses make to the U.S. economy, they still encounter large disparities in private sector business transactions. Consequently, they depend more heavily upon government contracting because access to government contracts is usually more equal than is access to private sector opportunities. While minority-owned businesses comprised 18% of all U.S. small businesses, they made up 35% of the 47,254 small businesses listed in CCR in 2006.

Between 2004 and 2006 the SDB program had a significant effect on the performance of SDB certified firms. The average revenue of SDBs was $2.8 million greater than the average revenue of identical firms that did not participate in the SDB Program.

SDBs experienced an annual disparity in revenue of $0.9 million in comparison to non-minority-owned small-business concerns with similar characteristics.

There were 10,513 minority-owned small businesses listed in CCR in 2006 that had never been SDB certified. These firms experienced the greatest disparities of all small businesses that sought federal government contracting.

The $750,000 personal net worth (PNW) ceiling of the SDB Program has not been adjusted for inflation in nine years. Therefore, the current real value of the ceiling is $558,070. Yet innovations in corporate supply chains and the increasing use of contract bundling in government procurement require SDBs to have greater capacity.

The capacity of SDBs and the personal net worth of their owners is closely related. When capacity increases by 10%, PNW increases by 4%. Therefore, if the PNW ceiling is too low, it is impossible for SDBs to reach their optimum capacity. In a marketplace free of discrimination we estimated that the average capacity of SDBs would be $4.1 million. The current PNW ceiling prevents SDBs from achieving this average capacity.

A PNW ceiling that is set too low causes other economic hardships. For example, in February of 2007 seventeen firms were graduated out of the Georgia Department of Transportation Disadvantaged Business Enterprise Program when an audit revealed that their PNW surpassed the $750,000 ceiling. We interviewed the owners of these firms and tracked their monthly financial performance. The owners felt that they were being penalized for being successful and they complained that very few corporations solicited or engaged their services after they were de-certified. They also stated that the low PNW ceiling had not allowed them to build sufficient bonding capacity to compete successfully as prime contractors. During the first five months of 2007, their average monthly revenue decreased by 45% in comparison to 2005 and 2006.

Many large businesses are incorrectly registered in CCR as small businesses. In a recent Congressional hearing, SBA Inspector General Eric Thorson stated that, "The number 1 management challenge facing the SBA is that large firms are receiving small business contracts and federal agencies are receiving credit for these awards."[5] This report identified 442 companies registered as small businesses that exceeded the small-business size standard for their industry. In 2006, the average revenue of these 442 companies ($172 million) was forty-four times larger than the average revenue of legitimate small business concerns.

[3] The study used regression analysis and decomposition analysis extensively to explain the differences in performance between minority-owned firms that never entered the SDB Program (10,513), active SDBs (6,758) and other small business concerns that were not minority-owned in 2006 (27,087). A multivariate propensity score matching procedure was used to measure performance differences between firms with identical characteristics that were SDBs and non-SDBs.

[4] High poverty areas are defined as census tracts where poverty was 20% or greater in 2000.

[5] Chapman, Lloyd. 2006. "SBA Reauthorization Lacks Provisions to stop Fraud and Abuse." American Small Business League, July 20, 2006:
Accessed at: http://www.asbl.com/showmedia.php?id=275

Recommendations

1) **Increase the PNW ceiling for construction industries to $979,000, for manufacturing industries to $1,043,000 and for professional and scientific service and IT services industries to $1,026,000. The PNW ceilings should be adjusted annually for inflation. In addition SDBs that exceed the PNW ceiling should be given a two year transition period during which they remain eligible to participate in the SDB Program.**

   Rationale for this recommendation

   First, the current PNW ceiling has not been adjusted for inflation since it was established in 1998. If adjusted, the current PNW would be $977,560. Second, the SDB Program was established to help mitigate the effects of discrimination. But it is very difficult for SDBs to achieve the capacity they would be expected to have in a non-discriminatory market because the PNW ceiling is too low and capacity and PNW are closely related. Third, the PNW regulation assumes that "one size fits all." Therefore, only one PNW ceiling has been set for all industries. This contrasts with small business size standards that are set for each industry. The single PNW ceiling does not take into consideration the level of capitalization required by different industries.[6] Finally, when SDBs are "graduated" from the program unexpectedly because of the PNW ceiling, they face significant short-run decreases in revenue. For example recent data from the Georgia DOT indicated that when minority-owned firms were "graduated" from the DBE program because of an audit of PNW, their monthly revenue decreased by 45% during the first six months following their exit.

2) **The SBA should establish race-neutral monitoring procedures for small minority-owned firms that are not SDB certified.**

   Rationale for the recommendation

   First, it is important to know whether minority-owned firms have fair access to corporate supply chains and government procurement in the absence of SDB mandates. Results of this study indicate that they do not. For example the 10,513 minority-owned small businesses listed in CCR that were not SDB certified in 2006 experienced the largest disparities in government procurement awards and supply chain utilization among all CCR firms. Second, it is important to know why so many minority-owned businesses are not SDB certified. Some owners have indicated that the costs and paperwork involved in certification are deterrents while others maintain that the benefits of the program have been greatly reduced over time. A revision should be made to Standard Form 295 (Summary Subcontract Report) by including a category to record the utilization of minority firms that are not SDBs. Additionally, improvements should be made to the way that corporations and government agencies report subcontracting data.

3) **Reauthorize all preferential procurement benefits of SDB status including Price Evaluation Adjustment (designed to assist SDBs as prime contractors), Subcontracting Evaluation Factors and Monetary Subcontracting Incentives (designed to increase SDB subcontracting opportunities).**

   Rationale for the recommendation

   First, SDBs add significant value to national output and employment. In 2006 SDBs added $5.5 billion to U.S. final demand and created 124,000 jobs that would not have existed without the program. Second SDBs, in comparison to non-SDBs, add significantly to economic opportunity in high poverty areas of central cities. Therefore by reinstating SDB procurement incentives, the goals of the HUBZone Program will be reinforced.[7] Third,

[6] The research team was unable to determine why the initial PNW ceiling for the SDB program was set at $750,000 and we did not have access to PNW data for non-SDBs. Therefore, we could not determine the industry specific PNW for all small businesses; but only for SDBs. As a result, we had to use the current PNW ceiling as our starting point for making an adjustment.

[7] If enacted, H.R. 1873, Sec. 214 would provide financial support to conduct of a study on the "feasibility and desirability" of providing financial incentives to contractors for meeting subcontracting utilization goals. PEAs allowed SDBs to receive a price benefit of up to 10% in specified industries.

SDBs still face significant inequality in business transactions. For example, SDBs experienced an annual disparity in revenue of $0.9 million in comparison to non-minority-owned small-business concerns with similar characteristics. Finally, the procurement benefits are a major incentive for participating in the SDB Program.

4) Existing regulations that penalize large businesses for self-certifying as small business concerns (SBCs) should be enforced more vigorously and new penalties should be established. Additionally, the SBA Inspector General should audit the CCR annually to identify and penalize firms that are inappropriately self-certified as SBCs.[8]

Rationale for the recommendation

Inaccurate self-certification has been cited as a growing problem that is adversely affecting small business opportunity. This report identified 442 companies, that exceeded the small-business size standard for their industry, registered as small businesses. The average revenue of these firms was $172 million, which was forty-four times larger than the average revenue of legitimate small business concerns.

5) Additional studies are needed to further illuminate factors that may enhance the competitiveness of SDBs. These additional studies should examine:

- What happens to firms following their exit from the SDB Program;
- Ways of improving the global competitiveness of SDBs;
- The extent to which government procurement dollars are shifting from SDBs to other CCR groups;
- The relationship of PNW and firm capacity for non-minority-owned firms;
- The impact of the PNW ceiling on the ability to secure bonding, financing and supply chain opportunities; and, monitor the performance of minority-owned firms that are not-SDB certified.

They expired in 2004. The HUBZone Empowerment Contracting Program is part of the Small Business Reauthorization Act of 1997. It is designed to stimulate economic development and create jobs in hard-pressed urban and rural communities. Contracting preferences are given to small businesses that are located in a HUBZone and that hire employees who live in a HUBZone.

[8] House of Representative Bill H.R. 1873: "Small Business Fairness in Contracting Act" passed the House on May 10, 2007 and has been sent to the Senate for consideration. Sec. 301-303 of the bill contains language specifying penalties for large businesses that fraudulently certify as small business concerns.

1

Background and Rationale

In his June 6, 2007 opening statement as Chairman of the U.S. Senate Committee on Small Business and Entrepreneurship, Senator John Kerry noted that over the last decade minority entrepreneurs started more than 50% of the nation's two million new businesses. Minority persons will comprise 90% the country's 131 million new citizens between 1995 and 2050. These trends show the growing importance of minorities to the underlying growth and competitiveness of the American economy.[9] President Bush's 2002 Small Business Agenda proposed a number of steps to increase small business access to federal contracting- including a reduction in contract bundling. More recently, the Government Contracting and Business Development Office requested additional funds in the financial year 2008 to identify methods of improving opportunities for Small Disadvantaged Businesses (SDBs) and other small business contractors.

Minority-owned businesses represent the fastest growing sector of all U.S. firms. Despite their improving status and the value they add to the U.S. economy, they remain significantly under-represented in the national markets.

This under-representation is due in part to historical and contemporary practices of discrimination. These practices have constrained their access to markets and limited their endowment and accumulation of factors, that are essential for starting and operating successful dynamically-growing businesses.

The existence of unequal business practices in the private sector forces minority firms to rely more heavily on government procurement opportunities.

In fact, the SDB Program has been designed so that federal procurement can be used in remedying the effects of societal and marketplace discrimination. The Program's benefits are structured to increase government procurement opportunities and minority business access to the supply chains of corporations that are prime contractors to the government.

Adjustments must be made to the SDB Program

On July 30, 1998 the Government revised Federal Acquisition Regulations (FAR) governing eligibility criteria for participating in the SDB Program. The revisions were in response to the U.S. Supreme Court 1995 Adarand Decision and to President Clinton's mandate to "mend, rather than end" affirmative action. A major review of all federal affirmative action procurement programs was undertaken. The review was designed to ensure that the potential benefits of the program were narrowly tailored as mandated by the Adarand Decision. Some federal procurement programs and policies were suspended temporarily, others were changed or terminated. Major changes to the SDB Program involved the use of industry benchmarks to establish SDB utilization goals and to determine the industries where the goals should be applied and a personal net worth (PNW) of $750,000 was established for individuals participating in the SDB Program.[10] The new $750,000 PNW ceiling was also imposed on 8(a) program participants. This meant that two PNW ceilings affected the 8(a) program. Specifically, business owners' PNW cannot exceed $250,000 at the time they enter the program, and has to remain below $750,000 during the 9-year life time eligibility for the program.

The comprehensive revisions also required that SDBs be certified by the SBA or an organization approved by the agency to certify SDB status. Finally, the benefits of SDB status were expanded to include a Price Evaluation

[9] Kerry, John F. 2007. "Kerry Opening Statement on Minority Entrepreneurship Hearing" U.S. Senate Committee on Small Business and Entrepreneurship. May 22, 2007, cited at: http://sbc.senate.gov/record.cfm?id=74847 accessed 6/6/2007 10:37 a.m.

[10] The ceiling excluded the net value of the owner's primary residence and net assets in the business from the net worth determination.

Adjustment (PEA) for SDBs bidding as prime contractors, Subcontracting Evaluation Factors and Monetary Subcontracting Incentives, to increase SDB subcontracting opportunities. The new regulation modified the Federal Acquisition Streamlining Act of 1994 (Pub. L. 103-355, Sec. 7102), by using benchmarking criteria to determine the specific industries where incentives would apply.

PEAs allowed SDBs to receive a price benefit on procurements in specified industries. This policy was accomplished by adding up to 10% to the price of bids or offers received from non-SDBs. To apply Subcontracting Evaluation Factors, the contracting officer awarded the highest points to the bidder with the most dollars targeted to SDB subcontractors in authorized industries. Monetary Subcontracting Incentives allowed contracting officers to make monetary awards to prime contractors of up to 10% of the value by which SDB utilization exceeded the authorized industry target; (See, U.S. SBA America's Small Business Resource, Federal Acquisition Regulation (FAR) Council Rules, final rule published on July 2, 1999).[11] On December 9, 2004 the SBA's authority to use PEAs for civilian agencies expired and was not renewed as part of the Small-Cap and Business Reauthorization and Manufacturing Assistance Act of 2004 (Pub.L.108-447, Division K). The expiration covers all non-Department of Defense agencies, with the exception of the National Aeronautics and Space Administration (NASA) and the Coast Guard.[12]

If the SDB Program is to continue to operate efficiently and accomplish its stated goals, several important adjustments should be made. This report identifies those adjustments and provides a rationale for them based on empirical research.

The imposition of the PNW ceiling is problematic for several reasons.

1) ***For almost a decade, the $750,000 personal net worth eligibility criterion has been capped at the same level. By failing to adjust the net worth ceiling for inflation, the 2007 real value of $750,000 (1998) is $558,070.***

The static cap has made it more difficult for SDBs to win awards in corporate supply chains because global competitive pressures have forced corporations to reduce the number of suppliers they use. This means that suppliers must have larger capacities today than ever before. At the same time, government agencies have increasingly "bundled" procurement solicitations as a way of reducing administrative expenses and performance costs.[13] These changes require all corporate suppliers to have significantly greater capacity to enter core areas of supply chains or to participate as government prime contractors.

Capacity in this report is specified as average firm revenue over a three-year period. The report examines the relationship between firm capacity and personal net worth. We found that the elasticity or responsiveness of personal net worth to changes in firm capacity is 40%. This means that when the capacity of a firm increases by 10%, personal net worth of the owner increases by 4%. Therefore, when a ceiling is placed on the personal net worth of individuals in the SDB Program, that ceiling also limits the capacity of their firms.

[11] See also, Office of Management and Budget, Office of Federal Procurement Policy, SDB Procurement: Reform of Affirmative action in Federal Procurement. Accessed electronically at: http://www.whitehouse.gov/omb/fedreg/sdb-ref.html June 15, 2007. Code of Federal Regulations, Title 13, Volume 1, Revised as of January 1, 2005. From the U.S. Government printing office via GPO access [CITE: 13CFR124]. Available electronically at: http://SBAs.gov/library/cfrs/13cfr124.html.

[12] See also, [Federal Register: April 19, 2006 (Volume 71, Number 75)] [Rules and Regulations] [Page 20304-20305] From the Federal Register Online via GPO Access [wais.access.gpo.gov] [DOCID:fr19ap06-21]. The Department of Defense, NASA and the Coast Guard operate under a separate statutory authority and continue to use these preferences.

[13] House of Representative bill H.R 1813 reauthorizes the Small business Administration's procurement programs under the Small Business Fairness in Contracting Act. It scales back "contract bundling" – the practice of grouping small government contracts together and awarding them as one large contract. House Small Business Committee Chairwoman Nydia Velazquez, D-N.Y., said the bill was needed to help small businesses gain more opportunities, because the federal government has been "bundling" individual contracts into mega-contracts out of the price range for small businesses to place bids.

If the ceiling on personal net worth is set too low, firms that should be eligible to participate in the SDB Program are barred by the ceiling cap. This report finds that the ceiling on personal net worth is incorrect for several reasons. First, it has not been adjusted for inflation in nine years. Second, it does not allow SDBs to achieve the level of capacity that they would be able to achieve in the absence of discrimination. We note that industry benchmarks, used to establish goals for SDB utilization and identify industries where goals will be applied, are determined by the Department of Commerce (DOC). DOC's benchmarks are based on evaluating seventy major industry groups to determine how the share of federal contracts that SDBs actually receive compares to the share they would be expected to receive in the absence of discrimination. Similarly, this report argues that any net worth ceiling must at a minimum, allow SDBs to attain the capacity they would achieve in the absence of discrimination. Any ceiling that does not allow this level of capacity to be achieved is a burden on small disadvantaged business owners. Finally, the current PNW assumes that "one size fits all." Therefore, only one PNW ceiling has been set for all industries, including Construction Services, Manufacturing and Professional and Scientific Services. This practice contrasts with how the SBA sets small business size standards, which are set for each industry.

2) Corporate sector prime contractors argue that the ceiling does not allow SDBs to build the capacity needed to perform in core business areas of their supply chain. Furthermore, their incentive to mentor SDB suppliers is reduced because when SDBs build sufficient capacity, they may become disqualified by the PNW ceiling.

3) Some administrators of the SDB and DBE programs indicate that the PNW ceiling limits the number of available vendors with sufficient capacity to attain their program goals.

4) SDBs argue that the SBA's failure to adjust the PNW ceiling forces them to exit from the program prematurely. In addition, the low ceiling constrains their ability to secure capital and finance and the bonding capacity they are able to build, making it difficult for them to compete as prime contractors. At the same time, prime contractors do not employ their services if they are not SDB certified.

In February of 2007, the Georgia DOT Disadvantaged Business Enterprise (DBE) program graduated seventeen DBEs after an audit revealed the owners' PNW exceeded the program ceiling. During the first five months of 2007, these firms' average monthly revenue decreased by 45% in comparison to 2005 and 2006. Table 1 and Figure 1 describes what happened to these seventeen firms that experienced an unanticipated decertification.

Table 1

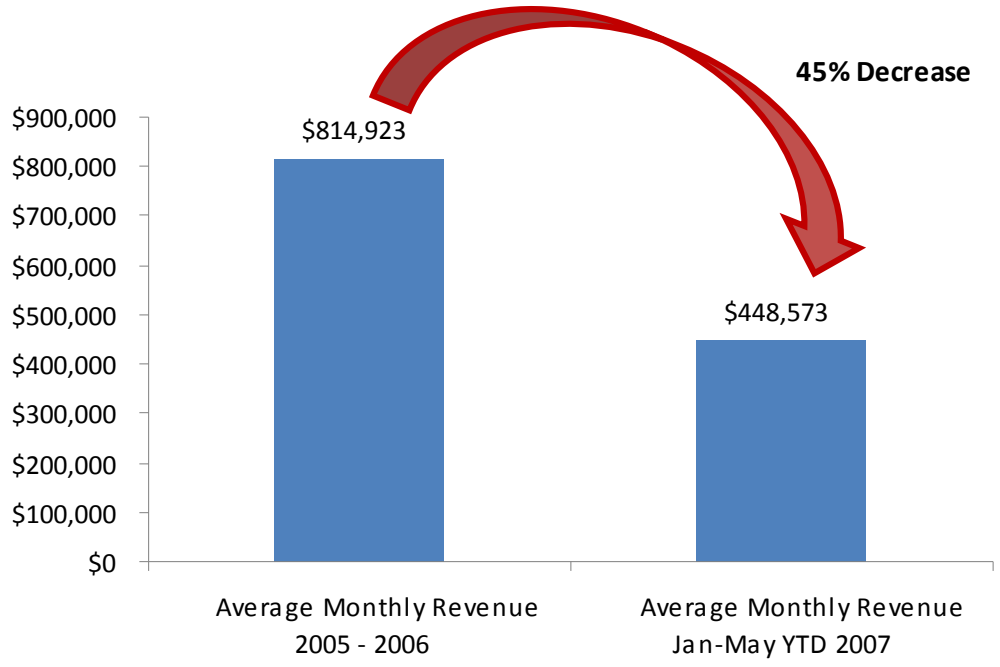
Effect of an Unanticipated Graduation on DBE Revenue in Georgia's DOT Program

Symbol for Graduated Firm	Firm's Monthly Revenue; 2005 - 2006	Firm's Monthly Revenue; Jan-May YTD 07	Percent Change in Monthly Revenue
A	$ 495,671	$ 290,200	-41%
B	$ 1,668,657	$ 420,029	-75%
C	$ 886,664	$ 284,000	-68%
D	$ 2,375,602	$ 686,510	-71%
E	$ 263,907	$ 89,075	-66%
F	$ 103,440	$ 103,588	0%
G	$ 934,130	$1,062,276	14%
H	$ 878,940	$ 563,599	-36%
I	$ 1,073,963	$ 595,127	-45%
J	$ 192,217	$ 15,320	-92%
K	$ 90,965	$824,579	806%
Average	**$ 814,923**	**$ 448,573**	**-45%**

Note: In February 2007 all firms above were graduated following a program audit.

Figure 1

Effect of Graduation on DBE Revenue



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Objectives, Outline and Data

Objectives

This report documents the contribution of minority entrepreneurs and small businesses to the nation's well-being. It also identifies sectors of the economy where qualified, willing and able minority businesses continue to face unfair treatment. The conclusions are based on an examination of 47,254 Small Business Concerns (SBCs)[14] registered with the government's Central Contractor Registration (CCR) database. The firms analyzed in this study meet small business size standards established by the Office of Size Standards (OSS).[15]

Outline

The study is organized into thirteen sections. The first section consists of the background, rationale and recommendations of the study. Section II outlines the objectives and data of the study. Section III explores the current state of minority-owned businesses while Section IV looks at the race and ethnic characteristics of minority businesses in the selected industries. Section V examines disparities between minority and non-minority business owners in the general marketplace. This section looks at the nature of disparities across different industries and summarizes the research findings that attempt to explain them. Section VI analyzes why government contracting remains the most viable option for small businesses owned by minorities. In Section VII, we examine the disparities among minority small businesses that are registered with CCR but do not participate in the SDB Program. The long standing persistence of disparities in private and government sector contracting, led to the establishment of the SDB Program, which is the focus of Section VIII. Section IX describes the effect of the U.S. Supreme Court's Adarand Decision on the SDB Program. In the next section, we develop a methodology to determine the capacity of small businesses in the absence of discrimination. We follow this analysis in Section XI where we determine the relationship between SDB capacity and the new ceiling for the personal net worth. Section XII analyzes the economic impact of the SDB Program on jobs and income. The final section of the report, Section XIII, describes the spatial impact of minority-owned firms; that is, it investigates the characteristics of communities where companies choose to locate. The primary objective is to determine whether minority-owned firms and SDBs as compared to Other Small Business Concerns (OSDBs) tend to locate in communities that experience greater economic and social distress, such as low income inner cities, high unemployment areas or areas where poverty is concentrated. The street addresses of companies are geo-coded and their neighborhood characteristics (poverty rate, median family income, unemployment rate and racial composition) are examined.

Categories of Unique Data

The primary database used in preparing this report was the CCR for the period 2004 through 2006. All companies, whether large or small, desiring to contract with the Federal Government must register with the CCR. Categories of small business concerns considered in this report are listed in Table 2.

[14] As used in this report, a "Small Business Concern" means any business entity that meets the industry and employment size standards for small businesses and is organized for profit (even if its ownership is in the hands of a nonprofit entity). It must have a place of business located in the United States or its outlying areas and it must make a significant contribution to the U.S. economy through payment of taxes and/or use of American products, material and/or labor, etc. "Concern" includes but is not limited to an individual, partnership, corporation, joint venture, association, or cooperative (See FAR 19.101). The full regulation is available at: http://acquisition.gov/far/current/html/FARTOCP19.html.

[15] The report does not include firms certified as Women-owned Business Concerns (WOBCs), Veteran-owned or Disabled Veteran-owned Business Concerns (VO/DVOBCs).

Table 2

Categories of Small Business Concerns Analyzed
(all firms are currently registered through the CCR System)

Category		Number in CCR Database
1.	Small Business Concerns (SBCs)	47,254
2.	Non-Minority SBCs; non-minority firms in all categories	28,017
3.	Minority SBCs; minority firms in all categories	19,237
4.	Minority, not SDB; all minority firms excluding active SDBs and Graduated SDBs	10,513
5.	SDBs (Small Disadvantaged Businesses); all certified and active SDBs-- 8(a) firms are automatically SDB Certified	6,758
6.	Graduated SDBs; former SDBs that exceed industry or net worth size standard	2,848
7.	OSBC (Other Small Business Concerns), includes all non-minority SBCs except those certified as SDBs	27,081

Total excludes firms registered as Women-owned Small Business Concerns and Veteran-owned/Disabled Veteran-owned Small Business Concerns. Total also includes firms in selected industries only.

Source: CCR, January 2007.

Category 1 lists the total number of SBCs that are registered with CCR as "Small Business Concerns" (47,254 firms). The second category consists of SBCs that are owned by non-minority persons (28,017 firms). They may or may not be SDB certified. Category 3 is the total number of firms that are owned by minority persons, independent of whether they are SDB certified. The number of minority-owned firms that are registered with CCR and have never been SDB certified is 10,513 firms. These firms comprise Category 4. Category 5 consists of SBCs that are SDB Certified (6,758 firms). In considering this category, it is important to keep in mind that all 8(a) certified firms are automatically SDB Certified.[16] Category 6 lists SBCs that were formerly SDB Certified but are no longer eligible due to their size or their owner's net worth. These firms are presumed to have graduated from the SDB Program (2,848 firms). Finally, Category 7 lists the total number of Other Small Business Concerns (OSBCs). These are firms that are not owned by minority persons and have never been SDB Certified (27,081 firms). The study examines prime contracting of SBCs.[17] To examine the relationship between SDB capacity and the net worth of business owners, we used data that preceded the establishment of the PNW ceiling to avoid the potential for statistical bias.

In this regard, historical administrative data on the 8(a) program was used because it contains information on Net Assets and SDB Capacity. The data, formerly referred to as ERDB, has detailed financial and owner attribute information on businesses that were involved in the 8(a) small business program between 1995 and 1997. The information includes unadjusted and adjusted personal net worth of business owners who enrolled in the program, the legal form of the company organization, the businesses SIC number, the 8(a) program status of the company (active, inactive, terminated), the racial and ethnic status of the owner, size of employment, the volume of non-8(a) and 8(a) sales and the Dun and Bradstreet number of the firm. Program data for 8(a) was used to investigate the relationship between personal net worth and capacity during a period when the $750,000 PNW was not in effect. These data were also merged with the Federal Procurement Data System (FPDS) data.

CCR and FPDS-NG data were used to analyze SDBs between 2004 and 2006. The Federal Procurement Data System – Next Generation or FPDS-NG database contains information on all government awards to prime contractors. This data was used to supplement CCR data. The data contains pertinent information on the firms' specialization (NAICS code), the age of the business, the legal form of business organization, the race and ethnicity of the owner, the gender of the owner and the program status of the firm (that is, SDB concern, 8(a) concern, Women-owned Business concern, Veteran-owned Business Concern, or Disabled Veteran-owned Business Concern).

[16] All 8(a) Certified firms are automatically SDB Certified and activities for these firms are not reported separately from SDB totals.

[17] Data regarding subcontracting activity of SBCs are becoming more accurate and more readily available. Recently completed studies in this area suggest SDBs experience significantly greater disparities in access to subcontracting opportunities than they encounter in prime procurement opportunities. See Clark, M., C. Moutray and R. Saade 2006. "The Government's Role in Aiding Small Business Federal Subcontracting Programs in the United States," Office of Advocacy, U.S. Small Business Administration *Small Business Research Summary.* September 2006. No. 281. pp 1-31.

Since the public version of CCR does not contain revenue or employment information, we were granted clearance to access the private portion of the CCR database. This access made available two additional pieces of information; the average total revenue, and the average employment, both over the three years from 2004-2006.

3

Current State of Minority-Owned Businesses

It is widely recognized that small businesses are a primary engine of innovation and job growth in the economy. During the period 1998 to 2004 small businesses produced 50.5% of the total gross domestic product of the United States. They accounted for 85% of the total value added in the construction industry, 33% of the total value added in manufacturing, 41% in wholesale trades, about 67% in professional and technical services and 48% of the total value added in retail trade. In 2004 small businesses added $4,717 billion to the U.S. GDP while large businesses added $4,593 billion (See Table 3).[18]

Table 3

Small Business Contribution to Employment and GDP, 1998-2004

	Value
Number of Small Businesses with Employees	6,331,242
Number of Jobs in Small Businesses	58,597,452
Percent of All Employees in Small Businesses	51.0%
Percent of Value Added in Construction	85.5%
Percent of Value Added in Professional and Tech. Service Industries	66.6%
Percent of Value Added in Wholesale Industry	55.4%

Source: Kobe, Katherine. 2007.

Between 1982 and 1992, the number of all small firms increased by 91% and the number of firms owned by Whites increased by 66%. In comparison, firms owned by Blacks increased by 288% while firms owned by Asians and Hispanics increased by 353% and 454% respectively (Table 4). Between 1997 and 2002, the number of firms owned by Blacks increased faster than the number of firms owned by all other racial and ethnic groups. However, this growth was largely confined to businesses without paid employees.

Table 4

Number and Percent Change of Minority-Owned Firms Between 1982 and 2002

Race or Hispanic Origin Category	1982	2002	Percent Change, 1982-2002
All Firms	12,059,950	22,974,655	90.5%
White alone, not Hispanic	11,234,999	18,609,599	65.6%
Hispanic or Latino (any race)	284,011	1,573,464	454.0%
Black or African American	308,260	1,197,567	288.5%
American Indian and Alaskan Native	17,100	201,387	1077.7%
Asian	240,806	1,103,587	358.3%

Source: Lowry, Ying 2007.

[18] Kobe, Katherine. 2007. The Small Business Share of GDP, 1998-2004, Small Business Research Summary, SBA Office of Advocacy, April 2007, No. 299, pp 1 - 37.

4

Industries Examined in the Report (Race, Ethnicity and Industry Characteristics)

This report examined Small Business Concerns only in the following industries:

Construction of Buildings
Heavy Construction and Civil Engineering
Specialty Trade Contractors
Textile and Leather Manufacturing
Paper, Printing and Related Manufacturing
Chemical, Non-Metallic Minerals Manufacturing
Plastics and Rubber Manufacturing
Primary Metals and Machinery Manufacturing
Computer and Electronic Manufacturing
Wholesale Trade In Durable and Non-Durable Goods
Publishing, except the Internet
Internet Publishing, Telecommunications and ISP
Professional, Scientific and Technical Services

The race and ethnic ownership characteristics of these businesses are given in detail in the 2002 Census Bureau's Survey of Business Owners (SBO). This section describes the industry characteristics of small businesses with paid employees, as provided in the SBO data.

Construction of Buildings

According to the 2002 SBO, there are 220,348 small firms with paid employees involved in the Construction of Buildings (NAICS code 236). They comprised about 32.3% of all firms in the industry. The combined sales and receipts of these firms was over $522 billion for year 2002 (See Table 5). In the same industry, the five racial minorities together made up almost 5.5% of total small firms with paid employees, of which 5,789 firms were Hispanic-owned, 2,782 Asian-owned and 2,179 businesses owned by Blacks. In comparison, minority-owned small businesses received 2.9% of all industry revenue (See Table 6).

Heavy Construction and Civil Engineering

There were 51,122 small businesses involved in Heavy and Civil Engineering Construction (NAICS code 237) that had paid employees. Among the five minorities, Hispanics-owned 1,404 businesses, that was more than half of total minority firms. Of the rest, 542 businesses were Black-owned, followed by 402 American Indian and 361 Asian-owned firms. While the average employment for all firms was 22.6 workers per firm, the same average for minority-owned firms was 15.6 persons per firm. There were a total of 42,748 workers employed by minority firms and 24,399 of them worked in firms with Hispanic ownership. Small business revenue in heavy construction was $205.6 billion in 2002; in comparison, small minority business receipts totaled $6.45 billion, or 3.1% of the total. Hispanic businesses ranked highest among minorities with almost $3.27 billion, followed by American Indian businesses that made $1.23 billion. Black businesses outnumbered American Indian businesses by 140 firms, but ranked third in terms of receipts and sales, making $899.0 million.

Specialty Trade Contractors

The 2002 SBO indicates that there were over 1.9 million small firms operating in the NAICS code 238, as Specialty Trade Contractors and 458,750 of these firms had paid employees. A total of 4,210,594 workers were employed in the industry which made over $205 billion in 2002. Minority businesses made up 6.8% of all firms and employed 209,571 workers. They received 4.5% of total revenue. Once again, Hispanic firms ranked first among the minorities in the number of businesses, number of employees and receipts. There were 17,954 Hispanic firms employing an average of 7.1 workers per firm, and making almost $12.4 billion in sales and receipts. Although there were more Black firms than Asian firms, the latter recorded slightly higher sales at $3.53 billion when compared with $3.51 billion made by Black firms.

Textile and Leather Manufacturing

Small businesses under the NAICS codes 313, 314, 315 and 316 together make up the Textile and Leather Manufacturing Industry. According to the SBO, firms with paid employees made up about 41% of the 60,892 small firms in this industry in 2002. Of these, 5,110 firms were minority-owned: Asians owned 3,539 firms, Hispanics 1,316 firms, and Blacks 129 firms. The total employment in the industry for firms with paid employees was 854,831 workers. The average employment per firm was highest in Hispanic-owned firms at almost 10 workers per firm, followed by Black firms with 7.5 workers. Asian firms on an average employed 4.5 workers which was lower than American Indian firms with 5.5 workers. Total receipts in all firms for the year 2002 were close to $132 billion; minority-owned firms received 1.0% of total revenue.

Paper, Printing and Related Manufacturing

Of the 69,600 small businesses in the Paper, Printing and Related Manufacturing industry (NAICS 322 and 323), 39,957 firms had paid employees. Total minority-owned firms in 2002 was 2,781; 1,313 of these were owned by Asians, 1,045 by Hispanics and Blacks owned 415 businesses. A total of 1.2 million workers were employed in this industry, at an average of 30.6 workers per firm. Among minorities, Hispanic-owned firms employed 9,916 workers, at 9.5 workers per firm, Asian owners followed with 9,000 employees and Black firms with 3,490 employees. The total receipts for the industry in 2002 was over $253.5 billion and of the minorities, Hispanic businesses totaled over $1.1 billion, followed by $414.1 million for Black-owned firms.

Chemical, Non-Metallic Minerals Manufacturing

There were 39,534 small firms registered under NAICS codes 325 and 327, in the Chemical and Non-metallic Minerals Manufacturing Industry; 21,594 of these firms had paid employees, and 5.7% of these were owned by minorities. The industry employed 1.4 million workers, and average firm employment was 63 workers, but minority owners employed only 15 workers per firm. Total sales for all small firms with paid employees was over $580 billion in 2002, but minority firms made just over $4 billion dollars.

Plastics and Rubber Manufacturing

Almost 70% of small businesses in the Plastics and Rubber Manufacturing industry (NAICS 326) had paid employees, and each firm on an average employed over 79 workers. Of the 12,421 firms with employees, Hispanics and Asians owned over 90% of the 690 minority firms and employed 6,597 and 15,001 workers each. Asian firms were most successful recording $2.4 billion dollar revenues, followed by Hispanics with over $928 million and Blacks with $487.7 million revenue.

Primary Metals and Machinery Manufacturing

The Primary Metals and Machinery Manufacturing industry includes firms registered under NAICS codes 331, 332 and 333. According to the 2002 SBO, 89,592 of the 142,403 firms in the industry employed a total of over 3.3 million paid workers. Among firms with paid employees, minorities owned 5.2% of all firms, and on average, each firm employed less than a third of the 37 workers that non-minority firms employed. The total revenue for firms with paid employees was over $655.7 billion in the year surveyed. Minorities' share of the revenue was almost a tenth, at $7.7 billion. Hispanics owned 2,487 firms, more than half of all minority firms, employed 29,358 workers and recorded revenues of over $4 billion. The 1,494 Asian-owned businesses employed 14,955 workers and listed revenue of $2.11 billion dollars. There were relatively fewer Black owners in the industry with just 313 firms employing 5,864 workers.

Computer and Electronic Manufacturing

According to the SBO, two out of every three of the 21,638 firms in the Computer and Electronic Manufacturing industry (NAICS 334) had paid workers. The industry also had the highest employee per firm ratio of 92 workers and employed a total of 1,313,608 workers. Minority firms employed significantly lower number of workers, on an average, 20 workers in each firm. Asians owned close to 70% of all minority-owned businesses in the industry and employed 17,500 workers. Hispanics ranked second in terms of ownership and total employment, with 6,029 workers in the 270 firms they owned. Black owners in this industry provided the most employment per firm among the minorities, employing 28 workers in each of the 84 firms they owned. The total revenue recorded for these firms was over $378 billion of which minorities' share was less than a billion dollars in total.

Wholesale Trade in Durable and Non-Durable Goods

A total of 657,593 firms were involved in Wholesale Trade of Durable and Non-durable goods in 2002. Registered under the NAICS codes 423 and 424, there were 317,846 firms which had a total of 5.7 million paid employees. Of the 13 industries examined in this report, firms in wholesale trade recorded the highest revenue of

$4.26 trillion. The 38,171 minority firms made a total of $40.66 billion in revenue (excluding Asian firms for which there was no revenue reported). There were 23,460 Asian firms and they provided jobs to 150,000 employees. Hispanic-owned firms came in next at almost 12,000 firms making a sum of $33.97 billion in revenue and employing over 84,000 employees. With combined revenue of $4.85 billion, the 1,877 African American firms employed an average of six workers in each firm. American Indians owned 765 firms, the second highest industry participation of the minority group and registered $1.84 billion in receipts.

Publishing, except the Internet

Small businesses under the NAICS code 511 are classified as the Publishing Industry. There were a total of 24,337 firms with paid employees in this industry and 1,722 of them were minority-owned: Asians owned 3.7% of the firms, Hispanics 1.7%, African Americans 1.1% and American Indians 0.4% of the minority firms. In terms of employment, Asians employed 7,500 of the 16,157 workers employed by minority owners, followed by Hispanic and Black employers engaging 3,916 and 3,217 workers respectively. Financially, the small businesses in the industry received over $245.8 billion. Minorities received only 0.5% of the revenue while constituting over 7% of all firms. Among the minorities, African American firms performed the best, with $676 million in revenue, followed by Hispanics at $484.35 million.

Internet Publishing, Telecommunications and ISP

Firms under the NAICS codes 516, 517 and 518 collectively constitute the Internet Publishing, Telecommunication and ISP industry. According to the 2002 SBO, 25,406 of the 91,997 firms in the industry employed a total of over 2 million workers. The industry revenue was over $511 billion. Minority firm ownership was 10.8% and the firms employed 1.2% of all employees. The 1,531 Asian-owned firms employed over 11,000 workers, more than double that of the next major group, Hispanics owned 745 firms and employed 5,314 workers and recorded revenue of almost a billion dollars. Black owners were the third most prominent group in the industry owning 394 firms and employing an average of 12 workers per firm.

Professional, Scientific and Technical Services

Over 3.2 million firms in various areas of business ranging from architectural consulting to translation services, with a common NAICS code of 541 were categorized under the Professional, Scientific and Technical Services Industry. Of these, 727,893 firms employed 10 workers per firm with reported total industry revenue of $911.5 billion. 63,966 firms, identified as belonging to minority owners, employed 382,008 workers and reported over $43.7 billion in revenue. Asians owned 30,000 firms, followed by Hispanics at 19,360 firms, Blacks at 11,014 firms, American Indians at 3,271 and 321 firms owned by Native Hawaiian. While Asians hired almost 6.5 workers per firm, Black firms had 6.4 workers, Hispanic 5.1 workers and American Indians and Native Hawaiian an average of 4.7 and 4.2 workers per firm. Financially, Asians reported over $23 billion in revenue, followed by Hispanic owners at over $11.5 billion and Black owners at over $7 billion in revenue.

Table 5

Number of Firms, Employees in Firms and Receipts of Firms in Industry Race and Hispanic Origin

Industry Name	All Firms	All Minority	American Indian & Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian & Pacific Islander
Construction of buildings							
Number of firms with paid employees	220,348	12,043	1,184	2,782	2,179	5,789	109
Receipts for firms with paid employees ($'000)	$522,063,852	15,500,905	$1,443,428	$3,783,550	$3,088,438	$7,003,527	$181,962
Total number of employees	1,624,657	72,687	5,500	14,374	14,103	38,012	698
Average employees per firm	7.4	6.0	4.6	5.2	6.5	6.6	6.4
Heavy and Civil Engineering Construction							
Number of firms with paid employees	51,112	2,741	402	361	542	1,404	32
Receipts for firms with paid employees ($'000)	$205,628,844	$6,449,085	$1,232,240	$814,328	$899,009	$3,268,807	$234,701
Total number of employees	1,156,027	42,748	6,577	4,558	6,310	24,399	904
Average employees per firm	22.6	15.6	16.4	12.6	11.6	17.4	28.3
Specialty Trades Contractors							
Number of firms with paid employees	458,750	31,454	3,249	4,246	6,005	17,954	NA
Receipts for firms with paid employees ($'000)	$481,219,852	$21,626,330	$2,189,873	$3,531,454	$3,516,097	$12,388,906	NA
Total number of employees	4,210,594	209,571	19,262	27,918	34,723	127,668	NA
Average employees per firm	9.2	6.7	5.9	6.6	5.8	7.1	NA
Textile and leather Manufacturing							
Number of firms with paid employees	24,950	5,110	126	3,539	129	1,316	NA
Receipts for firms with paid employees ($'000)	$131,992,127	$1,331,959	$66,850	NA	NA	$1,265,109	NA
Total number of employees	854,831	30,538	692	15,873	967	12,947	59
Average employees per firm	34.3	6.0	5.5	4.5	7.5	9.8	NA
Paper, Printing and Related Manufacturing							
Number of firms with paid employees	39,957	2,781	3	1,313	415	1,045	5
Receipts for firms with paid employees ($'000)	$253,506,291	$1,523,408	NA	NA	$414,122	$1,109,286	NA
Total number of employees	1,223,746	22,456	40	9,000	3,490	9,916	10
Average employees per firm	30.6	8.1	13.3	6.9	8.4	9.5	2.0
Chemical, Non-metallic minerals Manufacturing							
Number of firms with paid employees	21,594	1,232	73	554	155	446	4
Receipts for firms with paid employees ($'000)	$580,832,157	$4,008,408	$94,269	$2,455,990	$316,002	$1,115,615	$26,532
Total number of employees	1,362,970	18,679	514	10,509	1,826	5,644	186
Average employees per firm	63.1	15.2	7.0	19.0	11.8	12.7	46.5
Plastics and Rubber Manufacturing							
Number of firms with paid employees	12,421	690	NA	309	58	323	0
Receipts for firms with paid employees ($'000)	$175,094,500	$3,824,611	NA	$2,408,851	$487,696	$928,064	NA
Total number of employees	986,603	24,716	NA	15,001	3,118	6,597	0
Average employees per firm	79.4	35.8	NA	48.5	53.8	20.4	NA
Primary Metals and Machinery Manufacturing							
Number of firms with paid employees	89,592	4,697	403	1,494	313	2,487	NA
Receipts for firms with paid employees ($'000)	$655,772,165	$7,700,960	$721,884	$2,111,829	$798,931	$4,068,316	NA
Total number of employees	3,304,887	55,816	5,579	14,955	5,864	29,358	60
Average employees per firm	36.9	11.9	13.8	10.0	18.7	11.8	NA
Computer and Electronic Manufacturing							
Number of firms with paid employees	14,282	1,313	44	915	84	270	NA
Receipts for firms with paid employees ($'000)	$378,094,641	$929,202	$62,278	NA	$117,159	$749,765	NA
Total number of employees	1,313,608	26,486	428	17,500	2,354	6,029	175
Average employees per firm	92.0	20.2	9.7	19.1	28.0	22.3	NA

CONTINUED

Table 5 (CONTINUED)

Number of Firms, Employees in Firms and Receipts of Firms in Industry Race and Hispanic Origin

Industry Name	All Firms	All Minority	American Indian & Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian & Pacific Islander
Wholesale Trade In Durable / Non-durable Goods							
Number of firms with paid employees	317,846	38,171	765	23,460	1,877	11,991	78
Receipts for firms with paid employees ($'000)	$4,260,775,896	$40,657,519	$1,836,572	NA	$4,846,244	$33,974,703	NA
Total number of employees	5,748,199	252,141	5,575	150,000	11,232	84,209	1,125
Average employees per firm	18.1	6.6	7.3	6.4	6.0	7.0	14.4
Publishing except internet							
Number of firms with paid employees	24,337	1,722	108	931	273	401	9
Receipts for firms with paid employees ($'000)	$245,876,005	$1,252,552	$92,283	NA	$675,921	$484,348	NA
Total number of employees	1,099,157	16,157	1,349	7,500	3,217	3,916	175
Average employees per firm	45.2	9.4	12.5	8.1	11.8	9.8	19.4
Internet Publishing, Telecommunication and ISP							
Number of firms with paid employees	25,406	2,734	44	1,531	394	745	20
Receipts for firms with paid employees ($'000)	$511,537,853	$1,737,172	$129,427	$0	$612,938	$994,807	$0
Total number of employees	2,050,704	24,016	2,113	11,625	4,744	5,314	220
Average employees per firm	80.7	8.8	48.0	7.6	12.0	7.1	11.0
Professional, Scientific and Technical Services							
Number of firms with paid employees	727,893	63,966	3,271	30,000	11,014	19,360	321
Receipts for firms with paid employees ($'000)	$911,568,291	$43,727,866	$1,569,868	$23,359,848	$7,096,863	$11,528,555	$172,732
Total number of employees	7,426,468	382,008	15,310	196,057	70,852	98,438	1,351
Average employees per firm	10	6	5	7	6	5	4

Note: Some Minority group total receipts are not given. This causes an understatement of the total receipts by minorities.

Source: Survey of Business Owners, 2002.

Table 6

Percentage of Total Firms, Receipts, Employees and Disparity Index by Industry, Race and Ethnicity

Industry Name	Total Minority	American Indian & Alaska Native	Asian	Black	Hispanic or Latino	Native Hawaiian & Pacific Islander
Construction of buildings						
Percent of firms with paid employees	5.47%	0.54%	1.26%	0.99%	2.63%	0.05%
Percent of Receipts for firms with paid employees	2.97%	0.28%	0.72%	0.59%	1.34%	0.03%
Total Percent of employees	4.47%	0.34%	0.88%	0.87%	2.34%	0.04%
Heavy and Civil Engineering Construction						
Percent of firms with paid employees	5.36%	0.79%	0.71%	1.06%	2.75%	0.06%
Percent of Receipts for firms with paid employees	3.14%	0.60%	0.40%	0.44%	1.59%	0.11%
Total Percent of employees	3.70%	0.57%	0.39%	0.55%	2.11%	0.08%
Specialty Trades Contractors						
Percent of firms with paid employees	6.86%	0.71%	0.93%	1.31%	3.91%	NA
Percent of Receipts for firms with paid employees	4.49%	0.46%	0.73%	0.73%	2.57%	NA
Total Percent of employees	4.98%	0.46%	0.66%	0.82%	3.03%	NA
Textile and leather Manufacturing						
Percent of firms with paid employees	20.48%	0.51%	14.18%	0.52%	5.27%	NA
Percent of Receipts for firms with paid employees	1.01%	0.05%	NA	NA	0.96%	NA
Total Percent of employees	3.57%	0.08%	1.86%	0.11%	1.51%	0.01%
Paper, Printing and Related Manufacturing						
Percent of firms with paid employees	6.96%	0.01%	3.29%	1.04%	2.62%	0.01%
Percent of Receipts for firms with paid employees	0.60%	0.00%	NA	0.16%	0.44%	NA
Total Percent of employees	1.84%	0.00%	0.74%	0.29%	0.81%	0.00%
Chemical, Non-metallic minerals Manufacturing						
Percent of firms with paid employees	5.71%	0.34%	2.57%	0.72%	2.07%	0.02%
Percent of Receipts for firms with paid employees	0.69%	0.02%	0.42%	0.05%	0.19%	0.00%
Total Percent of employees	1.37%	0.04%	0.77%	0.13%	0.41%	0.01%
Plastics and Rubber Manufacturing						
Percent of firms with paid employees	5.56%	NA	2.49%	0.47%	2.60%	0.00%
Percent of Receipts for firms with paid employees	2.18%	NA	1.38%	0.28%	0.53%	NA
Total Percent of employees	2.51%	NA	1.52%	0.32%	0.67%	0.00%
Primary Metals and Machinery Manufacturing						
Percent of firms with paid employees	5.24%	0.45%	1.67%	0.35%	2.78%	NA
Percent of Receipts for firms with paid employees	1.17%	0.11%	0.32%	0.12%	0.62%	NA
Total Percent of employees	1.69%	0.17%	0.45%	0.18%	0.89%	0.00%
Computer and Electronic Manufacturing						
Percent of firms with paid employees	9.19%	0.31%	6.41%	0.59%	1.89%	NA
Percent of Receipts for firms with paid employees	0.25%	0.02%	NA	0.03%	0.20%	NA
Total Percent of employees	2.02%	0.03%	1.33%	0.18%	0.46%	0.01%
Wholesale Trade In Durable / Non-durable Goods						
Percent of firms with paid employees	12.01%	0.24%	7.38%	0.59%	3.77%	0.02%
Percent of Receipts for firms with paid employees	0.95%	0.04%	NA	0.11%	0.80%	NA
Total Percent of employees	4.39%	0.10%	2.61%	0.20%	1.46%	0.02%
Publishing except internet						
Percent of firms with paid employees	7.08%	0.44%	3.83%	1.12%	1.65%	0.04%
Percent of Receipts for firms with paid employees	0.51%	0.04%	NA	0.27%	0.20%	NA
Total Percent of employees	1.47%	0.12%	0.68%	0.29%	0.36%	0.02%
Internet Publishing, Telecommunication and ISP						
Percent of firms with paid employees	10.76%	0.17%	6.03%	1.55%	2.93%	0.08%
Percent of Receipts for firms with paid employees	0.34%	0.03%	0.00%	0.12%	0.19%	0.00%
Total Percent of employees	1.17%	0.10%	0.57%	0.23%	0.26%	0.01%
Professional, Scientific and Technical Services						
Percent of firms with paid employees	8.79%	0.45%	4.12%	1.51%	2.66%	0.04%
Percent of Receipts for firms with paid employees	4.80%	0.17%	2.56%	0.78%	1.26%	0.02%
Total Percent of employees	5.14%	0.21%	2.64%	0.95%	1.33%	0.02%

Note: Some minority group total receipts are not given. This causes an understatement of the total percent of receipts by minorities.

Source: Survey of Business Owners, 2002.

5

Minority Business Disparities – Characteristics and Causes

Despite the rapid growth of minority-owned firms, the owners of these firms continue to encounter significant disparities in the general market place. While racial and ethnic minorities comprise approximately 30% of the U.S. population, they own just 18% of all U.S. businesses.

Disparities by Industry, Race and Ethnicity

In 2002 Blacks comprised 12.8% of the total population and owned 5.2% of all businesses. Hispanics comprised 14.1% of the total population and owned 6.8% of all businesses; Subcontinent Asians comprised 4.2% of the total population and held 4.8% of all businesses; Pacific Islanders comprised 0.1% of the total population and owned 0.1% of all businesses; and American Indians and Alaska Natives comprised 1% of the total population and owned 0.9% of all businesses.[19] In comparison, non-Hispanic Whites comprised 67.4% of the total population, and owned 81% of all non-publicly traded businesses (See Table 7).

Racial disparities in small business revenue are significant among all groups except Asians and American Indians. Furthermore, it is impossible to determine with precision the racial and ethnic ownership of publicly held companies. However, if we assume that the largest share of the receipts of these companies were held by non-Hispanic Whites, disparities in business revenue among minorities would be even greater. Specifically, while publicly held businesses comprised only 2.2% of all businesses in 2002, they accounted for 60.7% of total business revenue. Among non-publicly held companies Whites received 36.4% of total revenue. Of all business revenues, minority percent of total revenue is much lower if we include revenue of public and non-public businesses. Hispanics received 0.1% of total business revenue, Blacks 0.4%, Native Americans 0.1%, Asians 1.4%, and Pacific Islanders 0.02%.[20]

Disparities in family income and poverty contributed to disparities in minority business performance, compared with businesses owned by non-minorities. For example, in 2005 the median income of non-Hispanic Whites was $50,784, for Blacks it was $30,858, for Asians $61,094, and for Hispanics it was $35,967. Blacks also had the highest percentage of households in poverty at 23.8%, followed by Hispanics 20.6%, Asians 8.9%, and non-Hispanic Whites at 6.0% (See Table 8).

Table 7

Difference Between Population Percent and Business Ownership Percent

Race	Population, 2004	Non-Publicly Held Businesses, 2002	Percent of Total Population	Percent of Non-Publicly Held Businesses	Percentage Point Difference (Business % - Pop %)
White alone, not Hispanic	197,840,800	18,609,599	67.4%	81.0%	**+13.6%**
Hispanic or Latino (any race)	41,322,100	1,573,464	14.1%	6.8%	**-7.3%**
Black or African American	37,502,300	1,197,567	12.8%	5.2%	**-7.6%**
American Indian and Alaskan Native	2,824,800	201,387	1.0%	0.9%	**-0.1%**
Asian	12,326,000	1,103,587	4.2%	4.8%	**0.6%**
Total or Average	**293,655,400**	**22,974,655**	**100.0%**	**100.0%**	

Source: U.S. Census Bureau 2005 (a), Lowery, 2007.

[19] Lowery, Ying. 2007 and Survey of Business Owners, 2002.

[20] Lowery, Ying. 2007. Minorities in Business: a Demographic Review of Minority Business Ownership, Small Business Research Summary, SBA Office of Advocacy, April 2007, No. 298, pp 1 - 50).

Table 8

Racial Disparities in Attributes Associated with Business Viability

Race or Hispanic Origin Category	Median Income, Three-year Average 2003-2005	Poverty Rate, Three-year Average 2003-2005	Percent Using Bank Loans to Start Business, 2002	Median Net Worth, 2000	Business Ownership Rate (Businesses per 1000 persons)
White alone, not Hispanic	$50,677	8.4%	23.1%	$79,400	94
Hispanic or Latino (any race)	$35,467	22.2%	14.8%	$9,750	38
Black	$31,140	24.7%	17.6%	$7,500	32
American Indian and Alaskan Native	$33,627	12.2%	20.0%		71
Asian	$59,877	10.9%	20.1%		90
Total or Average	**$46,037**	**12.6%**	**22.2%**	**$55,000**	**78**

Source: U.S. Census Bureau, 2005(a); Census Bureau, 2005(b); Lowery, 2007; Census Bureau, 2003.

In 2002, racial and ethnic disparities in business ownership and business receipts existed in all industries examined in this report. The simplest way of measuring disparities is with the disparity index (See Table 9); a numerical ratio of the percent of total business receipts going to a race or ethnic group, divided by the percent of all firms in the industry accounted for by that group. For example, Table 9 shows that every industry examined in this report had a disparity index for minority business owners that was less than 0.80 - the benchmark that court proceedings have established as indicating an inference of discrimination.

Disparities existed in all industries for all race and ethnic groups. The only exceptions were Native Hawaiians and Pacific Islanders in the heavy construction and civil engineering industry, and Asians in specialty trade contracting.

Table 9

Disparity Index by Industry Race and Ethnicity

Industry Name	Total Minority	American Indian & Alaska Native	Asian	Black	Hispanic or Latino	Native Hawaiian & Pacific Islander
Construction of Buildings	0.54	0.51	0.57	0.60	0.51	0.70
Heavy and Civil Engineering Construction	0.58	0.76	0.56	0.41	0.58	1.82
Specialty Trade Contractors	0.66	0.64	0.79	0.56	0.66	
Textile and Leather Manufacturing	0.05	0.10			0.18	
Paper, Printing and Related Manufacturing	0.09	0.00		0.16	0.17	
Chemical, Non-metallic minerals Manufacturing	0.12	0.05	0.16	0.08	0.09	0.25
Plastics and Rubber Manufacturing	0.39		0.55	0.60	0.20	
Primary Metals and Machinery Manufacturing	0.22	0.24	0.19	0.35	0.22	
Computer and Electronic Manufacturing	0.03	0.05		0.05	0.10	
Wholesale Trade In Durable / Non-durable Goods	0.08	0.18		0.19	0.21	
Publishing except /internet	0.07	0.08		0.25	0.12	
Internet Publishing, Telecommunication and ISP	0.03	0.15	0.00	0.08	0.07	0.00
Professional, Scientific and Technical Services	0.55	0.38	0.62	0.51	0.48	0.43

Note: Simple Disparity Index: % of Receipts ÷ % of Firms
Some disparity values may be biased downward in cases where industry revenue data were not available.

Source: Survey of Business Owners, 2002.

The Causes of Racial and Ethnic Disparities

Studies suggest that the factors contributing to the financial viability and growth of minority businesses are as follows:

1) Individual-specific factors, including owner's business acumen, relevant education and experience, choice of industry and business location.

2) Environment-consequent factors, such as access to capital, to supportive networks, presence of role models and absence of racial discrimination.

3) Group-specific factors include set-aside programs for minorities, equal employment opportunities and environments where there is significant minority political power (Ahiarah, 1993).

Insufficient access to start-up capital is the most widespread reason typically given for the lower level of self-employment among racial and ethnic minorities. Research has indicated that minority businesses experience a substantial disadvantage at the start-up phase (Fairlie, 1999). A frequently cited study by Cavaluzzo, Cavaluzzo and Wolken (2002) examines patterns of credit application for 4,570 small businesses, including 1,025 minority-owned businesses run by men and women in 1993. The size of owner's assets significantly influenced the probability of securing a credit line.

After holding other factors constant, Black-owned businesses were denied credit 2.5 times more frequently than White-owned businesses. Hispanic males were denied two times as often as White males.

Moreover, interest rates paid by Black males who gained credit approval, were 11.1% higher than interest rates paid by White males.

Education has also been cited as a factor in determining the success of business owners. Bates (1990) used information on males who entered self-employment between 1976 and 1982, and found that the level of education positively contributed to the probability of business longevity.

Bates also showed that groups with the highest education levels also had the most access to debt capital. Christopher (1998) developed a "Basic Survival Model" that analyzed small business performance and viability between 1987 and 1991 as a function of numerous exogenous variables. The author found that the probability of minority business survival increases with the number of years of formal education of the owner.

Craig, Gent, Palumbo and Wall (2001) analyzed the factors that contributed to viability of small businesses in Buffalo, NY. They identified how financial and non-financial assets of business owners influenced the success of businesses. They found that having a formal business plan increased sales by 55.8%, while availability of loans increased sales by 55.4%. Also formal education and non-minority status were positively correlated with sales. Dunn and Holtz-Eakin (2000) used samples from the National Longitudinal Surveys of Labor Market Experience and found that parental wealth and self-employment were important in the inter-generational transmission of self-employment skills. Fairlie and Meyer (1996), using 1990 U.S. Census of Population, discovered significant differences in self-employment rates across six ethnic and racial groups in the U.S.. They demonstrated that salary and personal income are positively correlated with self-employment rates.

Finally, Audretsch (1991) investigated rates of firms survival varies across 295 industries, using the SBA data merge with Dun & Bradstreet data. He concluded that innovation substantially contributed to survival rates of these companies and that survival rates varied across industries.

In summary, research has shown that access to capital and credit, personal net worth and income, educational attainment and a legacy of family entrepreneurship, all contribute positively to business start-ups and viability. In each case, the historical legacy of discrimination has lowered the accumulation of these attributes for minorities.

6

Government Contracting Remains the Most Viable Option for Minorities

National business statistics show that minority-owned firms engage in government contracting to a larger extent than do non-minority firms. This is because minority business owners are much more likely to be adversely affected by discriminatory practices in the private sector than in the public sector.

Laws governing discrimination in business practices pertain primarily to government contracting activity and not to private sector business to business transactions.

The greater representation of minority contractors as government vendors is readily apparent in Table 10. The table shows that in 2006 there were 47,254 small business concerns registered with the federal government's CCR database. Of this number, 19,237 (or 40.7%) were minority-owned businesses. In contrast, minorities owned 18% of all U.S. businesses. Among the 19,237 minority-owned SBCs, 3,388 specialized in the construction of buildings, 1,935 concentrated primarily in special trades contracting, and 671 were in the heavy construction industry. But the largest concentration of minority-owned SBCs was in professional, scientific and technical services; 6,843. In total SBCs employed 821,315 workers in 2006; minority-owned SBCs employed 287,482 (or 35% of all workers employed by SBCs) while non-minority-owned SBCs employed 533,833 workers. Among minority SBCs, the industry creating the largest number of jobs was construction of buildings, 66,136, followed by professional, scientific and technical services; 64,506. Internet publishing and telecommunications was third with 35,025 employees.

Table 10

Number and Employment in Minority and Non-minority SBCs, 2006

	Minority-owned SBCs			Non-Minority-owned SBCs		All SBCs	
Industry	Minority-owned SBCs	Employment in minority-owned SBCs	Percent of all employees in SBCs	Non-minority-owned SBCs	Employment in non-minority-owned SBCs	Number of SBCs	Total employees in SBCs
Construction of Buildings	3,388	66,136	66%	2,147	33,543	5,535	99,679
Heavy Construction	671	13,781	37%	1,205	23,042	1,876	36,823
Specialty Trades Contracting	1,935	22,421	36%	2,957	39,977	4,892	62,398
Textile and Leather Manufacturing	381	6,467	18%	747	29,755	1,128	36,222
Paper, Printing and Related Manufacturing	572	5,175	23%	741	17,296	1,313	22,471
Chemical, Non-Metallic Minerals Manufacturing	318	3,515	13%	896	23,650	1,214	27,165
Plastics and Rubber Manufacturing	154	2,190	11%	625	16,969	779	19,159
Primary Metal and Machinery Manufacturing	1,287	23,648	15%	4,909	133,029	6,196	156,677
Computer and Electronic Manufacturing	1,341	29,745	27%	2,722	80,873	4,063	110,618
Wholesale Trade (Durable and Non-Durable)	955	6,685	23%	1,639	21,987	2,594	28,672
Publishing, Except Internet	509	8,188	44%	824	10,592	1,333	18,780
Internet Publishing, Telecommunications and ISP	883	35,025	66%	650	18,400	1,533	53,425
Professional, Scientific and Technical Services	6,843	64,506	43%	7,955	84,720	14,798	149,226
Total	**19,237**	**287,482**	**35%**	**28,017**	**533,833**	**47,254**	**821,315**

Source: CCR, 2007 and FPDS, 2005-2007.

Tables 11 through 15 describe various characteristics of minority SBCs by industry, race and ethnicity. Blacks comprised the largest number of minority SBCs (7,223), representing 15.3% of all SBCs. Blacks were followed in respective order by Hispanics (5,102 SBCs or 10.8%), Asian and Pacific Americans (2,828 or 6% of all SBCs), Subcontinent Asian Americans (2,049 or 4.3% of SBCs), and Native Americans (2,035 SBCs or 4.7%). Non-minority SBCs comprised 59.3% of all firms (See Tables 11 and 12).

Table 11

Number of Minority and Non-Minority SBCs by Industry, Race and Ethnicity, 2006

Industry	Asian Pacific	Black	Hispanic	Native Americans	Subcontinent Asian	Non-Minority SBCs
Construction of Buildings	354	1,192	1,037	638	167	2,147
Heavy Construction	62	203	238	144	24	1,205
Specialty Trades Contracting	195	776	682	231	51	2,957
Textile and Leather Manufacturing	66	143	109	37	26	747
Paper, Printing and Related Manufacturing	74	247	176	42	33	741
Chemical, Non-Metallic Minerals Manufacturing	66	106	82	21	43	896
Plastics and Rubber Manufacturing	19	30	65	22	18	625
Primary Metal and Machinery Manufacturing	245	228	488	203	123	4,909
Computer and Electronic Manufacturing	362	374	266	95	244	2,722
Wholesale Trade (Durable and Non-Durable)	141	387	251	91	85	1,639
Publishing, Except Internet	94	194	84	24	113	824
Internet Publishing, Telecommunications and ISP	124	382	144	65	168	650
Professional, Scientific and Technical Services	1,026	2,961	1,480	422	954	7,955
Total	**2,828**	**7,223**	**5,102**	**2,035**	**2,049**	**28,017**

Table 12

Percent of Minority and Non-Minority SBCs by Industry, Race and Ethnicity, 2006

Industry	Asian Pacific	Black	Hispanic	Native Americans	Subcontinent Asian	Non-Minority SBCs	Total
Construction of Buildings	6.4%	21.5%	18.7%	11.5%	3.0%	38.8%	100.0%
Heavy Construction	3.3%	10.8%	12.7%	7.7%	1.3%	64.2%	100.0%
Specialty Trades Contracting	4.0%	15.9%	13.9%	4.7%	1.0%	60.4%	100.0%
Textile and Leather Manufacturing	5.9%	12.7%	9.7%	3.3%	2.3%	66.2%	100.0%
Paper, Printing and Related Manufacturing	5.6%	18.8%	13.4%	3.2%	2.5%	56.4%	100.0%
Chemical, Non-Metallic Minerals Manufacturing	5.4%	8.7%	6.8%	1.7%	3.5%	73.8%	100.0%
Plastics and Rubber Manufacturing	2.4%	3.9%	8.3%	2.8%	2.3%	80.2%	100.0%
Primary Metal and Machinery Manufacturing	4.0%	3.7%	7.9%	3.3%	2.0%	79.2%	100.0%
Computer and Electronic Manufacturing	8.9%	9.2%	6.5%	2.3%	6.0%	67.0%	100.0%
Wholesale Trade (Durable and Non-Durable)	5.4%	14.9%	9.7%	3.5%	3.3%	63.2%	100.0%
Publishing, Except Internet	7.1%	14.6%	6.3%	1.8%	8.5%	61.8%	100.0%
Internet Publishing, Telecommunications and ISP	8.1%	24.9%	9.4%	4.2%	11.0%	42.4%	100.0%
Professional, Scientific and Technical Services	6.9%	20.0%	10.0%	2.9%	6.4%	53.8%	100.0%
Total	**6.0%**	**15.3%**	**10.8%**	**4.3%**	**4.3%**	**59.3%**	**100.0%**

Table 13

Revenue of Minority and Non-Minority SBCs by Industry, Race and Ethnicity, 2006

Industry	Asian Pacific	Black	Hispanic	Native Americans
Construction of Buildings	$ 1,213,297,452	$ 2,003,544,462	$ 3,178,094,149	$ 2,638,624,991
Heavy Construction	$ 164,025,683	$ 343,894,463	$ 728,909,201	$ 289,763,607
Specialty Trades Contracting	$ 285,955,872	$ 433,337,335	$ 738,439,530	$ 263,021,894
Textile and Leather Manufacturing	$ 135,447,577	$ 42,734,535	$ 204,147,514	$ 153,863,863
Paper, Printing and Related Manufacturing	$ 61,090,819	$ 186,274,889	$ 240,553,982	$ 325,905,825
Chemical, Non-Metallic Minerals Manufacturing	$ 111,808,324	$ 263,141,794	$ 146,319,445	$ 81,455,723
Plastics and Rubber Manufacturing	$ 28,069,301	$ 120,265,763	$ 100,922,036	$ 52,146,250
Primary Metal and Machinery Manufacturing	$ 1,018,687,152	$ 346,221,838	$ 1,013,767,528	$ 632,575,687
Computer and Electronic Manufacturing	$ 2,414,157,208	$ 2,283,408,017	$ 927,921,327	$ 447,803,475
Wholesale Trade (Durable and Non-Durable)	$ 389,088,875	$ 582,339,104	$ 687,361,118	$ 250,219,583
Publishing, Except Internet	$ 142,695,417	$ 172,865,553	$ 116,308,424	$ 10,283,002
Internet Publishing, Telecommunications and ISP	$ 1,036,643,737	$ 2,715,018,966	$ 408,086,569	$ 467,232,590
Professional, Scientific and Technical Services	$ 1,006,520,699	$ 1,506,124,929	$1,180,214,983	$ 351,922,844
Total	**$ 8,007,488,116**	**$ 10,999,171,648**	**$ 9,671,045,806**	**$ 5,964,819,334**

Industry	Subcontinent Asian	Non-Minority SBCs
Construction of Buildings	$ 843,642,226	$ 6,569,060,081
Heavy Construction	$ 64,980,777	$ 3,471,796,962
Specialty Trades Contracting	$ 46,844,721	$ 4,529,894,116
Textile and Leather Manufacturing	$ 22,714,968	$ 3,732,809,657
Paper, Printing and Related Manufacturing	$ 44,993,000	$ 2,935,265,689
Chemical, Non-Metallic Minerals Manufacturing	$ 82,042,500	$ 3,891,460,954
Plastics and Rubber Manufacturing	$ 45,020,000	$ 2,444,081,648
Primary Metal and Machinery Manufacturing	$ 463,946,368	$ 22,675,953,901
Computer and Electronic Manufacturing	$ 882,732,259	$ 13,897,698,980
Wholesale Trade (Durable and Non-Durable)	$ 247,181,228	$ 8,756,154,774
Publishing, Except Internet	$ 243,034,626	$ 1,369,586,203
Internet Publishing, Telecommunications and ISP	$ 1,360,669,578	$ 2,176,230,922
Professional, Scientific and Technical Services	$ 1,224,103,491	$ 9,455,611,988
Total	**$ 5,571,905,742**	**$ 85,905,605,875**

Table 13 provides the total revenue received by SBCs by race, ethnicity and industry. The largest revenue to a minority group ($11 billion) went to Blacks, followed in respective order by Hispanics, Asian and Pacific Islanders, Native Americans, and Subcontinent Asians. Overall, Blacks represented 15.3% of all CCR-listed small business concerns (SBCs) and received 8.7% of the total revenue of those firms. The comparable figures for Hispanics were 10.8% and 7.7%; for Asian and Pacific Islanders the revenue percent was 6.3% and they comprised 6.0% of all SBCs. Native Americans and Subcontinent Asians received 4.7% and 4.4% of total revenue respectively (See Table 14). They each comprised 4.3% of all available SBCs.

Blacks comprised 21.5% of small business concerns in construction of buildings and received 12.2% of total revenue going to SBCs. Hispanics comprised 18.7% of all firms in this industry and received 19.3% of total revenue. In contrast, Native Americans and Subcontinent Asians comprised 11.5% and 3% of SBCs but accounted for 16% and 5.1% respectively, of total revenue received by these firms. Fifty-nine and three-tenths percent of all firms were owned by non-minorities and they received 68.1% of the total revenue.

Table 14

Percent of Revenue for Minority and Non-Minority SBCs by Industry, Race and Ethnicity, 2006

Industry	Asian Pacific	Black	Hispanic	Native Americans	Subcontinent Asian	Non-Minority SBCs	Total
Construction of Buildings	7.4%	12.2%	19.3%	16.0%	5.1%	39.9%	100.0%
Heavy Construction	3.2%	6.8%	14.4%	5.7%	1.3%	68.6%	100.0%
Specialty Trades Contracting	4.5%	6.9%	11.7%	4.2%	0.7%	71.9%	100.0%
Textile and Leather Manufacturing	3.2%	1.0%	4.8%	3.6%	0.5%	87.0%	100.0%
Paper, Printing and Related Manufacturing	1.6%	4.9%	6.3%	8.6%	1.2%	77.4%	100.0%
Chemical, Non-Metallic Minerals Manufacturing	2.4%	5.8%	3.2%	1.8%	1.8%	85.0%	100.0%
Plastics and Rubber Manufacturing	1.0%	4.3%	3.6%	1.9%	1.6%	87.6%	100.0%
Primary Metal and Machinery Manufacturing	3.9%	1.3%	3.9%	2.4%	1.8%	86.7%	100.0%
Computer and Electronic Manufacturing	11.6%	10.%	4.4%	2.1%	4.2%	66.6%	100.0%
Wholesale Trade (Durable and Non-Durable)	3.6%	5.3%	6.3%	2.3%	2.3%	80.2%	100.0%
Publishing, Except Internet	6.9%	8.4%	5.7%	0.5%	11.8%	66.7%	100.0%
Internet Publishing, Telecommunications and ISP	12.7%	33.3%	5.0%	5.7%	16.7%	26.7%	100.0%
Professional, Scientific and Technical Services	6.8%	10.2%	8.0%	2.4%	8.3%	64.2%	100.0%
Total	**6.3%**	**8.7%**	**7.7%**	**4.7%**	**4.4%**	**68.1%**	**100.0%**

Table 15

Mean Years of Business Operation for Minority and Non-Minority SBCs by Industry, Race and Ethnicity, 2006

Industry	Asian Pacific	Black	Hispanic	Native Americans	Subcontinent Asian	Non-Minority SBCs
Construction of Buildings	12	9	10	10	11	16
Heavy Construction	12	10	12	11	12	17
Specialty Trades Contracting	12	8	11	9	10	17
Textile and Leather Manufacturing	14	8	13	12	13	28
Paper, Printing and Related Manufacturing	16	17	14	17	12	24
Chemical, Non-Metallic Minerals Manufacturing	13	30	14	10	15	24
Plastics and Rubber Manufacturing	14	11	16	13	13	24
Primary Metal and Machinery Manufacturing	15	13	17	15	15	27
Computer and Electronic Manufacturing	13	10	12	11	13	18
Wholesale Trade (Durable and Non-Durable)	13	8	13	11	10	24
Publishing, Except Internet	8	8	9	6	8	12
Internet Publishing, Telecommunications and ISP	9	7	7	7	9	10
Professional, Scientific and Technical Services	10	8	9	9	10	11
Mean, All Industries	**12**	**9**	**11**	**11**	**11**	**18**

In the heavy construction industry, the total number of Hispanic-owned firms was 238 and they accounted for 12.7% of all firms. There were a total of 203 Black-owned firms constituting 10.8% of the industry. However, the total revenue of Black-owned firms, $343.9 million, made up only 7% of total industry revenue. In the specialty trades contractor industry, Black and Hispanic-owned businesses comprised 15.9% and 13.9% of the total number of firms. Four-percent of the total number firms were Pacific Asian-owned, while 4.7% were owned by Native Americans (See Table 12). Although the minorities together owned 40% of all firms in this industry, their total revenue comprised 28% (See Table 14). Over 18.8% of the total 1,313 firms in the paper, printing and related manufacturing industry were Black-owned. Hispanic-owned firms formed the second largest minority group with a total of 176 firms. Asian, Native American and Subcontinent firms made up a relatively small portion of the number of firms. The 247 Black-owned firms shared 5% of the total revenue and had an average of nine years in business (See Table 15 also).

The computer and electronic manufacturing industry had more Black (9.2%) and Asian (8.9%) owned firms than Hispanic firms (6.5%), followed by Subcontinent Asians who owned a relatively high 6% in this industry. Black-owned firms received 8% of the total industry revenue. In professional, scientific and technical services, Black-owned firms were the largest group with almost 3,000 firms or about 19.8%. They accounted for 10% of the total industry revenue. Hispanic-owned firms represented 10% of the industry and received 8% of total revenue.

A recurring pattern of disparity exists in virtually all industries between the share of revenue received by minority firms and their share of all firms in the industry.

Minority-owned businesses are heavily represented among Federal Government contractors. However, there is a significant gap between the share of firms that minorities comprise and the share of total revenue they receive. The gap is even larger for minority firms that have never participated in the SDB program.

7

Disparities Among Minority CCR Vendors that are not SDB Certified

This section focuses on minority-owned SBCs that are registered with CCR, but have never been SDB certified. We focus specifically on the experiences of these firms as a way of emphasizing the importance of the SDB program to the viability and growth of minority-owned firms. New federal regulations require that all firms seeking to engage in contracting with the federal government must register with the CCR database. This requirement allowed us to determine the total revenue that each firm received. This report tracked total firm revenue between 2004 and 2006.

In Section 6 of the report we demonstrated that minority contractors are more dependent upon government sector revenue than are non-minority contractors.

In contrast to SDBs, minority firms that do not participate in the government's SDB program experience significantly greater disparities in total revenue when compared to non-minority-owned firms.

More specifically, we found that after holding constant the differences between minority and non-minority businesses in years of operation, number of employees, legal formal business organization, industry of operation and success at government contracting, minority business owners who do not participate in the SDB program received significantly less revenue than non-minority business owners.

Other things being constant, minority business owners that were not SDB certified received $554,245 less in yearly revenue in comparison to OSBCs between 2004 and 2006.

Also, being a successful federal government contractor added about $2.4 million to small business revenue regardless of the race or ethnicity of the business owner.

In 2006, there were 10,513 minority-owned small business concerns that were not SDB certified (See Table 16). These businesses had combined annual revenues of $10.2 billion in 2006. We compared these firms to Other Small Business Concerns (OSBC). That is, firms primarily owned by White Males who are not socially or economically disadvantaged. In total, there were 27,087 OSBCs and their combined annual revenue was $82.6 billion (See Table 16).

Table 16

Comparison Between Percent of Total Revenue and Percent of Firms for Minority Firms-not SDBs and OSBCs, 2006

	Minority Firm Not-SDB			
	Total Revenue	**% of Total SBC Revenue**	**No. of Firms**	**% of all SBC Firms**
Construction of Buildings	$1,156,946,726	16.7	1398	41.7
Heavy Construction	$478,866,084	12.8	344	23.0
Specialty Trades Contracting	$738,283,137	14.3	1281	30.8
Textile and Leather Manufacturing	$264,634,769	6.7	264	26.6
Paper, Printing and Related Manufacturing	$570,747,649	16.4	362	33.5
Chemical, Non-Metallic Minerals Manufacturing	$262,319,508	6.3	214	19.5
Plastics and Rubber Manufacturing	$192,920,052	7.3	86	12.2
Primary Metal and Machinery Manufacturing	$1,243,665,766	5.2	663	12.1
Computer and Electronic Manufacturing	$1,520,366,799	10.2	672	20.3
Wholesale Trade (Durable and Non-Durable)	$973,739,009	10.1	656	29.0
Publishing, Except Internet	$178,878,197	12.4	276	25.7
Internet Publishing, Telecommunications and ISP	$1,001,971,072	35.4	474	43.8
Professional, Scientific and Technical Services	$1,615,087,973	15.7	3823	33.3
Total	**$10,198,426,741**	**11.0**	**10513**	**28.0**

	Other Small Business Concerns			
	Total Revenue	**% of Total SBC Revenue**	**No. of Firms**	**% of all SBC Firms**
Construction of Buildings	$5,755,347,491	83.3	1956	58.3
Heavy Construction	$3,268,926,920	87.2	1152	77.0
Specialty Trades Contracting	$4,426,006,261	85.7	2884	69.2
Textile and Leather Manufacturing	$3,696,693,394	93.3	730	73.4
Paper, Printing and Related Manufacturing	$2,902,050,368	83.6	720	66.5
Chemical, Non-Metallic Minerals Manufacturing	$3,878,600,954	93.7	886	80.5
Plastics and Rubber Manufacturing	$2,434,651,648	92.7	618	87.8
Primary Metal and Machinery Manufacturing	$22,489,161,877	94.8	4835	87.9
Computer and Electronic Manufacturing	$13,326,421,928	89.8	2645	79.7
Wholesale Trade (Durable and Non-Durable)	$8,653,258,471	89.9	1607	71.0
Publishing, Except Internet	$1,265,043,857	87.6	799	74.3
Internet Publishing, Telecommunications and ISP	$1,824,964,602	64.6	607	56.2
Professional, Scientific and Technical Services	$8,649,633,543	84.3	7648	66.7
Total	**$82,570,761,314**	**89.0**	**27087**	**72.0**

In Table 17, we record the total revenue percentage (utilization) and availability percentage of minority firms that are not SDBs. This Table indicates that the revenue received by all minorities (that were not SDBs) was 11% of total revenue and these firms comprised 28% of all vendors. The disparity index is therefore 0.39 (See last line of Table 17). Similarly, a disparity index is calculated for minorities in each industry and Internet publishing is the only industry whose disparity index is not below the 0.80 threshold that indicates an inference of discrimination by legal standards.

Table 17

Utilization, Availability and Disparity Index for Non-SDBs by Industry, 2006

	Utilization Percentage	Availability Percentage	Simple Disparity Index
Construction of Buildings	16.7	41.7	0.40
Heavy Construction	12.8	23.0	0.56
Specialty Trades Contracting	14.3	30.8	0.46
Textile and Leather Manufacturing	6.7	26.6	0.25
Paper, Printing and Related Manufacturing	16.4	33.5	0.49
Chemical, Non-Metallic Minerals Manufacturing	6.3	19.5	0.33
Plastics and Rubber Manufacturing	7.3	12.2	0.60
Primary Metal and Machinery Manufacturing	5.2	12.1	0.43
Computer and Electronic Manufacturing	10.2	20.3	0.51
Wholesale Trade (Durable and Non-Durable)	10.1	29.0	0.35
Publishing, Except Internet	12.4	25.7	0.48
Internet Publishing, Telecommunications and ISP	35.4	43.8	0.81
Professional, Scientific and Technical Services	15.7	33.3	0.47
Total	**11.0**	**28.0**	**0.39**

Note: Simple Disparity Index: Utilization % ÷ Availability %.
Some disparity values may be biased downward in cases where industry revenue data were not available.

To eliminate the possibility that other factors might account for the disparity that exists between minority firms that are not SDBs and OSBCs, we used a regression analysis. The dependent variable was average income over a three-year period, 2004 through 2006. The explanatory variables included the age of the business, the number of employees, the legal form of business organization, the industry that the business operated in, and a dummy variable indicating whether the firm received government contracting revenue. Also included among the explanatory variables was a variable that indicated whether the firm being observed was a minority-owned firm (not a SDB) or whether it was an OSBC (i.e., other small business concerns). The results revealed that firms' average revenue increased by $43,732 for each additional year of operation; it increased by $92,666 for each additional employee; and average revenue was much greater for a corporation ($1,074,656) as opposed to a regular proprietorship (See Table 18). The most important variable observed was whether average revenue increased or decreased for minority-owned firms that were not SDBs. The results indicated that these firms experienced a $544,245 decrease in average revenue. This result provides an even more compelling inference of discrimination since it is statistically significant (See regression results in Table 18). The regression results also show that firms that successfully received government contracts had average revenues of $2.4 million greater than those who were unsuccessful.

Table 18

Regression Equation: Three-Year Revenue is Estimated for Minority Firms Not-SDB and OSBCs after Controlling for Business Attributes

Dependent Variable = Three Year Average Revenue

Explanatory Variables	Unstandardized Coefficients		Standardized Coefficients	t-Statistic	Significance Level
	B	Std. Error	Beta		
Constant	-37987	427195		-0.089	0.929
Age of Business	43732	5712	0.050	7.657	0.000
Number of Employees	92666	1577	0.356	58.775	0.000
Legal Form of Business Organization					
Proprietorship: Reference Category					
Regular Corporation	1074656	325004	0.034	3.307	0.001
S Corporation or LLC	836545	314404	0.026	2.661	0.008
Partnership	958701	745459	0.008	1.286	0.198
Industry					
Construction of Buildings = Reference Category					
Construction: Heavy	-613493	541502	-0.008	-1.133	0.257
Construction: Specialty Trades	-1282749	419434	-0.025	-3.058	0.002
Manufacturing: Textiles	-671051	657450	-0.007	-1.021	0.307
Manufacturing: Paper	968851	666050	0.009	1.455	0.146
Manufacturing: Chemical	278721	614459	0.003	0.454	0.650
Manufacturing: Plastic	-38795	740819	0.000	-0.052	0.958
Manufacturing: Metals	705802	400968	0.016	1.760	0.078
Manufacturing: Computer Electronics	954588	434219	0.018	2.198	0.028
Wholesale Trade	2656977	478711	0.041	5.550	0.000
Publishing Except Internet	-999751	635723	-0.010	-1.573	0.116
Internet/ISP/Telecom	60780	618582	0.001	0.098	0.922
Professional, Scientific & Technical	-1033015	356988	-0.030	-2.894	0.004
Minority Not SDB (versus OSBCs)	-544245	223807	-0.015	-2.432	0.015
Received Government Contract (Versus Did Not)	2390033	319713	0.044	7.476	0.000
Degrees of Freedom	25037				
Adjusted R Square	0.159				
Mean Value of Dependent Variable	3,705,283				
Standard Error of Estimate	14,506,960				

8

The Small Disadvantaged Business (SDB) Program

Eligibility Requirements and Operation of the SDB Program

There are two business assistance programs administered by the SBA for Small Disadvantaged Businesses. The 8(a) Business Development Program offers a broad range of assistance to socially and economically disadvantaged firms.

The Small Disadvantaged Business Certification Program (SDB Program) offers benefits to SDBs in federal procurement and provides incentives to corporate prime contractors to the government to encourage their use of SDBs as subcontractors.

The SDB program is currently structured so as to:

1) Use federal procurement to overcome the effects of discrimination.
2) Ensure that the benefits of federal procurement are used in a fair and effective manner.
3) Ensure that the operation of the program conforms to the U.S. Supreme Court's 1995 Adarand Decision.

The SBA (or an independent organization designated by SBA) certifies small firms to make sure that they meet specific social, economic and ownership criteria, in addition to other eligibility criteria. SDB certification remains effective for three years. Large business concerns that pursue government prime contracting opportunities use the CCR on-line to identify potential SDB suppliers and subcontractors. The benefits of the SDB program are as follows:

- When bidding as prime contractors, SDBs are eligible for *price evaluation adjustments* of up to 10%. This is accomplished by adding up to 10% to the price of bids received from non-SDBs.[21] The U.S. Department of Commerce uses a benchmarking procedure to determine the under-representation of SDBs in particular industries. Identified industries are eligible for price evaluation of adjustments:
  - Price credits are not applied to industries that do not reflect under-representation.[22]
  - Price credits are not applied to acquisitions below $100,000.
  - Price credits are not applied to procurements set aside for small businesses.
  - Price credits do not apply to procurement under the SBA 8(a) Program.
- Large prime contractors are eligible for *evaluation credits* for reaching SDB's subcontracting targets. This is accomplished by awarding the highest points to the bid proposal with the most targeted dollars, to SDB subcontractors in authorized industries. This credit is available only on negotiated acquisitions greater than $500,000 or construction projects greater than $1 million. Credits are not applied to contracts performed outside of the United States, or to contracts in industries outside of those that are benchmarked. The government-wide goal for SDB participation in prime contracts is 5%.
- Monetary incentives can be provided to prime contractors for exceeding SDB subcontracting targets on negotiated contracts. This can be up to 10% of the difference between the actual and target amount.
- The HUBZone program allows small businesses to engage in sole-source contracting in HUBZones (Historically Under-utilized Business Zones). SDBs

[21] The co-author, T. D. Boston assisted the U.S. Department of Commerce in developing the current benchmarking procedure.

[22] This provision of the SDB Program expired in 2004 and has not been reauthorized. However, DoD and NASA still use price incentives.

located in these zones are eligible for benefits under both programs.

Eligibility for the SDB program and the 8(a) Business Development Program are the same, with the exception that 8(a) participants cannot have personal adjusted net worth of greater than $250,000 when entering the program. All 8(a) certified firms are automatically SDB certified. To become certified businesses:

- Must meet size standards for small businesses in their industry. The SBA office of size standards develops and recommends small-business size standards that vary by industry group. For example, in manufacturing, the standard generally varies between 500 to 1,000 employees. In general construction the size standard is $31 million revenue and in architectural, engineering and professional industries it is $6.5 million.
- Must be at least 51% owned and controlled by a socially and economically disadvantaged individual/s. Blacks, Hispanic Americans, Asian Pacific Americans, Subcontinent Asian Americans and Native Americans are presumed to qualify within this category. Other individuals can qualify by showing a preponderance of evidence that they are disadvantaged.
- Owners must have a personal net worth of less than $750,000 excluding the equity in their business and primary residence.

SDB Certification is conducted electronically by SBA or a designated independent contracting organization.

Applicants must complete SBA form 1010-personal information and business profile, SBA form 413-personal financial statement, provide two years' personal tax returns, provide three years' business tax returns and provide updated business financial statements. Table 19 gives the number of SDBs and OSBCs with their associated total revenue by industry. The table shows that SDBs comprised 20% of small business concerns' (their availability) and received 18.9% of total revenue received by these firms (utilization). A simple Disparity Index for the SDBs yields 0.95 (18.9%/20%). This indicates that firms that participated in the SDB program did not experience significant disparities. In contrast, the Disparity Index was 0.39 for minority firms that did not participate in the SDB program. We can therefore conclude that the program is achieving its intended purpose, to remedy the effects of discrimination.

Table 19

Number, Revenue, Availability and Utilization of SDBs and OSBCs, 2006

	Small Disadvantage Businesses (SDBs)			
Industry Category	Number of SDBs	Availability: SDB percent of SBCs	Revenue of SDBs	Utilization: SDB percent of SBC total revenue
Construction of Buildings	1,841	48.5	$7,592,748,388	56.9
Heavy Construction	304	20.9	$902,419,353	21.6
Specialty Trades Contracting	581	16.8	$915,455,451	17.1
Textile and Leather Manufacturing	74	9.2	$149,284,536	3.9
Paper, Printing and Related Manufacturing	131	15.4	$182,985,539	6
Chemical, Non-Metallic Minerals Manufacturing	53	5.6	$332,921,440	7.9
Plastics and Rubber Manufacturing	49	7.4	$111,183,298	4.4
Primary Metal and Machinery Manufacturing	336	6.5	$1,280,108,097	5.4
Computer and Electronic Manufacturing	444	14.4	$2,606,881,317	16.4
Wholesale Trade (Durable and Non-Durable)	259	13.9	$885,483,366	9.3
Publishing, Except Internet	189	19.1	$464,216,277	26.8
Internet Publishing, Telecommunications and ISP	357	37	$1,172,286,467	39.1
Professional, Scientific and Technical Services	2,140	21.9	$2,696,568,004	23.8
Total	**6,758**	**20**	**$19,292,541,533**	**18.9**

CONTINUED

Table 19 Continued

Industry Category	Other Small Business Concerns (OSBCs)			
	Number of Non-SBCs	Availability: OSBCs percent of SBCs	Revenue of OSBCs	Utilization: OSBC percent of SBC total revenue
Construction of Buildings	1,956	51.5	$5,755,347,491	43.1
Heavy Construction	1,152	79.1	$3,268,926,920	78.4
Specialty Trades Contracting	2,884	83.2	$4,426,006,261	82.9
Textile and Leather Manufacturing	730	90.8	$3,696,693,394	96.1
Paper, Printing and Related Manufacturing	719	84.6	$2,885,050,368	94
Chemical, Non-Metallic Minerals Manufacturing	886	94.4	$3,878,600,954	92.1
Plastics and Rubber Manufacturing	617	92.6	$2,434,651,648	95.6
Primary Metal and Machinery Manufacturing	4,833	93.5	$22,453,063,761	94.6
Computer and Electronic Manufacturing	2,644	85.6	$13,326,421,928	83.6
Wholesale Trade (Durable and Non-Durable)	1,607	86.1	$8,653,258,471	90.7
Publishing, Except Internet	799	80.9	$1,265,043,857	73.2
Internet Publishing, Telecommunications and ISP	607	63	$1,824,964,602	60.9
Professional, Scientific and Technical Services	7,647	78.1	$8,649,633,543	76.2
Total	**27,081**	**80**	**$82,517,663,198**	**81.1**

How Goals and Objectives of the SDB Program are Achieved

The SBA works with each agency's procurement authority to establish its goals for SBCs, and it is responsible for tracking and reporting on these agencies attainment. Goals are set for all categories of small business concerns separately (See Table 20 below). A procurement award can be counted in more than one sub-category, except the 8(a) and the SDB categories as they are reported separately. Together, they form the achievement of the government's SDB goals.

Large business concerns that operate as prime contractors to the government must submit form SF-294, the Subcontracting Report for Individual Contracts, on a semi-annual basis. Subcontracts are reported on SF-295 SDB the "Breakout of Subcontracting Awards to SDBs."[23] This is required at the end of the fiscal or calendar year. Optional Form 312 may be submitted at the end of a contract. It allows the contracting officer to determine the extent to which the subcontracting target was met in a particular industry. This form includes only contract activity involving SDBs in benchmarked industry.

[23] Effective January 1, 1999 the SF-295 SDB breakout report was required for all government contracts, not just those associated with evaluation factors.

Table 20

Matrix of the Small Business Administration's Programs

Program Name	Small Business Concerns	Small Disadvantaged Business [Non-8(a)]
Prime Contract Utilization Goal	23%	5% combined goal (split evenly with 8(a) contractors)
Sub-contract Utilization Goal	None	5% combined goal (split evenly with 8(a) contractors)
Description of Program	→ Small Business Development Centers (SBDCs) → SCORE Association (Service Corps of Retired Executives) provide management and technical assistance.	→ Certification strictly pertains to benefits in Federal procurement. → SBA certifies SDBs to make them eligible for special bidding benefits. → Evaluation credits and monetary incentives available to prime contractors who boost subcontracting opportunities for SDBs.
Eligibility Criteria	→ Independently owned and operated. → Not dominant in its field of operation. → Meets employment and industry size standards.	→ Must be at least 51% owned and controlled by a socially and economically disadvantaged individual or individuals. → Other individuals can qualify if they show by a "preponderance of the evidence" that they are disadvantaged. → Must have a net worth of less than $750,000, excluding the equity of the business and primary residence. → Successful applicants must also meet applicable size standards for small businesses in their industry. → 8(a) concerns automatically qualify for SDB certification.
Net Worth Limitation	None	Net worth must be less than $750,000 after taking into account certain exclusions applicable by law.
Self Certify or Independent Organization	Self	SBA or approved Independent Organization must certify
Overall Objective	Help small businesses gain access to Federal Procurement	Expand economic opportunity for disadvantaged businesses.

CONTINUED

Table 20 Continued

Matrix of the Small Business Administration's Programs

Program Name	SDB 8(a) Contractors	HUBZone Contractors
Prime Contract Utilization Goal	5% combined goal (split evenly with SDB-non-8(a) contractors)	3%
Sub-contract Utilization Goal	5% combined goal (split evenly with SDB-non-8(a) contractors)	3%
Description	→ SBA program for small business concerns owned by socially and economically disadvantaged persons. → Admitted firms can receive Federal contracts designated for 8(a) Business Development Program participants, as well as management and technical assistance. → Participation is divided into two phases over nine years: a 4-year developmental stage and a 5-year transition stage.	→Program encourages economic development in historically underutilized business zones, 'HUBZones', through the establishment of preferences.
Eligibility Criteria	→ All SDB criteria are applicable → Small businesses owned and controlled by a socially and economically disadvantaged individual. → To enter program, owners must have a net worth of less than $250,000, excluding the value of the business and personal residence and net worth cannot exceed $750,000 during program matriculation.	→ Must be located in a "historically underutilized business zone" or HUBZone. → Must be owned and controlled at least 51% by U.S. Citizens, a Community Development Corporation, an agricultural cooperative or an Indian tribe; → Its principal office must be located within a "Historically Underutilized Business Zone," which includes lands considered 'Indian Country' and military facilities closed by Base Realignment and Closure Act; and → At least 35% of its employees must reside in a HUBZone.
Net Worth Limitation	Entering net worth less than $250,000 after taking into account certain exclusions applicable by law. For continued 8(a) eligibility after admission to the program, net worth must be less than $750,000.	None
Self Certify or Independent Organization	Same as for SDB	Online application submitted and subject to four rounds of review, three of which are by HUBZone Analysts.
Overall Objective	To teach 8(a) and other small companies how to compete in the Federal contracting arena and how to take advantage of greater subcontracting opportunities available from large firms as the result of public-private partnerships.	Expand economic opportunity for disadvantaged businesses in economically distressed areas.

CONTINUED

Table 20. Continued

Matrix of the Small Business Administration's Programs

Program Name	Women-owned Small Business	Service Disabled Veterans/Veterans
Prime Contract Utilization Goal	5%	3%
Sub-contract Utilization Goal	5%	3%
Description	→ Offers unique opportunities and guidance for women entrepreneurs through special programs and services. → Provides business development, management and technical assistance to emerging, intermediate and advance-stage women entrepreneurs for running successful businesses. → The Office of Women's Business ownership also provides access to credit and capital, federal contracts, and international trade opportunities.	→ Provides entrepreneurial development services such as business training, counseling and mentoring to eligible veterans owning or considering starting a small business. →Also provides assistance with financing a business and business development.
Eligibility Criteria	→ A small business concern that is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; → Whose management and daily business operations are controlled by one or more women.	→ At least 51 percent owned by one or more service-disabled veterans (a veteran with a disability that is service-connected, i.e., the disability was incurred in the line of duty while serving in the U.S. active military, naval or air service); or in the case of a publicly owned small business, at least 51 percent of the stock is owned by one or more service-disabled veterans. Does not require a minimum disability rating.
Net Worth Limitation	None	None
Self Certify or Independent Organization	Self	Self, Veterans' Administration
Overall Objective	Designed to assist women start and grow small businesses. Women's Business Centers operate with the mission to level the playing field for women entrepreneurs, who still face unique obstacles in the world of business.	Expand economic opportunities for service disabled veterans and other veterans.

Note: See Office of Government Contracting 2003 "Goaling Guidelines for the Small Business Preference Programs: For Prime and Subcontract Federal Procurement Goals and Achievements" July 3, 2003 [29].

9

The Impact of the Adarand Decision on the Small Disadvantaged Business (SDB) Program

As a result of the U.S. Supreme Court's Adarand Decision, in 1995 President Clinton ordered the Justice Department to review all federal race-based affirmative action programs.[24] A race conscious program is one that "confers a benefit or imposes a burden on individuals."

Major changes to the SDB Program following Adarand included the use of industry benchmarks to establish SDB utilization goals, to determine industries where the benchmarks should be applied, and the establishment of a $750,000 personal net worth ceiling for individuals participating in the SDB Program.

The revisions also require SBA certification or independent certification of all SDBs, implementation of price evaluation adjustments, subcontractor evaluation factors and monetary incentives, to encourage the use of SDBs in specified industries. In September 2000, the 10th Circuit Court of Appeals found that the Federal Transportation Program that was previously challenged had been revised and amended in 1997. Also, it was narrowly tailored to meet a compelling government interest and it passed constitutional muster. In 2001, the U.S. Supreme Court agreed with this decision. The new SDB regulations complied with Adarand, by applying preferences to specific industries only instead of to all federal procurement and by requiring all companies to be certified, limiting preferences to only those who were truly disadvantaged.

In Adarand, the U.S. Supreme Court ruled that all federal government programs that use racial or ethnic criteria as factors in procurement decisions must pass a test of strict scrutiny in order to survive constitutional muster.

Legal Background

Adarand involved a Federal highway construction project awarded by the U.S. DOT, Federal Highway Administration, and Central Federal Lands Highway Division (CFLHD). This Federal contract contained a provision referred to as the "Subcontracting Compensation Clause" (SCC). The SCC authorized an additional payment to the prime contractor as an incentive to award subcontracts to minorities and females. The SCC clause implemented a DOT requirement under the Surface Transportation and Uniform Assistance Act (STURAA) that established a SDB goal of 10 percent for federally-funded transportation programs. The prime contractor solicited bids for the guardrail portion of the project from Adarand Constructors, Inc. ("Adarand"), a non-minority subcontractor, and a DBE subcontractor. Despite the fact that Adarand submitted the lowest bid, the prime contractor awarded the subcontract to the DBE.[25] The prime contractor testified that it would have awarded the guardrail subcontract to Adarand were it not for the monetary bonus that it received by hiring a DBE. Id.

*The legal analysis in this section was prepared by Attorney Keith Wiener of the Law firm of Holland and Knight, LLP. However, the authors takes full responsibility for any errors or omissions in summarizing his analysis.

[24] United States Supreme Court decision in Adarand Construction, Inc. v. Pena, 515 U.S. 200 (1995).

[25] Id. at 2102.

Adarand filed suit in the U.S. District Court for the District of Colorado arguing that the SCC violated Adarand's constitutional right to Equal Protection under the law. The District Court granted summary judgment in favor of DOT and Adarand appealed to the U.S. Court of Appeals for the Tenth Circuit. The Tenth Circuit determined that Federal Government affirmative action programs need only satisfy a standard of "intermediate scrutiny" and held that the CFLHD disadvantaged business preference program withstood Constitutional review under the lesser intermediate scrutiny standard.

The Supreme Court, in a 5-4 decision, ruled that all race-based classifications must now withstand "strict scrutiny." The Court stopped short of declaring the CFLHD program unconstitutional and, instead, returned the case to the lower Court for further proceedings. The 10th Circuit, found the Subcontractor Compensation Clause to be constitutionally satisfactory and found this aspect of the DOT's program to have a compelling interest and to meet the narrowly tailored test. Thus, the program withstood the strict scrutiny standard.[26]

The Adarand Decision evolved out of issues regarding disadvantaged, minority and female business enterprise participation programs as considered, developed and adopted by local, state and federal governmental entities in connection with their contracting and procurement activities. These decisions date to the landmark United States Supreme Court decision in City of Richmond v. J.A. Croson, 488 U.S. 469 (1989). They apply the strict scrutiny analysis set forth in Croson to Federal Programs.

In Croson, the U.S. Supreme Court struck down a City affirmative action set-aside program as unconstitutional because it did not satisfy the strict scrutiny analysis applied to "race based" governmental programs. J.A. Croson Co. ("Croson") challenged the City of Richmond's minority contracting preference plan, which required prime contractors to subcontract at least 30 percent of the dollar amount of contracts to one or more Minority Owned Business Enterprises (MBEs). The City defined MBEs as "business[es] at least 51 percent of which [are] owned and controlled . . . by minority group members."[27] Minority group members were defined as "[c]itizens of the United States who are Blacks, Spanish-speaking, Oriental, Indians, Eskimos, or Aleuts."[28] In enacting the plan, the City cited past discrimination and intent to increase minority business participation in construction projects as motivating factors.

The Supreme Court held the City of Richmond's affirmative action plan violated the Equal Protection Clause of the Fourteenth Amendment. The Court applied the "strict scrutiny" standard, generally applicable to any race-based classification, which requires a governmental entity to have a "compelling governmental interest" in remedying past identified discrimination, and that any program adopted by a local or state government must be "narrowly tailored" to achieve the goal of remedying the identified discrimination.

The Court determined that the plan neither served a "compelling governmental interest" nor offered a "narrowly tailored" remedy to prior discrimination. The Court found no "compelling governmental interest" because the City had not provided "a strong basis in evidence for its conclusion that [race-based] remedial action was necessary."[29] The Court held the City presented no direct evidence of any race discrimination on its part in awarding construction contracts or any evidence that the City's prime contractors had discriminated against minority-owned subcontractors. The Court concluded that this was insufficient evidence to demonstrate a compelling interest in awarding public contracts on the basis of race.

Similarly, the Court held the City failed to demonstrate that the statute was "narrowly tailored" for several reasons, including the fact that there did not appear to have been any consideration of race-neutral means to increase minority business participation in city contracting. The Court found the City's 30 percent quota could not be said to be narrowly tailored to any goal, except perhaps outright "racial balancing."[30] In particular, the Court found it rested upon the "completely unrealistic" assumption that minorities will choose a particular trade in lockstep proportion to their representation in the local population. Id. The Court also noted that the City of Richmond's minority population was predominately Black. The Court held it

[26] ADARAND CONSTRUCTION, INC. V. PENA, 515 U.S. 200 (1995) and 2000 U.S. APP. Lexis, pp 23725, 10th Circuit, Sep. 25, 2000.

[27] 488 U.S. at 478.

[28] 488 U.S. at 469.

[29] 488 U.S. at 499.

[30] 488 U.S. at 507.

could not find the "set-aside" program narrowly tailored because of the over inclusiveness of other minorities in the preference programs (for example, Aleuts) without any evidence they suffered discrimination in Richmond. Despite its analysis of the City of Richmond's affirmative action plan, the Supreme Court noted that it did not intend its decision to preclude a State or local government from "taking action to rectify the effects of identified discrimination within its jurisdiction."[31]

The Meaning of the COMPELLING GOVERNMENTAL INTEREST REQUIREMENT

Statistical evidence of discrimination is the primary method used to determine whether there is or is not a strong basis for a remedial program, i.e. that there is a compelling governmental interest. Statistical evidence is used to compare the government's **utilization** of Minority-and Women-owned Business Enterprises (MFBE) to the **availability** of qualified, willing and able MFBEs.[32]

An important component of statistical evidence of discrimination is the disparity index.‡ The disparity index consists of the percentage of minority contractor participation in government contracts divided by the percentage of available minorities. Id.

This equation yields a percentage figure which is then multiplied by 100 to generate a number between 0 and 100, with 100 consisting of full participation by minority contractors.[33] Disparity indices are considered by the Courts as highly probative evidence of discrimination because they ensure that the "relevant statistical pool" of minority contractors is being considered. A disparity greater than two or three standard deviations has been held to be statistically significant and may create a presumption of discriminatory conduct.[34]

The Meaning of the NARROWLY TAILORED LEGISLATION REQUIREMENT

The Courts require that race or ethnic based legislation to remedy past identified discrimination must be "narrowly tailored." The Courts analyze several criteria or factors in determining whether a program or legislation satisfies the narrowly tailored requirement.

The Sixth Circuit Court of Appeals in Drabik stated the following:

> Adarand teaches that a court called upon to address the question of narrow tailoring must ask, "for example, whether there was 'any consideration of the use of race-neutral means to increase minority business participation' in government contracting, Croson, [488 U.S.] at 507, 109 S. Ct. 706 ... or whether the program was appropriately limited such that it 'will not last longer than the discriminatory effects it is designed to eliminate,' Fullilove, [448 U.S.] at 513, 100 S. Ct. 2758...." Adarand, 515 U.S. at 237-38, 115 S. Ct. 2097. A narrowly-tailored set-aside program must be "linked to identified discrimination." Croson, 488 U.S. at 507, 109 S. Ct. 706. Its criteria and measures of success must be particularized, not reduced to rigid quotas driven by "simple administrative convenience." Id. at 508, 109 S. Ct. 706. It must also not suffer from "overinclusiveness."[35]

Federal Government's Response to Adarand

In 1998 the Government revised the eligibility criteria for participating in the SDB Program in response to the U.S. Supreme Court's 1995 Adarand Decision. Major changes to the SDB Program involved the use of industry benchmarks to establish SDB utilization goals, to determine the industries where the goals should be applied, and the establishment of a $750,000 personal net worth (PNW) ceiling for individuals participating in the SDB Program.

The benefits of SDB status were expanded to include a Price Evaluation Adjustment (PEA) for SDBs bidding as prime contractors, Subcontracting Evaluation Factors, and Monetary Subcontracting Incentives to improve SDB subcontracting opportunities. The new regulation

[31] 488 U.S. at 509.

[32] Croson, 448 U.S. at 509; see Drabik, 214 F.3d 730, 2000 WL 703031 at *5.

[33] 6 F.3d at 1005.

[34] Peightal v. Metropolitan Dade County, 26 F. 3d 1545, 1556 (11th Cir. 1994); see Dade County, 122 F.3d at 917.

‡ Id. at 506, 109 S. Ct. 706.Dade County, 122 F.3d at 926. 214 F.3d 730, 2000 WL 703031 at *6.

modified the Federal Acquisition Streamlining Act of 1994 (Pub. L. 103-355, Sec. 7102) under which incentives were originally implemented. New benchmarking criteria were developed to determine the specific industries where incentives would apply.

SDBs are eligible to receive a price benefit of up to 10% in industries where benchmarks applied. This policy was accomplished by adding up to 10% to the price of bids or offers received from non-SDBs. To apply Subcontracting Evaluation Factors, the contracting officer awards the highest points to the bidder with the most dollars targeted to SDB subcontractors in authorized industries. Monetary Subcontracting Incentives allow contracting officers to provide a monetary incentive to the prime contractor of up to 10% of the value by which SDB utilization exceeds the authorized industry target (See also, U.S. SBA America's Small Business Resource, Federal Acquisition Regulation (FAR) Council Rules, final rule published on July 2, 1999).[36] The benefits of the SDB program accrue to firms that have met the certification criteria.

On December 9, 2004 the SBA's authority to use PEAs for civilian agencies expired and was not renewed as part of the SBA Reauthorization Act of 2004 (Pub.L.108-447, Division K). The expiration covers all non-Department of Defense agencies with the exception of the National Aeronautics and Space Administration (NASA) and the Coast Guard.†

[36] See, Office of Management and Budget, Office of Federal Procurement Policy, SDB Procurement: Reform of Affirmative action in Federal Procurement. Accessed electronically on June 15, 2007 at: http://www.whitehouse.gov/omb/fedreg/sdb-ref.html.

†Code of Federal Regulations, Title 13, Volume 1, Revised as of January 1, 2005. From the U.S. Government printing office via GPO access [CITE: 13CFR124]. Available electronically at: http://SBAs.gov/library/cfrs/13cfr124.html.
Available electronically at: www.sba.gov.

10

Determining the Capacity of Firms but for Discrimination

Major Findings

For almost a decade, the personal net worth ceiling has been capped at $750,000. By failing to adjust the net worth ceiling for inflation, the 2007 real value of $750,000 (1998 dollars) is $558,070. The unadjusted ceiling has made it more difficult for SDBs to win awards in corporate supply chains because global competitive pressures have forced corporations to greatly reduce the number of suppliers they use. This means that suppliers must have larger capacities today. At the same time, government agencies have increasingly "bundled" procurement solicitations as a way of cutting administrative expenses and performance costs.[37] These changes mean that SDBs must have significantly greater capacity to enter core areas of supply chains or compete as government prime contractors.

This section determines what the capacity of SDBs would be in a market free of discrimination. In the next section, we explain our findings that the elasticity or responsiveness of personal net worth to changes in firm capacity is 40%. This means that when the capacity of a firm increases by 100%, personal net worth of the owner increases by 40%. Therefore, when a ceiling is placed on the personal net worth of individuals in the SDB Program, that ceiling also limits the capacity of firms that are eligible for the program (See Figure 2).

We find that the PNW ceiling is set too low. Therefore firms that should be eligible to participate in the SDB program are barred by the ceiling cap. This report finds that the ceiling is low because, it has not been adjusted for inflation in nine years. Second, it is not consistent with the level of capacity that SDBs would be expected to achieve in the absence of discrimination.[38] This report argues that any net worth ceiling must at a minimum, allow SDBs to achieve the capacity that they would in the absence of discrimination. Any ceiling set below this level is a burden on small disadvantaged business owners. Third, the PNW ceiling does not consider that different industries require greater capacities.

Summary of how the New PNW Ceiling was Determined

Had the appropriate inflationary adjustment been made to PNW, the 2006 real value of $750,000 (1998) would have been $916,294.[39] In addition, the study used regression analysis and a decomposition methodology to estimate the average capacity of non-SDBs on an industry by industry basis. The estimated coefficients were then applied to SDBs to determine their average capacity assuming they were treated the same as non-SDBs. This yielded an estimate of what their capacity would be in a nondiscriminatory environment. Actual SDB capacity across all industries between 2004 and 2006 was $3.4 million. SDB capacity in the absence of discrimination was estimated at $4.3 million, or 27% higher. We shall see that personal net worth increases by 40% for every 100% increase in business capacity. Therefore the personal net worth ceiling must be increased overall by 11% (or 40% x 27%) to allow SDBs to achieve a non-discriminatory level of capacity.

[37] House of Representative bill H.R 1813, "Small Business Fairness in Contracting Act" calls for a scale back of "contract bundling" – the practice of grouping small government contracts together and awarding them as one large contract. House Small Business Committee Chairwoman Nydia Velazquez, D-N.Y., said the bill was needed to help small businesses gain more opportunities, because the federal government has been "bundling" individual contracts into mega-contracts out of the price range for small businesses to place bids. This bill is currently in committee.

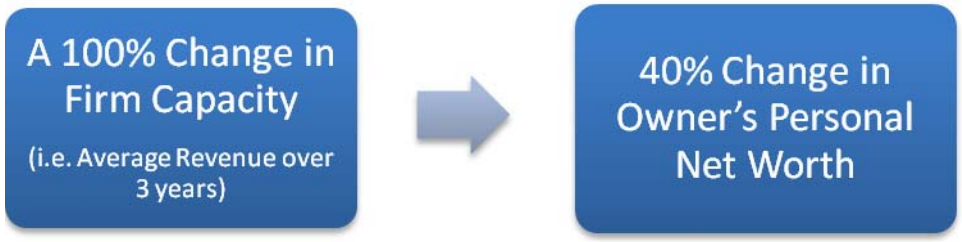
[38] The Department of Commerce's benchmarks for setting SDB goals are based on evaluating seventy major industry groups to determine how the share of federal contracts SDBs actually receive compares to the share they would be expected to receive in the absence of discrimination.

[39] We used the S. Morgan Friedman Inflation Calculator, between 1998 and 2006, see electronically at: http://www.westegg.com/inflation/

This report calculates the capacity but for discrimination on an industry basis for all Construction industries, all Manufacturing industries and all Professional, Scientific services and IT services.

Figure 2

Effect of Firm Capacity on Personal Net Worth



Detailed Explanation of Results

This section explains in detail the methodology and results used in determining a new PNW for participating in the SDB Program. To estimate what the capacity of SDB firms would be without discrimination, we used the technique of decomposition pioneered by economists Blinder and Oaxaca. For each industry we defined one regression equation describing the relationship between average total revenue (2004-2006) and the following set of explanatory variables: age of firm, number of employees, legal form of organization and government award indicator variable. This equation was then applied to two separate groups; OSBCs, a group which is presumed to operate without the presence of discrimination, and active-SDB firms, a group presumed to be adversely affected by discrimination. In the next step, we assigned SDB firms the coefficient estimates from the OSBC regression equation. This equation predicted the average revenue (or capacity) of active SDB firms, if they received the same return on attributes as their non-SDB counterparts. A regression equation was estimated for each industry. The overall average SDB capacity was determined by weighting each industry average by the number of firms in the industry.

Average Revenue

In the first step of this analysis we limited the set of firms to those that reported positive revenue over the years 2004 to 2006. This reduced the original list of over 47,000 firms to 32,072. The dependent variable used was the average revenue of firms between 2004 and 2006.[40]

Explanatory Variables

Number of Employees

There is a positive linear relationship between the number of employees and the average revenue of firms; this value is 0.343. The correlation between the number of employees and average revenue depends heavily on the industry being analyzed. Table 21 details the industry specific correlations and is organized from weakest to strongest relationship. Manufacturing industries had the strongest relationship between revenue and employment; professional, scientific and technical industries had the weakest relationship. Clearly, an industry variable should be included in the regression equation predicting average revenue.

[40] Although the structure of the dependent variable suggested the use of a log transformation, in the final results we did not transform the variable, this made the results easier to interpret.

Table 21

Correlation between Number of Employees and Average Revenue, by Industry

Industry	Correlation
Professional, Scientific and Technical Services	0.1428
Wholesale Trade In Durable / Non-durable Goods	0.3172
Computer and Electronic Manufacturing	0.3323
Primary Metals and Machinery Manufacturing	0.4248
Internet Publishing, Telecommunication and ISP	0.4499
Specialty Trades Contractors	0.5513
Construction of buildings	0.5537
Textile and Leather Manufacturing	0.6229
Chemical, Non-metallic minerals Manufacturing	0.6716
Heavy and Civil Engineering Construction	0.7421
Publishing except internet	0.7445
Plastic Manufacturing	0.7540
Paper, Printing and Related Manufacturing	0.7795

Legal Form of Organization

The overall set of data exhibits the expected relationship between the average revenue of a firm and their legal form of organization; C-corporations have the highest mean average revenue, followed by the category which includes both S-corporations and Limited Liability Companies. General partnerships have the third highest mean average revenue and Sole proprietorships have the lowest mean average revenue.

Age of Business

The overall correlation between log of average revenue and age is about 0.1.

Government Contract Award

The final explanatory variable is a binary indicator. It has a value of one for firms that received a government contract over the years 2004 to 2006 and a value of zero otherwise. Its inclusion in the regression model predicting revenue indicated that it has a large impact on the average revenue of a firm. For the entire 32,072 firms, the average revenue of firms that received a government contract was $8.1 million dollars; the average revenue of firms that did not receive a government contract was $3.2 million dollars. For active-SDB companies these averages were $4.9 million for those receiving government contracts, and $2.6 million for firms that did not receive government contracts.

The results indicate the importance of government contracts on small business performance.

Regression Analysis

All of the explanatory variables described were included in the regression equations. For each industry we have the following set of variables in Figure 3.

Figure 3

Structure of Regression Analysis

Dependent Variable	Explanatory Variables
Average Revenue (2004-2006)	Number of Employees
	Legal Form of Organization (4 categories)
	Age of Business
	Government Contract (Binary indicator)

This leads to two versions of the same equation:

Legal Form = { Corporation, S-Corp or LLC, Partnership, Proprietorship }

Gov Contract = { No Government Contract, Government Contract }

Equation 1: (For Other Small Business Concerns, i.e. Non-Minority/Non-SDB firms)

$$\text{Avg Rev}_{\text{Non-SDB}} = \beta_0 + \beta_1^{*}(\text{Number of Employees}_{\text{Non-SDB}}) + \beta_2^{*}(\text{Legal Form}_{\text{Non-SDB}}) + \beta_3^{*}(\text{Age of Biz}_{\text{Non-SDB}}) + \beta_4^{*}(\text{Gov Contract}_{\text{Non-SDB}})$$

Equation 2: (For Active-SDB firms)

$$\text{Avg Rev}_{\text{Act-SDB}} = \beta_0 + \beta_1(\text{Number of Employees}_{\text{Act-SDB}}) + \beta_2(\text{Legal Form}_{\text{Act-SDB}}) + \beta_3(\text{Age of Biz}_{\text{Act-SDB}}) + \beta_4(\text{Gov Contract}_{\text{Act-SDB}})$$

A final equation predicting SDB revenue, using coefficients of OSBC:

Equation 3: (For Active-SDB firms)

$$\text{Avg Rev}_{\text{Act-SDB}} = \beta_0 + \beta_1^{*}(\text{Number of Employees}_{\text{Act-SDB}}) + \beta_2^{*}(\text{Legal Form}_{\text{Act-SDB}}) + \beta_3^{*}(\text{Age of Biz}_{\text{Act-SDB}}) + \beta_4^{*}(\text{Gov Contract}_{\text{Act-SDB}})$$

Table 22a gives the overall average revenue predicted for each industry The Table shows that SDB weighted average revenue before removing the effects of discrimination was $3.39 million. Adjusting for the effects of discrimination yields a SDB revenue of $4.31 million, which is a 27% increase over the unadjusted average. In summary, the average revenue we would expect SDB to have in a non-discriminatory market place is $4.31 million.

Table 22b provides the same information showing the weighted averages for each of the three industry groups. The current average capacity of Construction industry firms is $3,373,283. Estimated capacity but for discrimination is $4,096,613. Current average capacity of Manufacturing industry firms is $4,829,245. Estimated capacity but for discrimination is $6,075,465. Finally current estimated capacity for firms in the IT industry and Professional and Scientific services is $1,868,793. Capacity but for discrimination is $2,588,477.

Table 22a

Regression Equation for Adjusting the Net Worth Limitation

Industry	Equation 1 Estimated Revenue for OSBC	Equation 2 Estimated Revenue for SDB (unadjusted reg. coefficient)	Equation3 Estimated Revenue for SDB if equally compensated (adjusted reg. coefficient)	Observations	Weights	Unadjusted SDB Weighted Average Revenue	Adjusted SDB Weighted Average Revenue
Construction of Buildings	$4,386,229	$4,527,025	$5,418,646	4,101	0.134	$604,339	$723,439
Heavy Construction	$3,723,151	$3,511,359	$4,442,770	1,399	0.046	$159,924	$202,345
Specialty Trades Contracting	$2,259,319	$1,877,789	$2,303,133	3,293	0.107	$201,307	$246,906
Textile and Leather Manufacturing	$7,349,291	$2,816,689	$6,221,612	722	0.024	$66,206	$146,238
Paper, Printing and Related Manufacturing	$6,625,686	$2,010,830	$2,194,476	737	0.024	$48,246	$52,653
Primary Metal and Machinery Manufacturing	$6,706,953	$4,655,826	$6,272,618	4,207	0.137	$637,662	$859,098
Computer and Electronic Manufacturing	$6,651,858	$7,365,581	$7,947,379	2,887	0.094	$692,269	$746,951
Wholesale Trade (Durable and Non-Durable)	$7,222,252	$4,061,850	$5,049,229	1,897	0.062	$250,849	$311,827
Publishing, Except Internet	$2,391,387	$2,994,944	$4,326,501	876	0.029	$85,411	$123,385
Internet Publishing, Telecommunications and ISP	$4,273,641	$3,781,569	$4,934,376	1,131	0.037	$139,237	$181,684
Professional, Scientific and Technical Services	$1,683,093	$1,640,279	$2,308,218	9,467	0.308	$505,535	$711,394
SDB Average				**30,717**	**1.000**	**$3,391,047**	**$4,305,919**

Total increase in SDB average revenue without discrimination = $4,305,919 - $3,391,047 = **$914,873**
Percentage change in SDB average revenue = **27%**

Table 22b

Estimated SDB Capacity (i.e. 3 year Average Revenue) But for Discrimination

Industry	Mean Revenue of Non-SDBs after controlling for business Attributes	Mean Revenue of SDBs after controlling for business attributes	Estimated Mean Revenue of SDBs but for discrimination	Number of Observations	Observation Weights	Current Revenue of SDBs	Estimated Revenue of SDBs but for Discrimination
Construction of Buildings	$4,386,229	$4,527,025	$5,418,646	4,101	0.466	$2,111,376	$2,527,222
Heavy Construction	$3,723,151	$3,511,359	$4,442,770	1,399	0.159	$558,670	$706,861
Specialty Trades Contracting	$2,259,319	$1,877,789	$2,303,133	3,293	0.375	$703,236	$862,528
Total Construction Industries				8,793	100%	**$3,373,283**	**$4,096,613**
Textile and Leather Manufacturing	$7,349,291	$2,816,689	$6,221,612	722	0.064	$179,555	$396,609
Paper, Printing and Related Manufacturing	$6,625,686	$2,010,830	$2,194,476	737	0.065	$130,847	$142,797
Primary Metal and Machinery Manufacturing	$6,706,953	$4,655,826	$6,272,618	4,207	0.371	$1,729,389	$2,329,940
Computer and Electronic Manufacturing	$6,651,858	$7,365,581	$7,947,379	2,887	0.255	$1,877,488	$2,025,788
Wholesale Trade (Durable and Non-Durable)	$7,222,252	$4,061,850	$5,049,229	1,897	0.167	$680,322	$845,699
Publishing, Except Internet	$2,391,387	$2,994,944	$4,326,501	876	0.077	$231,641	$334,629
Total Manufacturing Industries				11,326	100%	**$4,829,244**	**$6,075,465**
Internet Publishing, Telecommunications and ISP	$4,273,641	$3,781,569	$4,934,376	1,131	0.107	$403,562	$526,587
Professional, Scientific and Technical Services	$1,683,093	$1,640,279	$2,308,218	9,467	0.893	$1,465,231	$2,061,889
Total Professional, Scientific & IT Services				10,598	100%	**$1,868,793**	**$2,588,476**

11

Determining the Relationship between SDB Capacity and the New Personal Net Worth

This section of the report examines the relationship between firm capacity and personal net worth (PNW). More specifically, a regression equation is used to predict the influence of firm capacity on PNW. We found that the elasticity or responsiveness of personal net worth to changes in firm capacity is 40%. This means that when the capacity (or average revenue) of a firm increases by 10%, personal net worth of the owner increases by 4%. We determined in the last section that average SDB capacity but for discrimination is 27% higher than the unadjusted capacity. Capacity in Construction Industries would be 21% higher but for discrimination, 26% higher in Manufacturing Industries and 39% higher in Professional, Scientific and IT services. Therefore, we need to determine the level of PNW that is consistent with the higher levels of capacity.

Data

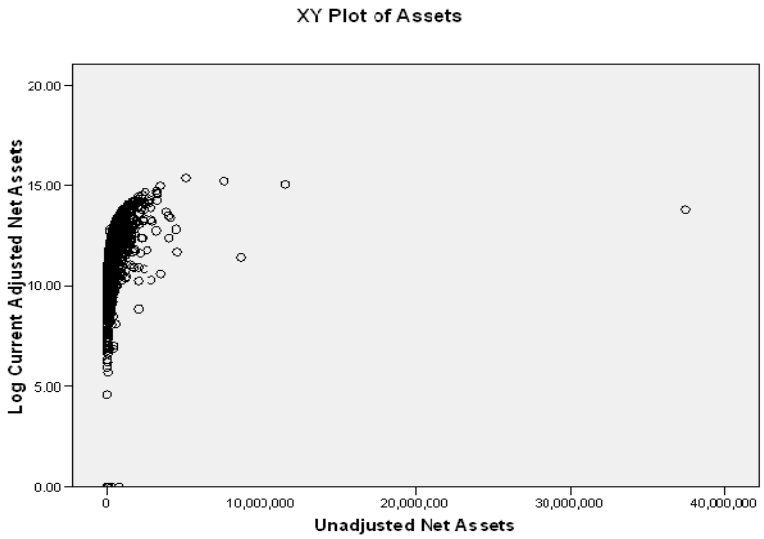
The purpose of this section is to investigate the relationship between the adjusted net worth of a firm's owner/s and the firm's average revenue over a three-year period, a proxy for firm capacity. These data come from firms that were certified in the 8(a) program from 1995 to 1997. This period is convenient because the $750,000 PNW was not yet implemented.

Methodology

A Weighted Linear Least Squares Regression was used to adjust personal net worth for the fact that the variation between unadjusted net worth and adjusted net worth increases at higher levels of firm revenue. The following chart gives the logarithm of adjusted net worth on the Y-axis and unadjusted net worth on the X-axis. It demonstrates that as unadjusted net worth increases, so does the variation in the log of adjusted net worth. Weighted Least Squares Regression adjusts for this variation, by decreasing the importance of observations with high net assets and implicitly, high variation.

Figure 4

Plot of Net Worth



Exploratory Data Analysis

Adjusted Net Worth

Adjusted net worth is the value of net worth after removing the value of the owner's primary residence and the value of the business.

To account for the heavily right-skewed nature of adjusted net worth, the natural logarithmic transformation was applied to this variable. After applying the natural log, the distribution becomes more normal. Any observations that had untransformed values equal to or below zero were dropped from this analysis, a total of 65 observations. Figure 5 illustrates that partnerships had the highest adjusted net worth, followed by corporations, and proprietorships.

Average Revenue

This report uses the average annual revenue of firms over a three-year period from 1995 to 1997. Again, the heavily right-skewed distribution of this variable suggests the use of a natural logarithmic transformation.

Figure 5

Boxplot of Organization Type on Log Average Total Revenue

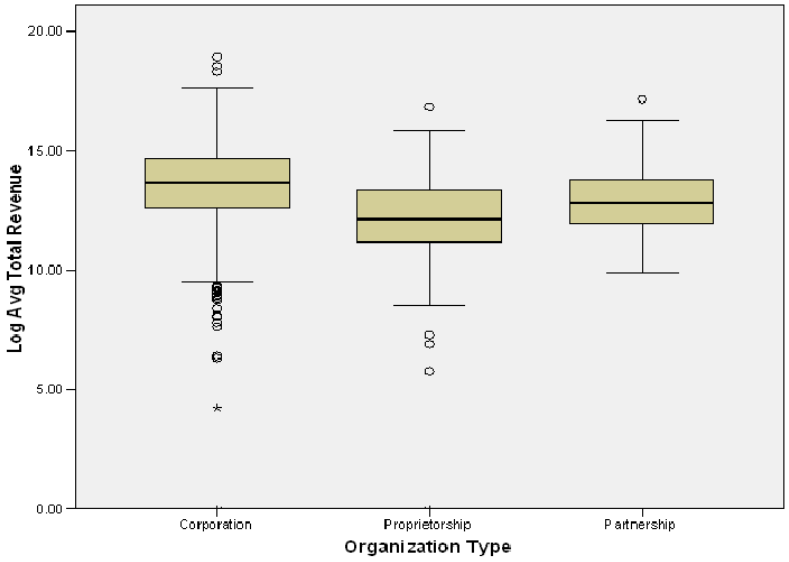


Table 23

Firm Count and Average Revenue by Industry, 1995-97 (Industry Variables used in the Regression)

Industry	Count	Average Revenue
Computer and Electronic Equipment Manufacturing	38	$2,617,180
Construction of Buildings and Heavy Engineering Construction	69	$7,187,009
Internet Publishing	52	$2,421,519
Light Manufacturing	39	$4,552,931
Primary Metal and Machinery Manufacturing	70	$2,556,568
Professional, Scientific and Technical Services	1,454	$1,736,343
Publishing (non internet)	599	$2,463,513
Specialty Trade Contractors	430	$1,738,203
Wholesale Trade	79	$1,994,897

Other Explanatory Variables

Industry Categories

Table 23 gives counts of businesses in a particular industry as well as gives the mean value of average revenue for that industry. The Table also shows that businesses in the Computer and Electronic Manufacturing industry have the highest average revenue over the years 1995 to 1997. Conversely, the category with the smallest average revenue is the Professional, Scientific and Technical services industry. This industry also contains the greatest number of 8(a) firms.[41]

Age of Business

Proprietorships, with a value of 10.02 years, had the highest average age of business. Corporations had the second highest average age followed by partnerships, at 9.4 and 8.3 years respectively.

Regression Results

Table 24 presents the results of the weighted least squares regression which includes all of the variables discussed above. The coefficient for log average revenue (0.395) represents the impact of a 100% increase in average revenue on the adjusted net worth of a firms owner. Specifically, a 100% increase in average revenue implies an estimated 39.5% increase in adjusted personal net worth). Since the log of adjusted PNW is evaluated against the log of revenue, the resulting coefficient expresses the elasticity of responsiveness.

[41] Note that we considered using an employment variable in the regression. However, it was dropped as an explanatory variable in the final equation because it introduced multi-collinearity.

Table 24

Regression Equation: The Influence of Three-Year Average Revenue on Net Worth is Estimated Controlling for Attributes of SDBs of Firms in 8(a) Program, 1995 to 1997[42]

Dependent Variable = logarithm of adjusted SDB Net Worth, 1998

Explanatory Variables	Unstandardized Coefficients	Std. Error	t-Statistic	Significance Level
	B			
Constant	1.235396	0.300830	4.106000	0.001000
Age of Business in 1998	-0.038682	0.006352	2.643000	0.001000
Legal Form of Business Organization				
Corporation: Reference Category				
Proprietorship	-3.624141	0.073175	-49.527000	0.001000
Partnership	4.073837	1.374708	2.963000	0.003070
Industry				
Specialty Trades Contracting= Reference Category				
Construction: Heavy, Buildings, Civil Engineering	-6.030172	0.122738	-49.131000	0.001000
Manufacturing: Computer and Electronics	-1.042354	2.016023	-0.696000	0.486740
Manufacturing: Primary Metals and Machinery	4.040937	4.268144	0.947000	0.343850
Manufacturing: Light	4.410867	6.668735	0.661000	0.508400
Wholesale Trade	2.859084	1.081763	2.704000	0.006904
Publishing	1.886179	2.907062	0.649000	0.516510
Internet Publishing	3.191651	3.713439	0.859000	0.390160
Professional, Scientific & Technical	-1.666426	0.124722	-13.361000	0.001000
Log of Average Revenue 1995 - 1997	0.394871	0.022593	17.478000	0.001000
Degrees of Freedom	2484			
Adjusted R-Square	0.9296			

[42] We have the following linear regression equation:

$\ln(\text{Adj Net Worth}) = \beta_0 + \beta_1 * \ln(\text{Avg Tot Revenue}) + \beta_2 * (\text{Industry}) + \beta_3 * (\text{Age of Biz}) + \beta_4 * (\text{Legal Organization}) + \beta_5 * (\text{Employment})$

With this categorical variable:

Industry = Specialty Trade Contracting
Computer and Electronic Manufacturing
…

Where the coefficient estimates minimize the sum of residuals in this equation:

$S = \sum_{x=1}^{n} w_i (y_i - x_i \beta)$

$w_i = 1/ (\text{Net Worth}_i)^2$ $y_i = \ln(\text{Adj Net Worth})$

$x_i = [1\ x_{i1}\ x_{i2}\ x_{i3}\ x_{i4}\ x_{i5}]$

Using this information, the report derives the new recommended level of PNW for three industry groups. If an inflationary adjustment is made to the PNW, the value would have been $916,294 in 2006. Our empirical results have shown that in a non-discriminatory environment, SDB capacity would be 21%, 26%, and 39% higher in Construction, Manufacturing and Professional, Scientific and IT services respectively.

Table 25 outlines the method used to derive the new PNW ceiling for each industry group. This ceiling is $979,000 in Construction, $1,043,000 in Manufacturing, and $1,026,000 in Professional, Scientific and IT services.

Table 25

Recommended Industry Specific PNW Ceiling

	Construction	Manufacturing	Professional Svc.
Estimated Revenue of SDBs but for Discrimination	$4,096,613	$6,075,465	$2,588,477
Current Revenue of SDBs	$3,373,283	$4,829,245	$1,868,794
Disparity in SDB Revenue (Estimated – Current)	$723,330	$1,246,220	$719,683
Percent by which Current Revenue of SDBs must increase to eliminate Disparity	21%	26%	39%
Estimated Percentage Relationship between PNW and SDB Revenue (i.e. Elasticity)	40%	40%	40%
Current PNW ceiling (Established by Regulation in 1998)	$750,000	$750,000	$750,000
PNW ceiling if adjusted for inflation between 1998 and 2006	$916,294	$916,294	$916,294
Method for calculating the increase in PNE ceiling required to eliminate Disparity	(0.4*0.21*723,330)	(0.4*0.26*1,246,220)	(0.4*0.26*1,246,220)
Amount by which PNW ceiling must increase so that Disparity may be Eliminated	61,266	127,030	109,476
PNW ceiling with Inflation Adjustment and Disparity Adjustment	977,560	1,043,324	1,026,000
Recommended Industry Specific PNW ceiling	**$979,000**	**$1,043,000**	**$1,026,000**

12

The Economic Impact of the Small Disadvantaged Business (SDB) Program

A casual observation reveals that the capacity of minority-owned and disadvantaged businesses is increased significantly by participating in the SDB program. For example, records show that the average revenue of SDBs is twice that of minority-owned firms that are registered with CCR, but have never participated in the SDB Program. Similarly, the average revenue of graduates of the SDB program (that are still registered with CCR) is more than twice that of SDBs. But, how much of the difference in revenue is due to the SDB Program itself and how does this difference affect national output and employment? Answering these questions is the primary objective of this section.

While the objective of the SDB program is to use federal procurement to overcome the effects of discrimination, it is important from a policy standpoint to know how this program affects national well-being. For example, in 2006 minority-owned small business concerns that were not SDBs had total receipts of $10.2 billion. In comparison, total receipts of active SDB were $19.3 billion while receipts of graduated SDBs were $14.0 billion. The challenge however is to determine how much of the net difference in receipts is caused by their participation in the SDB program.

Several steps are required to measure the total impact of the SDB program on national output and employment. First, we measured the difference in average revenue between minority firms that have never participated in the SDB Program and those that have participated. Second, we measured the average difference in firm revenue between SDBs and firms that have graduated from the SDB program. Finally, we applied industry-specific multipliers to the differences in average revenue to determine the impact of the average gained in revenue on final demand and final employment in the U.S. economy. The multipliers were obtained from the Bureau of Economic Analysis (BEA) Regional Input-Output Modeling System (RIMS II). The logic behind the multiplier approach is well-known. The model replicates how spending in one industry sector of the economy is linked to spending in all other sectors. The model replicates how additional revenue that a company receives and then pays to workers, households and other businesses, ripples through the economy in subsequent rounds of spending creating even more income, jobs and economic activity. The multiplier expresses the cumulative impact of all rounds of spending on final demand and final employment in the economy.[43] For example, a final demand output multiplier of 3.1 indicates that for every one dollar of additional revenue spent by a company, $3.10 of final demand is generated in the economy. Likewise, a final demand employment multiplier of 26.7 indicates that approximately 27 jobs are created for every $1.0 million in new final demand. But to apply the multipliers, we first had to isolate the amount of the change in revenue that was attributable to the SDB Program. To do so we used the following steps. First, we determined the difference in revenue between firms in the SDB Program and minority firms that were not SDBs. To do this we used a multivariate propensity score matching procedure. This procedure allowed us to match minority firms and SDBs that were identical on a variety of firm attributes.[44] We then measured the difference in revenue between identically matched firms that participated in the SDB program and those that did not participate in the program. The matching procedure paired firms that had identical characteristics, thereby controlling for difference in management characteristics. We generated pairs by matching firms on the following business attributes: age of business, employment size,

[43] See U.S. Department of Commerce, 1997. Regional Multipliers: A User's Handbook for Regional Input – Output Modeling Systems (RIMS II).

[44] R version 2.5 software with the additional matching program was used. The matching algorithm was developed by Jasjeet Sekhon.

industry of operation, legal form of business organization and whether or not they had been awarded a government contract.[45]

After matching firms, we measured the difference in average revenue between minority firms that were not SDBs and those that were active SDBs. Likewise; we also generated pairs to measure the difference in revenue between active SDBs and firms that have graduated from the SDB Program. This procedure isolated the impact on revenue of a minority firm participating in the SDB Program and graduating from the SDB program in comparison to firms that did not.

To determine the total impact of the SDB Program on the revenue of firms in each industry, we multiplied average estimated revenue (derived in the procedure above) by the number of firms in the industry. A similar procedure was followed to derive the impact on total industry revenue associated with firms that graduated from the SDB program.

Finally, to determine the total effect on final demand and employment in the economy, we used the final-demand multipliers for industry output and final-demand multipliers for industry employment.[46]

Tables 26 to 29 show that the SDB program has a significant impact on national output and employment. In 2006, the SDB program caused $5.5 billion to be added to final demand; $3.7 billion was added by active SDBs (See Table 26) and $1.8 billion was added by SDB graduates (See Table 27). Additionally, the SDB program added over 124,000 jobs that would not have existed in its absence (see Tables 28 and 29).

Table 26

Impact on Industry Final Demand of Minority Firms Participating in the SDB Program

Industry	Number of Active SDBs	Estimated Revenue Increase per firm	Final Demand Output Multiplier	Total Output
Construction of buildings	1,678	460,404	3.1748	$2,452,716,859
Specialty Trades Contractors	487	53,506	3.1748	$82,727,103
Textile and Leather Manufacturing	53	671,594	3.2719	$116,461,586
Paper, Printing and Related Manufacturing	487	170,043	3.1422	$260,208,539
Chemical, Non-metallic minerals Manufacturing	43	587,242*	2.9216	$73,774,508
Primary Metals and Machinery Manufacturing	278	915,962	2.7375	$697,069,981
Computer and Electronic Manufacturing	355	147,431	3.1725	$166,042,321
Wholesale Trade In Durable / Non-durable Goods	218	-97,838	2.5796	($55,019,473)
Internet Publishing, Telecommunication and ISP	310	-156,335	2.924	($141,708,297)
Total Impact on Final Demand				**$3,652,273,126**

* The Average Treatment Effect was used to calculate the revenue increase.

[45] Statistical output from the matching procedure is available upon request.

[46] These multipliers released by the U.S. Department of Commerce's Bureau of Economic Analysis account for inter industry relationships in the whole economy. Regional Multipliers derived using the Regional Input-Output Modeling System (RIMS II) are based on 2004 national annual input-output data.

Table 27

Impact on Industry Final Demand of Firms Graduating from the SDB Program

Industry	Number of Graduated SDBs	Estimated Revenue Increase per firm	Final Demand Output Multiplier	Total Output
Construction of buildings	253	$2,458,057	3.1748	$1,974,371,359
Heavy and Civil Engineering Construction	56	$1,425,492	3.1748	$253,436,512
Specialty Trades Contractors	97	$170,284*	3.1748	$52,439,911
Paper, Printing and Related Manufacturing	97	$191,173	3.1422	$58,268,269
Primary Metals and Machinery Manufacturing	162	$-1,018,280*	2.7375	($451,581,723)
Computer and Electronic Manufacturing	127	$-402,377*	3.1725	($162,120,711)
Publishing except internet	30	$1,207,835*	2.9777	$107,897,108
Professional, Scientific and Technical Services	460	-$180,325	3.0383	($252,025,466)
Total Impact on Final Demand				**$1,832,710,725**

* The Average Treatment Effect was used to calculate the revenue increase.

Table 28

Impact on Industry Jobs of Minority Firms Participating in the SDB Program

Industry	Total Revenue Effect of Participation	Final Demand Employment Multiplier (=no. jobs per $1.0 million in final demand)	Total employment (jobs)
Construction of buildings	$2,452,716,859	26.7564	65,626
Specialty Trades Contractors	$82,727,103	26.7564	2,213
Textile and Leather Manufacturing	$116,461,586	21.6294	2,519
Paper, Printing and Related Manufacturing	$260,208,539	18.4304	4,796
Chemical, Non-metallic minerals Manufacturing	$73,774,508	14.7532	1,088
Primary Metals and Machinery Manufacturing	$697,069,981	14.9916	10,450
Computer and Electronic Manufacturing	$166,042,321	19.4322	3,227
Wholesale Trade In Durable / Non-durable Goods	-$55,019,473	18.6324	(1,025)
Internet Publishing, Telecommunication and ISP	-$141,708,297	20.1571	(2,856)
Total Jobs			**86,038**

Table 29

Impact on Industry Jobs of Firms Graduating from the SDB Program

Industry	Total Revenue Effect of Graduation	Final Demand Employment Multiplier (=no. jobs per $1.0 million in final demand)	Total employment (jobs)
Construction of buildings	$1,974,371,359	26.7564	52,827
Heavy and Civil Engineering Construction	$253,436,512	26.7564	6,781
Specialty Trades Contractors	$52,439,911	26.7564	1,403
Paper, Printing and Related Manufacturing	$58,268,269	18.4304	1,074
Primary Metals and Machinery Manufacturing	-$451,581,723	14.9916	(6,770)
Computer and Electronic Manufacturing	-$162,120,711	19.4322	(3150)
Publishing except internet	$107,897,108	19.7584	2,132
Professional, Scientific and Technical Services	-$252,025,466	24.643	(6,211)
Total Jobs			**48,086**

13

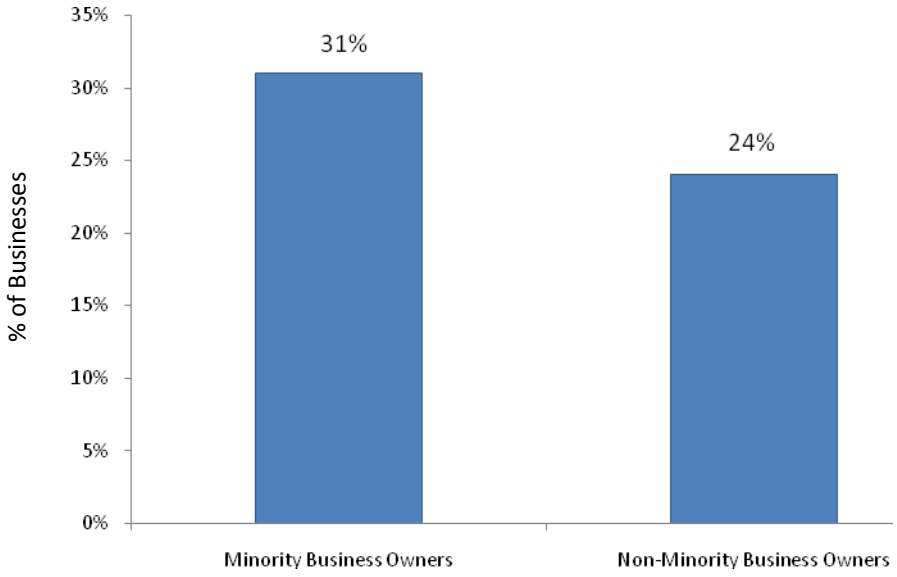
Spatial Impact of Minority-Owned Firms

In major central cities, minorities are more likely than non-minorities to locate their businesses in high poverty areas. This creates the potential for enhancing economic opportunity and revitalization of some of the nation's most distressed urban communities.

Paul Ong and Anastasia Loukaitou-Sideris observed that globalization and economic restructuring have placed minority communities in a vicious circle of concentrated poverty and inequality. They note that spatial restructuring has been accompanied by an increasing geographic separation of people from jobs. "Caught in a vicious circle, disadvantaged communities concentrate poverty and accentuate inequality as they segregate and isolate poor people of color. Their location often denies residents access to employment and business opportunities and may hinder civic and political participation." (*Jobs and Economic Development in Minority Communities* (Philadelphia: Temple Univ: 1). However, the authors also note that minority-owned businesses are counterweights to this tendency.

Figure 6

Percent of Businesses in High Poverty Areas



Number of Minority Businesses examined = 3,832

Number of Non-Minority Businesses examined = 3,011

In the final section of the report, we selected fourteen central city locations and examined the location pattern of CCR firms in these cities. Our results document the validity of Ong's observation. Figure 6 indicates that 31% of minority businesses listed in CCR are located in high poverty areas of large central cities. High poverty areas are defined as census tracts where 20% or greater of the 2000 population lived in poverty. In contrast, only 24% of the businesses owned by non-minority persons were located in high poverty areas.

Table 30 shows that the percent of minority-owned businesses in high poverty areas of central cities varies significantly. The concentration is highest in Baltimore (69%) and Philadelphia (60%) and lowest in Chicago (17%) and Atlanta (18%).

Table 30

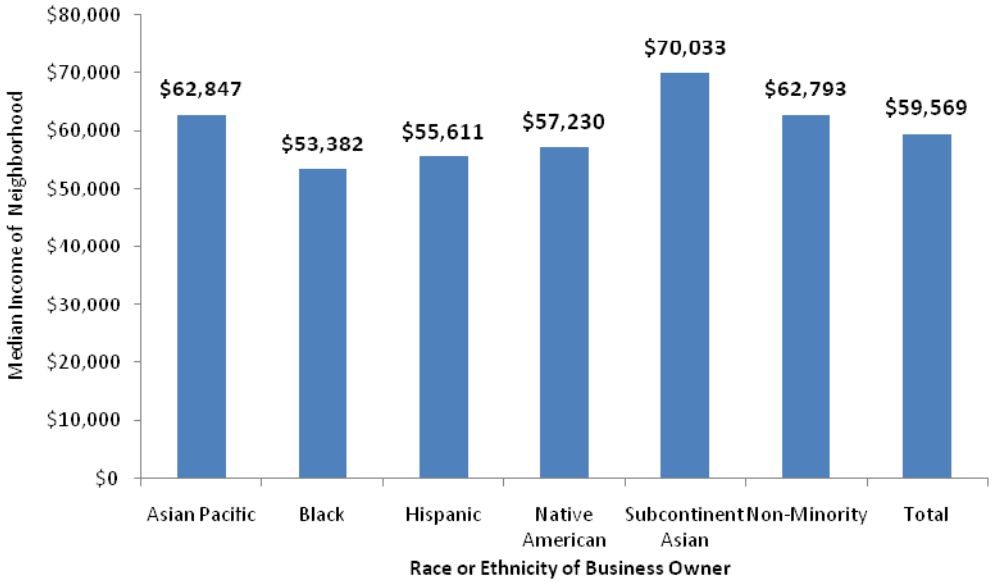
Number and Percent of Minority-Owned Businesses in High and Low Poverty Areas† of Central Cities

City	High Poverty Area		Low Poverty Area		Total Number
	Number	Percent	Number	Percent	
Atlanta	65	17.6%	304	82.4%	369
Baltimore	78	69.0%	35	31.0%	113
Boston	15	48.4%	16	51.6%	31
Chicago	71	17.4%	338	82.6%	409
Cleveland	47	40.9%	68	59.1%	115
Dallas + Houston	190	23.3%	624	76.7%	814
Detroit	77	50.3%	76	49.7%	153
District of Columbia	174	41.7%	243	58.3%	417
Miami	66	25.1%	197	74.9%	263
New York City	109	38.0%	178	62.0%	287
Philadelphia	49	59.8%	33	40.2%	82
San Francisco+ Los Angeles	242	31.1%	537	68.9%	779
Group Total	**1,183**	**30.9%**	**2,649**	**69.1%**	**3,832**

† High Poverty Area = Poverty Rate of 20% or Higher, Low Poverty Area = Poverty Rate less than 20%.

Figure 7

Median Income of Neighborhoods by Race and Ethnicity, 1999



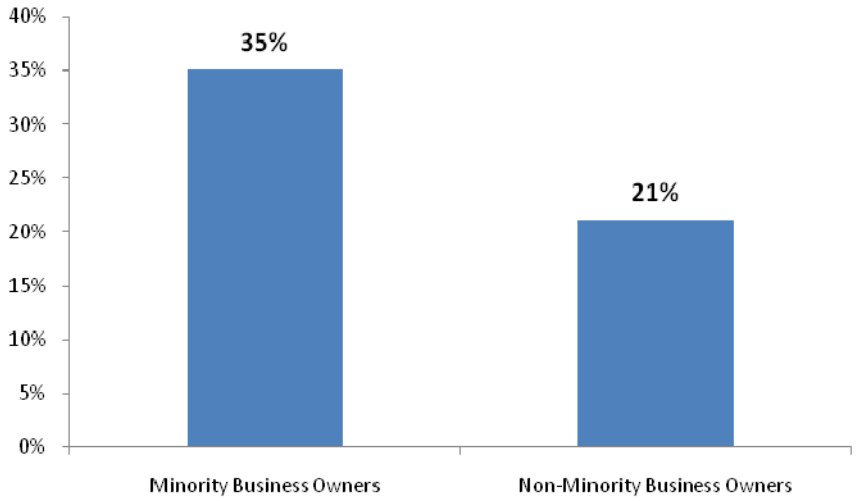
Among all racial and ethnic groups, Black-owned businesses are located in central city neighborhoods with the lowest median family income. Subcontinent Asians locate their businesses in the highest income neighborhoods.

While minorities are more likely than non-minorities to locate low skilled businesses in high poverty areas, they are even more likely to locate high skilled businesses (such as Information Technology, Professional, Scientific and Technical Businesses) in High Poverty areas. Both types of businesses are critical for stimulating economic

development in distressed areas. Numerous studies have documented a spatial mismatch (or significant geographic imbalance) between where minorities lives and where jobs are located; both low skilled and high skilled jobs.

Figure 8

Percent of High Skilled Businesses in High Poverty Neighborhoods



This report found that in central cities, minorities are more likely than non-minorities to locate low skilled businesses (such as construction and wholesale) in high poverty areas. This has the potential for creating jobs for local residents. Figures 8 and 9 show that 35% and 37%, of high and low skilled businesses, owned by minorities, are located in high poverty areas. In contrast, 21% and 27% of high skilled and low skilled businesses owned by non-minorities are located in these areas respectively.

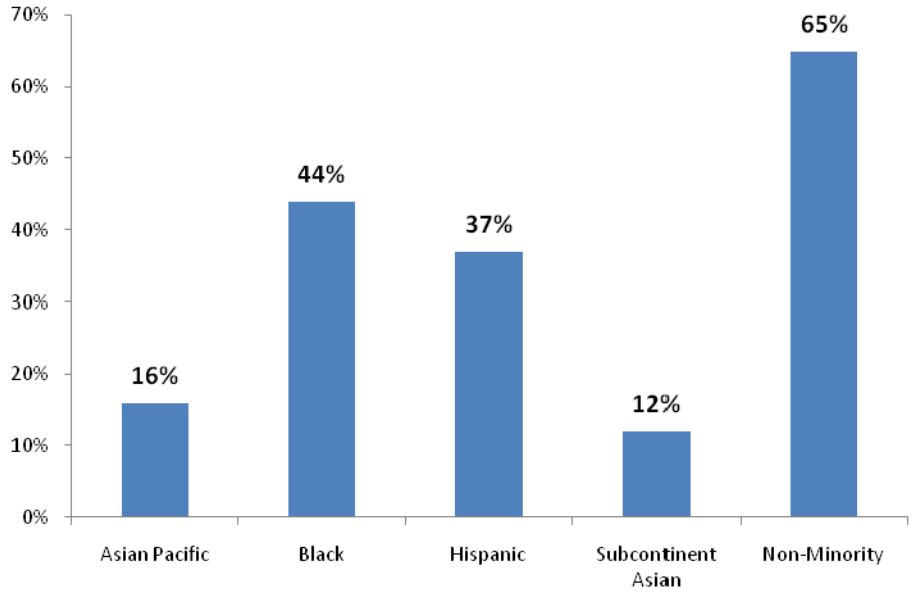
On an average, Black-owned businesses are located in Central City areas where the population is 44% Black. Hispanic-owned businesses locate in neighborhoods that are 37% Hispanic (See Figure 10).

Figure 9

Percent of Low Skilled Businesses in High Poverty Neighborhoods

Figure 10

Race/Ethnic Composition of Central City Areas where Businesses are Located



Overall, the spatial analysis indicates that minority-owned businesses registered with CCR have the potential to make a significant economic impact in distressed central city areas. Not only are minority business owners more likely to locate both high skilled and low skill businesses in high poverty areas, Blacks and Hispanic business owners tend to locate their business in neighborhoods where there are higher concentrations of their own ethnic group. Given the disproportionate unemployment and poverty among Blacks and Hispanics, these businesses represent a valuable resource to the nation's well-being.