COMPETITIVE AND SPECIAL COMPETITIVE OPPORTUNITY GAP ANALYSIS OF THE 7(A) AND 504 PROGRAMS

Final Report

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INTRODUCTION

One of the SBA's strategic goals is to "increase small business success by bridging competitive opportunity gaps facing entrepreneurs" (SBA 2004). "Competitive opportunity gaps exist when market or other conditions prevent small businesses from taking advantage of private financing or from competing for work contracts" (SBA 2004). Some of these businesses are owned by "groups that own and control little productive capital because they have limited opportunities for small business ownership" (SBA 2004). These groups consist of minorities, women, and veterans, or those who conduct business in rural or distressed urban areas (SBA 2004). Businesses whose owners belong to these special categories are deemed to face special competitive opportunity gaps (SCOGs).

The SBA Office of Capital Access helps bridge competitive opportunity gaps by encouraging lending to small businesses that otherwise would not qualify for financing which is not guaranteed, obtain equity, or take advantage of procurement opportunities. The research presented here will focus on two selected Office of Capital Access lending programs—the 7(a) Loan Guaranty Program (the 7(a) Program) and the Certified Development Company (CDC) 504 Loan Program (the 504 Program). For the purposes of this report, we define "competitive opportunity gaps" to mean the same as "capital gaps," which have received extensive treatment in the literature.

The two SBA programs included in this study were created to ameliorate "imperfections in the Nation's capital markets result in allocating to the small business sector of the economy less capital than would be allocated by a properly functioning financial system operating solely on the potential profitability of its use" (Garvin 1971). An early (1958) Federal Reserve report to the House and Senate Banking and Currency and Small Business Committees referenced background studies showing that "there is an unfilled margin, perhaps a rather thin one, between the volume of funds available to small concerns in general, and to new firms in particular, and the volume that could be put to use without prohibitive risk" (Garvin 1971).

Small businesses may face capital gaps because of a variety of reasons, including the risky nature of small businesses, especially start-ups; the difficulties of assessing credit-worthiness; the heterogeneity of small firms, which complicates development of underwriting standards; and the high costs of underwriting small business loans. In addition to these risks, small businesses often lack detailed balance sheets and other financial information that lenders typically use to underwrite a business loan application. This lack of information leads to "informational opacity" that increases the costs for potential credit providers to evaluate small business loan applications. While credit scoring of business has been used to assess risk in consumer lending for over three decades, it has only began in small business lending in the past decade. Further, it is unclear to date how reliable such information will prove in assessing small business risk (Board of Governors of the Federal Reserve System 2002).



Among small businesses, all of which may face a capital gap, women, minority, and veteran owners, and firms located in rural or special economic development zones are thought, whether due to historical legacy, current disparities, or discrimination, to face more extensive barriers to securing capital. Several studies have found differential treatment of these groups with respect to loan approval, loan amount and terms, controlling for business and credit risk.¹

KEY FINDINGS

This study analyzes the extent to which the SBA's 7(a) and 504 Programs serve borrowers who face a capital opportunity gap. It addresses this issue with two analytical components:

- A comparative analysis that examines differences between the businesses that
 received loans under the 7(a) and 504 Programs between 2001 and 2004 and
 firms that received conventional (non-guaranteed) small business loans during the
 same time period. The comparative analysis also measures differences in the
 interest rates and loan terms between these two groups of borrowers.
- A market penetration analysis that measures the share of creditworthy small businesses that seek loans but cannot meet conventional lenders' small business lending underwriting standards.

The comparative analysis, detailed later in this report, shows that women- and minority-owned firms (which historically faced a capital opportunity gap) accounted for a higher share of the loans made under the 7(a) and 504 Programs between 2001 and 2004 as compared to such firms' share of conventional small business loans during the same time period. The analysis also shows that, consistent with the SBA's mission of serving firms that cannot get credit elsewhere, start-up firms accounted for a larger share of lending volume under the 7(a) and 504 Programs than conventional small business lending. In addition to serving a higher share of start-ups, loans made under the 7(a) and 504 Programs went to firms that, on average, had lower sales volume and fewer employees than firms that received conventional small business loans.

Despite higher risks associated with firms that received loans under the 7(a) and 504 Programs between 2001 and 2004, ² firms received variable rate loans under the 7(a) Program for amounts that, on average, were almost identical in size to conventional variable rate loans

¹ See, for example, Blanchflower et al. 2003; Cavalluzzo et al. 2002; Coleman 2002; Brush et al. 2001; Greene et al. 2001; Cavalluzzo and Cavalluzzo 1998; Bates 1997; and Berger and Udell 1995.

² Start-up firms and smaller firms (measured by sales volume and number of employees) are considered by lenders to be more risky than established firms and companies with larger sales volume and employees.



received by small businesses.³ While SBA loan recipients paid higher interest rates than conventional small businesses for their variable rate loans, their loans had, on average, longer terms, and so payments were amortized over longer periods.

These differences suggest that SBA's 7(a) and 504 Programs served borrowers who face a capital opportunity gap. Women- and minority-owned firms, as well as start-up firms (all of which face capital opportunity gaps) accounted for a larger share of loans made under the two programs than these firms' share of conventional small business loans. Moreover, firms that received 7(a) and 504 Program loans, on average, had lower sales volume and fewer employees (and so were more risky) than firms that received conventional small business loans.

The two Programs are not limited to any one region of the country: there were no sizeable differences in the location (measured by a firm's Census division, or whether it was in a urban versus rural location) of firms that received a 7(a) or 504 Program loan to firms that received a conventional small business loan.

Consistent with the comparative analysis results, the market share analysis suggests that the 7(a) and 504 Programs serve firms that face a capital opportunity gap. Overall, the 7(a) and 504 Program loans have a greater penetration within markets that consist of creditworthy women-, minority-owned firms and start-up firms that do not meet standard small business lending underwriting standards as compared to other types of markets.

PROGRAM BACKGROUND⁴

Before discussing the methods employed to conduct the Comparative Analysis and Market Penetration Analysis, we present a short background on the 7(a) and 504 loan programs. Both of the SBA programs studied here have the effect of making capital available to small businesses that might otherwise have difficulty accessing funds. SBA's largest programs, they are similar in that they provide large amounts of money to businesses that have been denied credit by private funding sources. But, the programs differ in their scope, vehicle, and purpose.

³ Loans made under the 504 Program only include fixed-rate loans that typically have a term of between 20 and 25 years. Because these loans are real estate-related, they are for larger amounts than loans made under the 7(a) Program. As a result, our comparative analysis regarding loan amount, interest rates and term differentiates variable and fixed rate loans under the SBA Programs.

⁴ Portions of this section are drawn from Brash, 2007, Public Sector Duplication Of Small Business Administration Loan and Investment Programs; an earlier report submitted by the Urban Institute as part of this contract.

⁵ SBA defines firms as small businesses by establishing maximum thresholds for the number of employees or annual revenues by industry.



The 7(a) program provides loan financing to small businesses deemed unable to obtain financial assistance on reasonable terms in the private credit markets. The 7(a) program is delivered by private lenders that make, service, and liquidate loans. Under the program, the SBA guarantees up to 85 percent of principal and interest of any loan. Lenders set loan terms and conditions according to the purpose of the loan and form of collateral, loan size, and perceived risk, consistent with maximum rates and terms set by SBA. SBA charges a loan guarantee fee, which is usually paid by the borrower. The maximum amount that the SBA guarantees under the 7(a) program is \$1.5 million. Interest rates are negotiated between the borrower and the lender, but are subject to SBA maximums, which are pegged to the prime rate. Businesses can use 7(a) loans to finance working capital and fixed assets, and for limited refinancing of existing debt. Refinancing is permitted in very limited cases. These attributes are summarized in Table 1 below.

Like the 7(a) program, the 504 program provides loan financing to small businesses deemed unable to obtain financial assistance on reasonable terms in the private credit market. It differs from the 7(a) program in three significant ways: (1) loans obtained through the program can only be used for fixed assets (i.e., land and buildings), (2) the 504 loans have fixed interest rates (under the 7(a) program, rates are fixed or variable), and (3) loan thresholds are significantly higher. Under the 504 program, businesses obtain loans through a certified development company (CDC), a local nonprofit organization that works with the SBA, and a private-sector lender. There are about 270 CDC's nationwide. The typical 504 project includes a loan secured with a senior lien from a private-sector lender, covering up to 50 percent of the project cost; a loan secured with a junior lien from a CDC, covering 40 percent of the project cost (backed by a 100 percent SBA-guaranteed debenture); and a contribution of at least 10 percent equity from the small business. The maximum debenture for businesses is \$1.5 million. But for small manufacturers, the maximum debenture is considerably higher, at \$4 million. Refinancing is permitted under the 504 program in very limited circumstances. Interest rates are pegged to an increment above the current market rate for five- and ten-year U.S. Treasury issues. Program fees are approximately three percent and can be financed with the loan.

In order to ensure that SBA programs serve such borrowers, lenders that originate loans with an SBA guaranty (SBA loans) as a part of either the 7(a) or 504 programs must certify that the borrower would not have received "credit elsewhere." A borrower may be certified by a lender as having met the credit elsewhere requirement if the only alternative loan that is available without the SBA guaranty has rates and terms that are not the same as those associated with the guaranteed loan. A lender may substantiate that a borrower meets the credit elsewhere requirement if that borrower could not receive a loan on reasonable terms without the guaranty. In general, loans are defined as having reasonable terms if they are originated with a loan amount, amortization period, and interest rate that are within the repayment ability of the borrower (SBA 2000).



Table 1: Overview of SBA 7(a) and 504 Programs

Program	Program Type	Use of Proceeds	Maximum SBA Exposure	Does program have a "credit elsewhere" requirement?	Number of Loans, 2001 - 2004	Loan Volume, 2001-2004
Section 7(a) Loan Guarantee	Loan guarantee	Working capital, fixed assets, and other general business purposes	\$1.5 million	Yes	212,223	\$40.5 billion
CDC 504 Loan Program	Debenture guarantee	Fixed assets only	\$4 million	Yes	20,124	\$8.9 billion

METHODOLOGY

This analysis investigated the extent to which the 7(a) and 504 SBA programs facilitate capital availability for firms that would otherwise not be served by alternative capital providers. To that end, we constructed a two-tiered analysis. The Comparative Analysis highlights differences and similarities between SBA and non-SBA assisted firms while the Market Penetration Analysis documents the share of the market of small business interested in and eligible for debt financing that is reached by the 7(a) and 504 programs. These two components are described in detail below. A discussion of the data sources used for analysis precedes them.

Data Sources

The Comparative Analysis and Market Penetration Analysis relied on data gathered from the 2003 Survey of Small Business Finances (SSBF), SBA administrative data for the 7(a) and 504 loan guaranty programs, and Dun and Bradstreet matched data on SBA assisted firms. SBA collects relevant firm, owner, and loan characteristics at the time of application, contained in the Loan Accounting System. This information is selectively updated through the purchasing of credit and performance data from Dun and Bradstreet, contained in the Lender Monitoring System. SBA provided these data at both the loan- and firm-level for the two programs. With a few exceptions due to data availability, we analyzed firm and owner characteristics with firm-level data and loan characteristics with loan-level data. Data were analyzed for the years 2001 to 2004, as this is period during which the 2003 SSBF was collected.⁶

⁶ The 2003 SSBF was collected from 2004 to 2005. For a complete discussion of the 2003 SSBF data collection efforts and sampling methodology see The 2003 Survey of Small Business Finances, Methodology Report. http://www.federalreserve.gov/pubs/oss/oss3/ssbf03/methodology/method report.pdf.



The Survey of Small Business Finances, collected by the Federal Reserve, provided the comparison data source. Published every five years, it is most comprehensive national, recurrent data source of small business financing and owner characteristics. A stratified random sample drawn from more than 10 million Dun and Bradstreet small business records, it records the responses of 4,240 small businesses. The SSBF includes data on firms' financial information (balance sheet information, creditworthiness, number of employees, and firm ownership), debt and equity information (whether a firm applied for and received a loan in the past three years, loan type, terms, and amount, whether a firm failed to apply fearing denial, and whether the firm received venture capital or other forms of equity investments), as well as information on the firm's business sector, ownership demographics, and other variables.

The SSBF captures both conventional small business lending and government assisted lending. Our comparisons analyzed differences between conventional and SBA guaranteed loans. Therefore, we had to exclude SBA loans from the SSBF data. Unfortunately, the SSBF does not directly ask whether the firms sampled received SBA guaranteed loans. However the survey does ask what each surveyed firm's top three reasons for pursuing credit from a particular lender were, where one answer choice in each question is, "SBA loan availability or assistance." In order to prevent firms receiving SBA loans from appearing in both the conventional and SBA comparison groups, firms which selected this repose were removed from the SSBF sample for both the Comparative Analysis and the Market Penetration Analysis.

Comparative Analysis

The comparative analysis is a "book-to-book" comparison of firms receiving loans conventionally and through the 7(a) and 504 SBA loan guaranty programs. We restricted this analysis to loans with a term greater than 12 months, since such loans are very short-term sources of capital.⁸ Using the SBA administrative, Dun and Bradstreet, and SSBF information, we compared firms in two groups: (1) those that received loans under the 7(a) and 504 Programs and (2) those that received conventional small business loans. For each group we calculated the share of loans for different geographic (e.g. rural vs. urban and different regions of the country), owner demographic, industry sector, and other sub-groups. We compared these distributions—by number and lending volume—to firms identified in the SSBF that received a loan within the last three years (2001 to 2004). The comparative analysis is used to determine if firms that face

⁷ Each respondent firm is represented as five records by the Federal Reserve, allowing for multiple imputed values. We used all five imputations in constructing confidence intervals. For further information, see Board of Governors of the Federal Reserve System, 2006.

⁸ Firms that received a loan with a term of 12 months or less were excluded from both the SSBF and SBA databases in order to construct comparable samples. Forty-three percent of firms in the SSBF who received financing did so with a term of 12 months or less, while under 1 percent of firms receiving a SBA guaranteed loan had a loan with a term of 12 months or less.



capital opportunity gaps (women-, minority-owned and start-up firms) accounted for a larger share of 7(a) and 504 Program loans as compared to conventional small business loans. To the extent that such borrowers comprise a larger share of 7(a) and 504 Program loans, it suggests that the Programs are meeting capital opportunity gaps.

Market Penetration Analysis

In other studies of SBA's market penetration, analysts have compared SBA's lending volume to overall small business lending or to the number of small businesses in the country. These approaches are flawed. SBA programs, by definition are only supposed to be originated to firms that could not get credit elsewhere. SBA's share of overall small business lending is based on factors beyond its control: the underwriting standards used by conventional lenders to qualify small businesses for a loan and the creditworthiness of small businesses applying for small business loans. Consequently, SBA's share of small business lending for a given period will fluctuate based on the types of conventional small business loan products offered by lenders and the credit quality of small businesses that submitted loan applications. As a result, is it is not appropriate to measure SBA's market penetration by comparing the volume of loans with a SBA guaranty to overall small business lending. Moreover, not every small business wants or needs a loan; many small businesses raise capital through equity investments. It is therefore not correct to measure SBA's market penetration by comparing the number of small businesses receiving SBA loans to the total number of small businesses.

In light of these flaws, the market penetration analysis defined SBA's target market as follows: firms that (1) had a demand for a loan, (2) met the credit elsewhere requirement (and so could not qualify for a conventional small business loans) and (3) were as creditworthy as other firms that received small business loans. Such firms constitute SBA's total potential market, since they exclude firms that did not want a loan, could get a conventional loan, or were insufficiently creditworthy to qualify for a loan even with an SBA guaranty. As detailed below, we identified such firms with data from the 2003 SSBF and used this information to compare SBA's market penetration of particular market sectors, defined by region, industry, and type of owner.

SSBF respondents were asked if, during the past three years, they wanted a loan, but did not apply for one because they thought that their application would be denied. Such firms have a demand for loans, but believe that they do not meet conventional small business lending guidelines (and so meet the SBA's credit elsewhere requirement). Some of these firms, however, may not be creditworthy to qualify for loans even with an SBA guaranty. In order to limit our analysis to creditworthy firms, we only included firms in our market penetration analysis

⁹ See for example Government Accountability Office, 2007 and Rugy, 2006. These flawed studies often conclude that because SBA loans are such a small share of overall small business lending, they have little marginal effect on the availability of small business loans.



that had a Dun and Bradstreet Commercial Credit Score (which is reported in the SSBF) greater than 50 percent of firms that responded to the SSBF that received a loan.¹⁰

Of firms that said they wanted a loan but did not apply for one; 40 percent of firms were categorized as not being creditworthy and excluded from the analysis. With these steps we identified firms in the SSBF sample that met the following two criteria: (1) they indicated that they wanted a loan, but did not apply for one and (2) are more creditworthy than 50 percent of the firms that received a loan. Firms that met the above two criteria, in principle, constitute SBA's total potential market: there is a demand for a loan, the company is creditworthy and meets SBA's credit elsewhere requirement.

We calculated, by region, industry and borrower type the ratio of firms receiving a loan with a 7(a) or 504 guaranty between 2001 and 2004 to firms identified in the SSBF as having a demand for a loan and meeting the credit elsewhere requirement. These ratios provide SBA with information about the extent to which it is meeting the demand for loans among firms that would like a loan, but do not qualify for conventional small business loans. In constructing the Market Share Analysis, we combined the 7(a) and 504 programs combined because the SSBF does not ask respondents about the intended purpose for the loan that was either denied or for which the respondent never submitted an application.

FINDINGS

Comparative Analysis

We begin this section with the results of our comparative analysis of differences between the types of firms that received loans under the 7(a) and 504 programs to firms that received conventional small business loans. In short, firms that received loans under the 7(a) and 504 loan programs were very different from firms that received conventional small business loans, suggesting that the programs served different types of borrowers. Firms that received loans under the two SBA programs were more likely to be minority- or women-owned businesses than firms that received conventional small business loans. The 7(a) and 504 programs served firms that were more risky than firms that received conventional small business loans, as (1) start-up companies comprised a higher share of loans made under the SBA programs than firms that received conventional small business loans had lower

¹⁰ The Commercial Credit Score predicts the likelihood of a company becoming severely delinquent (i.e. more than 90 days past due) over the next 12 months. It is a percentile based on the distribution of all scorable businesses in Dun and Bradstreet's U.S. Business Database. SBA data includes information about the creditworthiness of the firms with loans with a guaranty. Unfortunately, this measure is not comparable to the Commercial Credit Score in the SSBF data. Therefore, we could not identify SSBF respondent firms that were as creditworthy as firms that received an SBA loan.



annual sales volume and a smaller number of employees than firms that received conventional small business loans. While loans made under the 7(a) and 504 programs were broadly similar in terms of industry concentration when compared with conventional loans, SBA loans were more likely to occur in the retail sector, while conventional loans were originated in the finance, insurance, and real estate sector (FIRE) at a much higher level. Differences between the SBA and conventional loans were not strongly evident for geographic classifications.

Our analyses then compared differences in loan characteristics between the SBA and conventional small business loans. Firms received variable rate loans under the 7(a) program for amounts that were almost identical in size to the conventional variable rate loans received by small businesses. While SBA loan recipients paid higher interest rates than small businesses for conventional variable rate loans, their loans had, on average, longer terms. These findings are presented below in detail. Similarities and differences between SBA and conventional lending are assessed by firm industry, geography, ownership characteristics, firm age, annual sales, number of employees, and loan amount, interest rate, and maturity term.

Firms in the retail trade sector accounted for a larger share of firms that received 7(a) and 504 loans between 2001 and 2004 as compared to firms that received conventional small business loans during the same period. Firms within this category received 29 percent of SBA loans, as compared to 17 percent of conventional small business loans (Table 2). When measured by dollar volume of loans, two sectors, retail trade and services, represented a substantially larger loan volumes, as compared conventional small business loans. Service and retail firms received 66 percent of the total dollar volume of 7(a) and 504 loans made during the period, 25 percentage points more than the total dollar amount of conventional small business loans to firms in those industry sectors.

Alternatively, firms in the FIRE sector received a much higher share of conventional small business loans when measured by the number of loans of dollar volume of loans than such firms that received 7(a) and 504 loans. Between 2001 and 2004 firms in the FIRE sector accounted for 3.4 percent of 7(a) and 504 loans, while these firms accounted for 6.2 percent of the number of all small business loans and 25.3 percent of the dollar volume of conventional small business loans (Table 2). It may be that firms in the retail sector, as compared to the finance, real estate and insurance sector are more likely to fail, or have more specialized collateral, making them more risky. Differences between SBA guaranteed and conventional lending across other industry sectors, including manufacturing, construction, transportation, and wholesale trade, are modest.



Table 2: Comparison by Industry of Firms that Received 7(a) and 504 SBA Loans to Conventional Small Business Loans Made between 2001 and 2004

	Number of Loans		Dollar \	Volume
Industry	Percentage of SBA Loan Recipients	Percentage of Conventional Small Business Loan Recipients	Percentage of SBA Loan Recipients	Percentage of Conventional Small Business Loan Recipients
Agriculture	2.8	0.0	2.9	0.0
Mining	0.1	0.5	0.2	0.4
Construction	7.3	14.0	5.8	8.0
Manufacturing	8.3	8.9	10.9	11.7
Transportation/Public Utilities	3.4	5.6	2.8	5.3
Wholesale Trade	7.0	4.3	7.6	8.5
Retail Trade	29.1	17.1	27.8	14.2
Finance, Insurance and Real Estate (FIRE)	3.4	6.2	3.4	25.3
Services	38.5	43.4	38.5	26.7
Public Administration	0.1	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.1

Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans.

Note: Totals do not sum to 100.0 due to rounding.

Table 3: Comparison by Census Division of Firms that Received 7(a) and 504 SBA Loans and Conventional Small Business Loans Made between 2001 and 2004

	Number of Loans		Dollar Volume		
Census Division	Percentage of SBA Loan Recipients	Percentage of Conventional Small Business Loan Recipients	Percentage of SBA Loan Recipients	Percentage of Conventional Small Business Loan Recipients	Percentage of Total Population
New England	9.2	6.4	5.6	9.0	4.9
Middle Atlantic	13.5	11.4	10.7	6.0	14.1
East North Central	11.3	18.4	11.7	16.7	16.0
West North Central	7.7	8.5	7.1	14.4	6.8
South Atlantic	14.6	20.0	14.3	23.6	18.4
East South Central	2.8	5.2	3.0	5.1	6.0
West South Central	10.3	10.0	10.8	6.5	11.2
Mountain	9.6	8.7	10.4	6.8	6.5
Pacific	21.0	11.4	26.3	11.9	16.0
Total	100.0	100.0	100.0	100.0	99.9

Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans, population data taken from 2000 Decennial Census.

Note: Totals do not sum to 100.0 due to rounding.



There were relatively minor differences in the location, measured by the Census division of the headquarters or main office, of firms that received 7(a) and 504 program loans and firms that received conventional small business loans. Whether measured by the number of loans or the dollar volume of loans, firms located in the Pacific Census division received the greatest share of 7(a) and 504 program loans, followed by firms located in the South Atlantic division. Firms located in the South Atlantic division received the most conventional small business loans, by number and amount, followed by the East North Central division. 7(a) and conventional loans were fairly evenly distributed across the remaining Census divisions. The East South Central division received the fewest number of loans and smallest loan volume for lending to firms receiving both the 7(a) and 504 and conventional debt financing (Table 3).

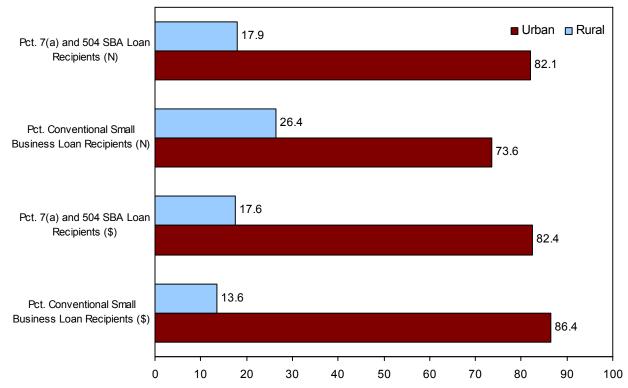
Similarly, there were modest differences in the percentage of firms located in urban areas that received 7(a) and 504 program loans compared to the percentage for such firms that received conventional small business loans. About 82 percent of firms that received 7(a) and 504 program loans between 2001 and 2004 were located in urban areas, compared to 74 percent of all firms that received small business loans. However, urban firms that received loans under the 7(a) and 504 programs accounted for 82 percent of SBA loans' dollar volume made between 2001 and 2004, four percentage points less than proportion of conventional small business loan dollar volume made to firms located in urban areas (Figure 1). Loans made under the 7(a) and 504 Programs in rural areas are about the same amount as such loans in urban areas. In contrast, conventional small business loans in rural areas are about half of the amount of conventional small business loans in urban areas. GAO (2007) found that 14 percent of loans guaranteed by the 7(a) program went to economically distressed communities, compared with 10 percent for conventional loans, suggesting SBA loans may be somewhat more invested in low-income areas.

¹¹ SBA loans to firms located in Puerto Rico were excluded from these analyses in order to mirror the SSBF sampling frame.

¹² Firms were designated as urban if they are located within a Metropolitan Statistical Area, and rural if they are located in a rural county.



Figure 1: Comparison, by Rural/Urban Location of Firms that Received 7(a) and 504 SBA Loans and Conventional Small Business Loans, by Number of Loans and Dollar Volume between 2001 and 2004



Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans.



While there were small differences in the industry sector or location between firms that received loans from the 7(a) and 504 programs and conventional small business loans, 7(a) and 504 program loans were much more likely to me made to minority-owned, women-owned and start-up businesses than conventional loans to small businesses. Further, such borrowers received loans for about the same amount as all 7(a) and 504 loans, in contrast to conventional small business lenders, which made much smaller loans to minority-owned, women-owned and start-up businesses. Minority-owned businesses received 27 percent of 7(a) and 504 program loans and 28.5 percent of total such loan volume between 2001 and 2004, compared with ten percent of the number of conventional small business loans made to minority-owned businesses and 5.5 percent of the total dollar volume of these loans. Women-owned businesses were five percentage points more likely to receive loans under the SBA 7(a) and 504 programs than conventionally, and received nearly four times the dollar amount of financing. Start up businesses comprised 24.4 percent of 7(a) and 504 loans, but just 12.2 percent of conventional loans. By dollar volume, 22.7 percent of 7(a) and 504 financing went to start-ups, nearly a four fold increase over conventional lending (Table 4).

Table 4: Comparison of Characteristics of Firms that Received 7(a) and 504 SBA Loans and Conventional Small Business Loans Made between 2001 and 2004

	Numbe	r of Loans	Dollar \	Volume
	Percentage of 7(a) and 504 Conventional Small SBA Loan Recipients Percentage of Conventional Small Recipients		Percentage of 7(a) and 504 SBA Loan Recipients	Percentage of Conventional Small Business Loan Recipients
Minority-Owned Businesses (>50%)	27.0	9.9	28.5	5.5
Women-Owned Businesses (>50%)	21.3	16.0	16.2	4.4
Start-up Businesses	24.4	12.2	22.7	6.1

Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans.

As shown by the fact that minority-owned businesses account for roughly the same percentage of the number of 7(a) and 504 program loans and the dollar volume of these loans, the mean amount of loans received by minority-owned businesses under the 7(a) and 504

¹³ The U.S. Census Bureau administers the Survey of Business Owners (SBO) every five years as a part of the Economic Census. It found, using a different sampling frame, that minorities represented 17.9 percent of all business owners. See http://www.census.gov/csd/sbo/ for more information and Mach and Wolken (2006) for more information.

¹⁴ SBA defines start-up businesses as those firms which were founded within two years of receiving financing. A comparable measure was created for the SSBF, where firms established at or within two years of applying for the loan in question were designated as start-ups.



programs, \$238,000, was close to the \$220,000 mean loans amount made to non-minority owned businesses. This is not the case for minority-owned businesses that received conventional small business loans. The mean amount for conventional small business loans to minority-owned businesses was \$159,000, nearly half of the mean loan amount of \$301,000 made to non minority-owned businesses (Table 5).

The pattern is the same for women-owned businesses. The mean amount for women-owned businesses that received 7(a) and 504 program loans was \$162,000, compared to a slightly higher \$228,000 for such loans made to non women-owned firms. In contrast, the mean conventional small business loan amount made to women-owned firms was \$78,000, or one-quarter of the \$327,000 mean conventional small business loan amount made to non women-owned firms (Table 5).

Start-up businesses received an average loan of \$209,000, compared to \$230,000 for existing businesses. Conventional small business loans to start-up businesses, on average, were for an amount (\$147,000) that was one-half of the average conventional small business loan (\$301,000) made to existing businesses (Table 5).

Table 5: Comparison of Mean Loan Amounts, by Borrower Characteristic, for 7(a) and 504 Loans to Conventional Small Business Loans: 2001-2004

	Mean Loan Amount	
	7(a) and 504 Loans	Conventional Small Business Loans
Minority-Owned Businesses	\$220,366	\$159,185
Non Minority-Owned Businesses	\$237,697	\$300,916
Women-Owned Businesses	\$162,399	\$78,237
Non Women-Owned Businesses	\$227,932	\$326,501
Start-up Businesses	\$208,988	\$146,774
Existing Businesses	\$229,688	\$300,516

Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans.

Compared to firms that received a conventional small business loan between 2001 and 2004, firms that received a 7(a) or 504 program loan in the same period had much lower levels of annual sales and, on average, fewer employees. Firms that received loans under the 7(a) and 504 programs between 2001 and 2004 had a mean sales volume of \$404,000, which is less than one-quarter of the mean \$1.7 million average sales volume for all firms that received a small business loan during the same period. The median sales volume for the two groups of firms is also very different: \$1,429 compared to \$335,000 for firms that received a loan under the 7(a) or 504 program and conventional small business loan recipients, respectively. Both types of firms have about the same number of median employees (4 for 7(a) and 504 firms, 5



for conventional firms), but firms that received a 7(a) or 504 program loan, on average, employed nine staff, compared to 13 for firms that received a conventional small business loan (Table 6).

Table 6: Comparison of Characteristics of Firms that Received 7(a) and 504 SBA Loans to Firms that Received Conventional Small Business Loans Made between 2001 and 2004

	7(a) and 504 SBA Loans*	Conventional Small Business Loans
Median Annual Sales	\$1,429	\$335,000
Mean Annual Sales	\$403,748	\$1,721,862
Median Number of Employees	4.0	5.0
Mean Number of Employees	9.0	13.0

Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans .

Lenders, in interviews conducted as part of another study that asked about their use of SBA programs, said that they used the SBA loan programs to make loans with longer terms than their conventional small business loan products (Temkin and Theodos 2008). In general, lenders said that they did not make conventional loans with a term longer than five years, compared to SBA loan products that had seven year terms. The SBA and SSBF data summarized below is consistent with these claims. Overall, the median loan term for conventional small business loans, either with fixed or variable interest rates was 60 months, or five years. In contrast, 7(a) and 504 SBA loans with a variable interest rate had a median term of 84 months (or seven years). The median term for SBA fixed loans was 120 months, or 10 years (Table 7). The reason for the difference in term between the SBA fixed and variable interest rate loans is that most of the fixed rate loans included in the SBA data were 20 year loans made under the 504 program. All of the variable interest rate loans included in the SBA data were made under the 7(a) program.

Table 7: Comparison of Loan Characteristics for Firms that Received a 7(a) or 504 SBA Loans to Conventional Small Business Loans Made between 2001 and 2004

	Fixed Interest Rate Loans		Variable Interest Rate Loans	
Loan Characteristic	7(a) and 504 Conventional Small SBA Loans Business Loans		7(a) and 504 SBA Loans	Conventional Small Business Loans
Median Loan Term	120	60	84	60
Median Loan Amount	\$163,000	\$34,000	\$99,000	\$100,000
Median Interest Rate	6.07	6.50	7.18	5.25

Sources: SBA administrative data for SBA loans, 2003 SSBF for conventional small business loans.

^{*} Start-up firms with no annual sales are excluded from this table.



The median amount for loans made under the 7(a) and 504 programs with a variable interest rate is nearly identical for the median loan amount to conventional small business loans with a variable interest rate, both about \$100,000. Conversely, the median loan amount for fixed rate SBA loans is \$163,000 as compared to \$34,000 for all fixed rate small business loans. The reason for this difference is that the real estate loans made under the 504 program were for larger amounts. Most non-504 program loans made for real estate purposes do not have fixed interest rates.

It is important to remember that these median loan amounts were the same even though firms that received SBA loans were more risky, since they have lower annual sales and average number of employees compared to small businesses that received conventional loans. Moreover, firms that received loans under the 7(a) and 504 programs were five times more likely to be start-ups, which are also more risky.

Given these higher level of risks, it is not surprising that SBA loans with a variable interest rate have a median interest rate of 7.18 percent, which is 1.93 percentage points greater than the median interest rate for variable interest rate loans made to all small businesses. Part of this difference is a function of the disparity in the terms of SBA and all small business loans. During 2001 and 2004 the average difference between five-year and ten-year Treasury yields was 0.45 percentage points, or approximately one-quarter of the 1.93 percentage point difference (U.S. Department of Treasury 2007). The remaining 1.48 difference in interest rates may reflect lenders risk-base pricing loans to firms that receive 7(a) loans.

For fixed-rate loans 7(a) and 504 Program loans have a median interest rate of 6.07 percent, which is 43 percentage points lower than the 6.50 percent median interest rate for conventional small business loans. Note, however, the differences in loan amount and term, which likely result from the large number of 504 Program loans made with fixed interest rates. These loans are for larger amounts than fixed rate conventional small business loans, and so are less comparable to typical conventional small business loans than variable rate loans made under the 7(a) Program.

Market Penetration Analysis

In this section we analyze the extent to which the SBA 7(a) and 504 loan programs are meeting the demand for loans among firms that face a capital opportunity gap. As discussed earlier in the methodology section, such firms do not meet conventional small business underwriting standards, but nonetheless are creditworthy and have a demand for loans.

While other studies have compared SBA's lending volume to overall small business lending or to the number of small businesses in the county, the Market Penetration Analysis defined SBA's target market as firms that (1) had a demand for a loan and (2) met the credit elsewhere requirement, and so could not receive a loan without a SBA guaranty. In principle, all



creditworthy firms that face a competitive opportunity gap and want a loan are candidates for SBA loans, and therefore such firms constitute SBA's total potential market.

Firms in the SSBF respondents were asked if, during the past three years, they wanted a loan, but did not apply for one because they thought that their application would be denied. Such firms constitute the potential demand for loans with a SBA guaranty, but only if they are as creditworthy as firms that receive loans with a SBA guaranty. In order to determine whether these firms facing a capital opportunity gap, met the credit elsewhere requirement, we segmented firms who desired credit but didn't apply on the basis of the creditworthiness. We restricted that category to firms that had above-average creditworthiness when compared for firms that received conventional small business loans. Therefore, we used a conservative measure of the total number of firms that face a capital opportunity gap.

The characteristics of firms that we identified in the SSBF that faced a capital opportunity gap were similar, in terms of their annual sales and number of employees to firms that received 7(a) and 504 program loans between 2001 and 2004 (Table 8). In the following discussion, we determine the ratio of firms that face a capital opportunity gap to firms served by the SBA. The lower the ratio, the greater SBA's market penetration is for a particular subgroup of firms that face a capital opportunity gap.

Table 8: Comparison of Firms that Received a 7(a) or 504 SBA Loan to all Firms that Received a Small Business Loan and Firms that Faced a Capital Opportunity Gap between 2001 and 2004

	7(a) and 504 SBA Loan Recipients	Small Businesses that Faced a Capital Opportunity Gap	Small Businesses that Received Conventional Loans ¹⁵
Total Number of Firms	229,148	362,008	987,335
Median Annual Sales	\$1,429	\$178,000	\$335,000
Mean Annual Sales	\$403,748	\$574,663	\$1,721,862
Median Number of Employees	4.0	3.0	5.0
Mean Number of Employees	9.0	7.0	13.0
Percentage of Minority-Owned Businesses	27.0	23.7	9.9
Percentage of Women-Owned Businesses	21.3	24.7	16.0
Percentage of Start-up Firms	24.4	10.3	12.2

Sources: SBA administrative data for SBA loans, 2003 SSBF for small businesses facing a capital opportunity gap and receiving conventional small business loans.

¹⁵ Firms receiving loans with a term of 12 months or less were excluded from both the SSBF and SBA data.



Overall, the SBA 7(a) and 504 loan programs served about 229,000 firms between 2001 and 2004, compared to 1 million firms that received small business loans during the same period. A further 362,000 small businesses faced a competitive opportunity gap between 2001 and 2004, or 1.6 firms for every firm served by the SBA 7(a) and 504 loan programs.

The differences in the ratio of firms that faced a capital opportunity gap to those that received a 7(a) or 504 Program loan shows the relative market penetration of those SBA programs for a particular category. In looking across industry sectors, the 7(a) and 504 Program loans were most likely to serve retail trade firms; for every such firm that received a loan under the programs there were 1.2 such firms that faced a capital opportunity gap. Alternatively, the two programs had a relatively low level of market penetration among firms in the FIRE, services and construction industries (Table 9).

Table 9: Ratio of Number of Firms, by Industry that Received a 7(a) or 504 SBA Loan to Firms that Faced a Capital Opportunity Gap between 2001 and 2004

Industry	7(a) and 504 SBA Loan Recipients between 2001 and 2004	Small Businesses that Faced a Capital Opportunity Gap between 2001 and 2004	Ratio
Agriculture	5,327	0	n/a
Mining	244	0	n/a
Construction	13,714	47,392	1 : 3.5
Manufacturing	15,614	25,427	1 : 1.6
Transportation/Public Utilities	6,454	9,179	1 : 1.4
Wholesale Trade	13,160	19,677	1 : 1.5
Retail Trade	54,900	66,924	1:1.2
Finance, Insurance and Real Estate (FIRE)	6,462	20,463	1 : 3.2
Services	72,637	172,947	1:2.4
Public Administration	276	0	n/a
Total	229,148	362,008	1 : 1.6

Sources: SBA administrative data for SBA loans, 2003 SSBF for small businesses facing a capital opportunity gap and receiving conventional small business loans.

Note: Total loan recipients and ratio values are calculated for all SBA and conventional loan recipients, not the sum of responses to this question, due to missing information for some observations.



The SBA 7(a) and 504 loan programs had the greatest market penetration in the New England, West South Central, and West North Central Census divisions, in which there were 1.2 or 1.3 firms that faced a capital opportunity gap for every firm that received a 7(a) or 504 loan within those Census divisions. The SBA's market penetration was lowest in the South Atlantic and Pacific Census divisions (Table 10).

Table 10: Ratio of Number of Firms, by Census Division that Received either a 7(a) or 504 SBA Loan to Firms that Faced a Capital Opportunity Gap between 2001 and 2004

Census Division	Firms that Received 7(a) and 504 SBA Loans between 2001 and 2004	Number of Firms that Faced a Capital Opportunity Gap between 2001 and 2004	Ratio
New England	19,867	23,874	1 : 1.2
Middle Atlantic	29,115	48,506	1:1.7
East North Central	24,345	37,104	1 : 1.5
West North Central	16,535	22,224	1 : 1.3
South Atlantic	31,488	67,519	1:2.1
East South Central	5,928	9,766	1 : 1.6
West South Central	22,176	27,138	1:1.2
Mountain	20,578	35,926	1:1.7
Pacific	45,277	89,951	1:2.0
Total	229,148	362,008	1 : 1.6

Sources: SBA administrative data for SBA loans, 2003 SSBF for small businesses facing a capital opportunity gap and receiving conventional small business loans.

Note: Total loan recipients and ratio values are calculated for all SBA and conventional loan recipients, not the sum of responses to this question, due to missing information for some observations.

There were 1.8 firms located in urban areas facing a capital opportunity gap for every firm located in an urban area that received loans under the 7(a) and 504 programs. This ratio is lower for rural firms, which suggests that the SBA loan programs served a higher share of the available market in rural areas as compared to urban firms that faced a capital opportunity gap. (Table 11)



Table 11: Ratio of Number of Firms, by Rural/Urban that Received either a 7(a) or 504 SBA Loan to Firms that Faced a Capital Opportunity Gap between 2001 and 2004

	Firms that Received 7(a) and 504 SBA Loans between 2001 and 2004	Number of Firms that Faced a Capital Opportunity Gap between 2001 and 2004	Ratio
Urban	171,866	304,413	1 : 1.8
Rural	37,430	57,595	1 : 1.5
Total	229,148	362,008	1 : 1.6

Sources: SBA administrative data for SBA loans, 2003 SSBF for small businesses facing a capital opportunity gap and receiving conventional small business loans.

Note: Total loan recipients and ratio values are calculated for all SBA and conventional loan recipients, not the sum of responses to this question, due to missing information for some observations.

In addition to its greater penetration of the rural market, the SBA through its 7(a) and 504 programs had greater penetration of the minority-owned and start-up business market. The ratio of minority-owned firms that face a capital opportunity gap to such firms that received a 7(a) or 504 program loan was 1.5. This means that there were three minority-owned firms that faced a capital opportunity gap for every two firms that received a SBA loan (Table 12), which is lower than the overall ratio of firms that received a 7(a) and 504 program loan to firms that faced a capital opportunity gap.

Table 12: Ratio of Number of Firms, by Borrower Type that Received a 7(a) or 504 SBA Loan to Firms that Faced a Capital Opportunity Gap between 2001 and 2004

Borrower Type	Firms that Received 7(a) and 504 SBA Loans between 2001 and 2004	Number of Firms that Faced a Capital Opportunity Gap between 2001 and 2004	Ratio
Minority-Owned Business	57,769	85,636	1 : 1.5
Non Minority-Owned Businesses	156,049	276,372	1 : 1.8
Women-Owned Business	49,912	89,532	1 : 1.8
Non Women-Owned Businesses	184163	272,476	1 : 1.5
Start-up Business	52,550	37,401	1:0.7
Existing Businesses	162,452	324,601	1:2.0
Total	229,148	362,008	1 : 1.6

Sources: SBA administrative data for SBA loans, 2003 SSBF for small businesses facing a capital opportunity gap and receiving conventional small business loans.

Note: Total loan recipients and ratio values are calculated for all SBA and conventional loan recipients, not the sum of responses to this question, due to missing information for some observations.



The ratio is even start-up businesses (0.7), but higher for women-owned firms (1.8). The SBA's 7(a) and 504 loan programs served these borrowers such that there were fewer minority-owned and start-up businesses facing capital opportunity gaps than other types of firms.

CONCLUSION

SBA's loan programs are designed to enable private lenders to make loans to creditworthy borrowers who would otherwise not be able to qualify for a loan. As a result, there should be differences in the types of borrowers and loan terms associated with SBA-guaranteed and conventional small business loans.

Our comparative analysis shows such differences. Overall, loans under the 7(a) and 504 programs were more likely to be made to minority-owned, women-owned, and start-up businesses (firms that have historically faced capital gaps) as compared to conventional small business loans. Moreover, the average amounts for loans made under the 7(a) and 504 Programs to these types of firms were substantially greater than conventional small business loans to such firms. These findings suggest that the 7(a) and 504 programs are being used by lenders in a manner that is consistent with SBA's objective of making credit available to firms that face a capital opportunity gap.

The market penetration analysis shows that the 7(a) and 504 Programs are meeting demand among creditworthy start-up and minority-owned firms that meet SBA's credit elsewhere requirements. Women-owned businesses are also served by these two SBA Programs, but there are still a disproportionately large number of these firms not served by the 7(a) or 504 Program. This finding suggests that the SBA could encourage lenders to increase their marketing efforts that results in increased lending to women-owned firms.

¹⁶ As the comparison group of firms facing a capital opportunity gap between 2001 and 2004, did not, to an overwhelming extent, successfully apply for and receive a loan, we could not construct the start-up business indicator as a measure of firm age at time of loan application. For the Market Analysis, we defined start-up firms as those firms founded at or within two years of the interview date. If the same definition had been applied to the Comparative Analysis, we would have undercounted start-ups by over three percent (8.9 percent of firms are defined as start-ups when firm age subtracted from interview date as opposed to 12.2 of firms when defined by date of loan application). If the Market Share undercounts start-ups by a similar magnitude, there would be one start-up firms that faced a capital opportunity gap for every firm that received a SBA loan, as opposed to 0.7, as cited in Table 12.



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