

Measuring the Representation of Women and Minorities in the SBIC Program

A Report Prepared by the Federal Research Division, Library of Congress under an Interagency Agreement with the Office of Investment and Innovation, U.S. Small Business Administration

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PREFACE

The U.S. Small Business Administration (SBA) oversees the Small Business Investment Company (SBIC) Program, which provides an alternative source of financing for high-risk small businesses lacking access to adequate capital from traditional sources. Since the program's inception in 1958 through December 2015, SBICs have deployed US\$80.5 billion in capital (two-thirds from the private sector) into approximately 172,800 financings.¹

The goal of this report is to contribute to a growing body of knowledge about gender and racial diversity in the venture-capital (VC) and private-equity (PE) arenas using data collected exclusively by the SBA under the SBIC Program. The report addresses key questions comparing the diversity and performance of SBICs with the broader VC and PE community, and asks whether diverse SBICs are more likely to invest in diverse portfolio companies or in low- and moderate-income communities.

The SBA's Office of Investment and Innovation (OII) contracted with the Federal Research Division (FRD) of the Library of Congress for an independent evaluation of the SBIC Program. FRD provides customized research and analytical services on domestic and international topics to agencies of the U.S. government, the government of the District of Columbia, and authorized federal contractors on a cost-recovery basis.

FRD enlisted the aid of two experienced scholars with particular expertise in financial markets to perform this research:

- Dr. John Paglia, an associate dean and professor of finance at Pepperdine University's Graziadio School of Business and Management. Dr. Paglia founded and directed the Pepperdine Private Capital Markets Project, which examined, among many other things, the demand for capital by and financing success rates of business owners. The project also examined investments by private equity groups, venture capital firms, and mezzanine funds (among more than a dozen other types of financing), including activity in the lower-middle market, which is defined as the market segment containing businesses with between US\$5 million and US\$100 million in annual revenues.

¹ U.S. Small Business Administration (SBA), Offering Circular: Guaranteed 2.507% Debenture Participation Certificate, Series SBIC 2016-10 A, March 14, 2016, 7, https://www.sba.gov/sites/default/files/SBIC_2016-10Acusip-831641-FF7.pdf.

Dr. David T. Robinson, a professor of finance and the J. Rex Fuqua Distinguished Professor of International Management at Duke University and a research associate at the National Bureau of Economic Research. Dr. Robinson has published several papers in the fields of entrepreneurial finance, private equity, and venture capital, and has conducted a number of studies that analyze the conditions and performance of the financial sector serving young and small businesses, both on the equity side and on the debt side.

The analysis in this report is based on 1995–2015 SBIC data from SBA Portfolio Financing Report (SBA Form 1031) filings, which are submitted by SBICs within 30 days of closing on a financing, and SBA Annual Financial Report (SBA Form 468) filings, which are audited and submitted by SBICs annually. OII provided supplemental demographic information on the SBIC funds for the years 2013–15. The authors used personal interviews, surveys, and external data sources to augment and validate the data where possible to build the fullest picture possible of the investment behavior of SBIC funds.

This report represents an independent analysis by the Federal Research Division and the authors, which have sought to adhere to accepted standards of scholarly objectivity. It should not be construed as an expression of an official U.S. government position, policy, or decision.

SBA makes no representation as to the analysis or calculations performed by the Library of Congress or its employees or contractors and reported in this study. SBA has not verified the analysis or calculations performed in this study. This study was conducted by third parties not affiliated with SBA and is intended to be independent from SBA.

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OVERVIEW OF FINDINGS

One of the core missions of the U.S. Small Business Administration (SBA) is to mitigate the risk of financing small businesses that may not qualify for traditional loans. SBA's Small Business Investment Company (SBIC) loan program opens up lending opportunities to thousands of underserved entrepreneurs, including startups, growing businesses, women, minorities, and veterans. For this reason, SBA approached the Library of Congress's Federal Research Division to assess the following about the diversity of the SBICs and portfolio companies participating in the program:

- How diverse are SBICs in terms of having women and/or ethnic or racial minorities in leadership positions?
- Are racially diverse SBICs more likely to invest in small businesses led or owned by women and/or ethnic or racial minorities?
- Are gender-diverse SBICs more likely to invest in small businesses led or owned by women and/or ethnic or racial minorities?
- How do SBICs led by women and/or ethnic or racial minorities compare in terms of investment performance to non-diverse SBICs?
- Are diverse SBICs more likely to invest in low and moderate income (LMI) communities?

Statistical analysis of the SBA's data concerning SBICs has yielded the following answers to these questions:

Fact #1: While there is greater gender diversity among the investment teams of SBICs than is present in the broader private equity investment community, it is difficult to make this comparison with regard to the racial diversity of SBICs because of a lack of data on minority participation in the overall private equity community.

In order to ascertain if SBICs are more gender diverse than the overall venture capital and private equity (VCPE) sectors, the authors compared diversity data from all funds listed in Pitchbook, a widely used source for such investment information, with diversity data provided by the SBA's Office of Investment and Innovation (OII). They found that SBIC funds are more gender diverse than the broader VCPE community. In the broader VCPE community, only 7.9 percent of firms had any female investment professionals on their staffs while among SBIC funds, 11.9 percent of firms had women on their investment teams. This difference is statistically significant.

Analysis of the SBIC data also shows that 10.2 percent of SBICs have at least one ethnic or racial minority on their investment teams. However, comparing this figure with the general private equity community is problematic. While there are various racial diversity statistics for the population of businesses in the United States, there is no such data for the private equity universe specifically, which is a subset of the venture capital community. Additionally, Pitchbook does not collect information on the racial diversity of funds. However, trade organizations like the National Venture Capital Association (NVCA) claim, "The venture capital industry has not kept pace in investing in people of diverse backgrounds."²

Fact #2: Racially diverse SBICs make more investments in minority-led and minorityowned portfolio companies, as well as in women-led and women-owned businesses than non-racially diverse SBICs.

Based on statistical analysis of SBIC Program data for the years 2013–15, which are the only years in which OII has collected diversity data, it can be concluded that racially diverse SBICs make more investments in minority-led and women-led portfolio companies than non-racially diverse SBICs. For example, about 12 percent of the investments made by racially diverse SBICs are in companies led by minority CEOs; for SBICs without racially diverse investment teams, the corresponding figure is about 5 percent. Similarly, around 19 percent of the investments made by racially diverse SBICs are to companies that are at least partly owned by women or ethnic or racial minorities, while about 13 percent of the investments made by SBICs without racial diversity are to such businesses. In both cases, the differences are statistically significant.

Fact #3: Gender-diverse SBICs make more investments in women-led and women-owned portfolio companies than non-gender-diverse SBICs. However, gender-diverse SBICs are not more likely to invest in minority-led or minority-owned businesses.

Gender-diverse SBICs make two to three times more investments in portfolio companies with a female CEO than male-only SBICs. For example, among active licensees in the SBA's debenture program, 10.3 percent of the investments made by gender-diverse SBICs are in female-led companies, while the corresponding figure for SBICs with no gender diversity is 3.35 percent. Gender-diverse SBICs also outstrip non-gender-diverse SBICs when it comes to investing in

² National Venture Capital Association (NVCA), "Diversity," accessed August 23, 2016, http://nvca.org/ecosystem/ diversity/.

women-owned portfolio companies: 18.18 percent of gender-diverse SBICs invest in womenowned portfolio companies while only 13.73 percent of non-gender-diverse SBICs do so. There is no evidence to suggest that gender-diverse SBICs invest more than non-gender-diverse SBICs into portfolio companies led by racially diverse individuals.

Fact #4: There is no evidence that gender-diverse or racially diverse SBICs perform better or worse than white-male-only-managed SBICs.

There is no evidence of performance differences for the years 1995–2015 between genderdiverse, racially diverse, and white-male-only-managed SBIC funds. Even controlling for the fact that many racially or gender-diverse funds are smaller and have begun investing more recently, there appears to be no evidence that investors in such companies face different returns as a consequence of the SBICs directing investments toward either gender-diverse or racially diverse businesses.

Fact #5: There is some evidence that racially diverse SBICs direct more capital to LMI communities, whereas there is no evidence that gender-diverse SBICs do.

The evidence suggests that racially diverse SBICs invest more in LMI communities than SBICs without racially diverse investment teams. Yet, SBICs with gender-diverse investment teams are statistically less likely to make such investments relative to SBICs with no gender diversity.

In sum, there is evidence that the SBIC Program is generally more diverse with respect to gender, ethnicity, and race than the broader private equity universe. Moreover, gender-diverse funds invest in other women-led and women-owned companies at rates greater than non-genderdiverse funds. Additionally, analysis shows that racially diverse SBIC funds invest in womenled, women-owned, minority-led, and minority-owned companies at higher rates. Furthermore, there is evidence that racially diverse SBIC funds invest more into LMI communities, while gender-diverse SBIC funds do not. These conclusions suggest that diverse populations are better served by and through a diverse team of fund managers. Finally, the authors found that genderdiverse and racially diverse funds produce returns that are not dissimilar from their white-maleonly-managed counterparts, meaning that they perform no better or worse than other funds. See table 1 for a summary of these findings.

		s in terms of having women and/or ethnic broader private equity (PE) community?			
Type of diversity:	SBICs	SBICs Broader PE Community			
Gender diversity	11.9%	7.9%			
Racial diversity	10.2%	N/A			
	nvestment Behavior: Are racially ortfolio companies than non-racial	y diverse SBICs more likely to invest in ly diverse SBICs?			
If the portfolio company i	s:				
Woman-owned		Yes			
Woman-led		Yes			
Minority-owned		Yes			
Minority-led		Yes			
	ortfolio companies than non-gende	-diverse SBICs more likely to invest in er-diverse SBICs?			
Woman-owned	Woman-owned Yes				
Woman-led	Yes				
Minority-owned	No				
Minority-led	No				
Return on Investment b investment performance t		do diverse SBICs compare in terms of			
Gender-diverse SBICs	Similar				
Racially diverse SBICs	Similar				
Diversely Owned SBIC regions than non-diverse		SBICs more likely to invest in LMI			
Gender-diverse SBICs	No				
Racially diverse SBICs	Yes				

Table 1. Summary of Findings on Diversity in the SBIC Program

BACKGROUND ON THE SBIC PROGRAM

Description of SBICs

The SBA was established in 1953 to promote the development of small businesses by providing "loans, loan guarantees, contracts, counseling sessions and other forms of assistance." The organization's authorizing legislation was the Small Business Act, which created the agency to "aid, counsel, assist and protect, insofar as possible, the interests of small business concerns." In 1958, the Small Business Investment Act created the SBIC Program, under which the SBA "licensed, regulated and helped provide funds for privately owned and operated venture capital investment firms."³ The U.S. government designed the program to provide debt and equity financing to high-risk small businesses lacking access to adequate capital from traditional sources.⁴ Since the program's inception in 1958 to December 2015, participating SBICs have deployed US\$80.5 billion in capital (two-thirds from the private sector) into approximately 172,800 financings.⁵

How SBICs Work

Fund managers submit applications to the SBA for licenses to operate SBICs, which typically combine equity investments from private investors—such as pensions, foundations, banks, and high-net-worth individuals—with government-guaranteed debt financing from the SBA. In the process, SBICs leverage their equity capital, resulting in a capital structure (debt-plus-equity financing) that reduces the weighted average cost of capital and boosts returns on equity. The U.S. Congress permits the SBA to guarantee leverage, known as debentures, which are issued to SBICs for up to three times the amount of private equity (although in most cases the limit is set at twice this amount).

The SBIC, typically formed as a limited partnership, invests in a portfolio of small businesses. When formed as a limited partnership, an SBIC—itself a limited partnership—has a general partner that manages the operations of the fund and limited partners who are passive investors. As the investments play out and the SBIC winds down, it repays its debt to the SBA and shares

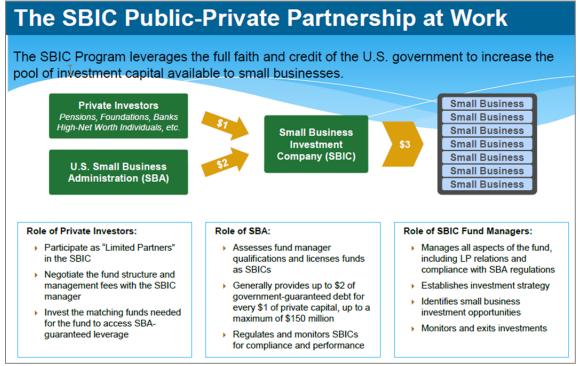
³ SBA, "History," accessed April 7, 2016, https://www.sba.gov/about-sba/what-we-do/history.

⁴ SBA, *The Small Business Investment Company (SBIC) Program Overview*, last updated February 24, 2016, https://www.sba.gov/sites/default/files/files/SBIC_Program_Executive_Summary_2016.pdf.

⁵ SBA, Offering Circular: Guaranteed 2.507% Debenture Participation Certificate, 7.

its profits with the investors (see fig. 1).⁶ See Appendix II for a full description of the SBIC life cycle.

Figure 1. SBIC Public–Private Partnership



Source: "Bridging the Capital Formation Gap: The Small Business Administration's SBIC Program," Vimeo video, 57:07, from the Association for Corporate Growth, April 12, 2016, https://vimeo.com/162594659.

SBICs enable SBA-guaranteed leverage up to two times the amount of private capital, subject to caps of US\$150 million and US\$350 million for, respectively, individual funds and families of funds.⁷ As a result, SBIC business licensees are subject to various investment criteria. The most important criterion is that SBICs must invest in small businesses, which the SBA defines (solely for the purpose of the SBIC Program) as those having less than US\$19.5 million in tangible net worth and an average net income for the preceding two years of less than US\$6.5 million. The SBA also counts small businesses that comply with the agency's size standards in terms of the

⁶ SBA, The Small Business Investment Company (SBIC) Program Overview.

⁷ SBA, The Small Business Investment Company (SBIC) Program Overview.

number of employees or average annual receipts, as calibrated according to industry.⁸ These standards are set out in the North American Industry Classification System.⁹

The SBIC Program is a particularly attractive investment target for the banking industry for two reasons. First, it is exempt from the Volcker Rule, a provision of the Dodd-Frank Wall Street Reform and Investor Protection Act that prohibits banks from owning hedge or private equity funds.¹⁰ Second, investments in SBICs may qualify for Community Reinvestment Act credits since they are presumed to promote the economic development of all members of a community, including residents of LMI neighborhoods.¹¹ Increased bank participation in the SBIC Program in recent years has steadied investment demand, according to *American Banker* magazine.¹²

Currently Active SBICs

As of September 30, 2015—the end of the U.S. government's fiscal year (FY)—there were 303 licensed SBICs, of which:

- 205 belonged to the ongoing debenture program (generally with a focus on later-stage, mezzanine, and buyout investments using primarily debt and hybrid financing),¹³
- 46 belonged to the discontinued participating securities program (with a high percentage of early-stage investments using equity financing),
- 43 belonged to the ongoing bank-owned/non-leveraged program (generally with a focus on later-stage, mezzanine, and buyout investments using primarily debt and hybrid financing), and
- 9 belonged to the discontinued Specialized SBIC (SSBIC) Program (with a focus on minority-, women-, and veteran-owned businesses using primarily loans).¹⁴

¹¹ Federal Deposit Insurance Corporation, "Interagency Questions and Answers Regarding Community Reinvestment," last updated April 20, 2014, https://www.fdic.gov/regulations/laws/rules/2000-6750.html.

⁸ Compliance with Size Standards as a Condition of Assistance, 13 C.F.R. § 107.700 (2009); What Size Standards are Applicable to Financial Assistance Programs?, 13 C.F.R. § 121.301 (2016).

⁹ SBA, "Summary of Size Standards by Industry Standard," last updated February 26, 2016, https://www.sba.gov/ contracting/getting-started-contractor/make-sure-you-meet-sba-size-standards/summary-size-standards-industrysector.

¹⁰ Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships With, Hedge Funds and Private Equity Funds, 79 Fed. Reg. 5535 (January 31, 2014).

¹² Shane Kite, "SBIC Revival: Why Interest from Banks is Way Up, As the Volcker Rule Looms," *American Banker*, April 28, 2014, http://www.americanbanker.com/magazine/124_04/sbic-revival-why-interest-from-banks-is-way-up-as-the-volcker-rule-looms-1066822-1.html.

¹³ Five SBICs in this group have an early-stage focus.

¹⁴ SBA, *Small Business Investment Company (SBIC) Program Overview as of September 30, 2015*, accessed September 30, 2016, https://www.sba.gov/sites/default/files/files/WebSBICProgramOverview_September2015.pdf.

Costs of the SBIC Program

Since the beginning of FY 2000 (October 1, 1999), the SBA has operated the debenture SBIC program at zero subsidy. The agency accomplishes this by charging the SBICs 3 percent up-front fees and annual fees based on the leverage balances. The SBA formulates these fees each year, spreading the costs of riskier strategies, such as early-stage investments, across the investment portfolio. As of September 30, 2015, the total amount of private capital and SBA capital at risk in the SBIC Program was approximately US\$25.3 billion.¹⁵

Gender and Racial Diversity in the SBIC Program

The SBIC Program is widely diversified by industry sector and geographic region. This opens the opportunity for it to provide capital to less-favored industries and areas. In 2008, the Urban Institute found that the debenture SBIC program was indeed successful in achieving its goal of "providing capital to entrepreneurs who are underserved by the private venture capital market."¹⁶

In 2011, President Barack Obama announced the Startup America Initiative, under which the SBA launched the Impact Investment Fund to expand the SBIC Program's reach to underserved areas or future-oriented sectors, such as clean energy, educational innovation, or advanced manufacturing. With US\$200 million in annual funding, the Impact Investment Fund is "dedicated to generating social, environmental or economic impact alongside financial return."¹⁷ Impact SBICs must make half of their financings in impact investments. Under Startup America, the SBA also launched the Early Stage Initiative, a US\$1 billion program designed "to help high-growth businesses obtain their first round of institutional financing."¹⁸

Although the SBIC Program's mission is to stimulate and supplement the flow of private equity capital and long-term loan funds for the growth, expansion, and modernization of small businesses for which such capital and loan funds are not available in adequate supply, it does not

¹⁵ SBA, Small Business Investment Company (SBIC) Program Overview as of September 30, 2015.

¹⁶ Shelli B. Rossman and Brett Theodos with Rachel Brash et al., *Key Findings from the Evaluation of the Small Business Administration's Loan and Investment Programs: Executive Summary* (Washington, DC: Urban Institute, 2008), 42, http://www.urban.org/research/publication/key-findings-evaluation-small-business-administrations-loan-and-investment-programs.

¹⁷ SBA, *Office of Investment and Innovation: Office Overview*, June 2014, Slide 26, https://www.sba.gov/sites/ default/files/2014-06-11%20(OII%20Overview).pdf.

¹⁸ "Bridging the Capital Formation Gap: The Small Business Administration's SBIC Program," Vimeo video, 57:07, from the Association for Corporate Growth, April 12, 2016, https://vimeo.com/162594659.

have the statutory authority to target gender- or racially diverse companies. SBICs must provide financings on an equal opportunity basis.

The one exception was the Specialized SBIC (SSBIC) Program, which was authorized between 1969 and October 1996 to specifically target disadvantaged businesses (i.e., those that are at least 50 percent owned, controlled, and managed on a day-to-day basis by a person or persons whose participation in the free enterprise system is hampered because of social or economic disadvantages). Typically, persons of ethnic or racial minority groups are assumed to be included in this category. Between 1969 and 1996, the SBA issued 288 SSBIC licenses. Since the program was repealed 20 years ago, the number of SSBICs has declined from 77 in 1997 to only nine active SSBICs at the end of September 2015. Although 22 SSBICs converted to the regular SBIC program, only three of these companies are still active in the program. As a result, the number of SBIC financings to minority-owned companies has also generally declined.

Despite this lack of authority to target such businesses, the SBA encourages SBICs to finance racially and gender-diverse portfolio companies. It also encourages private equity funds with women or minority partners to apply for the SBIC Program. To promote these activities, the SBA has held several events and participated in a number of conferences that target such fund managers. For example, in May 2015, it held an event at the White House titled "Women in Investing" to encourage more women to participate in the SBIC Program. Moreover, in April 2016, the SBA co-hosted an event with Crunch Base¹⁹ and the NVCA titled "Bridging the Gender Gap: Entrepreneurship, Women, and Investing," which encouraged women to seek an SBIC license and invest in underrepresented companies.

¹⁹ Crunch Base is a database of information on startup funding, venture capital investments, and people in the startup ecosystem. Homepage: https://www.crunchbase.com/.

FINDINGS IN ACADEMIC LITERATURE ON RACIAL AND GENDER DIVERSITY IN THE FINANCE SECTOR

Diversity and Investment

The NVCA claims, "The venture capital industry has not kept pace in investing in people of diverse backgrounds."²⁰ Indeed, the findings from an NVCA/Dow Jones VentureSource 2011 Venture Census survey of venture capital investors show that female and minority representation in the industry is small: "89 percent of investors were male and 11 percent were female. In terms of ethnic diversity, 87 percent were Caucasian, nine percent were Asian, two percent were African American or Latino, and two percent were of mixed race."²¹

In order to understand the attractiveness of women- and minority-owned firms to investors, in 2014, finance professors Dr. John Paglia and Dr. Maretno Harjoto studied private equity and venture capital investments in U.S.-based small and mid-sized businesses. Their findings provided support to the notion that capital is disproportionately distributed by demographic characteristics. They examined 6,148 private equity and 1,512 venture capital investments made from 1995–2009 and found that minority-owned businesses were less likely to receive private equity (-21.7%) and venture capital (-22.8%) funding, as were women-owned businesses (-2.6% and -18.9%, respectively).²²

Minority Representation in the Venture Capital Market

Data on racially diverse investing is difficult to come by. However, the best information comes from the National Association of Investment Companies (NAIC), a trade association that represents the interests of minority-owned investment companies. Currently, according to the NAIC website, the association is "made up of 35 members, 31 of which are diverse-owned direct investment private equity firms who attract capital from government and corporate pension

²⁰ NVCA, "Diversity."

²¹ NVCA, "NVCA Forms Diversity Task Force to Foster Greater Inclusion across the Innovation Ecosystem," December 8, 2014, http://nvca.org/pressreleases/nvca-forms-diversity-task-force-foster-greater-inclusion-across-innovation-ecosystem/.

²² John K. Paglia and Maretno A. Harjoto, "The Effects of Private Equity and Venture Capital on Sales and Employment Growth in Small and Medium-Sized Businesses," *Journal of Banking & Finance* 47, no. 1 (2014): 177–97, doi: 10.1016/j.jbankfin.2014.06.023.

plans."²³ The most reliable information on the subject of racially diverse investing comes from several NAIC studies that used data from a 2001 member survey.

Economics professors Timothy Bates and William Bradford have studied the NAIC surveys and have found that the equity investment volume in minority-owned businesses has been growing faster than the average; however, the number of investment dollars has not be growing at such a high pace. According to them, equity investment in minority-owned businesses "grew steadily throughout the 1990s, peaking in 2000 for minority-oriented and mainstream [venture capital] funds alike."²⁴ However, they have also discovered that "while the median fund size for present-day NAIC members has grown to over \$450 million (a far cry from the early years where fund sizes were often not much larger than \$150,000), capital flowing into the diverse space is not increasing at the rate of the industry as a whole."²⁵

Drawing on the 2001 NAIC membership survey, a pre-survey conducted by Bates and Bradford found that 24 funds "financed small firms owned by blacks, Hispanics, and Asian Americans, [and that] venture capital investments flowed more often to black-owned firms that to the other two (combined) groups."²⁶ Although there is little data addressing whether minority investors target minority business enterprises, Bates and Bradford have found that the investment mix of minority venture capital funds is broader (and thus less risky) than the overall industry, which suggests that they do not necessarily target such businesses. This trend, however, also suggests "the minority sector may exhibit less of the extreme boom and bust nature that has plagued the overall [venture capital] industry since its inception."²⁷

Female Representation in the Venture Capital Market

The key study for assessing female participation in the venture capital market is the Diana Project, which is located in the Arthur M. Blank Center for Entrepreneurship at Babson College.

²³ National Association of Investment Companies (NAIC), "About us," accessed August 23, 2016, http://naicpe. com/about-us/.

²⁴ Timothy Bates and William D. Bradford, "The Impact of Institutional Sources of Capital upon the Minority-Oriented Venture Capital Industry," *Small Business Economics* 33, no. 4 (2009): 485–86, doi: 10.1007/s11187-009-9200-z.

²⁵ NAIC, "History," accessed September 2, 2016, http://naicpe.com/naic-history/.

²⁶ Timothy Bates and William D. Bradford, "Analysis of Venture-Capital Funds that Finance Minority-Owned Businesses," *Review of Black Political Economy* 32, no. 1 (2004): 44, http://www.jstor.org/stable/40540449.

²⁷ Timothy Bates and William D. Bradford, *Minorities and Venture Capital: A New Wave in American Business* (Kansas City, MO: E. M. Kauffman Foundation, 2003), 12, doi: 10.2139/ssrn.1260432.

Its latest report, *Women Entrepreneurs 2014: Bridging the Gender Gap in Venture Capital*, provides the first comprehensive analysis of venture capital investments in female entrepreneurs since the original Diana Project research was conducted in 1999. The project has found that women are the majority owners of approximately 10 million businesses—36 percent of all U.S. companies.²⁸ Furthermore, although female entrepreneurs are making progress in terms of obtaining capital, the number of female decision-makers in the venture capital community is in decline.

According to the project's researchers:

The amount of early-stage investment in companies with a woman on the executive team has tripled to 15 percent from 5 percent in the last 15 years. Despite this positive trend, 86 percent of all venture capital-funded businesses have no women on the executive team. Importantly, only 2.7 percent of venture capital-funded companies had a woman CEO. . . . The total number of women partners in venture capital firms has declined significantly since 1999, dropping to 6 percent from 10 percent.²⁹

Diversity and Performance

Several studies, including ones performed by associations designed to promote diversity in the venture capital and private equity communities, have found that diverse fund managers achieve greater than average returns relative to industry benchmarks. For example, in 2012, NAIC published a study claiming that "NAIC firms have produced superior investment returns over a sustained period benchmarked against the general [private equity] industry, including the buyout subset."³⁰

In 2014, the financial services company KPMG published its fourth annual report on alternative investing by hedge funds owned or managed by women. A survey of 328 female alternative investment fund managers was the foundation of the report. The report claimed that the

²⁸ Candida G. Brush et al., *Women Entrepreneurs 2014: Bridging the Gender Gap in Venture Capital: Executive Summary* (Babson Park, MA: Babson College, Arthur M. Blank Center for Entrepreneurship, 2014), 5, http://www.babson.edu/Academics/centers/blank-center/global-research/diana/Documents/diana-project-executive-summary-2014.pdf.

²⁹ Michael Chmura, "Babson Releases New Study on Venture Capital Funding for Women Entrepreneurs," September 30, 2014, http://www.babson.edu/news-events/babson-news/Pages/140930-venture-capital-funding-women-entrepreneurs-study.aspx.

³⁰ NAIC, Recognizing the Results—The Financial Returns of NAIC Firms: Minority and Diverse Private Equity Managers and Funds Focused on the U.S. Emerging Domestic Market (Washington, DC: NAIC, 2012), 2, http:// naicpe.com/wp-content/uploads/2015/11/NAIC-RecognizingTheResults.pdf.

performance of these funds exceeded the benchmarks in both annualized returns and total returns since 2007, when the alternative investment research firm Hedge Fund Research, Inc. developed a separate index for female-owned and -managed funds.³¹

However, not all academic research supports the hypothesis that diverse fund managers achieve superior returns. In a widely cited study, Bates and Bradford examined "venture capital investment in minority business" and concluded "minority [venture capital] funds collectively earned yields on their realized investments that were estimated to be broadly equivalent to those of the mainstream [venture capital] industry."³² They also found a wide variance in these yields from fund to fund.

MEASURING DIVERSITY IN THE SBIC PROGRAM

Methodology

SBA's OII, which manages the SBIC Program, provided the Federal Research Division (FRD) of the Library of Congress with its data on SBIC fund managers and portfolio companies in which SBIC funds were invested for FY 1995–2015. This data was shared "AS IS" with FRD, that is, as reported by SBIC managers to the SBA. SBA makes no representation or warranty, express or implied, with respect to the content, completeness, or accuracy of the information provided. FRD employees and contractors signed confidentiality agreements, which stipulated they would not "publish, divulge, disclose, or make known in any manner" SBIC data.

These data points included information collected from SBA Portfolio Financing Report (SBA Form 1031) and SBA Annual Financial Report (SBA Form 468) filings. The one-page Portfolio Financing Report contains financial and demographic data on small businesses prior to their receipt of capital support through the SBIC Program. The 22-page Annual Financial Report contains annual financials for each SBIC, including performance data on loans and investments for each year it participates in the program. The authors drew the relevant data for this study

³¹ KPMG, *Breaking Away: The Path Forward for Women in Alternatives* (Washington, DC: KPMG, 2015), 5, https://www.kpmg.com/BM/en/IssuesAndInsights/ArticlesPublications/Documents/Investments/2015-documents/ women-Alternative-Investments.pdf.

³² Timothy Bates and William D. Bradford, "Venture-Capital Investment in Minority Business," *Journal of Money, Credit and Banking* 40, no. 2/3 (2008): 489, http://www.jstor.org/stable/25096262.

from the Schedule 9 portion of Form 468. Copies of both forms are provided in Appendices III and IV. The complete 1031 and 468 forms can also be found online at: https://www.sba.gov/sbic/sbic-resource-library/forms.

OII uses the SBA Portfolio Financing Report (SBA Form 1031) to assess various characteristics of small businesses *before* their financing events. It uses the SBA Annual Financial Report (SBA Form 468) to assess changes in those companies *while* they participate in the SBIC Program. For FY 1995–2015, the Portfolio Financing Report data file provided by OII contained 66,602 total records and information on 21,319 unique small businesses participating in the SBIC Program.

Beginning in June 2013 and ending in March 2016, the SBA assessed its active licensees to determine whether the SBICs had at least one female or minority partner.³³ The OII provided this data to the FRD, which showed 32 funds with at least one female partner (of which one was no longer active and three were licensed after September 30, 2015), and 33 funds with at least one minority partner (of which two were licensed after September 30, 2015).³⁴ The authors verified both lists against the SBIC funds' websites and Pitchbook's database on mergers and acquisitions, as well as private equity and venture capital information.³⁵ They also conducted informal telephone surveys of the remaining funds not verified by the aforementioned sources. Because this analysis only considers funds and financings through September 30, 2015, the authors only reviewed the 363 SBICs that were active at some point between June 1, 2013 and the cut-off date. As a completeness check, they manually verified that the names of the SBICs matched those registered to the individual license numbers provided in the SBIC data.

LMI information is not part of the SBA Portfolio Financing Report (SBA Form 1031) that SBICs complete as part of their reporting compliance. However, as of October 1, 1999, using the

³³ The SBA does not warrant the content, completeness, or accuracy of the results of any informal SBA telephone surveys or informal internal SBA employee surveys regarding SBIC management diversity as such surveys were not based on any established scientific or statistical methodology.

³⁴ SBA collects demographic data from SBIC portfolio companies using voluntary questions on the SBA Portfolio Financing Report (SBA Form 1031). While the SBA has the statutory authority to collect information regarding race, ethnicity, gender, and similar demographic data on a voluntary basis, it does not have the authority to mandate the collection of such information from SBICs. Likewise, providing this information is not a prerequisite for program participation. As such, all demographic reporting from the companies active in the SBIC Program is voluntary. The SBA's complete legal disclosure is in Appendix V.

³⁵ Pitchbook collects information on funds' gender diversity, but not racial diversity. The company's database contains female and total partner information on 10,168 U.S. private equity funds with vintage years (the year the fund commenced) from 2000 to 2015.

information reported on the Portfolio Financing Report, SBA began determining which small businesses financed by SBICs were located in LMI areas based on U.S. Census Bureau data. That LMI information is included in the OII dataset.

This analysis considers several dimensions of gender and racial diversity. The first is the diversity of the SBIC funds themselves. Comparing the diversity of the SBIC funds to statistics on diversity for the broader private equity sector allows one to study whether the SBIC Program itself has increased diversity among the private equity investment community.

The second dimension concerns the diversity of the portfolio companies that receive funding from SBICs. To explore the diversity of these companies, the authors measured diversity both in terms of company leadership and in terms of company ownership. They used two measures of portfolio company diversity to create the broadest picture of diversity that the data would allow.

Finally, the authors considered how investment performance differs according to the diversity of the funds in question. The following sections explain each of these measures and the populations used for the analysis based on the available data.

Diversity among SBIC Funds

Measures

To measure the diversity of the SBIC funds, the authors considered whether the firms' investment teams had at least one female or one minority member. For the purpose of this analysis, if at least one woman is listed among the investment professionals, the firm is considered gender diverse. Similarly, if at least one member of the investment team is from an ethnic or racial minority, the fund is considered racially diverse.³⁶

³⁶ Although the SBA uses a 51 percent threshold to define a company as either woman- or minority-owned, for the purposes of this study, a company that has at least one woman or at least one ethnic or racial minority listed among its owners is considered woman- or minority-owned. This definition was necessary because of the reasons given in the above text and because available SBIC diversity data did not specify ownership percentages.

Population

Base Population of SBICs

The base population of SBICs considered for this analysis included 363 companies, as indicated in table 2. Of this population, 54 SBICs (14.9 percent) were determined to be either gender diverse or racially diverse, or both. Table 2 provides a breakdown of this population of SBICs according to their gender and racial diversity and vintage year. SBICs typically have a 10- to 15-year lifespan, so the vast majority of SBICs licensed prior to 2000 no longer exist. The base population represents the universe of SBICs for which diversity data is available, and includes both active and inactive funds.

Number of SBICs in Base Population					
Vintage Year	Gender Diverse	Racially Diverse	Gender or Racially Diverse	Neither Gender nor Racially Diverse	Total
Prior to 2000	1	6	7	53	60
2000-2004	6	2	8	83	91
2005-2009	4	2	6	47	53
2010-2015	18	21	33*	126	159
Total	29	31	54	309	363
Percentage of S	BICs in Base Po	pulation	-		
Vintage Year	Gender Diverse	Racially Diverse	Gender or Racially Diverse	Neither Gender nor Racially Diverse	Total
Prior to 2000	1.7%	10.0%	11.7%	88.3%	100.0%
2000-2004	6.6%	2.2%	8.8%	91.2%	100.0%
2005-2009	7.5%	3.8%	11.3%	88.7%	100.0%
2010-2015	11.3%	13.2%	20.8%*	79.2%	100.0%
Total	8.0%	8.5%	14.9%	85.1%	100.0%

Table 2. SBIC Base Population

* Six SBICs are both gender and racially diverse.

Active Population of SBICs

Sixty of the SBICs in the base population left the active portfolio between June 1, 2013 and September 30, 2015. As a result, the active population that the authors reviewed contained 303 SBICs, as shown in table 3. The active population is the basis of the analysis throughout this study.

Number of SBICs in Active Population					
Vintage Year	Gender Diverse	Racially Diverse	Gender or Racially Diverse	Neither Gender nor Racially Diverse	Total
Prior to 2000	1	6	7	31	38
2000-2004	5	2	7	55	62
2005-2009	4	2	6	40	46
2010-2015	18	21	33*	124	157
Total	28	31	53	250	303
Percentage of S	BICs in Active P	opulation	•	•	
Vintage Year	Gender Diverse	Racially Diverse	Gender or Racially Diverse	Neither Gender nor Racially Diverse	Total
Prior to 2000	2.6%	15.8%	18.4%	81.6%	100.0%
2000-2004	8.1%	3.2%	11.3%	88.7%	100.0%
2005-2009	8.7%	4.3%	13.0%	87.0%	100.0%
2010-2015	11.5%	13.4%	21.0%*	79.0%	100.0%
Total	9.2%	10.2%	17.5%	82.5%	100.0%

Table 3. SBIC Active Population

* Six active SBICs are both gender and racially diverse.

Of the 303 active funds, 275 (90.8 percent) are non-gender diverse and 28 (9.2 percent) have at least one female investment partner. The active licensees include 205 debenture funds; of these, 184 (89.8 percent) have no gender diversity while 21 (10.2 percent) have at least one female partner. In most of the analyses, the authors report separate results for the active debenture funds, as noted in the tables.

Table 3 also shows active SBIC funds classified as being racially diverse by vintage year. Of the 303 active funds, 272 (89.8 percent) are non-racially diverse and 31 (10.2 percent) have at least one minority investment partner. For the subset of 205 active debenture funds, 184 (89.8 percent) are non-racially diverse while 21 (10.2 percent) have at least one minority partner. Five of these 21 funds (2.4 percent of the total active funds) have both a minority and a female partner.

Leadership Diversity in SBIC Portfolio Companies

This analysis also considers the diversity of the companies, often referred to as "portfolio companies," that receive investments from SBICs. The label "portfolio companies" reflects the fact that they are the companies that comprise the funds' investment portfolios.

Measures

To measure the leadership diversity of SBIC portfolio companies, this analysis considers the gender and racial diversity of the businesses' CEO or president as reported on the SBA Portfolio Financing Report (SBA Form 1031). In this analysis, a portfolio company is considered to have gender-diverse leadership if its CEO or president is a woman. Likewise, a portfolio company is considered to have racially diverse leadership if its CEO or president is reported to be African, Asia-Pacific, Hispanic; Native American, or Sub-continent Asian American.³⁷

Population

The SBA began to track racial leadership diversity in February 2009 and gender leadership diversity in June 2013, in conjunction with the launch of a web-based data collection system for both the Portfolio Financing (SBA Form 1031) and Annual Financial (SBA Form 468) reports. Of the active SBICs that made investments between June 1, 2013 and September 30, 2015:

- Almost 4 percent of financing events during this period report having a female CEO.
- A little over 4 percent of finance events during this period report having a minority CEO.

To be more specific, out of 4,025 financing events into 1,261 distinct companies between June 1, 2013 and September 30, 2015, a total of 152 financing events into 54 woman-led companies occurred. A total of 252 financing events went into a total of 83 minority-led companies over the same period.³⁸

Ownership Diversity in Portfolio Companies

While the makeup of a portfolio company's leadership team is undoubtedly important, it is not the only facet of diversity that the SBA data allow one to examine. All of the SBIC financing data since January 1, 1995 contain ownership information for the portfolio companies, including whether it was woman- or minority-owned. To develop a broader picture of the diversity impact that SBICs are having, the analysis was extended to examine the diversity in the portfolio companies' ownership structures.

 ³⁷ SBA, "Social Disadvantage Eligibility," accessed August 23, 2016, https://www.sba.gov/contracting/government-contracting-programs/8a-business-development-program/eligibility-requirements/social-disadvantage-eligibility.
 ³⁸ As a robustness check, the authors analyzed racial diversity data going back to 2009 and obtained similar

percentages of financing events.

Measures

To measure the ownership diversity of portfolio companies receiving SBIC investments, the authors created a flag for whether the company reported having any women or minority owners. The ethnic and racial minorities considered were the same as those used to measure the leadership diversity of SBIC portfolio companies.

A natural issue that arises when examining ownership is whether a critical level must be reached—for example, 10 percent ownership, majority ownership, or some other threshold in order for the ownership level to be meaningful. Because new rounds of equity financing typically dilute the ownership stakes of a firm's earlier investors and because decision-making authority over the day-to-day operations of a firm do not necessarily vary proportionally with ownership, any threshold is somewhat arbitrary. Based on these considerations, the authors flagged a firm as women-owned if women comprised any fraction of the firm's ownership. Similarly, the analysis considers a portfolio company to be minority-owned if minorities comprise any fraction of the firm's ownership structure.³⁹

Population

Of the 4,025 financing events that occurred after June 1, 2013, a total of 558 (13.9 percent) were to portfolio companies that had female owners at any ownership level. These investments occurred in 184 distinct firms. Fifty-eight financing events (a little less than 1.5 percent) occurred in 24 distinct portfolio companies that were majority-owned by women. Likewise, the data show that 487 (10.8 percent) investment events occurred in 162 distinct companies with any level of ownership by ethnic or racial minorities.

Investment Performance

The final component of the analysis compares the performance of gender-diverse and racially diverse SBICs to non-gender-diverse and non-racially diverse SBICs.

³⁹ Although the SBA uses a 51 percent threshold to define a company as either woman- or minority-owned, for the purposes of this study, a company that has at least one woman or at least one ethnic or racial minority listed among its owners is considered woman- or minority-owned. This definition was necessary because of the reasons given in the above text and because available SBIC diversity data did not specify ownership percentages.

Measures

To make this comparison, the authors considered the gross performance of the SBIC portfolio company investments reported on the SBA Annual Financial Report (SBA Form 468) filings. Listed under "Schedule 9–SBIC Cumulative Investment Performance," this measure provides gross performance statistics for SBICs in terms of total invested capital, investment proceeds, and residual value. Although the quarterly data are not audited (the annual data are), these cumulative cash flows provide the necessary figures to compute the gross investment multiples commonly used to measure investment performance.

There are a number of alternative performance measures that are commonly used in academic and practitioner performance evaluations, including the internal rate of return, the public market equivalent, and the total value to paid-in capital (TVPI). These measures are highly correlated across funds at a single point in time and primarily differ in terms of how they account for the passage of time.⁴⁰ Because the main purpose of this analysis is to make a cross-sectional comparison between the populations of diverse and non-diverse SBICs, the authors calculated fund performance based solely on the arithmetic mean TVPI. This "dollars out to dollars in" return metric is the simplest and easiest to understand of all of the possible performance metrics available. This measure is computed as:

TVPI =<u>distributions back to the fund + the net asset value of their investment</u> the amount of capital the fund provided to the company

Population

The SBA only began capturing Schedule 9 information in June 2013. Therefore, the total SBIC base population used in this analysis was 230 SBICs, as some companies did not complete the web-based form. Table 4 shows those SBICs that did provide Schedule 9 information by vintage year. Additionally, it should be noted that most private equity funds take four to six years to achieve positive returns; this is called the J-curve.

⁴⁰ For more on this, see Robert S. Harris, Tim Jenkinson, and Steven N. Kaplan, "Private Equity Performance: What Do We Know?," *Journal of Finance* 69, no. 5 (2015): 1851–82, doi: 10.1111/jofi.12154; and Berk Sensoy and David T. Robinson, "Cyclicality, Performance Measurement, and Cash Flow Liquidity in Private Equity," *Journal of Financial Economics* (forthcoming).

Number of SBICs in Base Population Reporting Performance						
Vintage Year	Gender Diverse	Racially Diverse	Gender or Racially Diverse	Neither Gender nor Racially Diverse	Total	
Prior to 2000	0	3	3	11	14	
2000-2004	6	2	8	43	51	
2005-2009	3	2	5	35	40	
2010-2015	15	18	27*	98	125	
Total	24	25	43	187	230	
Percentage of S	Percentage of SBICs in Base Population Reporting Performance					
Vintage Year	Gender Diverse	Racially Diverse	Gender or Racially Diverse	Neither Gender nor Racially Diverse	Total	
Prior to 2000	0.0%	21.4%	21.4%	78.6%	100.0%	
2000-2004	11.8%	3.9%	15.7%	84.3%	100.0%	
2005-2009	7.5%	5.0%	12.5%	87.5%	100.0%	
2010-2015	12.0%	14.4%	21.6%*	78.4%	100.0%	
Total	10.4%	10.9%	18.7%	81.3%	100.0%	

Table 4. SBIC Population for Performance Analysis

* Six SBICs are both gender and racially diverse. It also should be noted that 12 SBICs in the base population had not yet reported their financings.

Table 4 shows that most of the funds in this population are too young to evaluate. In fact, only nine gender-diverse and seven racially diverse SBICs are likely past their J-curve (i.e., more than six years since the funds commenced). The performance comparisons presented here are thus necessarily tentative.

The Diversity of SBIC Portfolio Companies

This section presents the results of comparing the diversity of SBIC investment teams to those of the broader private equity universe. Gender diversity is considered first because similar statistics for the private equity community as a whole are more readily available. The analysis then compares the incidence of racial diversity among SBICs to broad statistics available on the general private equity sector.

Gender Representation in SBIC Investments

To understand how SBA's SBIC Program compares in terms of the gender diversity gap with industry more broadly, one must compare the gender composition of SBIC funds with non-SBIC funds. With the help of PitchBook, the authors obtained a list of over 10,000 private equity

SBIC

Non-SBIC

12.8%

3.9%

organizations with vintage years of 2000 or later. The PitchBook data record the total number of partners in a firm, as well as the number of female investment professionals. Because the PitchBook data also track whether a firm is an SBIC, analysts also could compare the rates of female leadership among SBIC and non-SBIC firms (see table 5).

te of the end of object and then object and swith Gender Diversity					
Fund Type	All Funds	All Mezzanine	Mezzanine <us\$500m< td=""></us\$500m<>		

Table 5. Percentage of SBIC and Non-SBIC Funds with Gender Diversity

11.9%

7.9%

The results are striking. Looking across all funds recorded in the Pitchbook data, which include many that are much larger than the average SBIC fund, only 7.9 percent of firms had any female investment professionals on their staffs. Among SBIC funds, this number was 11.9 percent, a difference that is statistically significant.⁴¹

12.2%

5.9%

As table 5 illustrates, this difference is greater when the comparison set is narrowed to focus on funds that more closely match typical SBIC funds, such as mezzanine funds.⁴² For instance, mezzanine funds are gender diverse in only 5.9 percent of non-SBIC funds, while 12.2 percent of SBIC active debenture funds are gender diverse. In smaller mezzanine funds, the differences are more pronounced, with only 3.9 percent of non-SBIC funds being gender diverse as compared to 12.8 percent of SBIC funds.

Minority Representation in SBIC Investments

Datasets like PitchBook do not track the minority ownership of private equity funds' investments; therefore, it is difficult to establish a meaningful comparison of minority representation in SBIC and non-SBIC funds. However, according to a census of venture capital

⁴¹ Because the figures in table 5 are based solely on data from Pitchbook, the proportions differ slightly from those reported earlier.

⁴² Mezzanine debt is used by companies that are cash-flow positive to fund further growth through expansion projects, acquisitions, recapitalizations, and management and leveraged buyouts. When mezzanine debt is used in conjunction with senior debt, it reduces the amount of equity required in the business. As equity is the most expensive form of capital, it is most cost effective to create a capital structure that secures the most funding, offers the lowest cost of capital, and maximizes return on equity. See Corry Silbernagel and Davis Vaitkunas, *Mezzanine Finance* (Vancouver: Bond Capital, 2012), http://www.salvador-montoro.com/uploads/3/2/0/7/3207272/mezzanine_finance_12.pdf.

funds conducted by the NVCA in 2011, nine percent of venture investors were Asian, two percent were African American or Hispanic, and two percent were of mixed race.⁴³ The statistics reported in the Methodology suggest that SBIC funds are racially diverse to a similar degree, although precise statistical comparisons are difficult to provide because the NVCA tracks investment professionals instead of funds.

DIVERSITY AND PERFORMANCE

Differences in Investment Behavior between Racially Diverse and Non-Racially Diverse SBICs

Investment in Minority-Led and Minority-Owned Companies

After looking at the gender and racial diversity of SBICs, as compared to the broader private equity and venture capital communities, the authors explored the question of whether racially diverse SBICs are more likely to invest in other racially diverse businesses. To do this, they compared racially diverse and non-racially diverse SBIC funds in terms of the investments that they made in portfolio companies with minority CEOs. Table 6 reports the percentage of these investments, as well as the p-values associated with the analysis (t-test) of the two populations (i.e., the investment percentages of racially diverse and non-racially diverse SBICs) as being equal.⁴⁴

⁴³ NVCA, "NVCA Forms Diversity Task Force."

⁴⁴ A p-value is a statistical term that refers to the probability of obtaining a result equal to or "more extreme" than what was actually observed, when the null hypothesis is true. The p-value is widely used in statistical hypothesis testing, specifically in null hypothesis testing. In general, p-values smaller than 0.10 indicate statistical significance at the minimum acceptable conventional level. Lower numbers indicate higher levels of statistical significance. A t-test is any statistical hypothesis test in which the test statistic follows one's t-distribution under the null hypothesis. It can be used to determine if two sets of data are significantly different from each other.

Racially Diverse SBIC?	All Active Funds	Active Debenture Only
No	5.21%	5.55%
Yes	12.70%	12.00%
p-value (difference)	0.00	0.00

Table 6. Percentage of Investments in Minority-Led Portfolio Companies⁴⁵

The results show that racially diverse SBICs are much more likely to invest in racially diverse firms than non-racially diverse SBICs. The Active Debenture Only column in table 6 shows that 12 percent of such investments made by racially diverse SBICs are into minority-led portfolio companies.⁴⁶ By comparison, just 5.55 percent of non-racially diverse SBIC investments made are into similar minority-led businesses. These differences are statistically significant.⁴⁷

The unit of observation in table 6 is a financing event, not a distinct portfolio company. However, it should be noted that racially diverse SBICs also invest in greater numbers of distinct portfolio companies led by racial minorities. For the sample of racially diverse, active-debenture SBICs, 16 percent of the portfolio companies that they invested in were led by minority CEOs. For the sample of non-racially diverse SBICs, only 5.3 percent of the portfolio companies that they invested in were led by minority CEOs. This difference in proportions is statistically significant.

The authors also examined whether the investments made by racially diverse and non-racially diverse SBICs into minority-led companies are different when looking at the proportions of new fund dollars invested. Table 7 presents these findings.

⁴⁵ "All Active Funds" refers to all active SBICs during the base time period, while "Active Debenture Only" refers to all active SBICs during the base time period other than Participating Securities SBICs, Specialized SBICs, and non-leveraged funds.

⁴⁶ The Active Debenture Only column is examined here as it best represents where racially diverse SBICs are currently making most of the investments.

⁴⁷ The authors also examined data from 2009—when the information was initially collected for minority investments—and reached similar conclusions: For the active-debenture-only group, 3.60 percent of non-racially diverse SBICs invested into minority-led portfolio companies whereas 11.97 percent of racially diverse SBICs did so. These results are also statistically significant.

Racially Diverse SBIC?	All Active Funds	Active Debenture Only
No	1.56%	1.88%
Yes	6.30%	4.41%
p-value (difference)	0.00	0.01

Table 7 Pro	nortion of Ne	w Fund Dollar	s Invested in	Minority-I	ed Portfolio	Companies
1 aut /.110	POT HOIL OF TYC	w runu Donai	S Investeu m	WITHUT ILY-LA		Companies

In this table, the proportions are computed by dividing the total dollars invested into minority-led companies by the total dollars invested by the SBIC. As in table 6, the p-value is associated with a test of the null hypothesis that the proportions are equal for racially diverse and non-racially diverse SBICs. The Active Debenture Only column in table 7 shows that 4.41 percent of such investments made by racially diverse SBICs are into minority-led portfolio companies. By comparison, just 1.88 percent of non-racially diverse SBIC investments made are into such businesses. The p-values of the differences in the proportions indicate that one can reject the null hypothesis with a high degree of statistical significance. Thus, table 7 provides further evidence that there is a difference in the investment behavior of racially diverse and non-racially diverse SBICs.

Another way to approach the question of whether racially diverse SBICs make racially diverse investments is to examine the ownership, rather than the leadership, of the companies in which they invest. As discussed in the Methodology, the authors categorized a portfolio company as being minority-owned if any portion of the business is owned by members of an ethnic or racial minority. Table 8 presents these findings.

Racially Diverse SBIC?	All Active Funds	Active Debenture Only
No	12.22%	13.35%
Yes	21.25%	18.67%
p-value (difference)	0.00	0.04

 Table 8. Percentage of Investments in Minority-Owned Portfolio Companies

The All Active Funds column shows that 21.25 percent of the investments made by racially diverse SBICs post-2013 were into minority-owned portfolio companies. By comparison, just 12.22 percent of non-racially diverse SBIC investments made were into similarly owned businesses. This difference is statistically significant. Likewise, among active-debenture-only

funds, over 18 percent of the investments made by racially diverse SBICs were to firms with racially diverse ownership, while only 13 percent of the investments made by non-racially diverse SBICs were to such firms.⁴⁸ The authors also considered tests based on a threshold of majority ownership, and found similar evidence of investment behavior differences between racially diverse and non-racially diverse SBICs. Nine percent of the investments made by racially diverse SBICs went to portfolio companies that were majority-owned by ethnic or racial minorities. Only two percent of the investments made by non-racially diverse SBICs went to such companies. The difference between these proportions also is statistically significant.

Investment in Women-Led and Women-Owned Companies

The authors next explored whether racially diverse SBICs are more likely to invest in women-led and women-owned companies than non-racially diverse SBICs and found evidence that they do.

Table 9 shows the proportions of the total number of investments made into companies led by a female CEO (woman-led) according to whether the SBIC is or is not racially diverse. Data in the All Active Funds column indicate that 6.47 percent of the investments made by racially diverse SBICs were into women-led portfolio companies. By comparison, just 3.45 percent of non-racially diverse SBIC fund investments made were into such businesses. While there is strong evidence of a difference in the investment behavior of all active funds, the p-value for the active-debenture-only category is not statistically significant at conventional levels.⁴⁹

Racially Diverse SBIC?	All Active Funds	Active Debenture Only
No	3.45%	3.55%
Yes	6.47%	5.33%
p-value (difference)	0.00	0.12

Table 9. Percentage of Investments in Women-Led Portfolio Companies

⁴⁸ The authors also analyzed the proportions of fund size and found mixed evidence of differences in the investment behavior of racially diverse and non-racially diverse SBICs. While strong evidence was observed for all active funds, the differences in investment behavior for active-debenture-only funds were not statistically significant at conventional levels.

⁴⁹ Yet, it should be noted that the p-value of 0.12 is reasonably close to the conventional cutoff of 0.10.

Analysis then turned to whether the investments made into women-led companies are different when looking at the proportions of new fund dollars invested into them. Table 10 presents these findings.

Racially Diverse SBIC?	All Active Funds	Active Debenture Only
No	1.25%	1.53%
Yes	5.60%	4.99%
p-value (difference)	0.00	0.00

 Table 10. Proportion of New Fund Dollars Invested in Women-Led Portfolio Companies

In table 10, the proportions of new fund dollars invested into women-led portfolio companies are computed by dividing the total dollars invested into women-led companies by the total dollars invested by the SBIC. The Active Debenture Only column shows that 4.99 percent of such investments made by racially diverse SBICs post-2013 are into women-led portfolio companies. By comparison, just 1.53 percent of non-racially diverse SBIC investments made were into such businesses. The p-values of the differences in the proportions hover near zero percent, which is statistically significant. Thus, table 10 provides further evidence that there is a difference in the investment behavior of racially diverse and non-racially diverse SBICs.

The authors also approached the question of whether racially diverse SBICs make more genderdiverse investments than non-racially diverse SBICs by examining the ownership, rather than the leadership, of the companies in which they invest. Table 11 presents the findings for the investments made into companies where women had any ownership stake.

Racially Diverse SBIC?	All Active Funds	Active Debenture Only
No	13.31%	13.38%
Yes	18.48%	19.33%
p-value (difference)	0.00	0.00

Table 11. Percentage of Investments in Women-Owned Portfolio Companies

The Active Debenture Only column shows that 19.33 percent of the investments made by racially diverse SBICs post-2013 are into women-owned portfolio companies. By comparison, just 13.38 percent of the investments made by non-racially diverse SBICs went to such

businesses. The differences in the proportions reported in both the All Active Funds and Active Debenture Only columns are statistically significant. Table 11 provides strong evidence that there is a difference in the number of investments made into women-owned companies by racially diverse and non-racially diverse SBICs.⁵⁰

Table 12 provides a summary of the analyses performed on racially diverse SBIC fund investment behaviors. The "more" labels indicate categories where racially diverse funds have invested more in minority- or women-led or -owned businesses than their non-racially diverse fund counterparts. All labels indicate statistical significance at conventional levels. Dashes indicate a lack of statistical significance.

	Portfolio Companies			
All Active Funds	Minority-Led	Minority-Owned	Women-Led	Women-Owned
Number of Investments	More	More	More	More
Proportion of Fund Dollars	More	More	More	More
	Portfolio Companies			
Active Debenture Only	Minority-Led	Minority-Owned	Women-Led	Women-Owned
Number of Investments	More	More		More
Proportion of Fund Dollars	More		More	More

All labeled cells have p-values of 0.10 or less and thus are statistically significant at conventional levels.

Differences in Investment Behavior of Gender-Diverse and Non-Gender-Diverse SBICs

Investment in Women-Led and Women-Owned Companies

Using post-2013 data from the SBA Portfolio Financing Report (SBA Form 1031), one can compare the types of companies that receive investment capital from gender-diverse and non-gender-diverse SBICs. Table 13 presents the proportions of the total investments made into companies led by a female CEO by whether the SBIC is gender diverse or not.

⁵⁰ The authors also analyzed the proportions of fund size and found equally strong evidence of differences in the investment behaviors of racially and non-racially diverse SBICs.

Gender-Diverse SBIC?	All Active Funds	Active Debenture Only
No	3.49%	3.35%
Yes	8.30%	10.30%
p-value (difference)	0.00	0.00

Table 13. Percentage of Investments in Women-Led Portfolio Companies

In the Active Debenture Only column, one can see that 10.30 percent of the investments made by gender-diverse SBICs are into women-led portfolio companies. By comparison, just 3.35 percent of non-gender-diverse SBIC investments made are into such companies. The bottom row provides the p-values, or confidence levels, associated with a test of the null hypothesis that the proportions are equal.⁵¹ The p-values of the differences in the proportions in the table hover near zero percent, which is statistically significant. Thus, table 13 provides strong evidence that there is a difference in the investment behavior of gender-diverse and non-gender-diverse SBICs.

While table 13 shows clear evidence that more investments from gender-diverse SBICs go to women-led companies, the unit of analysis is a financing event, not a distinct portfolio company. Analysis shows that gender-diverse and non-gender-diverse SBICs invest in a similar proportion of women-led companies; the difference comes from the fact that gender-diverse SBICs make more investments into these businesses.⁵²

The authors also examined whether the investments made by gender-diverse and non-genderdiverse SBICs into women-led businesses are different when looking at the proportions of new fund dollars invested into such companies. Table 14 presents these findings.

⁵¹ In general, confidence levels smaller than 0.10 indicate statistical significance at the minimum acceptable conventional level. Lower numbers indicate higher levels of statistical significance.

 $^{^{52}}$ For both gender and non-gender-diverse SBICs, about four percent of the total number of portfolio companies are women-led. However, the authors did not base their analysis on these numbers because the population of portfolio companies invested in by gender-diverse SBICs (n=80) is too small in relation to that of non-gender-diverse SBICs for reliable comparisons to be made.

Gender-Diverse SBIC?	All Active Funds	Active Debenture Only
No	1.59%	1.65%
Yes	3.21%	4.10%
p-value (difference)	0.16	0.05

Table 14. Proportion of New Fund Dollars Invested in Women-Led Portfolio Companies

Mirroring the analysis presented for racially diverse SBICs, the proportions reported here are computed by dividing the total dollars invested into women-led portfolio companies by the total dollars invested by the SBIC. The Active Debenture Only column indicates that 4.10 percent of the new fund dollar investments made by gender-diverse SBICs are into women-led portfolio companies. By comparison, just 1.65 percent of non-gender-diverse SBIC investments made are into similar businesses. The p-value for active-debenture-only funds hovers near five percent, which indicates that the proportions are statistically different from one another at conventional significance levels. Yet, the difference for all active funds (1.6 percent) is not statistically significant at conventional levels. Overall, however, table 14 provides further evidence that there is a difference in the investment behavior of gender-diverse and non-gender-diverse SBICs, especially among gender-diverse SBIC debenture funds.

Another way to approach the question of whether gender-diverse SBICs make more genderdiverse investments than non-gender-diverse SBICs is to examine the ownership, rather than the leadership, of the companies in which they invest. To do this, the authors compared the proportions of the investments made in and investment dollars given to firms in which women had any ownership stake by whether or not the SBIC fund leadership is gender diverse. Table 15 presents these findings.⁵³

Gender-Diverse SBIC?	All Active Funds	Active Debenture Only
No	13.48%	13.73%
Yes	19.92%	18.18%
p-value (difference)	0.01	0.11

Table 15. Percentage of Investments in Women-Owned Portfolio Companies

⁵³ The authors conducted a similar analysis based on a threshold of majority ownership, but found no statistical evidence of investment behavior differences between gender and non-gender-diverse SBICs.

The All Active Funds column shows that 19.92 percent of the investments made by genderdiverse SBICs post-2013 are into women-owned portfolio companies. By comparison, just 13.48 percent of non-gender-diverse SBICs invested in such businesses. While the analysis on all active funds is statistically significant, the Active Debenture Only column indicates weaker evidence as measured by a p-value of 0.11, just above the conventional 0.10 cutoff. However, overall, table 15 provides some evidence that there is a difference in the number of investments made into women-owned companies by gender-diverse and non-gender-diverse SBICs.⁵⁴

Investment in Minority-Led and Minority-Owned Companies

The authors also compared the investments made by gender-diverse and non-gender-diverse SBICs into minority-led and minority-owned portfolio companies. The authors first asked the question: do gender-diverse SBICs invest into more businesses led by racially diverse individuals than non-gender-diverse SBICs? There is no statistical evidence of this being the case.⁵⁵ The authors then examined whether a difference exists when looking at the number of investments made into minority-owned portfolio companies. Table 16 presents these findings.

Gender-Diverse SBIC?	All Active Funds	Active Debenture Only		
No	13.64%	14.18%		
Yes	6.22%	8.48%		
p-value (difference)	0.02	0.10		

 Table 16. Percentage of Investments in Minority-Owned Portfolio Companies

Table 16 indicates that there is evidence that gender-diverse SBICs invest in fewer minorityowned portfolio companies than non-gender-diverse SBICs. Across all active SBIC funds, for example, just 6.22 percent of the investments made by gender-diverse SBICs are deployed towards minority-owned portfolio companies, whereas 13.64 percent of the investments made by

⁵⁴ The authors also analyzed the proportions of fund size and found much weaker evidence of differences in the investment behaviors of gender-diverse and non-gender-diverse SBICs (i.e., not statistically significant at conventional levels).

⁵⁵ To answer this question, the authors investigated the number of investments made as well as the proportions of fund dollars deployed.

non-gender-diverse SBIC funds are into similar businesses. For active debenture funds, the result is similar.⁵⁶ Both conclusions are statistically significant at conventional levels.

The authors also performed an alternate analysis looking at the proportions of fund investments by dollars. The analyses on both all-active and active-debenture-only funds yielded outcomes that show gender-diverse funds invest in fewer minority-owned businesses; however, the results are not statistically significant at conventional levels.⁵⁷

Table 17 provides a summary of the analyses performed on gender-diverse SBIC fund investment behaviors. The "more" and "fewer" labels indicate categories where gender-diverse funds have invested more or less in minority- or women-led or -owned business than their non-gender-diverse fund counterparts. Dashes indicate a lack of statistical significance.

	Portfolio Companies					
All Active Funds	Women-Led Women-Owned Minority-Led Minority					
Number of Investments	More	More		Fewer		
Proportion of Fund Dollars						
	Portfolio Companies					
Active Debenture Only	Women-Led	Women-Owned	Minority-Led	Minority-Owned		
Number of Investments	More			Fewer		
Proportion of Fund Dollars	More					

Table 17. Summary of the Investments of Gender-Diverse SBIC Funds

All labeled cells have p-values of 0.10 or less and thus are statistically significant at conventional levels.

Differences in Investment Performance

Given the evidence presented thus far that diverse SBICs are more likely to invest in diverse portfolio companies, the next piece of the analysis considers whether these differences in investment patterns translate into differences in financial performance.

To compare the financial performance of SBIC investments based on whether or not the SBIC is racially or gender diverse, the authors merged the data from the SBA Portfolio Financing Report

⁵⁶ The authors also examined investments made into businesses with a majority ownership by ethnic or racial minorities and found similar, statistically significant results.

⁵⁷ This applies to analyses performed on both businesses with a majority ownership and businesses with any ownership by ethnic or racial minorities.

(SBA Form 1031) and SBA Annual Financial Report (SBA Form 468) filings, creating a measure of investment performance at the individual portfolio company level, the TVPI. The authors then performed a t-test of the difference in the TVPI for investments made by diverse and non-diverse SBICs.

	All Active Funds (Post-2009)		All Active F (Post-201		Active Debenture Only (Post-2013)			
	Observations (n)	Mean TVPI	Observations (n)	Mean TVPI				
Racially Diverse?								
No	1,205	1.07	911	1.10	804	1.03		
Yes	184	0.93	122	0.78	97	0.94		
p-value (difference)		0.66		0.57		0.84		
Gender Diverse?								
No	1,272	1.06	958	1.08	837	1.02		
Yes	117	0.97	75	0.89	64	0.97		
p-value (difference)		0.81		0.80		0.93		

Table 18. Differences in Investment Performance

Table 18 presents the investment performance differences between diverse and non-diverse SBICs. Although there are modest differences in performance between racially diverse and non-racially diverse SBICs, and between gender-diverse and non-gender-diverse SBICs, because investment performance measures are inherently uncertain in the private equity setting (especially considering that many of the diverse funds are young and therefore have a number of portfolio company holdings with unrealized returns), none of the differences is statistically significant. Based on these simple comparisons, there is no apparent difference in performance between diverse SBIC funds and other funds.⁵⁸

One concern with measuring performance in this setting is that because investments often have long gestation periods before any returns are realized, younger SBIC funds would appear to underperform, not because of any true underlying differences in quality, but simply because their investments have not had sufficient time to mature. Likewise, funds operating at a larger or smaller scale of investment may have an inherent advantage over other funds. To account for these considerations, the authors performed a regression analysis of investment performance. By

⁵⁸ In a separate analysis, the authors also compared the performances of diverse funds after weighting the individual investments by size, giving more weight to larger investments. This did not result in any measurable differences in performance.

including the age of the investment and the funds' size in the regression analysis, any differences in performance that might stem from differences due to these factors are removed. Yet, even after controlling for the differences in the funds' age, investment holding period, and size, the authors found no difference in the performance of active SBIC funds based on fund diversity.

Differences in Investment in LMI Communities

The final piece of the analysis examines the role that gender-diverse and racially diverse SBICs play in investing in LMI communities. Using the data from SBA Portfolio Financing Report (SBA Form 1031) filings from June 2013 forward, the authors developed a dependent variable that is equal to one if the SBIC invested in a portfolio company that resides in an LMI region and zero if it is not.

A simple breakdown based on whether the fund is gender diverse or racially diverse illustrates the main finding. The results shown in table 19 indicate that fewer investments from genderdiverse SBICs occur in LMI communities than from their non-gender-diverse counterparts when looking across all active SBIC funds. This result is statistically significant. However, for activedebenture-only funds, the results are not statistically significant. Thus, the evidence is mixed.⁵⁹

Gender-Diverse SBIC?	All Active Funds	Active Debenture Only		
No	14.85%	16.54%		
Yes	7.88%	18.67%		
p-value (difference)	0.00	0.35		

 Table 19. Percentage of Investments in LMI Communities by Gender-Diverse SBIC Funds

Table 20 shows the percentage of investments made into LMI communities by whether the fund itself is racially diverse or not. For both funding categories, there is evidence that racially diverse SBICs invest more in LMI communities than their non-racially diverse counterparts do. For active-debenture-only funds, racially diverse SBICs invested 8.08 percent of their investment dollars into LMI communities, whereas non-racially diverse funds invested just 5.13 percent. However, the authors did not detect statistical significance at conventional levels.

⁵⁹ The authors also analyzed the proportions of fund dollars and found that the results for neither all active funds nor active-debenture-only funds were statistically significant at conventional levels.

Racially Diverse SBIC?	All Active Funds	Active Debenture Only		
No	4.63%	5.13%		
Yes	7.51%	8.08%		
p-value (difference)	0.05	0.10		

Table 20. Percentage of Investments in LMI Communities b	v Raciall	v Diverse SBIC Funds
Table 20, I ci centage of investments in Livit Communities b	y maciali	y Diverse SDIC Funds

It is important to stress that this analysis does not control for the fact that business opportunities in LMI regions are likely very different from those in non-LMI areas. It could simply be the case that the financial crisis of 2007–8 differentially impacted LMI communities, causing investment opportunities to dry up, and that, as a result, no SBICs-gender diverse, racially diverse or otherwise—found investing in these communities to be an attractive proposition. It could also be that when an attractive investment opportunity in an LMI region is present, diverse SBICs are more likely to invest, but that such opportunities are rare. It is impossible to separate supply-side and demand-side considerations with the type of analysis conducted here.

CONCLUSION

Congress created the SBA's SBIC Program in 1958 and since its inception to December 2015, the participating SBICs have deployed US\$80.5 billion in capital (two-thirds from the private sector) into approximately 172,800 financings.⁶⁰

In recent history, the proportions of gender-diverse and racially diverse SBIC funds have increased significantly and have prompted some important questions:

- How diverse are SBICs in terms of having women and/or ethnic or racial minorities in leadership positions?
- Are racially diverse SBICs more likely to invest in small businesses led or owned by women and/or ethnic or racial minorities?
- Are gender-diverse SBICs more likely to invest in small businesses led or owned by women and/or ethnic or racial minorities?
- How do SBICs led by women and/or ethnic or racial minorities compare in terms of investment performance to non-diverse SBICs?

⁶⁰ SBA, Offering Circular: Guaranteed 2.507% Debenture Participation Certificate, 7.

- Are diverse SBICs more likely to invest in LMI communities?

The authors answered these questions using data from SBA Portfolio Financing Report (SBA Form 1031) and SBA Annual Financial Report (SBA Form 468) filings provided by the agency's OII dating from 2013 onward. Overall, their findings suggest that granting SBIC licenses to well-qualified gender-diverse and racially diverse funds increases the rates of investment into other women-led, women-owned, minority-led, and minority-owned companies while also producing returns that are comparable to their non-diverse counterparts. Taken together, these facts indicate that diverse populations are better served by and through a diverse team of fund managers.

APPENDIX I. GLOSSARY

Angel Investors

High-net-worth individuals who seek high returns through private investments in startup companies.

Buyout Investment

An investment transaction in which an individual acquires the ownership equity of a company or a majority share of the company's stock, thereby "buying out" the present equity holders.

Capital Structure

How a firm finances its overall operations and growth by using different sources of funds (debt and equity). Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stocks, preferred stocks, or retained earnings.

Community Reinvestment Act

Enacted by Congress in 1977, the Community Reinvestment Act is intended to encourage depository institutions to help meet the credit needs of the communities in which they operate.

Confidence Level

A statistical term that refers to the probability that the value of a parameter falls within a specified range of values.

Crunch Base

A database of information on startup funding, venture capital investments, and people in the startup ecosystem. Homepage: https://www.crunchbase.com/.

Debenture

A corporate finance term that refers to a medium- to long-term debt instrument used by large companies to borrow money at a fixed rate of interest. For the purposes of the SBIC Program, while authorized under the Small Business Investment Act to have a maximum term of 15 years, substantially all SBIC debentures are issued for a 10-year term.

Debt Financing

Financing based on debt instruments such as bond issues or long-term notes payable.

Debt-Plus-Equity Financing

Financing based on debt instruments, such as bond issues or long-term notes payable, and equity, such as common stocks, preferred stocks, or retained earnings.

Dodd-Frank Wall Street Reform and Consumer Protection Act

Signed into law by President Barack Obama on July 21, 2010, this Act is intended to promote the financial stability of the United States by improving accountability and transparency in the financial system, to protect American taxpayers by ending bailouts, and to protect consumers from abusive financial services practices, among other purposes.

Early Stage Investment Initiative

The Early Stage Investment Initiative launched in 2011 as part of President Barack Obama's Startup America Initiative. The program consists of a five-year plan to commit US\$200 million annually to venture capital firms investing in early-stage businesses (those that had not yet achieved a positive cash flow).

Early-Stage Investments

SBA regulations define early-stage investments as those made to companies that have never achieved positive cash flows in any fiscal year.

Equity Capital/Financing

Money raised by a business in exchange for an ownership share of the company, by either owning shares of stock outright or having the right to convert other financial instruments into stock. Two key sources of equity capital for new and emerging businesses are angel investors and venture capital firms.

Gender Diverse

For the purposes of this study, "gender diverse" refers to an investment firm in which at least one woman is listed among the investment professionals.

Hedge Fund

A limited partnership of investors that uses high-risk methods, such as investing with borrowed money, in the hopes of realizing large capital gains.

Hybrid Financing

Combined debt and equity financing.

Internal Rate of Return

The interest rate at which the net present value of all of the cash flows (both positive and negative) from a project or investment equal zero. The internal rate of return is used to evaluate the financial attractiveness of a project or investment.

Investment Performance

The return on an investment portfolio.

Investment Portfolio

The collection of investments held by an investment company, hedge fund, financial institution, or individual.

J-curve

In private equity funds, the J-curve effect occurs when funds experience negative returns for the first several years. This is a common experience, as the early years of the fund include capital drawdowns and an investment portfolio that has yet to mature.

Leverage

The ratio of a company's loan capital (debt) to the value of its common stock (equity).

Licensee

A private investment fund licensed as a Small Business Investment Company (SBIC) by the U.S. Small Business Administration (SBA).

Limited Partnership

A partnership consisting of a general partner, who manages the business and has unlimited personal liability for the business's debts and obligations, and a limited partner, who has limited liability but cannot participate in the management of the business.

Low and Moderate Income (LMI) Zone

The SBA defines an LMI Zone as any area located within a HUBZone, an Urban Empowerment Zone, or an Urban Enterprise Community (as designated by the Secretary of the Department of Housing and Urban Development); a Rural Empowerment Zone or Rural Enterprise Community (as designated by the Secretary of the Department of Agriculture); an area of low or moderate income (as recognized by the Federal Financial Institutions Examination Council); or a county with persistent poverty (as classified by the Economic Research Service of the Department of Agriculture).

Low and Moderate Income Enterprise

A small business that has at least 50 percent of its employees or tangible assets located in LMI Zones, or in which at least 35 percent of the full-time employees have primary residences in such communities.

Lower-Middle Market

The market segment containing businesses with between US\$5 million and US\$10 million in annual revenues.

Mezzanine Financing

Mezzanine debt is used by companies that are cash-flow positive to fund further growth through expansion projects, acquisitions, recapitalizations, and management and leveraged buyouts. When mezzanine debt is used in conjunction with senior debt, it reduces the amount of equity required in the business. As equity is the most expensive form of capital, it is most cost effective to create a capital structure that secures the most funding, offers the lowest cost of capital, and maximizes return on equity.

Minority-Led

For the purposes of this study, "minority-led" refers to a company that has at least one ethnic or racial minority listed among its senior management.

Minority-Owned

For the purposes of this study, "minority-led" refers to a company that has at least one ethnic or racial minority listed among its owners.

National Association of Investment Companies (NAIC)

A trade association that represents the interests of minority-owned investment companies. Homepage: http://naicpe.com/.

National Venture Capital Association (NVCA)

An organization that fosters greater understanding of the importance of venture capital to the U.S. economy and to support entrepreneurial activity and innovation. Homepage: http://nvca.org/.

North American Industry Classification System (NAICS)

The standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. economy.

Office of Investment and Innovation (OII)

The office within the SBA that operates the SBIC Program.

p-value

A statistical term that refers to the probability of obtaining a result equal to or "more extreme" than what was actually observed, when the null hypothesis is true. The p-value is widely used in statistical hypothesis testing, specifically in null hypothesis testing.

Pitchbook

A widely used source for investment information in the venture capital and private equity sector. The company's database contains female and total partner information on 10,168 U.S. private equity funds with vintage years from 2000 to 2015.

Portfolio Company

An entity in which a venture capital firm, buyout firm, holding company, or other investment fund invests. All of the companies currently backed by a private equity firm can be referred to as the firm's portfolio.

Private Equity/Capital

An asset class consisting of equity securities and debt in operating companies that are not publicly traded on a stock exchange. A private equity investment will generally be made by a private equity firm, a venture capital firm, or an angel investor.

Private Equity Fund

A collective investment scheme used to make investments in various equity (and, to a lesser extent, debt) securities according to one of the investment strategies associated with private equity.

Racially Diverse

For the purposes of this study, "racially diverse" refers to an investment firm in which at least one ethnic or racial minority is listed among the investment professionals.

SBA Annual Financial Report (SBA Form 468)

OII uses the Annual Financial Report to assess changes in SBICs while they participate in the program. SBICs submit them quarterly and they are audited annually.

SBA Portfolio Financing Report (SBA Form 1031)

OII uses the Portfolio Financing Report to assess various characteristics of small businesses before their financing events. SBICs submit the form within 30 days of the close of financing. This form contains portfolio concern financing and supplementary information that SBA uses to evaluate an SBIC's investment activities and compliance with SBIC Program requirements. The agency also pools the information provided by individual SBICs on these forms to analyze the SBIC Program as a whole and the impact of SBIC financings on the growth of small businesses. The report includes voluntary demographic questions regarding an SBIC portfolio company's ownership and management.

Small Business

A business with less than US\$19.5 million in tangible net worth AND an average after-tax income for the preceding two years of less than US\$6.5 million; OR, a business that qualifies as "small" under NAICS code standards (which are generally based on annual sales or the number of employees).

Specialized SBIC (SSBIC) Program

An SBA program that was authorized between 1969 and October 1996 to target "disadvantaged" businesses, meaning those that were at least 50 percent owned and controlled and managed on a day-to-day basis by a person or persons whose participation in the free enterprise system was hampered because of social or economic disadvantages.

Startup America Initiative

A White House initiative that was launched in 2011 to celebrate, inspire, and accelerate high-growth entrepreneurship throughout the nation. It is supported by an independent alliance of entrepreneurs, corporations, universities, foundations, and other leaders that joined together to fuel innovative, high-growth startups. The Startup America Partnership is now operating around the world as UP Global, which has committed to supporting and training 500,000 entrepreneurs in 1,000 cities over the next three years.

t-test

Any statistical hypothesis test in which the test statistic follows one's t-distribution under the null hypothesis. It can be used to determine if two sets of data are significantly different from each other.

Total Value to Paid-in Capital (TVPI)

A "dollars out to dollars in" metric that measures the total value created by a fund and thus its performance. It is computed as:

TVPI = distributions back to the fund + the net asset value of their investment the amount of capital the fund provided to the company

Venture Capital

Early-stage funding for startup companies that are high on risk but also high on potential. Venture capital is a type of equity financing that addresses the funding needs of entrepreneurial companies that—for reasons of size, assets, and stage of development cannot seek capital from more traditional sources, such as public markets and banks. Venture capital investments are generally made as cash in exchange for stock shares and an active role in the invested company.

Vintage Year

The year that a fund commenced.

Volcker Rule

A section of the Dodd-Frank Act, originally proposed by American economist and former Federal Reserve Chairman Paul Volcker to restrict U.S. banks from making certain kinds of speculative investments that do not benefit their customers.

Woman-Led

For the purposes of this study, "woman-led" refers to a company that has at least one woman listed among its senior management.

Woman-Owned

For the purposes of this study, "woman-owned" refers to a company that has at least one woman listed among its owners.

Note: These definitions were compiled from various sources, including websites and official documents of U.S. government organizations, such as the Federal Financial Institutions Examination Council, the U.S. Census Bureau, the U.S. Small Business Administration, and the White House; the websites of trade associations, such as the National Association of Investment Companies and the National Venture Capital Association; and trade platforms, such as *Crunch* Base and Investopedia.

APPENDIX II. SBIC LIFE CYCLE

The SBIC life cycle begins with an extensive application process. Following an optional prescreening of applicants by telephone, the first required step in applying for an SBIC license is the submission of a management assessment questionnaire (MAQ). After the SBA's investment committee reviews the MAQ, the agency issues a green-light letter. It is only upon the receipt of this letter that an applicant may submit a formal license application. This application is subject to additional review by the SBA's Office of Licensing and Program Standards before an SBIC license is issued. Once licensed, and if eligible under SBA regulations, an SBIC may apply for a leverage commitment. The SBIC then goes through investment and harvest periods (where investments are later sold), each of which extends for approximately five years. When the leverage has been repaid, the SBIC winds down the fund and returns its license to SBA (see fig. 2).

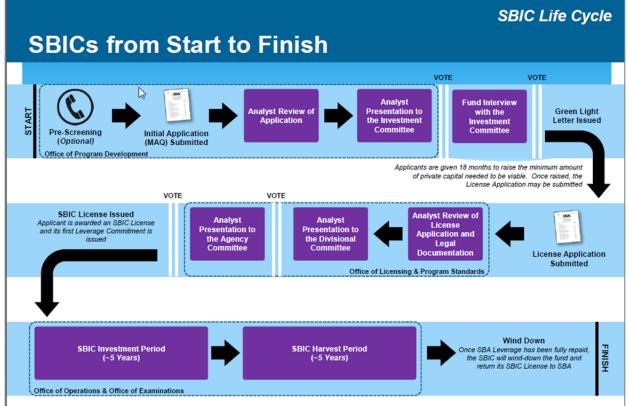


Figure 2. SBIC Life Cycle

Source: "Bridging the Capital Formation Gap."

APPENDIX III. SBA PORTFOLIO FINANCING REPORT (SBA Form 1031)

ast 2 dec	OMB No. 3245-0078 Expiration Date 10/31/2017
· [.	
U.S. Small Business Adr	
Portfolio Financing	Report
Name of Licensee	License Number
Part A - Small Business Concern Data	
1. Name of Small Business	2. Employer Identification Number
3. Street Address	
4. City 5. State 6. ZIP Code	
8. Small Business FAX 9. Contact Perso	
10. Date Business Established _/_/ 11. Form of Business 1) C	Corporation 2) Partnership 3) Proprietor 4) LLC
12a. NAICS Code Industry	
12b. Energy Saving Qualified Investment? If checked, was Energy	Saving debenture used to finance investment?
13. Percentage of Small Concern (if any) Owned by: American Indian of Black or African American:% Hispanic or Latino:% Native Ha	
14a. Percentage of Small Concern Owned by Women (if any)% 14	4b. Percentage Owned by Veterans (if any)%
15. CEO or President (may select one or more): Woman: Ar Black or African American: Hispanic or Latino: Native Hawai	
Part B - Prefinancing Information	
16. Prefinancing Status: (1) New Information (2) Previously Submitt	ed (3) Acquired Business (4) New Business
17a. Stage of Company at Financing: 17b. Technolo	
18. Small Business Concern's Pre-Money Valuation:	
19. Fiscal Year End Immediately Prior to Date of Financing (Month/Day/Ye	ear)/
20. Gross Revenue for Prior Fiscal Year \$ 21. After-T	
22. Income Taxes for Prior Fiscal Year: Federal \$ S	State \$ Local \$
23. Net Worth \$ 24. Number	er of Employees
Part C - Financing Information	
25. a. Date of Financing / / b. Date of Disbursement /	/ 26. Did Licensee lead this investment?
27. Purpose of Financing (Percentage of Financing that will be used to support	each category below. Percentages should total to 100%.)
a. Working Capital or Inventory Purchase f.	Acquisition of Machinery and Equipment
	Land Acquisition or Dwelling Construction Marketing Activities
d. Consolidation of Obligations or Non-SBIC Debt Refunding i.	
	Other
28. Is this the first Financing of this Small Business by the Licensee?	·
29. Financing Instruments and Applicable Amounts (for participations, incl	ude Licensee's portion only):
Instrument Amount	Initial Interest Rate(s) % Actual Ownership
Loan Only \$	%
Debt with Equity Features \$	%
Equity Only \$ Total Licensee Financing \$	%
30. Total Size of Financing Round for Small Business Concern:	
31. Comments:	
Part D - Transmission Verification	Transmission Date//

SBA Form 1031 (3/14) Previous Editions Obsolete

OMB No. 3245-0078 Expiration Date 10/31/2017

U.S. Small Business Administration Portfolio Financing Report

Use of Information: SBA Form 1031 is to be completed only by small business investment companies (SBICs) licensed by the Small Business Administration (SBA). This form contains Portfolio Concern financing and supplementary information that SBA uses to evaluate an SBIC's investment activities and compliance with SBIC program requirements. SBA also pools information provided by individual SBICs to analyze the SBIC program as a whole and the impact of SBIC financings on the growth of small business.

Instructions for Submitting Completed Form: SBA Form 1031 must be completed and filed electronically in the SBIC-Web system. SBIC-Web requires an SBA-approved user account. Submit your account request to <u>sbicwebsupport@sba.gov</u>.

PLEASE NOTE: The estimated burden for completing this form is 12 minutes per response. You will not be required to respond to this information collection if a valid OMB approval number is not displayed. If you have questions or comments concerning this estimate or other aspects of this information collection, please contact the U.S. Small Business Administration, Chief, Administrative Information Branch, Washington, DC 20416 and/or SBA Desk Officer, Office of Management and Budget, New Executive Office Building, Room 10202, Washington, DC 20503.

PLEASE DO NOT SEND FORMS TO OMB.

APPENDIX IV. SBA ANNUAL FINANCIAL REPORT (SBA Form 468, Schedule 9)

SCHEDULE 9	UNAUDITED SBIC CUMULATIVE INVESTMENT PERFORMANCE AS OF							OMB Approval No. 3245-0063 Expiration Date 10/31/2017		
Name of the Licensee:								License No:		
Include all investments, both reali the format requested, you may or June 30, 2011.										
1	2	3	4	5	6	7	8	9	10	
					Gross Receipts*					
Name of Small Business	Employer ID	Date 1st Invested	Total Dollars Invested	Cash	Equity	Total	SBA Reported Value	Gross Receipts to Total Dollars Invested	(Gross Receipts + Reported Value) to Total Dollars Invested	
				\$0	\$0	\$0	\$0	0.00	0.00	
TOTAL				\$0	\$0	\$0	\$0	0.00	0.00	

* Note: Gross Receipts includes all cash and qualifying equity securities received by SBIC for portfolio company investment. Cash receipts may include interest, dividends, repayment of debt, profit distributions, etcB Equity securities may only be included if they have been distributed by the SBIC to its investors; in which case, they should be entered based on the distributed value. Equity securities or notes still held by the SBIC should be included in the Residual Value.

SBA Form 468.2 (03/14) Previous edition obsolete.

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APPENDIX V. SBA LEGAL DISCLOSURE REGARDING COLLECTION OF PERSONAL INFORMATION

SBA collects demographic data from SBIC portfolio companies using voluntary questions on the SBA Portfolio Financing Report (SBA Form 1031). The questions concern an SBIC portfolio company's ownership and management with respect to gender and racial diversity. The Small Business Investment Act of 1958 (SBIA) may be interpreted to give SBA discretion to collect race, ethnicity, gender, or similar demographic data on a voluntary basis to help assess the SBIC Program's impact; however, the statute does not provide sufficient basis for the SBA to mandate the collection of such information from SBICs. Although the information would be useful to help evaluate the reach of the program across various segments of the population, SBA has determined that demographic information is not a prerequisite for program participation. In other words, the information is not required for a fund to obtain an SBIC license or retain SBIC program benefits. The information is also not a factor in assessing an SBIC's compliance with statutory or regulatory criteria governing core program requirements. In addition, the broad authority in the SBIA to promulgate program regulations (15 U.S.C. § 687c) or request reports (15 U.S.C. § 687b(b)) is an insufficient basis to mandate reporting on demographic data.

Generally, SBA classifies a respondent's obligation to respond on the standards set forth in the Paperwork Reduction Act at 44 U.S.C. 3506(c)(1)(B)(iii)(IV). Based on those standards, an SBIC's obligation to respond to a request for information is: (i) voluntary—response is entirely discretionary and has no direct effect on any benefit or privilege for the respondent; (ii) required to obtain/retain a benefit—response is elective, but failure to respond would have an effect on the benefit; or (iii) mandatory—failure to respond results in civil or criminal sanctions. As explained above, data on race, ethnicity, or gender has no effect on program participation. In addition, SBA has no authority to impose any sanctions for the failure to collect and report that data. Therefore, any obligation to respond to a request for demographic data in the SBIC Program is necessarily voluntary.

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In addition, the authors consulted relevant federal codes, laws, and regulations; U.S. government websites, such as those maintained by the Federal Deposit Insurance Corporation and the U.S. Small Business Administration; newspapers, such as the Guardian; and the websites of industry trade organizations, such as the National Association of Investment Companies and the National Venture Capital Association.