



# THE DIANA PROJECT

WOMEN BUSINESS OWNERS AND EQUITY CAPITAL: THE MYTHS DISPELLED

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THE DIANA PROJECT,  
NAMED FOR THE MYTHOLOGICAL  
GODDESS OF THE HUNT,  
IS A MULTI-UNIVERSITY,  
MULTI-YEAR PROJECT DEDICATED  
TO THE STUDY OF WOMEN  
BUSINESS OWNERS AND  
BUSINESS GROWTH ACTIVITIES.  
THIS FIRST REPORT TARGETS  
THE RELATIONSHIP BETWEEN  
WOMEN BUSINESS OWNERS  
AND EQUITY CAPITAL.



## WHAT DO WE KNOW SO FAR?

For more than four decades the venture capital industry played a quiet, yet crucial role in the development and expansion of successful ventures. In 1995, however, the landscape changed dramatically. Venture capital investments in high profile technology companies such as Netscape and Amazon.com brought the industry sharply into the spotlight. Billions of dollars were raised and invested, and rates of returns to investors skyrocketed. Deals were consummated with lightning speed, while new companies and the venture capital industry attracted a surge of media and public attention. Dramatic business and economic changes in 2000 caused shifts in investment strategies, but equity funding for new or innovative ventures continued to play a critical role in venture growth. While the long term economic impact on returns to investors and market performance of equity funded ventures remains to be seen, equity investment is now recognized as a priority financing option for entrepreneurs with high growth aspirations.

The National Venture Capital Association reported that in 2000, \$103 billion was invested in more than 5,380 deals. This represented a 113 percent increase in dollars invested and a 47 percent increase in the number of firms receiving funding in the previous year. Firms in

2000 received an average of approximately \$19 million to fuel venture growth. The crash of the dotcoms slowed the raising and investment of venture capital but hasn't stopped it. Venture capital investments for the first quarter of 2001 were reported as \$11.7 billion, representing 1,072 investments at an average investment of \$10.94 million per company.<sup>1</sup> Concurrently, however, concern about investor returns, increased sophistication of limited partners, venture capital firm investment specialization, growing investment size and a preference for later stage investments has intensified competition among venture capital firms and raised the standards for entrepreneurs seeking venture capital.<sup>2</sup> The dependence on venture capital financing for high growth raises important questions: Why do some entrepreneurial firms receive equity funding and others do not? And specifically, why are so few venture-funded companies led by women? Management qualifications (human capital) are among the primary factors associated with successful acquisition of equity capital. These qualifications include management and functional capabilities, and the experience and commitment of the leadership team.<sup>3</sup> Women are often found on start-up teams but are noticeably absent from the top leadership positions in venture funded start-ups.

The common perception that women primarily start small hobby-related enterprises that are less likely to grow is contradicted by substantial evidence showing that women own firms in all industrial sectors, and that many do want to grow them in size and scope.

Women business owners are a driving force in the U.S. economy, both in terms of numbers and gross revenues. Since 1990, women-owned ventures have played an increasingly prominent role as employers, customers, suppliers and competitors in the world marketplace. The common perception that women primarily start small hobby-related enterprises that are less likely to grow is contradicted by substantial evidence showing that women own firms in all industrial sectors, and that many do want to grow them in size and scope. The 1997 U.S. Economic Census showed that since 1992, the number of women-owned businesses increased by 16 percent and revenues from those businesses increased by 33 percent. In comparison, the number of all U.S. firms grew at a rate of 6 percent with a 24 percent increase in revenues.<sup>4</sup> In 2000, estimates were that women owned 38 percent of all businesses in the U.S., or roughly 9 million businesses.

Despite some progress, our understanding of women entrepreneurs and their financing strategies is based upon only a few studies about the relationship between gender and access to debt financing, and many of the results are inconclusive.<sup>5,6</sup> Indeed, the percentage of studies about women entrepreneurs/business owners comprised less than 10 percent of published work in the field.<sup>7,8</sup> For women entrepreneurs desiring to grow their businesses, bank financing is accessible through government initiatives (such as the Small Business Administration's Women's Pre-qualification Loan Program) and private banking programs (Wells Fargo Bank and Bank Boston programs for women business owners). Women's business organizations (e.g. Women Inc.) sponsor training programs, and assistance centers offer workshops about the availability of commercial credit and attempt to demystify the application process. The result is that in 1998, 52 percent of women business owners reported that they had used bank credit (as compared to 59 percent of male business owners). Approximately one third of women-owned businesses had credit lines of \$50,000 or more, 16 percent had \$100,000-500,000 and 7 percent had credit lines in excess of \$500,000.<sup>9</sup>

We actually know very little about the extent of equity investments in women-owned businesses. The reported numbers suggest that between 1953 and 1998, venture capital financing went to

approximately 7,916 male-led businesses and 395 female-led businesses (4.8 percent of the total).<sup>10</sup> Further breakdown of these numbers reveals that in 1997, the proportion of deals going to women-led firms was 2.5 percent with a substantial increase to 5 percent in 2001.<sup>11</sup> However, tracking equity investments to determine the distribution by gender is especially difficult since the leading databases do not report the gender composition of the management.

The lack of knowledge about the financing strategies of women business owners has given rise to a mythology about women entrepreneurs and their access to financing in general, and equity capital in particular. Women-owned businesses are perceived as risky investments because of their choice of industry, firm size, capital requirements, growth expectations and ownership/control issues.



*“The equity markets are the last frontier for women entrepreneurs. The stories of the women who tried to build their businesses without a map to the gold in these markets were the motivation for launching the Springboard forum series. Now we have more than stories, we have results. The experiences of these women entrepreneurs have become the gold mine that will be used to guide the next wave of entrepreneurs through these markets.”*

**Amy Millman, President,  
Springboard Enterprises**

## ENTER THE DYNAMIC ENVIRONMENT

Several groups around the country have coalesced around the issue of women business owners, growth opportunities and equity investments. Networking and support organizations emerged to develop and promote programs to support and advance the development of female entrepreneurs. In addition, venture capital firms and angel networks began to devote significant attention to what was perceived as a new market – women business owners. Periodically convened by the Kauffman Center for Entrepreneurial Leadership,<sup>12</sup> representatives of many of these organizations participated in preparing an agenda for further development. Some of these organizations are listed in the table on the following page.

## Participating Organizations Involved in Preparing an Agenda to Support and Advance Women Entrepreneurs

Advent International Corp.	Goldman, Sachs & Co. Harvard Business School	Piper Marbury Rudnick & Wolfe	Trade Builders University of Missouri - Kansas City
ARCH Venture Partners	Hummer Winblad Venture Partners	Seton Hill College's National Education Center for Women in Business	University of St. Thomas Viridian Capital
ATHENA Foundation	Indiana University Inroads Capital Partners	Seraph Capital Forum	VLM Consulting, LLC Weston Presidio Capital
Boston University School of Mgmt.	LaSalle Bank	Silicon Valley Bank	Whiteley & Company WomenAngels.net
Burlington Resources	Morino Institute - Netpreneur.org	Telecommunications Development Fund	Women's Business Development Center
Capital Missions Company	Mechanical Technology, Inc.	Testa, Hurwitz & Thibeault, LLP	Women's Economic Summit
Center for Women & Enterprise	National Commission on Entrepreneurship	The Angels' Forum and The Halo Fund, LP	Women's Growth Capital Fund
Council for Entrepreneurial Development	New Capitalist	The Center for Women's Business Research	Women's Technology Cluster
eePulse, Inc.	Northern Trust Company	Three Guineas Fund	
Forum for Women Entrepreneurs	ONSET Ventures		

The series of Springboard forums held in 2000 provided a vivid example of a proactive response to the dearth of women receiving equity investments to grow their ventures. The program, intended to accelerate investments in women-led businesses, was launched in 1999 by a consortium of leading women's business advocates and organizations. In 2000, forums were held at the Oracle Corporation in Silicon Valley, America Online headquarters in Washington, D.C., and the Harvard Business School in Boston. Forums in 2001 were held at the Oracle Corporation, as well as Chase Manhattan Plaza in New York City, and Northwestern University in Evanston, Illinois. These six events received 1,700 applications from women entrepreneurs in the software, technology, new media, consumer and business products, and life sciences industries. Further, the forums showcased 175 women entrepreneurs, attracted nearly 1,000 investors, and connected almost

2,000 investors, financiers and business development professionals in screening and coaching the companies. The businesses presenting at these forums have raised more than half a billion dollars, and 80 percent of these companies still have women at the helm and are continuing to grow. The program is continuing as Springboard Enterprises with additional programs and services designed to assist women in growing their ventures.<sup>13</sup>

Though Springboard continues to hold venture forums, we have chosen the women participants of the Springboard 2000 forums to examine the current state of venture capital for women entrepreneurs interested in, and capable of, high growth venturing. By learning more about women who are energetically seeking equity investments, we can better understand another dimension of women growing businesses and begin to de-bunk the myths about women and venture capital.



# EIGHT MYTHS

## ABOUT WOMEN AND EQUITY CAPITAL

Myths can be thought of as statements that are illusionary and generally lack substance. In this case, these stereotypes have the potential to inhibit a woman's chance of gaining access to equity capital and create a negative context for entrepreneurial growth.

1. Women *don't* want to own high growth businesses.
2. Women *don't* have the right *educational* backgrounds to build large ventures.
3. Women *don't* have the right types of *experience* to build large ventures.
4. Women *aren't* in the *network* and lack the social contacts to build a credible venture.
5. Women *don't* have the *financial savvy* or resources to start high growth businesses.
6. Women *don't* *submit* business plans to equity providers.
7. Women-owned *ventures* are in *industries* unattractive to venture capitalists.
8. Women *are not* a *force* in the *venture capital industry*.

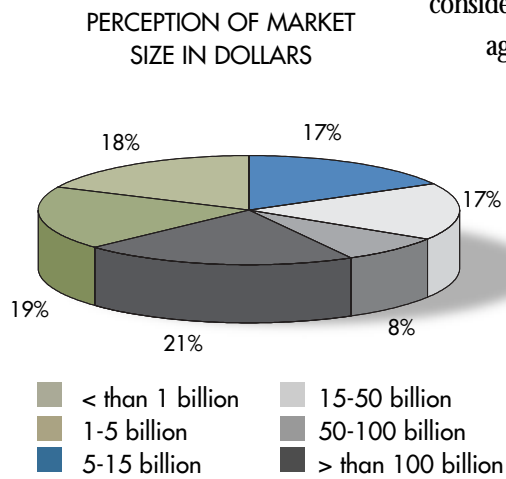
But to what degree are these myths supported? The Diana Project investigates these myths while exploring financing strategies and growth aspirations of women entrepreneurs.

## MYTH 1: WOMEN DON'T WANT TO OWN HIGH GROWTH BUSINESSES

The majority of the 23 million businesses in the U.S., whether owned by men or women, are small, but only a small percentage of the large businesses are led by women. That is not because all women entrepreneurs desire to have small firms. Some women, like their male counterparts, aspire to build high growth businesses that require outside funding. More than 80 percent of the Springboard applicants reported wanting to grow their ventures as rapidly as possible. They indicated that they would consider public or private sale to achieve liquidity. One indicator of the aggressiveness of new ventures is the size of the market that they target.

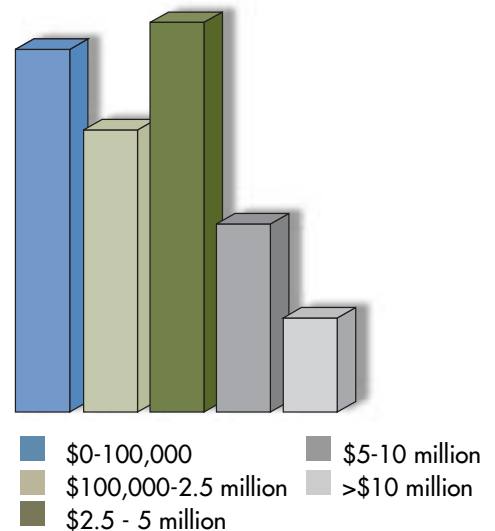
The Springboard data showed that more than half of the applicants estimated the size of their target markets to be more than 15 billion dollars and international in scope.

Other evidence of growth aspirations is the average dollar amount sought by entrepreneurs. An analysis of the Springboard 2000 forums showed that the average amount requested by the presenters was slightly over \$10 million, while the average amount requested by applicants averaged \$2.5 million — well within the range of average start-up investments for men-led ventures.<sup>14</sup>



It is clear these women want to grow their companies and are interested in acquiring the equity funding that will make development and expansion possible. Women also seek equity investments throughout the life span of their businesses. Of the Springboard 2000 applicants, 53 percent were in beta stage. Of the 47 percent of firms already launched, 20 percent were five years old or older. In addition, an analysis of firms reporting to Venture Economics showed that early stage investments accounted for 63 percent of the investments in women-led ventures, while 20 percent were for expansion, and an additional 8 percent of the investments supported acquisition or buyout activities.<sup>15</sup>

SIZE OF INVESTMENT SOUGHT



Some women, like their male counterparts, aspire to build high growth businesses that require outside funding.



## MYTH 2: WOMEN DON'T HAVE THE RIGHT EDUCATIONAL BACKGROUNDS TO BUILD LARGE VENTURES

**H**uman capital is purported to be the single most important factor leading to a venture capital investment. Human capital relates directly to the knowledge and capability level of individuals and represents initial “endowments” that are useful in obtaining and developing other types of resources. If human capital is critical for seeking venture capital then women business owners who possess characteristics that meet the management standards of venture capitalists will be more likely to secure equity funding. Women applying for equity capital through the Springboard program reported significant human capital in terms of personal and team education levels. In fact, only 6 percent of the women applying had less than a bachelor's degree. One third of the women applying to the program had bachelor's degrees. An additional 49 percent held graduate degrees.

It is not only the years of education that are relevant but also the type of education. While 18 percent of the graduate degrees were MBAs, 31 percent of the Springboard applicants had graduate degrees in science or technology. This raises the question of pipeline: what types of education do the young women entering the market have? Although women are not enrolled in the same proportion as men in MBA and engineering



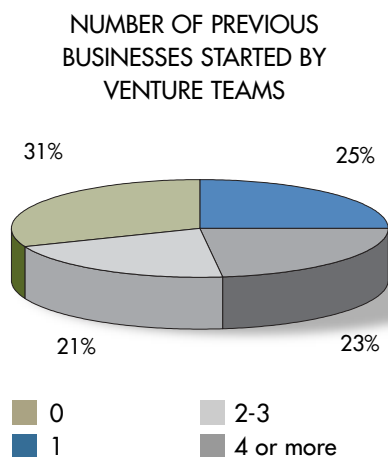
programs, the AACSB, the accrediting body for higher education, reported that the number of women receiving MBAs has been steady over the last three years at 37 percent. By contrast, at the undergraduate level nearly 50 percent of the business student body is female.

The statistics related to women engineering students are also intriguing. Female students in 1997 accounted for approximately 19 percent of engineering graduate students, and in 1998, almost 20 percent of the engineering undergraduates. These numbers do show a slight upward trend, but the increase is very slow, and these changes are not yet evident in the workforce. In 1999, only 10.6 percent of employed engineers, and therefore individuals gaining industry experience who might eventually be applied in a new venture, were female.<sup>16</sup>

Recent changes in the market are not only related to magnitude of investments but also the industrial sector. Venture capital interest has shifted somewhat from Internet to biotech companies, resulting in a 37 percent increase in funding for this sector to \$1.47 billion. This ultimately may benefit women-led firms given that approximately 50 percent of advanced degrees in biology are awarded to women.

### MYTH 3: WOMEN DON'T HAVE THE RIGHT TYPE OF EXPERIENCE TO BUILD LARGE VENTURES

There are some indications that women are now gaining experience in environments that should be valued by venture capitalists.



Venture capitalists look for founders with management and strategic decision-making experience relevant to the venture. This background is viewed as a foundation for financing strategies that effectively combine debt financing and bootstrapping techniques, as well as equity. If women business owners lack adequate managerial proficiencies, outside equity investors may view their firms as less attractive targets for capital investments. There is some data that indicates that women are less likely to gain human capital through experience in executive or technical management. On average, 25 percent of all managers in Fortune 200 companies are female with some companies reporting that only 7 percent of their managers are female. A report from the Catalyst organization showed that in 1998, only 11 percent of the total board seats in Fortune 500 companies were held by women, while not quite 4 percent of the highest ranking positions in these companies (Chairman, Vice-Chair, CEO, President, COO, SEVP, & EVP) were held by a woman.<sup>17</sup>

However, there are some indications that women are now gaining experience in environments that should be valued by venture capitalists. In a sample of firms that went public in 1988, there were no women on any of the top management teams. By 1993, 27 percent of the companies in the sample of 535 had women in top management ranks. And in a study still in progress, 41 percent of the companies that went public in 1996 had women in top management.<sup>18</sup>

The necessary experience is also likely to be found in the start-up team rather than with an individual. The team size most often described by the Springboard applicants was 2 or 3 people, and 53 percent of those team members were women. The teams reported an average of 39 years of industry experience per venture, with half of the team members averaging 12 years of industry experience. More than 40 percent of the ventures had team members with previous start-up experience. Indeed, almost one quarter of the teams reported starting four or more previous ventures.

*“Most venture capitalists have a tight and trusted circle of business colleagues who act as gatekeepers for high potential deals, and women have rarely been networked into this small inner circle. Venture capitalists who aggressively respond to this opportunity will have a competitive advantage now and in the future. Women entrepreneurs represent the single greatest untapped resource in venture creation.”*

**Trish Costello, Director of the Kauffman Fellows Program,  
Kauffman Center for Entrepreneurial Leadership**

**MYTH 4: WOMEN AREN'T IN THE NETWORK AND LACK THE SOCIAL CONTACTS TO BUILD A CREDIBLE VENTURE**

**W**ide speculation suggests that women are outside the social and business networks that provide access to people who can provide advice and moral support leading to venture capital contacts or investment. The venture industry is male-dominated, small and geographically concentrated. A top-tier group of venture capital firms dominates the industry and controls a significant majority of funds invested, creating a barrier to entry for new venture capital firms, and therefore, further limiting the potential network members.<sup>19</sup> Given that the venture capital industry is male-dominated, and that men typically have more men in their networks, it is less likely that the networks of women entrepreneurs will overlap with equity investors who can assist them in securing equity investments.

Venture capitalists bring more than dollars; they also bring together resources in the way of technical experts, management consultants and finance.

Do women have the advantage of this social capital? Our research showed that women seeking equity reported a wide range and extensive use of formal and informal networks. Fifty percent of the applicants reported spending more than six hours per week talking with advisors, most often with business associates, attorneys or other business owners. Family and friends also were frequently consulted. More than 60 percent of the applicants reported relying on the Internet for contacting advisors who might prove useful in securing their equity investment.

The equity search for the Springboard applicants was intense. Most women reported contacting up to 30 potential equity providers and making 12 formal presentations. And perhaps, most interestingly, 35 percent reported that it was a female who really opened the door to capital markets for them, with an additional 20 percent reporting it was both men and women.

Research showed that women seeking equity reported a wide range and extensive use of formal and informal networks.



## MYTH 5: WOMEN DON'T HAVE THE FINANCIAL SAVVY OR RESOURCES TO START HIGH GROWTH BUSINESSES



The Equal Credit Opportunity Act of 1975 changed credit laws permitting women to obtain credit in their own names, yet women often start businesses with less capital than their male counterparts. Despite the dramatically improved access to financing, a mythology still exists that women don't have the financial savvy or resources to start high growth ventures. Women involved in high growth businesses have demonstrated multiple ways to sustain their businesses until they reach the point of potential equity

investment. As with all business owners, personal equity investments are generally a part of the overall financing strategy, especially in the early stages of development. Thus, it is important to note that women now achieve higher earnings through their career paths that serve as a basis for start-up capital.<sup>20,21</sup> Women also have become more experienced investors, thereby increasing the potential funds for their business launch.

Research showed that 64 percent of high-growth women business owners reported using credit to finance their business.<sup>22</sup> Over 50 percent of the Springboard applicants reported using business credit cards to fund their venture, 5 percent had loans from previous employers, 21 percent used personal bank loans, 32 percent reporting having an SBA loan, and 16 percent had a business or commercial bank

loan. Furthermore, women also used retained earnings to delay the need for equity investment, similar to their male counterparts. More than 70 percent of the Springboard applicants funded the venture with delayed compensation, and 25 percent report using retained earnings as a financing strategy. Most important, women have learned to "seek" outside funds. This is readily evident with the Springboard 2000 applicants. Almost one third had raised an equity investment, usually in the range of \$325,000. Slightly more than one quarter of this capital came from informal investors such as family and friends. However, almost one third reported an angel investor with the remainder coming from Small Business Investment Corporations, investment funds affiliated with banks, corporate investment funds or a venture capital firm.

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*"In past decades women either underestimated their cash needs or failed to build a compelling business reason for funding. Part of this recent success reflects the fact that successful businesswomen have recognized the need to share their expertise, knowledge and money with young female entrepreneurs through the growing number of women business centers, women angel organizations, mentoring programs and women investment programs. But the task of educating and funding women-owned or operated businesses is still in the beginning stages, and to achieve a point of true success we must continue to pursue all avenues to support women entrepreneurs and all opportunities for financial support of these programs."*

**Sue Preston, President,  
Seraph Capital Forum**

*“The Women’s Growth Capital Fund receives about 1,000 business plans a year from women-led companies seeking venture capital. In addition we receive at least that many telephone and e-mail inquiries from companies that, because of their stage of development, do not qualify for our funding. We would estimate that, at this time, there are about 4,000-5,000 business plans circulating from women-led companies. If the male VCs aren’t seeing them it’s because they need to expand their networks.”*

**Patti Abramson, Managing Director,  
Women’s Growth Capital Fund**

## **MYTH 6: WOMEN DON’T SUBMIT BUSINESS PLANS TO EQUITY PARTNERS**

A common refrain from those in the venture capital industry is that they just don’t see very many deals from women (but that they fund a higher proportion of those that they do see). On the other hand, the sheer number of applicants for the Springboard 2000 series readily refutes this myth. The Springboard forums appeared to have tapped into a well of unmet demand. The three events in 2000 alone attracted 869 applicants. Of these, the forums selected 100 applicants to present in the events held in Silicon Valley, Washington, D.C. and Boston.

The demand for equity financing by women resulted in the creation of a number of venture financing organizations that target only women. These include venture capital and angel organizations that work only with women, as well as groups that work with everyone but include women as a specific and identified target. As an example, the Women’s Growth Capital Fund was established in 1997 to make equity investments primarily in early and expansion stage

women-owned and/or managed businesses. The Fund has \$30 million under management. The Fund has more than 70 individual and institutional investors; 70 percent of the individual investors are women. It is the largest venture capital fund in the Eastern United States, and perhaps nationally, which focuses its investments on women-owned and/or managed businesses.

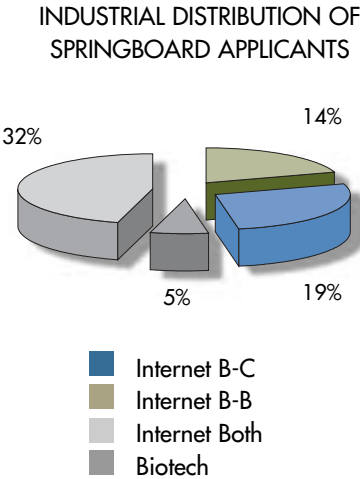


# MYTH 7: WOMEN-OWNED VENTURES ARE IN INDUSTRIES UNATTRACTIVE TO VENTURE CAPITALISTS

The perception still exists that women prefer to start and grow firms in the service and retail sectors and that this choice may limit their growth opportunities.

Historically women-owned businesses were smaller than those owned by men and concentrated in service and retail sectors that are characterized by intense competition and comparatively higher failure rates. The perception still exists that women prefer to start and grow firms in these economic sectors and that this choice may limit their growth opportunities. By contrast, it is widely believed that venture capitalists fund only technology-based businesses and women are less likely to participate in these industrial sectors. Ten years ago, computer hardware, software and electronics were the most popular areas of investment, while statistics showed that in the year 2000, venture capital dollars were largely invested in Internet-related businesses and computer software and service, communications and media, semiconductors/ electronics, and the medical/health and biotechnology areas.<sup>23</sup>

on this page shows the industrial distribution of the businesses that applied to participate in Springboard forums. While recognizing that Springboard forums were limited to specific industrial sectors, Springboard women are active in new technology industry sectors. More than half of the Springboard ventures were business to business, rather than consumer markets. Indeed, 50 percent of the women-led businesses that received investments were in computer hardware/software/services. Further, a review of National Venture Capital Association statistics from 1988 to 1998 showed that service-related ventures received the greatest proportion of venture capital investments for both men-led (42 percent) and women-led (53 percent) ventures. It is clear that women are active participants in industrial sectors attractive to venture capitalists.



Women do indeed start ventures in sectors that are attractive to venture capital funding. The figure

*“To be successful in this business you must have access to the world’s top talent, both women and men. Firms that include women partners will have a competitive advantage in gaining access to networks of women investors and entrepreneurs and in seeking out the best deals, regardless of the gender of the founder.”*

**Karen Kerr, Managing Director, Arch Venture Partners**

**MYTH 8: WOMEN ARE NOT A FORCE IN THE VENTURE CAPITAL INDUSTRY**

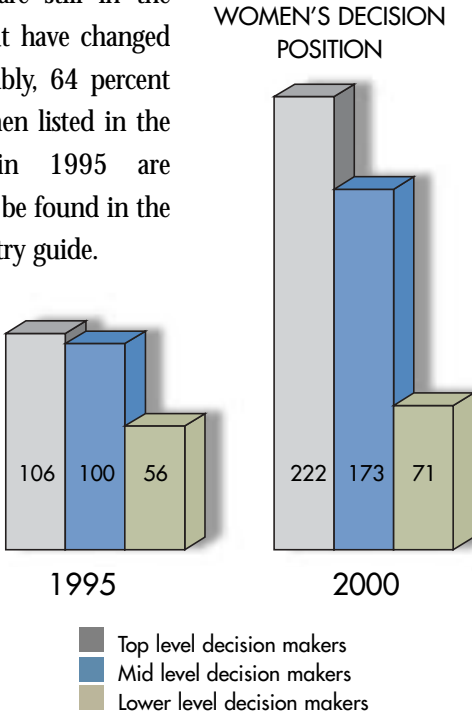
While the venture capital industry is small, male-dominated and geographically concentrated, anecdotal evidence suggests women are gradually gaining entry into this popular investment profession. Arguably, if more women participate as venture capitalists, it might “open” the doors for women seeking capital. In order to examine the prevalence and experiences of women venture capitalists, we “mapped” the gender composition of the venture capital industry using Pratt’s Guide to Venture Capital Sources for 1995 and 2000. Besides information on investment focus, size of funds, and company demographics, firms listed in the Pratt’s guide report partners, principals, officers and associates by name and position. In 1995, we identified 201 firms that had at least one woman included in these listings. In total we identified 276 women across the industry. By 2000, the number of firms listing women had grown to 355 for a 77 percent increase and the number of women identified had increased to 529, a 92 percent increase.

While the sheer number of women gaining employment in the venture capital industry increased substantially, their percentage representation decreased. Women represented 35 percent of the employees listed in 1995 but just 32 percent of the employees in 2000 – almost a 10 percent decrease.

Besides their sheer numbers, it is even more critical to consider the number of women in decision-making positions. For example, the number of women listed as being at a top decision level<sup>24</sup> increased by 109 percent over the five years. If considered by firm, in 1995,

38 percent of the firms listed at least one woman in these top levels, increasing to 42 percent by 2000. The number of women at mid-level positions rose from 100 to 173 for a 73 percent increase during this same time period, while the number of women at lower decision levels only increased by 27 percent. Ironically, because the industry itself has been experiencing rapid growth, this increase in numbers has not changed the overall percentage of women in senior level decision-making roles in the venture firms (see figure on this page).

It is also interesting to consider movement of women within the industry. Tracking women who were listed in the 1995 Pratt’s guide reveals that 32 percent were with the same firm in both the years mapped while 4 percent are still in the industry but have changed firms. Notably, 64 percent of the women listed in the industry in 1995 are nowhere to be found in the 2000 industry guide.



# CONCLUSIONS AND IMPLICATIONS

**E**ntrepreneurship is central to economic growth. Equity investments fuel the growth and development of new ventures, yielding innovative solutions to consumers and businesses. Women are contributing to new business development in every sector, yet their ability to acquire equity capital remains limited, in part, due to the persistence of myths. The growth aspirations, human and social capital, industry choice and financing strategies of many women are consistent with general practices of entrepreneurs seeking equity to grow their ventures. Moreover, the venture capital industry is changing, with women partners and directors assuming more prominent leadership roles. Yet the disparity between men and women entrepreneurs and their proportional access to and receipt of equity funding continues to exist. What are the potential implications of this disparity between men- and women-owned ventures and their access to equity funding?

**Wealth creation** – lack of investment in women-led ventures limits the opportunity for women to grow their businesses and create wealth. This diminishes opportunities to build wealth and create assets for future generations.

**Innovation** – lack of equity may limit growth and diffusion of innovations, job creation and economic contributions of women-led ventures for the U.S. economy. If women creating unique innovations, technologies and medical solutions are unable to receive sufficient equity financing, the U.S. is missing the opportunity for diffusion of new technologies. This can affect global competitiveness, as well as potentially limit the best applications or solutions to consumer and business problems.

**Investment Opportunities** – the venture community may be missing out on the chance to fund and receive returns from good investments. If women are unable to reach potential investors due to the homogeneity of the investment network, venture fund investors may be

missing the opportunity to achieve top returns on their money.

## RECOMMENDATIONS

To encourage and facilitate equity investment in ALL entrepreneurial ventures, the following steps should be taken:

1. Encourage and educate women to participate in the investment process (angels, corporate venture funds and venture capital firms). The objective is not to encourage all women business owners to seek equity capital, but to encourage women to develop an understanding of the growth process and the role and fit that equity might play in that process. It is through this understanding that informed choices about business ownership and growth would best be made.
2. Encourage investors to seek out and consider investment in women-led ventures by expanding their networks beyond their traditional contacts.
3. Fund programs to educate and prepare women to lead fast growth businesses – whether high-tech or not. Programs to foster development of relevant educational and experiential programs would broaden the participation base for these opportunities.
4. Sponsor forums, like Springboard 2000, to link women with potential investors. Increased visibility of strong deals generates awareness and investment interest.
5. Sponsor and disseminate the results of research about women's entrepreneurship, and comparative research on financing and growth of women-owned and men-owned ventures. Myths are best overturned by solid data.
6. Track investments and performance of investments by gender in all venture-funded companies. A complete understanding of the participants and the process of equity investment is hindered by incomplete information.





# APPENDIX

## APPENDIX 1 THE THEORETICAL MODEL



**T**he Diana Project is guided by a model encompassing the structure of the venture capital industry and actions of key players in the process (see figure on next page). It describes three levels of analysis – the industry, the firm and the individual. The intent of the model is to reveal where barriers or opportunities might exist that either preclude or enhance women owners’ access to equity financing in order to grow their businesses.

**The Industry.** The industry is comprised of venture capital firms and the investors who provide the funding to the venture capital firms. The actual venture capital firms are the dealmakers bringing together the capital suppliers and the capital users. They range in size from large to small but all participate in a search/screen process, evaluation, negotiation and often also provide management advice to the firm. Their objective is to achieve high returns on the funds invested by the investor group, which is achieved by a liquidity event or exit from the portfolio companies.

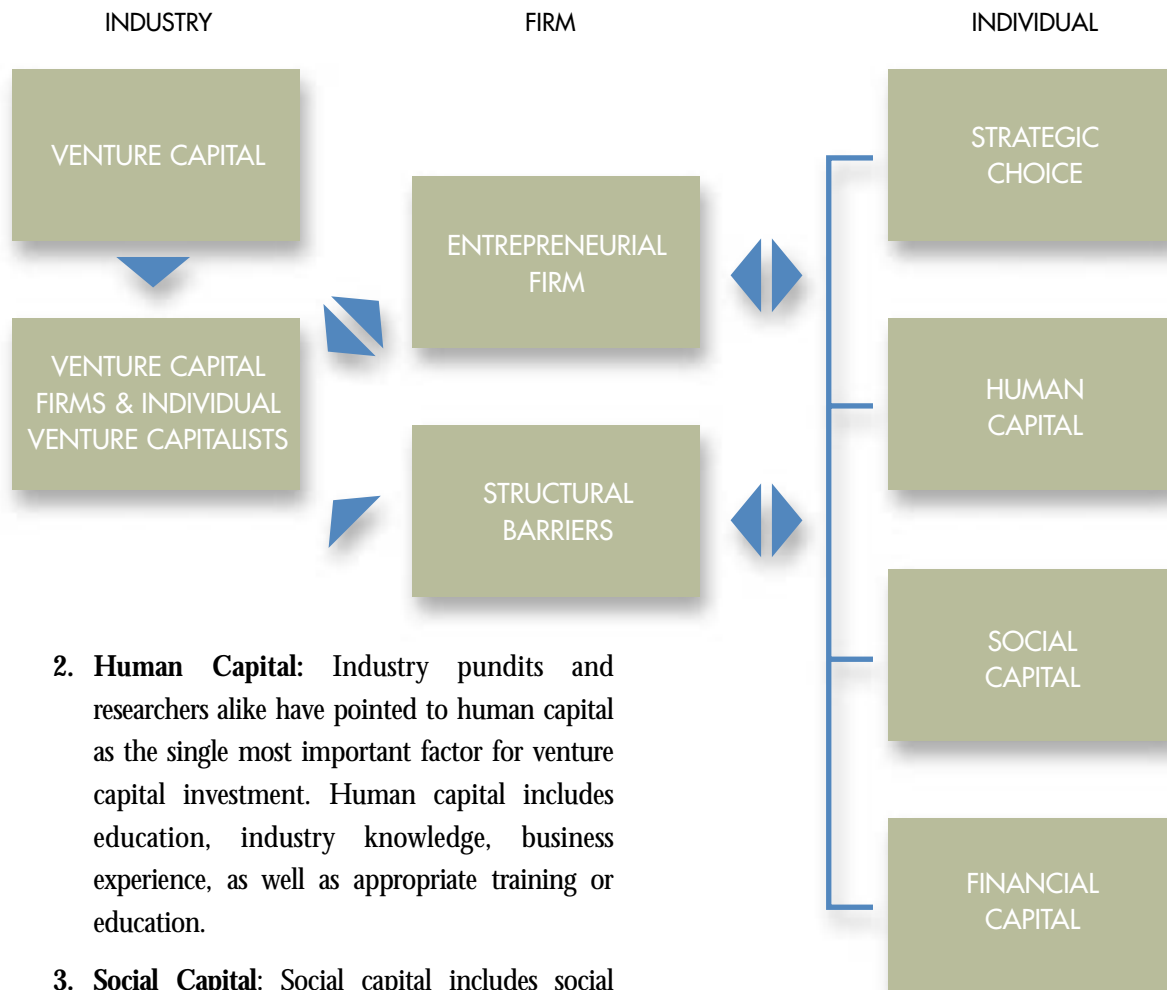
**The Entrepreneurial Firm.** The other primary participants are the entrepreneurial firms whose paramount concern is often on the value that would be

added by venture capitalists, at what terms and with what relationship. The firms, or their management, are the “seekers” of equity capital, usually for growth and expansion purposes. The entrepreneurial firm is concerned with the terms and conditions of the investment, the relationship it will have to the venture capital firm, the “value added” that can be provided as well as the primary product/market strategy, and the goals for competing and growing the venture given the industry.

**The Individual Factors.** We identify four possible individual factors influencing women entrepreneurs’ ability to access equity capital.

1. **Strategic Choice:** Growth is a strategic choice that entrepreneurs may or may not elect to pursue. Growth is a function of the entrepreneur’s aspiration, product/market opportunity pursued and context. One of the most critical strategic choices entrepreneurs make concerns the entry strategy for their business – choosing which economic sector or geographic location is optimal.

## THEORETICAL MODEL



2. **Human Capital:** Industry pundits and researchers alike have pointed to human capital as the single most important factor for venture capital investment. Human capital includes education, industry knowledge, business experience, as well as appropriate training or education.
3. **Social Capital:** Social capital includes social networks of business advisors (e.g. accountants, technical experts and attorneys) as well as social and family contacts. It is speculated that it's not so much what you know as who you know. Social capital is essential to gaining access to opportunities and resources, saving time and tapping into sources of advice and moral support.
4. **Financial Capital:** Financial resources necessary to launch the firm are generally from a variety of sources anecdotally described as friends, family, personal funds and the foolhardy. This also includes the financial strategy that is employed to launch and grow the venture.

Business growth and contributions are also considered as performance outcomes of the growth strategy. Typically these are measured in terms of jobs created, market share, and company sales and profits. But for equity-funded ventures, returns to investors upon exit or the liquidity event, stock prices, net worth and other contributions are of interest.

**Structural Barriers:** Structural barriers are those obstacles confronting women that might preclude their access to equity markets. These may be a result of networks or geography. For instance, if the venture capital industry is male-dominated, this may reduce the likelihood that the networks of women entrepreneurs will overlap with equity providers.

Diana was a heroic woman, a huntress.  
 Women seeking capital are hunters rather  
 than gatherers. They are hunting for capital in a  
 traditionally male-dominated arena.

## APPENDIX 2 RESEARCH METHODOLOGY

Our research investigates the apparent disconnect between opportunities and resources in equity funding for high growth women-owned businesses. Funded by the Kauffman Center for Entrepreneurial Leadership, the U.S. Small Business Administration and the National Women's Business Council, we had two primary objectives:

**Supply Side:** To educate equity capital providers about opportunities for enhanced portfolio diversification and new investment possibilities through investment in women-owned businesses.

**Demand Side:** To raise awareness and expectations of women business owners for the growth of their firms, to educate women business owners about the characteristics of equity-funded businesses and to provide detailed information about how the equity funding process works.

We organized our research into phases:

- 1. Background Research:** A literature review and mapping of equity investments over the past 30 years.
- 2. Demand Side — Women Seeking Financing:** An analysis of women entrepreneurs seeking capital from Springboard venture forum presentations, and a panel study of growth strategies, human and social capital of applicants to venture forums.

- 3. Supply Side – The Venture Capital Industry:** An assessment of the venture capital industry and women's participation as investors.

**Phase 1. Background Research:** We began with an exhaustive review of more than 300 academic articles on women's entrepreneurship and venture capital, as well as related articles on women's self-employment, careers, motivations, networking and social structures.<sup>25</sup> We discovered the only article found in the academic press concerning women and venture capital access was the one that prompted this project.<sup>26</sup>

Data from the National Venture Capital Association (NVCA) between 1957 and 1998 were used to deduce patterns of disparity between financing of women-led and men-led ventures. The NVCA data was collected by Venture Economics and includes information on companies funded by venture capital since 1957 but was re-coded by gender by the Diana research team. The data includes information on 20,000 portfolio companies, 34,000 executives and 120,000 company investments and is provided by 4,500 private equity firms having 7,000 private equity funds. Only businesses that received funding are included, hence comparisons to businesses not receiving funding cannot be made from this database. Files were re-formatted from an Excel format, imported into an SPSS format and merged into a single database. All responses were



The Diana Project team, from left: Patricia G. Greene, Elizabeth Gatewood, Candida G. Brush, Myra M. Hart and Nancy M. Carter.

coded according to year of first investment, stage at first investment and industrial sector. The original data was not coded for gender. Therefore we screened all entries and coded male or female by first name or title (Mr./Mrs./Ms). In order to determine whether the firm is led by a male or female, we screened according to job title, selecting the highest-ranking role for each firm as the representative. In cases where both Chairman and President/CEO were listed, we chose the latter, reasoning that management capabilities was one of the key determinants in the decision to fund a new venture.

**Phase 2. Demand Side — Women Seeking Financing:** For our next phase, we began to study the applicants and participants of the Springboard 2000 venture forums. In 2000, forums were held in Silicon Valley (San Francisco), the Mid-Atlantic (Washington, D.C.), and New England (Boston). The 2001 forums were in Silicon Valley (San Francisco), New York City, Chicago and Boston.


To be eligible for possible presentation at any of the forums, entrepreneurial teams were required to submit a detailed application containing information on the start-up team and nature of the venture. To complement analyses of this application data and to discern what influences equity investments, the Diana Project, with the support of the Kauffman Center for Entrepreneurial Leadership, is conducting a panel study

of more than 150 of the applicants. This research tracks their growth strategies and funding experiences and explores particular aspirations, human capital (management team experience and composition), social capital (contacts, network and advisors), and business and financing strategy. This will result in a proprietary database of women-led ventures adequate for comparing the experiences of women's businesses with those of men-led companies.

**Phase 3. Supply Side — The Venture Capital Industry:** To fully understand the nature of the venture capital industry, we analyzed the firms and career paths of women investors. Information was obtained from two volumes of Pratt's Guide, 1995 and 2000. We reviewed gender of named principals for each firm listed and coded the data set so that all women in the industry can be tracked by position and compared to men in similar firms. Firm-level data supplements this information, as do in-depth interviews with women investors. This data set is proprietary.

## END NOTES

- 1 Venture Economics and the National Venture Capital Association (NVCA), 5/11/01 ([www.nvca.org](http://www.nvca.org))
- 2 Timmons & Bygrave, 1997
- 3 Timmons & Sapienza, 1992; Fried & Hisrich, 1988; Bruno & Tyebjee, 1985; MacMillan, Siegel & SubbaNarisimha, 1985; MacMillan Zemann & SubbaNarisimha, 1987; Sahlman & Stevenson, 1985; Hisrich & Jancowicz, 1990; Gupta & Sapienza, 1992; Hall & Hofer, 1993
- 4 Women Owned Business; 1997 Economic Census; U.S. Department of Commerce., 2001
- 5 In examining the relationship between gender and access to debt financing, fewer than 20 studies can be identified, with little consensus on results. One study on the impact of early firm resources on start-up success showed that women-owned firms had less access to financial resources than did their male counterparts, while another found that availability of capital through private and personal banking sources was related to size of women-owned businesses. Research about bankers' perceptions of entrepreneurs showed men were rated higher on characteristics associated with successful entrepreneurship than women. Carter, Williams & Reynolds, 1997; Carter & Allen, 1997; Buttner and Rosen, 1988
- 6 In contrast, another study about women business owners' access to bank financing in Canada showed few differences that could be attributed to gender when business characteristics such as firm age, size and growth rate were held constant. However, the scholars conducting this particular study did note that the collateral requirements set for women were higher than those set for men, and that women were less satisfied with their banking experience; Riding & Swift, 1990. And finally, a study of the SBA 7a Loan Program found that women received less funding on average, paid a higher interest rate, and had 10 fewer months to repay.
- 7 Baker, Aldrich, & Liou, 1977; Brush & Edelman, 2000; Brush, 1992
- 8 For instance, one recent review of six entrepreneurship journals and one refereed conference proceedings identified 435 articles published in a three-year period, of which 28, or 6 percent, focused on women entrepreneurs or their firms.
- 9 National Foundation of Women Business Owners
- 10 For the period 1988-1998, the total sample included 8,298 investments, of which 3992 were unable to be identified by gender (48.1 percent), while 290 (3.5 percent) were identified as female-led ventures, and 4,016 (48.4 percent) were identified as male-led ventures.
- 11 Pratt, 1998
- 12 The Kauffman Center Report on Women Entrepreneurs: Unlocking the Potential to Create Opportunity. Jobs and Wealth, 2001 ([www.entreworld.org](http://www.entreworld.org))
- 13 Springboard 2000 ([www.springboard2000.org](http://www.springboard2000.org))
- 14 National Venture Capital Association ([www.nvca.org](http://www.nvca.org))
- 15 Venture Finance, 2001
- 16 Society of Women Engineers based upon statistics from the National Science Foundation and the Bureau of the Census. ([www.swe.org](http://www.swe.org))
- 17 Catalyst, The 1998 Census of Women Corporate Officers and Top Earners of the Fortune 500
- 18 Welborne, Wall Street Likes its Women: An Examination of Women in the Top Management Teams of Initial Public Offerings. Working Paper
- 19 BenDaniel, Reyes & d'Angelo, 2000; Journal of Private Equity. Summer, 7-83
- 20 Good for Business: Making Full Use of the Nation's Human Capital, 1995; A Fact Finding Report of the Federal Glass Ceiling Commission, U.S. Government Printing Office, Washington, D.C.
- 21 Paper under review
- 22 Paper under review
- 23 NVCA, 2001
- 24 Titles included in "top decision level" included Chairman, CEO, Director, Executive Director, General Partner, Investment Manager/Officer, Managing Director, Senior Managing Director, Managing Partner, Managing General Partner, Partner or President. Titles included in "middle decision level" included Administrative General Partner, Administrator, Marketing Director, Office Management, CAO, CFO, CFD, Comptroller, Executive Vice President, Loan Officer, Principal, Senior Vice President, Treasurer, Vice President. Titles included at the "lower decision level" included Analyst, Senior Analyst, Senior Associate, Associate, Corporate Secretary.
- 25 This review of more than 300 articles was compiled as an annotated bibliography.
- 26 Green, Brush, Hart and Saporito, 2001. Venture Finance.



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