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GATEKEEPERS OF VENTURE GROWTH:

A Diana Project Report on the Role and Participation of Women in the Venture Capital Industry

KAUFFMAN
Foundation

CONTENTS

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 second report examines the role and participation of women in the venture capital industry.

Authors on the cover are listed in alphabetical order denoting equal contribution to the research project. Grateful appreciation is extended to Linda Sauber for assistance in database construction.

executive **summary**

The success of high-potential, women-led companies is critically important to the long-term prosperity of America. However, in spite of the fact that their rate of participation in new venture creation has been at an all-time high for the last fifteen years, women have received a disproportionately low share of available venture capital in the United States.

The new wave of women entrepreneurs has experienced extraordinary challenges in getting the attention of venture capitalists and securing the funding that would facilitate growth. There is a substantial funding gap that limits women's opportunities to grow their ventures aggressively and to lead high-value firms.

The supply side of the venture capital equation provides some explanation for why women entrepreneurs have been largely ignored by the funding community. Very few women occupy decision-making positions in the industry. Though women's participation in such professions as law and medicine has significantly increased during the last thirty years, women have made few inroads in the venture capital profession. Does the fact that there are so few women venture capitalists to attract and engage women entrepreneurs, to evaluate and coach them, contribute to this market failure in funding?

Key Findings

This study provides the first comprehensive overview of women decision makers in the venture capital industry in 1995 and 2000. It explores the influences and effects these women have had on their firms' investments in women-led businesses. It identifies the dearth of influential decision makers who are connected to and familiar with women-led businesses as one of several causes for the marked gap in capital accessible to female entrepreneurs. Analyses of archival data and interviews with "high profile" female venture capitalists found that:

The venture capital industry is overwhelmingly male.

- In 1995, women represented only 10 percent of management-track venture capitalists, falling slightly to 9 percent in 2000, despite significant growth in the industry. Typically, those senior-ranking women managers are the only key females in their firms.
- Sixty-four percent of the women in the industry in 1995 were no longer in the industry in 2000 (compared to 33 percent for males). Because of this high turnover, few female venture capitalists gain sufficient experience to become partners and to achieve high visibility in the industry.
- In today's market, the most attractive venture capital candidates are those who have expertise in fields that traditionally have been dominated by males, such as engineering, bio-technology, and physics.
- Because men dominate the venture capital industry, women trying to

There is a substantial funding gap that limits women's opportunities to grow their ventures aggressively and to lead high-value firms.

launch or further careers as venture capitalists have fewer first-degree network connections with the gatekeepers (that is, men) in positions to hire them.

Venture capitalists don't consider deals that come over the transom. Pre-existing relationships (network connections) provide an important link between entrepreneurs and venture capitalists.

- Lacking connections to venture capitalists, women entrepreneurs have less chance of getting to the negotiating table. Women believe that their networks include both men and women, but men report that they have men (not women) in their networks. As a result, women entrepreneurs sometimes believe they have strong links to the VC world, but the men are unlikely to recognize the relationship.
- Women venture capitalists are far more apt to be directly connected to and able to attract female-led ventures to their firms.

Women venture capitalists do not give preferential treatment to women entrepreneurs, but 70 percent are in partnerships that have closed deals with women-led companies.

- Highly visible women partners believe they have influenced the decision-making process in some ways but insist that they subject women-led ventures to the same standards and scrutiny as any other deal.

Key Observations and Implications

More women venture capitalists would mean:

- Increased opportunities for direct network connections between venture capitalists and women entrepreneurs;
- A greater number of proposals brought to the partnership by women entrepreneurs;
- A greater likelihood that firms will invest in promising ventures led by women;
- More opportunities for women-led ventures to access capital and build wealth; and
- A more powerful voice for women in the entrepreneurial progress of our country.

the **world** of venture capital

From 1990 to 2000, venture capitalists funded the growth of more than 23,000 high-potential businesses in the United States and, of these, more than 1,800 later issued initial public offerings.[1]

The entrepreneurs leading these companies successfully convinced equity providers to invest in their entrepreneurial dreams, but they should not be thought of as the "lucky ones." Securing equity funding wasn't easy, even for the most seasoned of them. Those who did were hard drivers, dedicated to creating the next Fortune 1000 companies. Very few were women.

While the rate of women's participation in new venture creation around the world was at an all-time high during the 1990s, women's ability to grow their companies by accessing equity capital was extremely limited. From 1997 to 2000, women-led businesses represented an average of 7 percent of the deals, claiming approximately 5 percent of the money invested each year.[2]

Venture Capital: Is it Essential?

For most high-potential entrepreneurs who sought capital in the 1990s, time was of the essence. They needed to move quickly to claim market space, establish patent control of a new technology, or gain adoption of a breakthrough innovation. They could not afford to wait patiently for their companies to generate funds internally. Outside equity investments were essential. To attract these investments, they wrote business plans, created elevator pitches, and developed short, pithy presentations. To secure investments, they pounded the pavements and knocked on doors of venture capitalists on Sand Hill Road in Menlo Park, California, and Route 128 in Boston, Massachusetts. Still, despite the enormous effort and time expended, very few equity-financed deals originated from business plans received "over the transom."

Instead, investors chose to review plans based on prior knowledge of an entrepreneur's capabilities–knowledge based on a direct relationship, a strong recommendation from a trusted colleague, or a referral from another venture capital partnership looking for a co-investor. The record of investments throughout the history of organized venture capital suggests "who you know" may be as important as "what you know."

If "who you know" is critical, then being connected to the right people is a necessary first step in getting the attention of investors. For men seeking funding, access to the venture capital network often presents a major challenge; for women, the challenge is often all but insurmountable. Women are rarely included in investors' networks and have very few points of access through referral. Although women excel in building social networks, their circle of contacts contains few individuals who can "chauffeur" their deals to equity investors.[3]

The Investor Community is Overwhelmingly Male

The venture capital industry has been characterized as male-dominated, small, and geographically concentrated.[4] During the most recent decade, entrepreneurs who were invited to present their plans were very likely to be meeting with partners who were "white males between the ages of thirty-five and fifty who got their MBAs from Harvard or Wharton."[5] In one survey of 145 venture capitalists in 98 firms, more than 67 percent had an MBA and, of those, 56 percent graduated from Stanford or Harvard. A majority had more than ten years business experience, 35 percent of which was in corporate management, and 30 percent were former entrepreneurs.[6] Did these venture capitalists' personal profiles make any difference in how they saw the world and with whom they chose to invest? Did characteristics of the venture capitalists influence which entrepreneurial teams were given access to the inner sanctum of the investment world?

A top-tier group of venture capital firms dominates the industry and controls a significant majority of funds invested.[7] Trish Costello, CEO of the Center for Venture Education, noted: "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." Network studies show that people associate with others like themselves. Women tend to associate with other women, men with other men. Consequently, if few women occupy investment decision-making positions in the venture capital industry, women entrepreneurs have less access to gatekeepers and, thus, fewer points of entry to the negotiating table than their male counterparts.

Consequences of Being Outside the Investor Network

Inability to gain access to investor networks helps explain why women received less than 5 percent of the venture capital investments made in the United States over the past forty years.[8] What are the consequences of this inability to obtain venture funding for women with high potential businesses? If entrepreneurs are unable to access venture capital, they have to seek other (and often more costly) sources of funding, or they must slow their companies' growth plans. In either case, they fail not only to get adequate financial support, but also to get the guidance and access that venture capitalists provide to their portfolio companies.

Most venture capital investors take an active role in the entrepreneurial companies they fund. Particularly in the early days of a company's growth, they may serve as an advisor, board member, or even part of the top management team. Many of these investors are seasoned entrepreneurs in their own right. In addition to the capital they supply, they provide functional and financial expertise; information about suppliers, customers, and distributors; leads on where to recruit key management personnel or potential partners; and in-depth knowledge about particular industries. Access to these resources and expertise can make the difference between whether companies become leaders in their industry, exit early, or simply exist as an "also ran."

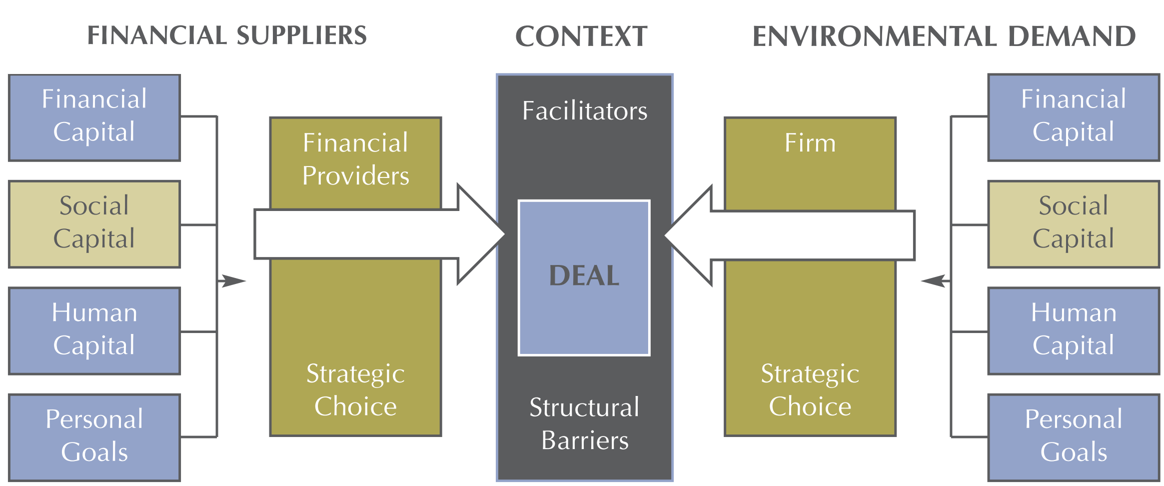
Why Women Haven't Gotten Equity Funding

Most venture capitalists insist that they invest in "great deals" and that gender does not play a part in their decision-making. If this is the case, why is it that so few companies in their investment portfolios are led by women? Women led 28 percent of all U.S. businesses in 2002 and were partners or major shareholders of 46 percent. Their businesses employed nearly 10.1 million employees and generated nearly $1.5 trillion in sales.[9] Despite their successes, few of these women-led businesses received private equity funding.

Numerous arguments have been made to explain this phenomenon. Some suggest that women lack the necessary education, experience, or management skills required by venture investors.[10] Strategic choice of industry or business concept and the lack of sufficient personal financial capital also have been cited as barriers.[11] Other explanations include women not being motivated to have venture partners because they prefer to retain full control of the business,[12] or women wanting to build lifestyle or income-substitution businesses rather than businesses with the rapid growth potential sought by equity investors.[13] Research supports some of these explanations some of the time. Certainly, there are women who choose to keep their businesses small, and many entrepreneurs–male and female–lack sufficient human and financial capital to support high-growth companies. There are, however, many women entrepreneurs who do possess high-growth aspirations, along with the education, industry, and managerial experience that make them worthy of venture capital support.[14]

The model below depicts key elements entrepreneurial firms need to mobilize to achieve a satisfactory deal and attributes that must be aligned to qualify the venture for consideration. It also demonstrates how the context (e.g., environment or regional location) can increase or reduce barriers that affect the exchange between entrepreneurs and financiers. The arrows indicate the role that social capital plays in the process. The model suggests that, even when the entrepreneurial team has adequate financial and human capital, and its goals are aligned with the strategic choice favored by equity investors, entrepreneurs lacking relevant network connections and social capital may never reach the negotiating table.

EXHIBIT 1



The model illustrates the importance of network connections. It suggests that increasing the number of female venture capitalists would enhance opportunities for highly qualified women entrepreneurs to establish network links. We know that women are more likely to be involved in networks with other women. Thus, having women in corresponding leadership positions in the venture capital industry could enhance female entrepreneurs' chances of establishing contacts, presenting their business propositions to potential investors, and negotiating for equity investments.

women **venture capitalists** and access to capital

We set out to test the hypothesis that having more women in decision-making roles in the venture capital industry would provide greater access to women entrepreneurs seeking capital.

Our investigation centered around three key questions:

1. Are there highly visible and experienced women venture capitalists in the venture capital industry? If so, where are they?
2. Do these highly visible and experienced women venture capitalists influence decision-making models, processes, norms, and outcomes within their firms?
3. Do these highly visible and experienced women venture capitalists increase the flow of women-led deals to their partnerships?

To answer these questions, we designed and implemented a research methodology that identified women on managerial tracks in the venture capital industry. We selected *Pratt's Guide to Venture Capital Sources* as the standard of industry membership. Though there are other directories of the industry, such as the membership roster of the *National Venture Capital Association* and *Galante's Venture Capital and Private Equity Directory*, we found *Pratt's Guides* to be the most comprehensive and consistent source of information. We chose the 1995 and 2000 editions to provide us a snapshot of leadership roles of women in the industry at two distinct points in the midst of the venture capital boom. This enabled us to identify and track women venture capitalists' progress over a five-year period.

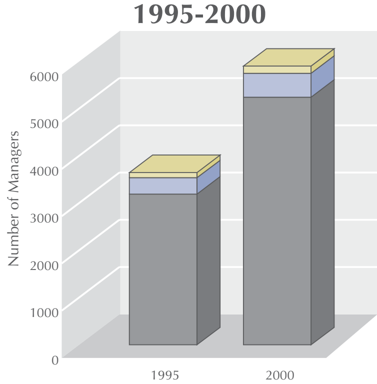
We reviewed every firm listing published in the 1995 and 2000 editions of the *Pratt's Guides* to identify females in management positions,[15] the ranks they held, and characteristics of their partnership firms. In addition, we selected a random sample of men in firms that listed no females so we could compare women's managerial experiences with those of men. We considered this latter sample to represent men in male-managed partnerships. The combined data set includes industry and firm demographics at two specific points in time and allows tracking of changes from 1995 to 2000 at industry, firm, and individual levels.[16]

Do highly visible and experienced women venture capitalists increase the flow of women-led deals to their partnerships?

In addition to analyses of archival data reported in *Pratt's Guides*, we identified and interviewed "high profile" female venture capitalists to develop a more complete picture of women's experience in the industry. We selected women of senior rank (partner or managing director) with five or more years experience in the same partnership and early stage funds of $100 million or more under management. We judged these female venture capitalists as "high profile" because they had been with the same firms for a minimum of five years and were "visible" to stakeholders in the industry, including women entrepreneurs, through their consistent *Pratt's Guides* listings. Furthermore, their five-year tenure in the industry gave them sufficient time to have had an impact on their firms' decision-making models and processes.[17]

EXHIBIT 2

Number of Managers in U.S. Venture Capital Firms 1995-2000



Unclassified

Number of Female Managers

Number of Male Managers

1995 N=3,647; 2000 N=5,903

Question 1: Are there highly visible and experienced women venture capitalists in the venture capital industry? If so, where are they?

A few women in the venture capital industry have achieved remarkable and highly acclaimed success, including veterans Pat Cloherty (Patricof), Jacqui Morby (TA Associates), Ann Winblad (a founder of Hummer, Winblad), and Kathryn Gould (a founder of Foundation Capital). These women are exceptional not only in their accomplishments but also in their participation in the industry. The archival data for 1995 and 2000 shows a significant gender gap in the management ranks of the U.S. venture capital industry.

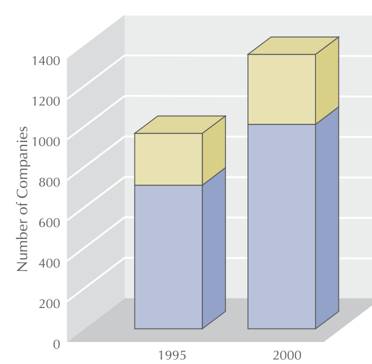
In 1995, *Pratt's Guide to Venture Capital Sources* listed 346 professional women[18] in the venture capital industry, representing approximately 10 percent of management-track venture capitalists (e.g., partners, principals, and associates). The number of women decision makers increased to 510 between 1995 and 2000, but female representation in the industry actually fell slightly to about 9 percent of the total.[19] This is noteworthy given the tremendous growth that was occurring in the industry during this time period, both in number of managers and number of partnership firms. As shown in Exhibit 2, the total number of people listed in the industry guides increased from 3,647 in 1995 to 5,903, a 62 percent increase. The number of men in the industry increased by 64 percent, whereas the number of decision-making women in the industry increased by only 47 percent.

Women were on managerial tracks in only about one quarter of U.S. venture capital partnerships in 1995 and 2000.

The number of U.S. venture capital partnerships increased by more than 40 percent between 1995 and 2000. Only 27 percent of these partnerships had management-track females in 1995, and that number had slipped to just 25 percent in 2000. As shown in Exhibit 3, the number of partnerships employing management-track females grew 35 percent during the five-year time period, but the growth rate didn't keep pace with the 40 percent industry growth for partnerships overall.

EXHIBIT 3

Gender Composition of U.S. Venture Capital Firms 1995-2000



Number of Companies With Female Key Managers

Number of Companies With NO Female Key Managers

1995 N=965; 2000 N=1,355

EXHIBIT 4

Representation of Female Key Managers in Venture Capital Industry–1995

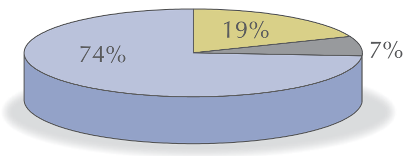
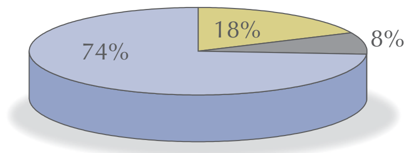


EXHIBIT 5

Representation of Female Key Managers in Venture Capital Industry–2000



Number of Companies With Two or More Female Key Managers

Number of Companies With Only One Female Key Managers

Number of Companies With No Female Key Managers

1995 N=965; 2000 N=1,355

Managerial women in the U.S. venture capital industry are isolated.

Managerial women working in the venture capital industry often find themselves somewhat isolated in their practice. Many are the only senior-ranking woman in their partnership. In 1995, nearly 75 percent of firms with women on a managerial track had just one woman in management, and there was little change by 2000. Nearly 70 percent of firms with managerial women in 2000 had just one senior woman. As shown in Exhibits 4 and 5, having two or more female key managers in a partnership was extremely rare.

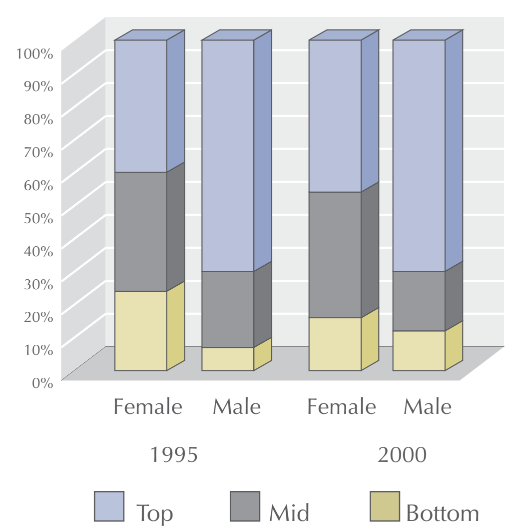
Women managers are heavily clustered in entry- and mid-level positions.

The majority of women managers in the venture capital industry were in entry- and mid-level positions in both 1995 and 2000, which means they participated in research but were not likely to have final decision-making responsibility. The extent to which managers in the venture capital industry participate in the investment decision process varies by managerial level within the partnership. Most senior managers are actively involved in investment decisions, either as part of a group process or, in some cases, acting independently. Individuals in mid-level positions have less direct responsibility for investment decisions, instead providing sourcing research and administrative services for the partnership. Associates and analysts are generally responsible for researching industries and companies for potential investment, or reviewing portfolio performance. We categorized every individual in our dataset as a top-, mid- or low-level decision maker.[20] Top-level titles included chairman/CEO, director, executive director, or general partner. Mid-level titles were administrative general partner, marketing director, assistant vice president, CAO/CFO/CFD, comptroller, or principal. Examples of job titles corresponding to the low level included analyst or associate.

Exhibit 6 displays substantial differences between the distribution of managerial women and managerial men across the three decision levels. In 1995, 70 percent of managerial men were in top decision positions in their firms compared to only 40 percent of women managers. Women were three times more likely to occupy lower-level decision positions (24 percent versus 7 percent). In 2000, women had improved their decision-making clout somewhat. The percentage of managerial men at the top was still 70 percent, but the percentage of women who held that rank had increased from 40 percent to 46 percent. While women's representation at the top is still remarkably lower than men's, this 6 percent increase indicates progress.

EXHIBIT 6

Percentage of Managerial Women & Men By Decision Ranks 1995-2000



1995 N=607; 2000 N=1025[21]

Managerial women are associated with larger partnerships of national scope.

The venture capital partnerships that included managerial women in their ranks were substantially larger than those managed by men in terms of number of managers and amount of funds under management. In 1995, the average number of managers in partnerships that included women was 5.27, while in male-managed firms it was 3.31[22] The magnitude of this difference persisted in 2000 when the average number of managers in partnerships that included women was 6.21 compared to 3.68 for all male partnerships. The differences are statistically significant in both years.[23]

Similarly, funds under management in firms with managerial women were significantly larger than those at firms managed only by men. In 1995, the median[24] size of funds under management in partnerships with managerial women was $67 million versus $45 million in firms managed by men. In 2000, the comparison median value had increased to $135 million at firms with women managers versus $67 million at firms managed by men. The differences were statistically significant in both years.[25]

In addition to size differences between the two types of firms, geographic investment preference also differed significantly in both years.[26] Male-managed firms were much more likely to prefer a regional investment strategy, which may have been a result of their smaller firm size. Partnerships with managerial women were more likely to represent a nationwide scope for their investments. One noticeable change was the fact that the number of male-managed firms with a nationwide focus increased. In 1995, only 15 percent of male-managed firms indicated a national investment preference. By 2000, the number noting a national preference increased to 22 percent. The global investment strategy, preferred by about 15 percent of male-managed firms in 1995, increased to about 20 percent in 2000. There was essentially no difference between the male-managed and the mixed-gender firms in terms of global investment preference in 1995 or 2000 (see Exhibits 7 and 8).

EXHIBIT 7

Geographical Investment Preference 1995

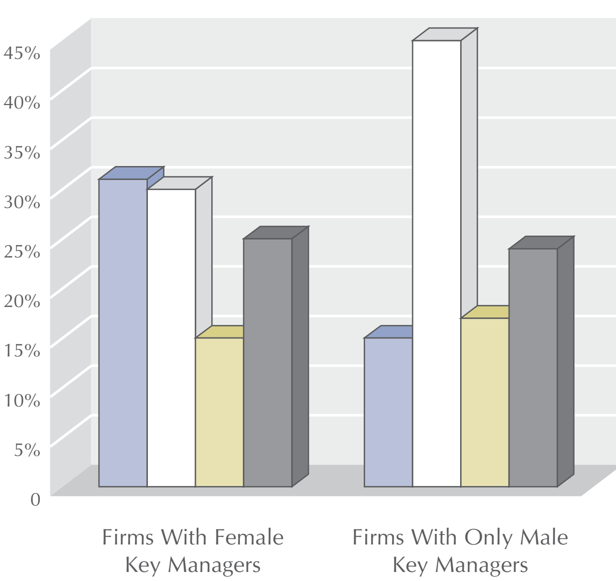
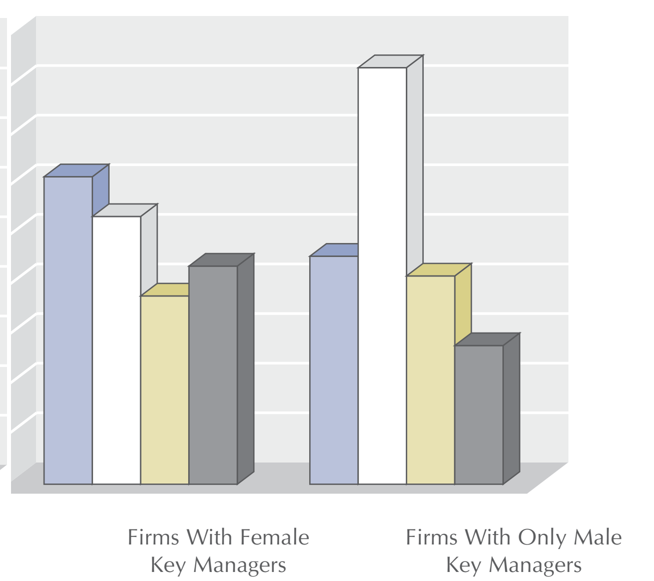


EXHIBIT 8

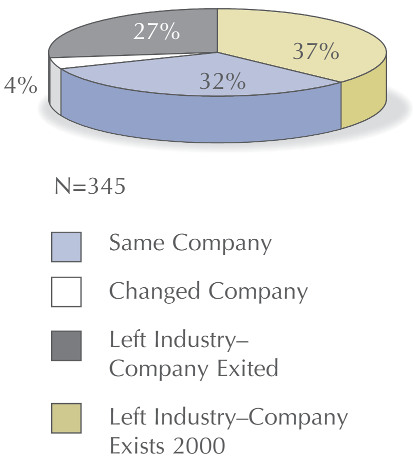
Geographical Investment Preference 2000



N=344[27] U.S. Regional Global No Preference N=476

EXHIBIT 9

U.S. Managerial Women's Career Pattern



There was no significant difference in the age of partnerships that include managerial women and those that do not. The average age of firms in the sample was thirteen years.[28] Partnerships that were added to the database in 2000 were slightly younger (average age=11.25), probably reflecting the tremendous number of new partnerships that were established during the five-year period.

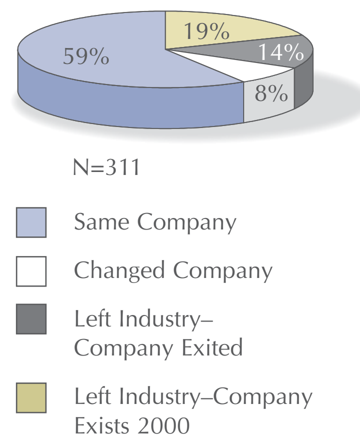
Managerial women are substantially more likely to leave the venture capital industry.

Our first research question asked whether there were highly visible and experienced women in the venture capital industry and, if so, where were they. One measure of experience is the level of decision-making responsibility as shown above. Another is the length of an individual's tenure in the industry. Between 1995 and 2000, managerial women were almost twice as likely to leave the industry as their male counterparts, with 64 percent of women leaving the industry compared to 33 percent of men (see Exhibit 9). Managerial men who were in the industry in 1995 were much more likely to be at the same company (59 percent) in 2000, although a small percentage (8 percent) had changed companies within the industry (see Exhibit 10). Very few of the managerial women had changed companies. The overwhelming majority (67 percent) exited the industry, 27 percent apparently in concert with their company leaving the industry. Although the percentage of men leaving the industry was smaller than for women, the percentage of men and women who left in concert with their companies exiting the industry was the same.

Managerial women who exited the industry were more likely to leave large companies.[29] There is no relationship between size of the company and male key managers departing from the industry.

EXHIBIT 10

U.S. Managerial Men's Career Pattern



Question 1 Summary Findings

- Although there are some highly visible and experienced women venture capitalists in the industry, they are few in number.
- Despite the dramatic growth in the U.S. venture capital industry between 1995 and 2000, both in number of partnerships and number of managers, women's representation in managerial roles did not grow during this time period. Women were on the managerial track in only about one quarter of partnerships, and when they were in senior management positions, they tended to be the only managerial woman in the partnership.
- Women were more likely to work in larger partnerships, that is, those with more managers, larger funds under management, and with a nationwide investment focus.
- Although women made some strides in moving into more senior decision-making positions during the five-year period, women remain more heavily clustered in entry and middle levels than their male colleagues.
- Women appear to have far less experience than their male counterparts. Many don't stay in the industry long enough to accumulate the experience necessary to attain high visibility. They are much more likely to leave the industry.

Question 2: Do these highly visible and experienced women venture capitalists influence decision-making models, processes, norms, and outcomes within their firms?

We have established that there are relatively few women in responsible investment decision-making positions in the industry. We focused on those who do hold these positions to understand how they might influence their partnerships' decision-making. We determined which partnerships had women in senior decision-making roles for at least five years. We first selected those partnerships that were listed in both the 1995 and 2000 *Pratt's Guides*. In our search to identify individual women decision makers in the industry, we also identified several industry trends and firm-level attributes that are relevant to the study. Of the 352 partnerships included in the 1995 sample, 249 also were still listed in 2000, representing a 70 percent survival rate.

The survival rate of venture capital firms with managerial women doesn't differ from those managed by men.

The survival rate of all male venture capital partnerships was slightly higher than for comparable firms having women key managers. More than 75 percent[30] of the male-only firms were listed in both 1995 and 2000, compared to just about 70 percent[31] of firms with managerial women. The difference is not statistically significant.

The employment strategy of partnerships committed to managerial women in 1995 changed more substantially than that of male-managed firms.

The inclusion of managerial women in 1995 can be viewed as a firm's commitment to diversity in the workforce. These were the companies that included women in their managerial ranks and publicized that commitment by listing women in the *Pratt's Guide*, signaling the partnership's diversity to the marketplace. Similarly, those listing only male managers tacitly communicated to the marketplace their management structure and, implicitly, the nature of the firm's employment strategy. By comparing the 1995 employment structure with that of 2000 we have a measure of long-term commitment to a diversity strategy.

Overall, the managerial employment strategy of firms surviving from 1995 and 2000 changed substantially, and there was a statistically significant difference between the employment pattern change in male-managed firms and firms with managerial women.[32]

As shown in Exhibit 11, only 46 percent of 1995 partnerships with managerial women retained their employment strategy and had at least one woman on managerial track in 2000. Nearly 25 percent of the 1995 firms had lost all managerial women, even though the partnership still existed in 2000.

In contrast, Exhibit 12 shows that nearly 70 percent of the 1995 male-managed partnerships retained their male-only management structure in 2000. Only 7 percent of the male-managed firms had departed from this employment strategy and included managerial-track women in their *Pratt's Guide* listing.

EXHIBIT 11

Changes in Employment Strategy of U.S. Firms with Managerial Women Between 1995-2000

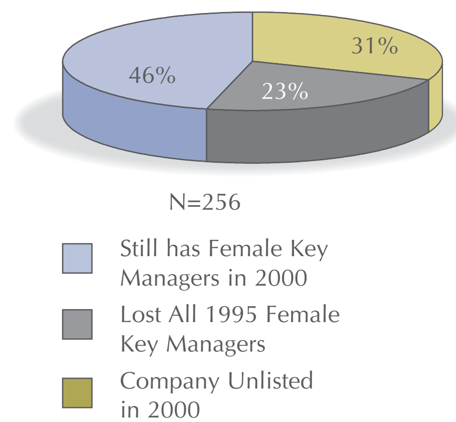
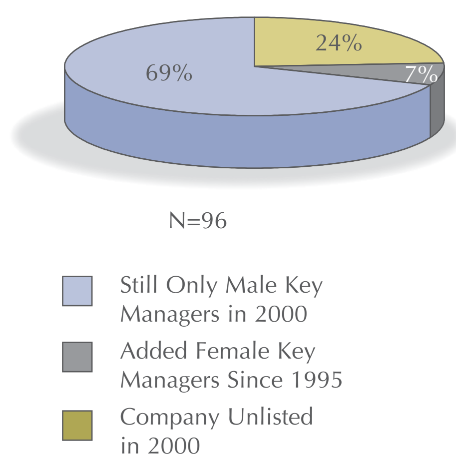


EXHIBIT 12

Changes in Employment Strategy of U.S. Male Managed Firms Between 1995-2000



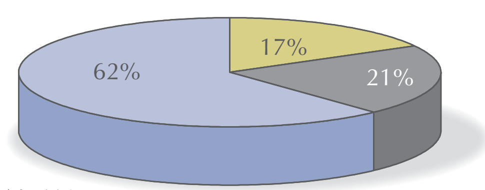
Having women in managerial roles doesn't lead to adding more.

A review of employment changes among the partnerships that had the same management employment strategy in 1995 and 2000 reveals that having women in managerial roles doesn't necessarily encourage the addition of more managerial women. As shown in Exhibit 13, of 118 partnerships that reported having managerial women in both 1995 and 2000, only 21 percent had increased their number of managerial women. In fact, there is a negative correlation between the number of managerial women in 1995 and the net change in their number by 2000.[33] Almost 17 percent–although still reporting women on managerial track–had reduced their number of managerial women by 2000. More than 60 percent had the same number in both years. Of the twenty-five companies that added managerial women, eighteen added one woman in a managerial track, four partnerships added two women, and three companies added three.

There is a significant and negative correlation[34] between the net change in managerial women at these companies and the percentage of female managers present in 1995. In other words, the higher the ratio of female-to-male managers in 1995, the fewer managerial women added in 2000. Females comprised almost one-half of the key management team in companies that lost women between 1995 and 2000 (45 percent) and about one-third in partnerships that had the same number of managerial women in both years (36 percent). Managerial women comprised approximately 20 percent of the managers in firms that had increased their number of women on management track by 2000. These findings suggest there may be an implicit rationale operating in the industry that having "one or two women is enough."

EXHIBIT 13

Employment Trend of Firms With Managerial Women

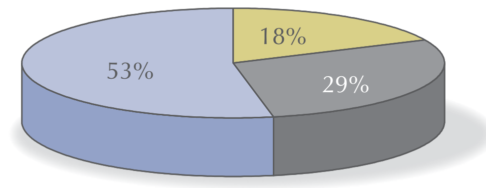


N=118

- Firms Increasing Female Key Managers
- Firms Maintaining Number of Female Key Managers
- Firms Decreasing Female Key Managers

EXHIBIT 14

Employment Trend of Male Managed Firms with Consistent Strategy



N=66

- Firms Increasing Male Key Managers
- Firms Maintaining Number of Male Key Managers
- Firms Decreasing Male Key Managers

In contrast, all-male partnerships in 1995 still in the industry in 2000 were more likely to have added male managers, but they also were more likely to have lost a substantial portion of their managerial cohort. As depicted in Exhibit 14, almost 30 percent of the 1995 partnerships had added male managers. Only 53 percent of the partnerships had maintained their numbers at the managerial rank in comparison to 64 percent of firms with managerial women.

These findings suggest there may be an implicit rationale operating in the industry that having one or two women is enough.

Partnerships with managerial women in 1995 that increased their numbers of women by 2000 added them at the top level. Male-managed partnerships added women at mid-decision levels.

Partnerships with managerial women in both 1995 and 2000 that increased the number of women on management tracks added women with substantial decision-making responsibility. As shown in Exhibit 15, 65 percent of those added were at top-decision rank, 30 percent at mid-rank. The exhibit also reveals that many managerial women at companies that maintained their number of women on managerial track were promoted. More than 50 percent of managerial women in these partnerships were at the senior-most decision rank compared to 40 percent in 1995, as illustrated in Exhibit 6.

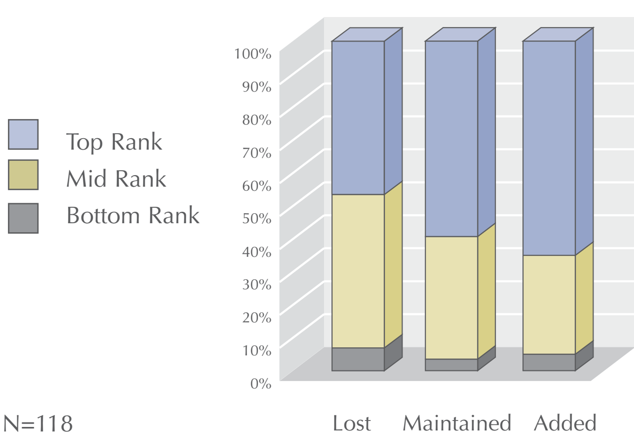
Only 7 percent of the 1995 male-managed firms had added women to their managerial ranks by 2000. Five had added one managerial woman; two added two women. Almost 75 percent of these new women were at the mid-decision level in 2000.

Partnerships with the same number of managerial women in 1995 and 2000 were smaller than those that had lost or gained women by 2000.

Partnerships with women in senior management positions in surviving partnerships tend to be larger than those of men. However among partnerships with women that survived across the five-year time period, there also are size differences.

EXHIBIT 15

2000 Decision Rank of Managerial Women in Partnerships With Consistent Employment Strategy



Partnerships that had the same number of managerial women in both years had significantly smaller funds under management in 1995[35] and had significantly fewer managers overall[36] than partnerships that added or lost managerial women during the time period. The average number of key managers in 1995 at companies that lost female key managers by 2000 was 7.4. The average number of managers at partnerships where managerial women were added was 7.6.[37] Partnerships with the same number of managerial women in 1995 and 2000 averaged 4.6 managers.

There is no significant difference in the age or size of 1995 male-managed partnerships that added, maintained, or lost male managers by 2000.

Questions 2 Summary Findings

- Archival data from *Pratt's Guides to Venture Capital Sources* provide mixed support for the assertion that highly visible women venture capitalists are in a position to influence the processes, norms, and outcomes within their firms.
- Among partnerships in the industry during the five-year time period, women increased their presence in top managerial positions, suggesting that they were better positioned to make change.
- Partnerships that increased their number of women added them at the top level. However, having women in managerial roles in 1995 did not predict the addition of more women in 2000. Only 22 percent of partnerships increased their number of managerial women by 2000. Additionally, the commitment to maintaining a diverse managerial structure in those firms seemed to weaken over the time period. Only 45 percent of the 1995 partnerships with managerial women retained their employment strategy and had at least one woman on managerial track in 2000. Nearly 25 percent of the surviving firms lost all managerial women.
- Changes in 1995 male-managed firms did not make up the shortfall of women in top decision positions. Only 7 percent of the 1995 male-managed firms added managerial track women by 2000, and these women were added at the middle level of the partnerships.

Question 3: Do these highly visible and experienced women venture capitalists increase the flow of women-led deals to their partnerships?

For additional insight about the influence of highly visible managerial women in the industry, we interviewed women listed as key managers by their venture capital partnership in both 1995 and 2000. From the *Pratt's Guides to Venture Capital Sources*, we identified 109 such women professionals. We narrowed the list to include only those women who met the criteria of senior rank (partner or managing director) with five or more years experience in the same partnership having funds of $100 million or more under management. This highly specific subset included only thirty-four women who had both seniority and longevity and were deemed "visible" to women entrepreneurs through the Pratt's Guides listings.

We conducted interviews using a combination of structured and open-ended questions. A field interview conducted with a female industry veteran who changed firms in 1996 provided useful feedback on the structure and direction of the interviews. Interview questions were designed to better understand the roles women partners and managing directors played in their firms' decision-making rules, processes, and behaviors, and to answer our third research question: Do highly visible and experienced women venture capitalists increase the flow of women-led deals to their partnerships?

The average tenure of the "highly-visible" female partners we interviewed was thirteen years, with a range of seven to twenty-four years. Several of the women worked in the industry longer than the five-year time period being studied and were with other venture firms before joining their current group. Two founded their own venture funds. Others had deep experience in venture capital or related experience in banking. Several worked with their partnerships as consultants before being asked to join their present team.

None of the women interviewed participated in funds that specifically targeted female entrepreneurs, and none expressed a preference for women-led ventures. All of the partnerships included male partners. Funds under management ranged from $100 million to more than $5 billion. The partnerships had been in operation from fourteen to thirty-four years. The large funds tended to be more highly diversified in terms of industry focus and stage of investment.[38]

Women venture capitalists, like their male counterparts, depend on referral networks.

When asked how their firms sourced new deals, the women venture capitalists indicated that their firms often received unsolicited (over the transom) business plans but were unlikely to invest in these. Preferred sources of deals included referrals from entrepreneurs in their networks and from other venture capitalists in the industry. All indicated that they actively prospected for potential entrepreneurs in their preferred industry sectors and "positioned themselves in the mainstream of deal flows." A few believed that they knew more entrepreneurial women than did their male colleagues, which expanded the firm's network.

The women venture capitalists were careful to point out that they did not have any preference for doing business

Most women venture capitalists believe gender does not influence their investment decisions or their status in the industry.

with these women–at least not on the basis of gender. They did, however, indicate that being connected through a professional network enabled them to know more about the talent and experience of entrepreneurs (including women) and helped them make more informed judgment about an entrepreneur's likelihood of success. A few indicated that male venture capitalists in their own firms or in other firms sometimes referred female entrepreneurs to them "because they might understand the deal better" or be more likely to "connect" with the entrepreneur, but they did not think these were important considerations.

Most women venture capitalists believe gender does not influence their investment decisions or their status in the industry.

Slightly more than 70 percent of the women venture capitalists interviewed said their firms had made investments in female-led ventures. They reported multiple deals done but believed that only a few of the investments (a cosmetics venture and a women's website) had any gender-related aspects. Though they could not recall the total number of investments made by their partnerships in women-led ventures over time, the majority indicated that their male partners had also brought in women-led ventures that were funded by the firm. Nine such deals were specified by name.

The majority of the women venture capitalists reported that the performance of the women-led ventures in their portfolios was on a par with overall portfolio performance. One reported that, of her two investments, one was a big "hit" selling at fourteen times the investment and the other was sold at a loss. Another reported that her two investments were sold–one in a private sale at a loss and the other at a substantial gain in a public offering. Another reported poor performance by one investment but noted that the result was related to industry performance rather than to any failure on the part of the entrepreneur. Two of the women reported that they found it more difficult to manage portfolio companies with a woman CEO, because they found women often interpret business-related criticism as personal criticism and do not respond well in times of crisis.

The women investors were adamant that they did not invest in deals led by women because of any gender preference. They believed that the deal flow of women-led ventures to their firms might be somewhat enhanced by their own network connections. However, they insisted that they subjected every woman-led venture to the same standards and scrutiny as any other deal. They noted that the biggest problem in funding female entrepreneurs was the dearth of high-quality, women-led businesses, a problem they attributed to human capital issues of technical training and management experience. They observed that very few women were equipped to compete in the highest-growth industries, though several noted progress by women in the software arena.

The women venture capitalists reported that they held themselves and their deals to the same high standards as did their male partners. Several thought they had influenced the decision-making process positively by bringing a new (more thoughtful and questioning) approach to the review process. One pointed out that investment meetings were somewhat more formal because of her presence and were likely to be more thorough.

Those interviewed made several observations about being women partners in a predominantly male industry. Most said that the business was "gender blind" and that the partners made their choices of management partners and investments on the basis of objective quality standards. The women with the longest tenure in the industry felt there were unusual challenges to being female in the early years, but that those no longer exist. Several women observed that there is little collegiality or networking among women professionals in the industry, and two noted that women venture capitalists are more competitive with each other than are their male counterparts.

One woman whose partnership used to include three women and now has only one observed that there are fewer women in the industry today, but others reported seeing growth in numbers and cooperation. One partner forecasted active recruitment of women professionals to improve fund-raising opportunities, noting that an increasing number of the managers of large institutional funds are women.

Question 3 Summary Findings

- Women professionals in the venture capital industry have attracted more female-led ventures to their firms, even though they are not actively seeking them out. This supports previous research findings that women have more women in their networks than men.[39] However, women appear to continue to be disadvantaged in referrals from entrepreneurs and venture capitalists that provide many of the strongest leads.

- The women venture capitalists interviewed observed that their participation in the decision-making process has influenced discussions in new and positive ways, bringing new perspectives to the table. Nevertheless, they did not believe their influence had resulted in substantial changes in the number or quality of investments in female-led businesses. This implies that institutional change is evolving very slowly and may need to be catalyzed by more dramatic rather than incremental shifts.[40]
- The observation that the industry is "gender blind" and that investment choices are made based on objective standards seems to contradict anecdotal and empirical evidence suggesting that investment decisions are often more "subjective," based on gut feeling rather than being truly objective.[41] This raises the question whether women in the venture capital industry are adopting the norms and beliefs of their male partners (rather than changing them) in order to succeed in their roles.

an **international** perspective

The venture capital industry in the United States has flourished over the past forty years and has accelerated dramatically in the most recent twenty years.

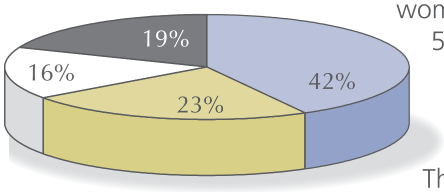
Other countries have tried to emulate the U.S. model of venture capital, succeeding to varying degrees. What is the experience of professional women in these other countries? An exploratory examination of the European venture capital industry indicates that women's penetration in Europe is even less than it is in the United States, and the rate of women leaving the industry is higher than in the United States. We coded listings from the 1995 and 2000 *Venture Capital Reports* (VCR), directories that list private equity and venture capital sources and personnel. Although most of the listings in the VCR are U.K. partnerships, some other European firms are listed. Consequently, we refer to the partnerships in the following discussion as European, recognizing that they are predominately U.K. firms and that the experiences of women venture capitalists in other European countries may be better represented using other directories.[42]

The VCR archival data reveal that although the number of women doubled between 1995 and 2000, their numbers are few and represent only 6 percent of professionals in the European industry compared to their 9 percent representation in the United States.

An exploratory examination of the European venture capital industry indicates that women's penetration in Europe is even less than it is in the United States.

EXHIBIT 16

U.K. Managerial Women's Career Path



N=32

- Same Company
- Changed Company
- Left Industry–Company Existed
- Left Industry–Company Exists 2000

As in the United States, managerial women in Europe are affiliated with larger partnerships, as measured by number of key managers and funds under management. The difference in number of key managers was statistically significant for both years.[43] The average number of key managers in partnerships with managerial women was 7.8 in 2000 compared to 5.5 in male-managed firms. Difference in the size of funds was statistically significant in 1995 but not in 2000.

The turnover rate of European and U.S. managerial women in the industry was about the same, with 61 percent of the European women listed in the 1995 VCR absent from the 2000 VCR. However, as displayed in Exhibit 16, European managerial women were more than four times as likely to change companies during the five-year interval as U.S. managerial women (16 percent versus 4 percent).

Only 40 percent of the 1995 European firms with managerial women still had at least one female key manager in 2000. As shown in Exhibit 17, substantially more of the 1995 European firms with managerial women had lost all female key managers by 2000 than in comparative partnerships in the United States. (32 percent versus 24 percent).

Similar to findings for the United States, there is little evidence that having women in managerial roles in Europe encourages the recruitment of additional female managers.

Nearly a third of European firms with managerial women in 1995 that also were listed in 2000 had the same number of female managers; 22 percent had increased their number of female managers, and 44 percent had decreased their numbers during the intervening years.

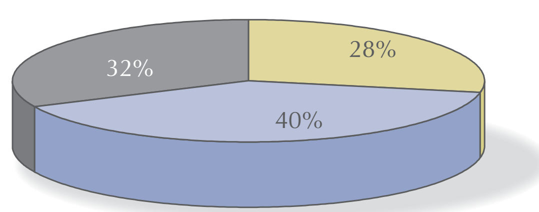
Summary Findings

Our exploratory examination reveals that managerial women in the European venture capital industry share many similarities with their U.S. contemporaries.

- They are few in number, representing just over 5 percent of professionals in the European industry.
- They tend to work for larger partnerships, both in terms of managers and size of funds under management.
- They leave the industry in staggering numbers. More than 60 percent of the women listed in the 1995 *Venture Capital Report* were absent from the 2000 directory.
- There is little evidence that the presence of highly visible women leads to the recruitment of more. Only 40 percent of European firms with managerial women in 1995 still had at least one female key manager in 2000.

EXHIBIT 17

Employment Strategy Changes of European Firms With Managerial Women 1995-2000



- Still Has Female Key Managers in 2000
- Lost all 1995 Female Key Managers
- Company Unlisted in 2000

N=25

prospects for industry **diversity**

The overwhelming maleness of the venture capital industry can be explained in part by qualification requirements applied to industry incumbents. Many venture capital partners earned their stripes as successful entrepreneurs or senior managers of growth companies before becoming venture capitalists.

They came to the industry with substantial personal wealth and established records as decision makers. Although the larger partnerships hire young MBAs as associates, train them, and promote them, the overwhelming majority of entrants come into the industry as experienced business leaders whose reputations and networks bring substantial benefits to the partnerships.

Because women have only recently begun to attain high levels of responsibility in the corporate world or the entrepreneurial arena, relatively few have followed the traditional path to senior managerial positions in the venture capital industry. This is beginning to change. Women who have joined the venture capitalist ranks since 1990 are more likely to have MBAs and industry experience than the high profile women who preceded them. Many participated in special training programs designed to fast-track them into substantial investment-decision positions in the industry. The Kauffman Fellows Program sponsored by the Center for Venture Education[44] is one example.

The Kauffman Fellows program is designed to educate and train emerging leaders in the venture capital industry by providing structured educational curriculum enhanced with facilitated mentoring, peer learning, and networking. Of seventy-seven program alumni, 25 percent are women–more than twice the rate of women's representation in the industry as shown in Exhibit 2–and the ratio is increasing. Women represent 40 percent of the eighth and latest class of Kauffman Fellows, in part a reflection of increased activity in life-sciences and health-care investing where women professionals are highly concentrated.

Center for Venture Education program assessments indicate that, once in the industry, women are extremely valuable contributors. Kauffman Fellows women alumnae have shown great resilience in maintaining their positions during the chaotic post-dot-com downsizing of the industry, even though reductions estimated by some experts reached 50 percent of the venture capitalists employed in 2000. Of the ten women in the first four classes, seven are partners in their firms, including one in a highly prestigious venture capital firm, one in a successful hedge fund, and another who leads her own angel-backed company. One was displaced from her initial industry assignment but immediately found a position in a fund of equal standing. In contrast, 25 percent of male Fellows in the first four classes were displaced through the venture capital "nuclear winter" of the past three years. Four of these Fellows have successfully launched their own firms, and six opted to leave the industry at this time.

. . . relatively few (women) have followed the traditional path to senior managerial positions in the venture capital industry.

conclusions

Key Findings

The venture capital industry is overwhelmingly male.

- Women constitute a very small percentage of venture capital decision makers (8.6 percent of 5,900 individuals in 2000) and are less likely to be in senior positions.
- Among women venture capitalists in senior positions, the attrition rate is alarmingly high, with 64 percent leaving the industry between 1995 and 2000 (compared to 33 percent of males). As a result, many women never gain the experience necessary to attain high visibility.
- The playing field is not level for women seeking to become venture capitalists. In the past, women may have lacked the education, experience, or management skills needed to succeed in the industry. They are still under-represented in traditionally male fields, such as engineering, physics, and biotechnology, from which the most attractive venture capitalist candidates are drawn. Women tend to gravitate to larger partnerships of national scope and to those focused on software, retail, and other industries in which women-led ventures more commonly compete.

Personal acquaintances and introductions are crucial for women venture capitalists and women entrepreneurs to get ahead.

- Women professionals have more women in their networks than men. Because the venture capital industry is dominated by men, women trying to launch or further careers as venture capitalists have fewer first-degree network connections with the gatekeepers (that is, men) in positions to hire and promote them.
- Male and female venture capitalists don't consider deals that come over the transom. Rather, they prefer to pursue opportunities presented by entrepreneurs with whom they have a connection. Lacking those connections, women entrepreneurs have less chance of getting to the negotiating table.

Women venture capitalists do not give preferential treatment to women entrepreneurs, but 70 percent are in partnerships that have closed deals with women-led companies.

- Highly visible female partners believe they have influenced the decision-making process in some ways but insist that they subject women-led ventures to the same standards and scrutiny as any other deal and do not favor or network with women entrepreneurs more than men. Nevertheless, 70 percent of women venture capitalists say their firms have closed a deal involving a woman-led company.
- Since only 4 to 9 percent of all deals go to women (yet more than two-thirds of women venture capitalists have closed deals with women), we can assume that women played a major role in most of the deals that went to women, regardless of how few they were.

Observations and Implications

Fewer women venture capitalists means:

1. Fewer opportunities for women-led ventures to access capital. Women entrepreneurs have a very difficult time establishing connections that lead to investment. Being out of the network requires women entrepreneurs to work harder to gain access to appropriate funding sources.
2. Greater likelihood that promising ventures will be overlooked. Investors who rely solely on personal contact networks–networks that are male dominated–are likely to miss good investment opportunities.
3. Less voice for women in the entrepreneurial progress of our country. Women have fewer opportunities to vote with their investments for the next wave of technology and to identify and support our nation's next entrepreneurial leaders.

Less access to capital for women-led ventures means less opportunity to build wealth and helps perpetuate negative perceptions about women entrepreneurs' ability to succeed in the market.

- Because women entrepreneurs face unusual challenges in securing venture capital, their ventures may be resource poor throughout infancy and adolescence and, consequently, the overall health of their companies less robust. Their young ventures may be less competitive in the race for market share and less resilient to business setbacks.
- Being less visible to gatekeepers in the venture capital industry also limits women entrepreneurs' opportunities to receive returns generated from fast-growth ventures that result in a liquidity event.

More women venture capitalists could increase the number of proposals from women entrepreneurs that get attention.

- Venture capitalists don't consider unsolicited deals from people with whom they have no connections or references. Because women tend to network more with women (as do males with other males), more visible women venture capitalists would likely result in more women-led deals brought to firms and those brought receiving serious consideration.

The more proposals from women entrepreneurs that get attention from a firm, the more likely the firm is to invest in women-led deals.

Firms with highly visible women venture capitalists are more likely to invest in women-led ventures because they see more women-led deals. They see more women-led deals because:

- They network with women,
- They specialize in industries that attract more women-led businesses, or
- Male partners willing and able to have women partners are also more likely to take on women entrepreneurs in their portfolio.

Getting investors' attention may not improve the odds for any one woman entrepreneur. But it may mean that, among four or five deals done by a partnership, one will be led by a woman.

The more women entrepreneurs achieve parity with men in access to capital, the more opportunities we have to build a strong economy for our nation.

Entrepreneurship fosters creativity, economic development, and competitive differentiation. Countries that encourage, facilitate, and expand development of innovative ventures stand the best chance of solving business or social problems, creating jobs, and stimulating the economy.

For the past decade in the United States, women have led the way in business creation. 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.[45] In 2000, estimates were that women owned 38 percent of all businesses in the United States, or 9 million businesses.

Since then, job loss due to a sluggish economy has led even more women (and men) to start businesses. Will the innovative products and services women are developing get the attention they deserve? Will ventures that promise to provide jobs and build wealth be supported? Will our country maintain its status as the world's crucible of entrepreneurial opportunity? That will depend, it seems, on our commitment to ensuring women entrepreneurs have the ability to attract investors, participate in funding decisions, and share in the returns.

appendix

SUGGESTIONS FOR FUTURE RESEARCH

Male Investment and Networking Behavior

There is need for more study of the relationships and behaviors of general partners in venture firms and the decisions to review/invest in women-led ventures. While the "highly visible" women partners we spoke with were candid and open, interviews with their male counterparts about their deal seeking, screening, and investment process, and how this is related to their networks, would yield a more complete picture.

Support for Women Entrepreneurs in High-Growth Ventures

There is a need for government, foundations, and entrepreneurship centers to provide both research and outreach to support women entrepreneurs in their pursuit of high-growth, high-value ventures. Investments and performance of investments by gender should be tracked and compared. A complete understanding of the participants and the process of equity investment is hindered by incomplete information.

Educating Women About Types of Investing

The minute number of women in the venture capital industry might be attributed to career choice, inappropriate career qualifications, or high entry barriers to the industry's managerial pipeline. Education can affect each of these explanations. It might be possible to increase the number of women in the venture capital industry by encouraging and educating women to participate in the investment process as angels or through corporate venture funds and venture capital firms. Women are playing a very minor role in the supply side of this multi-billion dollar industry. Educating women about angel investing, the investment process, and careers in the industry can serve as a career-entry strategy into this male-dominated industry. Venture firms, non-profit foundations, investment banks, educational institutions, and local agencies might sponsor and fund such programs. At the same time, venture firms should recognize the benefits of a more diverse employee group in the form of extended networks that might yield innovative, fast-growth deals.

end notes

1 PriceWaterhouseCooper/Thomson Venture Economics/National Venture Capital Association Money Tree Survey, October 29, 2003; 1990-1996 IPO data from P. A. Gompers & J. Lerner. 2000. *The Venture Capital Cycle*, p. 15. Cambridge, MA: The MIT Press; 1997-2000 data from Thomson Venture Economics and National Venture Capital Association press release, January 2, 2003.

2 Greene, P.G., C. Brush, M. Hart & P. Saparito. 2001. Patterns of venture capital funding: Is gender a factor? Venture Capital, 3:1, 63-83.; Seegull, F. 1998. Female entrepreneurs' access to equity capital. *Harvard Business School. Working paper*.

3 Carter, N. M., Brush, C. G., Greene, P. G., Gatewood, E. & Hart, M. M. 2003. Women entrepreneurs who break through to equity financing: the influence of human, social and financial capital. *Venture Capital*, 5(1): 1-28.

4 Bygrave, W.D. 1992. Venture capital returns in the 1980s. In D. L. Sexton and J. Kasarda, eds., *The State of the Art of Entrepreneurship*. Boston: PWS Kent: 438-462.

5 Calacanis, J. 2002. Editor's letter: Why we love lists. *Venture Reporter*, May/June: 2.

6 Smart, G., Payne, W. & Yuzaki, H. 2000. "What makes a successful venture capitalist?" *Journal of Private Equity*, Fall: 7-29.

7 BenDaniel,D. J., Reyes, J. E. & d'Angelo, M. R. 2000. Concentration in the venture capital industry. *Journal of Private Equity*, 3(3): 7-83.

8 Greene, P.G., C. Brush, M. Hart & P. Saparito. 2001. Patterns of venture capital funding: Is gender a factor? *Venture Capital*, 3:1, 63-83.

9 Center for Women's Business Research. 2002. Key facts about women-owned businesses. Washington, D.C.

10 Brush, C., Carter, N., Gatewood, E., Greene, P. & Hart, M. 2004. *Clearing the Hurdles: Women Building High Growth Businesses* (forthcoming).

11 The historical wage gap between men and women in the U.S. work force has limited women's earning power and has consequently

made it more difficult for women to build the personal assets that can serve as collateral or fund the early venture-building process. Without early-stage personal financing, few outside investors will risk their capital in the venture.

12 Neider, L. 1987. A preliminary investigation of female entrepreneurs in Florida. *Journal of Small Business Management*, 25(3): 22-29.

13 Greene et. al. 2001.

14 Brush et. al. 2004. *Clearing the Hurdles: Women Building High Growth Businesses* (forthcoming).

15 For example, partners, managing directors, principals, associates.

16 In the 1995 *Pratt's Guide to Venture Capital* Sources we identified 256 firms that listed managerial women. In addition to these firms, we drew a random sample of 96 firms from the 1995 *Guide* that did not list managerial women yielding a total sample of 352 firms to represent 1995 companies. In the 2000 *Guide*, 249 of the 1995 sample firms were listed. These partnerships had survived the five-year interim. In addition to these companies, 329 partnerships were added to the 2000 sample. Two hundred and twenty were companies that had a woman not listed in 1995, and 109 were part of the male-managed firm random sample selected to replicate the 1995 procedure. Partnership listings for branch offices were aggregated into parent company listings. Each individual listed as part of the administrative/management team by the 681 partnerships in the combined sample were coded by the year their name appeared in the directory (1995; 2000; both), and their job title in each year. This allowed us to trace individuals from 1995 to 2000 and make preliminary statements about the career paths of women and men. Characteristics of the partnership firms associated with the individuals also were coded. These variables included: name, number of managers listed for the firm, number of female and male managers, location(s), age, size of funds under management, date of last fund raised, and investment preferences by industry and geographic location.

17 Interviews were conducted using a combination of structured and open-ended questions. The questions were designed to assess their interest and/or success in attracting more female-led deals to the firm and to understand the roles women partners and managing directors played in their firms' decision-making rules, processes, and behaviors. A field interview was conducted with a female industry veteran who changed firms in 1996 and is therefore not a part of our data set. She provided useful feedback on the structure and direction of the interviews. The discussion reports on the results of the first 11 interviews.

18 Names that could not be classified as male or female through a common knowledge of names, or web-research, were categorized as unclassified and eliminated from analyses (the gender of 85 names listed in 1995 and 127 listed in 2000 could not be classified). Additionally, 27 of the female names in 1995 and 29 in 2000 were judged affiliated with non- managerial positions (e.g., were listed as contact person for the firm but no position title was given). These were added to the unclassified category and eliminated from analyses.

19 Senior-ranking women managers are typically the only key female in their firms.

20 Job titles were categorized into three ranks corresponding to the authority to make investment decisions. Job titles considered at the top rank included: Chairman/CEO, Director, Executive Director, General Partner, Investment Manager/Officer, Managing Director/Senior Managing Director, Partner, President. Titles considered mid rank included: Administrative General Partner/Marketing Director, Assistant VP/General Manager, CAO/CFO/CFD, Comptroller, Executive Vice President, Loan Officer, Principal, Senior Vice President, Treasurer, Vice President. Titles considered representing low authority for making investments decisions included: Analyst/Senior Associate, Senior Analyst, Associate, or Corporate Secretary.

21 Not all listings included persons' titles such that their decision rank could be determined.

22 At some partnerships there likely were more managers during the two years than the values reflect. The numbers reported here reflect the total managers listed in *Pratt's Guide to Venture Capital Sources* for each of the years studied.

23 Means test for 1995 yields F=36.06, d. f. 1, 350, p<.000; 2000 F=72.28, d. f. 1, 576, p<.000.

24 The distribution of funds under management in the samples is highly skewed, with a minimum of $1 million and maximum over $2 billion in 1995 and a minimum of $1 million and a maximum of $11 billion in 2000. To test for differences between the size of funds at firms with women managers and those male managed, we used the log of the fund value.

25 Means tests for 1995 yields F=5.34, d. f. 1, 267, p<.022; 2000 F=13.79, d. f. 1, 414, p<.000.

26 Pearson Chisquare for 1995 equals 11.87, d. f. 3, p<.008; 2000 Pearson Chisquare=14.04, d. f. 3, p<.003.

27 Not all firms indicated data for geographic preference of investments.

28 Average age of firm in 1995 was 13.02; 2000 average age was 13.84.

29 There is a statistically significant positive correlation between company size and female key managers leaving the industry (Pearson Correlation=.34, p<.000).

30 72 of the 96 male-managed partnerships were listed in both 1995 and 2000 representing a 76% survival rate.

31 176 of the 256 partnerships with managerial women were listed in both 1995 and 2000 representing a 69% survival rate.

32 Pearson 2=17.05, 2 d.f., p<.000.

33 Pearson Correlation= -.486, p< .000.

34 Pearson Correlation= -.342, p< .000.

35 Means test yields F=4.58, d. f. 2, 89, p<.017.

36 Means test yields F=10.599, d. f. 2, 115, p<.000.

37 Average number of managers at employment diverse companies was 5.99.

38 For the most part, the primary industry of the interviewees was in either software and software services or health care and medical devices. Approximately 40% of the women VCs had technical undergraduate degrees (engineering, math, science) and more than 70% had MBA degrees. More than 50% had prior experience in the high technology industry and 30% had been entrepreneurs.

39 Aldrich, H. 1989. Networking among women entrepreneurs. In O. Hagan, C. Rivchun and D. Sexton, eds., *Women Owned Businesses.* NY: Praeger: 103-132.

40 Powell, W. 1991. Expanding the scope of institutional analysis. In W. W. Powell & P. J. DiMaggio (Eds.) *The New Institutionalism in Organizational Analysis*. Chicago, IL: University of Chicago Press.

41 Alimansky, B. 2000. Eight ways to ruin your chances of raising equity capital. *Journal of Private Equity*, 3(3): 78-83.

42 To examine the experience of women in the European venture capital industry, we canvassed the 1995 and 2000 Venture Capital Reports (VCR). We selected 94 companies from the 1995 VCR to track across time. Of these, 25 listed managerial women. Of the 1995 partnerships, 61 were also listed in the 2000 VCR for a 71% survival rate. An additional 71 partnerships were added in 2000 to compare the experiences of male and female managers.

43 Means test for average number of key managers for 1995 yielded F=36.49, d.f. 1, 90, p<.000; 2000 F=136.26, d.f., 1, 90, p<.02. Means test for log of funds under management for 1995 yielded F=19.77, d.f., 1, 77, p<000.

44 See *http://www.kauffmanfellows.org/cve/index.asp*

45 *Women Owned Business*; 1997 Economic Census; U.S. Department of Commerce., 2001.

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