

*An Assessment of Early-Stage Venture Capital
in Greater Philadelphia: 1986 to 1996*

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Executive Summary

Entrepreneurial ventures, especially ventures in the early stages of development, are a vital component of a region's economic future. In the short term, they create jobs and opportunity; in the longer term, they create wealth and fuel a process of innovation that renews and sustains economic growth. Since the end of World War II, institutional venture capital has been responsible for funding a great number of these "breakthrough" companies. Investments in early-stage companies, however, are inherently the most risky of all investments in entrepreneurial ventures -- the innovative idea behind a product or service is usually untested; the period of time for a return on an investment to be realized (if it is realized at all) is comparatively long; and the capital infusion required for growth can be steep. The high risk associated with companies in the very early stages of development and the high transactions cost necessary to invest in such firms have convinced many that there is a financing gap for early-stage companies, which includes seed, start-up and first-stage financing.

There is some evidence that Greater Philadelphia region lags in its ability to create and sustain high-growth entrepreneurial ventures. Entrepreneurial researcher David Birch's 1996 analysis of the 50 largest metropolitan areas ranked Greater Philadelphia 43rd in its ability to start and grow "significant companies." Boston, a region often compared to Philadelphia, was ranked 35th in that analysis. Interestingly, Birch's research suggests that Greater Philadelphia leads Boston in its ability to *start* new companies, but lags considerably in its ability to *grow* significant new companies. Data like Birch's raise an important question about the supply of early-stage venture capital in the region as it relates to the startup and growth of significant companies.

With this in mind, the Greater Philadelphia Venture Group (GPVG), an organization of leading venture capital firms based in the area, asked the Pennsylvania Economy League--Eastern Division (PEL) to analyze the financing of early-stage companies in Greater Philadelphia by the venture capital industry. The primary purpose of the project was to assess venture backing of early-stage companies in the region over the past 10 years (1986 to 1996), with particular emphasis on:

- the level of investment made in early-stage companies;
- the industries of early-stage companies that were backed by venture capital; and
- the origin of venture capital investments (e.g., from local venture firms or firms outside the region).

Several findings emerged from the analysis:

- **Venture backing of early-stage companies in Greater Philadelphia grew significantly from 1986 to 1996**, from \$27.4 million in 1986 to \$96.8 million in 1996. This was a real increase of 253 percent, compared to a national increase of 190 percent. From 1986 to 1996, the share of investments going to early-stage companies in the region nearly doubled (from 14 percent to 27 percent); by 1996, it closely resembled the share at the national level in 1996. Growth in venture capital financing of early-stage companies was mostly in the size of deals being struck, as opposed to the number of deals. Deals with seed-stage companies, for example, increased from an average of \$631,000 in 1986 to an average of \$3.9 million in 1996.
- **Venture backing of early-stage companies in Greater Philadelphia was predominantly in the biotechnology and medical/health industries.** These industries' combined share of early-stage investments was the largest in 1996, having more than doubled from 30 percent in 1986 to almost 70 percent in 1996. This strong showing in early-stage investments was a reflection of the region's

growing strength in the biotechnology and medical/health industries. The nature of these industries also helps explain their high share of early-stage investments -- compared to other early-stage investments, entrepreneurial ventures in biotechnology and medical/health tend to require larger infusions of financing over longer periods of time.

- **Venture backing of early-stage companies in Greater Philadelphia increasingly came from venture capital firms located outside the region.** In 1996, venture capital firms located outside Greater Philadelphia invested \$77.5 in local early-stage companies, about 80 percent of the total investments in early-stage Philadelphia companies. Outside firms increased their focus on early-stage investing over the 10-year period -- in 1986 early-stage investing made up 15 percent of outside firms' total investing; by 1996 their early-stage investing increased to 26 percent. Clearly, the region's early-stage companies offered favorable investment opportunities to outside venture capital firms, especially firms specializing in the financing of biotechnology and medical/health entrepreneurial ventures.

The strong growth in venture backing of regional early-stage companies was very much a reflection of trends that are being played out at the national level. Early-stage deals have become larger as competitive pressures force companies to "get big fast." Venture capital has become more mobile, flowing more quickly around the country and indeed around the world as never before. The strong stock market of the last few years has increased IPO activity, and the formation of new funds and the flow of funds into venture capital has increased enormously.

For growth-oriented entrepreneurs in Greater Philadelphia, the good news is that early-stage venture capital has grown dramatically, much faster than the national rate. The fact that those funds have come increasingly from outside the region, however, may suggest a continued need to develop more "homegrown" early-stage venture capital -- all things being equal, locally-managed early-stage venture capital will be more conducive to supporting local growth company activity. Current efforts by the Commonwealth of Pennsylvania pension funds, Safeguard Scientifics, and the Ben Franklin Partnership seek to address that issue. However, while this analysis demonstrated that venture capital investments in Greater Philadelphia early-stage companies have grown tremendously, it does not shed light on whether a true early-stage financing "gap" exists, since the demand side of that equation is nearly impossible to quantify.

The research and analysis presented in this report were conducted by PEL staff, most notably Associate Annette B. Goldberg, under the guidance of Senior Associate Steve Brockelman and Executive Director David B. Thornburgh.

Introduction

The Important Contribution of Venture Capital to Economic Growth

Innovation fuels economic growth. It delivers the ideas and tools that increase productivity, bring down the cost of producing goods and delivering services, and enhance quality of life. Much of the innovative products and services produced over the last quarter century have come from small, entrepreneurial ventures, the iconoclasts that challenge the prevailing standards and practices of the business world. The Commerce Department estimates that new and small companies delivered upwards of 95 percent of all post-World War II radical innovations, not large, established companies of the day. Much of this innovation was achieved thanks to the backing of venture capital firms, which skillfully oversaw the development of these "breakthrough" companies as they successfully commercialized major scientific discoveries such as the programmable computer, the transistor, and DNA.¹

Radical innovation delivered by small, entrepreneurial companies has not only changed industries fundamentally. It has created new industries in and of themselves, with venture-backed companies spurring on and riding the high waves of growth. For example, microcomputers, making their first appearance in the early 1970s, and the software and internet innovations that followed rocket-launched high-tech into an industry that today has a market value of over \$1.2 trillion. Many of the big players in today's high-tech industries were backed by venture capital in their start-up and early stages of development -- to name a few, Apple, Intel, Microsoft, Lotus, Compaq, Netscape, and Yahoo!. Radical technological innovation in communications and transportation has ushered in a business environment that is relatively unconstrained by geographic location -- today's venture capitalists and entrepreneurs are more active than ever before, striking million-dollar deals from across the country and opposite sides of the globe, in person and virtually. The importance of venture capital to economic growth is summed up succinctly by noted authors and business professors William Bygrave and Jeffry Timmons: "There may be no better barometer of the rise and fall of America's growth industries than the investments made by venture capitalists."²

Growth stemming from small, entrepreneurial companies that are backed by venture capital has taken many forms, the most important and newsworthy being the creation of jobs. According to the *Sixth Annual Economic Impact of Venture Capital Study*, sponsored by the National Venture Capital Association and conducted by Coopers & Lybrand, the number of jobs created by venture-backed companies between 1990 and 1994 grew by 20 percent each year. *Fortune 500* companies, on the other hand, eliminated jobs at a rate of 0.9 percent each year over the same period. On top of having faster growth, jobs created by venture-backed companies -- engineers, scientists, and managers -- tend to require more technical skills and command better pay.

What is Venture Capital?

Drawing from a pool of funds "supplied" by private parties (e.g., wealthy individuals and families, public and private pension funds, corporations, foreign investors, and endowments), venture capital firms invest in companies that they believe have great potential for fast and substantial growth. Some of these companies are in the early stages of development and often they are headed up by a visionary in an emerging industry. Venture capital firms do much more than back early-stage companies financially. They often

¹ Bygrave, William D. and Jeffry A. Timmons. Venture Capital at the Crossroads. Harvard Business School Press: Boston, 1992, p. 65.

² Bygrave and Timmons, p. 87.

work closely with the entrepreneurs themselves, usually as an active member of a company's board of directors. With their industry knowledge and contacts, venture capitalists help their portfolio companies recruit strong management teams, devise business strategies, develop supplier networks and customer bases, and bring in later-round investors.

Gap in Financing of Early-Stage Companies: Myth or Reality?

Investing in early stage is inherently the most risky of all venture capital investing -- the payoff, if there is one at all, tends to come many years after the initial investment and usually substantial follow-up investments. Furthermore, the product or service innovation -- and sometimes the management team -- behind the entrepreneurial venture is usually untested. One survey of 157 venture-backed companies in various stages of development found that the average venture-backed company that was successful took 2½ years to break even in cash flow and over 7 years to break even in initial equity.³ Another study concluded that entrepreneurial ventures in genetic engineering, which is part of the biotech industry and has a strong presence in Greater Philadelphia, might take as long as 8 to 10 years to bring a product to market at a cost as high as \$75 to \$100 million.⁴ The rule of thumb in the venture capital industry is that the payback on seed-stage companies comes 7 to 10 years after the investment, while the payback on expansion-stage investments is 4 to 7 years. The potential payback for early-stage investments is substantial enough for many investors to assume the risk -- annualized returns can be as high as 50 to 100 percent and sometimes even higher. However, the inherent risk of investing in early-stage companies has led to the perception that venture capital firms are more reluctant to invest in these ventures.

Other developments in the industry over the years have only served to reinforce this claim. The record returns enjoyed by a number of investors in venture-backed companies made venture capital a more attractive investment compared to others by the 1980s. Large institutional suppliers of funds -- public and corporate pension and endowment funds most notable -- flocked to the venture capital world in search of high returns that would boost their portfolios, and by the late 1980s institutional investors dominated the venture capital world. The large supply of money flowing into venture funds, and the pressure placed on general partners by these large institutional suppliers, pushed the industry to seek higher returns by funding bigger deals with less risk and earlier payoffs, conditions that were more characteristic of deals made with companies in the later stages of development -- expansion, bridge, and acquisition/buyouts. Today, the typical venture capital firm has four general partners who oversee the investing of a median \$70 million in capital. With each responsible for about \$17 million, the typical partner can make and oversee investments in only 5 to 7 companies. Less constrained by geography or location than in the past, today's venture capital firm will search far and wide for high-potential prospects. The trend toward bigger (and therefore fewer) deals with expectations of less risk and earlier and bigger payoffs may have put venture capital squarely at odds with the funding needs of early-stage companies.

Purists believe that the most viable and promising companies, including early-stage companies, will be backed by venture capitalists. Still, regions that have a low level of entrepreneurial activity -- perceived or actual -- might be overlooked by prospective venture investors. While some would include Greater Philadelphia in this group, it is not clear if there is a financing gap for Greater Philadelphia's early-stage companies. The most recent study on early-stage financing was done over 15 years ago by the Wharton Innovation Center. This study did conclude that "...while there appears to be substantial amount of later stage financing activity, there is no organized venture capital entity in the Philadelphia area with any

³ Bygrave and Timmons, pp. 4-5.

⁴ Bygrave and Timmons, p. 115.

significant involvement in early stage financing.”⁵ Still, given the tremendous change in the venture capital industry overall and the significant growth in the region that has taken place over the past decade, a fresh look at venture backing of early-stage companies is in order and is the purpose of this analysis.

Venture Backing Of Early-Stage Companies In Greater Philadelphia

Key Questions

This analysis focuses on venture capital backing of early-stage companies in part because its arrival at a paradoxical situation has raised some interesting questions. The significant economic growth stemming from early-stage companies has made them an important component of economic development. On the flip side, the evolution of the venture capital industry over the past decade has led many to question early-stage companies' access to venture capital. One industry expert has even suggested that it is no longer the quality or viability of an idea that is important, but rather the scale of the deal.⁶ The question of venture backing of early-stage companies is particularly relevant in Greater Philadelphia, a region that is perceived by some to be lacking a climate conducive to entrepreneurship.⁷

Key questions in the analysis are:

- What is the level of venture capital investments in Greater Philadelphia early-stage companies, and how does it compare to early-stage investments across the nation?
- Are certain industries in the region being targeted by venture capital and does this have any bearing on financing of early-stage companies?
- Who is investing in Greater Philadelphia's early-stage companies?

Venture capital has been a traditional source of financing to which entrepreneurs have turned to fuel growth. However, fundamental shifts in the venture capital community have made venture capital and early-stage companies a less logical match theoretically. The analysis that follows provides some answers to the above questions, shedding light on significant trends and shifts in the early stage venture capital over the last ten years.

Definition of Terms and Notes on Data

Greater Philadelphia is defined by a 10-county, tri-state region, made up of the following: Bucks, Chester, Delaware, Montgomery, Philadelphia Counties in Pennsylvania; Burlington, Camden, Gloucester, and Mercer Counties in New Jersey; and New Castle County in Delaware.

The analysis that follows is based on data supplied by *Venture Economics Investor Services*, a division of Securities Data Company, Inc. Note that all dollar figures are adjusted for inflation to reflect “real” 1996 dollars. Dollar figures were adjusted for inflation using GDP Price Deflators issued by the Bureau of Economic Analysis, Department of Commerce.

⁵ Mittelstaedt, Robert E. and Thomas Penn. Venture Capital (Or Lack Thereof) in the Philadelphia Area: A Report on the Venture Capital Ensemble Group (Philadelphia Past, Present and Future Project). Wharton Innovation Center, University of Pennsylvania, August, 1982.

⁶ Gleba, David T. “Economics of VC,” *Upside.com* (website), August 1, 1994.

⁷ The region was recently ranked 43rd out of 50 regions in entrepreneurial climate by Massachusetts business consultant David Birch. As a point of reference, Boston, which is widely regarded as a hotbed of high tech entrepreneurial activity (i.e., Route 128), was ranked 35th in the study.

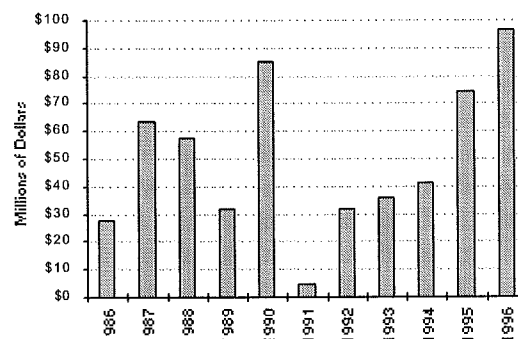
Early-stage financing itself is divided into three stages, which *Venture Economics* defines as:

Seed financing	A small initial amount of capital provided to prove a concept or engage in product development.
Start-up financing	Capital provided for product development and initial marketing. No commercial sales have been made yet.
First-stage financing	Capital provided to initiate commercial manufacturing and sales.

Early-Stage Venture Capital Investments

The level of venture capital investments made in Greater Philadelphia early-stage companies tracks closely with larger economic trends of the past decade. Between 1986 and 1996, the levels appeared to be cyclical, exhibiting a great degree of sensitivity to changes in the economy (Figure 1). After some activity in 1987 and 1988 and a spike in 1990, investments dropped dramatically to \$4.7 million in 1991, the depths of the recession both for this region and the nation. A second, stronger surge of investments started in 1992, coinciding with economic recovery. By 1996, an all-time high of \$96.8 million was invested in regional early-stage companies, up from \$27.4 million in 1986, and an increase of 253 percent. This percentage increase was considerably greater than the 190 increase in early-stage venture capital investments at the national level (not shown).

FIGURE 1. VENTURE CAPITAL INVESTED IN
GREATER PHILADELPHIA EARLY-STAGE COMPANIES, 1986-1996



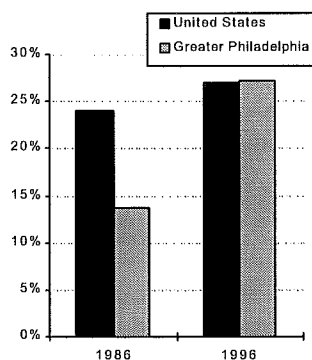
Most of the growth in early-stage venture capital investments between 1986 and 1996 was attributed to larger deals, rather than more deals (Table 1). For example, the average investment in seed-stage companies grew dramatically from \$631,000 in 1986 to \$3.9 million in 1996, an increase of 518 percent. This growth took place even though there was no change in the number of companies that received financing. Not surprising given the trend toward funding of later-stage companies, the number of companies receiving first-stage financing (the latest stage of financing for early-stage companies) grew the most, more than doubling between 1986 and 1996.

TABLE 1. AVERAGE INVESTMENT IN EARLY-STAGE COMPANIES AND
NUMBER OF EARLY-STAGE COMPANIES INVESTED IN BY FINANCING STAGE, 1986 VS. 1996

	1986		1996		% Change, 86-96	
	Avg investment	Companies	Avg investment	Companies	Avg investment	Companies
Seed	\$631,000	4	\$3,900,000	4	518%	0%
Start-up	\$3,788,000	5	\$4,800,000	6	27%	20%
First-stage	\$1,136,000	5	\$4,400,000	12	287%	140%

Growth in early-stage investments made in Greater Philadelphia companies was significant enough to put the share of regional early-stage investments on a par with the national average, which started off and ended up around 25 percent of all venture capital investments (Figure 2). The share of investments made in Greater Philadelphia early-stage companies almost doubled between 1986 and 1996, increasing from 14 percent to 27 percent.

FIGURE 2. SHARE OF VENTURE CAPITAL INVESTED IN EARLY-STAGE COMPANIES, GREATER PHILADELPHIA VS. U.S.: 1986 vs. 1996



Industries of Early-Stage Companies Backed by Venture Capital

A closer look at the industries of early-stage companies backed by venture capital sheds light on those industries attracting significant investment over the past 10 years. Clearly, the biotechnology and medical/health sectors came to dominate the early-stage venture capital markets by 1996 (Table 2). Furthermore, biotechnology and medical/health were the only industries with early-stage companies that were backed by venture capital in each of the 10 years (not shown). Entrepreneurial ventures in biotechnology and medical/health are known to require comparatively larger infusions of capital in the early stages of development. As such, the tremendous growth in all early-stage venture capital investments over the 10-year period to some extent can be attributed to the dominance of these industries in the region.

TABLE 2. SHARE OF INVESTMENT IN EARLY-STAGE COMPANIES AND NUMBER OF EARLY-STAGE COMPANIES INVESTED IN BY INDUSTRY, 1986 vs. 1996

	1986 ^a		1996	
	# of Companies	Investment share	# of Companies	Investment share
Biotechnology	2	11%	4	35%
Medical/Health	3	19%	7	34%
Consumer-related	1	9%	1	17%
Computer software, services	3	5%	7	12%
Business services	0	0%	1	1%
Finance, Insurance, Real Estate	0	0%	1	1%
Industrial products	1	10%	2	<1%
Computer hardware	1	44%	0	0%
Total	11	100%	22	100%

^a 1986 percentages do not add up to 100 percent -- industries in which comparatively small investments were made in 1986 are not included in the table.

While early-stage investments in biotechnology and medical/health had a consistently strong presence throughout the 10-year period, investments in regional early-stage companies in other industries appeared to dissipate, particularly in computer hardware and industrial products. Investments in computer hardware companies in particular, which dominated in 1986 (based on one large deal that made up 44 percent of total investments), were completely absent in 1996. Replacing computer hardware and industrial products were strong showings posted by early-stage companies in two emerging industries -- computer software and services and consumer-related companies. The shift in early-stage investments from computer hardware to software and services could probably be explained by a shift in the computer industry overall as larger companies such as IBM, Intel, Hewlett-Packard and Motorola took over the development of hardware and start-up companies switched their focus to applications and software development. This shift of early-stage venture capital investments between industries also was probably reflective of more general changes in the national economy, which increasingly moved away from manufacturing (in this case light manufacturing) to a more service-oriented base.

Origin of Early-Stage Venture Capital Investments

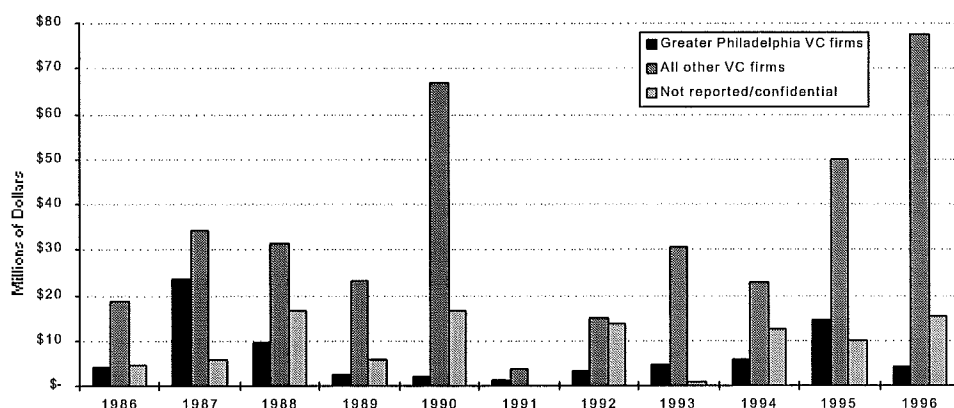
Regional entrepreneurs seeking venture financing, and venture capitalists looking for deals, are less constrained by their geographic location than ever before. Technological advancements in communications and transportation have made this improved market efficiency more important than ever before. While the venture capital community across the nation and in Greater Philadelphia has grown significantly over the past decade, the bulk of venture capital assets is still concentrated on the West Coast, in New England, and in New York.⁹ A closer look at who is backing regional early-stage companies gives a sense for the extent to which Greater Philadelphia has benefited from this improved efficiency and increased its participation in the market because of it.

Not surprising given the proportion of venture capital funds outside the region, the bulk of venture capital invested in Greater Philadelphia early-stage companies came from outside venture capital firms (Figure 3). By 1996, venture capital firms outside Greater Philadelphia were investing tens of millions more in local early-stage companies (\$77.5 million) and commanding a greater share of all regional early-stage investments (80 percent). The tremendous rise of outside investment in local early-stage companies was a real vote of confidence by out-of-region investors in the caliber and quality of opportunities in Greater Philadelphia, particularly in the biotechnology and medical/health industries.

FIGURE 3. ORIGIN OF VENTURE CAPITAL INVESTED IN
GREATER PHILADELPHIA EARLY-STAGE COMPANIES: 1986-1996¹⁰

⁹ National Venture Capital Association, *1995 Annual Report*, p.64.

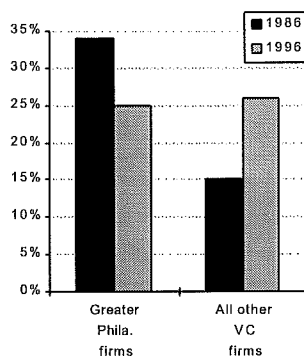
¹⁰ Not all deals reported to *Venture Economics* were fully disclosed. While in most instances the investment amount was disclosed, the location of the venture capital firm providing the financing was sometimes kept confidential. Deals that were not fully disclosed are included in the category "not reported/confidential."



Growth in investments made by local venture capital firms also was a positive reflection on regional early-stage entrepreneurship. Even though they were smaller than the early-stage investments made by venture capital firms outside the region and they ended the 10-year period in roughly the same place (1.5 percent decrease), investments made by Greater Philadelphia firms experienced a dramatic increase starting in 1991, and from there they grew steadily. Local venture capital firms' early-stage investments in 1996, which were down from a peak of \$14.4 million the year before, stood in marked contrast to the growth in investments that took place between 1991 and 1995.

Venture capital firms located outside Greater Philadelphia increased their emphasis on early-stage investing over the 10-year period (Figure 4). While Greater Philadelphia firms shifted their focus away from early-stage companies (from 34 percent in 1986 to 25 percent in 1996), outside firms increased their share of early-stage investments from 15 percent in 1986 to 26 percent in 1996.

FIGURE 4. REPORTED VENTURE CAPITAL INVESTED BY GREATER PHILADELPHIA FIRMS IN GREATER PHILADELPHIA COMPANIES BY STAGE OF DEVELOPMENT: 1986, 1991, 1996¹¹



This intriguing finding -- that early-stage companies were increasingly backed by outside venture capital firms -- could be explained by the industries that dominated venture capital investments in the region between 1986 and 1996, namely biotechnology and medical/health. Biotechnology and medical/health

¹¹ Investments in Greater Philadelphia companies are reported as shares of total reported investments (i.e., all investments for which the origin of the investment is known). The origin of a number of investments in 1986 and 1996 was not reported to *Venture Economics* because the deals were confidential; these unreported/confidential investments are not part of the base used to determine the share of investments by stage of development.

ventures both require more capital and take longer to bring their products to market because of the clinical testing and government approval they must undergo. As such, entrepreneurs in these industries have had to seek out larger investments from more (and larger) funds, many of which are concentrated in California, Boston, and New York.

Active investing by outside firms also has favorable implications for Greater Philadelphia's entrepreneurs. While advancements in communications and transportation have made it easier for even unseasoned entrepreneurs to seek out venture financing on their own, much of venture capital deal-making is still done through the informal channels of networking. Entrepreneurs with good business plans are often referred by a venture capitalist in the region (who is likely to be approached first because of proximity) to a colleague who might find the investment opportunity more desirable. The chance of this happening is even greater if the regional firm approached by the entrepreneur is part of a syndicate. The tremendous inflow of outside venture capital investments into regional early-stage companies suggests an increased efficiency of the market in pairing regional investment opportunities with appropriate investors (in and outside the region).

CONCLUSION

To a great extent the preceding analysis addressed the question of early-stage companies' accessibility to venture capital. Early-stage companies emerged from the past decade commanding significantly larger deals, though national trends suggest that these deals came with expectations of faster and more substantial growth. Growth in early-stage venture capital investments reinforced Greater Philadelphia's reputation as a regional innovator in biotechnology and medical/health and signaled its developing competitive strength in computer software and services and consumer-related services and products. The tremendous flow of venture capital financing into the region, especially from outside venture capital firms was a strong indication of the region's growing attractiveness as a hunting ground for venture capitalists.

What the analysis could not shed light on was the other side of the venture capital "equation," namely entrepreneurs' demand for financing. The analysis clearly demonstrated that investments in early-stage companies increased over time -- absolutely, as a share of total investments, and on average. This strong showing suggests that regional entrepreneurs with viable business ideas were very successful at locating potential investors and securing financing from them. What could not be gleaned from the data, however, was whether this level of investment was meeting all entrepreneurs' need for financing. Anecdotally, companies with expectations of fast and substantial growth are thought to be securing financing for their ventures. But what about truly seed-stage ventures? Is there still an "equity financing gap" this stage of venture?

This is a difficult question to answer, but Greater Philadelphia and the Commonwealth of Pennsylvania have taken an active role in creating and supporting other sources of capital for these seed stage ventures. The Ben Franklin Technology Center (BFTC) of Southeastern Pennsylvania, for example, provides seed capital funding for companies in the very early stages of development (investments from \$25,000 to \$250,000). BFTC also organizes and staffs the Pennsylvania Private Investors Group (PPIG), an active forum for regional entrepreneurs to present their business plans to prospective "angel" investors, is believed to have invested an estimated \$20 million in local ventures in the last five years. Organizations like the Small Business Development Centers, business incubators, and the Entrepreneurs' Forums all assist companies in the difficult seed or even pre-seed stages. Lastly, Governor Ridge's 1998-1999 budget request includes the Catalyst Stage Fund, a proposed \$10 million infusion over 3 years leveraged by another \$40-60 million in public/private investments to be invested in the state's most promising technology companies. A seed or pre-seed stage gap may still exist, but these and other promising efforts are underway and early-stage companies are like to benefit from them.