GROWING NEW BUSINESSES
WITH SEED AND VENTURE CAPITAL:
STATE EXPERIENCES AND OPTIONS

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Since their initial meeting in 1908 to discuss interstate water problems, the Governors have worked through the National Governors' Association to deal collectively with issues of public policy and governance. The association's ongoing mission is to support the work of the Governors by providing a bipartisan forum to help shape and implement national policy and to solve state problems.

The members of the National Governors' Association (NGA) are the Governors of the fifty states, the territories of American Samoa, Guam, and the Virgin Islands, and the commonwealths of the Northern Mariana Islands and Puerto Rico. The association has a nine-member Executive Committee and three standing committees—on Economic Development and Commerce, Human Resources, and Natural Resources. Through NGA's committees, the Governors examine and develop policy and address key state and national issues. Special task forces often are created to focus gubernatorial attention on federal legislation or on state-level issues.

The association works closely with the administration and Congress on state-federal policy issues through its offices in the Hall of the States in Washington, D.C. The association serves as a vehicle for sharing knowledge of innovative programs among the states and provides technical assistance and consultant services to Governors on a wide range of management and policy issues.

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FOREWORD

SUMMARY

Entrepreneurs dominate the most rapidly growing segments of the U.S. economy. Young, high-growth firms require large amounts of outside capital long before they can tap traditional sources of debt from banks or equity from the public stock markets. Private equity from individuals or highly specialized venture capital companies fills this gap.

Venture capital is largely focused in a few key regions—Boston and Silicon Valley, and more recently, Austin, New York, Denver, and Seattle. Creating an entrepreneurial environment in other parts of the nation depends, in part, on the availability of venture capital.

States have been working to increase venture investing for several years. To serve local entrepreneurs—and in this way create new wealth and quality jobs for their citizens—most states have adopted programs to deliver, encourage, or facilitate the formation of local seed and venture capital resources. States have pursued four basic strategies:

- expand the knowledge of seed and venture investing;
- promote the visibility of entrepreneurs to investors and of investors to entrepreneurs;
- create investment capital to fill a gap or grow a sector; and
- create investment capital to build a seed and venture capital industry.

From these experiences, it is possible to draw some lessons to guide future state efforts to increase venture investing.

- In the best cases, state leaders take the initiative in getting programs launched and helping set long-term direction. They rely on private-sector managers to make the investment decisions.
- The best programs recognize that the challenge of capital formation is not so much about money as it is about knowledge—how the business community understands seed and venture capital, what steps are involved, what are the do's and don'ts, and what it looks and feels like to build a world-class company.
- The best programs are long term in perspective. Shortcuts can lead to embarrassment.
- The best programs treat the state as a valued financial partner entitled to a return on investment.
- The best programs are not afraid to make money.
- The best programs are careful not to oversell.
- The best programs are large enough to make a difference.
- The best programs are governed not by encoded rules but by discretion exercised by trained professionals and experienced laymen.

Venture capital is critical to growing the new businesses that will drive the "new economy." Finding ways to nurture the culture of entrepreneurs, and the capital that feeds them, must be a top priority of states.

INTRODUCTION

Capital, particularly seed and venture capital, is critical to growing the new businesses that will drive the new economy. States can play a significant role in facilitating these small and medium-size firms' access to the investment resources they need to flourish. This paper provides an overview of programs selected to help define the important design parameters for effective state programs. Much of the information is based on the reported experiences of National Association of State Venture Funds (NASVF) members. Looking at current and former state programs, a wide range of experimentation is evident. The successes and failures can guide future program design to meet the various state and regional capital needs across the nation.

The paper also defines basic forms of risk capital and identifies providers of seed and venture capital. Appendix A presents data on venture investing by industry sector, average deal size, and state. Coupled with the discussions of state-sponsored seed and venture capital funds and programs, the information provides a snapshot of the status of capital access in the United States.

Case studies of successful programs in Colorado, Indiana, Oklahoma, and Pennsylvania are reported in Appendix B. The case studies emphasize the role of state government and critical success factors. These and other programs reveal important lessons about what works best to increase access to capital. Program criteria or benchmarks for evaluating state venture capital programs are applied to the three case study programs.

NASVF has an ongoing study of state programs to increase access to capital. Survey findings from programs in about two-thirds of the states are presented in Appendix C. The results reflect the range of practices and capital sources on which states are relying to expand investment resources.

THE IMPORTANCE OF SEED AND VENTURE CAPITAL

Upstart entrepreneurs increasingly dominate the nation's economy. The life cycle of many new products has become so short that businesses can succeed in today's world only by moving rapidly from a good idea, to a great product, to global distribution. In the past, a business could grow incrementally from region to region, usually from internally generated capital. Today, the demand for rapid growth requires outside capital. Banks do not provide this type of money, and the stock market is an option only for established firms. Private seed and venture capital fills the gap, so much so that private equity has become an integral part of the capital structure of most high-growth firms. Professional seed and venture investing is still a relatively new phenomenon.

Starting after World War II with the Boston-based American Research and Development Corporation, the seed and venture capital industry grew slowly until the early 1970s. Even now, with billions invested every year, the industry is still largely focused in a few key regions—Austin, Boston, Silicon Valley, and more recently, Austin, New York, Denver, and Seattle. Even so, young entrepreneurs with world-class ideas have emerged from communities across the nation. Microsoft began in Albuquerque, New Mexico, Gateway in North Sioux City, South Dakota, and WorldCom in Jackson, Mississippi. Yet most entrepreneurs find the challenge of raising capital to be daunting. In much of the United States, seed and venture capital is largely invisible, and, when located in a distant city, these investment resources are hard to access. Entrepreneurs are much more likely to find and accept capital when it is available locally and is delivered by people they know and trust. Investing relies on relationships. The greater the opportunity to build relationships, the greater the chance for understanding and trust to develop; money can then flow to worthwhile ventures.

Seed and venture capital, delivered locally by resident professionals, is a key ingredient for growing entrepreneurship, particularly in communities where the knowledge and experience of business venturing is less common. For policymakers concerned about local, state, and regional economic development, finding ways to nurture the culture of entrepreneurs, and the capital that feeds them, must become a top priority.

BASIC FORMS OF RISK CAPITAL

There are five basic forms of risk capital: research and development (R&D), innovation, seed, venture, and mezzanine. Each form is delivered by different entities, has distinct outcome measures, and has varying degrees of risk and reward (see figure). All of these factors must be taken into account in considering how states might act to make sure these resources are more available to entrepreneurs.

The innovation process appears linear, but it is not. The forms of capital are complementary, and often they are used together to meet the capital needs of an individual company. The following are common definitions for these basic forms of risk capital.

- **Research and development capital—**funds invested in support of basic research and development.
- **Innovation capital—**funds invested for applied research to develop new products.
- **Seed capital—**funds invested to support new and young companies without fully established commercial operations, launch new products, or continue research and product development.
- **Venture capital—**long-term equity capital invested in rapidly expanding enterprises with an expectation of significant capital gains, often for product roll-out. Typical investee companies have demonstrated sales but are not yet profitable.
- **Mezzanine capital—**capital invested with a structure involving subordinated debt, generally in profitable, established companies.

PROVIDERS OF SEED AND VENTURE CAPITAL

Providers of seed and venture capital include angel investors, seed funds, and venture funds.

ANGEL INVESTORS

Individual investors, or "angels," and loosely organized groups of angel investors dwarf conventional seed and venture capital funds as the primary sources of start-up and early-stage capital, once the resources of friends, relatives, and the entrepreneur are exhausted. Angels accommodate early-stage companies' smaller financing needs, which are generally incompatible with the investment priorities of institutional venture capitalists (VCs). These incompatibilities arise because of the limited size of a particular round of financing, limited, future anticipated needs, or the higher risk profile in start-up rounds. In some cases, the company seeking financing is in an industry sector that is not in favor with the larger venture capital partnerships. This large, mostly unorganized source of angel capital does not attract the publicity that organized investors do. VCs have traditionally viewed angel investors unfavorably. The equity or debt positions these early-in investors take can sometimes make the venture investor's later position less rewarding.

A typical angel is a high-net worth individual with an interest and knowledge in a particular business sector, often because that is where he or she gained personal wealth. Angels can help a start-up company with their considerable experience. They can also cause considerable harm if they are naive about the needs of the business. An angel will frequently become an active advisor to the company and often take a seat on its board of directors.

SEED FUNDS

Seed funds are professionally managed investment partnerships, or limited liability companies (LLCs), that invest in very young, seed-stage companies. Seed capital has always been considered a part of venture capital, specifically directed to early-stage ventures. In the early years, all venture capital was seed capital, supporting the launch of high-risk, technology-based concepts such as computer networks (e.g., Wang) and, later, personal computers (e.g., Apple). Over time, venture investors discovered they could apply the techniques of private seed investing to more mature companies, particularly those positioned to grow extremely rapidly. Such companies could profitably use very large amounts of money, making it practical for investors to assemble much larger investment funds.

In the 1970s and 1980s, early-stage investors became scarce. Only recently has seed-stage venture capital experienced a resurgence, almost entirely because of the Internet. Developing Internet software costs relatively little, but marketing and implementing Internet strategies costs millions. Because the time it takes to multiply the value of these companies and gain an exit—through the sale of the company or an initial public offering—can be very short, sometimes only months, professional seed capital has made a comeback in this sector.

The traditional seed investor selects companies with strong, proprietary technology, elegant products that solve big problems, a homogenous base of customers with good access to purchasing decisionmakers, a strong management team, and a viable strategy for achieving liquidity. Most seed investors look at hundreds of proposals before selecting a handful for investment.

VENTURE FUNDS

Venture capital plays a minor role in funding basic innovation; in 1997 only about 6 percent of the $10 billion VCs invested went to start-ups.[1] The majority of investments went to follow-on funding for projects originally developed by individual investors, public research centers, and private corporations. Venture capitalists usually invest only in high-growth business sectors where they can see a rapid—five years or less—return on their investment. Venture capital is not patient capital. The “hot” business sectors of a few years ago, such as genetic engineering and computer hardware companies that now have a longer payout horizon, are no longer the favored investment targets. At least in the very active VC regions, the focus has shifted to the Internet and multimedia and telecommunications businesses. Venture capitalists invest in business sectors that are growing rapidly but have not yet reached the competitive shakeout stage. They fill a gap between the early or start-up stage and the later consolidation stage. Many companies that provided high returns for venture capitalists in earlier industry cycles no longer exist. For example, the disk drive industry had more than forty venture-backed companies in 1983; by 1984, the industry market value had dropped from $5.4 billion to $1.4 billion.[2] Today, five major players remain. Venture capitalists operate in a niche where traditional, low-cost financing is not available and an investor will exit the company and the industry before they top out.

Venture firms can afford to take substantial risks because of the large upside of a few of their investments. Conventional royalties or interest payments on loans do not provide this level of returns. Such returns would ravage a small company’s financial position or violate usury laws. The performance of a typical VC portfolio per $1,000 invested is shown in the following table.

Venture Capital Performance

	Bad	Alive	Okay	Good	Great	Total
Investment	$200	$400	$200	$100	$100	$1,000
Payout: Year 5	$0	1X	5X	10X	20X	NA
Gross Return	$0	$400	$1,000	$1,000	$2,000	$4,400
Net Return	($200)	$0	$800	$900	$1,900	$3,400

The net returns are accumulated from a minority of the investments; most of the returns come from 10 percent of the portfolio. Venture capitalists invest in fast-growing industries. The sectors that states and regions want to expand, for example, manufacturing and biotechnology, may not provide the kind of returns a VC would expect.

CURRENT STATUS OF CAPITAL ACCESS IN THE UNITED STATES

PRIVATE SEED AND VENTURE CAPITAL

Several firms produce annual or quarterly reports on venture capital in the United States. Although these reports are useful, they focus on a select segment of capital—professional venture capital—to the exclusion of venture investments by corporations, public entities, and private individuals.

However, the reports indicate where equity capital is concentrated, how shifts in regional investment are occurring, and what kinds of industries are attracting investment. PriceWaterhouseCoopers' MoneyTree™ report summarizes venture capital investment in the United States.[3]

The pace of investing in 1999 was truly remarkable, reaching $35.6 billion, compared with $14.2 billion in 1998, an increase of 150 percent. The number of companies receiving investment rose by 41 percent and the average deal size rose to $8.9 million, a 71-percent increase over 1998.

For the first time in five years of the MoneyTree™ survey, annual investments in nontechnology companies declined. Technology investments, including Internet investments, accounted for more than 90 percent of all investments in 1999. Internet-related investments alone, which cut across all standard industry classifications, increased nearly six-fold from $3.4 billion in 1998 to $19.9 billion in 1999, accounting for 56 percent of total investments.

California increased its share of total investments from 41 percent in 1998 to 47 percent in 1999. Massachusetts, New York, Texas, and Colorado rounded out the top five. Hawaii, Montana, West Virginia, and the District of Columbia were the largest percentage gainers in 1999, each starting from a relatively low base in 1998. Eight states experienced a decline in investments.

Formative-stage companies, those in the start-up and early stages of development, garnered the most funding, $15 billion, or 42 percent of the total. Moreover, they represented 50 percent of all companies receiving funding. On average, each formative-stage company received $7.5 million, up from $4.2 million in 1998. Average funding for Internet-related, formative-stage companies was even larger, rising to $8.9 million for the year—an investment not for the faint of heart.

Venture capital's migration to larger investments has widened the capital gap for smaller companies. For many, seed and early-stage capital needs are in the $500,000 to $2 million range, largely below the VC horizon. Although venture capital firms are an important element in the financing of entrepreneurial companies, they clearly fill only a part of the need for capital. In addition, the concentration of VC activity in a few regions leaves large areas of the nation underserved. Local angel investors provide a resource in many states. The volume of angel and other noninstitutional investments has been estimated to be three to five times greater than traditional VC investments. Largely concentrated in regions of existing entrepreneurial strength, would-be angel investors can be found in every major community in every state. Certain states are learning to tap this resource through networking and training events and the formation of angel investor groups. Other states are making appropriate forms of seed and venture capital accessible and visible through a variety of state-sponsored and state-facilitated funds.

Private equity has become a necessary component in the capital structure of many young companies. The speed of global commerce dictates that entrepreneurs competing to be world class must find large amounts of equity capital. Moreover, geography still makes a difference. Investors attract entrepreneurs and entrepreneurs attract investors. Regions that have managed to assemble a critical mass of both are outpacing the rest of the nation in finding prosperity in the new economy.

STATE-SPONSORED AND STATE-FACILITATED FUNDS

To serve local entrepreneurs—and in this way create new wealth and quality jobs for their citizens—most states have adopted programs to deliver, encourage, or facilitate the formation of local seed and venture capital resources. States have pursued four basic strategies:

- expand the knowledge of seed and venture investing;
- promote the visibility of entrepreneurs to investors and of investors to entrepreneurs;
- create investment capital to fill a gap or grow a sector; and
- create investment capital to build a seed and venture capital industry.

Of these four basic strategies, the first two are critical to building a culture of entrepreneurship and risk capital investing that makes venturing a viable career path for young people. Knowledge of how seed and venture investing works and how investors think and make decisions gives a would-be entrepreneur a much better chance to assemble a plan that will attract money. Making the two camps visible to each other, through venture forums and networking events, makes it possible for relationships to form and trust to develop; these relationships are key to facilitating investment.

The third strategy is the most common and is often based on state policymakers' desire to promote an industry sector that is of strategic importance to the state. Typical mission statements include language such as "for the purpose of providing funding for the start-up of new technology, modernization of existing businesses through dual-use technology, and enhancement of service delivery systems to promote economic development and security." Economic development, national competitiveness, and social missions may be outcomes of venture capital investment, but they are not goals of most VCs. Venture investors mainly seek to optimize the return on investment by maximizing profit while minimizing risk and reducing exit time. In contrast, a government-sponsored strategy may aim resources at early-stage companies or industry sectors not generally attractive to venture capitalists or focus on later-stage, low-cost financing for companies unable to obtain conventional financial assistance.

The fourth strategy is based on the belief that the best way to serve aspiring, young companies is to help ensure that they have access to a robust, professional seed and venture capital industry with deep local roots and a variety of local investing talent. In this approach, targeting is accomplished by selecting private seed and venture funds that specialize in the targeted sectors. The state adopts the philosophy that an investment discipline that seeks to optimize the return on investment is the most efficient way to achieve the greatest economic development. The state's goals are therefore aligned with those of the venture investor, enabling the state to invest in the best available seed and venture funds. These funds, though totally private, are state-sponsored and accomplish state goals.

STATE-SPONSORED SEED AND VENTURE CAPITAL PROGRAMS

Businesses never seem to have enough capital, and professional venture investors are generally in short supply. Faced with this situation, many state and regional development agencies are gearing up to serve this market. Of course, some states have plowed this ground before. The models fall into the following basic categories.

DIRECT INVESTMENT BY STATE AGENCIES. As the typical model for early science and technology agencies, this approach has seen its day. Public managers have found it difficult to keep trained staff, tough to maintain appropriate investment standards, and, for most, impossible to retain the support of their legislatures. Contrary to this trend, the **Connecticut** Innovations Fund, the **Maryland** Enterprise Fund, and the **Massachusetts** Technology Finance Authority continue to perform at a high level.

INVESTMENT IN PRIVATELY MANAGED, GEOGRAPHICALLY RESTRICTED FUNDS. Common in the mid-1980s to late 1980s, this approach has suffered some highly visible failures, notably pension fund programs in Kansas and Missouri. Although private management has proven to be the better route for most states, not all private managers are good investors. Choosing a good investment team takes extensive research and careful judgment.

A program may have strong managers but be burdened with restrictions that make quality investing impossible. For example, severe geographical constraints, though politically popular, usually prove counterproductive. Demanding too much from even the best professionals can stretch them beyond their skills. Failure of another kind—malfeasance—can occur when there is no oversight of fund managers, limited accountability, and nonexistent guidelines, as in the Magnolia Fund in Mississippi.

The best-known success story in this category is the **Massachusetts** Capital Resources Corporation. From the beginning, this fund has benefited from experienced, private managers pursuing a narrowly focused strategy of later-stage investing.

TAX CREDIT INCENTIVES FOR PRIVATE INVESTMENT. **Maine**, **Ohio**, and **Puerto Rico** offer tax credits to individual angel investors. The guidelines are targeted to encourage seed-stage technology ventures. Many states give tax credits to investors in qualifying venture capital partnerships. The typical credit is 20 percent to 30 percent of the amount invested. **Indiana**, **Vermont**, and **West Virginia** have mobilized successful private venture funds using this limited tool. The most generous tax credits are given to entities known as certified capital companies, or CAPCOs. In these models, which originated in **Louisiana**, insurance companies receive premium tax credits equal to 100 percent to 120 percent of the amount they loan to or invest in a CAPCO. In Louisiana there has been some controversy regarding CAPCOs; the state is currently evaluating the outcomes and cost-effectiveness of the program.

INVESTMENT IN A PORTFOLIO OF PRIVATE SEED AND VENTURE CAPITAL PARTNERSHIPS. Pension funds have invested in private seed and venture capital partnerships for years, but it took the **Michigan** Strategic Fund to apply the model with economic development as a goal. The **Maryland** Venture Capital Trust, the **Oklahoma** Capital Investment Board, and the **Hawaii** Strategic Development Corporation have continued to refine this approach. Investments are made in several private partnerships, along with other investors. The strategy is to select partnerships that are expected to produce excellent market returns while contributing to the growth of a healthy, local venture capital industry. The model is a good way to diversify risk and helps focus a rich variety of experienced investors on the legitimate capital needs of local businesses. In these states, the results have been impressive. A private venture capital industry has been launched, and millions have been invested in local businesses at little or no cost to the states. The **New Mexico** Investment Council and **Oregon** Growth Account have similar new programs, and new initiatives are being designed in **Arizona**, **California**, and **Ohio.** The **Kansas** Technology Enterprise Corporation, the **New Hampshire** Business Development Corporation, and the **New Jersey** Economic Development Authority all have made commitments to private venture capital partnerships.

MOBILIZATION OF ANGEL NETWORKS. Beginning in the mid-1990s in **California**'s Silicon Valley, networks of angel investors began to assemble. The Band of Angels, with about 100 members, meets monthly and invites two or three companies to make presentations. Typical individual member investments are about $50,000; totals raised range from $100,000 to $2 million. This loose network model has been replicated with varying success in New York City and several states, including **Minnesota**, **New Mexico**, **North Carolina**, **Pennsylvania**, **South Carolina**, and **Virginia.**

Recently, states or regions have attempted to facilitate the formation of these angel networks. **Iowa** has dedicated funds to support workshops in the state to help aggregate, educate, and mobilize angel networks. These workshops, offered by the National Association of State Venture Funds, have been successfully convened in twenty-five communities and thirteen states, including **Alabama**, **California**, **Idaho**, **Illinois**, **Maine**, **Minnesota**, **Missouri**, **New Mexico**, **Ohio**, **Oklahoma**, **Puerto Rico**, **South Carolina**, and **Texas.**

MATCHMAKING SERVICES. Brokering programs, or "capital networks," are operating in several regions around the nation. These programs match start-up companies with suitable investors through computer databases. Both potential investors and companies seeking financing are charged a fee; when a suitable match is found, the parties are introduced. The amount of support is negotiated and varies with the program. The first of these brokering programs was started in **New Hampshire** in the late 1980s. Other successful programs can be found in **Kansas** and Austin, **Texas.** The federal Small Business Administration is promoting a nationwide version of a capital network called ACE-*Net*.

REGULATORY REFORM. Many states are changing their rules for regulating securities. The most common initiatives, exemplified by **Missouri,** are to adopt simple forms for filing small public offerings—commonly known as SCOR (small corporate offering registration) offerings—and to permit filings in one state to be automatically approved in other states. In a new approach, **California** recently approved the use of publicly held venture funds.

To implement a state investment program, some states have found it necessary to amend their constitutions to permit the investment of state funds in private concerns. **Kansas** and **Oklahoma** have sought and won voter approval of such amendments.

SOURCES OF CAPITAL

States, regions, and cities continue to find creative ways to help capitalize local venture investing partnerships.

FOUNDATIONS

In Birmingham, **Alabama**, the Education Foundation of the University of Alabama committed $2 million in 1994 as a for-profit investment in a local seed fund. The foundation, as the lead investor, spurred commitments from a bank, local utility, and life insurance company.

ALLOCATED STATE FUNDS

Alaska, **Arkansas**, **Illinois**, **Iowa**, **Nebraska**, **Pennsylvania**, and **Utah** are among the states that have directly allocated state funds for venture investing activities. The Alaska Science and Technology Foundation received a $100-million endowment from state oil royalties during a three-year period, and it uses the earnings to invest in technology infrastructure and early-stage companies. The Arkansas Science and Technology Authority receives about $1 million annually for direct seed investing. The Utah Technology Finance Corporation received $1 million in 1994, investing these funds in Wasatch Venture Fund, a small business investment company based in Salt Lake City.

DEDICATED STATE REVENUES

Oil and gas royalties have been used to capitalize large programs in Alberta, Canada, and Michigan. VenCap Equities, of Calgary, received a $200-million loan from the province of Alberta derived from mineral royalties. The loan has no fixed payments, matures in 2013, and takes 50 percent of fund profits. The **Michigan** Strategic Fund was originally capitalized by a dedicated source of oil and gas revenues, and it now relies on state lottery earnings. The **Oregon** Growth Account, launched in 1998, receives 1.5 percent of the state's lottery revenues.

INVESTMENT TAX CREDITS

Investment tax credits have been used, primarily in the 1980s, to support the formation of private venture funds. The typical credit is 20 percent to 30 percent of the amount invested. **Kansas**, **Indiana**, and **Vermont** have mobilized successful private venture funds with this limited tool. In some states the credits are transferable, giving tax-exempt investors an opportunity to realize the value of the incentive by selling the credits. The most generous programs support entities known as certified capital companies (CAPCOs) by providing insurance companies with premium tax credits equal to 100 percent to 120 percent of the amount they loan to or invest in a CAPCO.

CREDIT-ENHANCED NOTES

Most development finance organizations were organized as lenders or bond issuers. For many, finding debt capital is much easier than raising equity. Some finance agencies have learned how to use forms of credit-enhanced debt to raise significant amounts of private capital for venture fund investments. The **Oklahoma** Capital Investment Board uses a tax credit-backed guarantee to borrow from banks, and the Oklahoma Development Finance Authority issues reserve fund-backed notes. In 1986 **Illinois** used proceeds from a general obligation bond to invest $5 million in a privately managed Illinois-focused fund. Now matured, this investment has yielded millions in profits that are currently being reinvested in several local partnerships by the Illinois Development Finance Authority. Such programs work best with nonamortizing debt, because repayment schedules are matched to revenues from investments.

INDIVIDUAL INVESTORS

Individuals are the primary source of capital for many small, regional funds. ML Oklahoma Venture Partners, formed in 1988 by Merrill Lynch, was sold as a publicly traded limited partnership to more than 1,000 investors. More typically, a private, limited liability company or limited partnership is sold to a few accredited investors. The strategy of the fund and the reputation of the fund managers are critical to the success of such offerings.

BANKS

Banks are a tremendous source of capital for local venture funds. In the aggregate, the venture capital subsidiaries of commercial banks produced an internal rate of return (IRR) in excess of 20 percent from 1980 through 1996. With such returns, and with the renewed health of bank holding companies, many banks are exploring venture fund opportunities. Banks in Arkansas recently capitalized Diamond State Ventures, and the Indiana Community Development Corporation, a multibank community development corporation, has been a model of success for more than twelve years.

INSTITUTIONAL INVESTORS

Of course, the deep pockets for venture capital are pension funds, endowment funds, and other institutional investors. As fiduciaries, they must comply with prudent standards of care. Such standards vary but always involve issues of asset allocation, diversification, and professional management. Gaining the support of fiduciary investors for local venture capital programs is possible, but only if:

- the investor has a need for venture capital assets;
- the investment provides sufficient diversification or complements an existing diversification plan;
- the investment offers appropriate, exceptional profit potential; and
- the investment comes with a proven management team.

If these conditions are met, institutional investors may be willing to direct significant resources to quality programs.

LESSONS LEARNED FROM PROGRAMS TO INCREASE ACCESS TO CAPITAL

In recent years, states have tried many experiments to increase access to capital. They have learned much from the failures as well as the successes. It is clear that government support and policy direction, combined with private-sector market discipline, is an effective formula for accelerating local development. Government has a very poor track record as a direct investor. Bureaucrats are not in a good position to make business investment decisions; the reward system in a bureaucracy punishes risk-taking, a critical factor in early-stage investing. On the other hand, relying exclusively on the private sector to meet the changing needs of today's entrepreneurs leaves many states watching and waiting while other regions jump ahead.

In the best cases, state leaders take the initiative in getting programs launched and helping set long-term direction. They rely on experienced, private-sector managers to make the day-to-day investment decisions. States must be involved in selecting these managers, using rigorous standards common in the industry, and must regularly monitor the progress and performance of the managers.

The best programs recognize that the challenge of capital formation is not so much about money as it is about knowledge—how the business community understands seed and venture capital, what steps are involved, what are the do's and don'ts, and what it looks and feels like to build a world-class company. Creating visible access to an abundant source of capital is just one way of supporting the growth of this culture and helping young people gain the courage to venture. Each state has someone doing good work in this arena; state leaders should build on this momentum.

The best programs are long term in perspective. Making good investments takes time, and building an industry prepared to make and manage these investments takes even longer. Policymakers should expect no measurable impact for at least five years and do nothing to compromise the integrity of the investment process. Many states have taken shortcuts, only to be embarrassed. Organizations need to take the time to find the right people and make the right investments.

The best programs treat the state as a valued financial partner, not as a chump. When states commit capital, support programs with tax incentives, or bear risk in any way, they should be compensated with an opportunity for a financial return commensurate with the risk they take. Although it may seem counterintuitive for an economic development strategy, when states give things away, the integrity of a venture capital program becomes compromised and the results are disappointing.

The best programs are not afraid to make money. They focus on access to capital, not the cost of capital, and adopt the philosophy that the companies that are growing most rapidly and are the most profitable produce the most desirable economic development. These are good investments, the type that disciplined investors want to find. Within the strategy and guidelines established for the program, program managers should work hard to make money and expect the investment managers to do the same.

The best programs are careful not to oversell. The expectations of the various stakeholders and customers may be at odds. The business customers may see state-sponsored funds as a low-cost source of money, the investment community may see them as a competitor, and the economic development organizations will expect them to create jobs overnight. There is no way that such a program can completely satisfy all of those expectations.

The best programs are large enough to make a difference—bend the trend or do not bother. Big funds and little funds require the same processes and, ultimately, the same amount of work; little funds sometimes take more work. Creating a large, visible source of seed and venture capital will help generate a willingness on the part of would-be entrepreneurs to take the plunge. This is not to say a large program must deploy its capital in a fixed timeframe. The program should never stretch to fill the portfolio but wait for the right opportunities.

Finally, the best programs are governed not by encoded rules but by discretion exercised by trained professionals and experienced laymen. Statutory programs can get overloaded with details and constraints to the point that the best investment managers will want nothing to do with them. Quality programs are built on carefully selected, quality people. They should do everything possible to get the right folks on board from the very start.

BENCHMARKS FOR ANALYZING PROGRAM OPTIONS TO INCREASE ACCESS TO CAPITAL

When considering options for developing capital programs, the benchmark criteria for analyzing such options should include questions related to program design, management practices, and program results.

Program Design—Is the program designed to work and make a difference? Program design considerations include the:

- pursuit of clear **investment and strategic objectives**—the extent to which the program's investment and strategic objectives are clearly articulated;
- effectiveness of **scale**—the extent to which the program delivers resources that make a difference;

- **leveraging** of nonstate resources—the extent to which the program mobilizes nonstate resources;
- building of **private-sector capacity**—the extent to which the program expands and enriches the capacity of private-sector capital providers to serve strategic market needs;
- responsiveness to **market needs**—the extent to which the program meets real investment needs;
- thoroughness of investment and **lending disciplines**—the thoroughness of the program's credit policies and analysis procedures;
- appropriateness of the **risk management** strategy—the appropriateness of the program's risk management strategy;
- responsiveness to **stakeholder needs** while maintaining portfolio integrity—the extent to which the program maintains discipline while satisfying stakeholders; and
- system of **administration**—the extent to which the program focuses on thorough record keeping, useful reports, and planning, scheduling, and constructive accountability.

Management Practices—Is the program being implemented effectively? Management practices considerations relate to:

- **getting the job done**—producing the targeted volume within the expected range of returns and losses as well as the competency of staff in understanding credit policies, performing analysis, negotiating contracts, closing loans and investments, monitoring performance, and taking corrective actions;
- **centralized versus decentralized decisionmaking**—effectiveness in delegating decisions to the lowest possible level;
- **public versus private investment**—effectiveness in engaging private lenders and investors to serve the state's strategic goals; and
- **system of controls**—effectiveness in maintaining quality and a commitment to engage in self-correcting thinking and actions.

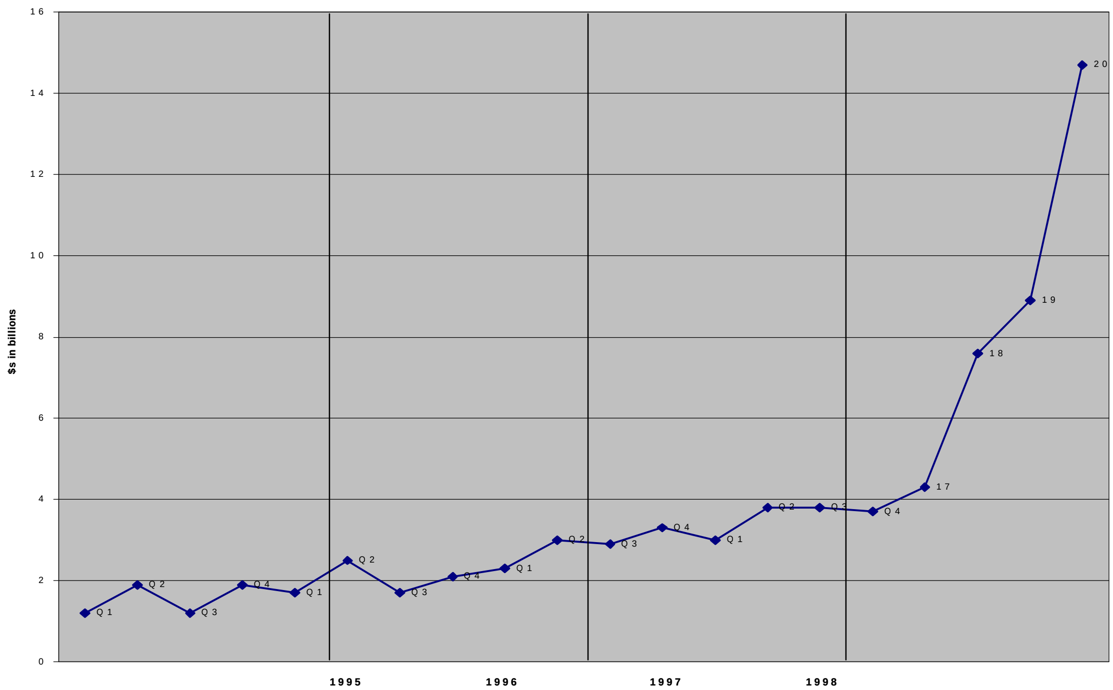
Program Results—Did effective implementation produce the desired results? Program results considerations focus on comparing results with goals and evaluating costs and benefits:

- compare results with goals to determine the extent to which the program met its goals; and
- evaluate costs and benefits to assess the relative efficiency and productivity of the program.

APPENDIX A: VENTURE CAPITAL INVESTMENT

Data presented in this appendix are from PriceWaterhouseCoopers, *1999 Venture Capital Report, MoneyTree.ä* The *MoneyTreeä* report is available from PriceWaterhouseCoopers' Global MoneyTree Program. Visit <http://pwcmoneytree.com> or call 888/609-7117.

NATIONAL QUARTERLY VENTURE CAPITAL INVESTMENT, 1995–1999 (DOLLARS IN BILLIONS)



INVESTMENT BY INDUSTRY SECTOR, 1995–1999 (DOLLARS IN MILLIONS)

Industry	**1995**	**1996**	**1997**	**1998**	**1999**
Biotechnology	$452.0	$556.7	$714.5	$667.6	$1,041.4
Business Services	229.5	348.0	566.5	733.7	4,562.6
Computers and Peripherals	171.0	129.3	429.9	447.2	761.1
Consumer Services	233.3	143.9	197.0	307.7	1,126.7
Electronics/Instrumentation	121.4	254.8	266.3	157.7	376.6
Financial Services	184.2	211.2	213.6	551.9	1,607.5
Healthcare Services	547.2	824.9	1,053.8	1,151.3	1,593.4
Industrial	281.3	306.0	538.6	468.9	551.9
Medical Devices	413.1	412.8	599.4	734.7	1,090.0
Networking and Equipment	265.8	460.9	986.7	1,486.8	3,619.2
New Media	96.3	219.6	222.1	482.2	2,896.4
Pharmaceuticals	127.7	77.4	201.5	259.8	164.2
Publishing/Broadcasting	313.4	200.4	239.5	226.6	274.4
Retailing/Distribution	682.5	746.1	871.8	793.0	3,591.3
Semiconductors/Equipment	181.8	181.8	293.1	359.7	519.2
Software	1,031.9	1,900.0	2,397.7	3,516.4	6,593.3
Telecommunications	878.7	1,031.7	1,690.2	1,888.2	5,222.7
TOTAL	**6,211.2**	**8,005.6**	**11,482.1**	**14,233.3**	**35,591.7**

AVERAGE DEAL SIZE, 1995–1999 (DOLLARS IN MILLIONS)

Industry	**1995**	**1996**	**1997**	**1998**	**1999**
Biotechnology	$3.74	$4.53	$5.07	$4.42	$6.13
Business Services	4.4	4.2	4.0	4.0	9.0
Computers and Peripherals	3.5	3.6	5.2	5.7	8.8
Consumer Services	6.7	4.0	4.1	4.9	8.5
Electronics/Instrumentation	1.9	3.4	2.9	2.7	5.3
Financial Services	3.6	5.4	4.3	9.7	13.4
Healthcare Services	4.4	4.6	4.4	4.5	6.4
Industrial	2.2	2.7	3.1	3.2	4.0
Medical Devices	3.5	2.9	3.5	4.1	5.2
Networking and Equipment	3.7	4.1	5.9	6.4	12.6
New Media	3.0	3.0	3.6	6.6	10.2
Pharmaceuticals	3.8	2.4	5.4	7.0	5.7
Publishing/Broadcasting	7.3	4.6	5.0	5.7	4.7
Retailing/Distribution	4.2	4.2	4.8	4.9	12.1
Semiconductors/Equipment	4.1	4.8	4.4	4.7	7.5
Software	3.0	3.5	3.3	4.4	6.9
Telecommunications	7.6	6.1	7.1	7.3	15.1
COMPOSITE AVERAGE	**$3.90**	**$4.00**	**$4.30**	**$5.00**	**$7.40**

INVESTMENT BY STATE, 1995–1999 (DOLLARS IN MILLIONS)

State	1995	1996	1997	1998	1999
Alabama	$29.1	$8.0	$32.7	$76.7	$59.2
Arkansas	-	2.5	5.0	7.2	26.5
Arizona	39.7	92.2	109.7	141.4	251.1
California	2,171.6	2,878.8	4,633.0	5,769.3	16,873.5
Colorado	115.5	300.2	345.6	489.7	1,305.8
Connecticut	103.4	177.0	192.2	245.7	521.0
Dist. of Col.	0.2	19.4	36.5	66.8	269.2
Delaware	1.0	2.4	2.0	10.0	24.8
Florida	138.2	279.0	358.1	301.4	725.6
Georgia	176.8	161.5	290.2	298.7	740.2
Hawaii	1.7	0.2	17.2	0.6	13.6
Iowa	8.8	5.3	22.0	24.2	27.0
Idaho	16.3	-	0.8	41.2	-
Illinois	178.4	368.1	306.6	396.4	777.0
Indiana	4.0	33.4	14.9	25.6	8.3
Kansas	9.1	70.0	56.7	18.1	26.0
Kentucky	31.2	1.6	30.8	36.6	106.0
Louisiana	30.2	24.2	32.1	47.9	49.5
Massachusetts	470.0	978.8	1,208.9	1,697.3	3,657.1
Maryland	240.5	61.2	149.2	297.7	611.4
Maine	27.4	14.8	4.2	8.5	19.3
Michigan	35.3	11.4	65.2	114.5	105.8
Minnesota	179.1	99.8	189.1	229.7	461.2
Missouri	180.5	49.9	124.3	130.5	283.7
Mississippi	-	69.0	1.0	5.0	10.8
Montana	-	7.2	15.0	-	16.2
North Carolina	121.5	132.9	215.0	305.4	685.1
North Dakota	-	-	1.1	0.5	-
Nebraska	16.2	-	-	4.5	5.8
New Hampshire	24.4	27.9	63.4	137.3	233.5
New Jersey	228.0	240.3	382.4	266.0	815.7
New Mexico	0.1	12.0	7.5	4.0	3.9

Nevada	18.9	1.1	42.2	4.2	11.0
New York	169.8	250.4	453.2	557.7	1,851.9
Ohio	99.2	163.5	97.4	173.6	130.0
Oklahoma	40.6	17.7	5.9	31.5	33.0
Oregon	26.8	56.1	67.8	35.1	305.3
Pennsylvania	190.3	262.9	290.4	335.8	565.7
Puerto Rico	35.3	-	-	-	5.3
Rhode Island	8.5	48.8	0.5	13.7	9.4
South Carolina	124.5	29.9	82.3	66.2	81.7
Tennessee	130.7	112.1	103.4	67.5	159.0
Texas	450.0	320.0	700.9	816.4	1,519.6
Utah	11.9	53.0	75.0	56.9	93.5
Virginia	126.7	207.8	235.9	411.8	750.8
Vermont	14.8	3.7	0.3	1.5	12.6
Washington	163.1	333.9	356.8	401.2	1,205.5
Wisconsin	20.8	16.0	58.2	61.0	113.0
West Virginia	1.3	-	-	1.1	30.6
Totals	**$6,211.2**	**$8,005.6**	**$11,482.1**	**$14,233.3**	**$35,591.7**

Appendix B: Case Studies of Successful Capital Access Programs

Seed Capital: Colorado CVM Equity Funds

State	Colorado
Program	CVM Equity Funds
Category	A privately managed, state-focused seed fund.
Program Description, circa 1997	CVM is a group of four equity funds with combined total capital of $12.5 million. Since 1983, CVM has invested in fifty-four companies; all but one of the companies are in Colorado. Its portfolio has achieved sales of more than $150 million annually, created 2,800 jobs, and attracted $222 million in follow-on financing, mostly from major venture firms throughout the nation. CVM specializes in start-up and early-stage venture capital in Colorado, with an emphasis on Boulder County, as well as in project financing for independent power projects. CVM has shown a willingness to investigate and invest in a broad range of start-up technology and service-based companies. CVM Equity Fund I, Ltd., raised in 1983, was capitalized at $1.59 million. It is fully invested in twelve companies. In December 1995, it had returned $5.45 million, and achieved a net internal rate of return (IRR) of 11.5 percent, placing the fund in the top quartile of funds of its vintage. CVM Equity Fund II, Ltd., raised in 1986, was capitalized at $2.1 million. It is fully invested in twelve companies. By August 1994, the fund had returned $6.95 million and achieved a net IRR of 18.4 percent, placing it in the top quartile of funds of its vintage. CVM Equity Fund III, Ltd., was established in 1989 with $3.5 million under management and was designated as a "Colorado Strategic Equity Fund" by the Colorado legislature. CVM III had made seventeen investments with a fund value of $7.4 million in April 1996. CVM Equity Fund IV, Ltd., closed with $5.2 million in

	August 1993. It has since invested in ten new ventures, one of which is based in Montana. CVM and its affiliates have also developed, financed and managed three cogeneration power plants and greenhouses generating combined annual sales of roughly $74 million. More than $150 million was raised to finance the projects. The projects have produced a 60 percent net IRR, while creating more than 350 jobs in rural Colorado. CVM maintains a close relationship with the University of Colorado. It was instrumental in creating eight corporations using technology developed on each of the university's four campuses
PROGRAM DESIGN Is the program designed to work and make a difference?	
• pursuit of clear **investment and strategic objectives**—the extent to which the program's investment and strategic objectives are clearly articulated.	CVM pursues the clear investment objective of maximizing the returns to CVM partners. The firm follows a strategy of investing primarily in start-up and early-stage companies. CVM has no mandated Colorado focus or other strategic objective. However, it looks for investments close to home, almost exclusively in Colorado, to accommodate the close working relationship it seeks to have with its portfolio companies.
• effectiveness of **scale**—the extent to which the program delivers resources that make a difference.	CVM has had a significant impact on Colorado-based technology entrepreneurs, particularly in Boulder County. It has helped build an environment that attracts young companies.
• **leveraging** of nonstate resources—the extent to which the program mobilizes nonstate resources.	The first two partnerships were capitalized without state participation. The Colorado Housing and Finance Authority committed $1 million to Fund III as lead investor. The Colorado Public Employees' Retirement Association matched this investment with $1.5 million, and the balance of $1 million came from individuals. The pension system subsequently committed $1.7 million to Fund IV as the lead investor.

• building of **private-sector capacity**—the extent to which the program expands and enriches the capacity of private-sector capital providers to serve strategic market needs.	CVM has been a wholly private-sector initiative from its inception, motivated by the vision of its founders and the opportunities of the marketplace. The state's participation has helped give momentum to the CVM group in a way that supports the strategic economic development interests of Colorado, without compromising the investment discipline of the general partners.
• responsiveness to **market needs**—the extent to which the program meets real investment needs.	The Front Range of Colorado, stretching from Colorado Springs to Ft. Collins, holds two major research universities, three national laboratories, and more than 100,000 high-technology jobs. Boulder County was recently ranked first by *Inc.* magazine as the best place to start a new company. The focus of CVM on start-up and early-stage entrepreneurs is very appropriate.
• thoroughness of **investment and lending disciplines**—the thoroughness of the program's credit policies and analysis procedures.	The investment discipline used by CVM managers has produced solid returns during a difficult economic cycle. The variety of investments, the technical complexity of most investments, and the normal challenges of start-up and early-stage investing have all been managed well by the CVM team.
• appropriateness of the **risk management** strategy—the appropriateness of the program's risk management strategy.	Beyond its analyses of technologies, markets, and managers, CVM manages risk, in part, by providing funding in stages as companies reach performance goals. This is an appropriate strategy for seed funds. Even with small partnerships, CVM has been able to build reasonably diversified portfolios. CVM also manages risk by always co-investing with other professional seed funds. This not only provides another set of eyes to analyze deals, but also provides a committed source of follow-on capital, particularly for portfolio companies that need extra time and money to reach their goals.
• responsiveness to **stakeholder needs** while maintaining portfolio integrity—the extent to which the program maintains discipline while satisfying stakeholders.	Having started as a private initiative without public support, CVM stakeholders have largely been private investors with only return-on-investment expectations. The firm's investment discipline is the key to satisfying these investors. Public stakeholders committed to CVM because of its successful investment track record and natural focus on Colorado opportunities. The firm has no legislated mandate or other obligations to state institutions that give rise to stakeholder expectations beyond this circle of investors.

• system of **administration**—the extent to which the program focuses on thorough record keeping, useful reports, and planning, scheduling, and constructive accountability.	CVM maintains a useful deal log and is unusually prompt and systematic in responding to investment proposals. Reports to limited partners are less frequent than normal for the industry but are adequate.
MANAGEMENT PRACTICES Is the program being implemented effectively?	
• **getting the job done**—producing the targeted volume within the expected range of returns and losses as well as competency of staff in understanding credit policies, performing analysis, negotiating contracts, closing loans and investments, monitoring performance, and taking corrective actions.	CVM has developed a system that produces results with small partnerships. It employs a team of highly trained, highly effective managers. All of them have significant experience in manufacturing or marketing and approach seed investing from an operating perspective.
• **centralized versus decentralized decisionmaking**—effectiveness in delegating decisions to the lowest possible level.	CVM managers operate effectively as a team. The general partners share all investment decisions.
• **public versus private investment**—effectiveness in engaging private lenders and investors to serve the state's strategic goals.	Private capital has largely leveraged public capital. The state was helpful in supporting CVM III, with the Colorado Housing and Finance Authority committing $1 million as the lead investor. This helped attract $1.5 million from the state pension fund and $1 million from individuals. The pension fund committed again to Fund IV, and it is serving as the anchor investor at $10 million in Fund V. The public commitments have helped give momentum to CVM after the firm had established itself with private investors.
PROGRAM RESULTS Did effective implementation produce the desired results?	
• Compare **results with goals** to determine the extent to which the program met its goals.	CVM launched its first fund to invest in start-up and early-stage businesses and make money for investors. The firm has established itself as a specialist in this niche, and it has consistently produced reasonable profits for its limited partners.

• Evaluate **costs and benefits** to assess the relative efficiency and productivity of the program.	CVM managers receive 20 percent of the net profits and an annual management fee of 3 percent of committed capital. The fees are reasonable, given the size of the partnerships and the financial results they have produced. For the state, investments by the finance agency and the pension fund will likely be valuable income-producing assets while supporting quality economic development. Investments in CVM partnerships target entrepreneurs most likely to succeed and produce new industries and jobs in Colorado.

VENTURE CAPITAL: OKLAHOMA CAPITAL INVESTMENT BOARD

STATE	Oklahoma
PROGRAM	Oklahoma Capital Investment Board Venture Capital Program
CATEGORY	An institutional venture capital investor (non-pension fund), fulfilling fiduciary obligations while catalyzing local development
PROGRAM DESCRIPTION, CIRCA 1993–1999	The Oklahoma Capital Investment Board (OCIB) was created by the state to mobilize equity and near-equity capital for investment in such a manner that will result in a significant potential to create jobs and diversify and stabilize the economy of Oklahoma. The strategy by which the board addresses this task is to encourage and support the growth of a local risk capital industry capable of financing companies from early-stage start-ups to later-stage expansions. Over time, full implementation of the OCIB program is expected to result in more than $240 million of new capital for Oklahoma businesses.
	PHILOSOPHY The program is based on the principles that: • risk capital is necessary to generate and support the growth of entrepreneurial firms, which in turn create jobs and provide economic growth; • risk capital is best provided and managed by qualified, professional investment groups; • the pursuit of the highest possible risk adjusted rate of return provides the best discipline for using limited resources to generate the greatest economic impact; and • a responsive state program can demonstrate to potential investors the high level of commitment the entire state has for entrepreneurial ventures.

VENTURE INVESTMENT PROGRAM

The Venture Investment Program is designed to support the funding of venture capital partnerships that meet the investment and strategic objectives of OCIB. Through June 30, 1999, since its first commitment in 1993, the board had selected eight partnerships and supported investment in these funds of nearly $26 million. These include:

- $2 million in Ventures Medical II, a $15-million fund specializing in early-stage, technology-based medical companies;
- $4 million in Richland Ventures, a $45-million fund specializing in later-stage service businesses;
- $4 million in Intersouth Partners II, a $28-million provider of seed and start-up capital to both technology and nontechnology companies;
- $5 million in Davis Venture Partners II, a $43-million fund investing in later-stage basic industries;
- $3.5 million in Chisholm Private Capital, a $12-million provider of both seed capital and expansion capital;
- $3.5 million in Pacesetter Growth Fund, a $42-million later-stage investor in minority-owned ventures;
- $1.0 million in Richland Ventures II; and
- $3.0 million in Rocky Mountain Mezzanine, a provider of later-stage capital for growing companies.

ORGANIZATION

OCIB is a state-beneficiary public trust. There are five trustees, appointed for staggered five-year terms by the Governor with the advice and consent of the senate. Statute requires that the trustees be selected based on their experience and knowledge of venture investing. The board employs three staff.

CAPITAL SOURCES

OCIB raises capital for investment from institutional investors with the benefit of a guarantee. The capital is raised and invested through a private corporation, the Oklahoma Capital Formation Corporation. The board holds $50 million of state income and premium tax credits and is authorized to sell these credits, if ever needed, to generate cash to meet a call on the board's guarantee. Public utility companies in Oklahoma have contracted to purchase the tax credits. Consequently, the board's guarantee takes on the quality of a utility guarantee.

KEY DESIGN SPECIFICATIONS

The investment strategy and capital structures of the board were designed to deliver a number of significant benefits to the state.

- **No Cost**. During the life of the program, the state expects to enjoy significant economic benefits at no cost (neither allocation of state funds nor loss of revenue from the use of tax credits).
- **Asset Production**. The program is expected to generate a cash surplus to serve as an on-going resource for development finance activities.
- **Public-Private Partnership**. The funding structure and delivery system that the board employs provides a variety of opportunities for meaningful private-sector participation in board programs.
- **Leveraged Private Investment**. The investment programs are geared to leverage private capital in the aggregate at a ratio of at least 3.8 to every dollar of OCIB-guaranteed funds.
- **Professional Talent**. A broad range of professional investment talent is being recruited and/or developed to serve the diverse opportunities within the state.

	RESULTS Through June 30, 1999, of the $26 million committed, about $18 million has been drawn. The portfolio internal rate of return (IRR) exceeds 29 percent. Twelve Oklahoma companies have received equity capital of $61.6 million from these partnerships and other venture firms co-investing with these partnerships. Debt capital leveraged by the venture investments is estimated at $123 million. The rate of investing is accelerating as the marketing efforts of these firms continues and the understanding of seed and venture capital grows among entrepreneurs in the state. As important, the venture investors that the board supports are helping to create an environment in the state that is conducive to high-tech entrepreneurship. They lead the networking and training events produced by the Oklahoma Venture Forum in Oklahoma City and the Oklahoma Investment Forum in Tulsa. They also were critical to efforts in recent years to form the Oklahoma Technology Development Center, gain funding for the Oklahoma Center for the Advancement of Science and Technology, and gain passage of a state amendment to permit university researchers to participate in the returns from intellectual property they help create.
PROGRAM DESIGN Is the program designed to work and make a difference?	
• pursuit of clear **investment and strategic objectives**—the extent to which the program's investment and strategic objectives are clearly articulated.	The program has investment objectives that are clearly described and fiduciarily sound. The program also has strategic objectives relating to supporting quality economic development in Oklahoma. The strategic objectives are ambitious but achievable. The trustees and program staff have been consistent in their pursuit of these objectives since the program was launched in 1992.

• effectiveness of **scale**—the extent to which the program delivers resources that make a difference.	In a state that started with almost no venture capital, the program has been a major player and large enough to attract significant new sources of capital and investment talent. However, the size of the program has limited the board to supporting commitments of not more than $4 million. This may limit the board's ability to achieve its goals in the future.
• **leveraging** of nonstate resources—extent to which the program mobilizes nonstate resources.	Leverage has been very high. All the capital the board has raised has come from private sources. No state funds have been used and no tax credits have been redeemed. The commitments of $26 million, with $18 million drawn, have resulted in significant investment in Oklahoma companies—$61.6 million of equity through June 30, 1999. These investments have come from the partnerships supported by OCIB and venture firms recruited by the partnerships to co-invest. Leverage of a different kind has come from other institutional investors. OCIB represents less than 15 percent of the aggregate total capital of the partnerships, with the balance coming from other limited partners.
• building of **private-sector capacity**—extent to which programs are designed to expands and enriches the capacity of private-sector capital providers to serve strategic market needs.	The program aims to build a local, private venture capital industry. Venture firms have been sought from a wide market with an eye toward meeting the various needs for equity capital among Oklahoma entrepreneurs. The original goal was to meet a wide range of needs, from early stage seed capital to later stage expansion capital, and to build in Oklahoma the significant presence of professional venture investors. This has largely been accomplished.
• responsiveness to **market needs**—extent to which the program meets real investment needs.	All commitments by OCIB are market investments, and the portfolio partnerships seek market returns in their operating company investments. The other investors in these partnerships expect market returns and would decline to invest if that were not the goal.
• thoroughness of **investment and lending disciplines**—the thoroughness of the program's credit policies and analysis procedures	Current disciplines are professional and thorough yet reasonable for those seeking an investment. The staff seek candidates whose managers have consistently produced investment returns in the top half of the industry.

• appropriateness of the **risk management** strategy—the appropriateness of the program's risk management strategy.	Stage of business development, year of investment, style of management, and geography diversify the portfolio. Partnerships supported by OCIB are expected to use their best efforts to invest in local businesses, but not to compromise their investment standards in doing so. This has produced significant local investment, while also producing a portfolio that is well diversified.
• Responsiveness to **stakeholder needs** while maintaining portfolio integrity—the extent to which the program maintains discipline while satisfying stakeholders.	The program in its current form has succeeded in balancing the expectations of trustees for a diversified, financially successful portfolio with the expectations of state officials for significant local development. Generally, political stakeholders have come to understand that with this type of program local economic development is a by-product of sound investing. Some have expressed impatience with the pace of investing and the number of businesses receiving capital. However, as this pace has increased and as the program has produced strong financial returns, most stakeholders have been satisfied that the original program goals are being achieved.
• system of **administration**—the extent to which the program focuses on thorough record keeping, useful reports, planning, scheduling, and constructive accountability.	OCIB staff have a clear understanding of their portfolio. They produce regular reports and highlight the pertinent data for those who use the reports. They think strategically about the building of the portfolio and how to maximize the impact of the program. They use outside advisors appropriately, and take on the challenge of removing administrative and governmental obstacles to improve program performance.
MANAGEMENT PRACTICES Is the program being implemented effectively?	
• **getting the job done**—producing the targeted volume within the expected range of returns and losses as well as competency of staff in understanding credit policies, performing analysis, negotiating contracts, closing loans and investments, monitoring performance and taking corrective actions.	OCIB has established a visible position in the marketplace of private equity investors as a meaningful investor for those interested in the region. The board has had the opportunity to consider several hundred partnerships, enabling it to be selective in its commitments while still putting to work the volume of capital it has targeted. The staff is professionally trained and stays close to trends within the industry through participation in national associations.

<table>
<tr>
<td>• centralized versus decentralized decisionmaking—effectiveness in delegating decisions to the lowest possible level.</td>
<td>The governing statute prevents delegation of investment decisions to staff. However, the president is expected to present only those partnerships he or she is prepared to recommend to the trustees for a commitment. Delegating the workload to staff and relying on them to fully screen investments in this way is appropriate and effective.</td>
</tr>
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<td>• public versus private—effectiveness in engaging private lenders and investors to serve the state's strategic goals.</td>
<td>All of the capital the board raises comes from private sources. Each of the partnerships the board has supported by the board has received a majority of its commitments from other institutional investors.</td>
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<tr>
<td>• system of controls—effectiveness in maintaining quality and a commitment to self-correcting thinking and actions.</td>
<td>The staff and advisors maintain a sophisticated system of partnership monitoring. They provide useful reports on their portfolio to system trustees and public stakeholders, ensuring that the staff and advisors responsible for the private investments program are held accountable for their work.</td>
</tr>
<tr>
<td colspan="2" align="center">PROGRAM RESULTS
Did effective implementation produce the desired results?</td>
</tr>
<tr>
<td>• Compare results with goals to determine the extent to which the program met its goals</td>
<td>Although the program has taken several years to implement and commitments have been cautious, the results have generally exceeded original expectations.

• Financial returns, now in excess of 29 percent IRR, are strong, compared with other fiduciary funds investing in the same period, and are exceptional for programs pursing a geographically targeted investment strategy.
• The program has been implemented at no cost to the state.
• Capital invested in Oklahoma businesses has far exceeded the amounts the board has committed to the partnerships.
• A variety of professional venture investors now live and work in Oklahoma.
• The culture of venture investing is becoming a visible part of the local business community, and the understanding of high-growth business venturing by entrepreneurs appears to be on the rise.</td>
</tr>
</table>

• **Costs and benefits**. Evaluate to assess the relative efficiency and productivity of the program.	As of June 30, 1999, the portfolio totaled $26 million, with plans to grow to $50 million. The current cost of administering the program, including staff and advisors, is about $325,000 per year, about 65 basis points per dollar of capital under management, and is met by guarantee fees. This is an efficient cost of administration, less than most privately managed funds. The program will eventually need to make bigger commitments to larger partnerships. Structurally, the board will need to find ways of compensating staff appropriately.

VENTURE CAPITAL: PENNSYLVANIA PSERS

STATE	Pennsylvania
PROGRAM	Public School Employees' Retirement System (PSERS) Private Investments
CATEGORY	An institutional venture capital investor, fulfilling fiduciary obligations while catalyzing local development.
PROGRAM DESCRIPTION, CIRCA 1996	PSERS is a $32-billion public pension fund. The fund was first allowed to invest in venture capital in 1984 per a statute that modified the legal list of permitted investments to include an allocation to venture capital of 1 percent. Venture capital (VC) was defined as equity to private companies that were achieving an economic impact in Pennsylvania. In 1992 the allocation was doubled to 2 percent. Eight Pennsylvania-based VC firms and one New Jersey firm received investments under this program. In 1994 the state adopted the "prudent person" standard, precluding investments made in the manner of the earlier statute. Now, all investments must meet the prudent person standard. As of June 30, 1995, the private investments program includes three parts. **A regional VC program** is dedicated to venture capital funds that have demonstrated a pattern of investing in Pennsylvania. The fund prefers not to commit more than 25 percent of a venture fund's total capital, though in some early partnerships the fund was the sole limited partner. About $193 million is committed and $137 million is drawn. **A national private equity program** is dedicated to buyout and special situation funds and national venture capital funds. This program uses rate of return as the primary criterion for selection. The fund may commit up to 10 percent of a partnership's total capital. About $289 million is committed, and $110 million is drawn. **A direct private placements program** is dedicated to investing selectively in operating companies where a partnership in one of the above two programs serves as a lead investor. Direct investments are predominantly in Pennsylvania. Since 1991, eight such investments have been made totaling $322 million.

	The fund has twenty-eight partnerships in its portfolio; seventeen are regional venture capital funds, and national private equity funds comprise the balance. Returns for the combined programs have been 21 percent, 28 percent, and 42 percent during the past three years. Among the seventeen regional partnerships, 117 of the 265 company investments, about 44 percent, are Pennsylvania-based, while PSERS has committed less than 32 percent of the total capital of the partnerships. These Pennsylvania companies have received approximately $120 million from portfolio partnerships. PSERS has not always provided an example of best practices. Some of the partnerships selected early in the program's life have not performed well. These disappointments are ascribed to inexperienced management, a narrow geographical focus, poor timing (the venture capital cycle was peaking in the mid-1980s), and the lack of a formal filter for selecting partnerships. With corrective action beginning in 1992, PSERS now employs a specialized staff for private equity and direct investments, a private equity investment advisor, and industry-specific consultants, as needed. Although the intent is still to create a positive impact on the Pennsylvania economy, the fund no longer commits as the sole or primary limited partner of a fund and no longer requires partnerships to invest a minimum amount in Pennsylvania projects. The fund is pursuing broader diversification by geography and stage of business development, and administrators are more diligent in selecting partnership managers. These changes have resulted in higher financial returns, along with a stronger base of regional partnerships.

PROGRAM DESIGN

Is the program designed to work and make a difference?

• pursuit of clear **investment and strategic objectives**—the extent to which the program's investment and strategic objectives are clearly articulated.	The program has investment objectives that are clearly described and fiduciarily sound. The program also has strategic objectives supporting quality economic development in Pennsylvania. The strategic objectives are practical and achievable within the context of fiduciary investing.
• effectiveness of **scale**—the extent to which the program delivers resources that make a difference.	As one component within a larger, alternative asset category, the private investment allocation of 2 percent is large enough to make a meaningful impact on the returns to the pension fund as a whole. The allocation also has been large enough to make a significant difference in the emergence of a domestic seed and venture capital industry in the state.
• **leveraging** of nonstate resources—the extent to which the program mobilizes nonstate resources.	The commitments to date have resulted in significant investment in Pennsylvania-based companies. Forty-four percent of the operating company investments (by number) have been in-state, while PSERS has committed less than 32 percent of the aggregate total capital of the regional partnerships. In addition, though exact figures are not available, it is estimated that most companies have received capital from other venture firms that co-invested with the regional partnerships.
• building of **private-sector capacity**—the extent to which the program expands and enriches the capacity of private-sector capital providers to serve strategic market needs.	The early program was an attempt to build a local, private venture capital industry. The lack of careful selection and the resulting failure of several of the early partnerships caused the pension fund to pursue a more sophisticated approach and seek investments from a broader market. The current approach helps ensure that the portfolio of private investments produces appropriate risk-adjusted returns for the fund and that the program remains an active investor in local and regional venture capital partnerships.
• responsiveness to **market needs**—the extent to which the program meets real investment needs.	All investments by PSERS are market investments. The portfolio partnerships, in turn, seek market returns in their operating company investments. The program is designed to expand access to capital for Pennsylvania companies by expanding the supply of locally managed seed and venture capital funds.
• thoroughness of **investment and lending disciplines**—the thoroughness of the program's investment policies and analysis procedures.	Early disciplines were inadequate. Current disciplines are professional and thorough but reasonable for those seeking an investment.

• appropriateness of the **risk management** strategy—the appropriateness of the program's risk management strategy.	Early partnerships were heavily concentrated in seed-stage investments. This focus has been broadened to include later-stage venture capital, mezzanine funds, and other private equity categories. Early partnerships were largely restricted to Pennsylvania investments. This restriction has been relaxed, permitting PSERS to select from a wider pool of prospective partnership investments.
• responsiveness to **stakeholder needs** while maintaining portfolio integrity—the extent to which the program maintains discipline while satisfying stakeholders.	In its current form, the program has succeeded in balancing trustees' expectations for a diversified, financially successful portfolio with politicians' expectations for significant local development. Most political stakeholders have come to understand that local economic development is a by-product of sound investing and are satisfied with the investment objectives the administrators are pursuing.
• system of **administration**—the extent to which the program focuses on thorough record keeping, useful reports, and planning, scheduling, and constructive accountability.	The private investment managers have a clear understanding of their portfolio. They produce excellent reports and highlight the pertinent data for stakeholders who use the reports. They think strategically about building their portfolio and maximizing the impact of their program. They use outside advisors appropriately and take on the challenge of removing administrative and governmental obstacles to improve program performance.
MANAGEMENT PRACTICES Is the program being implemented effectively?	
• **getting the job done**—producing the targeted volume within the expected range of returns and losses as well as the competency of staff in understanding credit policies, performing analysis, negotiating contracts, closing loans, monitoring performance, and taking corrective actions.	PSERS has established a visible position in the marketplace of private equity investors as a meaningful investor with reasonable expectations. This gives the private investments group the opportunity to consider high-quality partnerships and to be selective in its commitments while still investing its targeted volume of capital. Corrective actions taken since 1992 demonstrate a well-managed program.

• **centralized versus decentralized decisionmaking**—effectiveness in delegating decisions to the lowest possible level.	The private equity staff, with its investment advisors, have been delegated the authority to make investments. This authority is appropriate and effective if trustees and senior staff have sufficient data to judge the performance of the private equity staff, as is the case here.
• **public versus private investment**—effectiveness in engaging private lenders and investors to serve the state's strategic goals.	The newer partnerships selected by PSERS have been successful in attracting private capital from other limited partners and in putting significant portions of this capital to work in Pennsylvania.
• **system of controls**—effectiveness in maintaining quality and a commitment to self-correcting thinking and actions.	The staff and advisors maintain a sophisticated system of partnership monitoring. They provide useful reports on their portfolio to system trustees and public stakeholders, ensuring that the staff and advisors responsible for the private investments program are held accountable. The trustees and administrators have shown a willingness to change staff and advisors as the need arises.
PROGRAM RESULTS Did effective implementation produce the desired results?	
• Compare **results with goals** to determine the extent to which the program met its goals.	The legislature's decision in 1984 to add venture capital to the legal list of permitted investments was motivated by the expectation of high returns and the desire for significant local development. Financial returns from the early portfolio have been disappointing. However, after netting out several early mistakes, returns from the balance of the portfolio, along with recent investments, have been excellent. In general, the portfolio is achieving reasonable financial expectations for private equity. The leverage of the state's investment for the benefit of local companies has been high. The volume of investment in Pennsylvania-based companies is impressive. However, economic development goals have been only partially attained. The failure of several early funds may have slowed the development pace of the state's domestic venture capital industry. The losses sustained by local private investors in these funds, particularly the seed funds, may dampen enthusiasm by these investors for new venture capital partnerships.

• Evaluate **costs and benefits** to assess the relative efficiency and productivity of the program.	As of June 30, 1995, the portfolio of private investments totaled $804 million. The current cost of administering the program, including staff and advisors, is about $750,000 per year, or less than 10 basis points per dollar of committed capital. This is a very efficient cost-benefit ratio. The portfolio of direct placements should be constituted as a trust or partnership and staffed appropriately. Co-investment funds of this size require specialized, full-time attention.

MEZZANINE CAPITAL: INDIANA ICBCC

STATE	Indiana
PROGRAM	Indiana Community Business Credit Corporation
CATEGORY	A bank community development corporation providing mezzanine financing to small businesses.
PROGRAM DESCRIPTION, CIRCA 1995	The Indiana Community Business Credit Corporation (ICBCC or the "Credit Corporation") is a privately owned company in which fifty-four Indiana financial institutions pool their money to share the risks of helping enterprises grow in the state. The Credit Corporation was organized in 1986 to meet the need of Indiana businesses for medium- and long-term financing and supplement the equity of promising firms that did not qualify for loans from conventional lenders. All projects financed by the Credit Corporation must involve one of the fifty-four member institutions as a primary lender with at least a 50-percent exposure. Credit Corporation funding is always provided in a subordinate position. Loan proceeds can be used for fixed assets, inventory, or other working capital needs. Loan sizes range from $100,000 to $750,000. The pricing and structure for a typical project are as follows. • Senior loan, 75 percent, from member financial institution and conventional rates, revolving or term. • Junior loan, 25 percent from ICBCC, prime plus 3 percent to 5 percent with warrants and/or fees, amortization of up to twenty-five years, and term of three to five years. Through September 30, 1994, the Credit Corporation had provided financing of $12.3 million to thirty-seven companies, matched by private financing of $53.3 million. ICBCC is capitalized with $1 million of equity and lines of credit totaling $7 million, all from member banks. A private firm, Cambridge Capital of Indianapolis, manages the corporation.

PROGRAM DESIGN Is the program designed to work and make a difference?	
• pursuit of clear **investment and strategic objectives**—the extent to which the program's investment and strategic objectives are clearly articulated.	The firm is privately managed and profit motivated but has a stated economic development purpose. The primary objectives have to do with investment goals, the preservation of capital, and the making of returns commensurate with risk. Management focuses on these goals and trusts that economic development will result from sound investments.
• effectiveness of **scale**—the extent to which the program delivers resources that make a difference.	Although operating on a relatively small capital base, the Credit Corporation has been able to serve as an important, visible, and accessible resource for banks throughout the state. Member banks turn to ICBCC first when their business customers need higher-risk financing.
• **leveraging** of nonstate resources—the extent to which the program mobilizes nonstate resources.	The Credit Corporation is capitalized entirely with private, nonstate resources.
• building of **private-sector capacity**—the extent to which the program expands and enriches the capacity of private-sector capital providers to serve strategic market needs.	So long as it has successful investments, the Credit Corporation will provide a private, institutional resource for Indiana businesses.
• responsiveness to **market needs**—the extent to which the program meets real investment needs.	The firm was specifically created to help member banks meet the credit needs of job-creating businesses in their local service areas. The organizers wanted to provide a product between the fully secured financing of banks and the high-return financing of venture capital. The mezzanine, or subordinate, financing offered by the Credit Corporation serves businesses that are growing rapidly and need capital beyond the ability of banks to provide. Generally, these companies will not have the chart-breaking growth prospects sought by traditional venture investors.
• thoroughness of **investment and lending disciplines**—the thoroughness of the program's credit policies and analysis procedures.	The analysis of prospects is currently thorough, though the firm has been on a learning curve. Losses sustained by ICBCC have mainly been on investments made in the program's early years.

• appropriateness of the **risk management** strategy—the appropriateness of the program's risk management strategy.	The Credit Corporation manages risk by building a diversified portfolio, limiting loan terms to three to five years, taking whatever collateral is available, and boosting its compensation through warrants and fees. All investments are priced to yield in excess of 20 percent internal rate or return (IRR). This is a well-rounded approach to risk management and should be effective if pursued consistently.
• responsiveness to **stakeholder needs** while maintaining portfolio integrity—the extent to which the program maintains discipline while satisfying stakeholders.	The stakeholders of the Credit Corporation are the member banks. They view the ICBCC as a tool for supporting market development, making more loans, and accomplishing economic development in the state. They do not see it as a profit center but expect it to make money. The key to maintaining investment discipline rests with the private managers. Their compensation is tied to the financial success of the Credit Corporation. Consequently, they are highly motivated to build and manage the portfolio carefully.
• system of **administration**—the extent to which the program focuses on thorough record keeping, useful reports, and planning, scheduling, and constructive accountability.	The managers maintain excellent records and produce useful reports. They know where they want to go and have a plan for getting there.
MANAGEMENT PRACTICES Is the program being implemented effectively?	
• **getting the job done**—producing the targeted volume within the expected range of returns and losses as well as the competency of staff in understanding credit policies, performing analysis, negotiating contracts, closing loans and investments, monitoring performance, and taking corrective actions.	Through 1994, the IRR on successful investments has ranged from 13 percent to 37 percent. Losses have been sustained on six of the thirty-seven investments. The team has learned from its mistakes and continues to modify and improve procedures and documents. Underwriting has improved since the early failures. Now, equity "kickers" are usually structured as fees rather than warrants. The "putting" of warrants to companies has been a difficult concept to explain, while the idea of a fee at maturity, computed with a known formula, has been more easily accepted.
• **centralized versus decentralized decisionmaking**—effectiveness in delegating decisions to the lowest possible level.	The small staff works as a team to market the program, screen and analyze deals, and prepare projects for consideration by the loan committee. The committee approves or declines each loan. This is an appropriate decisionmaking structure for this type of program.

<table>
<tr><td>• public versus private investment—effectiveness in engaging private lenders and investors to serve the state’s strategic goals.</td><td>Indiana has benefited from this private-sector activity and uses the Credit Corporation as a resource for businesses seeking assistance from the state.</td></tr>
<tr><td>• system of controls—effectiveness in maintaining quality and a commitment to self-correcting thinking and actions.</td><td>Portfolio companies are required to provide monthly financial statements, account aging reports, and an annual audit. Loan covenants restrict the payment of dividends, salaries, bonuses, and investments in other companies. Regular site visits are made. Appropriate actions are taken to monitor progress, negotiate modifications, and protect assets, as needed.</td></tr>
<tr><td colspan="2">PROGRAM RESULTS
Did effective implementation produce the desired results?</td></tr>
<tr><td>• compare results with goals to determine the extent to which the program met its goals.</td><td>Loan volumes and financial results have been good enough to sustain the enthusiasm of the members and staff. Given the failure rate of similar organizations throughout the nation, the Credit Corporation is remarkable for having built a system that is simple for borrowers to understand and disciplined enough to produce returns that, over time, may adequately compensate ICBCC stockholders for the high risks of making subordinate loans to small businesses.</td></tr>
<tr><td>• evaluate costs and benefits to assess the relative efficiency and productivity of the program.</td><td>For stockholders, the management costs are reasonable for the size and type of this portfolio. The incentive compensation also is appropriate.

Management would prefer to have a larger equity capital base and rely less on lines of credit.</td></tr>
</table>

APPENDIX C: STATE PROGRAMS TO INCREASE ACCESS TO CAPITAL:
Survey of State Programs

RANGE OF CAPITAL SOURCES

	Allocated State Funds	Dedicated State Revenues	Tax Credit Incentives	Credit-Enhanced Notes	State Pension Funds	Other State Fiduciary Funds	Private Lead Investors
Alaska	X					X	
Alabama						X	X
Arizona	X						
Arkansas	X		X		X		
California	X				X		
Colorado					X	X	X
Connecticut	X				X		
Delaware	X						X
Dist. of Col.	X						
Florida					X		X
Georgia							X
Hawaii	X						
Idaho							
Illinois	X			X		X	
Indiana	X		X				X
Iowa	X		X		X		
Kansas	X	X	X		X		
Kentucky			X				
Louisiana	X		X		X		
Maine	X		X	X			
Maryland	X				X		
Massachusetts	X				X		
Michigan		X			X		
Minnesota	X						
Mississippi				X			
Missouri			X		X		
Montana	X		X				
Nebraska	X					X	
New Hampshire	X						X
New Jersey	X					X	
New Mexico						X	
New York	X		X		X		
Nevada							X
North Carolina	X					X	X
North Dakota	X						
Ohio	X		X		X		
Oklahoma			X	X			
Oregon		X				X	
Pennsylvania	X				X	X	
Puerto Rico	X		X		X		
Rhode Island					X		
South Carolina			X				
South Dakota			X				X
Tennessee							
Texas	X				X		
Utah	X						
Vermont			X				
Virginia	X						
Washington							
West Virginia	X		X				
Wisconsin					X		
Wyoming							
TOTALS	31	3	17	4	19	10	10

Source: National Association of State Venture Funds

RANGE OF PRACTICES

	Direct Investment by State Agencies	Granting of Investment Tax Credits for Direct Investments	Granting of Tax Credits for Investment in Privately Managed, Restricted Funds	Investment of Cash in Privately Managed, Geographically Restricted Funds	Investment in Private Seed and Venture Capital Partnerships with a Best Efforts Focus	Investment in a Targeted, Privately Managed, Co-Investment Fund
Alaska	A			F		
Alabama					A	
Arizona				F		
Arkansas	A		A		F	
California	A				A	
Colorado				I	A	
Connecticut	A			A		
Delaware				A		
District of Columbia				A		
Florida					A	D
Georgia					A	
Hawaii				A		
Idaho						
Illinois	I			A		
Indiana	A		I	F		
Iowa	I		I	F		
Kansas	A		F	A	I	
Kentucky			A			
Louisiana	A		A	A		
Maine	A	A				
Maryland	A			A	A	
Massachusetts			I	A	A	A
Nebraska	I			F		
New Hampshire						A
New Jersey	A			A	A	
New Mexico				A	A	
New York	A		A	F		
Nevada				F		
Michigan				F	I	
Minnesota	I					
Mississippi				I		
Missouri		A	A	I		
Montana	I		F	F		
North Carolina	A		D		F, D	D
North Dakota	A					
Ohio		A		I	F, D	
Oklahoma	I		A	A	A	
Oregon	A			D		
Pennsylvania	A	A		A	A	I
Puerto Rico	A	A		A	A	A
Rhode Island					D	
South Carolina			F			
South Dakota			F			
Tennessee						
Texas	I			A		
Utah	A				I	
Vermont			F			
Virginia						
Washington						
West Virginia	A		A			
Wisconsin	A					
Wyoming					D	
TOTALS	26	5	16	29	20	6

A=active, I=inactive, F=fully invested, D=in development

NOTES

[1] Bob Zider, "How Venture Capital Works," *Harvard Business Review* (November–December 1998): 131–39.
[2] Ibid.
[3] PriceWaterhouseCoopers, *MoneyTree™ Survey Report*.

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Robert G. Heard is a director and president of the National Association of State Venture Funds, an organization of public agencies and private investors concerned with serving the capital needs of America's entrepreneurs. Through its annual conference, field seminars, research, and newsletters, the association shares the best practices and methods by which states can encourage high-quality investment programs and technology-based economic development. In his professional life, Mr. Heard is the president of Edge Development Capital, Inc. Edge serves as manager of Cimarron Capital Company, L.P., a development loan and investment fund in Oklahoma City, and as manager of the U.S. Partnership for State Investment, a $300 million resource for capitalizing state-focused seed and venture capital programs. Mr. Heard earlier served as president of the Oklahoma Capital Investment Board, director of Capital Resources for the Oklahoma Department of Commerce, and CEO of the Chicago Industrial Finance Corporation. He earned his undergraduate degree from the University of Oklahoma and his Master of Management degree from the J.L. Kellogg Graduate School of Management at Northwestern University.

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