Investing in Our Competitive Future:

Approaches to Increase Early Stage Capital in Washington State

> Report of the Technology Alliance Seed Funding Committee

> > January 2007



Technology Alliance

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Acknowledgeme	ents
Introduction	
Overview o	f committee objectives and process
The Competitive	e Landscape 5
The funding	climate in Washington
Ventu	re capital
Angel	capital
Washi	ngton's challenges
Survey of ap	proaches in other states
Grants	s and loans
Equity	investment vehicles
Tax cr	redit programs
Washington's O _]	pportunity
Committee Washington	recommendations to increase early stage investment in young companies
Organ	ized angel investor groups
Angel	sidecar funds
Fund o	of funds
State o	constitutional amendment
Appendix A:	Washington State Constitutional Provisions
Appendix B:	Catalog of State Programs

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Introduction

Overview of committee objectives and process

In 2005, the Technology Alliance formed a volunteer committee that combined expertise in investment, law, economic development and technology company leadership to explore options for increasing investment directed to early stage companies in Washington State. The committee was tasked with examining other state-sponsored programs in operation around the country and asked to recommend approaches for Washington, taking into account our state's existing funding climate for young companies, constitutional constraints, and the results of previous efforts to address this issue.

The committee began its work by examining different approaches taken by other states. Members considered a handful of exemplary programs selected from a comprehensive survey of state-sponsored activities prepared with the assistance of the Port of Seattle*. The committee then narrowed its focus to those program structures that it determined to be most appropriate for Washington State for further consideration. In order to more fully assess how a program to increase early stage capital might be structured in our state, the committee sought guidance from individuals experienced in the strategies under consideration and familiar with different state programs. Finally, the committee formulated specific recommendations that are responsive to current conditions and take into account any restrictions, statutory or otherwise, which limit the state's participation in efforts to increase early stage capital in Washington.

This report presents several options to address our state's short and longer term capital formation needs, looking at both how to leverage existing programs and what new structures could be put in place to nurture a more robust financing climate for young, innovative companies. The Technology Alliance will continue to champion approaches to improve the entrepreneurial climate in Washington for our long-term economic competitiveness.

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^{*} See Appendix B for the complete list of state programs from the report *Technology-biased Economically Targeted Investing: Survey of State Approaches throughout the Nation*, prepared by Travis Hayes for the Port of Seattle and Technology Alliance, 2005.

The Competitive Landscape

The funding climate in Washington

The Pacific Northwest region offers attractive opportunities to investors interested in financing early stage companies. Washington State, in particular, boasts a vibrant cluster of world-class research institutions and innovative companies of all sizes and stages of growth, coupled with a highly entrepreneurial culture. Strong levels of venture capital investment, growing angel activity, and a continuing flow of technology company acquisitions and IPO's over the past several years are proof positive that the region offers appealing investment opportunities in a wide range of sectors with high growth potential.

While our strong research sector and concentration of entrepreneurial talent contribute to a high level of innovation and new company formation, the opportunities for investment outstrip the available capital for early stage companies. Inadequate sources of capital targeted at the seed and early stage lead to a concentration of under-funded opportunities which could otherwise further spur the growth of new companies and innovations brought to market while creating jobs and wealth.

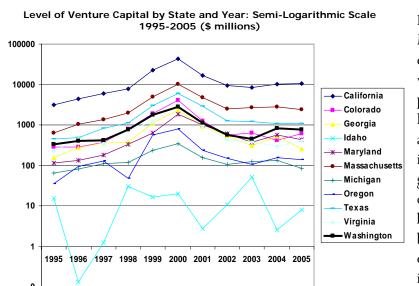
That being said, the fact remains that Washington is coming from a position of relative strength when compared to many states, which are in some cases starting from scratch in trying to grow their entrepreneurial investment infrastructure. The competitive threat, from the committee's perspective, is that Washington is in danger of being surpassed by other states which have the flexibility and the will to target greater investment in early stage companies and actively nurture their entrepreneurial ecosystem. The committee feels strongly that Washington's investment infrastructure, which has grown up almost entirely without state intervention or encouragement, could be enhanced to promote an even more robust climate for young companies that bring new products and services to market.

What follows is an assessment of various aspects of Washington's funding climate for early stage companies, including the particular challenges to early stage investment in our state.

Venture capital

Our state boasts a healthy, albeit fairly young, venture capital community. While the California and Massachusetts markets are more developed, with a concentration of venture firms having longer investment track records and operating on a larger scale than in Washington, our state has increased its share of total venture capital dollars invested in local companies.

The Technology Alliance began benchmarking Washington's level of venture capital investment against that of other states in 2003, and reported on our state's ensuing progress in this indicator with the release of its second comprehensive benchmarking report last year. Generally speaking, the signs are positive: Washington companies received a total of \$752 million in venture capital in 2005, representing 3.5% of total U.S. venture capital investment. This is an increase from 2002, when Washington accounted for \$573 million and 2.7% of the U.S. total. California and Massachusetts, combined, accounted for more than half of all venture capital invested in the U.S. last year, while Washington outperformed other technology-intensive states such as Maryland, Virginia, and Georgia[†].



Because of California and Massachusetts' dominance, it is examine trends venture capital investing over the past ten years using a semilogarithmic scale, rather absolute dollars invested, illustrated in the accompanying graph. While the report only Washington compared handful of states, it is fair to say based on the data and knowledge of where the concentrations in innovation and venture capital are located that our state is firmly in

the middle of the pack among states with technology-intensive economies. Unlike many other states who are pursuing strategies to bolster venture capital activity within their jurisdictions, we are not starting from nothing – we have a strong foundation on which to build for the future.

Venture capital investment in Washington's biotechnology sector also has been on the rise since 2002. The increase in total investment share has been more pronounced for this sector than for overall venture capital: Washington's percentage of biotech investment jumped from 1.3% in 2002 to 3.5% in 2005. Here again, California dominates, with nearly half of all biotech venture capital invested in the U.S. Massachusetts was a distant second, with 14.5% (Massachusetts' share declined over 2002, while California's increased). With \$131 million invested in our biotech sector last year – more than triple what we amassed in 2002 – Washington outperformed states such as Colorado, Texas, Michigan and Virginia[‡].

Notwithstanding the increase in total amount of venture investment, many established venture capitalists in Washington are increasingly focused on larger financings, and much of these in later

‡ Ibid.

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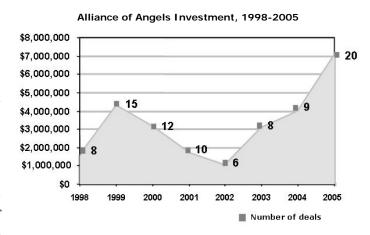
[†] Drivers for a Successful Technology-Based Economy: Benchmarking Washington's Performance, prepared by William B. Beyers and Bryan Chee for the Technology Alliance, July 2006.

stage or mezzanine companies. While several local venture funds focus on early stage deals, a significant portion of the smaller financings sought by companies in the very early stages is left to emerging managers and angel investors. Emerging managers do not have the track record of the more established venture capital firms, but they are the "farm team" for the venture capital community and play an important role in the startup funding ecosystem.

Angel capital

Accurate data on angel investment is hard to come by, owing to the confidential nature of such deals. However, what data is available indicates that angel investment is on the rise in Washington.

There are several organized angel groups in Washington facilitating connections between accredited individual investors interested in financing early companies and entrepreneurs seeking such financing. The Technology Alliance oversees one of the most active not-forprofit angel groups in Washington, the Alliance of Angels (AoA). membership comprises approximately 100 individual investors and representatives of investment firms active in financing early



stage companies in Washington and surrounding states. AoA has seen an upward surge in investment by its members since 2002, as illustrated in the accompanying graph, following the same downturn that affected the venture capital sector in the early part of this decade. Through the end of 2005, AoA members had directly invested a combined \$25 million in 88 deals. Companies that obtained investment through AoA have gone on to secure more than \$35 million in total additional financing, demonstrating the critical role angels play in fueling companies' progress.

In addition to AoA, other established groups with a track record in Washington include Puget Sound Venture Club, which has been in operation since 1985, and Seraph Capital Forum, an organization of active women angel investors based in Seattle. There are also a number of local angel groups that focus primarily on connecting investors and entrepreneurs in and around specific communities in Washington, some of which share deal flow as part of the Washington Technology Center's Angel Network. Local angel groups have been formed in Bellingham, Spokane, Tacoma, Tri Cities and Wenatchee.

7

[§] Follow-on financing figure relies on publicly or company-disclosed investments; therefore, this figure should be viewed as a conservative estimate.

Without question, individual angels and organized angel groups play a vital role in the company financing ecosystem. Angel investment is often instrumental in many companies' progress to the stage where they can attract venture capital, and the up-tick in angel activity and the formation of new angels groups in communities throughout Washington is a positive sign.

Washington's challenges

Even with an active venture capital and angel investor community, early stage companies in Washington face significant challenges. Not all of these are specific to our state; researchers and companies everywhere face some of the same risks associated with moving discoveries from the lab to the market place.

The most acute funding shortages occur in the time period between research and development (R&D) and product introduction or initial revenue, during which many startup companies find their access to funding is most limited. During this early phase, the level of risk is generally beyond that which many investors, including venture capital and institutional funding sources, are willing to shoulder, and companies often have to rely on family and friends and/or angel investors for financing**.

Companies in the life sciences sector face an even greater uphill battle owing to the higher capital needs typical of those industries, coupled with the extended length of time it takes to bring their products to market. Even software companies may find their early stage funding needs reach between \$2 and 5 million over the first few years, until their products or service gain traction in the marketplace. All states have to contend with these realities in seeking ways to further the growth of young companies and build up their entrepreneurial ecosystem.

Washington operates under particular constitutional constraints that prevent the state from taking a more active role in supporting early stage companies. Washington's state constitution prohibits the state and local governments from providing public funds to private people, organizations or companies through gifts or loans of money or credit, as well as a prohibition against acquiring direct or indirect interest in stocks or bonds, with limited exceptions to aid the poor and infirm^{††}. Washington is therefore unable to direct state funds to support early stage companies through grants, loans, or equity investments.

This is in sharp contrast to many other states, which have initiated a variety of government-sponsored programs. The committee views this as a potential threat to our state's competitive position, insofar as Washington is precluded from responding to this need when other states enjoy the flexibility to assist the growth of innovative companies within their respective jurisdictions by bringing to bear state resources.

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^{**} Hayes 2005.

^{††} See Appendix A: Washington State Constitution, Article VIII, Sections 5 & 7 and Article XII, Section 9.

The constitutional prohibition on devoting public resources to private concerns does not extend to the state public employee pension funds managed by the Washington State Investment Board (WSIB) or other public employee pension funds such as those of the City of Seattle. WSIB does invest a percentage of funds in its charge in private equity and venture capital and, while not statutorily required to do so, in practice follows Employee Retirement Income Security Act (ERISA) guidelines in making investment decisions. ERISA dictates the primary responsibility of fiduciaries is to administer the pension funds solely in the interest of participants and beneficiaries, acting prudently to diversify the plan's investments in order to minimize the risk of large losses. ERISA does not preclude venture capital investment, as prescribed exceptions allow venture capital firms to avoid benefit fiduciary obligations^{‡‡}.

In addition, WSIB self-imposes certain prerequisites which have the effect of limiting the extent to which Washington pension funds are invested with in-state fund managers and, by association, instate early stage companies. WSIB's policy is to invest in funds managed only by venture capital firms having a track record that places them in the top quartile. This precludes many Washington-based fund managers, especially emerging managers who have not yet established a substantial track record, from receiving investment of Washington pension funds. WSIB is currently an investor in two venture funds headquartered in the state of Washington, although several other locally-based funds have obtained substantial funding from major institutional investors from across the nation.

WSIB professes to favor in-state investment if, and only if, such investments first meet the strict standards it applies to investments elsewhere; the top-quartile requirement, combined with its strict adherence to ERISA guidelines, has prevented WSIB from targeting investment in Washington funds for the express purpose of increasing the capital available to in-state companies. With all of this in mind, the committee formulated recommendations that neither call for nor expressly exclude pension fund participation.

The committee concluded that there is a need for increased capital at the seed and early stages, and sees the potential to at least partially address this need through a combination of existing and new approaches. While the committee believes that our state is coming from a position of relative strength — a concentration of world-class research institutions and established technology companies, a respectable level of venture and angel activity, and a cluster of innovative young companies that present attractive opportunities for investment — it is concerned that Washington's position is threatened in the longer term by inaction in the face of concerted efforts by other states to bolster their climate for early stage companies.

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^{‡‡} "The Need for Early Stage 'Seed' Funding for Emerging Biotech and Related Technology Companies in Washington State and Recommendations for Action," report to the Bio 21 Steering Committee from Seed Funding Subcommittee co-chairs Steve Yentzer and Lura Powell, *Bio 21: Implementing Washington State's Initiative in 21*st Century Health, 2004.

Survey of approaches in other states

Nearly every state is targeting the development of its technology sector as a strategy for economic growth. While the mechanisms vary widely, many are pursuing a multi-pronged approach, including support for basic and applied research, recruitment of scientific talent, commercialization activities, and early stage companies. What follows is a brief description of the various types of state-sponsored programs designed to address capital needs that the committee examined as it formulated recommendations for Washington. Most of the information about the different approaches is drawn from the report, "Technology-biased Economically Targeted Investing: Survey of State Approaches throughout the Nation" prepared by Travis Hayes on behalf of the Port of Seattle and Technology Alliance for this purpose.

Grants and loans:

A number of states are pursuing programs that provide grants to fund R&D, proof-of-concept and technology transfer activities. Several states have also initiated programs that provide matching funds upon successful application for grants from other sources, such as federal Small Business Innovation Research (SBIR) awards. Pooled loan programs are another approach, providing lending capacity through low-interest small business loans and certificate of deposit programs.

As mentioned in the previous section, Washington's state constitution prohibits grants and loans of state funds to private enterprises. Grants are permitted for qualifying public research institutions, such as those envisioned under the new Life Sciences Discovery Fund. The LSDF may focus a portion of its grants to support proof-of-concept activities to help Washington researchers move forward with commercially promising ideas. This is only one stage in the funding continuum, however, and can only benefit companies indirectly insofar as they may partner with approved institutions receiving such support. The committee was attracted to the concept of the SBIR matching program; this approach would depend upon implementation of one of its major recommendations detailed later in this report, a state constitutional amendment.

Equity investment vehicles:

There are a variety of state approaches to equity investment in early stage companies: direct equity investments, venture capital limited partnerships, and fund of funds. Some state-sponsored investment funds are evergreen funds, in which returns are invested back into the fund rather than disbursed to investors. Evergreen funds are designed to be self-sustaining, maintaining a continuous supply of capital available for new investments. In the case of state-backed investment funds, an evergreen approach can be an advantage in that one-time, self-sustaining investments are more attractive to voters than a program calling for annualized disbursements.

A handful of states have created seed funds through which they take direct equity positions in companies, such as Georgia's Biosciences Seed Fund. The practice of direct equity investing by states has received negative press in the past, due to some high-profile failures. Thirteen states invest in venture capital funds, with some limiting investment to in-state funds and/or requiring the funds to invest in in-state companies.

An alternative approach is the fund of funds. A fund of funds invests in multiple general partners, mostly venture capital funds, which in turn invest in companies. The fund of funds model allows for the pooling of investment to increase diversification and access to funds. Of the three equity investment approaches it considered, the committee was most interested in the fund of funds model, with a twist: the committee is recommending the private sector take the lead in the creation of a fund of funds program in Washington.

Tax credit programs:

Through Certified Capital Company (CAPCO) programs, the state provides tax credits to insurance companies that invest in CAPCO's, which in turn invest venture capital in qualifying businesses. The value of the tax credits can range from 100 to 120% of an insurance company's investment. The CAPCO model, originally conceived to lure investment activity into states which previously had little to none, has had mixed results, and several states have discontinued their programs. The committee decided a CAPCO program would not be the appropriate vehicle to accomplish capital formation objectives in Washington.

Some states have instituted contingent tax credits to back state-sponsored fund of funds or offer tax credits directly to angel and venture capital investors, some as high as 50 or 60% for qualifying instate investments. As Washington does not have a state income tax, an angel investor tax credit would not be applicable here. If the state were interested in pursuing a tax credit program to help spur investment, one approach might be to provide a credit against the business and occupation (B&O) tax to companies that invest in a fund of funds established in accordance with the recommendation put forward in the next section of this report.

Washington's Opportunity

Committee recommendations to increase early stage investment in young Washington companies

Organized angel investor groups

Before companies are ripe for venture capital financing, they often rely on angel investment to propel them through their initial stages of growth and bridge the gap to later stage capital. In fact, angel investing is a critical element in building a thriving entrepreneurial ecosystem in Washington. Experienced individual angel investors, established angel organizations and recent, grass-roots efforts to organize angels in communities around the state will continue to play an essential role in supporting young companies.

Established angel groups provide a convenient and constructive means of connecting investors and entrepreneurs seeking early stage funding. Each group is unique and may target certain sectors for investment and/or have specific membership characteristics, for example, women's angel groups. Angel organizations establish their own processes and criteria by which they screen business plan submissions, typically inviting a select group of companies to pitch their plans to the group's membership.

Fees charged to entrepreneurs seeking such access to an angel groups' investor-members vary widely, and there are both for-profit and not-for-profit models. The not-for-profit Alliance of Angels mentioned in the previous section is primarily funded through corporate sponsorship and member dues, charging only

RECOMMENDATION

The State of Washington should support organizations and programs that foster early stage investment in local companies, and assist such companies in growing beyond the seed stage, as part of its economic development strategy.

a nominal administrative fee to entrepreneurs to submit a business plan for consideration and no presentation fees other than the cost of their lunch. For-profit models tend to command higher fees from entrepreneurs who wish to pitch to their investors.

While there are many organized angel groups in Washington operating without support or encouragement from the state, committee members believe there could be a role for the state in supporting this approach to early stage financing. Because of the high importance of angel investing for funding early stage high-tech, high-growth companies, it is in the state's interest to perpetuate and expand such programs. One potential approach would be to contract with organizations to carry out activities that promote greater angel investment and entrepreneurial development in Washington.

Angel sidecar funds

Recognizing that Washington's angel organizations represent a working model that has proven successful at directing early stage investment to companies within the state, the committee considered how that could be "super-charged" to bolster the level of investment flowing to companies while making use of the existing structure and process of these groups.

RECOMMENDATION

Angel investor groups operating in Washington should establish sidecar funds to leverage their process and expertise into another vehicle for investment in screened, early stage deals.

One strategy favored by committee members is the creation of angel sidecar funds. A sidecar fund is a pool of capital that tracks the investment activity of the sponsoring group. Typically, investment from the sidecar fund is triggered when a certain minimum investment threshold is reached, for example, an investment from the fund may be automatic for a company in which at least three of the group's member angels have invested. The fund is relying on the expertise and due diligence of the individual angels in selecting companies for investment.

This model has a number of advantages. Individual angels benefit by having their investment bolstered by the additional capital

flowing to a company. The investors in the sidecar fund benefit from having a vehicle through which they can invest in the same deals as sophisticated angels. And, the sidecar fund is efficient for entrepreneurs seeking investment, who see the benefit of an additional infusion of capital without being subject to another screening process or having to attend more meetings with investors.

Several angel groups in other states have established sidecar funds, such as that operated by Silicon Valley-based Band of Angels. In Washington State, AoA has agreed to explore creation of its own sidecar fund to leverage the group's expertise and access to deal flow and increase the amount of capital invested in companies that present to its membership. The sidecar fund model holds potential to leverage and expand upon an existing structure which has already proven effective in directing early stage capital to companies.

Fund of funds

Of the various programs in operation around the country that the committee examined, the fund of funds model gained the most traction as potentially applicable in Washington. The committee's recommendation stems from a strong belief that there are many attractive early stage, high growth-potential investment opportunities in Washington, but that many investors who would be interested in such deals lack the expertise or appropriate vehicle to pursue such investments. On the other hand, the committee notes that institutional investors which have the expertise generally do not want to make the small investments that are appropriate for early stage companies. The committee identified the fund of funds model as its preferred approach to address this "catch-22."

The concept of a fund of funds also interested committee members because it could be structured in such a way as to be primarily driven by investment returns while allowing for a geographic focus. Furthermore, the committee came to the conclusion that a Washington fund of funds program could be implemented by the private sector, rather than the state, eliminating the need for legislation or public funding.

A fund of funds would provide a vehicle for individuals, certain corporations, and institutional investors who are attracted to early stage private equity opportunities with access to this asset class through a professionally-managed, diversified portfolio. The fund would invest in angel and venture funds that focus on early stage companies in high-growth sectors. It could target funds exclusively in Washington, or it could be regional in scope, investing in funds located in Washington and a combination of other Northwest states, such as Oregon and Idaho. The committee favors a regional approach.

A fund of funds would take advantage of the expertise of a diverse field of angels and venture capitalists. While the committee believes strongly that the overriding factor in selecting investments from the fund should be returns to investors, it notes that, by virtue of its focus on regionally-based

RECOMMENDATION

Business and economic development leaders should explore the design and administration of a returns-driven fund of funds targeting managers and funds based in Washington and the Northwest that focus on early stage investing.

fund managers for its investments, companies in the target region are most likely to benefit from this infusion of capital. This is because early stage investors typically focus on opportunities within easy traveling distance. The fund would therefore take advantage of the natural behavior of angel and venture capital investors to direct additional capital to early stage companies in the state and region while maintaining a strict returns-driven standard to guide investment decisions.

One Northwest state has implemented a fund of funds which the committee studied in detail while formulating its proposal. In 2003, Oregon enacted legislation directing \$100 million of state public employee pension funds to be targeted at investments in emerging growth businesses within the state. The Oregon Investment Fund, a professionally-managed fund of funds, was established to carry out this intent. While it is aimed at spurring local economic growth by making available additional capital for young Oregon companies while growing the state's private equity investment community by attracting additional regional and national firms to look at deals within the state, the OIF is primarily returns-driven.

Oregon hired Credit Suisse's Customized Fund Investment Group as the fund manager, a firm that administers similar programs in five other states. Credit Suisse contributed an additional \$5 million to the OIF, bringing the total size of the program to \$105 million. A portion of the fund is designated for direct co-investment. As of June 2006, the OIF was halfway toward full investment, having directed funding to seven firms, three of which — Buerk Dale Victor, Evergreen Pacific Partners, and Voyager Capital — are based in Washington. The state of Oregon is to be commended

for establishing this program, and the committee noted that a fund of funds organized in Washington would have the potential to attract co-investment from funds such as that of Oregon, which has expressed an interest in working with our state to bolster investment in the Pacific Northwest region.

For a Washington fund of funds, the committee believes details such as total fund size, investment terms, and associated management fees should be determined in consultation with the program manager. There are two possible approaches for fund management: hiring an independent, professional management firm having experience in investing in venture capital funds and preferably an established presence in the state, or a "grow your own" option whereby an individual with investment experience, knowledge of our state's funding and entrepreneurial ecosystem, and the time and interest to take on the project would be installed as the fund manager. In either scenario, the committee recommends that an advisory group be established to set the general fund policies and to periodically review and adjust those policies as needed once the fund is operational. All investment decisions would be made by the fund manager, guided by the expectation of maximum returns for investors within the parameters established in the fund policies.

Unlike the Oregon program, the committee suggests Washington's private sector take up the charge and seek investment from a variety of sources rather than relying on state legislation or pension fund participation. While it is too early to gauge the practical effectiveness of programs such as Oregon's, with private sector leadership to more fully develop the structure and to identify willing investors, the committee believes this model is the most promising of the new approaches it examined for our state.

State constitutional amendment

RECOMMENDATION

Washington should amend its constitution to provide more flexibility to the state to target resources in response to competitive challenges.

As previously explained, Washington does not have the flexibility to use state funds to address capital needs of private companies. While the committee is not recommending that the state enter into the business of investing directly in companies, there are other programs that Washington might consider to elevate its competitive position, such as grants and loans, were it not for existing constitutional constraints.

One approach favored by the committee, should Washington address its constitutional issue, is a matching program for SBIR

award recipients, echoing a recommendation put forward by the Bio 21 Seed Funding Subcommittee in 2004. This and other innovative approaches could be explored if the state had the ability to direct resources to create a more supportive climate for entrepreneurs and young companies. The committee believes that Washington should be given the same degree of flexibility that other states enjoy in responding to capital formation needs through a constitutional amendment to ensure our long-term competitiveness.

ARTICLE VIII

STATE, COUNTY, AND MUNICIPAL INDEBTEDNESS

SECTION 5 CREDIT NOT TO BE LOANED. The credit of the state shall not, in any manner be given or loaned to, or in aid of, any individual, association, company or corporation.

SECTION 7 CREDIT NOT TO BE LOANED. No county, city, town or other municipal corporation shall hereafter give any money, or property, or loan its money, or credit to or in aid of any individual, association, company or corporation, except for the necessary support of the poor and infirm, or become directly or indirectly the owner of any stock in or bonds of any association, company or corporation.

ARTICLE XII

CORPORATIONS OTHER THAN MUNICIPAL

SECTION 9 STATE NOT TO LOAN ITS CREDIT OR SUBSCRIBE FOR STOCK. The state shall not in any manner loan its credit, nor shall it subscribe to, or be interested in the stock of any company, association or corporation.

17

^{§§} Excerpted from the *Washington State Constitution*, Washington State Legislature web site: http://www.leg.wa.gov/LawsAndAgencyRules/constitution.htm.

Appendix B: Catalog of State Programs***

Italicized programs have been completed or closed down. †††

State	Project	Governance	Funding	Year Began	Use of Funding	Source of Funds	Link
Alaska	Alaska Science & Technology Foundation	Alaska Department for Community and Economic Development	\$100 M over 3 years	1988	Dissolved in 2003 when the endowment funding the organization was appropriated to the general fund. The administration thought the money in the endowment could be put to better use.	Endowment from state oil royalties	http://www.dced.state.ak.us/astf/
Alaska	Alaska Growth Capital	Private lending institution originally capitalized by national CDFI funds	\$5 M in 2003; \$35 M in 2004	1997	Provides risk loans to rural, minority- owned and technology companies. Investments range from \$100 K to \$10 M and can be used for lines of credit, permanent working capital, equipment, and leasehold improvements.	New Market Tax Credits from US CDFI funds	http://www.alaskagrowth.com/
Alberta	icore	Alberta Science and Research Authority	CA \$35 M	1999	research scientists who work on fundamental and applied problems in informatics. It operates several grant programs to develop iCORE Chairs at Alberta universities, with the goal of	CA \$10 M annually from Ministry of Innovation and Science; CA \$2 M annually from Ministry of Advanced Education (this is specifically targeted at graduate students)	http://www.icore.ca
Arizona	Knowledge Economy Capital Fund	Proposed by Governor Napolitano	\$25 M	2004	Venture capital fund of funds aimed at collecting \$100 M. Result of continued state failure to get state supported venture capital investments. Initial \$25 M investment by SCF of Arizona, 10/04; no investment since.	Private sector financing.	http://www.gcit.az.gov/
Arizona	Phoenix New Markets Venture Capital Program	City of Phoenix	\$30 M	2000	Investment in venture capital funds. Also offers \$12 M in tax credits for eligible science and technology investments.	New Market Tax Credits from US CDFI funds	http://www.phoenixnmtc.org/hom e.html
Arizona	Angel Investor's Tax Credit	AZ Department of Commerce	\$20 M	2005	A state tax credit is made available to investors who invest in early-stage "qualified small businesses." The credit is 30% of the investment, increasing to 35% for investments in bioscience companies and companies located in rural Arizona. The credit may be offset against AZ taxable income in equal amounts over a 3-year period.	Tax credits	http://www.azleg.state.az.us/legte xt/47leg/1r/bills/sb1335h.htm
Arkansas	Arkansas Institutional Fund	Arkansas Development Finance Authority	\$70 M	2003	Fund of funds for GPs to invest in in- state venture and startups; credit line secured by tax credits.	Tax exempt bonds and other debt instruments	http://www.state.ar.us/adfa/Ventu re%20Capital%20Description.htm

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^{***} Excerpted from *Technology-biased Economically Targeted Investing: Survey of State Approaches throughout the Nation*, prepared by Travis Hayes for the Port of Seattle and Technology Alliance, 2005.

^{†††} Much of the information concerning closed programs was obtained from Holt, Gary and Janet Kruzel "Is Economically Targeted Investing Measurable?" Washington State Investment Board.

State	Project	Governance	Funding	Year Began	Use of Funding	Source of Funds	Link
Arkansas	Seed Capital Investment Fund	Arkansas Science and Technology Corporation	\$4 M	1995	Provides working capital up to \$500,000 to help support the initial capitalization or expansion of technology-based companies located in Arkansas. Investments can be repaid through a variety of instruments, including direct loans, participations and royalties.	General Revenue, General Improvement, and Cash Funds	http://www.asta.arkansas.gov/see d.html
Arkansas		Local business leaders and University of Arkansas at Fayetteville	\$1 M	2002	Only \$1 M of 5 M investment goal has been secured. Provided funding to 2 companies but rest of money raised has been returned to investors.	Private and university funds	http://www.arcapital.com/accg_in_the_news/venture_capital_fund_for_technology_companies_annou_nced.html
Arkansas	Arkansas Bioscience Institute	Arkansas Development Finance Authority	\$100 M	2003	Funding for health and bioscience research.	Tobacco settlement funds	http://abi.astate.edu/
California	Next generation private equity managers	CalSTRS	\$100 M	2002	Investments include in-state minority owned funds & companies.	Pension funds	http://www.calstrs.com/investmen ts/privateEquity.aspx
California	California Emerging Market program	CalPERS	2% of total portfolio (~\$2.7 billion)	2002	Investments in underserved CA markets.	Pension funds	http://www.calpers.ca.gov/
California	Environmental Technology Program	CalPERS	\$200 M	2004	Alternative energy technology investments.	Pension funds	http://www.calpers.ca.gov/
California	California Biotechnology Program	CalPERS	\$500 M	2000	Seed fund and venture capital funds managed by California-based VCs.	Pension funds	http://www.calpers.ca.gov/
Colorado	Targeted Opportunities Program	CO PERA	\$50 M per year	2002	Regional strategies, Invest in private equity funds capitalized at < \$250 M. Partner with Alignment Capital Group to play advisory role. Invests up to \$50 M/year with average investment \$10-15 M.	Pension funds	http://www.copera.org/pdf/NewsR eleaseTOPProgram.pdf
Colorado	Colorado Venture Capital Authority	Venture Capital Authority (independent entity)	\$50 M	2004	25% of funds are required to be invested in rural Colorado and 25% in distressed urban areas. Funds to be used to provide seed and early-stage capital.	Transferred \$50 M in tax credits from stopped CAPCO program from which \$25 M raised by selling tax credits to insurance companies. Payments to VCA will be made annually by insurance companies.	http://www.state.co.us/oed/finance/VCA.shtml
Colorado	CVM Equity Funds	CVM Equity Partners	\$18.3 M	1983	Total of 5 equity funds (1983; 1986; 1989; 1993; and 1998) with primary emphasis on Colorado. Invested in 60 companies with two funds closed, both top quartile.	CO Housing & Finance Authority and CO PERA voluntarily participated with private investors	http://www.coloradovca.org/mem bers/19.html
Connecti- cut	Direct investments in local companies		\$25 M	1990	Direct equity investment, 47% ownership, in Colt Industries. Money vanished.	Trust fund	http://www.state.ct.us/ott/
Connecti- cut	Eli Whitney Fund	Connecticut Innovations	\$ M	1989	Investments, which typically range from \$500,000 to \$2 million on the initial round, are made in early-stage Connecticut companies that meet established criteria.	Originally funded by state bonding in 1989 but since 1995, CI has financed its equity investments solely through own investment returns.	http://www.ctinnovations.com/site /initiatives/eli_whitney_fund.asp

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Connecti- cut	BioScience Facilities Fund	Connecticut Innovations	\$55 M	1998	Provides financial solutions to qualified biotechnology companies for the construction of wet laboratory and related space. Companies already in Connecticut or those wishing to move to the state, may apply for this funding.	additional \$10 Musing	http://www.ctinnovations.com/site /initiatives/bioscience_fund.asp
Connecti- cut	Connecticut Clean Energy Fund	Connecticut Innovations	\$100 M	2000	Projects to promote production and use of clean energy may be based anywhere in the world, but must benefit Connecticut ratepayers.	Surcharge on Connecticut ratepayers' utility bills; fund is expected to aggregate to over \$100 M in 5 years	http://www.ctcleanenergy.com
Connecti- cut	Connecticut BioSeed Fund	Connecticut Innovations	\$5 M	1989	Initial investments will range up to \$500 K and are based on criteria that include the strength and depth of the intellectual property, track record of the company's scientific and business leaders, and the potential of the business opportunity.	Originally funded by state bonding in 1989 but since 1995, CI has financed its equity investments solely through own investment returns.	http://www.ctinnovations.com/site /initiatives/connecticut_bioseed.as p
Connecti- cut	Connecticut Horizon Fund	Connecticut Retirement Plans & Trust Funds (CRPTF)	2.5% to 5% of pension fund's assets	2004	CT-based, emerging, minority- and women-owned firms with assets less than \$2 B.	Pension funds	http://www.state.ct.us/ott/pfmrepo rts/2004CIFCAFR.pdf
Delaware	Delaware Innovation Fund	Delaware Innovation Fund (DIF)	\$10 M	1995	Provides early-stage investment funding in either the form of equity capital, long-term debt with royalty- based payback, or convertible debentures.	Private non-profit funding	http://www.difonline.org/
Delaware	,	Delaware Economic Development Office	\$30.5 M	2004	Includes Delaware Competitiveness Fund, Venture Capital Investment Fund, and Technology-based Seed Fund to make equity investments in VC funds and equity or grants up to \$50 K for start-ups.	State bond	http://www.state.de.us/dedo/defa ult.shtml
Florida	"Florida First" Program	State Board of Administration of Florida	Decided not to pursue program	2002	Investigated feasibility of program.	Pension funds	http://www.sbafla.com
Florida	Florida Pension Fund	State Board of Administration of Florida	0.5% of pension fund's assets	2003	Part of 5% allocation to alternative investments. No in-state target for VC funds but fund managers expect part of investments to be in-state. Total pension fund's managed assets are > \$130 B.	Pension funds	http://www.sbafla.com/pdf/invest ment/annual/2004/SBA-AIR.pdf
Georgia		Advanced Technology Development Center (ATDC)	\$8 M	1999	Provides up to \$1 M per investment of seed funding to early-stage technology firms. Requires 3-to-1 private money match to state money invested.	State funds	http://www.atdc.org
Georgia	Georgia Biosciences Seed Fund	Georgia Venture Partners	\$3 M	2004	Invests in seed-stage (Seed and early- stage, first institutional round preferred) companies in the life science sector, with a specific focus on companies located in or locating to Georgia. Initial investment between \$100 K and \$500 K with a total investment in a single company of \$1 M.	Public-private partnership with GA's major academic universities	http://georgiavc.com/GVPSeedFun d.shtml
Hawaii	Act 221 VC Investment Credit	Hawaii State Legislature	20% of a company's qualifying R&D expenses	2001	Renewed in 2004 for another 5 years. Provides refund of 20% of a company's qualifying R&D expenses and max 200% ROI in a tech company.		http://www.capitol.hawaii.gov/ses sion2001/bills/HB175_cd1htm

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Hawaii	Hawaii SBIR Matching Grant and Assistance Program	High Technology Development Corporation	\$260 K	1989	Provides grants up to \$25 K to successful SBIR Phase I companies whilst they seek Phase II funding.	Department of Business, Economic Development and Tourism	http://www.htdc.org/sbir/matching .asp
Hawaii	Hawaii Strategic Development Corporation	Hawaii Strategic Development Corporation	\$13.5 M	1990	Committed \$13.5 M to seven VC limited partnerships; five are seed or early-stage; one fund of funds.	State funds	http://www.htdc.org/hsdc/seed.ht ml
Idaho	Venture capital through two 3 rd party selected firms	Public Employee Retirement System of Idaho (PERSI)	\$32 M	2001; 2004	Venture capital fund investments.	Pension funds	http://www.persi.state.id.us/
Illinois	Technology Development Fund	Illinois State Treasurer's Office	\$50 M	2004	Permits the State Treasurer to use up to 1% of state's total investment portfolio for equity investments through IL VC firms. Investments in any IL VC fund are limited to 10% of total investments in fund. No more than one-third of Technology Development Fund's balance may be invested in any given year.	Fund of funds - State Treasury funds	http://www.state.il.us/treas/
Illinois	Illinois pension funds	State Employees' Retirement System of Illinois			Authorized to allocate 1% of assets for investments in deals with significant IL exposure.	Pension funds	http://www.state.il.us/srs/SERS/ho me_sers.htm
Illinois	Technology Development Bridge	Illinois Development Financing Authority	\$11.6 M	1997	Invests \$150-300K in early-stage companies as a co-investor with private accredited investors.	Illinois Finance Authority	http://www.il- fa.com/products/sb_vc.html
Illinois	Illinois Emerging Technologies Fund	d Illinois VENTURES	\$12 M	2000	Early-stage and seed investment fund whose limited partners are university alumni. Makes investments up to \$175 K in convertible debt.	Public-private partnership with University of Illinois	http://www.illinoisventures.com/
Illinois	Laboratory Facilities Fund	City of Chicago Department of Planning and Development	\$0	2002	Funds up to 25% of costs (max of \$1.4 M) of lab space construction to technology companies through tax increment financing (TIF); however, none of the applications to the program have come to fruition.	Tax-increment financing	http://egov.cityofchicago.org/city/ webportal/home.do
Illinois	Minority Business Enterprise (MBE) Brokerage	Illinois Teachers Retirement System	\$40-50 M	2002	Investment in women and minority- owned firms.	Pension funds	http://trs.illinois.gov/
Illinois	VentureTECH	Illinois Technology Office	\$1.9 B	2003	Investment in medical and biotech research.	General appropriations and \$116 M from tobacco settlement funds	http://www.illinois.gov/ITO/vtech.c fm
Indiana	Indiana Future Fund	BioCrossroads	\$73 M	2003	Approximately 60% of investments placed through Indiana-focused or Indiana-based venture capital funds; Approximately 70% of investments made in funds that intend to invest in early-stage or seed-stage companies; Approximately 60% of investments in Indiana-based companies; Approximately 60% of investments in the area of life sciences.	universities and corporate investors	http://www.indianafuturefund.com /index2.htm
Indiana	Indiana Seed Fund I	BioCrossroads	\$4 M	2005	Seed funding of pre-venture investment capital for emerging Indiana life sciences companies.	\$1 M from BioCrossroads and 3 M from Indiana Finance Authority	http://www.biocrossroads.com/ent repreneur/isf.htm

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lowa	Grow Iowa Values Fund	Iowa Department of Economic Development	\$500 M	2005	Direct business development and assistance financing. Eligible businesses must provide a wage, plus benefits, that is equivalent to 130 percent of county average. A business must also be in one of the state's targeted industries: life sciences, information solutions/ financial services and advanced manufacturing.	A 10-year state investment of \$50 M annual; 10-year	http://www.iowalifechanging.com/business/financial_assistance.html
lowa	Community Economic Betterment Account (CEBA) Venture Project	lowa Department of Economic Development			Loans and/or forgivable loans, up to a maximum award of \$1 million, based in part on job creation, capital investment, the ability to meet certain regional/county wage standards, quality of employment, and economic benefits for the state and local community. Venture Project provides equity-like investments up to \$250 K.	State funding through lowa Department of Economic	http://www.iowalifechanging.com/business/financial assistance.html
lowa	Entrepreneurial Ventures Assistance Program	lowa Department of Economic Development			Investments up to 50% of total project costs in technology companies, \$250 K max. In addition, eligible applicants must have successfully completed a recognized entrepreneurial venture development curriculum or have equivalent business experience.	State funding through lowa Department of Economic Development (IDED)	http://www.iowalifechanging.com/ business/financial assistance.html
lowa	tecTERRA Food Capital Fund	Iowa Agricultural Finance Corporation	\$25 M	1998	Invests in value-added processing and biotechs.	State of Iowa loan	http://www.tecterra.com/
lowa	lowa Fund of Funds	Iowa Capital Investment Corporation	\$100 M	2002	Venture capital funding. Partnerships in private venture capital funds with a physical presence in lowa.	Fund of Funds	http://www.investiowa.com/fundin g.html
Kansas	Direct in-state investments in companies and real estate	Kansas Public Employees Retirement System	\$500 M	1985	Shut down due to failure.	Pension funds	http://www.kpers.org/
Kansas	Applied Research Matching Fund	Kansas Technology Enterprise Corp (KTEC)	\$19.5 M	1988	Early-stage investments of \$5-100 K for applied research. Funds are matched 1.5:1 by recipient and repayable through debt instruments or royalties.	Public-private partnership with Kansas Lottery and Racing Commission funds	http://www.ktec.com/sec_investm ent/section/armf.htm
Kansas		Kansas Technology Enterprise Corp (KTEC)	\$3 M	2003	Equity investments up to \$250 K; also requires 1.5:1 match by other private investors.		http://www.ktec.com/sec_investm ent/section/tcsf.htm
Kentucky	Vogt Invention and Innovation	Community Foundation of Louisville and The Enterprise Corporation	\$5 M	1999	Awards up to \$250 K per year granted to Louisville based innovators. Funded projects must be commercialized within 2 years of the initiation of The Vogt Award.	Private endowment	http://www.vogtawards.com
Kentucky	, ,	Kentucky Office for the New Economy	\$20 M per biennium	2000	Loans and grants for building and promoting networks or clusters of tech-driven and research-intensive industries.	State General Fund	http://www.one-ky.com/
Kentucky	R&D Facilities Tax Credit	Kentucky Office for the New Economy		2002	5% credit for portion of cost of constructing or purchasing research facilities, i.e., bricks and mortar. Available to new businesses coming into KY and existing businesses that undertake construction of new facilities for research.	Tax credits	http://www.one- ky.com/PDF/SupportingGrowth.pdf

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Kentucky	Commonwealth Seed Capital (CSC)	Kentucky Economic Development Partnership	\$16.1 M	2001	Invests in VC funds committed to technology investments in Kentucky. Matched by \$30 M in private investments. VC funds must commit 3:1 match of CSC investments.	State appropriations	http://www.one- ky.com/investors.html
Louisiana	Louisiana Fund I	LSU System Research & Technology Foundation	\$20-25 M	2002	Early-stage seed fund. State money must be matched 2:1. Targets companies developing and commercializing promising technologies with an emphasis on those originating from LA universities, at their seed, start-up and early stages.	\$5.75 M invested by Louisiana Economic Development Corp, \$10 M from Teachers' Retirement System of LA (TRSL), additional investment from LA universities, foundations, pension funds, companies and high net worth individuals	http://www.lsurtf.org/capital.html
Louisiana	Louisiana Technology Innovation Fund	Louisiana Commissioner of Administration	\$12 M	1997	Provides seed money for innovative government agency projects utilizing technology. Funded 29 projects to date, none since 2003.	Legislature has not funded since 2003	http://www.doa.state.la.us/ltif/
Maine	Maine Economic Development Venture Capital Revolving Investment Program	Finance Authority of Maine (FAME)	\$3 M	2000	Pilot program. Invests as equal partner with private VC funds. Typical investments are less than \$1 M. Invested in 5 firms as standard limited partners who are currently actively investing.	Excess money in one of FAME's revolving loans programs	http://www.famemaine.com/html/ business/medvcrip.htm
Maine	Small Enterprise Growth Fund	Small Enterprise Growth Board (SEGB)	\$8 M	1995	Initial investments typically \$150-350 K, expectation is to realize return on investment within 5-7 years. Purchase of company's preferred stock is typical form of investment but will also consider convertible debt.	direct appropriation by Maine Legislature	http://www.segfmaine.com/
Maryland	MdBio	Private, nonprofit created by State of Maryland	\$4 M	1991	Provides cash infusion Project Accelerator Awards to near- commercialization companies. Awards are \$25-200 K; MdBio receives royalty on revenues or equity stake.	Originally created by State, privatized in 1995. Royalty payments, equity positions, and owns a multi-tenant GMP bioprocessing facility in Baltimore.	http://www.mdbio.org
Maryland	Enterprise Investment Fund (EIF)	Maryland Department of Business & Economic Development (DBED)	\$54 M		Direct equity investments of \$150-500 K in startup tech companies. State's funds must be matched 3:1 and can be used for operations, capital, and R&D.	State DBED funds	http://www.choosemaryland.org/b usiness/financing/investment.asp
Maryland	Challenge Investment Program	Maryland Department of Business & Economic Development (DBED)			Small, high-risk investments up to \$150 K in start-up firms. Typical initial investment is \$50 K, additional investments based on performance and milestones set by DBED. State's funds must be matched 1:1.	State DBED funds	http://www.choosemaryland.org/b usiness/financing/investment.asp
Maryland	Maryland Venture Fund	Maryland Department of Business & Economic Development	\$420 M	1995 / 1998	Venture capital investment. Maryland-based high tech startups.	\$16.5 M in State funds invested	http://www.choosemaryland.org/b usiness/financing/investment.asp
Maryland	Various funding initiatives	Maryland Technology Development Corporation	\$10.5 M	1999	Building technology-based economy in Maryland through its investment programs: University Technology Development Fund (UTDF); Federal Laboratory Partnership Program (FLPP); Maryland Technology Transfer Fund (MTTF); and NAVAIR Technology Commercialization Initiative (NTCI).	Began with initial seed grant of \$642 K from Dept of Bus and Econ Development; now direct grantee from State's General Fund	http://www.marylandtedco.com

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chusetts	Massachusetts Technology Development Corporation	Massachusetts Technology Development Corporation	\$62 M	1978	Seed stage equity investments in start-ups. Typical investments are \$250-500 K, 500 K max. Closed \$5 M fund in 1995 and 15 M fund in 2000 from public and private funds; typical investments from these funds are \$300-600 K.	State and federal funds; recapitalized by \$5 M investment from State General Fund in 2003	http://www.mtdc.com/role.html
Massa- chusetts	Pension Reserves Investment Trust	Massachusetts Pension Reserves Investment Management Board	Up to 2% of assets	2003	Economically-targeted investing. Massachusetts's based investments including life sciences.	Pension funds - \$20 M invested so far in technology funds	http://www.mapension.com
Massa- chusetts	Emerging Technology Fund	MassDevelopment	\$25 M	2003	Brick and mortar loans: guarantee up to 1.5 M for tenant build-out, construction or expansion of facilities and equipment purchases; up to 2.5 M direct loans for hard asset owned facilities and equipment.	33.3% Tobacco, 33.3% Stabilization Fund, 33.3% Federal Fiscal Relief Legislation	http://www.massdevelopment.co m/financing/lg_technology.aspx
Massa- chusetts	John Adams Innovation Institute	Massachusetts Technology Collaborative	\$15 M	2003	Institute will leverage long-term, public and private sector investment in innovation technologies to provide dedicated infrastructure support for emerging technology and regional industry clusters.	Stabilization Fund, 33.3% Federal Fiscal Relief Legislation	http://www.mtpc.org/institute/news.htm
	Matching Fund for Collaborative Academic Research Centers	Massachusetts Technology Collaborative	\$20 M	2003	Attract federal research support and private sector investment for industry-university academic research centers.	33.3% Tobacco, 33.3% Stabilization Fund, 33.3% Federal Fiscal Relief Legislation	http://www.masstech.org/institute/ jaii/match 9 2004.htm
Massa- chusetts / Rhode Island	Zero Stage Capital VI	MA Business Development Corporation & Business Development Co of RI	\$150 M	1999	Venture capital for startup and early- stage companies.	Joint state funds	http://www.zerostage.com
Massa- chusetts	Commonwealth Venture Capital	Mass PRIM and Bank of Boston	\$61 M	1995	MA venture capital fund.	Pension Funds	http://www.commonwealthvc.com
Michigan	SBIR Emerging Business Fund	Michigan Economic Development Corporation	\$1 M	2004	Matches SBIR Phase I grants.	Michigan Technology Tri- Corridor (funded partly by tobacco settlement funds)	http://medc.michigan.org/ttc/sbir.a sp
Michigan	Venture Michigan Fund	Venture Michigan Fund	\$150 M	2004	Fund of funds for early-stage venture funding only in firms with a significant MI presence. Oklahoma model - tax credits.	Evergreen Fund of Funds; capital raised through sale of debt instruments backed by state tax credits	http://www.venturemichiganfund. org/
Michigan	Direct early-stage MI venture deals	Dept. of Treasury	\$ 60 M, 1% of pension assets	1982			http://www.michigan.gov/treasury
Minnesota	3 ETI bonds	MN Small Business Finance Agency	\$14 M	1984			http://www.community- wealth.com/_pdfs/articles- publications/state-local/report- gao.pdf
Minnesota	Minnesota Investment Fund	Department of Employment and Economic Development	\$4.5 M annually		Provides grants up to \$500 K that create and retain high-quality jobs on statewide basis, with a focus on industrial, manufacturing, and technology-related industries. At least 50 percent of total project costs must be privately financed through owner equity and other lending sources.	State and federal resources	http://www.deed.state.mn.us/bizd ev/InvFd/

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Missouri	Direct in-state venture	MO SERS & Highway Employees and Highway Patrol Retirement System	\$5.5 M (3% to 5% of assets)	1988- 1989	In-state venture investments.	Pension funds	http://www.mosers.org
Missouri	New Enterprise Creation Act	Missouri Seed Capital Investment Board	\$33.6 M	1999	Seed funding investment for Missouri startups. Tax credits equal to 100% of the investment in a qualified fund to any accredited individual, corporation, partnership or financial institution who makes a qualified investment. At this point, all credits allowed under the law have been authorized. Typical investments \$500-1,500 K in a single business; \$2-3 M	credit for investors in the selected fund, Prolog. Investors were all private and included university endowments, corporations, pension funds and individuals. The NFP	http://www.ded.mo.gov/BDT/Busin ess%20Location%20Services/Fina ncial%20and%20Incentive%20Pro grams/Venture%20Capital/New% 20Enterprise%20Creation%20Act. aspx
Missouri	BioGenerator	Non-profit entity in collaboration with Washington University, St. Louis University, and local incubators	\$1 M annually	2003	Provides proof of concept funding and tech transfer resources. Goal to create 20 companies in 4 years who are eligible for traditional VC funds.	Danforth Foundation	http://www.biogenerator.org/
Montana	Montana Equity Fund	Montana Capital Investment Board	\$60 M	2005	Venture capital funding. Regional (MT, ID, UT, WA) venture.	Oklahoma model - tax credits	http://data.opi.state.mt.us/bills/mc a/90/10/90-10-305.htm
Montana	Commercial loan portfolio with in- state institutions & residential mortgages	Montana Board of Investments	\$185 M		Commercial loan portfolio with instate institutions & residential mortgages.	State investment funds	http://www.investmentmt.com
New Jersey	Biotech/Life Sciences Venture Fund	New Jersey Economic Development Authority (NJEDA)	\$50 M	2003	that would have exposure to New	\$10 M from NJEDA; remainder being sought from private capital	http://www.njeda.com
New Jersey	Technology Council Venture Fund	Managed in conjunction with the Technology Council Venture Fund; limited partnership interest by NJEDA	\$85 M	2001	Makes seed, startup, and early stage venture capital investments.	Limited funds from NJEDA; private capital; and SBIC leverage	http://www.njtcvc.com/
New Jersey	Early Stage Enterprises	Privately managed; limited partnership interest by NJEDA	\$44 M	1996		Limited funds from NJEDA; private capital; and SBIC leverage	http://www.esevc.com/index.html
New Jersey	Springboard Fund II	New Jersey Economic Development Authority (NJEDA); formerly operated by NJCST	\$10 M annually	2004	Makes pre-seed investments of \$50- 250 K to early-stage companies for proof-of-concept and commercialization activities. Repayable grants over 7 years. 1:1 matching requirement.	NJEDA is a self-supported state entity	http://www.njeda.com
New Mexico	New Mexico Venture Capital Investment Program	New Mexico State Investment Council	\$20 M annually		Venture capital funding but fund must maintain its principal office in NM. No more than \$15 M may be invested in any one NM VC fund & can't exceed 50% of committed capital of that fund.		http://www.state.nm.us/nmsic/ind ex.htm

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New York	University Technology Seed Fund	Trillium Group	\$6 M	2002	Investments up to \$2M, focus on University of Rochester Medical School spin-offs.	Educational institutions, corporations, trusts, and other entities in the local area	http://www.trillium- group.com/content/operations/sub section- venture_development/subsubsecti on- university_technology_seed_fund
New York	New York State Small Business Technology Investment Fund	Empire State Development	\$13.5 M	1983	Early stage equity investments in companies that have developed innovative technology products or services and that display significant competitive advantage. Investments require 3:1 matching funds. Invested in 110 companies to date.	Various state contributions from the Legislative budget; evergreen since 1994	http://www.nylovesbiz.com/High Tech Research and Development /investment fund.asp
New York	Monroe Fund	Trillium Group	\$12 M	2000	Early-stage fund of \$2 M investment by Monroe County leveraged \$10 M in additional investment by local institutions and university endowments.	Monroe County, local institutions and university endowments	http://www.trillium- group.com/content/operations/sub section- fund_management/subsubsection- monroe_fund
New York	Purchase of NY state first mortgage loans	New York Common Retirement Fund	\$134 M to date		Purchase of NY state first mortgage loans.	Pension funds	http://www.osc.state.ny.us/retire/
New York	In-State Private Equity Investing Program	New York Common Retirement Fund	\$250 M	1999	NY early-stage venture with upstate focus.	Pension funds	http://www.osc.state.ny.us/retire/
New York	NY venture capital fund	New York STRS	\$150 M	2001	NY venture capital fund with VantagePoint.	Pension funds	http://www.nystrs.org/
New York	Debut, women- or minorities managed funds	NYC Employees' Retirement Systems	\$175 M	2003	Fund of funds: debut, women- or minorities managed funds.	Pension funds	http://www.nycers.org
North Carolina	Hatteras BioCaptital Fund (formerly the BioVista Fund)	Golden LEAF	\$95 M	2003	Later stage, investment partnership focused on life science companies in the United States and Europe.	\$30 M from tobacco settlement funds through Golden LEAF endowment, funds contingent on fund managers being able to raise required 3:1 match. Fund eventually merged with a larger European fund and is now the US advisor.	http://www.catalystaventures.com
North Carolina	Venture Fund	North Carolina Technological Development Authority	\$4.6 M	2000	Focuses on information technology and life sciences opportunities. FFVF investments range from \$50-500 K. Investments are normally staged into the business based upon company needs and performance milestones.	North Carolina General Assembly	http://www.nctda.org/ic/ffvf.html
North Carolina	Award Program	North Carolina Technological Development Authority			Provides loans of up to \$25 K to help North Carolina academic research institutions pay for final proof-of- principle research necessary for successful product commercialization.	North Carolina General Assembly	http://www.ncbiotech.org/ouractiv ities/business/bizloans.cfm
North Carolina	North Carolina Bioscience Investment Fund	North Carolina Biotechnology Center	\$28.5 M	1997	Investments of \$500 K - 2 M in venture capital to biotechnology firms. Fund managed by Eno River Capital.	\$10 M state appropriation; \$17.5 M private	http://www.enorivercapital.com
North Carolina	Academy Centennial Fund	Duke University Management Company	\$10 M	1999	Privately managed seed-stage venture investment fund capitalized by the 14 endowment foundations associated with NC State; considers only NC-state related funding. Companies commercializing technologies developed at, or affiliated with, North Carolina State University.	Endowment foundations	http://www.academyfunds.com

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North Dakota	Centers for Excellence	North Dakota's universities and colleges	\$50 M	2005	Pursue academic excellence and spur R&D, new technology, and job creation. Centers will be located on university campuses throughout the state and will focus on technology, aerospace, value-added agriculture, energy, advanced manufacturing, and tourism. Centers must match each state dollar invested with private or non-state public funds.	\$16 M from permanent oil tax trust fund; Senate Bill 2018 grants authority to borrow up to \$5 M more this biennium if original money runs out; \$30 M to be appropriated in future bienniums. Leverage goal of up to \$150 M.	http://www.governor.state.nd.us/2 004-excellence.html
North Dakota	Venture capital fund investment	Bank of North Dakota	\$15 M	2003	Venture capital fund investments with a 2:1 target from SBIC funds.	\$5 M from state-owned bank funds; SBIC	http://www.banknd.com
Ohio	Ohio Bureau of Workers' Compensation	Ohio Bureau of Workers' Compensation (BWC)	\$30.5 M	2003	Venture capital firms to back OH- based technology startups.	BWC investment funds	http://www.ohiobwc.com
Ohio	Third Frontier Programs	Third Frontier Commission	\$1.1 B	2002	Tech commercialization. Finance research facilities and low-interest loans to early-stage companies.	General Revenue and tobacco settlement funds	http://www.thirdfrontier.com/
Ohio	Ohio-Midwest Fund LP	Ohio Public Employees Retirement System	\$50 M	2005	Private equity and venture capital funds that encourage the growth of small business within OH.	Fund of Funds - pension funds	http://www.opers.org
Oklahoma	OCAST SBIR Funding Programs	OCAST			Assists qualifying OK firms to compete for research funding under SBIR and STTR Programs to develop commercializable products. Defrays a portion of a qualifying firm's federal SBIR or STTR Phase I proposal preparation costs and provide bridge funding between Phase I and Phase II federal SBIR grants.	State funds through OCAST	http://www.ocast.state.ok.us/sbra. htm
Oklahoma	Oklahoma Technology Business Finance Program	OCAST; i2E			Provides Oklahoma-based, high-tech start-up companies with pre-seed financing and early-stage risk capital to stimulate additional investment from private sources. Requires 3:1 match on investment.	State funds through OCAST	http://www.i2e.org/DesktopDefaul t.aspx?T0=182&TM=10
Oklahoma		Oklahoma Capital Investment Board	\$50 M Raised to \$100 M	1993 / 2002	Evergreen venture; to date no tax credits executed. (OCIB privatized in 2000; not a pension fund); principal protected debt securities with Libor + 50 basis points guaranteed return.	State-beneficiary public trust funds	http://www.okcommerce.gov/inde x.php?option=content&task=view &id=188&Itemid=248
Oregon	Oregon Investment Fund	Oregon Investment Council (Oregon PERF)	\$105 M	2004	Private equity and venture capital funds that encourage the growth of small business within OR.	Fund of Funds - OIC funds managed by CSFB	http://www.oregoninvestmentfund .com
Oregon	Oregon Growth Account (OGA)	State lottery revenues	\$23 M	1995	Invests in startup businesses in Oregon and Oregon's universities to promote early-stage investing in technology transfer. Has made \$48 M in commitments to general partners to-date.		http://www.ost.state.or.us/division s/investment/OGA/OGA POLICY 0 904.pdf
Pennsyl- vania	Greenhouse Fund	BioAdvance	\$20 M	2003	Supports university/industry partnerships and makes equity investments in companies. \$9.5 M invested in 17 companies to-date.	Tobacco settlement funds and Commonwealth of Pennsylvania, the regional foundation community, industry, federal and local governments	http://www.bioadvance.com/green house-fund.asp

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Pennsyl- vania	BioAdvance Ventures	Sponsored by BioAdvance and is managed by Quaker BioVentures Inc.	\$26 M	2004	Invests in seed and early-stage life science companies, located primarily in Southeastern Pennsylvania.	Tobacco settlement funds and Commonwealth of Pennsylvania, the regional foundation community, industry, federal and local governments	http://www.bioadvanceventures.c om/
Pennsyl- vania	Technology Development Fund	Life Sciences Greenhouse of Central Pennsylvania	\$2 M	2003	Provide up to \$250,000 with the goal of moving the results of sponsored research into a start-up company, or accelerating development of technologies within existing small-to-medium sized companies. Invested \$2 M in 38 projects to-date.	Tobacco settlement funds and Commonwealth of Pennsylvania, the regional foundation community, industry, federal and local governments	http://www.lsgpa.com/html/1,112 8,Tech Fund,00.html
Pennsyl- vania	Gap Fund	Life Sciences Greenhouse of Central Pennsylvania	\$10 M	2003	Makes near-equity investments of \$50-250 K in start-ups for business planning, management recruiting, and proof-of-concept.	Tobacco settlement funds and Commonwealth of Pennsylvania, the regional foundation community, industry, federal and local governments	http://www.lsgpa.com/html/1,112 8,Gap Fund,00.html
Pennsyl- vania	PA venture capital	Pennsylvania Tobacco Settlement Investment Board	\$60 M	2003	Placed \$20 M each in 3 private VC funds who invest in early-stage life sciences. Subject to 3:1 matching requirement.	Tobacco settlement funds	http://www.newpa.com
Pennsyl- vania	Pittsburgh Life Science Greenhouse	Public/private partnership, founded by University of Pittsburgh, Carnegie Mellon University, UPMC Health System, the Commonwealth of Pennsylvania and its regional foundation community	\$15 M	2003	Pre-seed, seed and early-stage regional life science companies.	Tobacco settlement funds and Commonwealth of Pennsylvania, the regional foundation community, industry, federal and local governments	http://www.pittsburghlifesciences. com/content.aspx?id=capital
Pennsyl- vania	PA venture capital	•	1%, later 2% of pension assets	1985	Venture capital investments.	Pension funds	www.psers.state.pa.us
Rhode Island	Slater Technology Fund	Slater Technology Fund, Inc.	\$3 M annually	1997	Tech commercialization; seed funding through low-interest loans, equity investments, or grants to nonprofits that house a laboratory in which a company is validating research. \$11.3 M direct company investments of 24.5 M funding.	General assembly	http://www.slaterfund.com
South Carolina	Venture Capital Investment Act of South Carolina	SC Department of Commerce	\$55 M	2004	Creates 2 funds: South Carolina Venture Capital Fund and South Carolina Technology Innovation Fund. The \$50 M VC fund may provide equity, near-equity and seed capital of up to \$5 million or 15 percent of the committed capital of the investor, whichever is less. Deals must be for S.Cbased firms.	Principal protected debt securities	http://www.callsouthcarolina.com/ businessfinancingandequity.html
South Dakota	investment Entity	REDI (Revolving Economic Development and Initiative) Fund	\$12 M		Invests in capital investment entities (angel networks, private VC funds, and nonprofit development corporations) whom take equity positions in start-ups. Requires 4:1 match.	State funds through REDI	http://www.sdgreatprofits.com/F- I/CIEP.htm

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South Dakota	Entrepreneur Support Subfund	REDI (Revolving Economic Development and Initiative) Fund	\$5 M	<u>, </u>	Loans of \$30-50 K to South Dakota- based start-ups; unsecured and interest-free for first 3 years. If firm fails, loan converts to grant; if successful, must be repaid over 20 years.	State funds through REDI	http://www.sdgreatprofits.com/F- //ESP.htm
Tennessee	TennesSeed Fund	Tennessee Technology Development Corp. and Technology 2020	\$40 M	2001	Equity investments in startup companies in communications, materials processing, information-Internet technology and biotech industries in TN. Typical investments will range between \$500 K and 3 M.	\$13 M in private and institutional funding; remainder from SBA	http://www.tech2020.org
Texas	Texas Growth Fund	Texas Teachers Retirement System	\$42 M; 60 M; 350 M	1991; 1995; 1998	Later stage venture funding for TX headquartered companies.	Pension funds	http://www.trs.state.tx.us
Texas	Texas Emerging Technology Fund	ETF Advisory Committee	\$200 M	2005	\$50 M Regional Centers of Innovation & Commercialization project activity, \$25 M for emerging tech research matching grant activity, \$25 M for acquisition of research superiority grant activity.	\$100 M General Revenue (9-1-05) and \$100 M Rainy Day fund surplus (9-1-06)	http://www.governor.state.tx.us/di visions/ecodev/etf/
Texas	Texas Growth Fund	Employees Retirement System of Texas	\$100 M		Later stage venture funding for TX headquartered companies.	Pension funds	http://www.ers.state.tx.us
Utah	UTFC Financing Solutions	UTFC Financing Solutions - privately managed SBIC	\$9.6 M	2001	Invests up to \$300 K in subordinated debt financing to start-ups in Utah and surrounding states. Follow-up investments up to \$500 K.	Proceeds from State's liquidation of its interest in prior public-sector loan scheme	http://www.utfc.biz
Utah	Utah Venture Capital Enhancement Act	Utah Capital Investment Corporation	\$100 M	2003 / 2005	Venture capital funding aimed at newly domiciled firms in Utah.	Oklahoma model - tax credits	http://goed.utah.gov/fund of fund
Vermont	Vermont Opportunities Fund	Vermont Economic Development Authority (VEDA)	\$25 M	2002	VEDA's goal is to raise the \$25 M in capital and make debt/equity investments over the next 5-7 years in commercial and agriculture businesses.	VEDA (\$2 M), private capital (\$10.5 M), and \$12.5 M in SBA matching grants.	http://www.veda.org/pdf/VEDA_pl an.pdf
Vermont	Vermont Venture Capital Fund	North Atlantic Venture Capital	\$10 M (Over \$1 M in tax credits claimed)	1988	Venture capital funding. High-quality opportunities in VT that have outgrown seed capital resources but have exceeded or aren't ready for commercial bank lending resources. Return near zero on investments in 3 venture funds.	Teachers, Municipal and State Employees pension funds. Managed by North Atlantic Venture Capital.	http://www.northatlanticcapital.co <u>m</u>
Virginia	Growth Acceleration Program	Center for Innovative Technology (CIT)		2003	Invests up to \$100 K in early-stage technology companies in the form of convertible notes with outstanding principal and interest converting to a CIT equity position in the firm at the time of a qualifying financing event. Applicants must have headquarters and significant portion of operations located in Virginia, or must agree to relocate to Virginia.	CIT funds through State appropriations (\$7.15 M in 2004)	http://www.cit.org/gap-04.asp
Washing- ton	WRF Capital	Washington Research Foundation	\$25 M	1995	Seed venture fund. Invests primarily in technology-based start-up companies that have strong ties to the University of Washington and other non-profit research institutions in WA. Invests up to \$2 M and actively seeks co-investors.	Banked surplus from WRF, a nonprofit originally established by University of Washington to serve as a licensing agent	http://www.wrfseattle.org/capital/ about wrf capital.asp
Washing- ton	Life Sciences Discovery Fund	Life Sciences Discovery Fund Authority	\$350 M	2005	Designed to leverage and attract additional funding resources for life sciences research. Exact methodology is still being designed.	Tobacco settlement funds	http://www.washingtonvotes.org/ 2005-SB-5581

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Wisconsin	"Invest in Wisconsin" policy	State of Wisconsin Investment Board	\$50 M	1999	Venture capital funding. VC funds based in Wisconsin or the Midwest that would target early-stage companies being developed by the States' research universities.	Pension funds	http://www.swib.state.wi.us/invest inwisconsin.asp
Wisconsin	Bio Star Initiative	University of Wisconsin- Madison	\$317 M	2000	Build research center on UW-Madison campus.	Combination of state funding and private gifts and grants raised by the university	http://www.news.wisc.edu/packag es/biotech/whatbio.html
Wisconsin	Technology Development Fund	WI Department of Commerce		1984	Funds R&D costs for Wisconsin businesses to research and develop technological innovations. Finance up to 75% of direct associated R&D costs.	State funds through WI Department of Commerce	http://www.commerce.state.wi.us/ MT/MT-FAX-0803.html
Wisconsin	Technology Commercialization Programs	WI Department of Commerce	\$2.6 M (for 1 year)	2004	Financial assistance at various stages of product development through grant and loan programs to high-potential technology businesses: Early Stage Investment Tax Credits; Technology Assistance Grants (TAG); Technology Bridge Grants; Technology Matching Grants; and Technology Venture Fund Loans.	State funds through WI Department of Commerce	http://www.commerce.state.wi.us/ act255/
Wisconsin	Techstar	Coalition between 5 WI universities	\$1.5 M	2001	Facilitates tech transfer from universities and actively engages in management and strategic positioning of seed stage companies. Developing seed stage fund.	Marquette University, the Medical College of Wisconsin, Milwaukee School of Engineering, University of Wisconsin- Milwaukee, University of Wisconsin-Parkside, and Metropolitan Milwaukee Association of Commerce	http://www.tsearlyventures.com
Wisconsin	"Invest in Wisconsin" policy	State of Wisconsin Investment Board	\$100 M	2002	Managed internally. Venture capital in WI or Midwest healthcare or technology.		http://www.swib.state.wi.us/invest
Wisconsin	"Invest in Wisconsin" policy	State of Wisconsin Investment Board	\$444 M	1977	Managed internally. Private Debt - Direct, long-term loans (special terms) to WI companies.	Pension funds	http://www.swib.state.wi.us/invest
Wisconsin	"Invest in Wisconsin" policy	State of Wisconsin Investment Board	\$65 M	2000	Managed internally. Private Equity — Biotech in WI and other Midwest states.	Pension funds	http://www.swib.state.wi.us/invest
Wisconsin	"Invest in Wisconsin" policy	State of Wisconsin Investment Board	\$50 M	1999	Managed internally. VC partnerships in healthcare and biotech in WI or Midwest.	Pension funds	http://www.swib.state.wi.us/invest
Wyoming	SBIR Phase 0 Program	Wyoming Business Council; University of Wyoming Research Office	\$895 K	1998	Provides grants up to \$5 K to companies whilst they seek Phase I funding.	Wyoming Business Council (WBC) and the University of Wyoming (UW) Research Office	http://www.uwyo.edu/sbir/
Wyoming	Seed Capital Loan Program			2002	Loans up to \$50 K, must be matched 3:1 and repaid to State at 20% over 5 years.	State funds through Wyoming Business Council	http://www.wyomingbusiness.org
Italicized p	programs have beer	n completed or close	ed down.				