Information and Observations on State Venture Capital Programs

Report for the U.S. Department of the Treasury
and Interested Parties in the
State Small Business Credit Initiative (SSBCI)

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DEPARTMENT OF THE TREASURY
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Dear Colleagues:

On September 27, 2010, President Obama signed into law the Small Business Jobs Act of 2010 (the Act), which created the State Small Business Credit Initiative (SSBCI) and provided almost $1.5 billion to support new and existing state programs that support access to credit for small businesses and small manufacturers. SSBCI is expected to help spur up to $15 billion in lending to and investments in small businesses by requiring states to demonstrate a reasonable expectation that they will leverage in aggregate $10 in private lending for each $1 in public funds. Participating states use the federal funds for programs that help finance small businesses and manufacturers that are creditworthy, but who experience difficulty accessing credit for the loans they need to expand and create jobs.

Participating states could choose to design their individual SSBCI programs to support financial institutions' lending or to support venture capital investing. In 2011 and early 2012, Treasury approved over 140 different SSBCI programs for 57 participants, including 47 states, the District of Columbia, five territories, and eligible municipalities in Alaska, North Dakota and Wyoming. Of the total, Treasury approved 36 state-run venture capital programs in 30 states.

Under the leadership of Secretary Timothy Geithner, the Treasury Department undertook a series of initiatives to expand access to capital for small businesses. Treasury requested the enclosed report—*Information and Observations on State Venture Capital Programs*—from outside experts for their perspective on the emerging best practices in this field. The report focuses exclusively on state-run venture capital programs and reviews the following areas:

- The allocation of SSBCI venture capital funding by state;
- The distribution of SSBCI venture capital deployment strategies by state according to fund structure and according to the stage of growth of firms targeted to receive investment;
- The consultants' perspective on the principles of well-designed state venture capital programs.

Our hope is that this report will contribute to greater understanding of state venture capital programs and their potential as a tool to foster a vibrant small business financing market.

Sincerely,

Don Graves
Deputy Assistant Secretary
Small Business, Community Development,
and Affordable Housing Policy

Clifton G. Kellogg
Program Director
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1. Executive Summary

As the chief steward of U.S. economic policy, the U.S. Department of the Treasury manages a large portfolio of programs and fiscal policies intended to strengthen the U.S. economy and promote the conditions for stable economic growth by creating jobs and economic opportunities. Within this portfolio resides a new initiative for fostering innovation and job creation through a federal-state partnership that stimulates and leverages private sector investment in high-potential small businesses – "**state venture capital programs**" within the **State Small Business Credit Initiative (SSBCI)**.

Congress created and President Obama signed into law the Small Business Jobs Act of 2010, which includes the $1.5 billion SSBCI, a credit support program established to address concerns that small businesses were having greater difficulty accessing financial capital in current economic conditions. An analysis of financial support programs at the federal level indicates **SSBCI is unique as a federal program that provides funding and assistance for state-managed venture capital investment programs.**

An important feature of SSBCI is the flexibility allowed by the Act and Treasury administrators for state program managers to assess market needs in their respective states and design customized program structures, including an opportunity to invest allocated capital in existing or new state venture capital programs. As such, SSBI empowers states to play an important role as "laboratories of innovation" for designing effective programs.

SSBCI should create both near-term and long-term benefit to state venture capital programs and capital markets:

1. SSBCI represents a **meaningful federal policy response** that addresses inefficiencies in capital markets. States expect that total private investment stimulated by SSBCI VC programs **will be at least $4 billion over the five years 2012 through 2016, equal to 8 percent of the estimated $50 billion in venture capital investment in the participating states over the same period.**[1]
2. SSBCI has the potential to improve the practice of federal and state involvement in capital formation by **creating knowledge and facilitating information sharing** among practitioners. There is a recognized need for clarity on what works and does not work in capital formation policies, and SSBCI offers a rare opportunity to evaluate a diverse set of program experiments.

For state policy leaders, VC program managers, and participants in regional networks of entrepreneurs and private investors who contribute to the formation and development of job-creating, high-potential small businesses, **SSBCI represents an opportunity to comment on the appropriate roles of government in addressing critical market inefficiencies**.

[1] This excludes venture capital investment in California and Massachusetts because they do not use SSBCI capital for state venture capital programs.

This report summarizes information about SSBCI-funded state venture capital programs and the diversity of strategies used by the 30 participating states. Because states received their allocation in 2011 and early 2012, it is too early to draw quantitative conclusions of program performances. However, this report includes the Consultants' qualitative assessment of the principles of a well-designed state venture capital program. The authors encourage leaders in the "capital formation" industry to assist in the evaluation of the key attributes of state VC programs alongside the broad range of federal and state financial assistance programs for small business initiated in the past 20 years.

Initiative Context: Investment Environment Challenging for High-Potential Small Businesses

Venture capital (VC) is a category of financial capital invested primarily for equity ownership in private small businesses with the potential to grow substantially in size and value. VC investment activity in states and regions is often viewed as a leading indicator of future job creation, economic growth and competitiveness. According to a study by the National Venture Capital Association, companies backed by VC investments contribute disproportionately to job creation in the U.S., with 11% of U.S. jobs and 21% of GDP attributable to the companies that received VC investments at early development stages.[2]

Small businesses with the potential to grow rapidly and create high-paying jobs depend on an adequate and accessible supply of risk capital. When the supply of risk capital is too low, capable entrepreneurs developing fundable companies might be disadvantaged when negotiating deal terms and either move to a geography where capital is available or discontinue efforts to develop a high-growth business.

Since 2006, the national supply of venture capital has declined 32%, from $288 billion to $197 billion in 2011.[3] Many institutional investors have reduced capital commitments to VC funds at the same time that firms began distributing capital to investors from large funds raised during the 1999-2000 bubble. Also, for five consecutive years beginning in 2008, the rate at which VC firms invested capital in high-potential companies has exceeded the rate of new capital commitments to VC funds, indicating that the amount of VC available for new investments is likely the lowest it has been since 1998.[4]

Another concerning trend relates to the extreme geographic concentration of VC investment activity. **Since 2008, companies headquartered in two states – California and Massachusetts – received more than 60% of VC investments in the U.S., while these states represent 14% of the U.S. population.** As for capital supply, VC firms in these two states manage 63% of the nation's VC under management.[5]

[2] *Venture Impact: The Economic Importance of Venture Capital-Backed Companies to the U.S. Economy*, published by IHS Global Insight and the National Venture Capital Association, 2009.
[3] 2012 NVCA Yearbook, p. 18, figure 1.04.
[4] Ibid, p. 11, updated for recent press reports on data from 2012.
[5] Ibid, p. 18, figures 1.04 and 1.06.

Geographic concentration of VC activity results in part from the positive factors that make Silicon Valley and Boston leading epicenters for innovation. Excellent research institutions, a highly educated workforce, and a culture of risk taking draws entrepreneurs and investors to these regions that continue to prosper despite the substantially higher costs of doing business there. However, regional excellence and entrepreneurial culture alone do not explain the extraordinary concentration. For the U.S. economy as a whole, extreme geographic concentration of VC depicts capital inefficiencies that may inhibit the nation from realizing its full potential for innovation development and job creation.

By supporting state efforts to create and/or strengthen venture capital programs through SSBCI, the Treasury is a significant contributor to the widely embraced policy objective of increasing access to capital for high-potential small businesses. Well-designed state VC programs can and should prime the pump for long-term private sector investment and improve the overall business environment for small business to start and grow. Furthermore, state venture capital programs should not discourage or displace private sector activity, but instead should demonstrate that good investment opportunities exist in often-overlooked regions. Ultimately, state financial assistance programs for small business should reduce market inefficiencies so that private sector investment takes the lead in capital markets and innovation ecosystems.

Snapshot of SSBCI VC Programs – Program Structures and Business Investment Characteristics

As of September 30, 2012, thirty states[6] had VC programs approved by the U.S. Department of the Treasury (Treasury), representing a total of $403 million of SSBCI funds allocated to venture capital. Many states allocated funds to existing state-sponsored VC initiatives. Other states created new VC programs or launched previously designed programs that were dormant due to challenging state budget environments.

Direct investment funds and **fund-of-funds** programs were the two most commonly selected program structures for capital deployment, each representing just over one-third of the total SSBCI capital allocated to VC programs. Two other investment structures, **3rd-party managed funds** and **co-investment funds**, collectively represent just over one-quarter of the SSBCI VC program option funds.

- In **direct investment funds**, state program managers serve in the role of VC fund managers; they actively network with entrepreneurs, source deal flow, perform due diligence, assist in the recruitment of co-investors and may set terms of the investment transaction.
- In **co-investment funds**, state VC programs invest alongside private sector investors in deals meeting certain requirements, and the state program manager's role focuses on compliance rather than actively performing subjective evaluations of a company's investment potential.

[6] "State" is used to describe all SSBCI allocation recipients, including municipalities and territories

- In **fund-of-funds**, state VC program managers allocate capital to more than one VC fund that manages the processes of investing in businesses while monitoring compliance with SSBCI program restrictions.
- In **3rd-party managed funds**, the state contracts with a single external firm to manage the investment process using a single fund structure that may or may not comingle private funds.

State programs also vary in the stage of company development targeted for capital investment.

- **Pre-seed** describes "proof-of-concept" capital for entrepreneurs developing an innovation and working through the company formation stage;
- **Seed/early** describes capital investments used to form a company or in companies already formed but with insignificant revenues and no profits.
- **Expansion** or **growth** capital investments are made in small businesses with revenues and perhaps even profits that need capital in order to "scale" the business into a larger enterprise.
- **Later-stage** or **mezzanine** capital investments refer to the most conservative stage of VC investments, which still carry a greater risk profile than loans from banks. In fact, investors often structure mezzanine capital investments as subordinated debt with equity options.

Compared to the overall U.S. market for VC investments, SSBCI state VC programs focus more on pre-seed, seed and early stage investments – the stage of investment on the financing lifecycle where market inefficiencies most often exist. More than 65% of SSBCI VC program capital allocations focus on pre-seed, seed and early stage investments, compared to only 32% of total U.S. VC investments in 2011.[7]

Potential Comprehensive Benefits from SSBCI Program Activities

While highlighting the benefits of SSBCI's role in directly increasing the supply of risk capital for small business investment, many state VC program managers expect to generate additional intangible benefits from the SSBCI state VC option. Anticipated intangible benefits include:

- **"Prime the pump" for private sector investment activity.** Many states use SSBCI capital to stimulate the development of private capital markets where market inefficiencies exist. These states hope to fill gaps in capital markets, meet realistic market demand, and build regional investment capacity until the need for government intervention is dissipated.
- **Support and retain innovation, entrepreneurs and the high-potential companies they develop.** State and local leaders seek the jobs and wealth created by successful entrepreneurs, but their business environments too often lack sufficient capital resources to support them at critical development stages..

[7] National Venture Capital Association Yearbook 2012, p. 27.

- **Facilitate knowledge sharing and collaboration with peer state VC program managers.** SSBCI combines a federal capital program for all states with the flexibility for state program managers to design unique VC program structures, an unprecedented opportunity for states.
- **Development of new measurement standards, principles and best practices for state VC programs.** States invested in VC programs long before SSBCI, but with varying results and no consistent measurement standards . Many state program leaders foresee the development of new measurement standards built from common experiences and verifiable data, giving states better tools to address the risk capital needs for future programs.

Principles of Well-Designed State Venture Capital Programs

SSBCI is in the "early implementation phase" of the seven-year initiative (2011-17). While "best practices" will emerge over time from SSBCI program-specific experiences, the Consultants offer the following "principles" to the field of practitioners based primarily on their cumulative prior experiences:

1. **Understand the supply of and demand for venture capital**. Program managers with detailed knowledge of the capacity for VC investments in their state (i.e., data on number of resident VC funds, amounts of capital managed, transactions closed, amounts invested, industry focus and preferred development stages, etc.) are more likely to develop programs with targeted investment strategies that "prime the pump" for accelerated private sector investing.
2. **Focus on capacity building with an ecosystem approach**. Program managers committed to building long-term entrepreneurial capacity and a sustained venture capital presence, rather than one-off investments, are more likely to design strategies aligned with market-based principles. Several state program managers communicated how they are using SSBCI capital to boost existing development strategies designed to build innovation capacity.
3. **Create pathways to the next investment round**. The most successful VC investors are continually planning for the next financing event, actively communicating about investment opportunities and expanding professional networks to the benefit of portfolio of companies. If pathways to the next financing event are not created, small businesses receiving early-stage investments from state VC programs might not survive.
4. **Plan for the long-term and manage expectations**. Experienced managers set expectations for achieving "comprehensive returns" across a diverse portfolio of long-term investments that include reasonable projections for both financial returns and indirect economic benefits.
5. **Proactively address the potential for conflicts of interest and political influence**. Well-designed initiatives use clearly stated policies and processes to govern activities and investment decisions.

6. **Attract the most capable leaders to manage resources.** Successful programs recruit capable fund managers with specialized skills and credibility with elite entrepreneurs and investors.
7. **Measure results accurately with defensible logic**. In an industry without recognized standards for measuring results, experienced program managers define credible measurement standards at the outset and then measure results consistently and with third party validations.
8. **Align state economic development interests with the financial interests of fund managers and limited partner VC fund investors.** States should participate in the financial returns from successful investments in order to provide future capital resources for new investments.

Recommendations Related to SSBCI State Venture Capital Programs

As a byproduct of the technical assistance provided to the Treasury's SSBCI team, the Consultants have drafted recommendations for consideration by the Treasury and the body of SSBCI VC program managers, the details of which are described in the body of this report:

1. **Treasury should continue its efforts to work with the industry of state venture capital programs in order to describe common challenges, clarify the lessons learned and identify emerging best practices**.

2. **Treasury should encourage the sharing and review of transaction-level data and the development of impact measurement policies, which are important to assessing the performance of SSBCI VC programs over the program period that ends in 2017 and beyond**. Policy leaders should be cautioned that it is likely that state VC programs will record some financial losses before 2017, while the financial successes and comprehensive returns will come over a longer period.

3. **Federal policy leaders should build on the foundation established by SSBCI to support state venture capital programs that operate on the principles of a well-designed program identified in this report**.

4. **Future federal venture capital initiatives should require relevant program-specific training for VC program managers**. VC program managers empowered by state government leaders range from novice to expert with respect to their preparedness to manage VC programs, and therefore need a common baseline of knowledge about options for design and operation of a state venture capital program.

5. **States should implement capital formation initiatives as part of a comprehensive strategy for supporting entrepreneurial ecosystems, and the federal government should seek to foster the development of regional innovation networks with complementary development strategies**.

2. SSBCI Venture Capital Option

Congress created and President Obama signed into law the **Small Business Jobs Act of 2010**, which includes the $1.5 billion **State Small Business Credit Initiative (SSBCI)**, a credit support program intended to address concerns that small businesses were having greater difficulty accessing capital following the national economic crisis of 2008. SSBCI provides direct funding to states, the District of Columbia, territories and approved municipalities for strengthening existing programs that expand access to credit for small businesses.

An important attribute of SSBCI is the flexibility afforded state leaders in program design to address local market conditions affecting small businesses and manufacturers. States can play an important role as "laboratories for innovation" for designing effective programs. By permitting states the leeway to customize venture investment strategies within given parameters, the initiative may set a new precedent for federal-state economic development collaborations that build on state capabilities with federal funding.[8]

The amount of SSBCI funds states received was based on a formula established by Congress that took into consideration state populations and job losses following the 2008 economic crisis. The minimum state allocation was $13.2 million. States were required to apply for SSBCI funds using a standard application process that included planned uses of funds, projected economic benefits attributable to the program and the projected amount of private sector leverage. States were required to show a "reasonable expectation" that their program design and overall financial projections would achieve a private leverage ratio of 10:1 by the end of 2016.

States that applied early for SSBCI funds began using the capital by June 2011, and all participating states must use SSBCI funds for program purposes through March 2017. As

[8] The existing federal and state financial assistance programs for small businesses are structured such that it is not possible to compare the relative outcomes of federal programs that stimulate private sector investment. In general, the federal programs conform to specific agency program goals, such as the DOD, EPA and NASA direct investment programs, or are designed to enhance private investment vehicles, such as the SBICs, RBICs and New Markets Tax Credit Programs. The existing state programs are diverse and not funded from a single source, which inhibits state-to-state comparisons.

Program Structure	Federal Government	State Government
Direct Investment	DOD (DARPA, In-Q-Tel, OnPoint), EPA, NASA, DOE (ARPA-E), SBIR/STTR	State-managed VC funds, co-investment funds and proof-of-concept fund initiatives
Fund-of-Funds	SBA (SBICs), USDA (RBICs)	State pension funds, state-financed fund-of-funds programs
Tax Credit Financing	New Markets Tax Credits, Renewable Energy Tax Credits, Investment Tax Credits.	Angel investor tax credits, tax-credit financed VC programs

designed, states may retain SSBCI capital at the program's conclusion to continue their SSBCI programs or reallocate the resources for other purposes.

In addition to the credit support programs designed for financial institution's commercial lending, SSBCI provided states the opportunity to create or support "venture capital" (VC) programs to serve the segment of high-growth potential small businesses carrying a risk/reward profile underserved by banks.

Venture capital is financial capital provided to high risk, high-growth potential startup companies. Professional investors managing VC generally specialize in emerging technologies and the unique challenges of small companies with ambitions to grow rapidly. Managing a VC firm requires embracing and managing risk as an opportunity to achieve extraordinary outcomes. VC funds invest capital in exchange for ownership interests in companies positioned to grow their overall value by several multiples of their current value. One "home run" investment in ten could yield above-market returns for a VC fund, even with several write-offs in the portfolio.

Even with the SSBCI VC option, there are fewer state VC programs than well-established lending support programs. However, state leaders increasingly recognize that emerging high-potential small businesses disproportionately create high-wage jobs and economic growth. The Consultants believe that participating States requested to use their SSBCI allocation for VC programs among eligible program types for a couple reasons:

- Several states reported that demand from lenders for enhanced loan programs was lower than expected. Many banks are working to reduce portfolios of marginally acceptable loans, and with interest rates historically low, some banks see the profit potential from an incremental portfolio of small business loans as not aligned with the risks inherent in a still-recovering economy.

- Several states saw SSBCI as an opportunity to begin or strengthen VC programs constrained by state budgets beset by lower state revenues. Due to the inherent risks and long maturation cycles for companies in the VC profile, state officials often devote limited state funds to more traditional business support programs. With the availability of new resources provided by SSBCI to stimulate capital investment, many states recognized an opportunity to start or strengthen programs for which state funds have been unavailable at scale.

As of September 30, 2012, thirty states and territories operated VC programs approved by the U.S. Department of the Treasury (Treasury), representing a total of $403 million of SSBCI capital. Six additional states and territories were in the process of modifying applications to add VC programs and/or transfer funds previously allocated by the states to non-VC SSBCI programs.

States participating in SSBCI allocated funds to either Capital Access Programs (CAP) or Other Credit Support Programs (OCSP), of which there were several options[9], including one for VC programs:

> *Venture capital programs: These programs provide investment capital to create and grow start-ups, early-stage and mid-stage businesses, often in one of two forms: (1) a state-run venture capital fund (which may include other private investors) that invests directly in businesses or (2) a fund-of-funds, which is a fund that invests in other venture capital funds that in turn invest in individual businesses. Many factors, particularly resources and available talent, inform a state's decision on which form to choose.*[10]

[9] Eligible lending programs included Capital Access Programs, loan guarantee programs, loan participation programs, and collateral support programs.

[10] U.S. Treasury SSBCI Program Profile: Venture Capital

Exhibit 1

SSBCI VC program allocations by state, as percentage of total SSBCI allocations

State	Total Allocation ($millions)	VC Allocation ($millions)	$ for VC as % of Total Allocation
American Samoa	10.4	0.0	0%
Anchorage, AK	13.2	13.2	100%
Alabama	31.3	0.0	0%
Arizona	18.2	18.2	100%
Arkansas	13.2	4.7	36%
California	168.6	0.0	0%
Colorado	17.2	0.0	0%
Connecticut	13.3	0.0	0%
Delaware	13.2	0.0	0%
District of Columbia	13.2	0.0	0%
Florida	97.6	43.5	45%
Georgia	47.8	0.0	0%
Guam	13.2	0.0	0%
Hawaii	13.2	13.2	100%
Idaho	13.2	0.0	0%
Illinois	78.4	20.0	26%
Indiana	34.3	34.3	100%
Iowa	13.2	5.0	38%
Kansas	13.2	2.6	20%
Kentucky	15.5	0.0	0%
Louisiana	13.2	5.1	39%
Maine	13.2	3.0	23%
Maryland	23.0	6.5	28%
Massachusetts	22.0	0.0	0%
Michigan	79.2	6.0	8%
Minnesota	15.5	1.0	6%
Mississippi	13.2	0.0	0%
Missouri	26.9	16.9	63%
Montana	13.2	0.0	0%
Nebraska	13.2	13.2	100%
Nevada	13.8	0.0	0%
New Hampshire	13.2	4.5	34%
New Jersey	33.8	5.0	15%
New Mexico	13.2	0.0	0%
New York	55.4	26.0	47%
North Carolina	46.1	10.0	22%
Northern Mariana Islands	13.2	0.0	0%
Ohio	55.1	15.0	27%
Oklahoma	13.2	13.2	100%
Oregon	16.5	0.0	0%
Pennsylvania	29.2	5.0	17%
Puerto Rico	14.5	2.0	14%
Rhode Island	13.2	11.0	83%
South Carolina	18.0	0.0	0%
South Dakota	13.2	0.0	0%
Tennessee	29.7	29.7	100%
Texas	46.6	46.6	100%
U.S. Virgin Islands	13.2	0.0	0%
Utah	13.2	0.0	0%
Vermont	13.2	0.0	0%
Virginia	18.0	0.0	0%
Washington	19.7	5.0	25%
West Virginia	13.2	7.7	58%
Wisconsin	22.4	16.0	71%
TOTAL	**1434.8**	**403.1**	**28%**

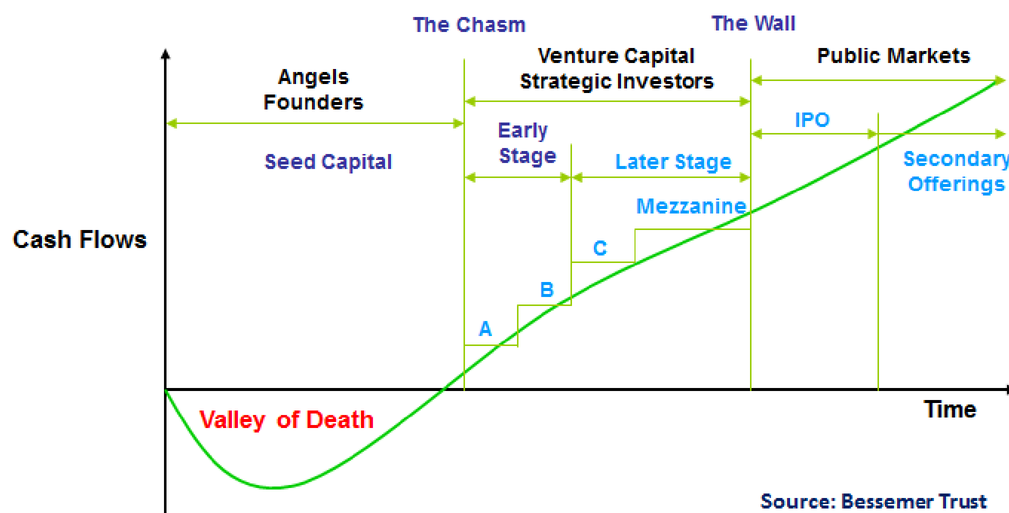
Within the VC option category, states created, and are implementing, a variety of programs. The most important variables within the VC option relate to the ***stage of investing*** that the program targets, if any, and the ***structure*** of the VC program for capital deployment to small businesses.

1. Stage of Investing

Many high-growth potential companies progress through a common development lifecycle, the stages of which pose different types of risks to investors. Generally, early stage investments carry relatively greater risk and the potential for greater returns than later stage investments. As a company matures, the risk of financial loss to investors decreases, and the different phases of company maturation along the "capital continuum" or "financing lifecycle" are served by different types of investors.

Exhibit 2

"Capital Continuum"; source: Bessemer Trust



Most SSBCI VC programs designed by states focus on a particular stage of investing. The Consultants classified investment stages similar to, but not exactly aligned with, the definitions used in the *MoneyTree*™ report published by PricewaterhouseCoopers and the NVCA. For SSBCI, the investment stages are described as follows:

a. Pre-seed and "Proof of Concept" Funds

At the earliest stages, the company may represent little more than an entrepreneur's idea, or a conceptual but unproven technological innovation developed by a scientist or engineer at a

research institution. Companies at this formation stage typically have no full-time employees. Investors put very small amounts of capital in the business, typically $15k to $150k, depending on the degree of technology development work involved in providing evidence that the innovation is viable technically.

Oklahoma (24% of allocation), **Missouri** (7%) and **Iowa** (6%) allocated a portion of their VC program funds to pre-seed investments, most of which will fall into the high-technology "proof of concept" category. University technology transfer offices commonly refer opportunities to proof of concept programs with the goal of introducing the researcher and his/her innovation to strategic angel investors following successful outcomes from the pre-seed investment. Failure rates from proof of concept investments can range as high as 80%, and even successful technology experiments may not receive follow-on capital if investors perceive the market size of the problem solved as too small.

Rhode Island committed 18% of its SSBCI VC program funds to a startup business "accelerator" called Betaspring that provides pre-seed capital along with intensive training, mentoring and relationship building. Business accelerators attract idea stage entrepreneurs with primarily low-tech solutions to a perceived market need. The accelerator invests a small amount of capital ($12k-$20k) in teams that enroll in an intensive 12-week mentoring program. At the conclusion, the teams pitch angel investors for seed capital to launch their small businesses. Betaspring is similar in design to national accelerator models such as Tech Stars and Y Combinator. Like proof of concept funds, startup accelerators are expected to experience high failure rates for the firms they support. However, success rates are bolstered by the value-add services provided, and successful companies that raise subsequent rounds of investment capital can yield substantial leverage and comprehensive returns on the small amounts of capital invested.

b. Seed Capital and Early Stage Funds

State VC programs commonly combine seed and early stage investments into a single category when describing the scope of their investment programs. Seed capital is the first investor money used to start the business and launch the first product/service. All seed capital investments are early stage investments, the more expansive definition used to describe high-potential small businesses that are rapidly developing and introducing new products but are not yet profitable. Investment risks are lower in early stage investments than pre-seed investments because early stage private investors generally do not begin funding market penetration activities until there is an acceptable level of confidence that the technology is viable. The tolerance for financing technology risk varies across industries with life sciences and energy technology more likely to attract VC investment prior to market introduction. However, failure rates at this stage remain very high – with an experienced-based estimate in the range of 40-60%[11] - because the "market risk" is typically unproven until the products or services are

[11] Robert Wiltbank and Warren Boeker, Ewing Marion Kauffman Foundation, "Angel Investor Performance Project," November 2007. According to this report, 39% of reported angel investments returned less than 1X original capital from all investments, of which 75% were seed/startup. Loss rate is expected to be higher for non-responding angel investors and less for later stage investments in the survey.

developed and efforts are made to attract paying customers. For this reason, seed/early stage venture capital funds are less common outside Silicon Valley, and angel investors are the most common sources of capital for seed/early stage high-potential small businesses across the country.

This category encompasses more than 65% of SSBCI funds in VC programs ($257 million), with 23 out of 30 states with VC programs committing some portion of their funds to seed/early stage investing. Technology-Based Economic Development (TBED) program leaders and the communities they serve are strong advocates for government support of seed/early stage investing. Most TBED program leaders see government capital programs such as SSBCI as critical to helping high-growth potential small businesses accelerate the closing of capital rounds. By increasing access to capital, state leaders endeavor to retain the company in their own state rather than see the company relocate to areas of the country with greater access to seed/early stage capital.

Program managers of seed/early stage VC programs should monitor "investment drift." In prior experiences unrelated to SSBCI, the Consultants observed VC funds apply for funds from government-sponsored programs on the alleged merits of their expertise in seed/early stage investing, only to favor more mature investments once in control of the funds. Although the demand for seed/early stage capital far exceeds the supply, investment managers are tempted to migrate to the least risky investments allowed.

c. Later Stage VC, Mezzanine and Debt Funds

"Growth" capital invests in small businesses that can demonstrate established demand for their products and/or services and require capital to scale or expand. Investors often describe growth capital investments as financing "execution risk," meaning that the technology has been proven to work, customers have shown a willingness to buy the products or services at reasonable prices, and the risk-reward profile relates to whether the business can sufficiently grow its market share to achieve profitability and/or sell the business to a competitor at a premium valuation.

Compared to seed/early stage capital, there is a greater supply of later stage VC and "mezzanine" capital – a broad term commonly used to describe subordinated loans to growth stage companies with some kind of upside participation, either via warrants to purchase equity or a royalty on revenues. Investors in later stage businesses provide less guidance/mentoring to management teams than do seed/early stage investors, and they typically base investment decisions more on business fundamentals than deep industry domain experience and future high-growth projections.

Later stage and mezzanine funds appeal to government program managers because they can more directly correlate investments to immediate jobs growth. **Michigan, Ohio** and **Arizona** allocated their entire SSBCI VC funds to mezzanine/debt funds because their non-SSBCI programs already addressed the capital needs of seed/early stage small businesses, and the

program managers perceived near-term opportunities to use mezzanine/debt investments to help manufacturing companies capitalize immediate growth plans.

Exhibit 3

SSBCI VC program projected capital allocations by investment stage

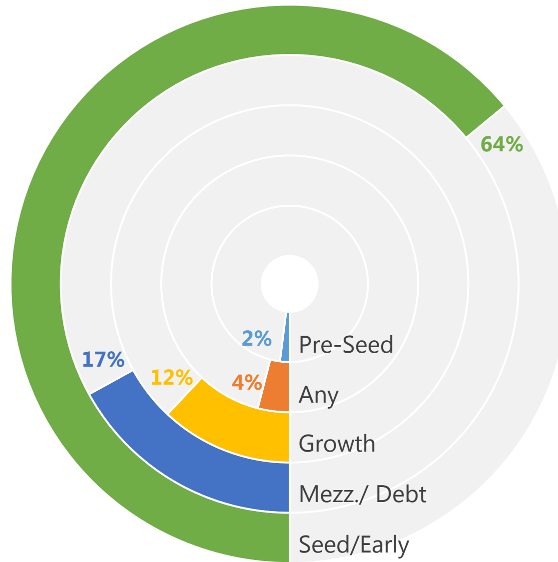
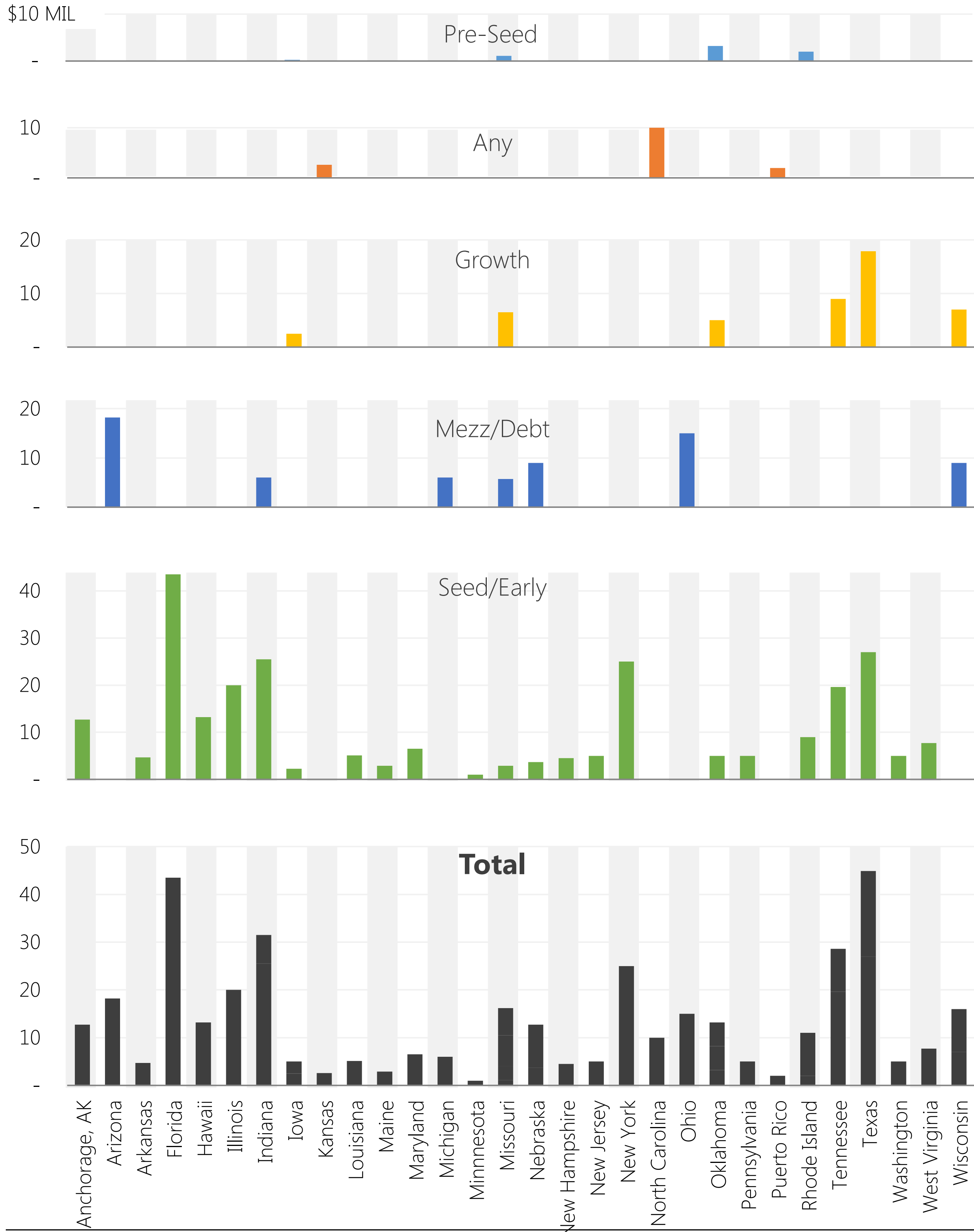


Exhibit 4
SSBCI VC program capital allocations by state and projected stage of investing

		Stage of Investing				
State	**Total**	**Any**	**Pre-Seed**	**Seed/Early**	**Growth**	**Mezz./Debt**
Anchorage, AK	$ 13.2			$ 13.2		
Arizona	18.2					18.2
Arkansas	4.7			4.7		
Florida	43.5			43.5		
Hawaii	13.2			13.2		
Illinois	20.0			20.0		
Indiana	34.3	2.8		25.5		
Iowa	5.0		0.3	2.2	2.5	
Kansas	2.6	2.6				
Louisiana	5.1	-		5.1		
Maine	3.0			3.0		
Maryland	6.5			6.5		
Michigan	6.0					6.0
Minnnesota	1.0			1.0		
Missouri	16.9	0.7	1.1	2.9	6.5	5.7
Nebraska	13.2			4.2		9.0
New Hampshire	4.5			4.5		
New Jersey	5.0			5.0		
New York	26.0			26.0		
North Carolina	10.0	10.0				
Ohio	15.0					15.0
Oklahoma	13.2		3.2	5.0	5.0	
Pennsylvania	5.0			5.0		
Puerto Rico	2.0	2.0				
Rhode Island	11.0		2.0	9.0		
Tennessee	29.7			20.7	9.0	
Texas	46.6			27.0	19.6	
Washington	5.0			5.0		
West Virginia	7.7			7.7		
Wisconsin	16.0				7.0	9.0
Total Allocated to VC	$403.1	$18.1	$6.6	$259.9	$49.6	$62.9
Percentage of Total		4.5%	1.6%	64.5%	12.3%	15.6%

Exhibit 5
SSBCI VC program capital allocations by state and projected stage of investing



2. Structures of VC Programs

The SSBCI VC programs were categorized using four types of program structures for capital deployment: Direct Investment Fund, Fund-of-Funds, Co-investment Fund, and Third-Party Managed Fund.

Exhibit 6
SSBCI VC program capital allocations by structures

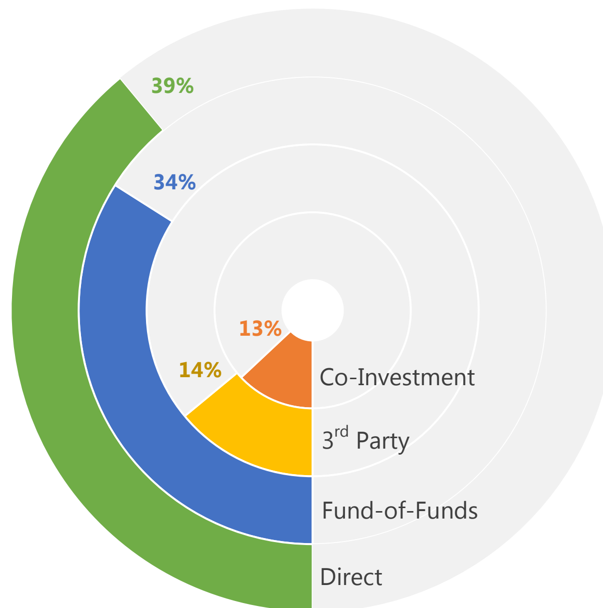
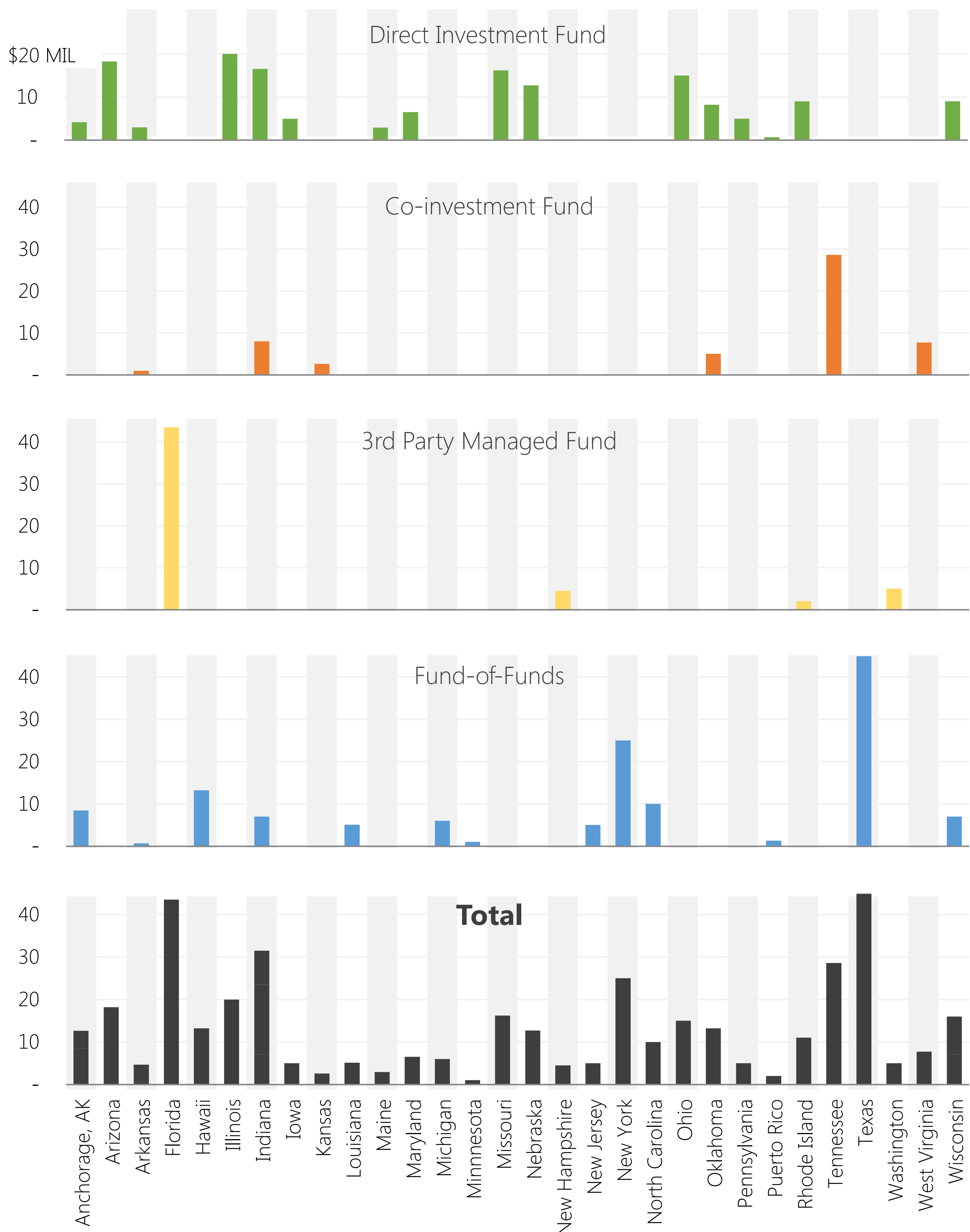


Exhibit 7

SSBCI VC program capital allocations by state and program structure

State	Total	Structure			
		Fund-of-Funds	Direct Investment	3rd Party Managed	Co-Investment
Anchorage, AK	$ 13.2	$ 8.7	$ 4.5		
Arizona	18.2		18.2		
Arkansas	4.7	0.7	3.0		1.0
Florida	43.5			43.5	
Hawaii	13.2	13.2			
Illinois	20.0		20.0		
Indiana	34.3	7.3	18.0		9.0
Iowa	5.0		5.0		
Kansas	2.6				2.6
Louisiana	5.1	5.1			
Maine	3.0		3.0		
Maryland	6.5		6.5		
Michigan	6.0	6.0			
Minnnesota	1.0	1.0			
Missouri	16.9		16.9		
Nebraska	13.2		13.2		
New Hampshire	4.5			4.5	
New Jersey	5.0	5.0			
New York	26.0	26.0			
North Carolina	10.0	10.0			
Ohio	15.0		15.0		
Oklahoma	13.2		8.2		5.0
Pennsylvania	5.0		5.0		
Puerto Rico	2.0	1.3	0.7		
Rhode Island	11.0		9.0	2.0	
Tennessee	29.7				29.7
Texas	46.6	46.6			
Washington	5.0			5.0	
West Virginia	7.7				7.7
Wisconsin	16.0	7.0	9.0		
Total Allocated to VC	$403.1	$137.9	$155.2	$55.0	$55.0
Percentage of Total		34.2%	38.5%	13.6%	13.6%

Exhibit 8
SSBCI VC program capital allocations by state and structures



a. Direct Investment Funds

Just over half of state VC programs use state agencies and/or quasi-state entities (typically formed as nonprofit public/private partnerships) to manage SSBCI funds with the roles and responsibilities of a VC fund. The staff of these organizations meet with small business owners, solicit business plans for review, perform due diligence on investment opportunities, collaborate with co-investors and may even set deal terms and serve on the company's boards of directors. States like **Indiana**, **Maryland**, **Oklahoma**, **Pennsylvania, Maine** and **Rhode Island** have experience with investing taxpayer funds in pre-seed and seed/early stage small businesses for economic development purposes but with the goal of earning "comprehensive returns." Comprehensive returns include direct financial returns plus indirect economic development returns. Several of these programs have well-established systems of processes and controls, solid reputations with business leaders, and experienced investment professionals. These programs offer examples of managing funds with the goal of making investments in high-potential companies and supporting the regional ecosystem that mentors and invests in entrepreneurs that aspire to develop high-growth potential companies.

Program leaders in **Illinois, Anchorage** and **Missouri** established new programs with SSBCI capital to make direct investments in companies. The Missouri and Anchorage, AK teams are primarily *leading* investment rounds, typically making the first commitment of capital and establishing the deal terms that other investors would follow. Illinois is also playing an active role in catalyzing investment rounds, but with a policy of not leading investment rounds. Instead, Illinois begins investment due diligence with seed/early stage companies that already have a lead investor but need substantially more capital to close the round. By making investment commitments that *accelerate* momentum towards achieving the close that will allow the small businesses to access the capital, Illinois program hopes to have a direct impact on helping high-potential small businesses obtain key financing for development activities.

b. Fund-of-Funds

In this structure, the SSBCI funds are managed by third party investment managers, with the state investing capital in more than one privately managed fund. The state's investment decision focuses on choosing fund managers that, once selected, make investment decisions in small businesses based on an approved strategy without direct state involvement. The SSBCI capital might or might not be comingled with funds from non-federal sources in these fund structures.

New Jersey and **Hawaii** leverage the infrastructure from previously established state-sponsored fund-of-funds programs to make new commitments to funds making seed/early stage investments in industry sectors aligned with the state's economic development goals. **Louisiana** is investing $5 million in seed/early stage VC funds focused on commercializing medical technologies from the state's universities and hospitals. **New York** is investing $25 million in five regional VC funds making seed/early stage investments with the goal of providing greater

access to capital for high-potential small businesses outside the thriving VC community in New York City. **Michigan** allocated $6 million for LP investments in two regional mezzanine funds with a focus on financing growth plans of mid-size manufacturers that have had challenges maintaining critical banking relationships due to tightened credit review processes. **North Carolina** is investing $10 million across five in-state VC firms that are actively engaged in fund-raising processes for new VC funds. **Texas** quickly allocated $27 million to two funds managing in-state CAPCO funds, then initiated a fund-of-funds application process for six or more regional angel investor networks to manage a pool of $18 million of SSBCI funds for investments in seed/early stage high-potential small businesses. **Indiana** and **Arkansas** are implementing VC programs with more than one investment strategy for capital deployment, and both states have allocated a portion of their total allocations to VC for a fund-of-funds model. Indiana has allocated $5.5 million of SSBCI capital to seed investment funds through a competitive process, and Arkansas is working to commit an estimated $685,000 to regional angel/seed funds for investment in small businesses.

c. Third-Party Managed Funds

Some states engage a single private-sector investment manager (not associated with state government) to invest SSBCI funds through a single venture capital program structure. **Florida's** state-sponsored non-profit responsible for the tech-based economic agenda, Enterprise Florida, entered into a management contract with Arsenal Venture Partners to invest its entire $43.5 million SSBCI VC program allocation via a stand-alone fund directly in high-potential small businesses. **New Hampshire** intends on committing its $3.3 million VC program allocation as a limited partner investment in Borealis Ventures, which is using this anchor investment to market a $30 million seed/early stage VC fund that will invest exclusively in New Hampshire small businesses. **Rhode Island** outsourced management of a seed investment fund to Betaspring, which is operating a startup accelerator investment model. **Washington** allocated its entire $5 million SSBCI VC program allocation to the newly created W Fund, managed by the technology transfer office at the University of Washington.

d. Co-investment Funds

Several states are deploying fund structures that simply match private sector investments at pre-determined ratios. State program managers have review processes in place that focus primarily on whether the applicants meet the minimum eligibility requirements rather than evaluating the financial merits of the investment proposal. Unlike direct investment funds, program managers of state co-investment funds are not directly responsible for sourcing deal flow, conducting due diligence on investment opportunities, establishing deal terms, identifying strategic investors for the syndicate and ongoing oversight of the investment portfolio.

Tennessee allocated its entire $29.7 million SSBCI allocation to a program that matches investments by "approved investors" that paid a fee and completed an application process. The ratio of the private sector match varies from 2:1 to 4:1 depending on the amount of non-federal capital invested. **Kansas** created a $2.7 million co-investment fund that limits the state's capital participation to 9% of an investment round and not more than $250,000. **West Virginia**

used its $7.7 million SSBCI VC program allocation to launch a co-investment program in which the *initiating* investor from a list of approved funds/organizations assumes the ownership interest in the SSBCI capital from the state. **Oklahoma**, **Indiana**, and **Arkansas** use a portion of their SSBCI VC program funds to make co-investments in high-potential small businesses backed by angel investors.

3. Venture Capital as Economic Driver

Prior to SSBCI, many states experimented with state-sponsored programs intended to create high-paying jobs and stimulate development of innovation-based economies through capital investments in high-potential small businesses. Most of these programs operated at a relatively small scale in comparison to the VC industry and state investments in traditional economic development incentive programs, such as relocation assistance or job training incentives. Disparate program structures and the competencies of program managers, as well as a general lack of program measurement standards, make comparative evaluations minimally valuable to policymakers.

Public and private sector organizations engaged in regional innovation ecosystems generally advocate technology-based economic development (TBED) policies that support state VC programs, including:

- Strong research institutions (universities and non-academic laboratories like federal or non-profit labs) and their "technology transfer" offices;

- Focus on entrepreneurs and innovators with high-growth aspirations, as differentiated from "lifestyle" entrepreneurs that self-employ to serve a local market need; and

- Engaging investors in high-growth potential small businesses, such as VC investors that primarily invest capital from pension funds, family trusts, and university endowments, and "angel investors" that primarily invest personal funds directly as individuals or through affiliated networks of accredited investors.

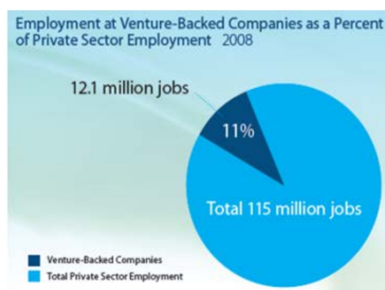
Advocates generally claim that high-growth potential companies are a small segment of small businesses that disproportionately contribute to innovation development, job creation and wealth creation in regional economies. Anecdotal evidence is widely used because most regions can point to "pillar companies" that employ thousands of workers and contribute substantially to the regional economy. However, commonly gathered economic data and statistics are insufficient to support

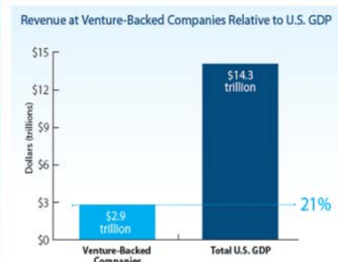
Exhibit 9
Economic Impact of Venture Capital; Source: NVCA

Venture Capital 101 – Economic Impact

For **every dollar of venture capital invested** from 1970 to 2010, **$6.27 of revenue was generated** in 2010.

Annual venture investment **equals less than 0.2 percent** of U.S. GDP. Annually, VC-backed companies **have generated revenue equal to 21 percent** of U.S. GDP.





the anecdotal evidence because the data does not properly differentiate between lifestyle entrepreneurs and those with high-growth ambitions.

Some economists seek to define a category of high-growth businesses called “gazelles” – companies that grow revenues 20% or more for at least four consecutive years starting from a base of at least $1 million in revenue. In his seminal publication, *The Job Generation Process,* MIT economist Dr. David Birch estimated that just 4% of companies created 70% of the nation’s new jobs,[12] and that most of these companies had fewer than 100 employees.[13] Determining how to stimulate job creation from gazelles, however, is a major challenge for policymakers.

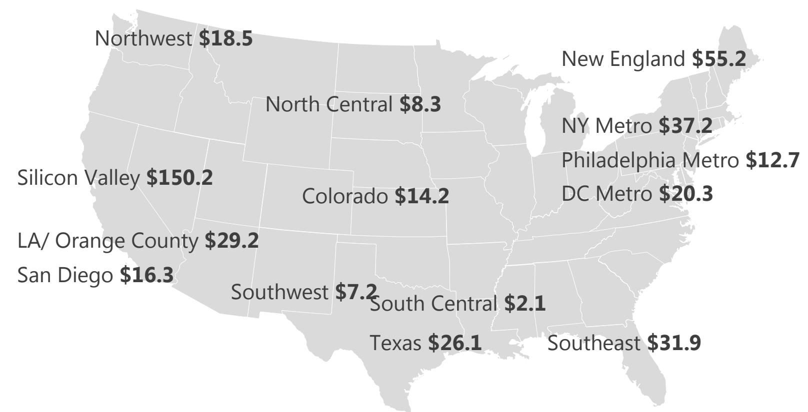
TBED program advocates generally agree that VC programs are an essential component of strategies to stimulate regional innovation ecosystems. Venture capital -- *financial capital provided to early-stage, high-potential, high risk, growth startup companies-* is commonly used to finance the critical development and growth stages of gazelle companies before they reach gazelle status. A study by the National Venture Capital Association attributes 11% of total U.S. private sector jobs to companies backed by VC during development or growth stages, and these companies account for 21% of U.S. GDP.

There are many challenges, however, to achieving the promise and potential of VC programs sponsored and/or managed by government entities:

- ***VC focuses more on “wins” rather than “mistakes”*** – The venture capital fund business model is premised on a portfolio theory that a very few investments will achieve extraordinary financial returns that more than offset the high number of firm failures in the balance of the portfolio. Even the most highly regarded VC funds often have several write-offs in their portfolios. A fund’s good reputation is earned by a relatively small number of investments that return >10X of cash proceeds relative to the original investment. Some VC funds will fail in their quest for the “home run” investment, and many of the write-offs, with the luxury of hindsight, can look like bad decisions with taxpayer dollars. A challenge for state VC program managers is to educate government officials at all levels about the comprehensive benefits from stimulating VC investment in homegrown high-potential small businesses in a portfolio approach.

[12] http://www.investopedia.com/terms/g/gazellecompany.asp#axzz28iyjOlUx
[13] http://kb.trilincanalytics.com/upload/a7/a7748348a9dc009.pdf

Exhibit 11
VC investment around the country ($bil), 1970-2008



- ***VC performance incentives are should be aligned with the regulatory requirements of government funding*** – A dozen years ago, private equity dollars flowed liberally into the VC sector, establishing hundreds of new firms with management fees to the fund managers guaranteed for 10-12 years. A common debate at that time was whether to accept government pension funds as limited partner investors if doing so required disclosures of investments and returns that fund managers would prefer to keep out of public view. Following the 2008 financial crisis, however, the scarcity of new capital commitments led many capable VC firms to consider participating in government-financed capital programs that require participating funds to invest state funds exclusively within state borders, invest capital within certain timeframes, and/or incur penalties if investees relocate jobs to another state. In theory, such state restrictions can dampen financial returns, making resident VC funds less competitive in the contracting market for institutional capital focused exclusively on financial returns.

- ***Scarcity of capital allows VCs to invest opportunistically rather than engage in the risks/rewards of company building*** – Outside the economic anomaly of Silicon Valley, VC fund managers afforded the privilege of managing capital from limited partner investors are extraordinarily selective in the opportunities they pursue. Most admit to rejecting 90% of business plans received after a single read. With the pipeline of *aspiring* high-potential entrepreneurs far greater than the supply of capital, some VC fund managers can afford to position their investment strategy to focus on firms just beyond the

Exhibit 10
Data on number of companies receiving VC investments annually; Source: NVCA

How many companies receive VC financing each year?

- In 2010, venture capitalists invested approximately **$23 billion** into nearly **2,749 companies.**
- Of these, 1,001 companies received funding for the first time.

Deal flow...a challenging course:

Business plans detailed review due diligence funded

"valley of death" and cherry-pick only the survivors. Many tout the scarcity of VC fund competitors in their region as a selling point to prospective LPs in their funds, reasoning that they can negotiate lower valuations from entrepreneurs and thus set the stage for higher investment returns. If true, established VC fund managers may not have their interests aligned with state VC programs looking for high-volume investments and transformational outcomes. They are less inclined to engage in the "missionary work" of mentoring entrepreneurial leaders.

A significant challenge for the nation's innovation economy results from the **extreme geographic disparity in the management and investment of VC**. Historically, Silicon Valley and Boston are the two regions where the VC industry is deeply rooted. They are regions with elite research institutions that "spilled over" innovation and engineering talent to create new industries with transformative impacts on global economies. Bolstered by early successes, pioneering VC firms began selling the "Silicon Valley" and "Route 128" story to limited partner investors across the U.S., including state pension funds and university endowment funds, raising tens of billions of dollars from institutional investors and managing the capital from the center of two closely knit technology and business communities.

In the late-1990s, extraordinary investment gains from the "bubble" economy fueled by dot-com and telecom innovations created an enormous wave of capital into VC funds. As institutional and private investors increased capital commitments to the investment class, entrepreneurs and finance professionals from other disciplines like investment banking entered the market and launched hundreds of new VC firms. At the peak of the frenzy in 2000, investors placed $100 billion of new capital commitments into VC funds.

Market corrections following the bubble economy fallout continue to challenge the innovation economy outside Silicon Valley and Boston. A major issue arose when the stock market faltered in April 2000 and the "IPO window" that had been wide open for startup companies to raise large amounts of financing was essentially closed. Without the ready access to public markets, VC investor options for exiting an investment profitably were limited, forcing VCs to hold investments longer and finance company operations until their portfolio companies matured through development stages and achieved substantial revenues and profits. Also, with so much capital under management needing to be placed in high-potential companies, valuations were perceived to be inflated, and the value of many VC investments were soon under water after the market corrections

took hold. The net result was that the aggregate VC returns to limited partner investors from VC funds launched from 1999-2001 were far below historical averages, and many funds and investors lost money from their investment commitments to VC funds.

From 2004-06, industry observers noted a general trend away from seed/early stage VC investing towards later stage VC and mezzanine investments. Two recognized factors drove this trend:

1. By 2004-2006, the maturation of companies that received seed/early stage investments during the active investment period of 2000-02 needed growth capital that could not be obtained before the IPO window closed, and

2. Stories of "dot-com disasters" soured the market for seed/early stage investing as a strategy for generating strong investment returns.

Then, in 2008, the global financial crisis created stresses for the VC industry not directly related to industry performance. Many large institutional investors, faced with losses in their overall portfolios, curtailed new VC commitments by policies capping the percentage of total investments allocated to private equity. For example, a pension fund with $10 billion of assets and a 10% allocation to private equity quickly found its $1 billion VC portfolio equal to 12.5% of its portfolio when its assets declined to $8 billion. In the years since 2008, the VC industry has seen four consecutive years where the amount of capital invested by VC funds in companies has exceeded the rate of new capital commitments from LP investors into funds. Like a lake after four consecutive years of below average rainfall, the pools of capital available for investments in high-potential companies are approaching the lowest levels seen in 15 years due to a lack of replenishment.

Exhibit 13

Capital commitments to VC funds, 2000-2011; Source: PwC MoneyTree

Raising capital for VC = boom and bust cycles

Funds Committed to Venture Capital		
Year	Number of Funds	VC Raised ($MM)
2000	635	$ 106,082
2001	305	$ 37,961
2002	179	$ 3,937
2003	152	$ 10,606
2004	208	$ 19,058
2005	228	$ 28,283
2006	229	$ 31,698
2007	235	$ 34,676
2008	212	$ 25,340
2009	160	$ 16,401
2010	157	$ 12,308
2011	181	$ 18,768

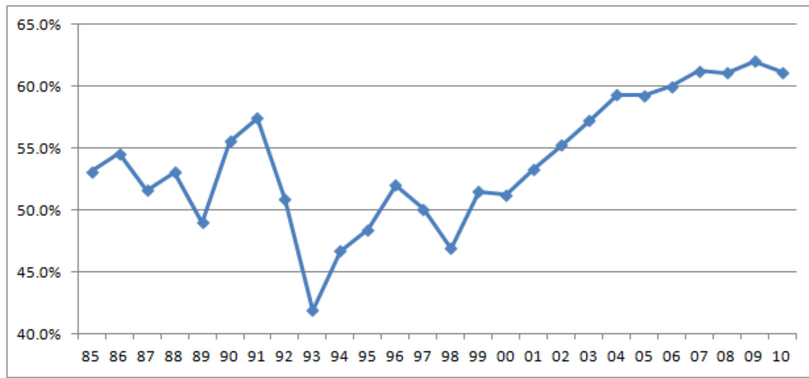
"Dot Com Bubble"

Market shock

Market shock

Normalizing trend?

Exhibit 14
VC Investments in California and Massachusetts Companies as Percentage of Total VC Investments in U.S. Companies – 1985-2010



While the national pool of VC for high-potential companies has declined, the concentration of VC increased. Since the dot-com/telecom era, Silicon Valley and Boston have steadily increased their combined market share of the VC industry, helping their states far outperform other states in terms of VC investments per capita. Since 2006, more than 60% of U.S. companies receiving VC investments were located in California and Massachusetts. Prior to 2006, the combined totals had never reached 60%.

Why has VC concentration increased to unprecedented levels? One possible explanation is that VC firms thriving in California and Massachusetts prior to the dot-com/telecom bubble years boasted historical performance of positive returns such that the dot-com/telecom era results could be portrayed as an anomaly. Many newer firms with investment returns histories dominated by dot-com/telecom era results to show have been unable to raise new funds.

Another significant factor is cultural and self-perpetuating. Silicon Valley, in particular, has become the destination for technology entrepreneurs, with “risk capital” widely available from institutional VC investors as well as a large number of incredibly wealthy entrepreneurs participating as active angel investors. This cultural drive towards concentration is demonstrated in a May 2012 Forbes Magazine interview with Reid Hoffman, cofounder of LinkedIn, and Peter Thiel, cofounder of PayPal and angel investor behind Facebook (which moved from Boston to Silicon Valley at the urging of investors):

> Hoffman: *Technically, you’d think, “Well, it’s human ingenuity, it can be from anywhere in the world.” But one of the reasons why it’s good to focus on just a couple (geographic) areas is that* ***entrepreneurs move to where they need to be in order to start interesting companies****. So, if you’re thinking about doing a consumer Internet company and you’re not*

Exhibit 15
Wall Street Journal – Sept. 27, 2012

Wall Street Journal's "The Next Big Thing"
Annual Ranking of Top 50 U.S. Companies Backed by Venture Capital

States/Regions	*2011*	*2012*
Silicon Valley	30	30
Southern California (LA/SD)	5	7
New York / New Jersey	5	5
Massachusetts	1	3
Washington	1	2
Texas	2	1
Colorado	1	1
North Carolina	1	1
Illinois	1	-
Indiana	1	-
Utah	1	-
Georgia	1	-
	50	50

thinking about moving to Silicon Valley, that's—

Thiel**:** ***A red flag.*** *If you go into politics, you should go to D.C. If you go into finance, New York. Movies, probably still L.A. And tech is Silicon Valley…**We wanted people who wanted to win**."*[14]

While appropriate to applaud the success of Silicon Valley, the mantra that entrepreneurs should move to one or two regions in order to "start interesting companies" is a concern for policy leaders at the local, state and federal levels. To summarize the key points from this section on the addressable need:

- High-growth potential small businesses are important to new job creation, innovation development, and economic growth.
- Venture capital possesses strategic value in financing a large number of "gazelle" companies during development and growth stages.
- Since 2008, the annual rate of investment from VCs into companies has exceeded the rate of new investment commitments from institutional investors into VC funds, resulting in the lowest pool of VC available to invest in high-potential businesses in at least 15 years.

[14] http://www.forbes.com/sites/ryanmac/2012/05/02/reid-hoffman-and-peter-thiel-share-the-secrets-of-breaking-into-techs-most-exclusive-network/2/

4. Principles of Well-Designed State VC Programs

SSBCI is a national initiative consisting of diverse capital formation programs and substantial complexity – all implemented within a compliance framework established by Congress and administered by the Treasury. During this early implementation phase of SSBCI, when several state VC programs are finalizing details of processes and agreements to invest capital in small businesses, best practices from SSBCI VC program implementations cannot be definitively determined. However, based on the Consultants' knowledge and experience, certain principles of well-designed state VC programs are identifiable from the cumulative experiences of state VC programs that long predate SSBCI.

1. **Understand the supply of and demand for venture capital**. In order to design a state venture capital program that alleviates market inefficiencies and increases access to risk capital, it is necessary to have a realistic understanding of capital supply and demand unique to a specific geographic region. Venture investing can vary greatly from state to state and region to region. Program managers who communicated knowledge of the current financing lifecycle in their state – # of resident VC funds, # of transactions, $ amounts invested, funding sources, funding stages – are more likely to develop programs with targeted investment strategies implemented at an appropriate scale to support small businesses and create value.

2. **Focus on capacity building with an ecosystem approach**. The potential comprehensive benefits of a state venture capital program will be limited if the program operates as a stand-alone initiative rather than integrating into a larger small business support system. Program managers committed to building entrepreneurial capacity and a sustained venture capital presence are more likely to design strategies aligned with market-based principles. Several state program managers communicated how SSBCI will interact with and support complementary development strategies while building innovation capacity within their state's economy.

3. **Create pathways to the next investment round**. Nearly all state program managers communicated their expectation that the SSBCI funds allocated to venture capital would be readily absorbed by market demand. However, with a majority of VC programs focused on the seed/early stage of investment along the capital continuum, the greater challenge that faces program manages may well be in securing follow-on investment rounds in markets underserved by institutional venture investors. The most successful private VC investors continually plan for the next financing event, actively communicating about investment opportunities and expanding professional networks to the benefit of portfolio of companies. If pathways to the next financing event are not created, small businesses receiving seed investments might not survive.

4. **Plan for the long-term and manage expectations**. State venture capital programs are long-term development initiatives, and the term "patient capital" is used to describe VC

for a reason. Venture investing, and particularly early-stage venture investing, is dynamic and unpredictable, so experienced program managers understand the need to plan for a six to ten year maturation cycle. Furthermore, when communicating about VC programs, it is important to manage expectations for achieving "comprehensive returns" that includes both financial ROI and economic development calculations. In any investment portfolio, there will be good investments and bad investments (and some likely total write-offs), so program leaders should be proactive in educating partners and stakeholders on a program's processes and expectations.

5. **Specifically address the potential for conflicts of interest and political influence**. Several state VC program managers acknowledged the potential for conflicts of interest and/or political influence in a state-managed capital formation initiative. It is not unheard of for a manager of a VC program to receive correspondence from a state official (elected or appointed) about an investable deal that has their interest. Similarly, state capital programs commonly engage volunteer civic leaders to serve on advisory committees with responsibilities for vetting opportunities and making investment recommendations. Well-designed initiatives specifically address the potential for conflicts and influence by having clearly stated policies and processes in place to govern activities and investment decisions.

6. **Attract the most capable leaders to manage resources.** A critical success factor for state capital programs is the ability to attract capable investment managers to manage public resources. Some state programs have demonstrated success with engaging high-performance leaders as part of the internal team or through a state-sponsored organization. Other state programs seek capable managers by contracting with for-profit investment managers rather than building duplicate internal capabilities. Both strategies can deliver expected outcomes; however, successful programs are built on the understanding that success is determined largely by who is involved with managing funds.

7. **Measure results accurately with defensible logic**. Some state program managers have significant experience with evaluating key metrics for VC program performance and reporting results. Although there are currently no recognized national standards for evaluating the direct and indirect impact of state VC programs, potential best practices are emerging, and SSBCI could be helpful in bringing clarity to the national debate by offering sound, logical methodologies for calculating value. Program managers have communicated perspectives on this important topic and expressed interest in sharing information on how to move towards a best practice approach. Key measurement issues with VC programs relate to calculations of investment leverage, job retention/creation, causal impact on investment transactions, direct and indirect economic impact, etc.

8. **Align state economic development interests with the financial interests of fund managers and limited partner VC fund investors.** "Double bottom-line" rhetoric has persuaded some state policy leaders to trust that private sector interests will focus

equally on creating jobs as well as maximizing their personal financial interests. In the Consultants' view, the two goals do not always coincide. State policy leaders should recognize that indirect economic development benefits such as the creation of high-wage jobs and the development of new industries are achieved *indirectly* from profit-motivated investing, not by placing new priorities on professional investors that perform best when singularly focused. In the Consultants' view, states can best target economic objectives by influencing the parameters of allowable investments, and then fully participate in the sharing of financial returns so that successful investments create new sources of capital for future investments.

5. Recommendations Related to SSBCI VC Programs

In summary, the flexibility permitted by SSBCI to states for designing customized capital deployment strategies within the parameters of the enabling legislation and program guidelines has resulted in a diverse range of state venture capital programs. **The diversity of programs implemented within SSBCI is a strength of the program and will provide value to policy makers as these programs are implemented and evaluated.** With thirty state venture capital programs created and/or supported by SSBCI, the U.S. Treasury now has a portfolio of programs to facilitate small business investment, with the initiative's success measured over the long term and determined by the overall collection of investments made.

SSBCI is expected to deliver value not only by the direct investments facilitated and made in small businesses across the country, but also by the increased information sharing and improved understanding of a principles-based approach to capital formation initiatives that leads to recognized best practices for efficiently and effectively stimulating small business investment. The initiative is moving from the early implementation phase of assisting states with standing up state venture capital programs to assisting states with the investment of capital into small businesses. Significant progress has been made in a short period, and the initiative has strong support from state and regional leaders who are committed to SSBCI's success. The Consultants commend the SSBCI team for their exceptional work to stand up and administer a new federal capital program. By continuing the plan for delivering responsive technical assistance to state program leaders while monitoring progress in alignment with SSBCI requirements and objectives, SSBCI is on the right course for creating substantial value for the U.S. economy.

Consultant recommendations related to state VC programs include:

1. **Treasury should continue its efforts to work with the industry of state venture capital programs in order to describe common challenges, clarify the lessons learned and set forth emerging best practices.**

During program review meetings and the two SSBCI Conferences, we consistently heard from state VC program managers that they recognize a compelling need to capture and share information on best practices. An important legacy of the SSBCI initiative may be promoting new recognized standards that to enable adherents to implement VC programs with greater efficiency and effectiveness. To accomplish this, we encourage SSBCI program leaders to establish an ongoing review process of VC programs over the life of the initiative and support efforts to fairly measure results, identify best practices and tell the full story of SSBCI.

2. **Treasury should encourage the sharing and review of transaction-level data and the development of impact measurement policies, which are important to assessing the performance of SSBCI VC programs over the program period that ends in 2017 and beyond.**

Policy leaders should be cautioned that it is likely that state VC programs will record some financial losses before 2017, while the financial successes and comprehensive returns will come over a longer period. The SSBCI application requested certain measures of impact, such as estimated jobs created and private leverage achieved. However, there are few industry standards for these measurements, and it is difficult to establish policies that fully capture the impact of SSBCI dollars allocated to VC programs and subsequently invested in high-growth potential small businesses. The comprehensive benefits of SSBCI should also be recognized in relation to the development of more robust entrepreneurial capacity and the support of transformational businesses that "but for" the additive value of SSBCI capital might never have contributed significantly to economic growth and brought society-benefiting innovations to market. State VC programs lack industry standards for measuring impact, which creates challenges for policy leaders to assess the overall impact of VC programs relative to other SSBCI program options.

3. **Federal policy leaders should build on the foundation established by SSBCI to support state venture capital programs that operate on the principles of a well-designed program identified in this report.**

A federal-state partnership to build state investment capacity can improve access to the critical resources necessary for driving an economic recovery and creating the next generation of great American businesses. The early implementation phase of SSBCI offers valuable guidance on state-managed venture capital deployment models and the benefit of federal-state collaborations to facilitate and leverage private investment in small businesses. The Consultants recommend that the federal government continue its support of state-led capital programs that incorporate the principles of well-designed state venture capital programs.

4. **Future federal capital initiatives can be strengthened by requiring training to improve relevant experience for state VC program managers.**

VC program managers empowered by state government leaders range from novice to expert with respect to their preparedness to manage VC programs, and therefore need a common baseline of knowledge about options for design and operation of a state venture capital program. For more than 25 years prior to SSBCI, states varied greatly in their approaches to supporting technology-based economic development programs, of which capital formation is often a major component (the others being research infrastructure and venture development programs). For states, SSBCI funds were welcome infusions of capital to strengthen and leverage existing, well-managed programs with mature infrastructure and capable leadership in place. For others, program managers have been effectively learning on the job while seeking connectivity to information and third party solution providers. Furthermore, experienced VC program managers are more likely to have an accurate understanding of the state's existing venture capital and venture development communities.

5. **States should implement capital formation initiatives as part of a comprehensive strategy for supporting entrepreneurial ecosystems, and the federal government can**

foster the development of regional innovation networks that improve and leverage complementary development strategies.

Government-sponsored venture capital programs should not be implemented in isolation. To encourage and support high-growth entrepreneurship throughout the nation, the Consultants recommend that the federal government assist with the development of regional support systems. A strategic initiative to facilitate the creation of regional innovation networks can deliver comprehensive value and improve outcomes of government sponsored capital formation programs. While the primary focus should remain on programs that directly stimulate private sector investment in small businesses, a secondary focus of supporting human capital development and connectivity will enhance all financial assistance programs targeting small businesses.

6. Author Bios

Eric Cromwell is an entrepreneur and public advocate for improving the business climate for innovation and entrepreneurship in America. Eric led the restructuring and revitalization of the Tennessee Technology Development Corporation (TTDC), a private, nonprofit corporation created by the Tennessee General Assembly to promote economic growth. As TTDC's president and CEO, Eric was responsible for setting the agenda for sustained state investment in Tennessee's innovation economy. Prior to accepting the executive position at TTDC, Eric served as Tennessee's first-ever Director of Technology Development, a leadership position created within the Governor's Administration to be the point of contact for technological innovation.

Eric began his career in technology-based economic development in Memphis, Tennessee, as the founding director of EmergeMemphis, a technology business incubation/accelerator program and later as a leader on the founding team that launched the FedEx Institute of Technology, a public-private initiative seeded by FedEx Corporation. Eric has been a leader in establishing new organizations and programs, a director of multiple tech-based development organizations, and is a frequent advisor and guest speaker on development strategies related to venture capital formation, entrepreneurial support systems, research commercialization and broadband deployment. Eric holds a B.S. in Biology from the University of Tennessee at Knoxville and a M.S. in Electronic Commerce from the University of Memphis.

Dan Schmisseur is an entrepreneur and experienced technology-based economic development consultant. Prior to co-founding Cromwell Schmisseur LLC, Dan was the vice president of operations and strategy for the Tennessee Technology Development Corporation (TTDC). At TTDC, Dan was responsible for strategy formation and partnership development to design and implement a comprehensive competiveness agenda for innovation-driven economic development throughout Tennessee. Previously, Dan was vice president of strategy and policy with the Kansas Technology Enterprise Corporation, where he developed a strategic plan for implementing the Kansas Economic Growth Act legislation, a 15-year, $581 million initiative to support bioscience-related economic development. Dan has managed the development of a comprehensive business plan for the IC2 Institute at The University of Texas at Austin to develop an outreach entrepreneurship education and support services program called The Texas Entrepreneurship Network.

Dan began his professional career with PricewaterhouseCoopers after graduating from the University of Texas at Austin with a BBA in Accounting. In eight years with the firm, Dan served a wide variety of clients, ranging in size from zero-revenue startups to a Fortune 250 technology company. Early in his tenure, Dan served clients in many industries, including healthcare, manufacturing, financial services and non-profit. His last three years with the firm focused on serving technology high-potential small businesses as a manager in the firm's Technology Industry Group.