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Incentives for Entrepreneurial Firms

Hackler, Darrene and Harpel, Ellen

Ewing Marion Kauffman Foundation, Smart Incentives

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INCENTIVES FOR ENTREPRENEURIAL FIRMS

Darrene Hackler, PhD and Ellen Harpel, PhD
Smart Incentives

August 2021

SMARTINCENTIVES

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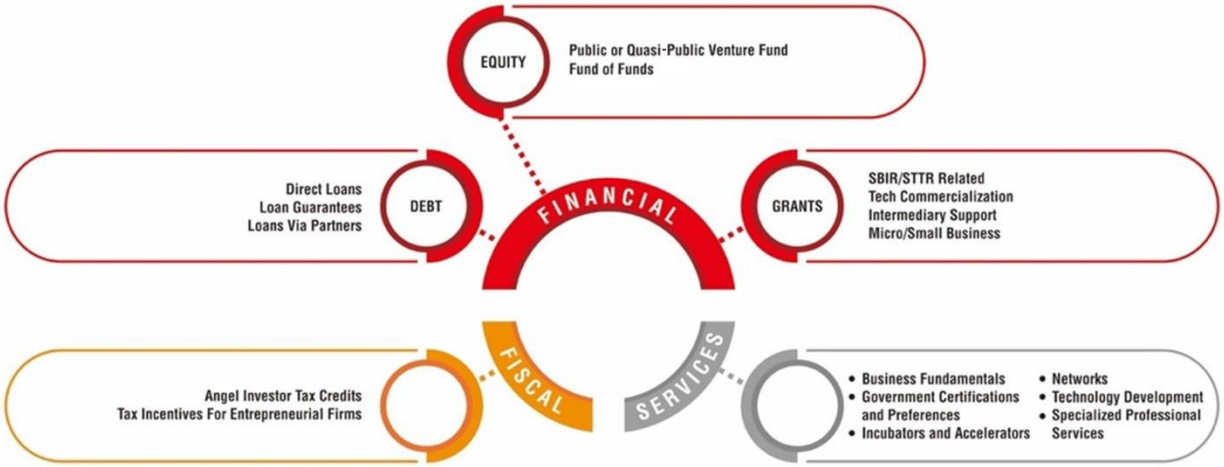
I. EXECUTIVE SUMMARY

Many economic development organizations (EDOs) have embraced the mission to support entrepreneurial firms in their communities. EDOs engage in their entrepreneurial ecosystems, in part, by providing resources, sometimes in the form of business incentives. The purpose of this report is to provide practitioners and policymakers with insights regarding the use of these incentives and guidance for offering incentives to entrepreneurial firms.

Researchers and policymakers use a wide range of definitions for "entrepreneurial firm" and "incentive," making it difficult to categorize and describe the current state of entrepreneurial firm incentives. Multiple additional research challenges, including a lack of data on program outcomes, hinder the ability to draw definitive policy guidance from both program evaluations and academic research. This report strives to sort this tangle of material into a framework that is helpful for policymakers and economic development practitioners.

Typology

The most common types of state and local incentives for entrepreneurial firms are financial, fiscal, and services. Incentives for entrepreneurial firms are, for the most part, divided into two target categories: small business entrepreneurs and innovation- or technology-oriented entrepreneurs. New or young firms are rarely the defined target for state and local incentives.



State and local financial incentives are primarily intended to fill small business funding gaps and address the regional disparity in private equity investment. They may take the form of debt, equity investment, or grants. The most prominent type of fiscal incentive is a tax credit for angel investors, which is intended to address the funding gap by encouraging more private investment. Services incentives include, for example, business advice and training, technical assistance, professional services, access to innovation spaces and networks, and referrals.

State and local governments have increasingly recognized that incentives designed either for all small businesses or for only technology-oriented businesses with high growth potential leave out many types of entrepreneurial firms that contribute to community and economic development. In response, these governments are devising new approaches to support growth-oriented and second-stage small businesses, inclusive entrepreneurship and social enterprises, and microenterprises.

Entrepreneurial firm incentives in practice

Incentive program names, types, targets, and mechanisms tell only part of the story. Each location's entrepreneurial ecosystem context and program implementation practices shape the impact of its entrepreneurial firm incentives. The following six implementation issues can influence incentive effectiveness.

1. Incentives are only a minor component of the entrepreneurial ecosystem.
2. Incentive program rules may inadvertently constrain access and limit participation.
3. Awareness of and access to incentive programs remains a challenge without a consistent pathway for entrepreneurial firms to navigate offerings.
4. Most individual incentive programs are very small, providing relatively small amounts of money and assisting a limited number of companies per year.
5. BIPOC and women entrepreneurs, as well as entrepreneurs in rural communities and distressed urban locations all remain underserved. Existing programs, then, are primarily engaging a narrow segment of entrepreneurial firms. A new approach that serves all entrepreneurial firms is needed.
6. Careful program design and active project management can improve effectiveness.

Outcomes

Research challenges limit the specific policy guidance that can be gleaned from academic studies, formal program evaluations, and annual reports. Many of the most robust studies examine federal programs rather than smaller, heterogeneous state and local incentive programs. Despite these limitations, a review of research resources has yielded some insights regarding best practices in the field of entrepreneurial incentives.

- Small business lending programs can be effective, but most stand-alone state and local small business loan programs are too small to have a substantial community- or firm-level impact. The programs themselves may fill a gap in credit access, but they are still a minuscule segment of the small business credit universe. Good management practices, technical expertise, sustained outreach, and effective compliance procedures are necessary to ensure a chance for success – all of which are a challenge for programs that manage a small number of transactions per year.

- Research tends to highlight the risks associated with public funds for private equity investment, but this strategy remains popular. Even successful private equity investors generate few breakout successes and tolerate many company failures. State and local governments face an even greater challenge in achieving success because their goals are for firms receiving investments to create a substantial number of new jobs and

remain in the state over the long term. Experienced managers and good management practices play an especially important role in equity programs.

- Grants appear to have positive firm-level effects, including employment and sales growth, that should yield community-level benefits, as well. The scale and scope of most grant programs, however, suggest that community-level outcomes would not be widely felt.

- Angel investor tax credits appear to have a positive but limited impact on the firm and community. Research in this area, however, is not definitive. Program design may mean that the tax credits disproportionately or unintentionally go to company insiders who may have made the investment even without the tax credit. Community-level benefits would not be widely felt except in the unusual case of a breakout company success.

- Tax incentives are not the best method of helping entrepreneurial firms. At best, they have indirect positive effects; at worst, they have a negative impact. Transaction costs can diminish the value of refundable or transferrable tax credits, diverting intended resources away from the entrepreneurial firm.

- Services to entrepreneurial firms appear to generate positive firm-level outcomes, but it is not clear which types of services are most valuable. Service offerings must be sufficiently staffed and funded to be effective.

Guidance and Conclusion

1. Design incentives to leverage other resources and boost the ecosystem.
2. Strengthen incentive management and implementation procedures to improve program effectiveness.
3. Establish data and research standards to help researchers and evaluators determine best practices.

II. INTRODUCTION

Many economic development organizations (EDOs) have embraced the mission to support entrepreneurial firms in their communities. EDOs perform this mission in the context of their local entrepreneurial ecosystems and from their positions either within the state and local governments or serving the governments. **State and local government overall plays a niche role in entrepreneurial ecosystems and has limited influence over new firm formation.** Similarly, economic developers have a narrow role, often filling gaps in the larger ecosystem. EDOs typically support other ecosystem partners that take the lead on start-up and entrepreneurial initiatives. Providing resources – sometimes in the form of business incentives – is one way that EDOs engage in their ecosystems. This report analyzes the current state of incentives for entrepreneurial firms and provides practitioners and policymakers with guidance for offering incentives for entrepreneurial firms.

This report is timely as there is currently concern regarding the rate of start-ups and new firm formation in the United States (Decker et al. 2014, Hathaway and Litan 2014, Motoyama and Wiens 2015, Hwang et al. 2019, Rood et al. 2019). There are many questions about mechanisms, including state and local policy interventions, that can effectively influence business creation and growth. At the same time, state and local governments are being asked whether their use of business incentives has been effective in either influencing investment decisions or generating expected economic benefits. This report brings the two policy strands together by describing the types of state and local incentives that exist for entrepreneurial firms and explaining, to the degree that the data and research allow, whether incentives generate firm-level and place-based benefits.

The first hurdle – defining "entrepreneurial firm" and "incentive"

Entrepreneurial firm

"Entrepreneurial firm" is a big tent term that can encompass just about any type of business activity. For this report, **we began by looking for incentives that target new and young firms – specifically, those that are less than five years old**. However, relatively few state and local incentive programs define their target market or eligibility guidelines in this way.

In economic development circles, the term entrepreneurial firm may only refer to a small subset of businesses that are innovation- or technology-based and have high growth potential. Some policy guidance provided to state and local governments over the past decade has supported this approach, downplaying small businesses and total start-ups in favor of innovation entrepreneurs. For example, a 2014 National Conference of State Legislatures (NCSL) report, citing the (now defunct) National Commission on Entrepreneurship, defines entrepreneurs as "leaders of companies based on innovation and designed to grow quickly" and distinguishes them from small businesses "whose main objective is usually to provide employment and income for the owner and family" (NCSL 2014). The Organisation for Economic Co-operation and Development (OECD) described entrepreneurs in a recent report as "those persons who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets" and distinguished them from "ordinary business activity" (OECD 2019).

At the other end of the spectrum, the Annual Survey of Entrepreneurs[1] includes "all nonfarm businesses filing Internal Revenue Service tax forms as individual proprietorships, partnerships, or any type of corporation, and with receipts of $1,000 or more." The ASE covers firms with paid employees. Even this extremely broad definition excludes the millions of non-employer enterprises that increasingly populate our understanding of entrepreneurial firms in an era of expanding gig and independent work. In its Early-Stage Entrepreneurship indicators, the Kauffman Foundation counts all new businesses started by individuals who own the businesses as their main jobs and who work in the businesses for at least 15 hours per week, including incorporated and unincorporated entities and both employers and non-employers (Fairlie and Desai 2020).

This definitional bifurcation – micro and small businesses (low and slow growth, but in great numbers) versus innovative firms (anticipated high growth, but in small numbers) – is reflected in many state and local entrepreneur support programs, including incentives. Programs with similar names are designed to serve completely different market segments, using different policy tools, and seeking a wide range of outcomes. As a result, policy/program comparisons and quality research on outcomes are difficult. Furthermore, as the economy evolves and business cycles and shocks such as the COVID-19 pandemic throw out new challenges for young enterprises, new concepts of entrepreneurial firms and their needs are continuously emerging.

Incentive

The extent to which specific state and local financial programs or services are "incentives" is also somewhat subjective. Starting again with a narrow definition, an incentive is a tax or financial tool that a government uses to influence business decisions such that they will spur the growth of companies and jobs in specific locations (Tavares-Lehmann et al. 2016, Harpel 2016). A typical incentive of this sort would be a tax break offered to a large company that is deciding where it will relocate operations or invest in a new facility.

In practice, however, **incentives often encompass a broader range of services, programs, and financial offerings that are intended to alter, reward, or subsidize an action or behavior** (Indiana Legislative Services Agency 2014). Many incentives for entrepreneurial firms fall into this wider category. They do not appear designed to "influence business decisions" except in the most general sense. Indeed, a business likely would already have made a decision to open, invest, or expand in order to qualify for many of these state and local financial support programs. Any government program providing assistance to individual entrepreneurial firms predicated on firm actions or behaviors might then be considered an incentive. For this reason, we include many small business programs managed by or funded through state and local economic development organizations in our review.

Incentives and related programs are almost always accompanied by either an expectation of or a specific requirement for some measure of benefit to the community – not just to the individual firm receiving assistance. Benefits are often based on anticipated job growth. This benefit may be explicitly defined (e.g., we expect a certain number of new jobs by a certain date) or may be implicit (e.g., we expect some companies to create a significant number of new jobs in the future).

[1] https://www.census.gov/programs-surveys/ase.html

In the interest of providing a more complete and useful picture of state and local incentive policy for entrepreneurial firms, we have used a wide lens to capture the array of approaches economic development organizations take. We, therefore, use broad definitions of both entrepreneurial firm and incentive in this report.

The second hurdle – research limitations

Researchers have produced a substantial body of literature on both entrepreneurship and incentive policy, but there is limited research that combines the two. **Academic research and formal program evaluations that examine state and local incentives and related programs for entrepreneurial firms yield helpful but rarely definitive policy guidance. Three reasons for this shortcoming are the lack of consistent language or definitions across studies, severe data limitations, and reporting methods and timeframes that hinder insight into long-term community benefits.** Since incentives often lack clear goals, metrics, or data, evaluations can take license with their approaches to determining effectiveness. The resulting hodgepodge of research questions and methods further limits the ability to draw policy conclusions from both program evaluations and academic research on incentives. These and other research challenges are addressed more fully in the Appendix to this report, which outlines ways in which research on incentives for entrepreneurial firms can be improved to answer practitioner questions on program effectiveness.

Beyond these overarching research challenges, the structure of individual incentive programs can also hinder assessments. The laundry list of difficulties includes:

- Program goals and objectives are frequently not well defined. Intent may be a generic "improve economic development" or "support entrepreneurial firms."
- Appropriate metrics are not established. It is not always obvious how to measure the firm or community outcomes an incentive or other entrepreneurial support program is intended to achieve.
- The mechanism or logic model that connects the incentive to the expected firm and place outcomes can be unclear.
- Program activity may be captured and reported, but data on firm- and place-based outcomes is scant.
- The number of companies helped and the amount of money spent by the program may be too small to be appropriate subjects for a full research study.

Finally, there is a Catch-22 in research around incentives intended to help entrepreneurial firms: research usually strives to isolate program impacts, but the programs themselves are never isolated. They represent one element of the ecosystem and, by design, are typically intended to play a niche or gap-filling role. Many of the incentives are provided in combination with other service offerings or designed to leverage other sources of funds. Isolating the effects of the individual incentive programs, then, misses the point. From a practitioner's perspective, effectiveness depends on each state and local government's goals and the role it is trying to fill within its own ecosystem.

Analysis

Below we strive to sort this tangle of material on state and local incentives designed to help entrepreneurial firms into a framework that is helpful for policymakers and economic development practitioners. The objective is to summarize the state of incentives for

entrepreneurial firms and offer guidance for improving use of these tools. We also take this opportunity to identify remaining gaps in our understanding and questions to guide future research in the Appendix to the report.

The analysis is organized into three main sections:

1. Typology of incentives for entrepreneurial firms
2. Structure and use of incentives for entrepreneurial firms
3. Outcomes

III. TYPOLOGY OF INCENTIVES FOR ENTREPRENEURIAL FIRMS

We begin by describing the types of incentives that state and local governments are using to support entrepreneurial firms, their targets, and the mechanisms they use.

There is no single source of data describing state and local incentive programs. The State Business Incentives Database[2] is the best resource for incentive programs offered by states. We searched the database for a variety of terms, including "entrepreneur," "entrepreneurship," "business formation," "firm formation," "new business," "startup," "innovation," and "small business." As state leaders regularly update, add, or remove incentive programs, program details obtained from the database were verified and supplemented via each state's economic development website. The result was a set of more than 200 programs that state program language identified as intended to serve entrepreneurial firms and that met our broad definition of an incentive.[3]

An equivalent incentive resource does not exist for the thousands of local governments in the U.S., and, as a result, coverage is less comprehensive. We drew on research from associations of local government such as ICMA (an association of city and county managers), the National Association of Counties, National League of Cities, and National Governors Association, consultant reports, and local government and economic development websites to understand local approaches to incentives for entrepreneurial firms.

Incentive type

Business incentives are often categorized by intended beneficiary or by type of incentive offered. Since we are already narrowing our analysis to incentives intended to help entrepreneurial firms, it is most helpful to further categorize programs by the incentive types summarized by Tavares-Lehmann et al. (2016):

- **Financial incentives** include direct assistance such as grants, subsidies, loans, loan guarantees, and equity participation that helps with project or company financing and can be used "for companies when financing will not be easy to obtain" (Ibid., 22)—which is often the case for entrepreneurial firms.

- **Fiscal incentives** include tax provisions for qualified activities that represent government revenue foregone, rather than direct assistance. They are intended to lower

[2] http://stateincentives.org

[3] We do not consider this list definitive or a true census of programs because states regularly update program offerings and terminology varies across programs. Nevertheless, the list has been sufficient for developing a typology and describing incentives' use and structure.

tax costs or increase the rate of return to an investor. Fiscal incentives include tax credits, tax exemptions, reduced tax rates, and special treatment such as loss carryforwards, accelerated depreciation, or preferential treatment of capital gains. Since many entrepreneurial firms have little or no tax burden, fiscal incentives for entrepreneurial firms may be designed for investors rather than for the firm itself. They may also be transferrable or refundable, enabling the firm to obtain cash for the credit.

- **Regulatory incentives** involve relaxing standards from rules and regulations for favored investment categories. As they are not common among U.S. state and local entrepreneurial incentives, we do not include them in our analysis.

- **Services incentives** involve provision of specialized information, technical advice and support, supply chain linkages, and business intelligence to reduce risk and costs and stimulate investment (Ibid., 33, citing Oxelheim and Ghauri 2004). Many entrepreneurial ecosystem activities fall into this category, including innovation/technology support programs, government-backed accelerators and incubators, and small business advisory services, among others. **These activities are not always considered to be "incentives," but they are often intertwined with financial and fiscal incentives for entrepreneurial firms and are a fundamental component of state and local support for entrepreneurial firms.** Services are therefore included in this analysis.

We considered but discarded the idea of categorizing incentive programs according to an entrepreneurial typology rather than an incentive typology. Organizing incentives by type of entrepreneur generated two problems. First, entrepreneurial ecosystems in many places are built around the stages of obtaining venture capital (pre-seed, seed, early stage, etc.), which excludes the vast majority of new firms and a substantial number of programs intended to help firms that are not on a venture capital track. Second, these and other entrepreneurship terms (such as "early stage" or "new firm") are not used consistently across locations. An incentive intended to help "early stage" firms may actually work with very different types of businesses, depending on the state or locality. It became unwieldy to try to peg incentive programs that sounded similar on the surface but were actually very different into entrepreneurial ecosystem categories.

State incentives are predominantly financial, and they strive to expand access to capital for business owners. Most fiscal incentives intended to help entrepreneurial firms are also designed to make capital available to business owners, often through an angel investor tax credit or by making the tax credit transferrable or refundable. In a much smaller number of cases, fiscal incentives help to reduce the cost of doing business, thereby freeing the entrepreneur's capital for other uses. Both state and local governments offer a variety of business support and advisory services intended to help new and growing entrepreneurial firms.

Incentive target

Many of the well-known state incentive programs, such as job or investment tax credits, discretionary grants, R&D tax credits, and workforce training programs, are designed to help growing businesses regardless of age. Growth is often, but not always, defined by the number of new jobs expected to be created. Entrepreneurial firms may technically be eligible for these programs, but they are not the intended target unless they happen to be creating a certain number of new jobs, making major new investments, or generating substantial taxable income. While these are important categories of incentive programs in most states, we do not consider

them here because they are not designed to help new firms, and most new businesses would not qualify.

Incentives designed for entrepreneurial firms are, for the most part, divided into two target categories: *small business entrepreneurs* and *innovation- or technology-oriented entrepreneurs*. This division is consistent with research reports and policy guidance provided to state and local governments, which tends to distinguish between the two categories, noting different potential contributions to the economy, approaches to growth, and business needs between the two categories (NCSL 2014, OECD 2019).

While this distinction is a helpful way to organize the analysis, it is often less clear in real life. In some states, the term entrepreneur remains reserved for high growth potential, innovation-oriented firms, while small businesses exist in a separate category, perhaps not even managed within the economic development organization itself and not considered to be true entrepreneurship. Other states go in the opposite direction, in which "entrepreneurial firm" may refer to almost any type of business undertaking any type of activity. In many places, language around entrepreneurship appears to be simply draped over a variety of legacy small business and technology-based economic development programs. **A few states have taken a more thoughtful approach by creating hybrids that strive to support growth-oriented small businesses that are not necessarily in the tech sector or on a path to obtaining venture capital and by offering programs organized around the needs of entrepreneurial firms at different stages of development.**

In most cases, incentives for entrepreneurial firms do NOT target new or young firms. Our program review suggested that only 10%-15% of state incentive programs include firm age in their eligibility definitions. Among this subset, the most common age category is five years old or younger. Several programs, however, included older firms, with at least one program targeting companies up to 15 years old.

Some programs also target specific sets of entrepreneurs according to characteristics of the business owner or the firm's location. These targeted programs may be designed to assist:

- BIPOC-owned businesses
- women-owned businesses
- business owners with disabilities
- veteran-owned businesses
- business owners at specified income or wealth levels
- businesses located in defined locations, such as distressed neighborhoods or rural communities; or
- various combinations of the above

Approximately 15%-20% of the state incentive programs we surveyed include references to businesses in these categories. Most of these programs are clustered in the small business segment rather than the innovation segment. Location-specific programs slightly outnumber programs for BIPOC and women business owners, and a small number of programs emphasize income/wealth, disability, or veteran status. About half of the programs serve multiple categories of underserved or disadvantaged businesses. Several programs are designated specifically for businesses in one of the demographic or location categories, but others simply mention these businesses or indicate a scoring preference for them.

Incentives for entrepreneurial firms are generally directed to firms operating in the state or community that is offering the program. Some incentives, though, are also intended to attract entrepreneurial firms from other locations. Any firm that is adding new jobs in a location may be eligible for a state's standard set of incentives regardless of entrepreneurial status as long as it meets the qualifying criteria. Some state and local governments also specify, however, that they are trying to attract new or young companies that will add jobs in their communities, and they are offering incentives to qualified startups or early-stage firms from anywhere in the country that agree to set up operations in their location.

Incentive mechanism

State and local governments structure and implement their financial, fiscal, and services incentives for entrepreneurial firms in a variety of ways, depending on their primary targets, local economic characteristics, fiscal environment, and entrepreneurial ecosystem needs. The programs can be generally organized by the following mechanisms within each incentive type:

- Financial: debt, equity, grants
- Fiscal: angel investor tax credits, tax breaks for entrepreneurial firms
- Services: basic business guidance and entrepreneurial training, workspaces, networks and referrals, technical assistance, professional services

Financial

Researchers continue to find substantial evidence of funding gaps for small businesses and other types of entrepreneurial firms. Businesses seeking smaller amounts of money (less than $100,000) are less likely to receive the full amount of their funding request compared to firms seeking substantial sums ($10 million or more) (Brown et al. 2020 citing Mills and McCarthy 2016). New firms that have an insufficient credit history or that cannot meet collateral requirements also struggle to obtain financing. The geographic concentration of private venture capital is well-established, with over 70% going to just three states (Brown et al. 2020). Women and BIPOC entrepreneurs face barriers to obtaining both debt and equity financing (Hwang et al. 2019).

Many state and local financial incentives are intended to address funding gaps and the regional disparity in private equity investment. State and local governments and their incentive programs are necessarily niche players in the world of business finance. As one point of reference, the Annual Survey of Entrepreneurs noted that business loans from federal, state, or local government in 2016 accounted for 0.5% of startup capital (Hwang et al. 2019). As the program observations in the next sections explain, state and local incentives for entrepreneurial firms barely register on the scale of firm finance, although they may play an important role in some markets.

Debt

Small business loans offered by state and local economic development organizations[4] dominate this category, but it also includes debt offerings for innovation-oriented firms. It is worth reiterating that many economic development organizations do not consider small business loans to be incentives because their primary purpose is neither to create jobs nor to influence

[4] This definition excludes SBA loan programs and Small Business Development Center (SBDC) services.

business decisions.[5] We include them here because they fit the broader definition of altering, rewarding, or subsidizing desired behaviors (small business growth and vitality) and because many of the loan programs reviewed do include a job creation requirement. However, the main purpose of most state and local small business loan programs is to fill a gap in the financial marketplace in which small firms struggle to access capital in many places.

States may offer direct loans to small businesses or they may provide money or guarantees to third parties such as banks, community development financial institutions, or local revolving loan funds, which in turn make the small business loans. In all cases, the maximum loan amounts among the programs examined are relatively small, with $50,000 as a common limit and the majority under $150,000. The average loan amounts to individual businesses were somewhat lower, typically ranging from $30,000 to $50,000. There are some exceptions among the debt programs targeted toward technology- or innovation-oriented firms, which may have up to a $2 million or $2.5 million limit.

Most of the state debt programs are lightly used, with substantial variation across states and programs but also within programs from year to year. Most programs do not issue annual reports and may only provide statistics for the program's lifetime, if at all. Among the programs for which we found data, total annual spending ranged from a low of $185,000 to a high of $4.8 million dollars, with most clustered around $400,000-$500,000. Some programs helped only handfuls of companies (3-15) per year, while more active programs worked with anywhere from 20-135 companies.

There is no comprehensive data source for local incentives. However, a 2014 survey found that most local governments do not provide substantial financial support for small businesses. Only 26% reported either medium- or high-level use of revolving loan funds and only 15% had either medium- or high-level use of a microenterprise program (ICMA 2014).

State or local loan programs may be targeted to entrepreneurial firms by business owner characteristics or location. Only 15%-20% of incentive programs are targeted to specific groups, but 50% of these are loan programs. These loan programs themselves are more or less evenly split between those serving businesses across multiple demographic, socio-economic, and location criteria, and those focusing on specific categories, including location. Only a handful of the programs we examined only targeted women, BIPOC, or veteran business owners.

As with loan programs overall, these targeted programs tend to keep loans under $50,000; a few offer higher amounts (up to $150,000) and some offer much lower amounts ($10,000-$20,000). As stated, many programs don't consistently report program activity and even fewer provide insight into loans by business owner characteristics or location. Those that do report such data typically serve anywhere from single digits to a few dozen companies per year, though some programs are larger. Microloan programs in North Carolina and Utah, for example, report high levels of female participation, with women accounting for 56% and 61% of loan activity, respectively.

Equity

Equity investment tends to be the tool of choice for firms that are in a state's priority industries, are engaged in technology commercialization, or represent "innovation," however that term may

[5] As a case in point, one state explains that "debt financing for smaller businesses" is excluded from its list of incentive programs because it does not have direct significance for new private sector employment.

be defined. Equity investments fall more squarely into the economic development mission because these programs emphasize the intent to support startups and other entrepreneurial firms that are seen as having high growth potential. Much of the program language mimics the venture capital industry. Programs may include different finance options for firms at the pre-seed, seed, early stage, or later stages of firm or product development, and they are often intended to supplement or kick-start other private investment.

The downside, as with all venture capital, is risk. Individual investments represent a financial risk, of course, but states also assume an economic development risk. Most venture capital investments do not create companies with substantial numbers of sustainable jobs, which is the primary objective of the state investment. Even when there is a company success story, the firm may be sold and/or moved to be closer to its lead investors (Godfrey et al. 2020). In either case, the state economic development investment would not have achieved its desired outcome.

States may invest directly in companies or provide funds to other entities that select and make investments. Some states manage investment programs through their economic development organizations, but others have created quasi-public entities to conduct the business of investment as well as to provide other programs and services designed to serve high growth potential, technology- or innovation-oriented entrepreneurs. Alternatively, states may invest in an external fund of funds or select a single private sector partner to manage the state's investment funds.

Compared to loan programs, equity programs tend to make greater amounts of funding available to the companies they support, with several making investments up to $1 million, other programs investing between $1 million and $5 million, and a few smaller programs investing between $150,000 and $250,000 per company. The state's or fund's contribution may be structured as an equity investment or, less frequently, as convertible debt. A few equity programs either target or build in slight preferences for entrepreneurial firms by business owner characteristics or location.[6]

Most state equity investment programs reviewed here invest a small amount of money in relatively few companies whether measured per year or over the program's lifetime. For example, two representative midwestern state funds reported $40 million and $23 million in total investments over approximately a decade of operation. Smaller state programs may invest $1 million to $3 million annually if they are active. The number of companies receiving investments on an annual basis varies, ranging from 3 to 101 among the programs reviewed, and the total number of portfolio companies clustered around 25-30 in several state programs. One state fund invested in eight companies over its entire lifespan. Even a well-established fund such as the MassVentures reported that it had invested in a total of approximately 150 companies over 40 years.

Grants

Grants represent the smallest component of financial incentives for entrepreneurial firms. Several states offer grants tied to the federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. These grants, then, are the most common type of state grant program for entrepreneurial firms. They tend to be provided as

[6] Alaska's 49th State Angel Fund and Virginia's Center for Innovative Technology Virginia Founders Fund are examples that target, respectively, neighborhood and underrepresented entrepreneurs and women founders, founders of color, veteran founders and founders located in regions outside of Northern Virginia.

matching grants and range in funding levels, from just a few thousand dollars up to $150,000 for Stage I firms and more for Stage II or III grant winners.

States also offer a limited number of other grants for various types of technology companies. Some are specific to industries (such as sustainable energy) while most are generally intended to support prototype development, research and development, and technology commercialization. These grants vary substantially in size but tend to be larger than the typical loan and smaller than many equity investment caps, with some grants as high as $250,000. Some grants are structured as reimbursements tied to expenses that the business has incurred related to product development, access to professional services, or rent. Others are structured as innovation vouchers that can be used for technical assistance, such as specialized scientific, engineering, technology, design, or professional services.

A few states offer microgrant programs with caps as high as $10,000 or, at the very low end, $1,500. These smaller programs are less likely to be tied to technology commercialization or innovation activities and more likely to be used for services such as grant writing assistance, meeting requirements of government certifications for procurement purposes, or other basic business services.

Finally, some state programs provide grants to partners or intermediaries to develop collaborative workspaces, incubators, or accelerators. These grants do not represent an incentive to entrepreneurial firms and are, therefore, not examined in detail here, but they are worth mentioning as another way state and local government and economic development organizations may support entrepreneurial ecosystems.[7]

Fiscal

Angel investor tax credits are a common state-level incentive intended to benefit entrepreneurial firms. The Angel Capital Association[8] listed 29 state angel investor tax incentive programs on its website in April 2020. More states continue to add this incentive to their entrepreneurial support toolkit, and several programs examined for this report were newly created. While the incentive is a tax credit for investors, and is therefore considered a fiscal incentive, the policy objective is to increase access to capital for entrepreneurial firms by encouraging equity investments in companies in the state.

States implement angel investor tax credits in different ways because they do not all have the same tax structure and they often have distinct economic development priorities. Programs that sound similar may vary by the definition of a qualifying business or a qualifying investor, program funding caps, investment or tax credit limits, the amount of the tax credit, the taxes against which the credit may be applied, and whether the credit is refundable or transferrable, among other variations. Several of the angel investment tax credit programs we examined include the age of the firm in their definition of a qualifying business – accounting for nearly half of the small number of state programs that do.

While states do not report consistently on the use and results of these tax credits, more data is available for them than for most incentive programs serving entrepreneurial firms. Figures, of

[7] These grants may not be a source of significant support, however. A study of entrepreneurial ecosystems in St. Louis and Kansas City found that economic development funding only accounted for 5% of funding sources for community-led organizations focused on entrepreneur development (Harrington 2017, 29).
[8] https://www.angelcapitalassociation.org/aca-public-policy-state-program-details/

course, vary substantially by state. Among the programs reviewed here, reported tax credit values (credits either awarded or taken) ranged from $2.9 million to $23 million, and the number of companies assisted ranged from 7 (reported on an annual basis) to 422 (reported for the lifetime of the program). A typical annual range appears to be 5-35 companies assisted via the tax credit. Reported investment associated with the tax credits ranged from $4.5 million to $80 million annually.

Tax-based incentives intended to be used directly by entrepreneurs are less common because new firms tend to have low levels of taxable income. Most of these programs are location-based and are intended to be used by companies in designated distressed locations (often rural areas) or in areas targeted for innovation growth (such as innovation zones or districts). Some provide broad-based tax relief against several state and/or local taxes; others apply to specific state taxes. We also identified a very small number of state programs offering micro tax breaks, including a refundable microenterprise tax credit, a tax deduction for startup costs for new businesses, an income tax exemption for incubator tenants, and a sales and use tax refund for certain expenditures by approved new firms.

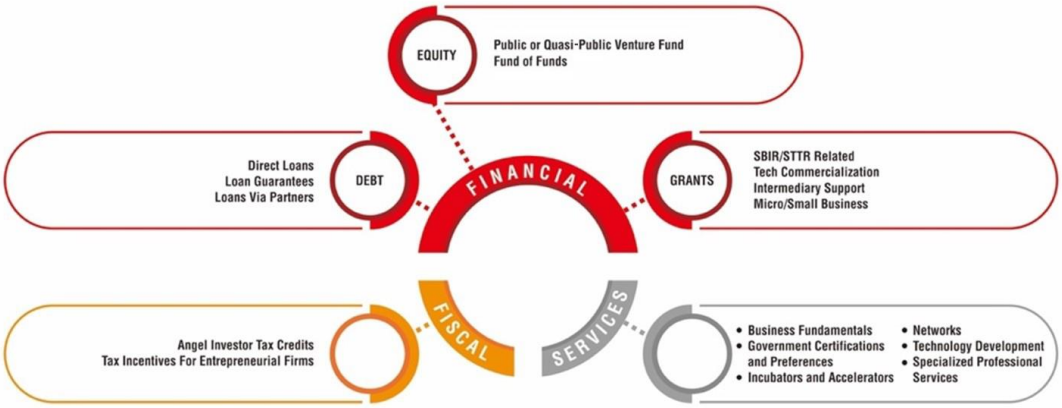
Services

Many state entities that provide incentives also offer or make referrals for services to assist entrepreneurial firm development. These services fall within only the broadest definition of an incentive, but they are important elements of the entrepreneurial ecosystem and are consistent with the definition we use in this report. They are frequently offered by entrepreneurial support organizations, and they can be partly funded by state or local government, in combination with financial programs. Services incentives fall into the categories listed below:

- Basic business education and start-up guidance that is designed for and available to all small businesses
- Support for workspaces such as local incubators, accelerators, startup and maker spaces, and innovation districts
- Network and referral services intended to help small businesses and entrepreneurs connect with other entrepreneurs, as well as partners and customers, business and professional service providers, and financial resources
- Government preferences and assistance in obtaining financing and certifications that help small businesses compete for state and local contracts
- Technical assistance related to research, technology transfer, technology development, prototyping, or product design, often with a university connection
- Tailored professional services provided to a select set of entrepreneurial firms, often companies with high growth potential in specific industries or technology fields

State economic development organizations may offer other types of services, such as workforce training and recruitment assistance, but few entrepreneurial firms would likely qualify based on job creation or investment requirements.

Figure 1 Incentives Typology



Gaps and emerging models

The state incentive landscape for entrepreneurial firms emphasizes financial, fiscal, and services offerings primarily for small business entrepreneurs and innovation or technology entrepreneurs. The financing options and service offerings for small businesses are often general in nature as they are necessarily focused on essentials that are relevant to many types of companies. Programs for innovation or technology entrepreneurs are the opposite. They are highly targeted and designed to serve a very small set of businesses – primarily those that might be able to successfully attract venture capital investment. The financing options and service offerings are much more likely to be specialized and tailored to the needs of those individual enterprises.

Recognizing that these two approaches do not effectively serve many types of entrepreneurial firms that can contribute to community and economic development, state and local governments are devising new approaches. Specifically, some emerging incentive models strive to support growth-oriented small businesses that are not necessarily technology-based or on a path to obtaining venture capital. Others are emphasizing inclusive entrepreneurship and social enterprises with the expectation that these firms can bring jobs, investment, and opportunity to places that have been left behind economically. Finally, some places are paying more attention to microenterprises and non-employer firms as gig and independent work becomes a bigger part of state and local economies.

Growth-oriented and second-stage small businesses

Small business typologies seem to struggle to name the types of businesses that fall between Main Street or “mom-and-pop” small businesses and high growth potential “gazelles” that are the targets for most entrepreneurial firm incentives. Mills and McCarthy describe an estimated 1 million U.S. “supply chain firms” that “are often focused on growth, domestically or through exports,” “operate with a higher level of management sophistication than Main Street firms,” and “are part of commercial and government supply chains” (Mills and McCarthy 2016, 16). Morris et al. (2015) call these in-between businesses “managed growth ventures.” They are characterized

by ongoing reinvestment and moderate growth, and they "have a workable business model and seek stable growth over time, as reflected in new product launches, periodic entry into new markets, steady expansion of facilities, locations, and staff, and development of a strong local and regional brand."

The description that is likely most well-known in economic development circles is "second-stage" small businesses that are associated with the economic gardening movement. The Edward Lowe Foundation has been the leading proponent of this approach to economic development. The foundation defines second-stage entrepreneurs as focused on growth rather than survival, often with 10-99 employees and between $1 million and $50 million in annual revenue. Economic gardening tends to be a local pursuit, rather than a state strategy, and the Lowe Foundation has downplayed the role of traditional business assistance, including incentives, in providing support for these second-stage entrepreneurs – which may explain why relatively few state programs exist explicitly to support this business segment. Instead, the foundation advocates providing information and analysis related to core strategy, market dynamics, qualified sales leads, innovation, and temperament (Edward Lowe Foundation 2017).

Rural areas that are less likely to become home to tech startups or innovation-oriented firms have also targeted non-tech growth ventures. As researchers on rural entrepreneurial development found, "The sweet spot for most entrepreneurial communities is to target entrepreneurs who operate a venture that is 1-5 years old and have the desire to grow it, regardless of its size. While these ventures are not necessarily high-tech, there is often something innovative about the product, process or delivery method. They also have a potential or actual market outside the local region and are capable of creating well-paying jobs and careers for local residents" (Macke et al. 2014).

State and local financial and service offerings can be designed to support these second-stage or managed growth ventures. In California, for example, Sacramento has announced an Economic Gardening pilot program,[9] which includes funds to provide up to $50,000 to companies for business development. The target firms are already established in Sacramento and have between 5 and 99 employees and $1 million to $50 million in revenue. The program will also offer advisory services from "experts who will analyze data and create growth strategies."

Similarly, Asheville, North Carolina, has a set of well-known and long-established financial and services programs serving regional entrepreneurs, including Venture Asheville. A partnership between the Economic Development Coalition for Asheville-Buncombe County and the Asheville Area Chamber of Commerce, Venture Asheville serves high-growth entrepreneurs through connections to "talent, mentors and investors through unique programming and events."[10] The group also helps to fund startups and provides other startup resources for entrepreneurs. Its target firms are ventures that create scalable products and services capable of rapidly growing top-line revenue, pursuing national or global markets, and funding growth through equity financing. To date, more than $11 million has been invested in more than 20 startups.

The recently created Delaware Encouraging Development, Growth & Expansion (EDGE) program is a competitive grant program to STEM-based and non-STEM small businesses in the state. The objective is "to help newer small businesses level the playing field with larger, more

[9] https://sacramentocityexpress.com/2019/11/01/what-is-economic-gardening-and-why-is-the-citys-chief-economic-officer-so-excited-about-it/
[10] https://ventureasheville.com/

established companies," help the state's small businesses access capital, and show state support for entrepreneurs.[11] Technology businesses are eligible for up to $100,000 while non-tech businesses are eligible for $50,000 grants. EDGE targets Delaware companies with less than 10 employees that have been operating for fewer than five years. Delaware's Division of Small Business administers EDGE. Grants are awarded through a competitive selection process.

Inclusive entrepreneurship and social enterprises

State and local leaders are concerned with rising income inequality within their borders and are keenly aware of place-based disparities in wealth and economic opportunity. Nurturing local entrepreneurship has become one angle of attack on these challenges. These fledgling initiatives may include but do not rely on existing small business programs. Instead, they strive to combine business basics with community outreach and development while also hoping to nurture growing enterprises that can generate economic benefits not only for the assisted firms, but also for the whole community. They often engage with community-based and philanthropic organizations to implement their programs.

Other countries are also concerned with business creation as a means to stimulate economic growth while addressing unequal access to economic opportunities. A recent OECD report noted that inclusive entrepreneurship is becoming increasingly visible in policy portfolios and should be seen as an integral part of inclusive growth. It acknowledged that entrepreneurial support programs should include more modest growth requirements and that "the concept of scale-up should be extended beyond fast growth." Increasing business creation among under-represented and disadvantaged groups is expected to generate multiple socio-economic benefits, such as reducing the gender gap and improving employment (OECD 2019).

The city of Atlanta and Invest Atlanta, for example, have created several new programs to help community-serving, neighborhood-focused businesses. The Community Wealth Building Business Accelerator, for instance, is a small business development program designed to "re-energize Atlanta's Southside" and is part of the Accelerate Southside initiative. It serves as a "business advancement program for existing minority-owned small businesses" seeking a brick-and-mortar retail location.[12] The accelerator features a sustainable business growth curriculum, includes a pilot project to finance real assets, and promotes community wealth building strategies. Invest Atlanta reported in 2020 that 21 businesses in the food and beverage, beauty and wellness, apparel, and home décor sectors have participated.

The Forward Cities ESHIP Communities, an initiative of the Ewing Marion Kauffman Foundation,[13] is another example of "a community-driven approach for building entrepreneurial ecosystems."[14] The framework is being tested in Baltimore, Kansas City, Long Beach, and Rio Grande (NM). The Community Entrepreneurship Accelerator[15] is designed to achieve inclusive growth through entrepreneurship and local capacity-building that brings together economic development, community development, and business development organizations. The current accelerator cohort includes Franklin County (OH), Indianapolis, Pittsburgh, and Westmoreland County (PA).

[11] https://business.delaware.gov/edge/
[12] https://www.theguild.community/accelerator
[13] Forward Cities is managing the implementation of this effort as a grantee of the Ewing Marion Kauffman Foundation.
[14] https://forwardcities.org/ecosystems/eship-communities/
[15] https://forwardcities.org/ecosystems/community-entrepreneurship-accelerator/

Finally, Launch Tennessee's Impact Fund[16] for social entrepreneurs was created in 2017 to invest in start-ups solving social, environmental, and economic problems while deploying sustainable business models. The Fund makes seed-stage investments ranging from $50,000-$150,000 in mission-driven Tennessee firms. The Fund requires a private sector match but strives to improve participation among disadvantaged business owners and companies in specific locations within the state by reducing the match requirement.

Microenterprises

Some state and local governments work together to offer loan programs for very small or very new firms, often using federal Community Development Block Grant (CDBG) funds. These programs are often separate from other small business programs and may also be managed by agencies other than the lead economic development organization. For example, Maryland's Microenterprise Loan Program[17] is located in the Department of Housing and Community Development. The state partners with community-based lenders to originate and administer loans of up to $50,000 targeted to start-ups and expansions in designated Sustainable Communities and Priority Funding Areas. Eligible firms can operate in many sectors but must have less than $500,000 in annual revenue and fewer than five employees. Missouri's Department of Economic Development[18] uses federal CDBG funds to assist microenterprises by providing grants to eligible cities and counties for revolving loan programs. At least one job must be created for every $15,000 of loan proceeds, and funding may only be used for eligible project expenses. Loans may be up to $50,000. In general, low- to moderate-income individuals must be the primary beneficiaries. In Texas, the Department of Agriculture[19] uses CDBG money for a Small and Microenterprise Revolving Loan Fund.

Community programs for microenterprises may also be offered by partner organizations. The Utah Microloan Fund[20] is a standalone nonprofit[21] that receives support from various donors, including many banks and the Small Business Administration. The fund can make loans of up to $50,000, and it targets entrepreneurs in underserved communities who are starting out and lack an operating history, are not eligible for conventional loans, and/or have poor credit scores.

North Carolina Thread Capital,[22] a nonprofit subsidiary of the NC Rural Center created in 2018, provides loans of between $500 and $50,000 and supports the Rural Center's mission to support small businesses and self-employment. The organization also provides coaching and networking services to small business owners. Funds can be used to start or expand a business, and proceeds can be used for most business purposes, with a few specified exceptions. Nearly any small business or individual may be eligible. In FY2018-2019, Thread Capital made 39 small business loans totaling $542,381, with an average loan size of $13,907.

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[16] https://launchtn.org/impact-fund/
[17] https://dhcd.maryland.gov/Business/Pages/microenterprise.aspx
[18] https://ded.mo.gov/programs/cdbg/microenterprise
[19] https://www.texasagriculture.gov/GrantsServices/RuralEconomicDevelopment/RuralCommunityDevelopmentBlockGrant(CDBG)/CDBGResources/Applications/SMRF.aspx
[20] https://www.utahmicroloanfund.org/
[21] The Microloan Fund is included within the C2ER State Incentives Database, receives government support, and also appears to deploy CDBG funds from Salt Lake County.
[22] Thread Capital is included within the C2ER State Incentives Database, and the Rural Center receives funding from local, state, and federal investors. https://www.threadcap.org/

It is notable that 56% of total loan recipients were women, 26% were people of color, and 34% were low-to-moderate income individuals.

Figure 2 Summary of Emerging Incentives Typology by Target

	Micro-enterprise	Small Business Entrepreneur	Inclusive Entrepreneurship/ Social Enterprise	Second Stage/ Growth	Innovation/Tech Entrepreneur
Financial	Loans	Loans, microgrants	Loans, grants, equity	Loans, grants, equity	Equity, grants
Fiscal	Rare	Rare	Rare	Downplay fiscal incentives	Angel investor tax credits, tax breaks for companies
Services	Basic advice	Basic business education, general business assistance, referrals	Tailored business assistance, often CDFI and non-profit support	Economic gardening, tailored business assistance	Specialized business advice, tailored professional services, technical assistance, networks

IV. USE AND STRUCTURE OF INCENTIVES FOR ENTREPRENEURIAL FIRMS

Incentive program descriptions, types, targets, and mechanisms tell only part of the story. The real impact derives from the context in which incentives are used and the way they are deployed. Program rules and eligibility, outreach and promotion efforts, application requirements, approval procedures, and compliance mechanisms also determine incentives' reach and effectiveness. This section addresses themes identified from our program and research review that affect the impact of entrepreneurial firm incentives in practice.

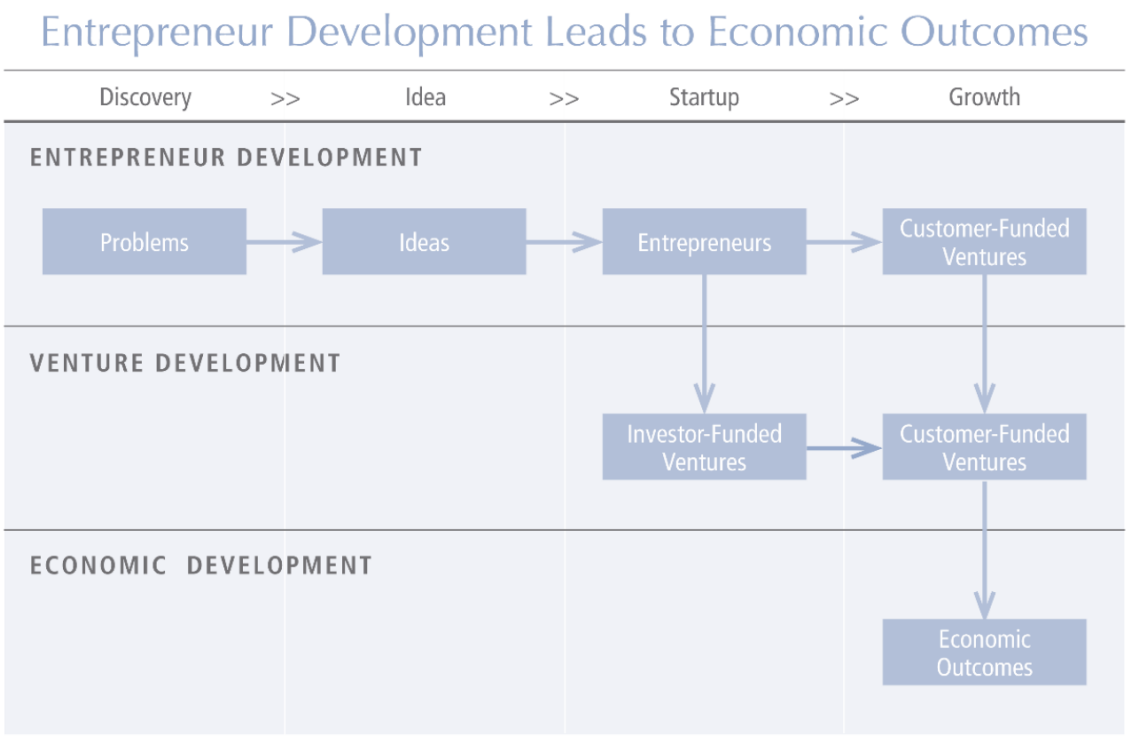
Incentives are a minor component of the entrepreneurial ecosystem

Developing and strengthening entrepreneurial ecosystems have become the standard approach to place-based mechanisms that foster firm start-up and growth. Within entrepreneurial ecosystems, research and policy reports concur that state and local government have a limited role to play. This limited ecosystem role, however, can encompass many disparate aspects of state and local government work. For example, state and local governments help define the setting for firm formation and growth by fostering a supportive business and tax environment, undertaking regulatory reform, and investing in education, workforce development, and infrastructure. State and local governments also contribute directly to the entrepreneurial ecosystem through policies or programs to enhance technology transfer, build physical places where entrepreneurs can gather and grow, and promote an entrepreneurial culture, among other activities (McConnell et al. 2012, NCSL 2014, Harrington 2017, Rood et al. 2019, OECD 2019).

Economic development programs and initiatives are one component of the state and local government activities that affect entrepreneurial development. **Economic development organizations, in general, are designed to help businesses grow with the expectation that this growth will benefit the community as whole, often in terms of more or better jobs, higher wages, a bigger and more diverse tax base, and physical improvements in the community.** Many economic development organizations continue to emphasize recruitment and retention of major employers, but "supporting local entrepreneurs has become a core part of the economic developer's toolkit" (Entreworks et al. 2018).

Even then, state and local economic development work, especially in offering incentives, typically emphasizes entrepreneurial firm growth rather than firm formation. Helping entrepreneurs start a firm has a less direct connection to the economic development mission because the gains stemming from a policy intervention tend to accrue first to the firm owners (Motoyama and Wiens 2015) and most new firms do not generate substantial numbers of new jobs. Further, economic development organizations designed to serve growing businesses may not have the expertise or resources needed to provide meaningful assistance to individuals during the startup phase. For these reasons, economic development organizations have not been frontline players at the startup phase in the entrepreneurial ecosystem (See Figure 3, Harrington 2017).

Figure 3 Economic Development Role in Entrepreneurial Development



Economic development organizations tend not to be involved with firms during the startup phase, focusing their efforts instead on growing companies. Source: "Entrepreneurial Ecosystem Momentum and Maturity: The Important Role of Entrepreneur Development Organizations and Their Activities," p. 7.

While their role may be narrow, economic development contributions to the entrepreneurial ecosystem are not limited to financial, fiscal, or service incentives. They may also provide information on important topics (for example, state or local government programs, rules, and requirements), offer resource directories (for example, links to non-government ecosystem partners), sponsor networking events, help catalyze conversations, make connections to help firms address business challenges, and contribute to state and local government initiatives related to education, workforce and infrastructure that encourage business growth and formation. They are conveners and partners as well as incentive providers.

In sum, incentives are one small part of economic development work, which in turn is one small part of state and local government business involvement. State and local government overall plays a niche role in entrepreneurial ecosystems and has limited influence over new firm formation. Even using our broadest definitions, then, incentives can be expected to have only a marginal effect on entrepreneurial firms.

Incentive program rules may inadvertently constrain access and limit participation

In trying to determine which incentive programs are intended for new entrepreneurial firms, we looked at incentive eligibility guidelines and applications across many states. We found as a byproduct of our effort that these rules exclude many businesses, and the forms are often so complex that they seem designed to deter participation. In more than one state, the small business loan form is longer and requires substantially more documentation than the application for equity investment programs. Our review also found that many financial programs are used by only handfuls of businesses per year. Narrow program eligibility rules and onerous application requirements – often for small amounts of money – likely diminish the pool of participants.

We provide one illustrative example here. A state economic development website touts the importance of small businesses and startup firms as part of the overall business base and praises their contributions to the state's economic competitiveness. The website lists several financial, fiscal, and service incentives intended to serve those startups and small businesses, including a small business loan program.

The small business loan program's stated purpose is to help small businesses take steps toward expanding and creating jobs. To be eligible for a loan up to $50,000 at a 3% interest rate, applicants must have 15 or fewer employees, be 100% owned and located within the state, and receive tax clearance from the state. There are restrictions on uses for the loan funds, which may only be used for certain documented investments and purchases. The application form is 13 pages long, and companies must provide financial statements, a business plan, a certificate of insurance, character references, tax clearance certificates for both the owner and the business, and three years of personal and business tax returns. Many of the loan document elements mirror the SBA 7(a) loan application process. However, the maximum amount of an SBA 7(a) loan is $5 million (or $350,000 for a small loan).

By comparison, the state's fund to provide early-stage capital to high-tech startups offers a much cleaner, simpler application process. To be eligible for matching equity or convertible debt up to $500,000, applicants must be based in the state (not 100% owned and located within the state), fit into one of the state's industry focus areas, be in the seed financing stage (not defined), and have a proprietary or protectable intellectual property. There do not appear to be restrictions on the uses of funds. The application form is four pages and requires basic business data, a funds request, and a state tax identification number. It does not appear to require tax

clearance certificates, personal or business tax returns, a business plan, character references, or financial statements.

Good due diligence and carefully designed application processes are important when providing financial incentives. Whether structured as debt or equity, the state expects to receive repayment for its loan or a return on its investment. There should be a good review process in place before providing money to a private company. However, this example – and there are many others – suggests that states should question whether their current procedures are sensible, equitable, or even useful to them and the companies they are striving to assist. Our research suggests there is substantial room for improvement.

Awareness of and access to incentive programs remains a challenge

Economic development programs can suffer from an "if you build it, they will come" mentality. Initiatives may be crafted, funded, and set up within state or local government but lack the resources to promote the programs to intended beneficiaries. Furthermore, founders of entrepreneurial firms may not think to look to state and local government for assistance in running or funding their business. The challenge can be especially acute for BIPOC- and women-owned businesses and firms in rural or underserved communities that lack networks within the entrepreneurial ecosystem and often have lower levels of awareness of or access to available programs (Hwang et al. 2019, OECD 2019).

One way state and local governments strive to improve awareness of and access to their programs is through their organizational structure and online presence. Some states provide entrepreneurial incentive information through their state economic development organizations. For example, the Colorado Office of Economic Development and International Trade[23] provides information on incentives to entrepreneurial firms on its Funding & Incentives page via a Startups & Small Business section. This approach assumes entrepreneurs would come to the site seeking information on incentives. The Wisconsin Economic Development Corporation (WEDC) provides information on incentives to entrepreneurial firms via a dedicated Entrepreneurs[24] section that is prominent on its homepage. This approach assumes that businesses come to the site seeking resources for entrepreneurs. Here, WEDC presents its capital access programs intended for technology-based or innovation-oriented entrepreneurs. Other small business programs are listed separately under the Community Programs[25] and Minority Business Development[26] sections of the website.

Other state and local governments have created a specialized entity, often a public-private partnership or a quasi-public agency, to spearhead their entrepreneurship support activities, including incentives. For example, LaunchTN,[27] a public-private partnership, manages several funding sources, including equity initiatives, a SBIR/STTR matching fund, and microgrants. Its website has a Resources tab under which Entrepreneur Programs, including Funding Sources and Training and Workshops services, are presented. MassVentures[28] is an example of a more specialized entity as a "quasi-public venture capital firm." Describing itself as the oldest public venture fund in the country, MassVentures provides equity financing to early-stage, high-growth

[23] https://oedit.colorado.gov/
[24] https://wedc.org/entrepreneurs/
[25] https://wedc.org/programs/?fwp_programsresources_category=community
[26] https://wedc.org/business-development/minority-business-development/
[27] https://launchtn.org/
[28] https://www.mass-ventures.com/

Massachusetts startups and grant funding through other programs. It directs firms to either the Venture Investment or Grants tabs on its home page.

The examples above show that states try a variety of methods to make program information accessible, but there is no consistent way for entrepreneurial firms to find and then navigate state incentives information. Many other state and local governments offer less obvious entry points for entrepreneurs seeking advice or assistance. If such an entry point is found, many websites simply list a set of programs that could generally apply to a variety of business types and sizes. Identifying useful programs, determining eligibility for an individual firm, and following the process to apply would still require substantial time and effort on the part of the entrepreneur.

Some states and localities have changed the way they present information to entrepreneurial firms, recognizing that "entrepreneurs" and "small businesses" are not all the same and have myriad needs and interests. These websites are organized by how entrepreneurs might ask questions rather than how government runs programs. They provide an obvious entry portal for entrepreneurial firms seeking assistance. They also provide navigation options beyond clicking through program lists and allow searches by entrepreneur type (new versus growing) or by business need (information, networks, funding). For example, Startup Washington[29] within the state's Department of Commerce serves as a clearinghouse for entrepreneurs, start-ups, and small businesses. The site navigation is organized by, "I want to (start a business/grow a business)" as well as by programs, tools, resources, and links. As a result, there are many paths to finding relevant information. In Connecticut, CTNext[30] provides guidance, resources, and networks to accelerate the growth of companies and entrepreneurs. CTNext is not simply a web resource; it offers contact information and a resource wizard to help individuals find the information most relevant to them. For example, resources can be searched by "idea phase" or "build phase."

Good websites – which are certainly not easy to create and maintain – are necessary but not sufficient to reach the potential pool of entrepreneurs who may benefit from incentive programs. In particular, they are less likely to reach the smallest businesses and many BIPOC- and women- owned businesses that may not have professional advisors guiding them through the financing process. Marketing and outreach often get short shrift in government programs, but both are necessary if the intent is to reach new small firms, neighborhood businesses, or businesses located in underserved communities. Program research has also found that engaging with a broad set of community partners, such as community development finance institutes (CDFIs), nonprofit organizations, small business development centers, and other local community and business associations can improve financing program performance in underserved communities (CREC and Cromwell Schmisseur 2016).

Most incentive programs assist a very small number of firms

The Typology section of the paper has already established that most state and local entrepreneurial firm incentive programs don't engage with many companies. Many serve less than 10 or 20 businesses per year, and even large programs may only work with roughly one

[29] http://startup.choosewashingtonstate.com/
[30] https://ctnext.com/

hundred firms on an annual basis.[31] This section provides some context for those figures and discusses the necessarily limited impact that state and local incentive programs have.

Let's say for argument's sake that each state has five financial or fiscal programs that help 20 entrepreneurial firms per year. Across the country, 50 states would then be helping 5,000 businesses (5x20x50). Let's assume that some of the bigger states provide such incentives to many more businesses, and some programs are extremely active. Doubling our baseline assumption to account for these programs would bring us to 10,000 small businesses and technology- or innovation-oriented firms assisted through entrepreneurial incentive programs.

For context:

- There are approximately 30 million small businesses in the United States, including 25 million non-employer establishments.
- Every year, the nation's Small Business Development Centers serve approximately one million businesses.[32] This figure is likely a better representation of the number of small businesses that may be seeking government-provided financial, fiscal, or services incentives. Given our assumptions, it is likely that less than 1% of these firms participate in incentive programs.
- According to the Small Business Administration, banks loaned about $600 billion to small businesses in 2015 (U.S. SBA 2016). Even if each of the five incentive programs we assumed per state were small business programs and they all loaned the typical maximum of $50,000 to a total of 100 businesses, the total would only be $250 million.
- Mills and McCarthy estimate that 3% of all firms qualify as high-growth startups, yielding about 200,000 firms in total. If all states have an average portfolio of 30 companies in which they have invested, we would see 1,500 firms.
- The National Venture Capital Association reported that $131 billion was invested in 2018, of which $9 billion went to early-stage companies.[33]
- The Angel Capital Association estimates that angel investors provide $25 billion to 70,000 companies annually, while the National Venture Capital Association estimates $7.5 billion of angel funds were invested in 2018.
- We don't have investment figures for each state's portfolio, but if we consider the representative portfolio *lifetime* investments of $40 million and $23 million cited previously in this report, the annual impact of state equity investments would be minuscule. If we took the outlier Ben Franklin Technology Partnership as our state model, and assumed each state made a similar $20 million investment *annually* into high-growth firms, we would suggest that states made a meaningful 11%-13% contribution to early-stage firms based on National Venture Capital Association data or 4% based on Angel Capital Association figures.

This is not to say that state and local incentive programs for entrepreneurial firms have no role to play. Many programs strive to fill gaps in the financial marketplace and increase access to

[31] For example, the well-established and relatively well-funded Ben Franklin Technology Partnership reported that it had invested in 4,500 companies over 32 years. Similarly, Oklahoma's i2E program reported that it provided funding and services to more than 700 companies over a 20-year period.
[32] https://americassbdc.org/about-us/a-brief-history/
[33] National Venture Capital Association, 2019.

capital – an important policy objective when nearly half of small business credit applicants do not receive the full amount of financing sought, and there are significant funding disparities by race and ethnicity (Federal Reserve Banks 2020). Nevertheless, this context is important to consider when evaluating the effectiveness of incentive programs and firm- and place-based outcomes. Context also matters because the relatively small size of the programs may not be consistent with the promotional language around new program announcements or in line with the expectations among policymakers and entrepreneurial firms about the impact these incentives may have.

A new approach to entrepreneurs in disadvantaged or underserved locations and demographic categories is needed

The findings on incentives intended to serve entrepreneurial firms in rural or distressed communities or with BIPOC and/or female ownership are not encouraging. Despite a frequent policy focus on filling gaps in the credit and equity marketplace and the well-documented gaps faced by businesses in these categories (Federal Reserve Bank 2019, Farrell et al. 2019, Hwang et al. 2019, Federal Reserve Banks 2020), a small proportion of incentive programs identified for this report actually are designed to meet the needs of these entrepreneurial firms. Further, with a few exceptions, broad-based programs do not consistently report the demographic characteristics of firms assisted.

Separate research on small business financial health in urban communities and capital access for small businesses in Appalachia both suggest a need to better target programs, address access to capital in a holistic manner, and be more responsive to the characteristics of the businesses in the targeted communities (Silver et al. 2013, JPMorgan Chase 2019). A greater number of incentive programs report the geographic location of businesses assisted, but rarely at the sub-region or sub-county level, and often grouping all rural or all metropolitan areas together. More and better data is needed to determine if incentive programs are filling the financing gap or replicating it.

The persistent findings on the disparities in financial access among businesses owners by demographic category and location may be sufficient proof that the current approach has not been effective. BIPOC- and women-owned businesses as well as entrepreneurs in both rural communities and distressed urban locations all remain underserved. Existing programs, then, are primarily engaging a narrow segment of entrepreneurial firms.

Incentives are a small part of the financing equation, but since they are often intended to address the financing gap, a new approach should be developed. It would be appropriate for state and local government, economic development leaders, and community partners to initiate a rethink and reset of incentive and financing programs to identify ways they can be improved to close the gap and better serve the full set of entrepreneurial firms in all communities. Options for consideration include reducing the reliance on debt instruments, expanding allowable uses of funds, reviewing eligibility requirements, streamlining application and compliance processes, and adjusting or eliminating job creation requirements in favor of other firm or community outcomes.

Careful program design and active project management improve effectiveness

Well-designed incentives with clear rules and responsibilities benefit both businesses and state and local governments. Sound program design should include clear and measurable goals,

transparent procedures for disbursing funds, an explanation of the way the incentive is expected to influence the expected outcomes, and a basic analysis to see if costs are in line with expected benefits. Incentive program management should provide clear guidance to program users (including consistent and specific definitions), allow for reasonable due diligence on applicants, establish compliance procedures, and provide public reporting for accountability.

These issues have been repeatedly flagged in research and program reports at the federal and state levels. For example, the evaluation of the federal State Small Business Credit Initiative (SSBCI) identified several design, operations, and compliance factors that influenced the effectiveness of individual state lending and equity programs across the country (CREC and Cromwell Schmisseur 2016). These factors have been raised again for the federal Opportunity Zone program as policymakers express concern that the program's design is misaligned with the needs of the small business owners it is intended to help, that a lack of regulatory clarity will keep investors on the sidelines, and that reporting requirements must be strengthened in order to be able to determine whether the program will generate the expected community- and business-level outcomes (Harpel 2019). State-level tax incentive evaluations consistently demand greater clarity on program goals and better data with which to assess compliance and outcomes.

Among incentives for young, entrepreneurial firms, Pennsylvania's Keystone Innovation Zone (KIZ) tax credit offers a case in point for both design and management. A Pennsylvania Independent Fiscal Office program evaluation explained that participating entrepreneurial firms use brokers to sell the KIZ tax credits that they receive from the state because they do not have sufficient tax liability to use the credits themselves. In return, the firms typically received $0.88-$0.90 per dollar of tax credit value. As a result, 10%-12% of the allocated state tax credit does not go to the target entrepreneurial companies and is therefore not stimulating technological development as intended. One proposed reform option would make the tax credit refundable so that more of the money goes to companies and less goes to tax credit brokers. Separately, an investigation into fraudulent use of KIZ and R&D tax credits in Pennsylvania that generated a $10 million loss to the state yielded other recommendations to require audits, strengthen the application procedure, and train KIZ coordinators in order to reduce fraud and abuse within the program.

Design and implementation have also been found to affect angel investor tax credit effectiveness. For example, tax credits may be provided to existing investors, executives, and family members at beneficiary companies, suggesting that the tax credit is not being used to incentivize additional investment or bring new investors to the state. States may intend angel investor tax credit programs to guide investment to innovative high-growth companies, but program rules and definitions are often unclear, allowing investments in firms that do not meet this standard (Howell and Mezzanotti 2019, Denes et al. 2019, Independent Fiscal Office Commonwealth of Pennsylvania 2020).

V. OUTCOMES

"What works?" and "Which incentive programs are effective?" have been challenging questions for researchers to answer. Appendix B elaborates upon research challenges that make it difficult to draw clear policy guidance from this work. The literature review of academic and policy research in Appendix C provides detail on several analyses along with findings by type of incentive program, with attention paid to the effect on the firm, place or geographic location, and, where possible, entrepreneurship diversity.

This section summarizes these analyses for policymakers and describes our understanding of outcomes by incentive type, while acknowledging that more work needs to be done to determine the effectiveness of all categories of state and local incentives for entrepreneurial firms.

Financial

Debt

Small business lending programs are important because small businesses tend to rely on loans for operating and expansion capital that enables them to grow, create jobs, and contribute to the economy. Yet many types of businesses, including BIPOC- and women-owned businesses and those seeking small dollar loans, can be shut out of the credit market (Mills and McCarthy 2016, Federal Reserve Bank of Atlanta 2019, Federal Reserve Banks 2020). Government programs strive to expand lending and close these gaps.

At the federal level, "SBA programs which facilitate traditional bank lending have been successful," and studies have documented their positive impact on overall small business growth and in meeting the needs of underserved business owners (Brown et al. 2020, 5). At the combined federal/state level, the State Small Business Credit Initiative (SSBCI), which operated from 2010-2017, provided nearly $1.5 billion to state small business financing programs. Approximately 70% of funding went to lending or credit support programs, which enabled nearly 15,600 transactions – 80% to businesses with less than 10 full-time equivalent (FTE) employees – and spurred $5.3 billion in new loans and investments. Evaluators estimated that 53,000 new jobs were created as a result of these programs (CREC and Cromwell Schmisseur 2016).

The effectiveness of state and local lending programs unaffiliated with SBA or SSBCI programs is less clear. While many analyses examine small business financing practices and the funding gap for business owners, they make scant mention of state or local government-run loan programs (e.g., Federal Reserve Bank of New York 2017, Mills and McCarthy 2016, Brown et al. 2020, Federal Reserve Banks 2020). Self-reporting on state and local program results, to the extent it exists, tends to emphasize the number and value of business loans, with little if any insight into firm-level or place-based outcomes.

Our review of the program activity for state small business loan programs suggests the economic impacts would be minimal. As described previously, most programs distributed loans well under $50,000 on average to fewer than 20 or so businesses per year, though some programs might have helped many more. While we assume these disbursements had a positive impact on the firms that applied for the loans, we do not have data to measure the effect.

Other studies that look at small business lending programs on a larger scale have identified several factors relevant to successful program outcomes. For example, one policy report found that revolving loan funds created to support new business creation often yielded disappointing results unless they were managed by organizations that have technical expertise and adequate levels of capital (McConnell et al. 2012 citing Barkley, Markley, and Rubin 2001). The OECD found that successful inclusive small business loan programs require high-quality management, including strong monitoring efforts and timely interventions by the lender when repayment installments are delayed (OECD 2019 citing Marchese 2014). The analysis of the SSBCI program identified program design, the importance of outreach to targeted businesses, financial sustainability, and compliance practices as critical success factors for state credit support programs (CREC and Cromwell Schmisseur 2016).

Bottom line: Small business lending programs can be effective, but most stand-alone state and local small business loan programs are too small to have substantial community- or firm-level impacts. The programs themselves may indeed fill a gap in credit access, but they represent a minuscule segment of the small business credit universe. Good management practices, technical expertise, sustained outreach, and effective compliance procedures are necessary to have a chance for success – all of which may be a challenge for programs that manage small numbers of transactions per year.

Equity

Policymakers strive to encourage equity investments in private companies because they want to see innovative, technology-oriented businesses with high growth potential start and expand in their communities. They expect these firms to create substantial numbers of well-paying jobs and generate positive multiplier effects for the state and local economy. One study found that firms backed by venture capital increased employment by roughly 475% compared to a control sample and that these firms remained top employers for years (Brown et al. 2020, p.4). Another reported that venture-backed firms account for 38% of the employees in public companies founded in the past 40 years (Gornall and Strebulaev 2015). However, policymakers also know that venture capital flows primarily to a few metropolitan areas – usually not their states or communities. They want to do what they can to increase capital availability to their businesses in the hopes they will stay and grow.

For these reasons, venture-backed companies seem like a good bet for state and local leaders and their economic development organizations. However, research also suggests that the risks outweigh the rewards. For example, the Kauffman Foundation's *Guidelines for Local and State Governments to Promote Entrepreneurship* states simply: Eschew public venture funds. Citing previous research, the authors note that these efforts provide little to no benefit to either the business or the government, are risky, and involve high levels of firm failure (Motoyama and Wiens 2015 citing Cumming 2007, Bygrave, and Quill 2006, Jaaskelainen et al. 2007, Cumming and Johan 2009, Lerner 2009, Brady et al. 2012).

Program evaluations, however, have indicated some positive results. One evaluation examined venture capital programs created under the SSBCI program in which 38 states directed $450 million (31% of total SSBCI funds) to venture capital programs. The study found that these programs supported over 1,300 equity investments using $278 million that generated $3.1 billion in new investment from 2011-2015. Most of the assisted firms were less than five years old, and the median firm had four or fewer employees and tended to be in the professional services, information, or manufacturing sectors. While these are positive indicators, the evaluation also found that nearly all of the funds were distributed to firms in urban areas, and job creation fell well short of projections (CREC and Cromwell Schmisseur 2016).[34]

Small Business Investment Companies (SBICs), an SBA program created in 1958, are intended to provide an alternative source of financing for high-risk small businesses by combining equity investments from private investors with government guaranteed debt backed by the SBA. The objective is to reduce the cost of capital and increase returns on equity. Research examining relatively recent SBIC activity has found a "positive and durable impact on job creation." For example, three million new jobs were created due to SBIC investments between October 1995

[34] The program forecast that 49,000 jobs would be created by 2016. Companies themselves projected a total of only 19,000 jobs, and the best estimates at the time of the study were that 11,000 jobs had actually been created.

and December 2014, and employment in assisted small businesses grew over 45% – evidence that indicates SBIC equity investments have a positive impact on economic activity. Further, approximately 44% of total funds went to female-founded businesses, compared to 10% for venture capital over the period examined (Brown et al. 2020).

Evaluations and annual reports of individual state equity programs have found mixed results. Most invest in a small total number of companies, whether measured per year or over the program's lifetime. When state equity programs estimate or count new jobs, they tend to be in the low hundreds. Several state programs have shuttered in recent years and many have had a poor record of deploying funds to companies in their respective states. States that have wound down programs include Oklahoma (OCIB Venture Investment Fund), Iowa (Capital Investment Corporation), Utah (Utah Capital Investment), and Michigan (the Venture Michigan Fund).

Indiana's Elevate Ventures is an example of both the challenges and promise of state equity investments. Created in 2010, Elevate Ventures manages several programs funded primarily (75% of budget) through a $30 million annual appropriation to the 21st Century Research & Technology Fund, which is designed to provide financing to Indiana startups. After weathering an early self-dealing controversy, it appears to have found its footing. Since 2010, it has made 508 investments totaling $91.4 million in 313 companies. In 2018 it made 94 investments totaling $12.6 million. In terms of firm and community outcomes, Elevate Ventures has reported that outside investment to funded firms reached $633 million, and over 2,500 people are employed at the funded companies. However, a news article pointed out that the state has only recouped $20.6 million on its $17.6 million investment into 51 companies that reached the exit stage, and that negative or neutral exits outnumber the positive ones, implying that the high-growth payoff for the state's investment has not yet been realized (Erdody 2019).

As with debt programs, positive outcomes from equity initiatives require good program design and active management. Recommendations include distributing multiple small investments to create a cohort of local entrepreneurs, involving local entrepreneurs in award selection, hiring managers with good networks at support organizations, creating an effective board of directors, establishing reasonable expectations for the timeframe in which to measure success, collecting data about the companies receiving funds, and integrating the recipient companies into the local ecosystem (Motoyama and Wiens 2015). Others recommend management and policy initiatives such as sharing community and best practices among investors, creating industry standards, establishing professional communities of practice, facilitating the creation of a greater diversity of investment vehicles and intermediaries, providing better market research, and monitoring government policies that affect capital markets (Hwang et al. 2019).

Bottom line: Even successful private equity investors generate few breakout successes and must tolerate many company failures. State and local governments face an even steeper challenge in achieving success because their goal is that firms receiving investments also create a substantial number of new jobs and remain in the state over the long-term. Experienced managers and good management practices play an especially important role in achieving positive outcomes.

Grants

Limited academic research was available on state and local grants for entrepreneurial firms, but some studies that examined federal-level grant programs suggest positive firm-level impacts. Few directly addressed community-level outcomes.

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, which subsidize innovation and research and development (R&D) related to technology commercialization, have been found to influence patents, venture capital investment, firm revenue, and survival and exit rates (Howell 2017). Similar findings were reported for the now-defunct federal Advanced Technology Program (ATP) in a study that also considered firm survival over a 14-16 year period (Smith et al. 2018). Other research has shown that completion of phase II of the SBIR program had a positive and significant effect on a firm's sales of the technology developed through the program (Audretsch et al. 2002).

A 2018 study of Seed Fund Support Grants from the Department of Commerce's Economic Development Administration's Office of Innovation and Entrepreneurship Regional Innovation Strategies program found that 158 recipient companies created over 1,000 jobs between 2014 and early 2018 at a cost of $9,769 per job from federal and local matching funds (U.S. EDA 2018). State or federal grants to research universities and those that provide seed funding to entrepreneurs were found to promote firm formation and later reduced costs to investors seeking startups with high growth potential, starting a virtuous cycle of startup and investment (Holstein and Eschenfelder 2017).

To the extent that program statistics on entrepreneurial grants at the state and local level are available, they typically emphasize money distributed and number of companies assisted, with few meaningful firm- or place-based outcomes reported. Some, but not many, do provide job counts. Below are two exceptions that provide more insight into outcomes achieved.

Virginia's Commonwealth Research Commercialization Fund (CRCF)[35] issues an Annual Report[36] that includes several program, firm-level, and economic development outcomes. In FY2019, CRCF reported 41 awards totaling $2.51 million, which leveraged $6 million in matching funds. Recipients reported attracting $117 million in follow-on funds. Ten new companies were formed to commercialize CRCF-developed technologies, two companies were acquired, and 25 expanded, established, or enhanced facilities. Two hundred new full- and part-time jobs were reported, along with $33 million in sales revenue. Over the lifetime of the program (FY2012-FY2019), almost 350 projects have received nearly $28 million in funding. Since FY2015, recipients have received $457 million in follow-on funding, generated $88 million in revenue, and created or retained over 1,400 jobs.

The Colorado Advanced Industry Accelerator Grant Program reports on jobs created and retained, number of new companies created, follow-on capital, and projected annual revenue among companies receiving grants, as well as the number and amount of awards made per year. The 2018 program update reported 63 active grants totaling $12.2 million, with 55 jobs created, 4 new companies created, and $15 million in follow-on capital. Since its establishment in 2013, 196 proof of concept grants and 138 early-stage capital and retention grants have been awarded. $50 million in funds have been granted, leading to the creation of 763 new jobs and follow-on capital of $360 million.

Some of these studies have also addressed aspects of entrepreneurial grant program management. Some grant programs can be difficult for entrepreneurs to access, with required paperwork and delayed funding decisions diminishing their impact. Reporting and milestone

[35] The CRCF "accelerates innovation and economic growth in Virginia by advancing solutions to important state, national, and international problems through technology research, development, and commercialization." CRCF is funded by General Fund appropriation, which was $2.8 million in FY2019. https://www.cit.org/crcf.html.
[36] https://rga.lis.virginia.gov/Published/2019/RD419/PDF

requirements may also prove challenging for companies and may deter some applicants. And program design can influence effectiveness. For example, Howell's 2017 study of the SBIR program suggests that a greater number of one-time grants to small, young firms may be more productive than fewer larger or sustained grants to a smaller pool of companies.

Bottom line: Grants appear to have positive firm-level effects on innovation and finance metrics, as well as indications of employment and sales growth that should yield economic development gains. However, the scale and scope of most grant programs suggest these benefits would not be widely felt at the community level, except in the unusual case of a breakout company success.

Fiscal

Angel investor tax credits

Angel investors play an important role in the entrepreneurial ecosystem because they are often sophisticated, active, and effective investors with deep local economic connections and access to additional venture capital sources. Angel investments have been found to lead to successful firm outcomes related to growth, survival, and exits that enhance the entrepreneurial ecosystem (Gornall and Strebulaev 2015, Lerner and Schoar 2016). Many states that struggle to attract capital for private investment in their companies, therefore, have tax credits intended to encourage greater angel investment in local firms.

Several research studies on angel investment tax credits (not just angel investments) also indicate positive firm- and community-level outcomes. One study found increases in entrepreneurship activity within two years of the tax credit's creation (Bell et al. 2013). Others identified job creation and retention benefits (Kousky and Tuomi 2015) and increases in leveraged capital, local employment, earnings, and value added (Tuomi and Boxer 2015).

Other research studies, however, have not found angel investment tax credits to be effective. Some studies found no measurable effects on either local entrepreneurial activity or beneficiary company outcomes despite increases in measures of angel investing activity. It is not clear that tax credits increase total investment, because they may not steer investors to deals that they would not have considered anyway. The number of companies receiving investments and the number of jobs they create do not necessarily increase substantially because of the existence of a tax credit (NCSL 2014, Kousky and Tuomi 2015, Howell and Mezzanotti 2019, Denes et al. 2019).

The design of some angel investment tax credits also means that they may be rewarding existing investors rather than enticing new investors and new capital into the market. Further, tax credit guidelines in some states are written in such a way that investments are not targeted to the innovative or technology-oriented companies purported to be focus of the incentive. Howell and Mezzanotti (2019) found that only 9.5% of beneficiary companies are high-tech innovative companies and have no insider investment or previous external equity.

Evaluations of individual state angel investor tax credit programs have also yielded mixed results. Minnesota's evaluation showed increased investment, but the study also found that 50% of investors were founders, executives, principals, or board members in the business or family members of someone in those roles (Economic Development Research Group, Inc. and Karl F. Seidman Consulting Services 2014, 3). Maryland's Biotechnology Investment Incentive Tax Credit evaluation found no evidence of increased investment in the biotechnology industry or

the number of biotechnology companies in the state. The report also noted that there was insider participation in approximately half of the companies engaged through the program (Rehrmann et al. 2017). In Iowa, an evaluation found that companies that had received angel investments averaged $4 million more in sales and had 1.3 more employees than similar early-stage companies that had not received an investment, but the small sample size prohibited the researchers from concluding that the impact of the program was greater than zero (Barker 2017).

Bottom line: Some research suggests angel investor tax credits may have a positive, but limited, firm and community impact, while other research has found them not to be effective. Community-level benefits would not be widely felt, except in the unusual case of a breakout company success. Program design flaws may mean tax credits disproportionately or unintentionally go to company insiders who may have made the investment anyway. Specifying criteria for qualified entrepreneurial firms as well as investors can help link the tax credit's use to economic development and entrepreneurial ecosystem priorities.

Tax Incentives

Most of the major state tax incentives are not suitable for entrepreneurial firms because they generally have little or no tax burden against which to apply a tax break. Tax incentives are primarily designed for and used by large or established firms. Exceptions are tax credits that are designed to be refundable or transferrable, thereby allowing an entrepreneurial firm to turn the credit into cash, often at a discount.

Many state tax credits are intended to incentivize greater R&D spending, capital investment, or job creation. In most states, these tax credits would not be targeted to entrepreneurial firms, and for this reason they are not included in the report typology. If an entrepreneurial firm happens to meet the spending or job creation requirements in a given state program, it would, of course, be eligible to take the credit.

Some studies have examined the effect of R&D and investment tax credits on entrepreneurial firms. R&D tax credits analyses tended to find a negative effect on entrepreneurship, but some positive effects were also identified. One study indicated that the level of entrepreneurship within counties increased starting after the tax credit's third year (Fazio et al. 2019). Another suggested a correlation between R&D tax credits and employee departures to become entrepreneurs, including in venture-backed startups (Babina and Howell 2019).

Investment tax credits do not appear to have positive impacts on entrepreneurship and may even have a negative impact due to a crowding out effect that hinders firm formation (Fazio et al. 2019, 24) and by diminishing the average growth rate of startups and scaleups (Barker 2017).

Bottom line: Tax incentives are not the best method of helping entrepreneurial firms. At best, they have indirect positive effects and, at worst, they have a negative impact. Transaction costs for certain types of entrepreneurial tax incentives can diminish their value and divert intended resources away from the entrepreneurial firm.

Services

Service elements are almost always present in state and local programs designed to assist entrepreneurial firms. Various service offerings have been well-studied, but there has been limited analysis of which services are most helpful to fostering entrepreneurship and job creation. Further, studies do not always take into consideration differences among types of entrepreneurial activity, industrial concentrations, or regional variations that affect firm- and community-level outcomes when assessing services. It has remained a challenge to identify the essential characteristics of service offerings, such as the optimal services to provide for different types of entrepreneurial firms in various geographic settings (Gu et al. 2008).

Innovation and startup spaces such as incubators and accelerators have received substantial research attention. Studies have generally found that incubators and accelerators play an important role in supporting entrepreneurship, but their value depends on the quality and array of services, not the physical space itself. The research does not, however, fully unpack the suite of services that may be offered to determine the specific services that provide the greatest impact. Instead, the research often examines the impact of the full package of services offered by innovation spaces on firm results.

Findings on firm- and place-based outcomes associated with incubators are mixed. Incubator firms outperform their peers outside of incubators by employment and sales growth, but the improvement is marginal and their firm survival rates are not different (Amezcua 2010). The effect of incubators on place-based outcomes is not clear since local characteristics such as the size of a region and industry mix and concentration may affect an incubator's success. One study found that incubators were more effective in resource-deprived environments where entrepreneurial firms needed to be bridged to resources. Incubators were also helpful in hyper-competitive environments by nurturing young firms struggling for attention and resources (Amezcua et al. 2020).

Accelerators have helped enhance venture capital and other funding opportunities at the firm level while drawing investor attention to a region's entrepreneurial ecosystem (Hochberg 2016, Fehder and Hochberg 2014). As with incubators, the quality and quantity of services matter. Accelerators that engage in firm-level problem solving, peer interactions, mentor meetings, networking and education, and assistance with business operations are more likely to be considered successful (Cohen and Hochberg 2014, Hallen et al. 2019; Cohen et al. 2019).

Design and management of service offerings appear to be critical. One study of business incubation best practices found that targeted business assistance can help create new ventures that sustain success if the business incubator is well-run and managed, with "synergy among multiple practices, policies, and services" along with good processes for working with clients (Lewis et al. 2011). Research has also suggested that service offerings must be sufficiently staffed and funded to be effective. Business assistance often suffers from limited budgets and staffing, meaning the quality and depth of services can suffer and provide less value to entrepreneurial firms (Motoyama and Wiens 2015, Entreworks et al. 2018).

Bottom line: Services appear to generate positive firm-level effects, but more research is needed on exactly which services are most effective and why. Service offerings must be sufficiently staffed with appropriate specialists and funded to be effective.

VI. GUIDANCE AND CONCLUSION

We offer three policy guidance recommendations for designing, implementing, and evaluating incentives so that they help state and local policymakers achieve their economic and entrepreneurship development objectives.

1. Design incentives to leverage other resources and boost the ecosystem

Simply creating one incentive program or another is unlikely to be impactful given the typical resourcing level documented for this analysis. **Incentives – those for entrepreneurs or not – are most effective when implemented as part of a broader economic development strategy, rather than as standalone initiatives.** This finding is even more important for incentives for entrepreneurial firms because they play such a limited role in business financing and within the entrepreneurial ecosystem. To register an effect, the incentives must be harnessed to the service of a broader strategy. **In other words, incentive programs should be designed after needs or gaps in the entrepreneurial ecosystem have been identified, rather than starting with the assumption that a state or community should have a specific type of financial, fiscal, or service incentive.**

Since most incentive programs are fairly small, they can make the most impact by leveraging other resources. **The effect of incentives can be magnified when they are layered with and leverage other programs at the local, state, and national levels.** Research has shown that entrepreneurial support programs as diverse as incubators and accelerators and angel investor tax credits perform best when combined with services and when state incentives leverage (or prime the pump for) new private investment. Programs that combine state and federal financial resources also have much greater capacity to bring about the desired firm- and place-based outcomes.

Incentives will also be most effective when they fill gaps and are accessed by their intended targets. **If incentives inadvertently replicate existing disparities in the financial system, they are not likely to have their intended policy effect.** Instead of adding new, separate (usually small dollar) programs to meet the needs of BIPOC-owned businesses, women-owned businesses, and entrepreneurs in both rural locations and distressed urban communities, perhaps the flagship programs should be reconsidered so that they reach beyond the narrow segments that they currently serve.

2. Strengthen incentive management and implementation procedures to improve program effectiveness

Creating an incentive program is just the start. Implementation determines whether a program is effective or not. A clear finding from the research on entrepreneurial firm incentives is that how programs function matters as much as which programs are offered. Guidance for enhancing implementation includes:

- Manage incentive programs actively. They should not be on autopilot. Put in place skilled and dedicated managers, and review procedures and outcomes regularly with a focus on measurement and improvement.
- Define program targets and tools carefully to fill gaps or complement other ecosystem partners.

- Establish clear program goals and metrics.
- Allow for professional training for staff and capacity building among partners so they can better engage with the program.
- Review application guidelines and procedures to reduce the administrative burden and make sure they are not inadvertently excluding portions of your target audience.
- Commit resources for outreach and promotion to connect with entrepreneurs. Identify the appropriate networks to reach additional market segments.
- Establish a data collection process to answer both short-term and long-term questions about firm- and community-level outcomes.
- Communicate broadly about program activity and outcomes achieved.
- Conduct program evaluations.

3. Establish data and research standards to help research and evaluations determine best practices

It is frustrating that we cannot say conclusively which types of entrepreneurial firm incentives work best. Research studies, program data, and formal evaluations still leave us with "it depends" and "the findings are mixed." The problem is not with the individual analyses, but with systemic limitations including inconsistent terms and definitions across programs and states, severe data shortcomings, and inappropriate or insufficient timeframes for assessment of firm- or community-level outcomes. Important program details may not be adequately addressed. The nuances of research findings can be difficult to translate into policy. All of these factors make it difficult to draw definitive policy guidance from the research literature for state and local leaders seeking to enhance their entrepreneurial ecosystems.

Policymakers, entrepreneurial support organizations, economic development leaders, and foundations might consider working together to establish data standards and research guidance for assessments of outcomes associated with entrepreneurial incentives. Conversations around shared standards have proven valuable in other multi-disciplinary fields to align key definitions, metrics, and data collection efforts and make research studies comparable to each other. This type of research leadership and support would ultimately help policymakers and practitioners by creating a stronger understanding of successful programs and offer clarity on ways to craft more effective incentives for entrepreneurial firms.

Conclusion

State and local incentives for entrepreneurial firms are a small part of the entrepreneurial ecosystem but can play a unique gap-filling role, especially if they leverage other resources and are coordinated within the ecosystem. Most state and local incentives serve relatively few companies per year, meaning that the firm- and community-level outcomes associated with incentive use are also limited in ways that may not be in keeping with policymakers' expectations. Program impact can be enhanced by improving design and implementation practices to extend reach, accessibility, and effectiveness. More structured and consistent approaches to program data collection and research methods would improve our understanding of what works in the field of incentives for entrepreneurial firms.

REFERENCES

Amezcua, Alejandro S. 2010. “Boon or Boondoggle? Business Incubation as Entrepreneurship Policy. A Report from the National Census of Business Incubators and Their Tenants.”

Amezcua, Alejandro, Tiago Ratinho, Lawrence A. Plummer, and Parvathi Jayamohan. 2020. “Organizational Sponsorship and the Economics of Place: How Regional Urbanization and Localization Shape Incubator Outcomes.” *Journal of Business Venturing*, July. https://doi.org/10.1016/j.jbusvent.2019.105967.

Audretsch, David. B., A. Link, and J. Scott. 2002. “Public/Private Technology Partnerships: Evaluating SBIR-Supported Research.” *Research Policy* 31 (1): 145–58.

Babina, Tania, and Sabrina T. Howell. 2019. “Entrepreneurial Spillovers from Corporate R&D,” 76.

Barker, Aaron. 2017. “Iowa’s Innovation Fund Tax Credit: Tax Credits Program Evaluation Study.” Tax Research and Program Analysis Section, Iowa Department of Revenue.

Bell, Joseph R., James E. Wilbanks, and John R. Hendon. 2013. “Examining the Effectiveness of State Funded Angel Investor Tax Credits: Initial Empirical Analysis.” *Small Business Institute Journal* 9 (2): 23–28.

Brown, Gregory, Sarah Kenyon, and David Robinson. 2020. “Filling the US Small Business Funding Gap.” Frank Hawkins Kenan Institute of Private Enterprise Report. UNC Kenan Institute of Private Enterprise.

Center for Regional Economic Competitiveness (CREC) and Cromwell Schmisseur. 2016. “Program Evaluation of The US Department of Treasury State Small Business Credit Initiative.”

Cohen, Susan, and Yael V. Hochberg. 2014. “Accelerating Startups: The Seed Accelerator Phenomenon.” *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2418000.

Cohen, Susan L., Christopher B. Bingham, and Benjamin L. Hallen. 2019. “The Role of Accelerator Designs in Mitigating Bounded Rationality in New Ventures.” *Administrative Science Quarterly* 64 (4): 810–54. https://doi.org/10.1177/0001839218782131.

Decker, Ryan, John Haltiwanger, Ron Jarmin, and Javier Miranda. 2014. “The Role of Entrepreneurship in US Job Creation and Economic Dynamism.” *Journal of Economic Perspectives* 28 (3): 3–24.

Denes, Matthew, Xinxin Wang, and Ting Xu. 2019. “Financing Entrepreneurship: Tax Incentives for Early-Stage Investors.” https://www.ssrn.com/abstract=3454633.

Economic Development Research Group, Inc., and Karl F. Seidman Consulting Services. 2014. “Evaluation of the Minnesota Angel Tax Credit Program: 2010-2012.” http://www.ncsl.org/Portals/1/Documents/fiscal/evaluation_database/Evaluation_of_the_Minnesota_Angel_Tax_Credit_Program_2010_to_2012.pdf.

Edward Lowe Foundation. 2017. “Economic Gardening. An entrepreneur-oriented approach to economic prosperity.”

Entreworks Consulting with the Center for Rural Entrepreneurship and Center for Regional Economic Competitiveness. 2018. “Entrepreneurial Ecosystems in Appalachia: Literature Review.” Prepared for the Appalachian Regional Commission.

Erdody, Lindsey. 2019. “Elevate Ventures’ startup investments at pivotal point,” *Indiana Business Journal*, July 19, 2019.

Fairlie, Robert and Sameeksha Desai (2021). National Report on Early-Stage Entrepreneurship in the United States: 2020, Kauffman Indicators of Entrepreneurship, Ewing Marion Kauffman Foundation: Kansas City.

Farrell, Diana, Christopher Wheat, and Chi Mac. 2019. “Gender, Age, and Small Business Financial Outcomes.” JPMorgan Chase & Co. Institute.

Fazio, Catherine, Jorge Guzman, and Scott Stern. 2019. “The Impact of State-Level R&D Tax Credits on the Quantity and Quality of Entrepreneurship.” Working Paper 26099. National Bureau of Economic Research. https://doi.org/10.3386/w26099.

Federal Reserve Bank of New York. 2017. “Small Business Credit Survey 2016: Report on Startup Firms.”

Federal Reserve Bank of Atlanta. 2019. “Small Business Credit Survey: Report on Minority-Owned Firms.”

Federal Reserve Banks. 2020. “Small Business Credit Survey: 2020 Report on Employer Firms.”

Fehder, Daniel C., and Yael V. Hochberg. 2014. “Accelerators and the Regional Supply of Venture Capital Investment.” https://ssrn.com/abstract=2518668 or http://dx.doi.org/10.2139/ssrn.2518668

Godfrey, Paul C., Gove N. Allen, and David Benson. 2020. “The Biotech Living and the Walking Dead.” *Nature Biotechnology* 38 (2): 132–41. https://doi.org/10.1038/s41587-019-0399-1.

Gornall, Will, and Ilya A. Strebulaev. 2015. “The Economic Impact of Venture Capital: Evidence from Public Companies.” Stanford Graduate School of Business. November 2015. https://www.gsb.stanford.edu/faculty-research/working-papers/economic-impact-venture-capital-evidence-public-companies.

Gu, Qian, Lynn A. Karoly, and Julie Zissimopoulos. 2008. “Small Business Assistance Programs in the United States: An Analysis of What They Are, How Well They Perform, and How We Can Learn More about Them.” Working Paper WR-603-EMKF. RAND Institute for Civil Justice Working Paper Series. Santa Monica, CA: RAND.

Hallen, Benjamin L., Susan Cohen, and Christopher Bingham. 2019. “Do Accelerators Work? If So, How?” SSRN Scholarly Paper. https://papers.ssrn.com/abstract=2719810.

Harpel, Ellen. 2016. “What Is an Incentive?” presented at the Intro Incentives Course, Council of Development Finance Agencies.

Harpel, Ellen. November 6, 2019. Opportunity Zone changes that would benefit small businesses. *Smart Incentives*. https://smartincentives.org/opportunity-zone-changes-would-benefit-small-businesses/

Harrington, Ken. 2017. "Entrepreneurial Ecosystem Momentum and Maturity: The Important Role of Entrepreneur Development Organizations and Their Activities." Ewing Marion Kauffman Foundation.

Hathaway, Ian, and Robert Litan. 2014. "What's Driving the Decline in the Firm Formation Rate? A Partial Explanation." Economic Studies at Brookings.

Hochberg, Yael V. 2016. "Accelerating Entrepreneurs and Ecosystems: The Seed Accelerator Model." *Innovation Policy and the Economy* 16: 25–51. https://doi.org/10.1086/684985.

Holstein, Adora D., and Mark J. Eschenfelder. 2017. "Economic Analysis of Public Support for Tech Startups: A Case Study of Pittsburgh." *Journal of Business and Behavioral Sciences* 29 (1): 100–115.

Howell, Sabrina T. 2017. "Financing Innovation: Evidence from R&D Grants." *American Economic Review* 107 (4): 1136–64. https://doi.org/10.1257/aer.20150808.

Howell, Sabrina T., and Filippo Mezzanotti. 2019. "Financing Entrepreneurship through the Tax Code: Angel Investor Tax Credits." NBER Working Papers 26486. National Bureau of Economic Research.

Hwang, V., Desai, S., and Baird, R. 2019. "Access to Capital for Entrepreneurs: Removing Barriers." Ewing Marion Kauffman Foundation: Kansas City.

ICMA Survey Research. 2014. "ICMA Economic Development Survey 2014."

Independent Fiscal Office Commonwealth of Pennsylvania. 2020. "Pennsylvania Keystone Innovation Zone Tax Credit: An Evaluation of Program Performance."

Indiana Legislative Services Agency, Office of Fiscal and Management Analysis. 2014. "Indiana Tax Incentive Review."

JPMorgan Chase & Co. Institute. 2019. "Place Matters: Small Business Financial Health in Urban Communities."

Kousky, Ken, and Krista Tuomi. 2015. "Angel Tax Credits: What Do the Reports Say about Job Creation?" Angel Insights Blog. April 3, 2015. https://www.angelcapitalassociation.org/blog/angel-tax-credits-what-do-the-reports-say-about-job-creation/.

Lerner, Josh, and Antoinette Schoar. 2016. "Rise of the Angel Investor: A Challenge to Public Policy – Third Way." September 23.

Lewis, David A., Elsie Harper-Anderson, and Lawrence A. Molnar. 2011. "Incubating Success: Incubation Best Practices That Lead to Successful New Ventures." Ann Arbor, MI: US Department of Commerce, Economic Development Administration.

Macke, Donald, Deborah Markley, and John Fulwider. 2014. *Energizing Entrepreneurial Communities: A Pathway to Prosperity*. Lincoln, NE: Center for Rural Entrepreneurship.

McConnell, J. Katie, Christiana McFarland, and Brett Common. 2012. "Supporting Entrepreneurs and Small Business: A Toolkit for Local Leaders." National League of Cities, Center for Research & Innovation.

Mills, Karen Gordon, and Brayden McCarthy. 2016. "The State of Small Business Lending: Innovation and Technology and the Implications for Regulation." Working Paper 17-042. Harvard Business School.

Morris, Michael, Xaver Neumeyer, and Donald Kuratko. 2015. "A Portfolio Perspective on Entrepreneurship and Economic Development." *Small Business Economics* 45 (4): 713–28.

Motoyama, Yasuyuki, and Jason Wiens. 2015. "Guidelines for Local and State Government to Promote Entrepreneurship." Kauffman Foundation Research Series on City, Metro, and Regional Entrepreneurship. Ewing Marion Kauffman Foundation.

NCSL Foundation. 2014. "Promoting Entrepreneurship: Innovations in State Policy."

OECD/European Union. 2019. "The Missing Entrepreneurs 2019: Policies for Inclusive Entrepreneurship." OECD Publishing, Paris, https://doi.org/10.1787/3ed84801-en.

Rehrmann, Robert, George Butler, Annette Haldeman, Maureen Merzlak, Heather Ruby, and Charity Scott. 2017. "Evaluation of the Biotechnology Investment Incentive Tax Credit." Annapolis, MD: Department of Legislative Services, Office of Policy Analysis.

Rood, Sally, Jason Wiens, and Martin Simon. 2019. "Entrepreneurship in States: Fostering a Startup-Friendly Economy." National Governors Association.

Silver, Josh, Archana Pradhan, Spencer Cowan. 2013. "Access to Capital and Credit in Appalachia and the Impact of the Financial Crisis and Recession on Commercial Lending and Finance in the Region." Appalachian Regional Commission.

Smith, Daniel, Maryann Feldman, and Gary Anderson. 2018. "The Longer Term Effects of Federal Subsidies on Firm Survival: Evidence from the Advanced Technology Program." *Journal of Technology Transfer* 43 (3): 593–614. http://dx.doi.org.mutex.gmu.edu/10.1007/s10961-017-9633-5.

Tavares-Lehmann, Ana Teresa, Perrine Toledano, Lise Johnson, and Lisa Sachs, eds. 2016. *Rethinking Investment Incentives: Trends and Policy Options.* New York: Columbia University Press.

Tuomi, Krista, and Barbara Boxer. 2015. "The Costs and Benefits of Early-Stage Business Tax Credits: A Case Study of Two US States." *Venture Capital* 17 (3): 263–70. https://doi.org/10.1080/13691066.2015.1051757.

U.S. Economic Development Administration (EDA) Office of Innovation and Entrepreneurship Regional Innovation Strategies. 2018. "Regional Innovation Strategies (RIS) Seed Fund

Grant Program Infographic." 2018. https://www.eda.gov/oie/ris/seed/seed-program-overview-infographic.htm.

U.S. Small Business Administration (SBA) Office of Advocacy. 2016. "Small Business Finance Frequently Asked Questions." Last updated: July 2016.