

Written Testimony for the Texas House Investments & Financial Services

April 12
Irving, Texas

Prepared by:

- Larry Peterson, Executive Director, Texas Foundation for Innovative Communities

The Texas Foundation for Innovative Communities (TFIC) is a non-partisan non-profit dedicated to the competitiveness and prosperity of Texas. It is both a "think and do" tank, stemming from the work of Dr. George Kozmetsky, widely credited as the principal architect of the Austin Technopolis. The Chairman is Pike Powers, often called the godfather of the Texas technology industry. The Foundation recognizes innovation as the primary driver of economic growth, and performs research, creates demonstration projects, and partners broadly in creating permanent infrastructure for the 21st Century Knowledge Economy. TFIC created and manages the Texas Association of Research Parks and Incubators (TARPI), created a demonstration project that increased Texas SBIR research funding by 33% in only two years, and serves as strategic consultant to TMAC in a broad range of projects supporting manufacturing and innovation.

Strategic development of innovation-intensive industry is the keystone of a prosperous and competitive Texas.

In turn, innovation-intensive industry is highly dependent upon a robust continuum of capital, from late stage research, through "proof-of-concept" and seed stage capital, scaling through venture, private equity and mezzanine resources. Yet Texas has a number of gaps in this crucial continuum – gaps that can nonetheless be bridged at little or no cost to the state.

The value of high-growth companies and innovation-intensive industries are well-documented.

Innovation-intensive industries account for 5 additional jobs in the US for every direct job, the highest jobs multiplier known.

High-growth companies account for only 2 – 7% of all companies in a given year, but account for all net jobs and GDP growth. They are not just high-tech companies, but can be found in every industry and sector. High-growth companies are most often innovation-intensive companies, regardless of their sector.

It is important to note that "innovation-intensive" and "high-tech" are not synonymous terms. Economic value derives about equally from innovation in both products and business models. Good policy incents all types of innovation.

As we prepare for the next biennium, certainly the price of oil and the limitations of current state revenues weigh heavily on the mind of economic policymakers. Often, the choices are narrowed to reducing services or raising taxes, but there is an often overlooked third way: stimulating growth. While many mechanisms for inducing growth require substantial investment, there are fortunately a number of options available that cost little or nothing.

Productivity growth is the key to achieving higher levels of prosperity, and as most people know, the major factors of production are capital, labor and technology. Therefore, the state can choose policies that increase capital investment, raise educational achievement and workforce skills, or improve the amount of innovation available to companies in the state. Or decrease the costs for any or all of these. Or increase the velocity of any or all of these.

However, one factor should dominate policy discussions: innovation is calculated to drive about 60% of economic growth. Therefore, increasing Texas competitiveness in innovation-intensive industry is certainly one of the most valuable targets for policy. How can Texas better compete to attract and grow innovation-intensive industry?

The short answer is, Texas is already doing fairly well. Its formula of low costs, relatively low taxes, moderate regulatory burden, and tort restraint help it weather downturns much better than other states

Texas policies are collectively aimed at keeping costs and time burdens low or modest, which is important for basic industry. However, there is a different paradigm that needed to support innovation-intensive industries. High-tech hubs worldwide are some of the most expensive places to do business. How are they able to compete?

The answer, of course, is that the net *productivity* of a region (output less costs, or *value-add*) is what determines its prosperity. Silicon Valley and Boston have assets that collectively allow them to produce higher output value disproportionate to the higher costs of doing business there. Texas provides low-costs, and as mentioned, can better weather downturns and weak global growth. California and Massachusetts provide a higher quality mix of innovation assets, and will grow faster when the global economic is moderate to strong, but will experience frequent “boom and bust” cycles.

By taking advantage of the latest economic research and global “best practices”, Texas can still greatly improve its productive assets, while maintaining its low-cost base and conservative economic policies.

Mighty research universities, large pools of venture capital, experienced serial entrepreneurs, large technology companies, and vibrant entrepreneurial resources all combine to provide robust growth. This active interplay between talent, technology, capital and know-how is generally referred to as the “innovation ecosystem”, and represents an extraordinarily powerful set of productivity multipliers for individuals and firms at all levels of economic activity.

Except for Austin, Texas has vastly underdeveloped innovation ecosystems, and there is much to be done, both to improve individual assets, as well as the interconnections that leverage their value.

Ideally, there is a strong flow of innovation from a state’s federally funded research into new products and services. Entrepreneurs then utilize these new ideas to create high-growth enterprises that will scale to serve global markets, most often in partnership with existing large companies in the same industrial cluster.

When you boil away all the extraneous activity of economic development, you find the centerline of global competitiveness: the ability to create new knowledge, transform it into useful products and services, and scale that value to global marketplaces – quickly, reliably, and repeatedly.

Ensuring sufficient equity capital resources at multiple stages of innovation is another critical area for state policy. Innovation-intensive companies, both in the start-up and high-growth stages, require significant and specialized capital resources. Traditional debt resources offer little incentive, because these companies either have no tangible assets, or quickly outstrip all standard financial ratios in high-growth periods.

Capital resources, in general should provide a continuum from research funding, through prototyping, seed funding, venture capital, private equity and mezzanine resources, and access to public markets. Even with the advent of crowd-funding and the growing influence of Angel networks, Texas has noticeable gaps in its capital continuum. Just as in a physical pipeline, gaps in the “pipeline” of innovation will cause everything to “fall out.”

What is the appropriate role for government? It is much more about recognizing and legitimizing resources than about appropriating funds.

Governments around the world provide about \$4.5B annually in support of early-stage capital programs. In the US, more than 200 such programs have been implemented. The modern venture capital industry was effectively created by the US SBIC program. CALPERS created the modern California venture industry, and numerous other states have provided similar impetus to the formation or growth of state venture industries.

In Texas, we have only one national venture firm, Sevin Rosen. Austin Ventures will not be raising a new fund.

In past decades, Texas has fared well because it has primarily attracted venture capital from other states. However, more recently, that trend has taken a nosedive. As a result, as noted by the Baker Institute's Dr. Ed Egan¹, Texas has dropped from third to fourth among all states for venture investment, behind California, Massachusetts and New York, and will likely slip to sixth later this year.

If current trends continue, Texas, the second-largest state in the U.S. in terms of gross domestic product (GDP), will be struggling to remain in the top 10 for venture capital investment within the next decade.

The reason for Texas' relative decline is simple: while other high-ranking states are growing their venture capital investment at extremely fast rates, Texas' venture capital investment has decreased 19% over the past 10 years in real terms.³ Of the top 10 states by venture capital investment, only Texas and New Jersey have shrunk. New Jersey has seen its money, talent, and returns flow across the border to its powerhouse neighbor; New York has grown its venture capital investment by 577% since 2005, and is now the second-largest jurisdiction for venture capital.

While this situation is serious, there are several things the state can do without an appropriation.

The Texas Emerging Technology Fund was an attempt to address this problem, but as we have seen in other states, even with the best intentions, there are problems of perception when a state runs a program under an elected official; makes direct investment decisions instead of harnessing private sector professionals; or makes a direct appropriation for such programs.

Today, the largest number of existing state programs are simply credits against state income tax. That is not helpful in Texas. After that, there are numerous fund-of-funds and co-investment programs, mostly funded by the federal SSBCI program on a one-time basis, or supported by the state through contingent tax credits. In this way, no direct appropriation is made, but future revenues are used as collateral to raise funds from the private sector. Managed prudently, the returns cover return of capital and program expenses, and can even yield a small surplus for the state. In the worst case, the state forgoes some amount of future revenues through exercised tax credits.

In these cases, privately managed funds are making investment decisions, alongside a multiple of private capital, usually 4x-20x, invested alongside state funds. Invest Michigan is one prominent example of such a fund.

Another solution for building a state venture industry requires neither an appropriation nor any state legislation. An Economically Targeted Initiative (ETI) provides a means to leverage state trust funds (retirement funds and endowments) for the secondary purpose of building a state venture industry. Texas currently maintains more than \$200B in such funds, of which tens of billions are invested in alternative investments such as private equity and venture funds – primarily in other states. All of these trust funds are currently empowered to make co-investments with leading venture funds into Texas companies, or give tie-breaker preference to Texas-based fund managers, but there is no systematic disclosure or promotion of this information. While it is not permissible for ETIs to drive investment policy or allocation decisions, they can provide a “nudge” to increase the leverage of those funds for state benefit. The first funds “out” might now become the last ones “in.” New fund managers might as a matter of course ensure that they have at least a Texas office. Over \$200B+ in assets, a small nudge is all that is need. It is likely that only \$60M in new investment per year would eventually build out a Texas domestic venture industry.

The theme in common among these models is that it is less the role of government to fund early stage capital programs, and more the role to “legitimize” them. After all, there is plenty of capital in Texas. Without the blessing of state government, it is unlikely people who have made their fortunes in oil or building strip centers will give much thought to deploying capital into technology investments. Policies that serve to build a Texas domestic venture industry will self-sustain through market forces, so that little or no state stimulus may be required in future decades. Such policies are likely to find broad support in both political parties.

¹ The State of Venture Capital in Texas, Edward J. Egan, Ph.D., Director, McNair Center for Entrepreneurship and Innovation, 03/07/16

