

# The Catalysts for Intellectual Capital 2020



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## **The Role of Policy in “Relaying, Reforming, Researching and Retaining” to Foster Entrepreneurship in both Economic and Infrastructure Development**

Leading from the Confluence

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## **Abstract**

Entrepreneurship is key to economic development, while related policy facilitates new business creation at federal, state and local levels. Entrepreneurship policy aims to promote the combination of initiatives that best promote “entrepreneurial contagion”. The paper begins with a discussion of the origins of these initiatives, as well as their influence on economic growth. Next, more technical aspects of entrepreneurship policy are discussed and the role of policy in *Relaying, Reforming, Researching and Retaining* to foster start-ups. Last, is an overview of best practices in the Binghamton Area as well as recommendations for the future.

## **What is Entrepreneurship Policy?**

Entrepreneurship is “the process of starting and continuing to expand new businesses” (Hart, 1). A venture must be considered “dynamic” and “novel” to be truly entrepreneurial, as entrepreneurs must strive to be new and creative in the ways they provide for their market to be successful. Research indicates that the most successful entrepreneurial ventures for economic development are extremely creative, stating that, “The level and quality of entrepreneurship make a difference in the economic vitality of; communities, regions, industries, and the nation as a whole” (Hart, pg 1).

Policy makers now recognize the importance of entrepreneurship as a means to economic development and are instating policies that promote start up ventures and encourage potential

business start-ups. Entrepreneurial policy “aims to foster a socially optimal level of such venturing [innovative startups]...[As] Policy makers seek to raise the level of entrepreneurship; entrepreneurship policy thus bears not only on actual entrepreneurs but also on “nascent” entrepreneurs who are seriously considering starting a firm” (Hart 4). Entrepreneurship policy is more specifically focused on “enabling the creation and commercialization of knowledge” (Acs and Lazlo, 4).

Entrepreneurship policy encompasses a wide range of ventures in many different jurisdictions including, “activities at several levels of government, from local to national (and perhaps beyond). It bears on low-technology and high technology...it includes governance capacities more familiar under other headings ranging from poverty alleviation, along with some capacities that are new” (Hart, pg 2). This broad extension makes it difficult to form a clear picture of exactly what these policy initiatives look like. The United States does not have a cohesive, overarching entrepreneurship policy, however, the United States has been working on policies since the 1890s that have influenced entrepreneurship.

Entrepreneurship policy is especially important in the current knowledge economy as its economic expertise comes more from creativity and ingenuity than from labor. The developing world provides massive labor at a much lower price, making the United States a weak competitor in the international labor market due to outsourcing of labor. Instead, the United States is a leader internationally with its “creation and rapid exploitation of new ideas” also known as its

“knowledge economy” (Hart, pgs 4-5).

There are several necessary conditions for creating start-ups, which include “general economic conditions and the availability of such resources as financial capital, intellectual property protection... specialized skills... and the density and intensity of competition within the nascent entrepreneur’s chosen market” (Hart, pg 6). Entrepreneurship policy facilitates these important factors of new business creation and thus shaping the demand for entrepreneurs as well as the supply of entrepreneurs.

### **How did Entrepreneurship Policy Begin?**

One of the first policies to protect small business creation was the “Sherman Antitrust Act”, passed by Congress in 1890. The Act came about as a result of public outcry against monopolies of industry. People were worried that larger firms were gaining far too much control nationally. The Act aimed at promoting entrepreneurship by curbing the behavior of larger companies that restricted smaller businesses, making it impossible for them to compete, which is an example of a ‘protectionist’ policy (Hart, 9).

Another federal policy aimed at promoting entrepreneurship came from the move towards ‘deregulation’ of the energy, communications, transportation and finance industries. This trend towards ‘deregulation’ favored entrepreneurial activity of the formally regulated sectors (Hart, 9).

In addition, the intellectual property rights regime has been changing to favor rights holders in court. Meaning that research universities that allot federal grant money to students and professors can offer sole rights and ownership to patentable technology, encouraging more students and professors to patent their inventions (Hart, 10)

The federal government has also engaged in direct subsidies for entrepreneurs, particularly under-represented groups in the 'entrepreneurial community'. Federal loan guarantee programs also encourage banks and lenders to lend out to money tomore 'risky' ventures.

There have been numerous, yet disorganized efforts at promoting small business creation. Problems with these disjointed efforts at promoting entrepreneurship are that they all pull in different directions, and often cancel each other out. There is a need for more cohesive policy initiatives regarding start-ups.

Entrepreneurship policy at the local level has been more explicit in targeting entrepreneurship than federal policies. "States, regions, and localities, advocates for new forms of economic development policy argued, would have to "grow their own" economic base. The example of Silicon Valley, with its knowledge-based economy powered by research universities, start-up companies, and supporting services, loomed large in many of these discussions" (Hart, 12). Hart gives examples of two states' university systems that have led and are leading to entrepreneurship.

California's university system is gaining increased funding for biotechnology, information technology and telecommunications fields that in turn, feeds into the high-technology entrepreneurship hub. In addition, Georgia is attempting to revamp its state university system in hopes of becoming more focused on research and entrepreneurship. There are many different facets of Georgia's plan, including policies that fund incubators and other facilitating measures in hopes of "fostering economic development". Incubators are very helpful in turning university research into high technology start-ups. Often, incubators are the key step in this process as they provide a place for entrepreneurs to save on overhead costs and focus on a cohesive business plan. Binghamton University's ITC has an incubator for researchers and community members who want to start their own high technology businesses, this facility has already produced numerous successful start-ups (Hart, 12).

### **Entrepreneurship's Influence on Economic Growth**

Entrepreneurship has an increasingly pronounced influence on economic growth. Small firms create more jobs than large firms, in the United States and smaller firms are driving many large firms out of business because of their innovative methods of targeting markets.

Entrepreneurship has been shown to be a significant engine of job creation and economic growth. In the U.S studies have shown that 90% of new jobs come from small firms... Cross-country studies of economic growth have shown that much of the difference in the growth rates is due to entrepreneurial activity... Because of such findings entrepreneurship has emerged as a key policy tool for regional development, economic growth, and job creation (Friar and Meyer, 1).

In a study conducted by the Harvard Kennedy School pertaining to the differences in entrepreneurial activity in major metropolitan areas, it was found that smaller independent firms led to higher levels of employment and growth in urban centers, making a case for the role of entrepreneurial contagion as well as the fact that entrepreneurs can grow the economy (Harvard, 3).

Additionally, there are studies that suggest that highly creative knowledge based entrepreneurship is regional. Thus, entrepreneurial spinoff, from research institutions traditionally remains local, and influences economic growth. Highly trained individuals may spend time working at less creative ventures before either becoming frustrated or eager to fill a gap in industry and create their own entrepreneurial venture, as a result some may remain in the area contributing to local economic growth (Mueller, 357). Mueller calls this phenomenon “knowledge diffusion”.

Mueller also writes about the profitability of unexploited knowledge existing in research universities or even in sedentary companies. She argues that certain companies may not experience the revenue or have the resources to focus on marketing and exploring opportunities, offering room for the “creative class” to enter and spur economic growth by utilizing this missed opportunity.

Mueller proves that regions “benefit from research and development activities and from individuals who exploit new knowledge by realizing entrepreneurial opportunities... regions

which increased R & D employees in private industries compared to their initial conditions in 1990 and which increased their new firm formation activity compared to 1990 realize an increase in economic performance” (Mueller, 360). She maintains that all entrepreneurship stimulated growth technology, and knowledge intensive industries count for a higher proportion of growth. The key is to start up more innovative companies in order to attain stronger growth rates.

Additionally, the article mentions how entrepreneurship can directly affect economic growth because of the entrepreneur’s mission to find what is missing in a market or notice a change in the economy and provide for this need, which is called the “Knowledge Spillover Theory of Entrepreneurship”. Entrepreneurship can “permeate the knowledge filter” and commercialize this new opportunity while finding the “missing link to economic growth” (Acs and Lazlo, 4).

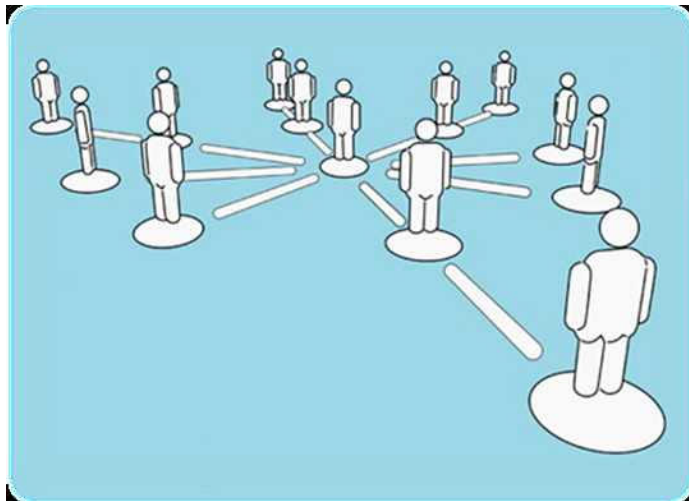
### **Role of Entrepreneurship Policy in Economic Development (Relaying, Reforming, Researching, Retaining)**

According to Acs, Desai and Hessels, there are three stages of entrepreneurship development in countries: factor-driven, efficiency-driven, and innovation-driven stage. Currently, the United States is at the innovation-driven stage, which means there is an increase in entrepreneurial activity as compared with other stages. The innovation-driven model trends towards more, smaller companies that have a greater service orientation. In the United States, this trend started in the 1970s and 1980s and increased with the introduction of the Internet.

“High value of the elasticity of factors substitution not only leads to more per capita capital, but makes it at the same time easier for an individual to become an entrepreneur if the aggregate elasticity of substitution is also negative. In an economy characterized by higher values of the aggregate elasticity of substitution, we should expect a higher level of development, more entrepreneurs and smaller firms” (Acs, Desai, Hessels, 14).

In other words, entrepreneurship and economic development have a direct relationship in the United States. Furthermore entrepreneurial activity increases development while development makes it easier for entrepreneurs to start businesses.

The power to increase entrepreneurship begins with policy, which improves economic development. In terms of policy, Acs, Desai and Hessel suggest that innovation-driven countries promote entrepreneurship by increasing foreign direct investment (FDI), international trade, and providing entrepreneurial education.



Education for entrepreneurs is particularly important and is seen as part of the “relaying” of information between entrepreneurs, government, and industry. Education is key because many ‘nascent’ entrepreneurs have a vision of a company, without the necessary

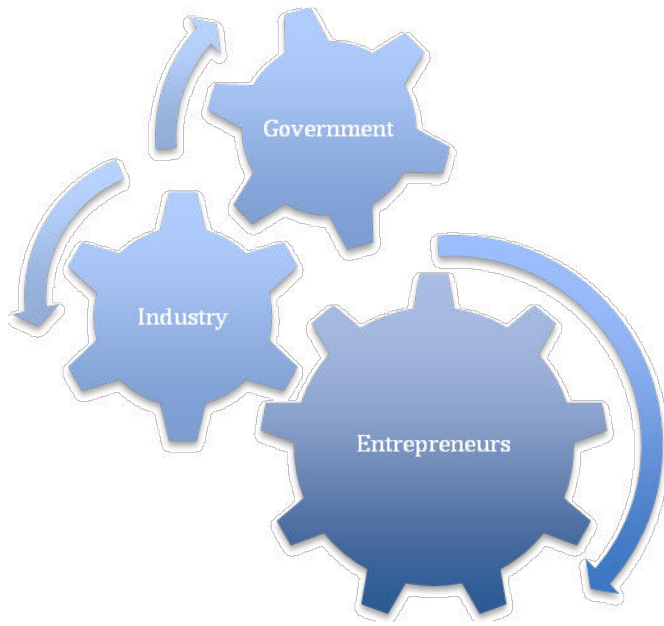
knowledge to execute this vision. In the city run Binghamton Business Plan Competition, entrepreneurial instruction at Broome Community College is a part of the competition

experience, helping ‘nascent’ entrepreneurs with their start up plan and makes their business more manageable, feasible, and cohesive.

“Relay” is another key concept that demonstrates the importance of ‘info flow’ for possible business creators. Pierre-Andre Julien, an entrepreneurship scholar, notes that flow of information is of the utmost importance in creating an entrepreneurial milieu, or society.

In the end, the process is one of creating collective values, acknowledging first by stakeholders who agree to share the challenge and the risks of the new venture in spite of more uncertainty and ambiguity and subsequently accepted by the local market. Then by the milieu and finally by or in relation to the outside world in the new knowledge economy the product is more than ever before a human work mainly because the share of services and immaterial elements is increasingly important fundamentally the process is based on information and is therefore collective in nature because of information in facilitating the development of opportunities and links with resources, allows the area to stand apart from others (Julien, 272).

Mueller lends her opinion and recommendation for policy with regard to entrepreneurship policy; it needs to be geared towards improving standards for entrepreneurs, otherwise known as “reform”. “Reform” is changing the way policy thinks about entrepreneurs and revolutionizing the way the government supports start-ups. This includes training and providing entrepreneurship skills as well as creating an awareness of entrepreneurship. She notes that training should extend into the world of policy, while, Master of Public Administration (MPA) programs should include classes on entrepreneurial policy, as there is little support for policy makers themselves.



In addition, policy makers must look at how all changes in policy will eventually affect entrepreneurs and the ability to be entrepreneurial. Policies that make processes more difficult for the entrepreneur should not be implemented. Measures sometimes deter new businesses, because they don't have

the same capabilities to comply as more mature firms (Acs and Lazlo, 7).

In this sense “research” should be a cornerstone of policy, as policy makers must be sure of the effects of certain policies on entrepreneurship.

Mueller also states that stimulating innovative entrepreneurship focuses on quality rather than quantity. She recommends allowing for such high tech start-ups to experience a smoother start by investing in venture capital firms. Highly technological entrepreneurship is more beneficial in the long run for economic growth and therefore policy should strive to specifically encourage these business models.

The idea of “retention” stems from developing the local economy. Historically cities tried to attract businesses to relocate in their area using tax cuts and other means of attraction. However, this is essentially counterproductive, as another area will lose business while one area gains



business. Entrepreneurship concerned with creation of new business opportunities, leads to a more sustainable form of investment. “The formation and growth of new firms, wherever this occurs, is clearly

a positive sum game –not just for the locality, but for the nation as a whole” (Acs and Lazlo, 9).

Policies should also focus on keeping these companies located in the area, or “retaining” startups.

Startups are encouraged to stay in their original location to prevent relocating to other communities that may be more inviting or financially viable.

Integration of entrepreneurs into the community via networking is extremely important to entrepreneurial success. Governments promote integration by making connections within clusters of industry, acquiring a feel for the industries needed.

In addition, there is much emphasis placed on quality of life of a community seeking to retain entrepreneurs, particularly as young people. According to the Harvard Kennedy Study on “What Makes a City Entrepreneurial?,” the basic recommendations for policy included attracting smaller, independent firms as opposed to large ones, because it leads to future growth, as well as policy taking a more facilitating role in entrepreneurship policy, and investing in research universities and quality of life. Quality of life is a “safe” investment because of the high importance of quality of life. Attracting and retaining more creative-classed, skilled young people

is necessary in propelling the entrepreneurial spirit and a better quality of life feeds in to the necessity of living comfortably (Harvard, 4).



### **Best Practices in the Binghamton Area**

#### A. Susquehanna Heritage Area Management Plan

#### The Susquehanna Heritage Area

Management Plan, completed in 2009 and was Broome County Planning Department's and particularly Gail Domin's crowning achievement of her thirty-year career as an urban/regional planner. The plan started initially with the communities of Binghamton, Endicott and Johnson City, but now hopes to extend and include all of Broome and Tioga counties (Broome County Planning Department).

The plan aims to “develop the historic, cultural, recreational, and natural resources of an expanded Susquehanna Heritage Area” (Broome County Planning Department). Funding is available through the New York Department of State Quality Communities Program Grant of \$80,000 and looks for “strategies for the enhancement of unique cultural and natural resources in Broome and Tioga Counties and will guide the implementation of programs and projects to

foster economic revitalization and enhance quality of life throughout the region” (Broome County Planning Department). Encouraging agribusiness by improving infrastructure like connections to rural roads, leads to an overall improvement in quality of life, especially outside of the cities.

New York State was one of the first states to start a Heritage Area, and has served as a model of preservation and restoration to many other states’ programs. In fact, New York State’s Heritage Area is being recognized as a best practice in a national publication to show how Heritage Areas spur economic development. New York State is recognized for its “Ride the Circuit” program as well as its “Goodwill Theatre Program” (Personal Interview, Gail Domin).

The Susquehanna Heritage Area Management Plan improves quality of life throughout the region as well as leading to higher retention of young people, particularly students, to the area. Improving quality of life spurs entrepreneurship and in turn economic development by making access to rural communities more feasible and by making Broome and Tioga counties a more desirable place to start a company. Passing this legislation, with the help of Barbara Fiala, County Executive and the Broome County Planning Department, is an investment in the economic and environmental future of the region that sets Broome and Tioga apart.

B) Center for Excellence at the Small Scale Systems Integration and Packaging Center

Another asset to the Binghamton area as well as to Binghamton University is the Center for Excellence, which is a part of the Small Scale Systems Integration and Packaging Center (S3IP),



which is located in Binghamton University's ITC building.

The Center for excellence is extremely exciting and innovative in that it brings industry, the

university and government together under one roof in order to promote “microelectronics research and development,” which fits with the “research” portion of my aforementioned framework. Research is key to developing highly technological startups, which are seen as assets to local development and the local economy. Research is necessary to spur innovation, and the S3IP facilitates the research and innovation, providing all the surrounding services necessary.

According to Julien, entrepreneurship would fail abjectly without supportive services and support from the milieu (Julien, 272). The S3IP provides a ‘home’ for highly innovative technologies and startups (Binghamton University S3IP).

The mission of the Center of Excellence in the S3IP is to promote the most advanced research as well as attracting world-renowned faculty researchers. The S3IP is committed to attaining the most cutting edge facilities and infrastructure in the field of small-scale systems research and garnering support from the federal government, New York State and local industries (Binghamton University S3IP).

The Center of Excellence promotes economic development and entrepreneurship in every

way possible, while embodying the recommendations found throughout my research in the topic, in that it promotes highly technological entrepreneurship. The Center of Excellence provides space for research and is housed in the ITC, which has an incubator, as well as patent advice right on site. In addition, the Center of Excellence allows scientists involved in industry to come and use their very expensive equipment. Maintaining good relations with local industry is crucial in promoting entrepreneurship.

### C) Binghamton Local Development Corporation (BLDC) and the Entrepreneurial Assistance Program (EAP) Business Plan Competition



One of the biggest assets to local entrepreneurs is the BLDC and EAP Business Plan Competition, which awards five thousand dollars to local entrepreneurs with the most

“professional, comprehensive and practical” business plans. The competition aims to cultivate local business development and raise awareness about other community resources for small business growth and development. “The Binghamton Local Development Corporation has established a strong record of facilitating business development through our low-interest loan programs, we want to make sure entrepreneurs are aware of our resources and how to utilize them, and we expect the competition will help in this effort”, said Merry Harris, Director of the

Binghamton Economic Development Office and BLDC Executive Director. Despite the fact that this is only the second year of the competition and there can only be one winner, all of the applicants have benefitted tremendously from the learning experience and the information that the competition provides (City of Binghamton).

Applicants are required to attend an Entrepreneurship Assistance Program (EAP) tutorial, which includes a workshop at Broome Community College, where the EAP is located. The workshop gives applicants a better idea of how to make their ideas for their new companies a reality.

The BDLC and EAP competition embodies the entrepreneurial spirit within the Binghamton community, and shows that Binghamton is a prime location for new companies and innovative start-ups. The competition encourages local entrepreneurs to realize their dreams of having their own company and makes this process more manageable.

#### D) Southern Tier Opportunity Coalition



The Southern Tier Opportunity Coalition (STOC) was formed in 2002, and is a private sector, academic partnership that aims to address economic growth in

the Southern Tier. STOC offers a multidisciplinary approach to address issues with local economic development and apply resources to encourage new business initiatives. With members from many different fields, such as law, marketing, engineering, business development, business planning, strategy and finance STOC provides local businesses with an indispensable resource (STOC).

STOC membership is beneficial for entrepreneurs and businesses of all sizes, as it provides a forum for networking and seeking advice from every perspective imaginable. Additionally, individuals with any interest in local business can become members of STOC, and benefit from STOC membership. Members may even be inspired to create a business of their own, and as a result of STOC resources, be much more prepared for the challenges associated with starting a business (STOC).

STOC is a unique opportunity for Binghamton residents that promotes entrepreneurial contagion and brings members of the “creative class” and “knowledge economy” together in order to promote the local economy and economic development, which benefits everyone.

## **Recommendations**

### A) Cohesive Policy Initiatives

Binghamton currently has many different initiatives in action to promote

entrepreneurship and economic development. They are all individually very strong, however, bringing them together to be part of one cohesive entrepreneurship policy would have great benefits. Entrepreneurship policy is multidisciplinary by nature, and should not necessarily conform to one department; however, a partnership must be garnered between all of the different institutions I have mentioned. Binghamton University, STOC, Binghamton Local Development Corporation (BLDC), Entrepreneurial Assistance Program (EAP), and the Broome County Planning Department should all come together periodically to talk about pressing issues in economic development and new entrepreneurship policy initiatives. A meeting of this magnitude can easily become unwieldy, however, if delegates from each institution are chosen carefully, the dialogue generated from this meeting would be greatly beneficial to the community and nascent entrepreneurs.

A possible aim of these meetings could be to publish an 'entrepreneurship guide', that would be available at any of the member institutions that gives entrepreneurs financial and social guidance. The meeting will also show that the Binghamton community collectively celebrates entrepreneurs and recognizes that they are an integral part of the local economy.

## B) Education for Entrepreneurs

The workshops available at Broome Community College for nascent

entrepreneurs should be offered to anyone interested in starting their own business.

Classes focused on starting a new business are a huge asset to the community and provide fundamental support for local entrepreneurs. Binghamton University should offer classes in their graduate and undergraduate departments, perhaps integrating these classes in major requirements for graduation, particularly for the School of Management graduates.

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