EDJ
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Economic Development Journal
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Coming Full Circle
The End of the Small Business Era?

Economic Development and U.S. State Film Incentives
The Rush to Attract Film Production

Benchmarking Innovation
How to Build a Regional Innovation Index

Arts, Culture, and Economic Development
Planning the Creative Age in San Antonio

Opportunities in a Recession
Cultivating the Innovation Assets Required for Venture Capital Investment

BRAC: A Regional Opportunity
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Ian Bromley, FM, MA, MBA
IEDC Chair

dear colleague

I am excited and honored to become IEDC's newly elected chair. It is a distinct privilege to serve as chair of this great organization. My responsibilities will be challenging and simultaneously rewarding in helping to maintain the organization as the premier association for economic developers. I am especially enthusiastic about working with IEDC's outstanding staff and all of the Board members.

Our Governance Committee members will serve along with me as the organization's leadership team for 2009. The members are *William E. Best, FM* (Vice Chair of the Board), *Robin Roberts Krieger,* FM (Immediate Past Chair), *Barbara K. Johnson* (External Member Relations), *William C. Sproull* (Planning & Business Development), and *James R. Kinnett II, CEcD, FM* (Performance Oversight & Monitoring). *Dennis G. Coleman, CEcD, FM,* is the new Secretary/Treasurer. All of these individuals are providing their special strengths to the Board and guiding IEDC into the future.

As we read and listen to the daily news about job losses, companies closing, and major budget cuts, we know that the jobs of economic developers have become increasingly challenging. Through conferences, professional development courses, our clearinghouse service, newsletter, journal, and other resources, it is my goal for IEDC to be the go-to organization to support you in today's difficult economy. IEDC has made it an organizational priority to provide the information and services to help you manage the economic recovery.

Throughout the year, we will expand our work on the three strategic focus areas identified at last year's Leadership Summit — globalization, sustainability, and entrepreneurship — as we continue to advance IEDC's role as a leader in economic development. Additionally, it is a goal during my year as chair to strengthen and grow our international memberships and organizational partnerships.

Another of our initiatives which continues this year is IEDC's Accredited Economic Development Organization (AEDO) program, which recognizes the professional excellence of economic development entities throughout North America. The goals of the AEDO program and the benefits to accredited organizations are: recognition of excellence in Economic Development Organizations, heightened visibility of Economic Development Organizations in their community, and independent feedback to organizations on their operational effectiveness. The accreditation process is composed of two phases — a Documentation Review and a subsequent Site Visit assessment. The Accreditation is valid for three years, and reapplication allows EDOs to maintain AEDO status.

In my role as chair, I hope to meet more members, especially at several upcoming events. I would like to extend a special invitation for you to attend the 2009 IASP World Conference on Science and Technology Parks presented by the International Association of Science Parks (IASP), June 1-4 in Raleigh, NC. IEDC is working closely with The Research Triangle Park (RTP) to organize this conference, which will also serve as IEDC's Technology-Led Economic Development Conference. Participants will gain a greater understanding of how technology and innovation can serve as the future engine of economic growth.

The 2009 Annual Conference, October 4-7 in Reno, Nevada, will showcase the theme "Renewable Communities: Leveraging Your Competitive Resources." Join the world's largest annual gathering of economic developers, as industry leaders break down the current issues and new models essential for professionals looking to adapt and rejuvenate their communities.

I look forward this year to assisting IEDC with its mission of providing leadership and excellence in economic development for our communities, members, and partners. We will all be working together to turn today's obstacles into tomorrow's opportunities.

Ian Bromley, FM, MA, MBA
IEDC Chair

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INTERNATIONAL
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coming full circle

By Ed Bee, CEcD

Nothing is more central in economic development and, ironically, more controversial than job creation. For the first 50 years of professional economic development, the answer of what created jobs was unambiguous: manufacturing plant recruitment produced economic growth and new jobs. But a new paradigm emerged in the early 1980s driven by research conducted by David Birch at MIT. Birch reported that small business startups accounted for the vast majority of the nation's net new jobs.

Still nice, but not the job creator we thought.

Needless to say, Birch's findings turned economic development on its head. Boards, investors, and the federal development community began to question the effectiveness of traditional approaches, such as recruitment and promotion. Infrastructure geared toward promotion, such as business and industrial parks, was given lower priority for grant funding and assistance. Development groups turned their focus inward toward assistance for small businesses, startups, and existing companies. Academic researchers increasingly derided marketing, promotion, and recruitment strategies as a waste of development resources. A significant number of communities abandoned strategies built on community competitiveness and the recruitment of external investment. Why worry about such things when it's the local startups that matter?

What we know about the accuracy of the Birch paradigm has grown exponentially in the last decade and has great importance to the practice of economic development at the local, regional, state, and national level. A significant body of research is now emerging which provides an unparalleled clarity on which economic development strategies and tactics create jobs. These findings are once again turning economic development on its head.

Ed Bee, CEcD, is president of Taimerica Management Company, Mandeville, LA (ebee@taimerica.com)

What we know about the accuracy of the Birch paradigm has grown exponentially in the last decade and has great importance to the practice of economic development at the local, regional, state, and national level. A significant body of research is now emerging which provides an unparalleled clarity on which economic development strategies and tactics create jobs. These findings are once again turning economic development on its head. This article examines the implications of that research on regional and community economic development strategy.

We should pause at this point to explain what David Birch said about small businesses and job growth, because an elaborate urban mythology has evolved about what Birch supposedly said on the subject.

Birch's first published article, in *The Public Interest*, expounds on his findings, which were later refined with a discussion of mice, elephants,

THE END OF THE SMALL BUSINESS ERA?

David Birch's research on small business turned the economic development profession on its head in the 1980s. Traditional economic development approaches like recruitment and promotion were ridiculed. In this article, we find that the share of US jobs in small business hasn't changed since 1980, invalidating Birch's findings about the dominance of small business in job growth. New data suggest that recruitment is a much better strategy for job creation in the primary sector than startups and small business development. Developers need a more rigorous investigation of new techniques like Birch's before testing them in their communities. It's time to move beyond "one-size-fits-all" models of economic development strategy.

and gazelles[i]. Birch explains with some eloquence that he is not advocating interventionist policies to stimulate small business growth but is simply demonstrating that policies such as industrial targeting practiced by the Japanese and advocated actively by organized labor at the time, will not work in America because it's small businesses that create almost all of the nation's net new jobs.

The point of Birch's research was to demonstrate that the extreme churn in US labor markets makes interventionist policies less practical than improvements in the business climate. To be fair to Birch, he did not advocate policies to stimulate business starts nor small business development attributed to him but worried that politicians would be tempted to intervene because, without them, "there would be a relatively small role for these elected and appointed officials to play in the management of our economy."[ii]

TABLE 1. Percentage of Jobs Created by Size of Firm and Region

Number of employees in firm	PERCENT OF JOBS CREATED				
	Northeast	*North Central*	*South*	*West*	*U.S. Average*
0-20	177.1%	67.2%	53.5%	59.5%	66.0%
21-50	6.5%	12.0%	11.2%	11.6%	11.2%
51-100	-17.4%	5.2%	5.5%	6.3%	4.3%
101-500	-33.3%	3.1%	9.4%	9.3%	5.2%
500+	-32.9%	12.4%	20.4%	13.3%	13.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

Source: David Birch, "Who Creates Jobs?" *The Public Interest* 65 (1981): 8.

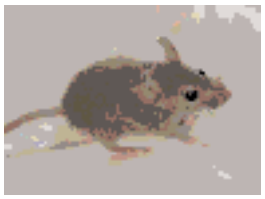
WHAT BIRCH SAID ABOUT SMALL BUSINESS AND ENTREPRENEURSHIP

What, in fact, did Birch say about small business? His primary finding was that ***"Of all the net new jobs created in our sample of 5.6 million businesses between 1969 and 1976, two-thirds were created by firms with twenty or fewer employees, and about 80 percent were created by firms with 100 or fewer employees"*** (see Table 1). [iii]

His second primary finding was that ***"About 80 percent of the replacement jobs are created by establishments four years old or younger"*** (see Table 2).[iv]

By combining the two statements, policy pundits and the "Second Wave" developers that emerged in economic development during the era concluded that only small startup businesses mattered in job generation.[v] A host of interventionist policy prescriptions, such as incubators and small business development centers, resulted from Birch's findings, or more accurately, from what policy analysts attributed to him. The idea of competition for investment and recruitment of large companies was branded as fools' errands by the emerging group of "Second Wave" developers.

After a decade of academic debate, Birch revised his findings. On further analysis, Birch concluded that the situation with small business was more complicated than first imagined. The net job creators consisted of a subset (four percent) of the young startup firms he called "gazelles" (in contrast to the remaining 96 percent that he classified as elephants and mice). Ninety-six percent of the small businesses (the mice) started small and stayed small throughout their lifetimes. The elephants were the large firms in the economy. It was this elite group of small businesses that governed employment growth within the nation's regions.



96% of small businesses stay small.

WHAT THE NEW DATA SAY ABOUT SMALL BUSINESS

If Birch was accurate, the US should have seen a metamorphosis in its economic structure over the last 30 years. The proportion of jobs in the smallest firms should have mushroomed from 26 percent to over 44 percent of total jobs based on the 66 percent of total growth that he estimated they contributed to the national job totals. Likewise, the percentage of jobs in firms with fewer than 100 employees should have grown to 65 percent of the total using the 80 percent of total growth that Birch estimated for 1974-76 (see Table 3). These percentages were calculated by assuming that the per-

TABLE 2. Percentage of Replacement Jobs Created Between 1974 and 1976 by Age of Establishment and Region

Age of Business (years)	PERCENT OF REPLACEMENT JOBS CREATED			
	Northeast	*North Central*	*South*	*West*
0-4	75.5%	80.8%	80.4%	80.9%
5-8	10.4%	8.4%	9.9%	8.8%
9-12	7.5%	6.0%	5.1%	5.5%
13+	6.6%	4.8%	4.6%	4.8%
TOTAL	100.0%	100.0%	100.0%	100.0%

Source: David Birch, "Who Creates Jobs?" *The Public Interest* 65 (1981): 8.

TABLE 3. Prediction Based on David Birch's Findings, 1975-2004

	JOBS (000)						
Size of Firm	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**	**2004**
Firms with <20 Employees	16,323	24,622	28,758	36,919	41,446	50,508	51,174
Firms with 20 to 99 Employees	16,272	18,032	18,910	20,641	21,601	23,523	23,665
Balance of Firms	29,675	32,190	33,443	35,916	37,288	40,034	40,236
TOTAL JOBS	**62,270**	**74,844**	**81,111**	**93,476**	**100,335**	**114,065**	**115,075**
Jobs in Firms with <20 Employees	26.2%	32.9%	35.5%	39.5%	41.3%	44.3%	44.5%
Jobs in Firms with 20-99 Employees	26.1%	24.1%	23.3%	22.1%	21.5%	20.6%	20.6%
Jobs in Firms with <100 Employees	**52.3%**	**57.0%**	**58.8%**	**61.6%**	**62.8%**	**64.9%**	**65.1%**

Source: Calculated by Taimerica from The Statistical Abstract of the U.S., various years.

centages of growth that Birch reported for the under 20 and under 100 employee firms classifications continued through 2004.

The numbers don't tell Birch's story, however. The proportion of jobs in the smallest companies has been stable since 1985 while the proportion in the largest companies has not changed either (see Figure 1). Something is amiss: clearly, Birch's findings don't tell the whole story.

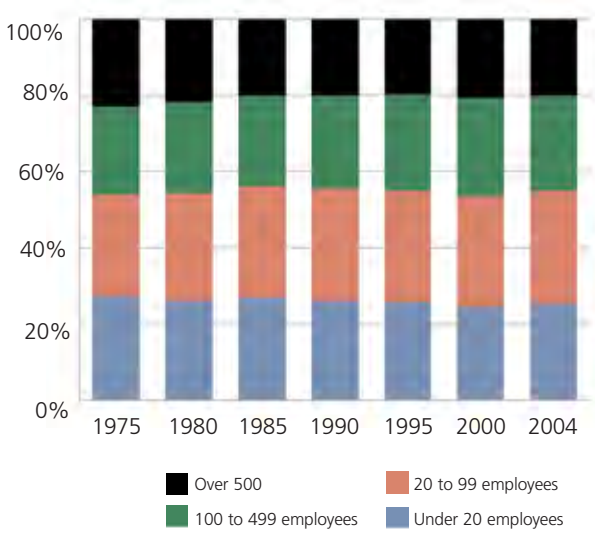
Researchers have concluded that Birch's findings are just a single piece in a complex puzzle. Some postulate that his sample was taken at a time of dramatic restructuring which was atypical of the US economy. Others have concluded that startup companies unleash a process of "creative destruction" (first described by Joseph Schumpeter), which eventually leads to a shakeout of other businesses in the market. Since these shakeout effects take a decade to work through the economy, studies like Birch's that look at a four-year period overestimate the effects from startup businesses.

In some cases, such as in lagging regions, the net employment effects of small business startups are even negative over time.[vi] In short, the role of small business startups in economic development is a complex problem that defies the simplistic solutions posited by policy analysts. Developers can't rely solely on small business to sustain economic growth.

In short, the role of small business startups in economic development is a complex problem that defies the simplistic solutions posited by policy analysts. Developers can't rely solely on small business to sustain economic growth.

FIGURE 1.

Employment by Establishment Size 1975-2004



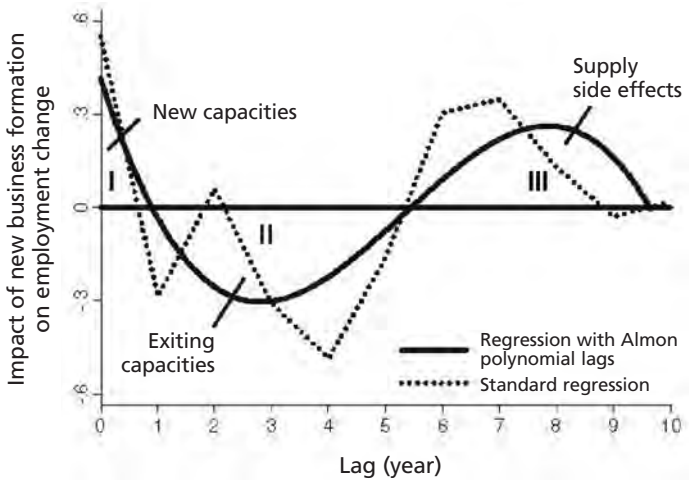
Source: Calculated by Taimerica from The Statistical Abstract of the U.S., various years

WHAT THE NEW DATA SAY ABOUT ENTREPRENEURSHIP

The second tenant of Birch's evaluation was that the vast majority of net new jobs were created by companies started within the prior four years, specifically: ***"About 80 percent of the replacement jobs are created by establishments four years old or younger."*** This conclusion did not change with his later findings about gazelle firms. Birch's findings are the linchpin in the argument that only small business startups matter in economic development.

Recent research has concluded that this finding also is inaccurate. Michael Fritsch found recently that entrepreneurs have a complex impact on employment, which can be divided into three phases. In phase I, small businesses generate new jobs in a region, termed New

FIGURE 2: Employment Effects of New Businesses Over Time

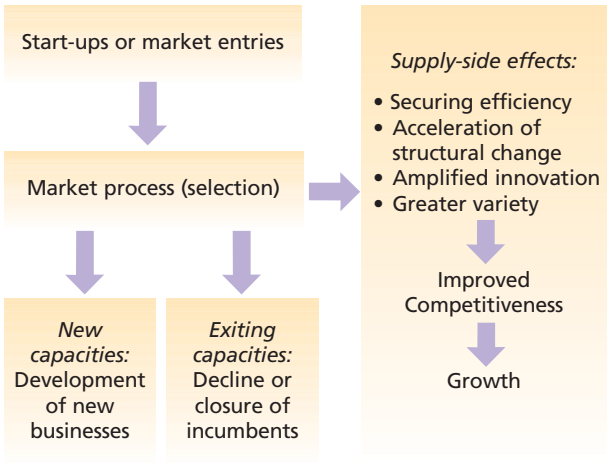


Source: Fritsch, Michael. "How does new business formation affect regional development?" *Small Business Economics* 30 (2008): 8.

Capacities in Figure 2. Growth is followed by a decrease in employment in Phase II as competitor firms exit the market, termed Exiting Capacities in Figure 2. This is followed by a period of growth and decline as "supply side" effects improve regional productivity, termed Supply-side Effects in Figure 2 (A further explanation of Supply-side Effects is shown in Figure 3).[vii] Fritsch's model explains how young small businesses could create net new jobs over four years, as Birch suggested, yet not have any long-term effects on the distribution of jobs among small and large companies.

Fritsch argues that entrepreneurs are essential in a region's economic competitiveness, not because of their job creation impacts, but because of what they bring to the region in terms of enhanced productivity and competitiveness. He asserts that startups eventually raise productivity levels in a region, enhance innovation rates, and accelerate structural change. They are the agents of "Creative Destruction" identified by Joseph Schumpeter in the 1930s.[viii]

FIGURE 3. New Business Formation

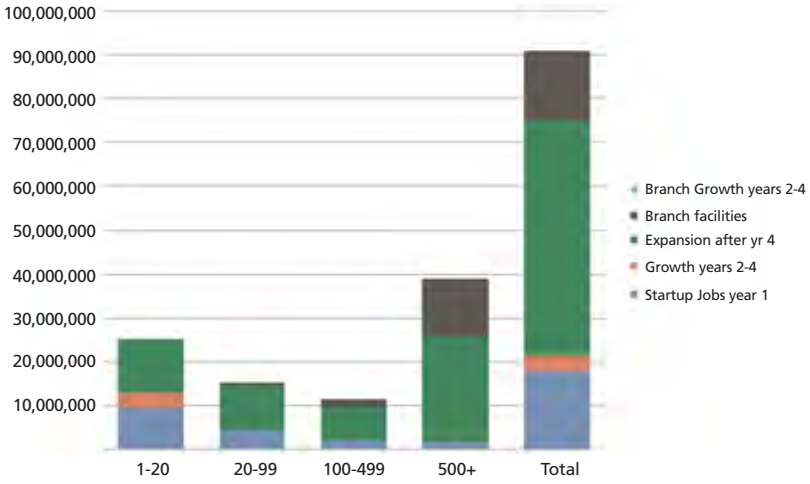


Source: Fritsch, Michael. "How does new business formation affect regional development?" *Small Business Economics* 30 (2008): 3

Zoltan Acs, in a recently released study conducted for the SBA's Office of Advocacy, has determined that Birch's statement about young startups does not apply today to the US economy. His research with a new longitudinal database shows that few of the jobs are created by young startup companies. Most of his High Impact firms (a refinement of Birch's Gazelles) are 24 years old, a finding to be discussed later.

FIGURE 4.

US Emp. Growth by Est. Size and Source 2001-2005



Source: Compiled by Taimerica from SBA Office of Advocacy databases

WHAT THE NEW DATA SAY ABOUT JOB CREATION

Figure 4, constructed from data collected by the SBA Office of Advocacy, shows the sources of job growth at the national level during the most recent five-year period. Business expansions contribute about two-thirds of the growth in new jobs. Startups and branch locations each contribute about a fifth of the total. The data underestimate the role of startups and branches and overestimate the role of expansions however because the SBA data measure the jobs generated at startups and branches during their first 12 months of operation while expansions are all growth after the first 12 months of operation. If jobs at startups and branches were calculated for the first 48 months of operations, for instance, these businesses would account for a higher share of the total growth and expansions would be a smaller share of the total. The length of time that the SBA assumes a business is in start-up phase affects the calculations (the same is true from branch facilities which are a subset of startups).

Birch's earlier conclusion that entrepreneurial startups contribute 80 percent of the nation's job growth is not

confirmed by these new data. What Birch said about the extreme job churn in the US economy is certainly still true and Figure 4 validates that conclusion. The US economy generated nearly 90 million gross jobs in five years, yet the net job increase was merely 5 million jobs (this churn could be high because of the sizeable restructuring in the US economy during the period due to globalization).

Economic developers have been faulted frequently by policy pundits for counting gross, rather than net, jobs in their measures of success. While this argument has validity, developers need a sense of gross job generation because it is the level of gross job creation that determines the demand for training. Moreover, the uncertainty of how "Creative Destruction" affects net job generation over time also affects the reliability of net job figures.

What might surprise developers is the impact that the largest companies have on total job generation. Companies with 500+ employees generate more gross jobs than small businesses and account for about half of total job creation. Startups generate a lot of gross jobs but, because the failure rate among startups is also high, the net jobs picture is much lower.

States with high levels of startups also have a high level of business failures among small companies (see and compare Tables 4 and 5). Startup rates are strongly related to population growth rates. The statistical correlations are strong and statistically significant (R-square of .40 for metros and .48 for states, both statistically significant at the .0001 level).

A careful examination of these numbers suggests that population growth stimulates the formation and growth of startup businesses -- and not vice-versa. Most of the entrepreneurial development programs created in the third wave of economic development assumed just the opposite, that increasing the rate of business startups stimulates economic growth. The lesson here for developers, academic observers, and policy pundits is that, as a source of new jobs, expansions and branch locations matter more than startups; and that startups flow from economic growth rather than stimulate it. As is apparent in Table 5, the states with the highest failure rates also have high population growth rates; and are the same states that have the highest startup rates. Of the five states with the highest startup rates between 2000 and 2005, four are also on the list of the states with the highest new business failure rates.

TABLE 4.
States with Highest and Lowest Startup Rates

		2000-05	
Rank	State	Jobs in Startups (%)	Population Growth (%)
Highest			
1	Nevada	34%	19%
2	Florida	33%	11%
3	Arizona	31%	15%
4	Idaho	31%	10%
5	Texas	29%	9%
Lowest			
46	Maine	18%	3%
47	Vermont	18%	2%
48	Wisconsin	18%	3%
49	South Dakota	18%	3%
50	Iowa	17%	1%

Source: Compiled by Taimerica from SBA Office of Advocacy databases

TABLE 5. States with Highest and Lowest New Business Failure Rates

		2000-05	
Rank	State	Job Losses from Failures (%)	Population Growth (%)
Highest			
1	Florida	-30%	11%
2	Arizona	-25%	15%
3	Nevada	-25%	19%
4	Texas	-25%	9%
5	Utah	-25%	12%
Lowest			
46	Hawaii	-17%	5%
47	North Dakota	-17%	-1%
48	Vermont	-17%	2%
49	Iowa	-16%	1%
50	Wisconsin	-16%	3%

Source: Compiled by Taimerica from SBA Office of Advocacy databases

WHAT THE NEW DATA SAY ABOUT GAZELLES

The focus on entrepreneurship in economic development over the last two decades is based on Birch's finding that the majority of the nation's net new jobs come from small business startups.

A landmark study of the SBA's longitudinal data has just been published by Zoltan Acs that gives new insights because of the database's enhanced capabilities and refinements. Acs tested Birch's findings about young small business and "gazelle" firms using the SBA's longitudinal data. What he found was that the companies that grow in both sales and jobs (which he calls "High Impact") are a different breed than Birch's gazelles (which were defined by sales growth alone). High Impact firms, like Gazelles, are an elite group, representing just 6.5 percent of the nation's companies. But High Impact firms differ from Gazelles in two important ways:

1) most are not small businesses, and

2) just 2.5 percent are startups (established in the last four years).

Table 6 is a cross-tabulation of High Impact firms by size and age. High Impact firms generate 84 percent of the nation's net new jobs. Notice that just a fraction of the jobs among High Impact firms are attributed to the smallest businesses (1-19 employees). And fewer than five percent of the jobs in this size class are in firms under four years old. The strategic implications are clear: Ignoring large businesses omits most High Impact firms; Focusing on startups excludes 97.5 percent of High Impact firms. Focusing on small startup businesses ignores 98 percent of the traffic.

TABLE 6. High-Impact Job Generation, 2002-06

Firm Size (No. Employees)	High Impact Jobs	Share (%)	High-Impact Firm < 4 yrs old	High-Impact Firm > 4 yrs old
1-19	2,883,475	38%	5.5%	94.5%
20-499	2,130,682	28%	0.9%	99.1%
500+	2,514,538	33%	0.4%	99.6%
TOTAL HIGH-IMPACT	**7,528,695**	**100%**	**2.5%**	**97.5%**
All Firms	9,009,760	NA	NA	NA
High-Impact Share (%)	84%	NA	NA	NA

Source: Acs, Parsons, and Tracy, "High-Impact Firms: Gazelles Revisited", contract for the Small Business Administration, June 2008.

THE IMPORTANCE OF THE ROLE OF STARTUPS IN ECONOMIC DEVELOPMENT

Economic development involves the stimulation of overall growth in the local or regional economy. To sustain their organizations, economic developers must demonstrate that their programs deliver growth that would not happen otherwise. Startups serving local markets are typically examples of businesses that would happen without the support of economic developers. It's obvious from the SBA's data that most of the jobs generated by startup businesses are in sectors serving local markets (see Table 7). A disproportionate share of startup jobs occur in sectors that serve local markets, such as food service, construction or retail trade.

Economic development involves the stimulation of overall growth in the local or regional economy. To sustain their organizations, economic developers must demonstrate that their programs deliver growth that would not happen otherwise. Startups serving local markets are typically examples of businesses that would happen without the support of economic developers.

TABLE 7. Startup Jobs by Sector, 2000-05

		2000-05	
Sector	**Initial Jobs**	**In Startups**	**Percent**
Accommodation & foodservices	9,635,349	3,390,736	35%
Admin. & support, waste mgt., rem. svcs.	8,365,519	2,210,505	26%
Construction	6,201,120	2,127,477	34%
Retail Trade	14,475,239	2,080,830	14%
Health care & social assistance	13,864,441	1,987,526	14%
Professional, scientific, & technical services	6,431,473	1,940,169	30%
Manufacturing	16,658,144	1,304,926	8%
Other services (except public admin.)	5,152,985	1,165,117	23%
Wholesale trade	5,971,197	844,287	14%
Finance & insurance	5,965,455	741,819	12%
Real estate & rental & leasing	1,873,780	645,964	34%
Transportation & warehousing	3,627,533	609,084	17%
Information	3,234,298	482,452	15%
Arts, entertainment & recreation	1,639,859	467,552	29%
Educational services	2,431,909	286,072	12%
Management of companies & enterprises	2,788,270	153,542	6%
Mining	456,638	67,901	15%
Utilities	667,135	24,686	4%
Auxiliaries, exc. Corp., subsid., reg. mgt. ofcs	959,260	1,177	0%
TOTAL	**110,399,604**	**20,531,822**	**19%**

Source: Compiled by Taimerica from SBA Office of Advocacy databases

To get an accurate picture of the role of startups in economic development, we should look at startups in primary production and services, which excludes sectors driven by local market growth. Those data demonstrate a different pattern than for the overall economy. With the exception of professional, technical and scientific services, these data suggest that growth in primary sectors is driven much more by branch locations and expansions than by startups (see Table 8). Mining is an example. Branch facilities in mining generated 93,000 gross jobs between 2000-05 while expansions generated 337,000 jobs. Startups by contrast generated just 68,000 gross jobs, which is just 5 percent of the gross job development in mining during the period.

When Manufacturing (which has seen such a dramatic decline that it obscures the overall growth pattern) and Professional, Scientific and Technical services are excluded, the primary sector totals demonstrate that startups account for just 15 percent of the gross new jobs and had a negative net impact on jobs (births minus deaths). Startups in the primary sector actually resulted in a net decrease in jobs over the 2000-2005 period. Branch locations have a much larger impact than startups in terms of gross jobs and are nearly equal to expansions as a source of net new jobs.

The conclusions we have to accept are that branch locations and expansions, excluding sectors oriented toward local markets, are far more important in economic development than startups and are nearly equal in importance from a net jobs standpoint. In terms of logistics (warehousing and distribution), information services, and company management, branches are a more significant source of net new jobs than either startups or expansions.

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TABLE 8. US Primary Sector Dynamics, 2000-05 (Jobs)

		Births			*Deaths*			
Sector	**Initial**	**Startups**	**Branches**	**Expansions**	**Startups**	**Branches**	**Contractions**	**Net Change**
Total, all economic sectors	110,671,753	20,868,221	19,095,795	70,112,316	19,950,793	16,753,894	67,759,842	**5,611,803**
Primary Sectors								
Mining	456,638	67,901	93,245	336,614	66,775	89,048	306,160	**35,777**
Manufacturing	16,658,144	1,304,926	1,022,227	6,310,029	1,712,216	1,780,630	8,207,304	**(3,062,968)**
Wholesale trade	5,971,197	844,287	929,701	3,680,658	1,085,916	947,515	3,431,792	**(10,577)**
Transportation & warehousing	3,627,533	609,084	875,725	2,247,602	644,089	616,670	2,454,772	**16,880**
Information	3,234,298	482,452	1,332,664	2,148,908	520,533	1,101,655	2,444,618	**(102,782)**
Professional, scientific, & technical services	6,431,473	1,940,169	1,265,521	5,421,300	1,775,231	1,072,178	4,683,765	**1,095,816**
Management of companies & enterprises	2,788,270	153,542	978,967	2,143,754	113,059	906,186	2,160,615	**96,403**
Administrative & support & waste mgt. & remed. serv	8,365,519	2,210,505	2,113,938	8,589,921	2,315,341	2,195,776	7,840,963	**562,284**
Total Primary Sectors	**47,533,072**	**7,612,866**	**8,611,988**	**30,878,786**	**8,233,160**	**8,709,658**	**31,529,989**	**(1,369,167)**
Total Primary Sector less PST services	41,101,599	5,672,697	7,346,467	25,457,486	6,457,929	7,637,480	26,846,224	**(2,464,983)**
Total Primary sectors less PST services and manufacturing	24,443,455	4,367,771	6,324,240	19,147,457	4,745,713	5,856,850	18,638,920	**597,985**

Source: Compiled by Taimerica from SBA Office of Advocacy databases.
Note: PST= Professional. Scientific and Technical Enterprises

IMPLICATIONS FOR ECONOMIC DEVELOPMENT STRATEGY

Here is a recap of what these new data say about the performance of different job generation strategies:

- A small business focus fails to generate significant net jobs.
- Startups typically do not drive economic growth; rather, economic growth typically drives startups. Most startups are organized to exploit emerging market opportunities from local population growth, such as in retailing, personal services, and construction.
- Most startups are focused on local markets and therefore don't stimulate local or regional job creation. We know from economic development theory that businesses must generate new wealth from outside of the local market to raise the standard of living and overall level of regional employment. Businesses that exist on local markets recirculate wealth rather than create it.
- High Impact companies are the fountain for economic growth although we do not have cost effective methods of identifying them in advance.
- Branch locations are an important economic development strategy.
- Existing industry expansions are nearly equal in terms of net job generation to branch locations in the primary sector.
- Entrepreneurship matters in job generation but the connections and path to success are not known so interventionist techniques are questionable policy tools.

These conclusions have significant implications for overall economic development strategy. This research suggests that Second Wave strategies that surfaced following David Birch's research have not offered any better job performance than the recruitment strategies which they replaced. As a matter of fact, the new data suggest that branch recruitment in the primary sector is a more productive strategy than startups and even rivals business expansions in the generation of net new jobs.

The bigger picture implications from this research are: 1) There isn't a single economic development strategy that works universally well throughout the US, and 2) new ideas in economic development can generate unintended consequences. Communities that shifted their focus inward by following Second Wave strategies probably became less competitive over time because their inward focus ignored the need to remain globally competitive. Anecdotal evidence suggests that recruitment strategies, as practiced in the most dynamic communities, such as Dallas or Atlanta, probably provide a better platform for adapting to competitive challenges than existing industry or startup strategies.

As a profession, we have to do a better job of investigating the "new- new-thing" in economic development. Why did it take us 25 years to discover that the assumptions and theories behind Second Wave development were clearly flawed? We need a more rigorous review of new ideas before testing them in our communities.

Recent research in Germany in cognitive psychology demonstrates that single emphasis strategies, such as entrepreneurship or small business development, are not the answer in complex fields like economic development.[ix] This research, using simulation models with panels of civic leaders, demonstrated that teams that focus all of their resources on solving a single development problem actually retard growth. There are too many interactions and feedbacks in a complex system like economic development to make this kind of simple approach workable in practice.

Most startups are focused on local markets and therefore don't stimulate local or regional job creation. We know from economic development theory that businesses must generate new wealth from outside of the local market to raise the standard of living and overall level of regional employment. Businesses that exist on local markets recirculate wealth rather than create it.

Developers have to recognize that they need complex methods to solve complex problems. Just as physicists needed calculus to solve problems of planetary motion, developers need more sophisticated tools than these policy generalizations for doing community development.

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Most of the theories about effective economic development have focused on a "one-size-fits-all" model of economic development. Proponents of Second Wave techniques, for instance, were typically adamant that communities had to shed their business recruitment ways. More recent approaches, such as cluster development, are built on the assumption that previous techniques are invalid. What these data suggest is that such generalizations are unfounded.

Proponents of Second Wave techniques, for instance, were typically adamant that communities had to shed their business recruitment ways. More recent approaches, such as cluster development, are built on the assumption that previous techniques are invalid. What these data suggest is that such generalizations are unfounded.

The best tools and techniques in economic development defy generalization. They depend on a community's assets and liabilities and what investors are buying in the marketplace in a given era. Providing a location that is globally competitive for investors, whether recruited from elsewhere or home grown, is a better model for long-term performance than the interventionist techniques advocated by policy pundits during the last 25 years.

We might well find that a handful of techniques are generally useful in most communities or we might find, in contrast, that there are different classes of communities that respond better to one set of economic development tools and techniques than to others. But we won't find these solutions until we resist the temptation of looking for a single silver bullet or a single approach that works universally in all circumstances.

ENDNOTES

[i] Birch, David. "Who Creates Jobs?" *The Public Interest* 65 (1981): 3-14.

[ii] Birch, p. 12.

[iii] Birch, p. 7.

[iv] Birch, p. 8.

[v] A term coined by Robert Atkinson with the former Congressional Office of Technology Assessment. See Ed Bee, "Small Business Vitality and Economic Development", *Economic Development Journal*, Summer 2004.

[vi] Fritsch, Michael. "How does new business formation affect regional development?" *Small Business Economics* 30 (2008): 1-14.

[vii] Fritsch, p. 8.

[viii] Joseph Schumpeter, *The Theory of Economic Development,* Cambridge, MA 1934: Cambridge University Press.

[ix] See for instance, Dietrich Doerner, *The Logic of Failure*.

economic development

AND U.S. STATE FILM INCENTIVES

By Isaiah A. Litvak, Ph.D. and Marilyn M. Litvak, M.A

INTRODUCTION

Locational site rivalry among state governments, including those of even the smallest states, has intensified in recent years. The world of locational site incentives is a fast paced one. Public policy and government incentive tradeoffs are constantly in the making. Tens to hundreds of millions of dollars are expended by individual U.S. states on economic and industry development initiatives.

Most states are not in a position to either document the exact amount, or the effectiveness of incentives in question. Additionally, there has been a tendency for too many states to identify the same industries, so excessive competition has led to inadequate returns. What is widely observed is that states tend to imitate incentive programs perceived to be effective, especially if offered by competing neighboring states.

One of the key industries on the economic development agenda is the motion picture industry. The constant media coverage of the cost of a film production and its attendant box office receipts puts the industry front and center on an on-going basis. The average major Hollywood feature picture has a production budget of approximately $60 million, with about one third spent on location. Looking to gain a piece of the motion picture industry pie, U.S. states actively promote their regions as ideal sites for a film shoot.

Photo Credit: Yale University

Yale University, New Haven, Connecticut, plays the fictional Marshall College in "Indiana Jones and the Kingdom of the Crystal Skull" (2008).

INDUSTRY IMPORTANCE

The economic contribution of the motion picture and television industry to the U.S. domestic economy is significant. It is a mega-billion dollar industry. Figure 1 presents some basic information about the performance of the industry. According to the MPAA[1], in excess of 180,000 persons were directly employed as studio, independent production company, or core industry supplier staff. The industry defines the core suppliers as including film labs, special effects and digital studios, location services, prop and wardrobe houses, research services and film stock houses, video and duplicating services, stage rental facilities, etc. Another 231,000 were freelance workers, including actors, directors, writers and technical or craft specialists.

Most of the industry activity is concentrated in Los Angeles County, the location of Hollywood,

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THE RUSH TO ATTRACT FILM PRODUCTION

This article examines and discusses the dynamics of the motion picture production industry in the context of interstate rivalry and the politics of incentives. Why U.S. states feel compelled to offer and compete in the arena of film incentives is a major theme of the article. The intensity of the competition is outlined and the efficacy of film tax incentives is questioned. The incentives frequently do not pay for themselves. The film incentive program recently instituted by the state of Connecticut is an excellent case in point. Of special interest is the issue of interstate rivalry and the difficulties in ensuring that the benefits accrue primarily to the originating state, with minimum leakage to its geographic neighbors.

FIGURE 1.

2005 U.S. Economic Impact

- 1.3 million plus American Jobs
- $73,000 average salary for direct employees
- $30.24 billion in wages to workers in America
- $30.20 billion in revenue to U.S. vendors and suppliers
- $60.4 billion in output to the U.S. economy
- $10 billion in income and sales taxes
- $9.5 billion in trade surplus

Source: MPAA, *The Economic Impact of the Motion Picture & Television Production Industry of the United States,* Encino, California, MPAA Strategic Planning & Research, January 7, 2007, p.5.

the world's pre-eminent film industry cluster. Indeed, when speaking of interstate rivalry, the first round of rivalry can be best described as one involving 49 states in quest of Hollywood runaway film productions.[2]

The Production System[3]

Today's U.S. feature film industry is one in which much of the pre-production, production, and post-production stages of film creation and production activity are collaboratively produced and managed by independent contractors. These contractors in many instances are established to produce a single film, after which they cease to exist. Film production companies that produce a number of films frequently employ only an administrative staff.

Film production costs range from less than $15 million to more than $200 million. About 192,900 people were employed in product and services in 2007, according to MPAA as reported by the Bureau of Labor Statistics. MPAA noted that on-location production creates jobs and tax revenues in cities and towns, contributing an estimated $200,000 a day in the localities in which filming takes place.

The role of the studios in the current film production system is no less important because they still retain the primary role of distributor and financier. Movies are typically made under contract between a major (studio) distributor, a production company, and a collection of freelance talent. The major distributor frequently funds a theatrical film from start to finish or accounts for a part of the financing in return for fees and a portion of the proceeds. Hollywood's major studios dominate the film industry, most of which operate as strategic business units (SBUs) within larger multinational media and entertainment conglomerates. Six major film distributors account for more than 70 percent of domestic box office revenues. They include: the Walt Disney Company, Viacom Inc., Sony Corporation, News Corporation's Fox Entertainment Group, Time Warner Inc., and NBC Universal.

Local entrepreneurs, filmmaking service providers and governments, alone or in partnership (alliances), have invested substantial sums of money in states that are among the more tax incentive attractive. Under such circumstances, movie producers set up their film production tents in the location of choice, and once having completed the shoot in question fold up their tents and continue on to the next phase of their film production activity, wherever deemed most cost beneficial and professionally satisfactory

THE POLITICS OF INCENTIVES

A growing number of U.S. states are trying to buy film production market share by offering substantial financial incentives. Incentive inducement, if competitively packaged, may generate some, perhaps even a considerable, increase in film production shoots. Even if the increase in film production is significant, experience has shown that it is rarely sustained. "There is yet to be a community in the U.S. that has successfully transitioned from using lower costs as an inducement to establishing a mature visual media infrastructure that will be attractive on an ongoing basis."[4]

Politics plays an important role in advancing the case for incentives in the motion picture production industry,

Photo Credit: Yale University

An example of a creative runaway. The "Life Before Her Eyes" (2007) story takes place in Connecticut.

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Political pressures for the continuance or enactment of incentives is a common phenomenon in every legislative session. The business community as a whole supports incentives; however, legislators need to be mindful that industry targeting is complex and seldom achieves the desired results.

Photo Credit: Tom Kramer

On the set of "Misconceptions" (2008) in Dunedin, Pinellas County, Florida. Dunedin doubled as small-town Georgia.

of that there can be little doubt. What is less certain is that the incentives generate significant benefits for the localities, given that many of the recipient targets are usually temporary organizations; i.e., project-based enterprises, providing temporary employment with the production company typically being disbanded once the film is released.

If the project-based enterprise is not Los Angeles County-or New York City-situated, then more than likely many of the high priced creative and skilled members will be short-term imports to the film production locations in question. This is not to deny that certain economic benefits will accrue to certain local film production service providers, creative and skilled workers, in addition to the many below-the-line workers involved in film production activities. However, these economic benefits typically fall short from the type of benefits realized when attracting plants, warehouses, and regional office operations that have not been set up with a future dissolution pre-determined – usually, in a time frame of less than a year.

Political pressures for the continuance or enactment of incentives is a common phenomenon in every legislative session. The business community as a whole supports incentives; however, legislators need to be mindful that industry targeting is complex and seldom achieves the desired results. While film, television, and video (FTV) production can produce significant direct and indirect benefits for communities, policymakers "should realize that the potential for growth in this industry outside California and New York is limited . . . A careful assessment should be made before allocating scarce fiscal resources to lure the filmmaking business."[5]

THE PURSUIT OF ECONOMIC DEVELOPMENT

Economic development officials generally take the position that interstate incentive rivalry demands that their jurisdictions offer comparable incentives, lest their region elects to forego employment benefits associated with motion picture production activity. Policymakers and their economic development officials fear that by not offering competitive film incentives they may lose out when it comes to attracting film production to their jurisdictions and the resulting benefits thereof. However, certain politicians and policymakers question the efficacy of film production incentives.

Economists generally fall on the side of skeptics when it comes to judging the effect of state incentives on economic growth and firm location decisions; i.e., they contend that tax incentives as such are poor economics in that they rarely achieve the intended goals. This view however is not widely shared by the lobbying chorus of highly aggressive incentive supporters, which typically include the local film industry; economic development officials; film commissioners; select politicians; industry accountants and lawyers; and film producers, in general.

The government of Florida contends its film production incentive program realized an economic impact of at least six dollars for every one dollar invested (rebates after the production has completed spending in Florida).[6] However, according to the governor's office, Florida's 2007 cost-benefit performance is being threatened by many U.S. states which are increasing the relative attractiveness of their production incentives. The governor's office cites the following examples:

ILLINOIS' Senate approved legislation to reinstate the 20 percent incentive, which expired at the end of 2007.

NEW YORK passed a major increase in its production credit, raising it to 30 percent (from 10 percent) to help recapture production from neighboring states.

MICHIGAN is now offering a 40 percent rebate on production spending to filmmakers, as well as tax credits for companies that invest in new studios.

LOUISIANA offers 25 percent – 35 percent transferable income and investment tax credit programs with unlimited funding. Many Florida companies and professionals are actually moving to Louisiana.

NEW MEXICO offers refundable tax credits and no-interest loans with no ceiling to its funding. The state has also made capital investments into infrastructure directly related to the film and entertainment industry, luring studios like SONY Pictures Imageworks to permanently relocate in New Mexico. The New Mexico Film Office says Hollywood was responsible for $475.5 million in economic impact in 2007.[7]

Economic development officials and film commissioners tend to ascribe increases in location shoots and expenditures to the introduction and/or expansion of government incentive programs. Indeed, the "apparent" success of a state's tax credit program has resulted in state legislators making the tax credits permanent. One might surmise that the governors and legislators of the winning states were able to gain political benefits from credit-claiming even if questions of economic efficacy might suggest otherwise. Furthermore, there appears to be no end to the need to "convince" film companies to keep filming in a given state. The incentive package is seldom viewed as a one-time proposition.

INTERSTATE RIVALRY

Numerous state governments have adopted pseudo "industry sector strategies" with respect to specific industries. Business is not totally innocent either when it comes to trying to influence government to pick "winners." The FTV industry is typically at the forefront of lobbying for an increase in film incentives, aided by a chorus of economic development officials, film commissioners, and interested and vote sensitive elected and aspiring politicians. Elected state politicians, especially those whose party is in power, frequently lobby for special incentives to induce film companies to shoot in their districts.

Many state jurisdictions position themselves as ideal locations for movie production. Their promotional literature often includes data on comparative incentive programs, costs and taxes – of course, highlighting their state's competitive edge as a cost-saving location for film production activity.

This aggressive incentive competition frequently leads to bidding wars, waged by economic development bureaucrats and film commissioners. Their weapons include production incentives that can take the form of tax credit incentives, outright subsidies, and provision of infrastructure and land free of charge.

One of the more troubling competition issues involves the aggressive attempts by some state governments to entice film companies either to move their production shoots from one state to another or to expand geographically and diversify their film shoots to include another state. This type of competition can damage not only interstate government relations, but also relations between the state government and the local business community, particularly if existing companies (and business rivals) view the incentives and subsidies offered to new entrants as constituting competitive advantages not available to them.

Photo Credit: Ron Gustafson

Photo Credit: Ron Gustafson

Small independent film "Once More with Feeling" (2009) takes advantage of Connecticut tax credits by filming in Connecticut. These scenes were shot at Quassy Amusement Park, Meriden.

Most states offer film tax incentives as a means of attracting film production. Tax rebates and transferable tax credits are among the more popular incentives. The industry favors rebates because the rebate results in checks being issued by the state government to the film company.

Film Tax Incentives

Most states offer film tax incentives as a means of attracting film production. Tax rebates and transferable tax credits are among the more popular incentives. The industry favors rebates because the rebate results in checks being issued by the state government to the film company. For example, if a film company spends $30 million in a state with a 25 percent rebate, the film company will get a rebate check for $7.5 million back from the government.

Policymakers prefer the transferable tax credit incentive because the film company, in this instance, receives credit against its state tax obligation. Since many film companies owe little state taxes, they have the option of reselling their credit to other taxpayers, frequently wealthy individuals or companies.

A key political reason for favoring the transferable tax credit incentive is that it is less likely to be seen as "corporate welfare." However, the transaction costs associated with the sale of the transferable tax credit may influence the state to increase its benefits in order to match the tax rebate offered by competing states. Brokers and lawyers are among the key beneficiaries when negotiating the sale of transferable tax credits.

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Tradeable film tax credit programs have helped spawn an industry of film tax professionals, whose interests are closely aligned with the film industry, including state film commissioners. This was made crystal clear in a May 12, 2008, email sent by Tax Credits, LLC., a firm which has handled approximately 900 transactions totaling in excess of $300 million in film tax incentives.

The subject line of the email was "Urgent . . . Help Save the NJ Film Office." The crux of the email is that the New Jersey Picture and TV Commission was faced with the potential loss of state funding and thus the survival of the NJ film industry was in jeopardy. Tax Credits, LLC was encouraging all interested individuals to engage in a letter and telephone campaign aimed at persuading NJ Governor Jon S. Corzine not to eliminate the film commission from the state budget.

D.R. Saas, a policy analyst at the Federal Reserve Bank of Boston, offers a number of critical observations regarding the efficacy of tax credits as film and television production incentives. First, tax credits are more likely to generate employment opportunities where film and television production activities are insignificant. Second, tax credit incentives may result in substantial foregone tax revenue. Third, film production usually contributes minor additional economic activity in other industries. Fourth, film tax credits frequently do not "pay for themselves." And finally, fifth, it is more difficult to arrive at a firm conclusion of film incentive costs-benefits when they involve states with a big film production industry cluster such as Los Angeles County and New York City.[8]

Assessing the fiscal impact of film tax credits and the number of jobs they are responsible for creating is a complex one. To ignore alternative policy options, especially those involving the impact on other industries, is regrettably not uncommon. There is also the problem of determining whether the film production would have materialized without the benefit of the tax credit or for that matter if the financial incentive was greater than necessary to attract the film production project.

Keeping up with Connecticut

Interstate competition, in particular, has become an increasing concern for neighboring states. A case in point involves Connecticut, its New England neighbors (Maine, Massachusetts, Rhode Island and Vermont) and New York. New Hampshire offers no specific film tax credits because it contends that the state's tax policy and business friendly environment are reasons enough to entice film production activity. Tax windfalls are not uncommon when state governments use tax incentives to attract business investment.

Connecticut has become a Hollywood production favorite following the passage of expanded digital media and motion pictures tax credits July 2007. The legislation places greater focus on helping to develop local crew base, support services, vendors and facilities. According to the Connecticut Commission on Culture and Tourism, "The payoff is double-sided. Studio and independent feature film production interest is at a record high, and it is thought to generate economic activity equivalent to three times the production company's expenditures. In a climate where tax incentives and rebates have become an essential part of filmmaking, the expanded tax credit legislation serves to strengthen Connecticut's position as one of the top five U.S. destinations in which to budget a film."

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Connecticut offers qualified production expense credit of up to 30 percent, including wages. This amounts to $3 million of tax relief on a $10 million film budget; a sum of money that could conceivably exceed the taxes generated by the film production undertaking. From being a location for the occasional film shoot, Connecticut has transformed itself to one that is a significant site for the production of feature films, television shows, and commercials (see Figure 2).

In an ironic twist, one of the more recent Hollywood runaways that was landed by Connecticut is "What Just

Happened?" (2008). The movie centers on a few short weeks in the life of a fading Hollywood producer played by Robert De Niro. Though the director, Barry Levinson, is a resident of Connecticut, the primary reasons cited for choosing Connecticut were the substantial below and above the line tax benefits.

Tax windfalls are especially large in states where unused tax credit can be sold as in Connecticut, Massachusetts, and Rhode Island. For that matter, there is no guarantee that the funds generated from the sale of tax credits will be used in Connecticut. Film production companies could use the funds to finance the production of films in other states. Indeed,

> Revenue losses are exacerbated by the tendency of these tax credits, like almost all tax credits, to subsidize activity not originally targeted and to provide more incentive than needed to the desired response. And, when film tax credits do hit their mark and induce more local film production, the resulting stimulus to overall economic activity appears to be rather modest.[9]

Connecticut's apparent success has not gone unnoticed. The need to match Connecticut's film incentives loomed large and on April 23, 2008, New York state passed legislation upping its existing tax credit from 10 percent to 30 percent for qualified film and television production, thus, effectively tripling its rebate program. Added to the mix is the 5 percent tax credit offered by the "Made in New York City" program, bringing the total tax credit to 35 percent. New York's goal was to regain its competitive edge over its neighboring states including Connecticut, New Jersey, and Massachusetts. The strategy appears to be showing a great deal of success. In mid-May 2008, the television series "Ugly Betty" announced its move to the Big Apple because of the absence of film production incentives in California.

Having revised its film tax credit incentive program, New York now faces yet another challenge, i.e., dissuading New York based film companies from relocating their offices and/or studios to Connecticut.

Blue Sky Studios Inc.

On March 20, 2008, Governor M. Jodi Rell of Connecticut announced an $8 million loan to Blue Sky Studios to help transfer its operations from White Plains, New York, to Greenwich, Connecticut. This move includes a state-of-the-art animation facility, involving the relocation of 300 full-time employees from New York to Connecticut. The terms of the loan call for 3 percent interest over 10 years, with principal and interest payments deferred for the first five years. Six million

This move includes a state-of-the-art animation facility, involving the relocation of 300 full-time employees from New York to Connecticut.

FIGURE 2.

Recent Productions Attracted to Connecticut by Expanded Film Incentives

- **"Camp Hope"** starring Dana Delany, directed by George VanBuskirk
- **"College Road Trip"** starring Martin Lawrence and Raven, directed by Roger Kumble
- **"Company Retreat"** starring Hart Bochner, directed by Campbell Scott
- **"Factory Girl"** starring Sienna Miller and Guy Pearce, directed by George Hickenlooper
- **"For One More Day"** starring Michael Imperioli, directed by Lloyd Kramer
- **"Friends with Benefits"** starring Margaret Laney, directed by Gorman Bechard
- **"In Bloom"** starring Uma Thurman and Evan Rachel Wood, directed by Vadim Perelman
- **"Indiana Jones and the Kingdom of the Crystal Skull"** starring Harrison Ford, directed by Steven Spielberg
- **"Laws of Motion"** starring Matthew Perry and Hiliary Swank, directed by Craig Lucus
- **"Made for Each Other"** starring George Segal, directed by Daryl Goldberg
- **"Old Dogs"** starring John Travolta and Robin Williams, directed by Walt Becker
- **"Pistol Whipped"** starring Steven Seagal, directed by Roel Reiné
- **"Reservation Road"** starring Joaquin Phoenix and Jennifer Connelly, directed by Terry George
- **"Revolutionary Road"** starring Leonardo DiCaprio and Kate Winslet, directed by Sam Mendes
- **"Righteous Kill"** starring Robert DeNiro and Al Pacino, directed by Jon Avnet
- **"The Accidental Husband"** starring Uma Thurman, directed by Griffen Dunne
- **"The Bronx is Burning"** starring John Turturro and Oliver Platt, directed by Jeremiah Chechik
- **"The Other Side of the Tracks"** starring Chad Lindberg, directed by Alex Calvo
- **"The Sisterhood of the Traveling Pants 2"** starring America Ferrera, directed by Sanaa Hamri
- **"The Six Wives of Henry Lefay "** starring Tim Allen, directed by Howard Michael Gould
- **"What Just Happened?"** starring Robert DeNiro and Bruce Willis, directed by Barry Levinson

Source: Connecticut Commission on Culture and Tourism

of the eight million dollar loan will be forgiven if Blue Sky Studios complies with its job creation requirement by June 2012.

Governor Rell announced that the loan will produce "a lasting investment. Blue Sky is not simply shooting a scene or two in Connecticut; they have chosen to make a home in our state." The ownership of Blue Sky Studios is of particular interest. It is a wholly owned unit of Fox Filmed Entertainment, one of the world's largest producers and distributors of motion pictures – hardly a financially disadvantaged enterprise.

INTERSTATE LEAKAGE

The competing New England states and New York appear to be entangled in a complex web of incentives with no end in sight, but with potentially negative budgetary consequences for the states and their citizenry. Massachusetts, for example, in January 2006 created a 20 percent tax credit for payroll expenses, a 25 percent credit for production expenses, and a sales tax exemption. One year later, January 2007, the film incentive law was made more competitive by increasing the payroll tax credit to 25 percent, lowering the threshold to qualify from $250,000 in expenditures to $50,000, and by eliminating a $7 million limit for tax credits on any single movie.

Incentives, without question, boost film production activity. However, a report by the state's Department of Revenue indicated that the lost tax revenues could have a negative impact on the ability of the state to respond adequately in more critical areas of concern, such as health and education. The departmental report of March 2008 was the first time the state of Massachusetts attempted to quantify the costs and benefits of the tax breaks. In part, this attempt was precipitated by the chorus of supporters of film production incentives lobbying for tax credits aimed at encouraging movie companies to build studios in Massachusetts.[10]

The film incentive cost-benefit conundrum is also being heard and debated in Rhode Island. New curbs on the management of the state' s incentive program, enacted in 2005, are being proposed by the state's Division of Taxation. Specifically, it had to do with the "determination" of expenses under the incentive program; i.e., expenses would only be 'qualified' if they were performed, produced or rented by a Rhode Island resident or vendor.

Upon examining the New England film production incentive rivalry, it becomes evident that certain benefits leak to neighboring states. A key goal for state support is to generate local clusters of contractors, subcontractors, labor, and suppliers within close proximity. However, the geographic proximity of states inevitably leads to leakages of benefits relative to what the state is trying to achieve in a state specific context. While this issue can be attributed to the lack of implementation rules, the very nature of the film production industry makes the issue a particularly challenging one. Acknowledging the complexity of the industry is one thing, addressing it is another.

Employment in the motion picture production industry provides such an example. Motion picture production work is project-driven. Production work requires large numbers of workers who are employed for a finite period ranging from a few days to a few months. Some workers move from project to project and some rotate among a number of production shoots. Depending on the skill requirements of the work and interstate proximity of the projects, a worker may be employed on a number of projects while a resident in one state, but earning much of his/her income in another state. Indeed, in Connecticut's case, close proximity to New York and the availability of experienced crews and professional resources has been an added advantage to attracting film production shoots.

The competing New England states and New York appear to be entangled in a complex web of incentives with no end in sight, but with potentially negative budgetary consequences for the states and their citizenry.

SUMMARY OBSERVATIONS

Film production incentives are not without their share of political criticism. The critics argue that the role of government should not be one that dispenses corporate welfare to floating film companies drawn to the most financially attractive state platforms. This is hardly a long term strategy for economic development. Nonetheless, our interviews with film industry executives and state officials suggest that political dynamics which characterize interstate incentive competition for film production shoots are more than likely to intensify. This view parallels research undertaken on the topic of business location and tax incentives, in spite of the belief that the cumulative effects of such incentive benefits are open to question and frequently doubtful.

The literature on regional development and geographic locational competition is replete with examples of how state governments got it wrong by being too naive or too politically driven. Designing incentives for specific firms in specific circumstances puts public officials in the position of double-guessing the private sector about what can succeed and what cannot. Bureaucrats are the least capable people to pick winners and losers. Firm-specific incentives can invite charges of favoritism from the public and from firms that do not receive the incentives.[11]

Recent U.S. studies indicate that the cost per job resulting from tax breaks offered by competing states has been high. In charting where jurisdictions have got it wrong, local political factors tend to be a key driver of

over-commitment. Of particular interest is how state politicians have been responsible for propagating the kind of strategic images that have trapped their state in behavior that turned out to be detrimental. Having persuaded the public to accept their vision of economic and social development goals, politicians and their bureaucrats can create an environment that becomes increasingly difficult to subsidize or diverge from. Such a situation typically produces political and psychological stress for both politicians and their senior policy advisors, and frequently results in costly mistakes in the form of irrational policymaking.

At first blush, it may appear that the MPAA is not actively involved in encouraging individual states to enact legislation in support of tax incentives for motion picture production. But this is certainly not the case. At the very time the US Senate voted to remove the movie-industry tax break from the US stimulus bill, MPAA Chairman and CEO Dan Glickman, in a Feb. 3, 2009, press release, applauded Michigan Governor Granholm for her state having implemented "one of the country's best film tax production program(s) in the U.S" and for having announced the planned development of a new $54 million motion picture and television production facility in Pontiac. These initiatives are aimed at attracting "scores" of motion picture productions and other projects to the region. According to Glickman, "a sustainable new industry is coming over the horizon to Michigan." The experience of other US states involved in attracting film productions suggests that such a perspective, if not somewhat farfetched, is somewhat questionable.

FOOTNOTES

1. The MPAA represents the American motion picture, home video, and television industries whose members include Buena Vista Pictures Distribution, Metro-Goldwyn-Mayer Studios, Inc., Paramount Pictures, Sony Pictures Entertainment Inc., Twentieth Century Fox Film Corp., NBC Universal, and Warner Bros. Entertainment Inc.
2. Runaway productions are categorized as creative and economic. Creative runaways are those productions that are shot on locations related to story/script requirements, whereas an economic runaway is defined as Hollywood-developed feature films, movies for television, TV shows, or series which are filmed in another state for economic reasons; i.e., to achieve lower production costs.
3. For a detailed examination see Litvak, I.A. and Litvak M.M., "U.S. Film Commissions & Hollywood," *Economic Development Journal*, Volume 6, Number 3, Summer 2007, pp. 5-13.
4. Texas Perspectives Inc., *Film & Visual Media in Austin*, 2004, p.16.
5. Weinstein, B.L. and Clower, T.L., "Filmed entertainment and local economic development: Texas as a case study," *Economic Development Quarterly*, Volume 14, 2000, pp. 384-394.
6. Florida Governor's Office of Film & Entertainment, Legislative Update 4-17-08.
7. Ibid.
8. Saas, D.R., "Hollywood East? Film Tax Credits in New England," *New England Public Policy Center*, Policy Brief 06-3, Boston, Mass., October 2006.
9. Ibid., p.4.
10. Wallack, T., "Tax Breaks Draw Films, But Cost State," *The Boston Globe*, March 27, 2008. Accessed 3/31/2008 (http://www.boston.com/business/articles/2008/03/27/Tax_breaks_draw-films_but_lost-sta).
11. Snell, R., A Review of State Economic Development Policy, Denver, Colorado, National Conference of State Legislatures, 1998, pp. 46-47.

benchmarking innovation

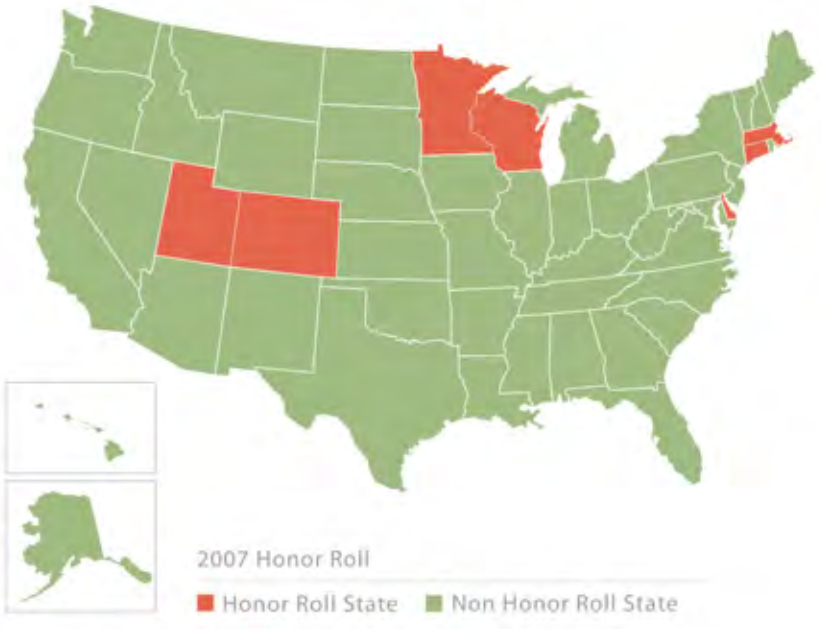
By Erik R. Pages and Graham S. Toft

INTRODUCTION

When it comes to 21st century economic development, innovation is the name of the game. States and localities recognize that their future prosperity depends on their ability to nurture innovation in local communities, local businesses, and in local residents. Hundreds, if not thousands, of economic development programs seek to foster innovation. These take numerous forms ranging from cluster development strategies to technology commercialization programs to business incubators to youth entrepreneurship programs and so on.

States and localities want to support and nurture innovation, but how can they be sure that they are succeeding in the process? Benchmarking regional innovation offers one approach to keeping score and tracking a region's innovation trajectory. Regions across the US and across the globe are creating local report cards or innovation indices that track how they, and their economic development programs, are performing.

Savvy economic developers have always benchmarked themselves against competitors and the "best in class" programs and regions. Yet, the importance of this process has grown in recent years as innovation-based economic development strategies have become more prevalent. While the pace of change has quickened, innovation strategies require a sustained long-term effort. Big job gains do not usually materialize over night. Instead, innovation manifests itself as gradual improvements in local business productivity, new product launches here and there, new business starts buttressed by fewer business failures, gradual relocations of young companies into the area, and other often barely perceptible shifts in the economic landscape.



The Corporation for Enterprise Development (CFED) Development Report Card of the States tracks states on their economic performance, business vitality, and development capacity. Only two states – Connecticut and Delaware – earned straight As on all measures in the 2007 index.

All of these transformational improvements are seldom apparent on a day-to-day basis. Big changes may be underway but may not be recognized until after the fact. In contrast, a new plant opening is readily apparent and likely to generate immediate and measurable local impacts.

Since innovation strategies operate according to a different pattern and timeline, they similarly call for better and different ways to measure progress and to continuously assess the strengths and weaknesses of a local innovation economy. That is where benchmarking comes in. In short, to do innovation right, you need to keep score.

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HOW TO BUILD A REGIONAL INNOVATION INDEX

As economic development organizations become more aggressive in supporting innovation and entrepreneurship, they must find ways to better understand how their regional innovation economy operates and how their programs affect individuals, businesses, and other key stakeholders. This article offers tips on how economic development organizations can benchmark their regions against other communities in terms of supporting innovation. It presents guidelines for identifying and accessing key metrics and statistics, for publishing benchmarking reports, and for effectively communicating the results to various regional audiences.

THE NATURE OF INNOVATION

While innovation is the buzzword of the day, it can often be an abstract concept. A simple definition is "doing things better, faster, cheaper and greener". You often cannot feel or touch it directly. Until quite recently, many observers contended that innovation was synonymous with technology. If you had technological change, you had innovation. Innovation could thus be measured with various measures of technological progress, such as patents or research and development spending.

This thinking aligned with a model that some have dubbed the "pipeline model" of innovation. Under this approach, innovation proceeded along a linear path from ideas to technologies to prototypes to final products or services. Today, most experts have a much more holistic picture of innovation. Advocates of open innovation or co-creation recognize that good ideas and innovative concepts can come from anywhere — from customers, from partners, from employees, and from outside forces as well.

Innovation is similarly not restricted to the creation of new products; it can refer to changes in technologies, products, services, and processes. It can include reorganizing work for higher productivity, combining the core competencies of various firms to launch new or better products, or finding creative ways to expand or penetrate new or changing markets. Innovation is no longer the sole province of scientists, engineers, and businesses – it may also be evident in the creative arts and cultural expressions of a community.

There are literally hundreds of different ways to define innovation. One of the more comprehensive definitions comes from the January 2008 report to the U.S. Secretary of Commerce from the Advisory Committee on Measuring Innovation in the 21st Century Economy. The Committee defines innovation as

> *"the design, invention, and development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers in a way that improves financial returns for the firm."*

As the definition of innovation becomes broader, new tools and metrics to measure innovation must also be introduced. This task is receiving high-level attention, as the US Commerce Department has even convened a blue ribbon Advisory Committee on Measuring Innovation in the 21st Century (www.innovationmetrics.org). Its report, released in January 2008, included a number of interesting recommendations, including support for creation of a national innovation index to assess how the US economy is performing on key measures of innovation.

WHERE DOES BENCHMARKING FIT IN?

Communities seeking to assess their innovation performance or potential must find surrogate metrics and use comparisons with competitors to know if they are achieving and sustaining innovation. That is where benchmarking comes in.

The basic concepts of benchmarking originated in business as a tool to evaluate various business processes in relation to industry "best practices." For example, many manufacturers seek to benchmark their processes vis-a-vis the vaunted Toyota Production System, or retail firms might benchmark their distribution systems against industry leaders like Wal-Mart.

When these concepts are moved to a non-business setting, they can sometimes be misapplied. Many communities simply assess how they are performing on certain key measures, such as job growth or new business starts, and consider the benchmarking job done. But, benchmarking is not just an analytical exercise. It is a process that begins with analysis, and hopefully ends with a diagnosis of business shortcomings and solutions to help fix them.

Benchmarking is often confused with performance measurement, which seeks to assess how a particular program or organization is operating. Benchmarking is more of a comparative exercise that assesses performance in relation to the best in class.

In many cases, economic development organizations will go through the rigor of the analytics, but they may fail to follow through with the examination of the best practices of the leading competitors or the engagement of key local actors to ensure steps for constructive change. Because the economic development profession is closely aligned with the business community, it is advisable to stick to benchmarking as implemented by the best companies. It is often advisable to engage business partners in the benchmarking process – especially those firms that are already deploying similar tools to their advantage.

Benchmarking is often confused with performance measurement, which seeks to assess how a particular program or organization is operating. Benchmarking is more of a comparative exercise that assesses performance in relation to the best in class. It has been described as a process of "borrowing shamelessly." While much of this article focuses on the analytics component, ultimately what you are trying to do is identify the smartest ideas and practices, and then creatively adapt them to your situation.

Benchmarking is a strategic function – it must be driven by broader goals and strategies that can be either explicit or implicit. For example, a community might be developing a new strategic plan that seeks to position the region as a leader in the life sciences industry. In this case, the region should seek to assess its performance on key measures of life sciences strength, and compare this performance to regions already identified as strong biotech hubs.

As the process unfolds, remember that the analytics of benchmarking are a means to an end. The primary outcome is change – becoming more like "best in class." The analysis helps communities figure out how to get there. There is no "one best way" to undertake a benchmarking analysis. The analytics will require qualitative investigation (interviews, roundtables, collective explorations) as well as quantitative measures. In the following section, we review some of the existing products that can help ease the burden of the analytics task.

EXISTING PRODUCTS

While benchmarking can be a complicated process, there is some good news. In most cases, economic developers don't need to create their own Innovation Index from scratch. Each year, states, communities, media organizations, and think tanks create hundreds of "report cards" and benchmarking reports. These report cards cover nearly every topic under the sun. For instance, you can find listings of the best places to own pets, to be a father, to work in the federal government, to reinvent your life, to launch your career, and to retire. The lists seem endless. You must get to know the internal assumptions and methods to be able to use them well. This step allows you to better understand any potential biases in a ranking scheme.

As you begin the benchmarking process, you should review other similar reports and indexes. These reports will help provide lots of ideas on what to do and what not to do in terms of measures to use and in terms of how to do the analytics, qualitative investigations and communicate your results.

As you review various lists, a couple of general rules of thumb can help to separate serious benchmarking reports from more frivolous "best of" lists designed to sell magazines or newspapers. First, an effective report is transparent. It provides citations for all of its measures and also explains how it calculates various scores or rankings.

Second, an effective report explains how and why each of its specific metrics matter. For example, if a region tracks patenting activity as part of an innovation index, it should also explain why patents are an important innovation indicator.

Understanding this underlying "theory of change" becomes especially important when working with indexes produced by national organizations or think tanks. Most of these reports promote a particular perspective or approach to economic development and may thus contain explicit or implicit biases.

Finally, an effective report reflects the unique innovation environment of a given state, region, or locality. Measure what matters to you and what is relevant to your own community's economic development vision. This may require specific measures tied to a leading industrial sector or cluster, or unique local quality of life assets or challenges.

For example, the Small Business and Entrepreneurship Council's State Small Business Survival Index builds on a belief that taxes and regulation are key impediments to economic growth. Thus, most of the Small Business Survival Index's measures are focused on comparing tax and administrative burdens across states.

Similarly, the Corporation for Enterprise Development (CFED) Development Report Card of the States is based on economic development vision that supports equity, inclusion, and expanding opportunity for low-income individuals and families. Thus, this ranking places heavy emphasis on measures of equity and quality of life.

Finally, an effective report reflects the unique innovation environment of a given state, region, or locality. Measure what matters to you and what is relevant to your own community's economic development vision. This may require specific measures tied to a leading industrial sector or cluster, or unique local quality of life assets or challenges.

For example, the annual Index of Silicon Valley places a heavy emphasis on local energy use, the cost of housing, and other quality of life measures. These metrics are critical to the region's innovation capacity, because they affect its ability to attract and retain talent. If the region becomes too crowded, too costly, or too polluted, talented individuals may opt to locate somewhere else. In contrast, the Indiana Chamber's annual Report Card places heavy focus on measures (such as college attainment levels and new business starts) related to building a stronger innovation economy.

These general guidelines can help you better understand existing products and tools that are already available. The following reports are particularly helpful or useful as guides for how to correctly do innovation benchmarking:

National Reports

Dozens of national think tanks and trade associations produce annual or semi-annual rankings of how states and metropolitan areas perform on various measures of

innovation. The Milken Institute produces a number of useful benchmarking reports. These include the State Technology and Science Index (produced in 2004 and 2008) and the annual "Best Performing Cities" series. Other useful national reports include CFED's Development Report Card of the States, which has been published for 20 years, and the Information Technology and Innovation Foundation's State New Economy Index (produced in 1999, 2002, 2007 and 2008). This report heavily emphasizes information technology and includes many related metrics such as broadband penetration and the use of IT in schools and government.

Dozens of national organizations produce regular "places rated" or "best places" listings. Here are some of the more useful sources:

- Beacon Hill Institute for Public Policy Research, *Metro Area Competitiveness Report 2007*. Available at www.beaconhill.org.
- Corporation for Enterprise Development, *Development Report Card of the States*. Available at www.cfed.org.
- Information Technology and Innovation Foundation and the Kauffman Foundation, *State New Economy Index 2008*. Available at www.itif.org.
- Milken Institute, *State Technology and Science Index 2008*. Available at www.milkeninstitute.org.

State Reports

Many state agencies or state-focused non-profits engage in annual innovation benchmarking exercises. These efforts are often of varying quality but they inevitably produce useful insights. At a minimum, they inform policy makers about how the local technology sector is performing. In the best case scenario, these benchmarks help drive policy making as it relates to the innovation economy.

The Massachusetts Technology Collaborative's annual Index of the Massachusetts Innovation Economy is one of the earliest, and still among the best, state benchmarking reports. It tracks 20 key indicators and also benchmarks the Bay State against other US states and other global regions, too. Annual reports produced by the Small Business Association of Michigan and the several state Chambers of Commerce use a larger number of measures compiled and tracked by GrowthEconomics, a consulting firm specializing in innovation benchmarking. For example, the Michigan Entrepreneurship Scorecard tracks the state's performance on 128 different measures. Other excellent state benchmarking reports are produced by Maine's Office of Innovation and the Washington Technology Center.

Local Reports

State innovation benchmarking reports are relatively common because they are relatively easy to construct. State-level data for key innovation indicators, such as college attainment, patenting, and new business starts, are readily available from public sources. As we move to a regional or local level, data availability issues arise. Much information can be found at the level of a county or metropolitan statistical area (MSA). Unfortunately, few regions or few economic development service areas ever align perfectly with these geographical categories. These data limitations complicate our ability to obtain regional innovation measures and to compare regions to one another.

Despite these challenges, many regions produce excellent innovation benchmarks. The Index of Silicon Valley, produced by Joint Venture Silicon Valley, has helped spawn similar projects in Boston; Long Island; and Modesto, California. Several regions, such as the Denver Metro area and Western Michigan, have also produced impressive innovation reports as part of the Federal WIRED program.

Local and regional government agencies have also produced a number of useful benchmarking studies. Here are some useful local sources:

- Joint Venture Silicon Valley, *The 2008 Silicon Valley Index*. Available at www.jointventure.org
- Team NEO (Northeast Ohio), *Northeast Ohio Economic Review*. Available at www.teamneo.org.
- Twin Cities Compass (Minneapolis-St. Paul, MN). Available at www.tccompass.org

Issue-Specific Reports

In addition to using benchmarking reports that focus at the state, regional, or local level, economic developers can also tap into studies that examine a single issue or set of issues. For example, BIO, the biotechnology trade association, annually tracks state performance in life sciences industries. Similarly, the Kauffman Foundation produces an annual index of entrepreneurial activity that tracks state levels of new business creation.

YOUR OWN INDEX: WHAT TO MEASURE?

Because "innovation" is an abstract concept and pervades all economic activity to some degree, its measurement is a challenge. The approach that works best is to use baskets of key indicators that tend be correlated with an innovation economy. Typical categories might include talent, business dynamism, or technology commercialization.

Listed below are several of these key headers/correlates matched with indicators that are frequently used as surrogate measures of innovation activity. Data on all of

these indicators are obtainable, depending on the size of the unit of analysis – the smaller the area, the less available some data will be. Most indicators are ratios, scaled to the size of the area using employment, number of businesses etc. as the denominator. This list is not intended to be complete but offered as a starting framework.

Key Correlate with Innovation	Possible Measurable Indicators
Technological Innovation	Patents; R&D expenditures; R&D Productivity (pat./R&D $); R&D facilities/employment
Talent	Number of scientists and engineers; % "knowledge workers;" % skilled workers/technicians
Business Dynamism	Business starts and failures; incubator /tech. park spin outs; growth companies –%, growth rate, age, location
Commercialization	University spin-offs; joint ventures between university and business
Capital Formation	Seed and venture capital; IPO's; SBIR awards/grants
Productivity	GDP /capita; sales per employee
Types of Jobs Gained/Lost	In-out migration of scientists and engineers; employment growth in knowledge occupations; high skilled/educated immigrants
High Value Added Exports	% of exports that are high tech; growth in high tech exports

YOU'VE BUILT THE INDEX, NOW WHAT?

When it comes to producing a Regional Innovation Index and publicizing its results, good data are not enough. Benchmarking is process. You need to follow-on with examination of what the best in class are doing well, to engage leaders in creative adaptation of best practices to the local context and to tell a "good story." To effectively communicate your findings, you must also develop a comprehensive communications strategy to accompany the report and action plan release.

An effective communications strategy addresses three key sets of questions:

1) **What are the Index's key story lines?** These key story lines could focus on both challenges, (e.g., our region needs to invest more in K-12 education) or opportunities (e.g., our region hosts a strong life sciences cluster).
2) **What is your "theory of change?"** While we don't recommend using the term "theory of change" in your published reports, it is essential that you address this question. Theory of change is a process that defines the building blocks along a path toward completing a long-term goal. In the case of regional innovation, a theory of change might note that enhanced investments in people and development of an entrepreneurial infrastructure will create a more innovative and prosperous economy in the future. This theory of change must be empirically grounded using evidence from the Index

This process of identifying and defining key economic building blocks will help strengthen your ability to communicate the Index's findings. It requires that you present a specific and concrete explanation for why improvements in key Index measures, such as new business starts or college attainment levels, will contribute to higher levels of regional innovation.

Benchmarking Case Study: The Maine Innovation Index

For many years, the state of Maine has aggressively supported economic development programs that help nurture its science and technology base. It operates an Office of Innovation within the state Department of Economic and Community Development while a separate non-profit, the Maine Technology Institute, also promotes technology-based economic development. The state currently operates with an aggressive goal of achieving $1 billion in R&D activity by 2010.

As it has undertaken aggressive technology support activities, Maine has also been diligent in terms of assessing program performance and benchmarking its economy against other states. Beginning in 2001, Maine has produced an annual evaluation of its R&D activities along with an annual Innovation Index that benchmarks Maine's science and technology performance in comparison to a number of other states. In the 2008 Innovation Index, Maine's performance is compared to national averages, other states in New England, and states that participate in the EPSCoR, a National Science Foundation initiative to support states that have traditionally received lower levels of federal R&D spending. The Index also tracks Maine's performance over one year and over a longer period of five years.

The 2008 Maine Innovation Index tracks 25 indicators that fall into five categories: research and development capacity, innovation capacity, employment and output capacity, education capacity, and connectivity capacity. The Index finds that Maine's performance is quite strong in key areas such as entrepreneurial activity, household and school connectivity, and math and science skills of 8th grade students. Maine's performance is weaker in areas such as R&D performance, venture capital investments, patents issued, and the presence of high-growth entrepreneurial ventures.

Maine's leaders do not just view these benchmarking reports as an academic exercise. The results are reported to the governor, the legislature, and the business community. These findings are also used to design new programs and strengthen existing initiatives. For example, state leaders are now developing a new initiative to help spur the creation of more high-growth entrepreneurial ventures across the state of Maine.

3) **Why should they care?** An effective communications strategy also engages local residents. It clearly explains why key measures matter to the average citizen. It makes the case that regional innovation is not just about high technology industries: it is about building a more prosperous region, through creativity on several fronts.

Beyond the basics of effective communications, world class development organizations also bring another unique perspective to the benchmarking process. They view benchmarking as a core activity that becomes embedded in the organization. They do not view a Regional Innovation Index as a one-time exercise to produce a glossy report. They instead view benchmarking as a way to foster continuous improvement, identify new trends, and address growing challenges. Given that much relevant data is released yearly, full biannual Index updates make sense, coupled with half yearly "dashboards" designed to pick up recent changes.

CONCLUSION

Innovation is a cross-cutting theme that overlaps with a number of leading approaches to economic development. Nearly every aspect of local, regional, or state economic growth is now affected by the innovation climate and innovation strategies. Consequently, innovation benchmarking is moving up the priority list for competitive economic development organizations.

The task of innovation benchmarking can begin simply, possibly using published scorecards and metrics developed by state or national think tanks. Then, gradually one can add local sophistication, collecting local intelligence and analyzing more complex datasets. The key is to begin and to drive a process that includes analytics, tracking the best performers, engaging leaders in action planning, and communicating incessantly, not just once but on an ongoing basis.

Innovation is a cross-cutting theme that overlaps with a number of leading approaches to economic development. Nearly every aspect of local, regional, or state economic growth is now affected by the innovation climate and innovation strategies. Consequently, innovation benchmarking is moving up the priority list for competitive economic development organizations.

NEWS FROM IEDC

THREE ORGANIZATIONS EARN AEDO ACCREDITATION

IEDC proudly announces the accreditation of three new AEDO organizations:

- Berks Economic Partnership – Greater Reading and Berks County, PA
- Jefferson Parish Economic Development Commission – Jefferson Parish, LA
- North Carolina's Eastern Region – Kinston, NC

The following organizations have successfully been reaccredited by the AEDO program:

- Muncie-Delaware County, IN Economic Development Alliance; and
- Sacramento Area Commerce and Trade Organization – Sacramento, CA

These organizations display the professionalism, commitment to economic development, and technical expertise deserving of the distinction. The organizations join 22 economic development organizations recognized nationwide for excellence in economic development. For more information on AEDO, please contact Liz Thorstensen at ethorstensen@iedconline.org.

2009 FEDERAL REVIEW IS AVAILABLE

Every year, IEDC produces a Federal Review, a comprehensive examination of federal activities consisting of three main parts: Year in Review, Budget Review, and Budget Preview. The Year in Review covers major stories and legislation enacted, agency announcements, personnel changes, and Supreme Court decisions. The Budget Review examines the past year's funding levels for departments and programs that are important for economic development. The Budget Preview looks at the President's budget proposal for the upcoming fiscal year in comparison to the previous year.

The 2009 Federal Review is being made available at the 2009 IEDC Federal Economic Development Forum in Alexandria, VA.

WEB SEMINARS FEATURE TOP-LEVEL SPEAKERS

In these tough economic times, IEDC understands that many communities are faced with travel restrictions. Stay abreast of current trends and continue professional development with IEDC's monthly web seminars. Web seminars feature top-level speakers to discuss cutting edge topics and answer your questions, requiring only a registration, internet, and phone line. With one registration per connection, you can provide professional development training to a room of staff, board members, and/or elected officials.

This spring, hear from expert speakers on the following topics:

March 26 — Web 2.0: Utilizing Technology for Talent Attraction

April — Federal Stimulus and Budget Update for Economic Developers

May — Collaboration for Success: Utilities for a Green Future

June — Local Marketing on the Global Scale

2009 IASP WORLD CONFERENCE ON SCIENCE AND TECHNOLOGY PARKS

IEDC invites you to attend the 2009 IASP World Conference on Science and Technology Parks presented by the International Association of Science Parks (IASP), June 1-4, Raleigh, NC. Held in the U.S. for the first time, the conference will focus on how regions and communities can create systems of innovation that drive economic growth. IEDC is working closely with The Research Triangle Park (RTP) to organize this conference, which will also serve as IEDC's Technology-Led Economic Development Conference.

In recent years, IASP has held this conference in Barcelona, Spain, and Johannesburg, South Africa, and in future years will be hosted by Daejeon, Korea, and Copenhagen, Denmark. IASP has members in more than 70 countries, and over 1,000 delegates are expected to attend from around the world. With the U.S. hosting the 2009 World Conference, it creates a truly international experience for North American delegates without the expense of international travel. Take advantage of this opportunity to build your international network – a critical element in your ability to support your community in a global economy.

SALARY SURVEY DRAWS OVER 4,000 RESPONDENTS

IEDC, in conjunction with over 30 state and regional associations and Readex Research, has developed the 2008 Salary Survey. Readex Research conducted the survey of economic development professionals in fall 2008, drawing over 4,000 respondents.

The new survey improves upon the previous edition in a couple of ways. First, there are more state and regional associations participating, which allows for a broader sample. Second, the survey features salary summary tables that allow an economic developer to more accurately gauge his or her market value. The hard copy report is available for pre-purchase at www.iedconline.org, with special rates for IEDC members and survey participants.

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CONFERENCES

International Association of Science Parks World Conference on Science and Technology Parks
June 1-4, 2009
Raleigh, NC

2009 Annual Conference
October 4-7, 2009
Reno, NV

TRAINING COURSES

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April 9-10, 2009
New Orleans, LA

Entrepreneurial & Small Business Development Strategies
April 30-May 1, 2009
Kansas City, MO

Business Retention and Expansion
May 12-13, 2009
Missoula, MT

Entrepreneurial & Small Business Development Strategies
May 31-June 1, 2009
Raleigh, NC

Economic Development Credit Analysis
June 10-12, 2009
Atlanta, GA

Business Retention & Expansion
June 11-12, 2009
Columbus, OH

Real Estate Development & Reuse
July 23-24, 2009
Baltimore, MD

Economic Development Marketing & Attraction
August 3-4, 2009
Atlanta, GA

Economic Development Strategic Planning
August 27-28, 2009
Oklahoma City, OK

Managing Economic Development Organizations
September 10-11, 2009
Louisville, KY

Economic Development Marketing & Attraction
September 17-18, 2009
St. Louis, MO

Neighborhood Development Strategies
October 1-2, 2009
Reno, NV

Technology-led Economic Development
November 16-17, 2009
Baltimore, MD

Business Retention & Expansion
December 3-4, 2009
Atlanta, GA

CERTIFIED ECONOMIC DEVELOPER EXAMS

May 31-June 1, 2009
Raleigh, NC
(Appl. Deadline: March 30)

October 3-4, 2009
Reno, NV
(Appl. Deadline: August 3)

2009 WEB SEMINAR SERIES

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Web 2.0:
Utilizing Technology for Talent Attraction

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Collaboration for Success: Utilities for a Green Future

June —
Local Marketing on the Global Scale

July —
Collaboration for Success: Tapping into Equity Investments

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October —
Attracting Site Consultants: Marketing Tools for Communities

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arts, culture, and
ECONOMIC DEVELOPMENT

By Steve Nivin, Ph.D. and David Plettner

THE NEXT PHASE OF ECONOMIC DEVELOPMENT

As economies advance into different stages of development, their growth in each stage is driven by a particular industry or sector of the economy. In the early stages of development, economies are usually driven by their agricultural prowess. As new innovations are developed that improve the efficiency of the agricultural sector, wealth increases and resources are able to be released to focus on developing the next stage. This second stage is usually driven by manufacturing. Finally, an economy develops into an information economy. This latter stage is where many of the most advanced economies, including the U.S., sit today. Thus, an economy generally moves from an Agricultural Age to an Industrial Age followed by the Information Age.

But what is next? As one of the most advanced economies in the world, many interested observers are watching the U.S. closely to see what stage of development is next. It seems clear to us that while the U.S. economy has not spent much time in the Information Age, the U.S. is rapidly moving into its next stage of development – the Creative Age (Florida 2002) or the Conceptual Age (Pink 2005) or the Design Age.

CREATIVITY NOW DRIVES US ECONOMIC DEVELOPMENT

The Creative Age, as we prefer to call it, is one in which the work being done by creative people in each economy creates the value-added and drives economic growth and development. Throughout U.S. (and anywhere else for that matter) economic history, the creative processes of technological change or innovation have been the main catalyst for growth in each stage of development. This will certainly continue to be the case as globalization increases and outsourcing of manufacturing and services flows to other countries, particularly Asia. For instance, according to Bill Breen, "Our companies will continue to prosper only if they push to the higher ground of innovating and creating 'elegant, refined products and services' – which might well be produced elsewhere" (Breen 2005, 69).

As innovation becomes even more important to the development of regional economies, it will concurrently become vital for regions to develop a culture that fosters the creative activity of innovation. This suggests that the development of a vibrant arts and cultural infrastructure is critical to the success of the development of any region.

The Museo Alameda in San Antonio was designated as the first formal Latino affiliate of the Smithsonian outside of Washington D.C. and gave birth to the Smithsonian's affiliations program.

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PLANNING THE CREATIVE AGE IN SAN ANTONIO

The U.S. economy has transitioned to an era in which creativity drives competitive advantage and labor is increasingly mobile in search of communities that satisfy creative as well as practical needs. As a result, the creative industry has become correspondingly more important. Its importance derives from both its own economic impact as well as its impact on other industries. As a key driver of many regional economies, some local and state governments and their arts and economic development agencies have begun to engage in coordinated efforts to foster the growth of this industry. In this article, we document the economic impact of the creative sector across the country and discuss San Antonio's efforts in developing and implementing its strategic plan: The Cultural Collaborative: A Plan for San Antonio's Creative Economy.

Photo Credit:s Arturo Almeida

Rubio is featured in the City of San Antonio's Office of Cultural Affairs integrated arts marketing campaign, SAHEARTS. The campaign features San Antonio artists from a wide range of disciplines that reflect the diverse and vibrant arts community of San Antonio.

San Antonio artist Alex Rubio stands in front of one of his large commissioned paintings. His work focuses on images deeply rooted in his Latin American culture.

> A vibrant arts community encompassing everything from pioneering and internationally renowned regional theater companies and museums…to the thick and diverse layers of artistic talent in the regional economy will serve as a major drawing factor for the location of new businesses, the recruitment of new employees from elsewhere and further gravitation of artists to the region. It also helps reinforce the loyalty of current residents and businesses to the region, providing the "lovability" that is so essential to the future of a high wage region in a fast integrating world. (Markusen and King 2003, 6)

Additionally, "…because the digital revolution has made it easier to work from remote job sites, skilled workers are more likely to be committed to a region and neighborhood than to specific firms or industries" (Markusen and King 2003, 7).

Furthermore, not only will it be important to be able to successfully innovate in order to survive in the 21st century economy, but these innovations must also be designed to be aesthetically pleasing. This is an era where emotions, experiences, and aesthetics drive consumer demand. It used to be that those educated in science, technology, engineering, and math were the key players in the innovation process. Now, however, firms are finding it necessary to include in the innovation process those who are trained in the arts because, without being properly designed, the innovation will most likely fail in the market. "Technology companies are realizing that design is a powerful competitive advantage. There is a sense of urgency around this" (Sam Lucent, top brand designer at Hewlett-Packard, in Morrison, 2005). In the past, engineers led the innovation process, but with design becoming a major source of added value (Breen 2005, 69), designers are now starting to lead the innovation process. As Virginia Postrel states, "Aesthetic creativity is as vital, and as indicative of economic and social progress, as technological innovation" (Postrel 2003, 16).

According to Dan Pink, there are three main factors propelling the importance of the arts in economic development: Asia, automation, and abundance. Many of the jobs "that can be reduced to a set of rules, routines, and instructions" (Pink 2005, 71) are being outsourced to Asia because they can simply be done there cheaper. This means that many routine manufacturing and service jobs are being outsourced to Asian companies. However, this also means that the real value creation in the U.S. economy is in those jobs that are not routine – jobs that require creativity. This is the area where U.S. firms and workers must excel (Pink 2005, 71).

Automation has the same kind of effect. Computers now have the capability to "execute sequential, reductive, computational work better, faster and more accurately than even those with the highest IQs" (Pink 2005, 71). Lawyers who only draft simple wills or contracts can be replaced by software that guides the client through the completion of these forms. Manufacturing workers performing routine tasks on the production line can be replaced by robots. Stockbrokers who simply process orders can be replaced by online brokerage services. "Now that computers can emulate left-hemisphere skills, we'll have to rely ever more on our right hemispheres" (Pink 2005, 72).

SA ARTS
www.SAHEARTS.com

The logo for the Office of Cultural Affairs new arts & culture website, www.sahearts.com. The website serves as a comprehensive and accessible cultural/art resource for residents and tourists, and serves as the gateway to discover San Antonio's cultural treasures.

Relative to those living a few generations ago, our lives are defined by an abundance of goods and services. This wealth and abundance has allowed us to satisfy our needs for those products and services necessary for survival. In fact, such abundance has allowed us to demand that the goods and services we consume satisfy our desire for beauty and spirituality and our emotional needs (Pink 2005, 72). In other words, businesses can no longer just manufacture and sell their products to be successful; they have to satisfy our emotional needs through superb design. A retail store cannot just open shop in a simple boxy store and sell its goods; it needs to create an experience for the consumer in order to be successful. One implication is that "in both business and

personal life, now that our left-brain needs have largely been sated, our right-brain yearnings will demand to be fed" (Pink 2005, 72).

There are other reasons why the arts appear to be important to economic development. Having an active and vibrant arts community within a city creates an environment that encourages creativity and attracts the vital components for a successful innovative and creative economy: creative people. According to Richard Florida, "To stay innovative, America must continue to attract the world's sharpest minds. And to do that, it needs to invest in further developing the creative sector. Because wherever creativity goes – and, by extension, wherever talent goes – innovation and economic growth are sure to follow" (Florida 2004, 123).

Throughout American economic history (and world economic history for that matter), innovation has been the engine driving economic development. Given the increase in globalization and outsourcing, along with the rapid acceleration of technological change, it seems reasonable that innovation is increasingly important to the further development of our regional economies. This begs the question of what drives innovation?

Because of the strong relationship between an economy's creative sector and its ability to innovate, as Florida states above, it seems reasonable that the development of a region's creative sector is vitally important to the future economic development of an economy (also see Nivin 1998). As Christopher Farrell put it, "Artists are significant and vastly underestimated contributors and generators of local economic growth. The more creative types working in a regional economy, the better is its outlook for improved earnings, productivity, and competitiveness" (Farrell 2003). In other words, a creative environment drives innovation which drives economic development.

THE ARTISTIC DIVIDEND

A creative environment also drives economic development through its "artistic dividend – the aggregate economic impact that would not occur without the presence of artists" (Markusen and King 2003, 4). The term "artistic dividend" was coined by Markusen and King (2003).

> We suggest that the productivity and earnings in a regional economy rise as the incidence of artists within its boundaries increases, because artists' creativity and specialized skills enhance the design, production and marketing of products and services in other sectors. They also help firms recruit top-rate employees and generate income through direct exports of artistic work out of the region (Markusen and King 2003, 3).

The components of the artistic dividend include:

(1) …the work that artists do to enhance the design features of a region's manufacturing products or marketing efforts.

(2) …the success of photographers, painters, authors, poets and graphic designers in exporting their work out of the region over the internet, arts fairs, or via other direct sales routes.

(3) …the revenues and income to groups or individual artists who tour with theatrical, musical or dance performances.

(4) …the incomes earned and human capital created by the many artists who teach others their craft.

(5) …the incomes generated for support workers who build sets, edit manuscripts, print books and music, act as brokers or agents and engage in paid promotional efforts outside of arts establishments (Markusen and King 2003, 4).

For example, consider the first point in the above list: the impact of artists on the design of products. Companies in several industries are realizing the importance of this to their bottom line. "Established technology groups – not only PC makers but also manufacturers of cell phones and big-screen televisions – are being forced to make a critical choice: either play a cut-throat game at the low-cost end of the market or try to stand out with innovative consumer designs that drive higher margins" (Morrison 2005, 8).

According to Roger Martin, dean of the University of Toronto's Rotman School of Business, "In this turbulent, get-real economy, the advantage goes to those who can outimagine and outcreate their competitors" (Breen 2005, 69). He goes on to stress the point that "the upshot…is nothing less than the emergence of the design

Photo credit: Al Rendon

The community celebrates Artist Day in San Antonio's historic Deco district.

Throughout American economic history (and world economic history for that matter), innovation has been the engine driving economic development. Given the increase in globalization and outsourcing, along with the rapid acceleration of technological change, it seems reasonable that innovation is increasingly important to the further development of our regional economies. This begs the question of what drives innovation?

economy – the successor of the information economy, and, before it, the service and manufacturing economies. And that shift, he argues, has profound implications for every business leader and manager among us: 'Businesspeople don't just need to understand designers better – they need to become designers.'…Real value creation now comes from using the designer's foremost competitive weapon, his imagination" (Breen 2005, 69).

DIRECT ECONOMIC IMPACT OF THE CREATIVE INDUSTRY

Another reason the arts are so important to economic development is that this sector has a substantial direct economic impact from its own production, employment, and exporting beyond the indirect economic impacts of the creative sector.

Many studies have been conducted using a variety of methodologies to measure the economic impact of the creative industry. These studies vary by the particular impacts and geographic areas where the impacts are measured. For instance, most studies focus on the nonprofit arts sector, while others consider the impact of both the nonprofit and for-profit businesses in their creative industry. Many studies concentrate on the statewide impact while others analyze the impact within a city or metropolitan area. Table 1 summarizes the impacts found in a sample of these studies. The numbers in the table are not comparable because of the differences in methodologies.

Many studies have been conducted using a variety of methodologies to measure the economic impact of the creative industry. These studies vary by the particular impacts and geographic areas where the impacts are measured.

TABLE 1. Creative Industry Economic Impact by Region

Region	Year Studied	Non-profit or For-profit	Economic Impact	Employment	Payroll
Texas[2]	2000	Both	$98,421,577,412	1,918,484 ft[6]	$61,747,000[1]
Oregon[3]	2000	Non-profit	$262.6 million	3,623 ft/pt	$45,088,326
New England[4]	2000	Non-profit	$5.217 billion	84,494 ft	$1,503,501,000
Connecticut[4]	2000	Non-profit	$969.6 million	23,569 ft	$308,835,233
Maine[4]	2000	Non-profit	$211.6 million	4,056 ft	$49,860,919
Massachusetts[4]	2000	Non-profit	$3.427 billion	39,784 ft	$972,703,770
New Hampshire[4]	2000	Non-profit	$136.4 million	3,093 ft	$33,332,521
Rhode Island[4]	2000	Non-profit	$316.8 million	8,703 ft	$100,201,554
Vermont[4]	2000	Non-profit	$156.2 million	5,289 ft	$38,567,202
California[6]	2004	Non-profit	$5.4 billion	66,300[6] ft	$2,656,100,000
Maryland[7]	2001	Non-profit	$817.11 million	12,578 ft/pt	$292,240,000
Kentucky[8]	1997	Both	NA	3,530 ft/pt	$77,400,000
Florida[9]	2001	Non-profit	$2.9 billion	28,302[6] fte	$877,800,000
North Texas[10]	2002	Non-profit	$772.5 million	4,000	NA
San Antonio[11]	2006	Both	$3.375 billion	26,744	$1,006,139,328[1]
San Antonio[12]	2003	Both	$1.216 billion	11,888	$270,600,000[1]
Austin[2]	2000	Both	$6,814,315,541	130,711	$4,316,465,849[1]
Dallas[2]	2000	Both	$30,428,689,154	512,667	$18,648,017,378[1]
Fort Worth[2]	2000	Both	$9,143,130,885	179,044	$5,778,632,725[1]
Houston[2]	2000	Both	$23,441,675,806	429,275	$14,911,307,775[1]
U.S.[12]	2005	Non-profit	$166,200,000,000	5,700,000	$104,200,000,000

1 This is personal income, which includes wages, salaries, interest, dividends, proprietors' profits, or other sources of income.

2 Perryman, 2000

3 Buehler and Trapp, 2001

4 Wassall and DeNatale, 2003

5 Direct and indirect

6 Thompson, Mataraza, and Johnson, 2004

7 Maryland State Arts Council, 2002

8 Thompson, Berger, and Allen, 1998

9 Stronge, 2004

10 Deloitte & Touche and Dallas Business Committee for the Arts

11 Nivin, Silverman, and Birdwell, 2008

12 Americans for the Arts

13 Butler and Stefl, 2005

Because of the differences in methodologies and definitions of the creative industry, the impacts vary widely, even for the same region. However they are measured, the creative industry impact to the economies within these states and cities is substantial. Recall that the impacts shown in this table are the economic impacts generated from spending by arts organizations, their patrons and in some cases, the indirect and induced effects resulting from this spending. The measurement of the impacts would be even larger if other equally important factors were calculated, such as the impacts of improved quality of life, improved productivity of local firms, and enhanced ability to attract and keep labor.

A couple of studies from the sample provided a measurement of the value of the quality of life the arts provide to the citizens of the region. Contingent valuation surveys are often used in cost-benefit analyses to capture these values called existence values, which is defined as the value that people derive from a good or service even though they do not actively consume the good or service. In other words, even though someone may not "consume" the arts, he or she might derive value from knowing that the arts are present within the community. Even if a person does not attend arts and cultural events, he or she may derive value (e.g., via improved quality of life) just by knowing that the events are there if they want to attend or if their children want to attend someday. They could also "consume" public art even though they do not have to pay a dollar price for the enjoyment of, say, a statue in a public park. Contingent valuation surveys are one method for measuring these values.

Thompson, Berger, and Allen (1998) measured the impact of the arts on the quality of life of the citizens of Kentucky using this method. "It was estimated that Kentucky households together would be willing to pay $10.9 million in order to expand the number of arts performances in Kentucky, while Kentucky households would be willing to pay $21.8 million in order to avoid a 25 percent decline in the number of arts performances in Kentucky" (Thompson, Berger, and Allen 1998, 3). In a more current study of Kentucky, Thompson, Berger, Blomquist, and Allen (2002) found that the average Kentucky household would be willing to pay $11.44 to avoid a 25 percent reduction in arts events and exhibits, and $26.76 to avoid a 50 percent reduction.

Thompson, Mataraza, and Johnson (2004) calculated similar willingness to pay values for California. By adjusting the Kentucky values for the higher income and education levels in California, they estimate that the willingness to pay to prevent a 25 percent reduction in arts events in California is $15.35 per average household. This value increases to $33.27 to avoid a 50 percent reduction. Clearly, the quality of life impacts contribute substantially to the overall economic impact of arts and culture in a region.

Many of these studies also did not include the for-profit sector of the creative industry, which could add significantly to this industry's size. For example, the California study only measures the impact of the non-profit arts organizations, but it is estimated that the impact of the film industry in Hollywood was about $33.4 billion in 2000 (Melinda Ann Farrell 2002). There are also a large number of other creative businesses, such as design and architecture firms, located in California that would substantially add to the overall impact, if they were included in the study. For instance, in the San Antonio study by Nivin, Silverman, and Birdwell (2008), the design and advertising sector accounts for $518.1 million (15 percent) of the total economic impact of $3.375 billion.

These studies are evidence of the sizeable economic impact of the creative industry in economies throughout the country. It is important as part of the planning process to show the importance of the creative industry within the economy, and these studies are a vital component of doing that. The economic impact studies of the creative industry in San Antonio have certainly been important not only in the planning process but throughout the process of implementing the cultural plan.

OVERVIEW OF SAN ANTONIO METROPOLITAN AREA

Population (2007)[1]	1,997,969
Percent Population Hispanic or Latino (2007)[1]	52.6%
Per Capita Personal Income (2007)[1]	$22,448
San Antonio Gross Domestic Product (millions 2006 $)[2]	$72,738

1 Source: U.S. Census American Community Survey
2 Source: U.S. Bureau of Economic Analysis

These studies are evidence of the sizeable economic impact of the creative industry in economies throughout the country. It is important as part of the planning process to show the importance of the creative industry within the economy, and these studies are a vital component of doing that. The economic impact studies of the creative industry in San Antonio have certainly been important not only in the planning process but throughout the process of implementing the cultural plan. They help raise awareness of the industry throughout the community, which can help ease the implementation process. This has certainly been the case in San Antonio.

ECONOMIC IMPACT IN SAN ANTONIO

The impact of San Antonio's creative economy further illustrates the components of the various sectors of this industry. In the Nivin, Silverman, and Birdwell study (2008), the creative industry is defined as including the following sectors: design and advertising, museums and collections, performing arts, arts-related schools, visual arts and photography, printing and related activities, and self-employed artists. In this study, Nivin et al. were able to analyze the impact both by industry (numbers are reported here) and by occupation. The overall 2006 economic impact of this industry is estimated to be $3.375 billion with 26,744 workers and $1.006 billion in wages. The economic impact by sectors is shown in Table 2.

Capturing the self-employed artists in these studies has always been an issue, but Nivin et al. were fortunate to get data by occupation from the Texas Workforce Commission that allowed them to capture the impact of the self-employed artists, as well as break down the employment in the creative industry by occupation. It is interesting to note that the self-employed artists are the largest occupational group by employment. Thus, this is some verification to the argument that self-employed artists are a significant component of the creative industry. The results by occupation are also quite interesting.

TABLE 3. Top 10 Creative Occupations by Employment in San Antonio (2006)

Occupation	Employment
1. Graphic designers	1,440
2. Musicians and singers	985
3. Photographers	975
4. Librarians	936
5. Public relations specialists	880
6. Merchandise displayers and window trimmers	782
7. Architects (excl. landscape and naval architects)	726
8. Marketing managers	674
9. Editors	606
10. Chefs and head cooks	599

Table 3 shows the top ten occupations by employment, and Table 4 shows the top ten employers of creative occupations in San Antonio in 2006.

The largest number of creative workers in San Antonio, by a sizable margin, are employed as graphic designers with chefs and head cooks being the tenth highest creative occupation by employment, reflecting the strong hospitality industry in San Antonio. Maybe even more interesting are the results showing self-employed artists as the industry, assuming you can call this an "industry," that employs the largest number of creative workers. As already mentioned, this provides some evidence of the importance of the self-employed artists in the creative industry. It is also easy to see the importance of educational institutions as employers of creative workers.

TABLE 2. Creative Industry Economic Impact* in San Antonio

Sector	Economic Impact (millions)	Employment (number)	Payroll (millions)
Performing Arts	$379.3	2,815	$64.9
Design and Advertising	$518.1	3,544	$175.3
Museums and Collections	$280.0	4,375	$91.9
Visual Arts and Photography	$66.1	657	$66.1
Schools	$15.9	282	$5.1
Printing and Related Activities	$1,868.6	10,860	$508.2
Self-employed	$147.5	4,212	$147.5
Total	**$3,375.5**	**26,744**	**$1,006.1**

* These are direct impact. There are no multipliers added to these numbers. Sum of the sectors may not match the total numbers due to rounding.

Overall, this industry registers a sizable economic impact that is comparable to some of the other industries San Antonio targets for development, such as the information technology and aerospace industries. Realizing the importance of the direct impacts, as well as the equally important secondary impacts, of this industry, San Antonio has created a plan to foster the development of this vitally important industry.

THE CULTURAL COLLABORATIVE: A PLAN FOR SAN ANTONIO'S CREATIVE ECONOMY

In 2005, the city of San Antonio adopted a 10-year cultural plan for developing its creative economy, called The Cultural Collaborative (TCC). The product of nearly two years of research and community outreach, the plan is among the first of its type in the nation to address

TABLE 4. Top 10 Industries Employing Creative Occupations in San Antonio (2006)

Industry	Employment
1. Self-employed artists	4,212
2. Radio and television broadcasting	1,058
3. Newspapers, periodical, book, and directory publishers	847
4. Elementary and secondary schools, public and private	708
5. Colleges, universities, and professional schools, public and private	686
6. Religious organizations	641
7. Architectural, engineering, and related services	611
8. Advertising and related services	555
9. Specialized design services	424
10. Junior colleges, public and private	421

the full spectrum of the creative economy - nonprofit arts and cultural organizations, creative businesses, and creative individuals.

TCC's goal is to support the growth and recognition of San Antonio's creative economy. The plan is broader than an economic development plan; one of TCC's main ideas is that strengthening the regional creative economy is more than an exercise in business development. Fostering creativity throughout the community and providing an environment conducive to creative people and activities are subtle goals that require a different approach to planning.

TCC research documented that San Antonio is, and recognizes itself as, a "cultural place." More than nine of ten San Antonians of all backgrounds participate in arts and cultural activities each year, and they naturally weave them throughout their personal and work lives. They value this integration of culture in their lives and community, and view it as a distinguishing feature of living in San Antonio. TCC is among the first plans of its type to recognize and support this integration. The plan supports the growth of not only major creative businesses and recognized arts institutions, but also development of the equally vibrant undercurrent of cultural activity flowing throughout the community—nonprofit and commercial, professional and community-based, institutional and individual.

FROM THE ARTS TO THE CREATIVE ECONOMY

This scope of planning arose from a combination of strategic planning for the arts and for economic development. Arts planning, or cultural planning, is a form of master planning for the non-commercial arts – museums, performing and visual arts organizations, individual artists, and the like. Local governments, through their arts commissions or arts councils, have typically created cultural plans to strengthen their arts communities and generate greater community benefit from them. More recently, as the arts community has understood its role in the economy, arts planning has expanded to encompass the broader constituency of the creative economy and has begun to embrace tools of economic development.

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This greater scale of planning reflects the current, inclusive notion of "the arts" in the culture at large. An increasing body of research shows high levels of arts participation among all Americans once a broad definition of arts is applied. Most Americans no longer discriminate among fine, popular, design, folk, and ethnic arts. They are as likely to spend $100 to attend a Rolling Stones concert as an opera, or $5,000 to buy a quilt as a work of contemporary art. Few distinguish between nonprofit and commercial producers of the arts. Choreographer Liz Lerman, winner of the 2002 MacArthur "Genius" Award, describes the shift to a contemporary definition of the arts as a vertical hierarchy becoming a level playing field. Using the dance field as an example, ballet used to be on the top of a pyramid, with folk dance and hip-hop on the bottom. Now we are more likely to see all art forms on the same level, having similar value but different focuses.

THE PLANNING PROCESS

To address a wider notion of the creative economy, TCC employed a combination of planning techniques. Community outreach gathered input directly from stakeholders. More than 1,000 individuals participated in a citywide conference, community forums, discussion groups, individual interviews, and a random household survey on the arts and culture in San Antonio. Participants were drawn from inside and outside the creative economy.

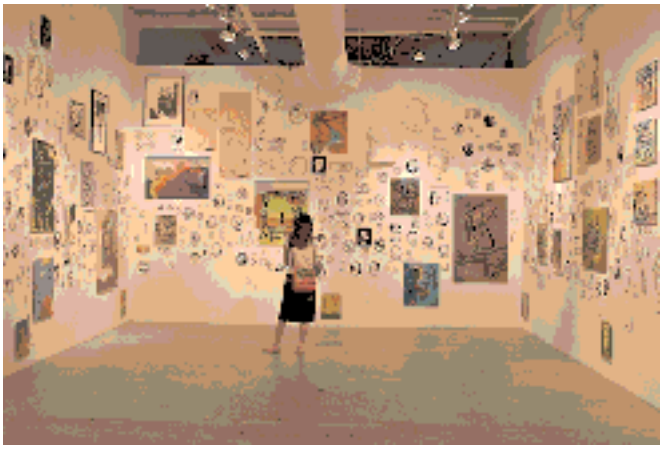

Photo credit: Jorge Sandoval

One of San Antonio's many contemporary art spaces, Blue Star Contemporary Art Center provides contemporary art exhibitions and art education programs for San Antonio.

Community outreach was supplemented by primary research. An economic impact study (Butler and Stefl, 2005) was conducted to measure the output of San Antonio's creative sector and compare it with other economic sectors already targeted for development. In addition, the random household pubic opinion survey generated an understanding of the extent and character of residents' cultural activities and their opinions about cultural development. This telephone survey, conducted in English and Spanish, was among the most comprehensive of its type in probing the specifics of residents' arts-related activity and their goals for arts and culture in

the community. It was innovative in "going beyond the usual suspects" and gathering the input of community members who do not view themselves as arts stakeholders.

STRATEGIES

The scale of this planning yielded strategies that integrate tools for both economic and cultural development. TCC has five objectives that support its goal and strategies.

The first objective is to provide greater access to arts and culture to residents of San Antonio. Despite high levels of cultural participation throughout all demographic groups of the community, increasing access was a fundamental value and goal articulated by the community throughout the TCC planning process. Strategies include:

- Bringing the arts and culture to the neighborhoods by facilitating increased use of existing venues and programs throughout all geographic areas of the city.
- Making the arts and culture relevant to diverse cultures by focusing on the needs and interests of target populations and addressing other barriers to access, such as cost, transportation, time and information about available programs.
- Expanding arts and cultural education by addressing education on the policy level, and making existing arts and cultural resources more available to schools.
- Improving community-wide marketing to residents.

The second objective is to promote the growth of San Antonio's creative economy. TCC was founded in part on the observation that San Antonio's creative economy is an important yet underrecognized economic sector, and that the community as a whole will benefit from development of the creative sector. As noted above, the economic impact study commissioned by TCC documented that San Antonio's creative sector has an economic impact comparable to other local industries currently targeted for economic development. Economic development strategies include:

- Adapting small business development to meet the particular needs of the creative community, including a business incubator and business training.
- Implementing workforce development initiatives, including creative training at all educational levels and professional development.
- Supporting creative individuals through technical assistance and artists fellowships.
- Developing or enhancing cultural districts throughout the city.
- Expanding cultural and heritage tourism by creating a specific plan and program at the Convention and Visitors Bureau.

The third objective is to increase community awareness of the role and value of all San Antonio's arts and culture. A consistent community message was that the accomplishments and value of San Antonio's arts and cultural community are not well understood or supported by the public and policy makers. In essence, the creative community seeks a place at the policy table. Strategies in support of this objective are:

- Implementing an independent, long-term advocacy initiative to increase public understanding of the role and value of San Antonio's arts and culture.
- Ensuring cultural equity through adoption of a cultural equity policy.
- Increasing outreach to the community through technical assistance and targeted funding.

The fourth objective is to promote San Antonio's authenticity and creativity and strengthen its unique and diverse culture, heritage, and architecture. TCC planning participants view San Antonio as engaged in a long-term struggle to define and preserve its authentic identity.

The first objective is to provide greater access to arts and culture to residents of San Antonio. Despite high levels of cultural participation throughout all demographic groups of the community, increasing access was a fundamental value and goal articulated by the community throughout the TCC planning process.

They place great value on aspects of San Antonio's quality of life and consider its culture and creativity as essential ingredients. Their experience of this authenticity is largely a cultural one, intimately linked to creativity, as well as heritage and tradition. This objective includes the following strategies:

- Improving urban design through development of an urban design master plan that addresses civic aesthetics in new public and private development and promotes the successful integration of contemporary architecture into the cityscape.
- Improving the public art program by developing a public art master plan.
- Many of the other strategies throughout the plan also serve to fulfill the objective of strengthening authentic identity and creativity.

The fifth objective is to develop increased resources of all types. San Antonio's creative community is now, and has been historically, under-funded and under-resourced. Increasing resources will "raise the bar" of support and reshape the ecology of resources available to the creative community. Moreover, according to the TCC public opinion survey, San Antonians are willing to pay

TABLE 5. The Cultural Collaborative Recommendations

(Checkmarks indicate recommendation has been implemented or is in process)

OBJECTIVE 1: ACCESS		
1	Develop a network of neighborhood "cultural captains"	
2	Develop a Neighborhood Arts Catalogue of arts classes, exhibitions, performing arts groups and literary arts programs	✓
3	Develop an inventory of available cultural venues and potential venues, and provide referrals and incentives to make the spaces more available	✓
4	Acquire a well-equipped portable stage to support festivals and special events in parks and neighborhoods	✓
5	Develop a "one-stop" permitting process for festivals and special events, coordinating city support services	
6	Establish an affordable fee schedule for cultural organizations and festivals to use city-owned venues	
7	Develop "Opportunity San Antonio," a board diversity training program to encourage diverse participants in the governance of cultural institutions	
8	Establish a partnership to address arts and cultural education on a policy level	✓
9	Make existing arts education resources more available through information and referrals, coordination of existing programs, and development of a comprehensive resource directory	✓
10	Create an arts and cultural education staff position to support the arts and cultural education partnership	✓
11	Strengthen the arts education curricula, programming and community connections at the three arts magnet schools	✓
12	Create a scholarship program for students and continuing education program for artists	✓
13	Strengthen community wide marketing of San Antonio's arts and cultural organizations and events to residents	✓
OBJECTIVE 2: ECONOMIC DEVELOPMENT		
14	Provide small business assistance targeted at creative businesses, including sole proprietorships	✓
15	Support the education and development of the creative workforce	✓
16	Support the development of existing and emerging cultural districts or zones	✓
17	Create a program of fellowships for individual artists of all disciplines in San Antonio	✓
18	Develop support services for San Antonio's individual artists, including networking opportunities, information and referral services, a resource directory, professional development training, and leadership development	✓
19	Re-institute and enhance the Catalog of On-Site Artist Services (COSAS), the directory of San Antonio artists and craftspersons	✓
20	Create a cultural and heritage tourism program within CVB designed to promote San Antonio's cultural assets and identity, move visitors beyond current zones, and encourage visitation in neighborhoods	✓
21	Develop a cultural and heritage tourism plan to inform the new cultural and heritage tourism program	✓
22	Identify and pursue other economic growth opportunities within San Antonio's creative economy	✓
23	Coordinate the efforts to develop the creative economy	✓
OBJECTIVE 3: COMMUNITY AWARENESS		
24	Create a comprehensive, long-term advocacy initiative	✓
25	Develop a cultural equity policy statement to guide the efforts of TCC and OCA	✓
26	Provide technical assistance to arts and cultural organizations to develop plans for cultural equity and/or more effective outreach	✓
OBJECTIVE 4: AUTHENTICITY AND CREATIVITY		
27	Develop an urban design master plan	
28	Develop a Public Art Master Plan for San Antonio	✓
29	Complete implementation of OCA's Neighborhood Discovery Tours package	✓

TABLE 5. The Cultural Collaborative Recommendations (continued)
(Checkmarks indicate recommendation has been implemented or is in process)

OBJECTIVE 5: Resources		
30	Develop a temporary new arts and culture committee, The Cultural Collaborative (TCC), to oversee implementation and lead advocacy	✓
31	Increase the annual budget allocation to the Office of Cultural Affairs for grant-making by $500,000 per year during the first three years of plan implementation	✓
32	Develop a new, dedicated tax-based revenue stream for arts and culture through a joint tax initiative	
33	Develop a capital grants program for arts and cultural organizations for deferred maintenance and capital projects of less than $100,000	✓
34	Develop a capital grants program for arts and cultural organizations for capital projects in excess of $100,000	
35	Promote the increase of private funding for the arts and culture	✓
36	Increase funding allocated to OCA for new staff positions and related program expenses	✓
37	Explore the development of a performing arts center in such buildings as the Municipal Auditorium or the Federal Courthouse	✓
38	Explore the development of enhanced cultural uses of HemisFair Park, including a small (approximately 100-seat) outdoor amphitheater	

higher taxes for the arts and culture. Two out of three respondents (66 percent) indicated strong support for an initiative to generate tax revenue for arts support if it meant they would spend an additional $5 per year in taxes; 58 percent strongly support an additional $10 annual tax increase. Increasing resources involves the following strategies:

- Generating new leadership by creating The Cultural Collaborative Implementation Committee to oversee implementation of the plan and to take the lead on advocacy.
- Increasing public funding by increasing city funding allocated to arts and culture, and developing a new, dedicated tax-based revenue stream through a joint tax initiative in collaboration with other community organizations.
- Supporting and working collaboratively with The Fund, a new unified, annual fundraising campaign based on the principles of employee giving.
- Increasing private funding by convening funders around issues of communitywide importance.
- Addressing cultural facility needs by developing new capital funding programs and investigating the potential of adapting or building a cultural facility for a shared-use performing arts center.

IMPLEMENTATION

TCC is a broad and ambitious plan that must draw on leadership and resources from diverse sectors of the community. Although it was adopted by City Council, TCC is being implemented under the auspices of a larger mayor-appointed steering committee of community leaders described in the fifth objective. Elected officials and city agencies, including Economic Development, the Office of Cultural Affairs and the Convention and Visitors Bureau, play substantial roles in implementation. Additionally, the regional and local chambers of commerce, business executives, arts and cultural organizations, artists, philanthropists, and educators are all represented on the TCC Implementation Committee. This committee is coordinating and overseeing implementation progress, and will evaluate and refine implementation on an annual basis.

After three years, 78 percent of the plan has been implemented or has begun implementation (see Table 5). Key accomplishments in the first three years of implementation include a major increase in funding for the nonprofit arts community, new support for individual artists, business education for local artists, development of a public art master plan, initiation of a marketing campaign including increased use of arts and culture in branding and marketing San Antonio as a tourist destination, completion of a feasibility study of a new performing arts center, voter approval of a bond issue for a performing arts center, planning for an incubator for new arts-related businesses, and ongoing communication and partnership between Cultural Affairs and Economic Development.

CONCLUSION

Creativity and the arts have become essential elements of American economic competitiveness. The work being done by creative people in each sector provides the value-added that drives economic growth and development. The creative sector itself produces both an

"artistic dividend" – the aggregate economic impact that would not occur without the presence of artists (Markusen and King 2003) – and substantial direct impact, and in many communities is sizeable enough to warrant specific economic development efforts.

The creative sector encompasses individual and community capacities that can be developed through planning on the local level. A combination of economic development and arts planning is a promising new approach to strategic planning in this area, and the city of San Antonio provides a laboratory. Its ten-year plan for strengthening the regional creative economy, The Cultural Collaborative, approaches the task as more than an exercise in business development, integrating strategies for arts and cultural development with adaptations of conventional economic development.

BIBLIOGRAPHY

Americans for the Arts. "Arts & Economic Prosperity III: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences."

Breen, Bill. "The Business of Design." *Fast Company*. April 2005, p. 68 - 69.

Buehler, Daniel and Erin Trapp. "An Economic Impact Study of Utah's Cultural Sector."

Buehler, Daniel and Erin Trapp. "The Economic Impact of Oregon's Nonprofit Arts Sector." January 2001.

Deloitte & Touche and Dallas Business Committee for the Arts. "Economic Impact Study of the Arts and Cultural Organizations in North Texas."

Farrell, Christopher. "Art for Art's Sake? No, the Economy's." *Business Week Online*. Aug. 7, 2003.

Farrell, Melinda Ann. "Presentation to the Economy and Efficiency Commission of Los Angeles County." Dec. 5, 2002.

Florida, Richard. *The Rise of the Creative Class*. Basic Books. 2002.

Markusen, Ann and David King. "The Artistic Dividend: The Arts' Hidden Contributions to Regional Development." Project on Regional and Industrial Economics, Humphrey Institute of Public Affairs, University of Minnesota. July 2003. pp. 1-25.

Maryland State Arts Council. "Economic Impact of the Arts in Maryland: 2002 Update." 2002.

Morrison, Scott. "How to Make the PC Beautiful." *Financial Times*. Feb. 18, 2005. p.8.

Perryman, M. Ray. "The Catalyst for Creativity and the Incubator for Progress: The Arts, Culture, and the Texas Economy." 2000.

Pink, Daniel H. *A Whole New Mind: Moving from the Information Age to the Conceptual Age*. Riverhead Books. 2005.

Postrel, Virginia. *The Substance of Style: How the Rise of Aesthetic Value Is Remaking Commerce, Culture, and Consciousness*. Perennial. 2003.

Stronge, William. "Economic Impact of Florida's Arts and Cultural Industry." January 2004.

Thompson, Eric C., Marl C. Berger, and Steven N. Allen. "Arts and the Kentucky Economy." Center for Business and Economic Research, University of Kentucky. February 1998.

Thompson, Eric C., Mark Berger, Glenn Blomquist, and Steve Allen. 2002. "Valuing the Arts: A Contingent Valuation Approach." *Journal of Cultural Economics* 26 (2): 87-113.

Thompson, Eric, Diane L. Mataraza, and Angela L. Johnson. "The Arts: A Competitive Advantage for California II." California Arts Council. 2004.

Wassall, Gregory H. and Douglas DeNatale. "New England's Creative Economy: The Non-Profit Sector – 2000." May 2003.

opportunities in a recession

By Jeremy Zaborowski

Over the past 30 years, venture capital (VC) investment has become an important part of the American economy. It bridges the gap between innovation and commercialization. VC fueled companies like Microsoft, Google, eBay, and Sun Microsystems to greater success than would be otherwise possible.

Voguish economic development rhetoric suggests that the knowledge economy and getting entrepreneurship into a community through VC is the route for communities to take. In reality, creating a knowledge economy is very difficult. Many communities lack the assets to attract VC, namely research institutions, workforce, and capital. An examination of venture capital's history will demonstrate that VC agglomerates around specific geographies with these important traits.

In spite of the difficulties with creating a local knowledge economy, some communities are well positioned to attract VC in these economically tumultuous times. The United States is in its most dire economic situation since the Great Depression. The current volatility of national and world markets will drastically reduce the level of venture capital investment in the United States. What once may have been a risky location choice for VC firms can now be an opportunity for them to expand their portfolio in tough times.

Even though the recession creates the potential for low-price opportunities, the fact is that not every community is properly positioned to attract VC. If market forces have brought little or no investment, the community needs to take steps to become more enticing. Even with the funds needed to lure venture capital firms, communities must aggressively improve their innovation assets to match VC needs. With the proper efforts, many communities will greatly improve their ability to attract such investment.

The LACDC Research Park in Los Alamos, NM, built in 2001, has attracted and retained 150 jobs and over 45 venture-backed tenants.

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VENTURE CAPITAL AND DEFENSE SPENDING

Venture capital is typically defined as equity or equity-linked investments in young, privately held companies. The investor acts as a financial intermediary, often providing the initial capital needed to build market share.[i] The tool was initially created to jumpstart military development and production during World War II. American Research and Development (ARD) was the first true venture capital firm to develop in the United States. It was established in 1946 by a number of prominent Boston academic and business leaders. This group collectively invested their personal wealth into

CULTIVATING THE INNOVATION ASSETS REQUIRED FOR VENTURE CAPITAL INVESTMENT

Venture backed startups are responsible for many of our most important innovations and highest paying jobs. However, the current global economic crisis has left VC firms cash strapped and looking for ways to maintain solvency. Proactive communities have a great opportunity to leverage assets, lure these firms away from typical investment regions (Silicon Valley, Boston, Austin, etc.), and attract VC into their own region. This article surveys the history, current trends, and future needs of venture capital firms within the United States, and provides recommendations for attracting them in this time of opportunity.

companies developing defense technology. ARD was organized as a publicly traded, close-end fund. This freed it to invest in illiquid assets without the danger of investors calling a return of their capital. Since it was a liquid investment, Security and Exchange Commission regulations did not preclude investors. However, since this new and untested form of investment carried such high possibility for risk, institutional investors showed little interest.

VENTURE CAPITAL AS R&D

A dramatic increase in VC investment occurred over the next 35 years. Increased investment was mainly due to the US Department of Labor clarifying its "prudent man" rule in such a way that gave clear permission to pension fund managers to invest in high-risk assets like venture capital. Combined with the headline success stories of companies like eBay and Yahoo!, the amount of capital invested in VC boomed in the late 90s, growing over 830 percent over the last five years of the decade to a record investment of nearly $105 billion in 2000.

The 1990s also saw a shift in R&D methodologies. Up to this point, all major companies had huge research departments and laboratories to develop new products. However, many corporate inventions and innovations were left on the shelf because it was difficult to evaluate their potential market success. It was also expensive to manage and develop all of them to a commercial level. Acquisitions started to become a preferable method. Many fast growing companies, like Cisco Systems, relied on acquiring other successful start-ups for their new technology as well as for their growth in market share.

In this way, venture capital became a way to market test new ideas. If the idea succeeded, either a major firm would buy it and incorporate the innovation into its own corporate structure, or it would become successful enough to go public in an initial public offering (IPO).[ii]

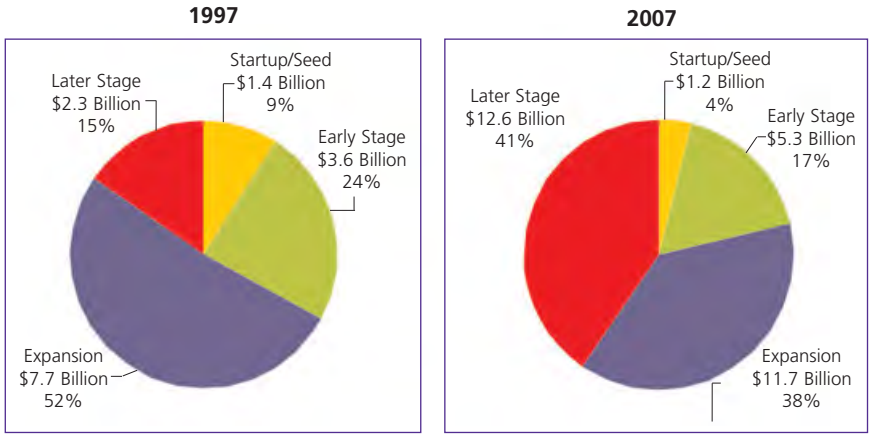
MITIGATING RISK

Even though it can be very lucrative, venture capital investing is highly volatile. Typically, 40 percent of the firms they invest in fail, 40 percent return a moderate profit, and only 10 percent to 20 percent returns a significant profit. In fact, reputations of VC firms are often built on the performance of only one or two investments.

Since venture capital investment firms face such high failure rates, they worked to limit risk by shifting more of their investments into expansion or later stage investments. Today, VC plays a small role in funding basic or seed stage innovations. Rather, VC firms prefer to invest at later stages where risk is lower and return on investment is more predictable and often more lucrative. (Chart 1) In 2007, $1.2 billion, or four percent of all venture capital went to startup/seed stage development, while $24.3 billion (79 percent) went to expansion or later stage investments.[iii] (see Table 1 for venture capital terms)

Additionally, many states have their own early or seed stage investment programs, reducing the need for private sector startup investment. These programs are able to take on greater risk than their later stage private counterparts because they usually have an economic development vision. In fact, 31 states have some sort of public

CHART 1. Venture Capital Investment by Stage



Source: PricewaterhouseCoopers

TABLE 1. Venture Capital Terms

1. **Angel Investor:** A person who provides backing to very early-stage businesses or business concepts. Angel investors are typically entrepreneurs who have become wealthy, often in technology-related industries.
2. **Seed Money:** The first round of capital for a start-up business. Seed money usually takes the structure of a loan or an investment in preferred stock or convertible bonds, although sometimes it is common stock. Seed money provides startup companies with the capital required for their initial development and growth. Angel investors and early-stage venture capital funds often provide seed money.
3. **Follow-on Funding:** Companies often require several rounds of funding. If a private equity firm has invested in a particular company in the past, and then provides additional funding at a later stage, this is known as 'follow-on funding'.
4. **Mezzanine Financing:** Refers to the stage of venture financing for a company immediately prior to its IPO. Investors entering in this round have lower risk of loss than those investors who have invested in an earlier round. Mezzanine level financing can take the structure of preferred stock, convertible bonds or subordinated debt.
5. **Later Stage:** A fund investment strategy involving financing for the expansion of a company that is producing, shipping and increasing its sales volume. Later stage funds often provide the financing to help a company achieve critical mass in order to position itself more competitively within the market.

Source: The 500 Group, Inc.

fund that provides funding for various stages of startup business development. Many others are working to create their own seed funds, too, although the current economy combined with state balanced-budget requirements make raising funds difficult.

While seed and early stage funding is valuable, it only guarantees that the business starts in your state. For example, California does not have any state funded investment programs. Its strength lies in the private VC firms that draw startups in with their later stage funding, its abundance of defense spending research, and its top-tier research universities.

Venture capital becomes important in later stages as the capital for commercialization. It is estimated that more than 80 percent of VC investment goes toward building the infrastructure needed to grow the business. This includes expense investments like manufacturing, marketing, and sales, as well as providing fixed assets and working capital. [iv]

The typical VC investment model is to help a fledgling business build its balance sheet and infrastructure until it gains enough solvency and credibility to either be acquired by a corporation or else offered publicly. "In essence, the venture capitalist buys a stake in an entrepreneur's idea, nurtures it for a short period of time, and then exits with the help of an investment banker." [v]

The typical VC investment model is to help a fledgling business build its balance sheet and infrastructure until it gains enough solvency and credibility to either be acquired by a corporation or else offered publicly.

In order to limit risk on their investment as much as possible, VC firms often provide advice and management staff for new companies. Often these appointees will have final authority on the direction that a company takes. This is because entrepreneurs often lack managerial knowledge. More often than not, they are very talented engineers or scientists who have created an innovation and need help getting it to market. To increase the likelihood of success (a positive return on the investment), management "ringers" are needed.

THE IMPACT OF VENTURE CAPITAL

Venture capital is essential to the national economy. According to the National Venture Capital Association (NVCA), revenue and employment at all companies that have ever received VC funding accounted for 17.6 percent of GDP and 9.1 percent of all private sector employment in the United States in 2006. This equates to approximately $2.3 trillion in annual revenue and 10.4 million jobs attributable to companies that at one time were backed by venture capital.

While the positive national impact of VC backed firms is unquestionable, a quick glance at the data shows that the impact is concentrated in very few places across the country. Fifty-two percent of all jobs and 54 percent of all revenue related to VC funded companies in 2006 were concentrated in only five states. California, Texas, Pennsylvania, and Massachusetts were in the top five for both while Georgia made the top five in employment and Washington the top five in revenue. California alone accounted for 25 percent of all revenue ($566.6 billion) and 23 percent of all jobs (2.4 million). [vi]

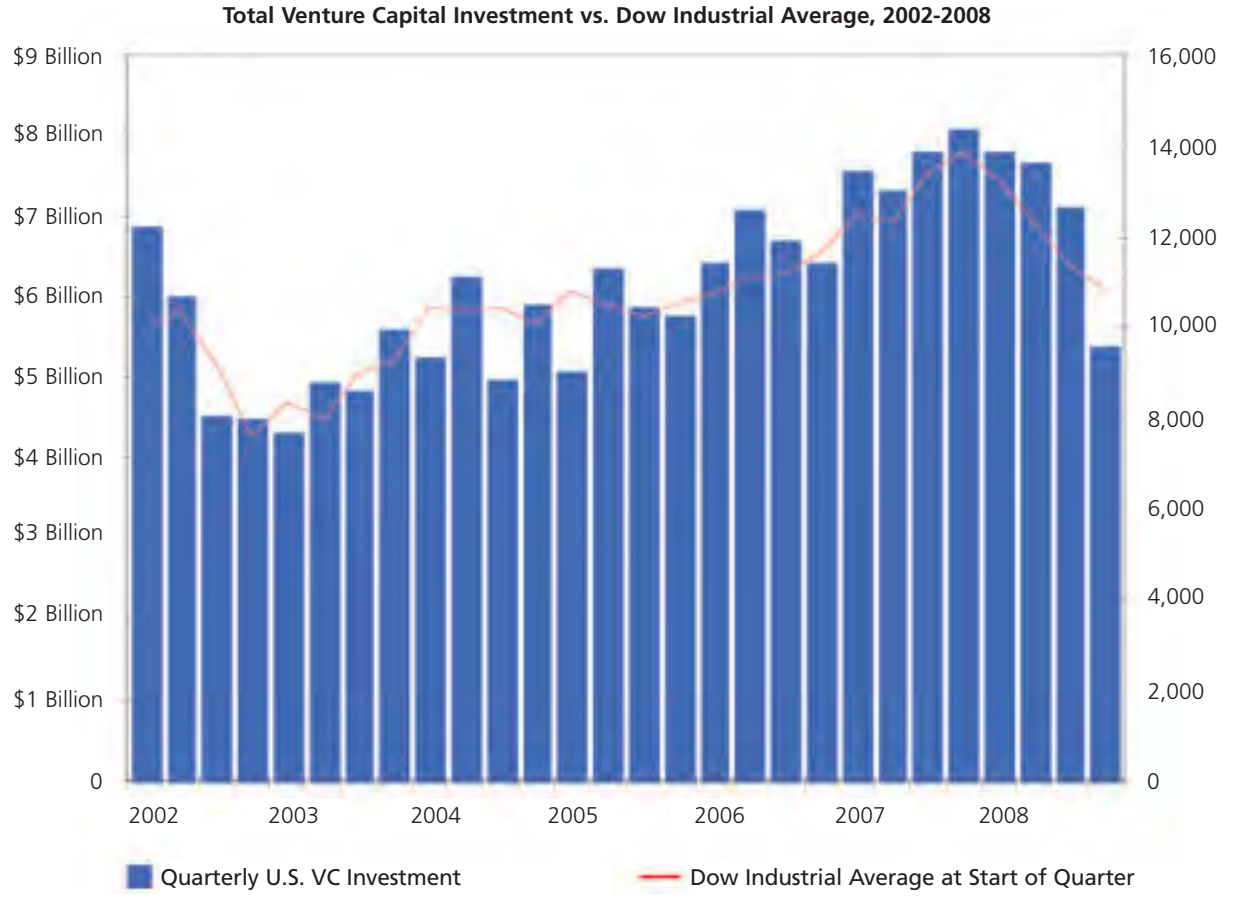
The Wilmot and Goergen buildings house University of Rochester's Institute of Optics, which has awarded nearly half of all optics degrees in the United States.

VENTURE CAPITAL IN A RECESSION

According to PricewaterhouseCoopers, 2008 fourth quarter venture capital investment declined 33 percent compared to the same quarter one year ago. The $5.4 billion invested in the quarter equaled the lowest dollar investment since 2005 and a 26 percent drop from the previous quarter. Total 2008 investment equaled $28.3 billion, the first decline in annual investment since 2003. Investment in biotech and medical devices companies declined 15 percent to $8 billion and Software dropped 10 percent to $4.9 billion.

The only sector that experienced significant growth over 2008 was green technology, which experienced a 52

CHART 2. Venture Capital and Stock Market Trends



Source: PricewaterhouseCoopers, Google Finance

percent increase to $2.7 billion. Even so, fourth quarter investment dropped 14 percent from the previous quarter.

Rather than release fledgling companies into a terrible market, VC firms are holding onto their investments until a time that they can return a profit. With less capital in the market and more funds tied up in prior investments, expect to see even fewer start-up deals over the upcoming quarters. (Chart 2)

In addition to actual market pressures, recent volatility in global markets demonstrates people are less willing to invest. Over the past five years, venture capital investment has reflected trends in the market. Generally, for every point change in the Dow at the beginning of the quarter, venture capital has corresponded with a $640,000 gain or loss in investment. Given the fact that most investment firms seek to diversify their portfolio as a percentage of their total volume, this makes sense. As portfolio values contract substantially in the stock market, managers will divest proportionally from high-risk venture capital. With recent market trends, it is reasonable to expect investment to decline to 2003 levels or lower for the majority of 2009.

Now is the time to attract VC

While venture capital is most frequently invested in regions that already are thriving, such as Silicon Valley, or places that have substantial capital, like Dubai, Singapore, or Shanghai, the fact is that venture capital firms need capital in this tough economic time. For the community with the right assets and funds on hand, communities have the opportunity to entice local venture capital investment into the area. Here are steps to take advantage of this prospect:

Be honest with yourself

Before attempting to attract venture capital firms, communities need to realistically examine their assets. The vast majority of communities in the country fail to meet research and workforce criteria, and few have the

Before attempting to attract venture capital firms, communities need to realistically examine their assets. The vast majority of communities in the country fail to meet research and workforce criteria, and few have the capital needed to stimulate interest.

capital needed to stimulate interest. All three assets are minimum requirements to attracting venture capital into new locations. (Table 2)

Are the research assets necessary to attract VC available? Venture capital firms typically work with major researchers at either universities or government research labs. These are often the researchers within the institutions who look for ways to practically apply their discoveries. Stanford, MIT, Carnegie Mellon, University of Texas, and University of Michigan all attract VC, as do Los Alamos and Oak Ridge National Laboratories. VC firms know they can find the expertise and entrepreneurial spirit they need in these locations due to the sheer volume of research these institutions produce.

While infrequent, private research can also attract VC through direct expansion or through spin-offs that get picked up. In Rochester, for example, a cluster of optics/photonics businesses have sprung from the expertise developed in Kodak's, Bausch & Lomb's, and Xerox's research labs. The University of Rochester's Institute of Optics has approximately 200 students enrolled in undergraduate and graduate programs and has awarded nearly half of all optics degrees in the United States. With over 100,000 square feet of state of the art laboratory and teaching facilities, it is the hub of the region's photonics/optics cluster.

Does the community have an adequate workforce? While a significant research presence provides the innovators necessary for new products, an inadequate labor force chokes business growth. Without the engineers, technicians, and professionals with the specialized skills, the startup business will be forced to expand elsewhere. For instance, Ithaca, NY, home to Cornell University, has excellent research capabilities and significant financial resources to partner with outside VC firms. However, it lacks an adequate workforce to enable continued growth of startup companies. It is common for startups in Ithaca to relocate to San Jose, New York City, or Boston when later stage funding/workforce expansion is needed.

Finally, communities will not succeed at attracting VC without reducing the real and/or perceived risk of operating in a new geographic location. It is a greater risk to work in an untested place. Concerns can often be assuaged through infrastructure. For instance, the Los Alamos Commerce and Development Corporation financed its 44-acre Los Alamos Research Park, which sits adjacent to the National Laboratory. This 84,000-square-foot multi-tenant light lab and office building is successfully attracting businesses into the city that otherwise might have expanded elsewhere. In addition to the expansion and retention benefits, construction generated over $1 million in tax revenue to the state and 80 construction jobs. Over $84,000 a year is generated in local property taxes for the city of 13,000.

The case of Abilene

Even though VC backed firms concentrate in specific regions, there are still opportunities for places to leverage local assets to attract this type of investment.

TABLE 2. Basic Assets Needed to Attract Venture Capital

1. **Major Innovators**
   - A. Top-tier research university
     and/or
   - B. Government research institution
     and/or
   - c. Major private sector research lab
2. **Adequate Workforce**
   - A. Technicians
   - B. Professionals (lawyers, managers, bankers)
3. **Community support**
   - A. Financial ($ millions minimum)
   - B. Long term commitment

Abilene, TX, had minimal job growth and limited opportunities for college graduates for years. Its 116,000 residents have watched their kids and grandkids leave for jobs in growing places. Deciding something had to be done, they developed a strategy for recruiting venture capital investment.

Utilizing the research conducted at the Health Sciences Center School of Pharmacy branch of Texas Tech University and a location incentive pledge of $2 million by the Development Corporation of Abilene (DCOA), Abilene attracted the investment of Emergent Technologies, Inc. Since Abilene put "skin in the game," Emergent Technologies invested in a firm within the city while still maintaining adequate risk thresholds. The $2 million pledge also demonstrated a strong and long-term local commitment to the initiative, further reducing Emergent Technologies concerns. Since their pledge is directed at infrastructure, Abilene has leveraged a twofold benefit: a VC firm to invest locally and the infrastructure to attract future investment.

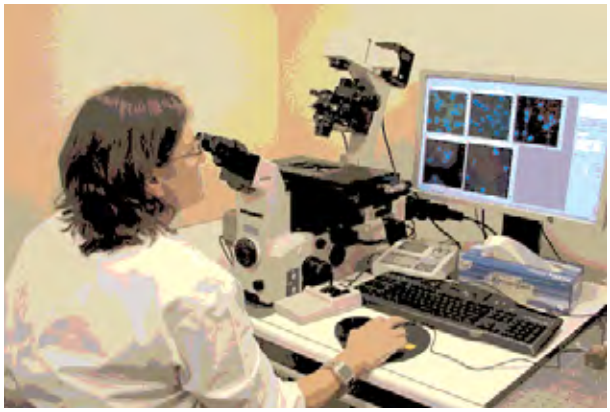
The $2 million in private funds raised by Emergent Technologies combined with the local $2 million pledge has so far resulted in Receptor Logic, the first VC backed firm in Abilene. By 2013, Receptor Logic plans to employ 40 scientists and technicians with an average salary of $50,000 to $60,000, compared to the county's average of $32,000. Beyond just job creation benefits, Abilene is growing local wealth that can be reinvested.

Develop a game plan

It takes considerable expertise for a VC firm to profitably manage startup companies. In the same way, it takes incredible effort, organization, and community assets to attract VC into a non-traditional region of the country. Economic development professionals must develop a plan for strategically pursuing this type of investment.

Get local public and private buy in

While startups do create new jobs, the initial role of a startup is to draw wealth into a community. Startups do bring high salaries, but more importantly, they bring a high level of investment. High technology startups require cutting edge equipment and facilities. It is important to inform residents to expect 1-2 out of 10 companies to succeed. While they may not see an immediate benefit in terms of new jobs in the community, the economic activity stimulated by startups is a valuable investment. VC has a significant impact on jobs and the economy, but it takes time.



A Receptor Logic, Inc. scientist studies antibodies and cell interaction. Through local support and VC funding, this company is creating cutting edge tools for medical research, diagnostics, and disease treatment.

Cultivate entrepreneurs

Communities must increase investment in educational research and create funds for supporting startup companies. This can be through private, public, and foundation funds, or some combination. Communities must also actively pursue VC firms that are willing to invest in regions without VC history.

To further increase the potential for venture capital investment within your region, you must increase public spending in new and innovative technologies within local universities, incubators, or early stage investment foundations. Incentives should focus on VC industries with significant investment and substantial growth, such as software, biotechnology, and clean technology. Focus on niches that match community expertise. It may be a spin-off from a major local employer or an expertise within the local university. Overall, venture capital firms are looking to invest in the kinds of ideas that have the most potential for success.

If a community does not have access to local research capabilities, start an incubator or angel investment network to draw entrepreneurs into the community. Without entrepreneurs who are willing to take a risk and let their innovations sink or swim in the marketplace, there are no incentives for venture capital sources to come into a community. This pool of entrepreneurial talent must either come from the local population or be attracted into it.

Recruit the right VC firms

Once a community begins to make investments in a strong entrepreneurial sector, it can seek out socially or locally concerned venture capital firms to relocate or open offices within your region. VC investment is a highly skilled profession that takes talent, finesse, and a certain amount of luck. While growing a local team is theoretically possible, the chances of a startup VC firm's success are even smaller than the startups they support. Instead, communities that solicit experienced VC firms have a much greater chance of success.

It is best to pursue firms that are already located in or familiar with your state. This reduces issues over taxation, intellectual property rights, and other legal differences. These firms are also more likely to be familiar with your community's qualities.

Recruit local entrepreneurs, research institutions, colleges, and financial organizations to get involved and recommend VC firms or individuals that may have come from or shown an interest in the region. These connections improve the community's chance of building a partnership.

It may prove worthwhile to go on a sales trip, pursuing prospective VC firms as one would pursue a business or site selector. Go to these firms prepared with tangible benefits and a fair assessment of the benefits and challenges of relocating.

Improve infrastructure

Finally, communities should be prepared to "put skin in the game." This can include creating incentives, abatements or even infrastructure. Offer medium to high interest bonds and loans for startups in order to supplement venture capital funding. These offerings must be significant enough to assuage concerns over the real and/or perceived risk of relocation; $1 million would be a minimum starting point.

Offering other sources of funds to supplement VC funding can keep a potentially rewarding company from

TABLE 3. Useful Venture Capital Links

National Venture Capital Association
http://www.nvca.org/

PricewaterhouseCoopers Money Tree Report
http://www.pwcmoneytree.com/MTPublic/ns/index.jsp

National Dialogue on Entrepreneurship – The Public Forum Institute
http://www.publicforuminstitute.org/nde/

Emerging Markets Private Equity Association
http://www.empea.net/

National Association of Seed and Venture Funds
http://www.nasvf.org/

VC Task Force
http://www.vctaskforce.com/

dying in dry times. Economic development leaders should develop relationships with major banks so that contacts are at hand when a business need arises. Work with research institutions, private businesses, and foundations for support in funding infrastructure or lending programs. (see Table 3 for useful venture capital links)

Long term process

It is important to remember that creating a community in which innovation thrives requires long-term investment that often bears little short-term fruit. If community leaders decide to pursue an entrepreneurial model involving VC investment, remember that venture capital firms typically expect returns on their investments after three to five years. Current economic conditions are extending this timeline out to 7-10 years. It may take twice that many years for the community itself to start seeing noticeable benefits. It is important to be prepared, both mentally and financially, for a long wait before an impact is observed.

If a community is willing to make the long-term commitment and has access to the assets innovation requires, seeking and securing venture capital investment will be a fruitful and worthwhile endeavor in this time when, more than ever, VC firms need backing.

ENDNOTES

[i] Samuel Kortum and Josh Lerner, "Assessing the contribution of venture capital to innovation," *Rand Journal of Economics* 31, no.4 (Winter 2000): 676.

[ii] Bob Zider, "How Venture Capital Works," *Harvard Business Review* November-December (1998): 131-139.

[iii] PricewaterhouseCoopers/ Thomson Venture Economic/ National Venture Capital Association; generated by Jeremy Zaborowski using investments by stage of development/ 2007; accessed 20 September, 2008; available from http://pwcmoneytree.com/moneytree/nav.jsp?page=stage; Internet.

[iv] Bob Zider, 132.

[v] Bob Zider, 132.

[vi] Global Insight, "Venture Impact: The Economic Importance of Venture Capital Backed Companies to the United States," Fourth Edition; accessed 1 December, 2008; available from http://www.nvca.org/pdf/NVCA_VentureCapital07-2nd.pdf; Internet.

brac: a regional

OPPORTUNITY

By Paul R. Dordal

When military communities hear the word "BRAC", the first thing that comes to mind is base closure and the resulting civilian job losses and economic hardship for the cities and towns surrounding the installation or base.

The Fort Bragg region heard BRAC in early 2004 and thought "opportunity".

During 2005, then-North Carolina Lt. Governor Bev Perdue led a state effort to keep its military bases open, and by November 2005, the BRAC actions became law and North Carolina's military installations were the big winners. The federal government ordered the closure of Fort McPherson, south of Atlanta, by September 2011, and the relocation of the U.S. Army Forces Command and the U.S. Army Reserve Command to Fort Bragg by 2011 – a move that would make Fort Bragg the largest Army post in the country. The government also changed the status of Pope AFB – it would now be home to the 440th Air Force Reserve wing from Wisconsin. These moves, while considered economic wins for the region and the state, also would result in a major challenge affecting each community: extraordinary population growth of 40,000 people by 2013 that would affect housing, schools, transportation, emergency services, and many other areas of the surrounding communities.

Above: North Carolina has the third largest military presence in America. Fort Bragg will be the largest Army post by population in the country.

Left: Fort Bragg was established in 1918 as a field artillery site. By 2011, the installation will be home to the U.S. Army Forces Command and U.S. Army Reserve Command, and more than 65,000 military, civilian, and contractor jobs.

As final details of BRAC 2005 became known, community leaders from several counties came together to focus on the impacts to their communities based on the growth at Fort Bragg.

Key considerations in forming a steering group were to make sure that the planning for mission-

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PREPARING FOR GROWTH IN THE FORT BRAGG REGION

Establishing a task force for a BRAC growth community changed the paradigm, with the Fort Bragg region expecting an extraordinary population growth of 40,000 people by 2013. The Fort Bragg/Pope Air Force Base BRAC Regional Task Force (BRAC RTF) is a partnership of governments encompassing 11 counties and 73 municipalities. The state of North Carolina formed the organization to address issues related to the 2005 Base Realignment and Closure Law and other transformational growth actions. The task force serves as the liaison between Fort Bragg and Pope Air Force Base, the communities, and the state and federal agencies involved in providing assistance and support to communities affected by BRAC 2005 actions. The BRAC RTF is governed by a board of directors, which consists of a representative from each of the 11 counties, usually a commissioner along with a municipal representative – mayor or town manager. The BRAC RTF received national recognition by the Association of Defense Communities and was awarded the Community Innovation Award in 2007 and the Active Base Community of the Year Award in 2008

related growth was coordinated regionally. In January 2006, North Carolina Governor Michael Easley hosted a region-wide stakeholders' kick-off meeting in Raleigh, which included representatives from county and municipality governments. The N.C. Department of Commerce took the lead in organizing the communities, and in June 2006 the BRAC Regional Task Force was formally established to coordinate and unify BRAC 2005 and other transformational growth actions with the surrounding communities.

By this time, the opportunities associated with relocating a major Army headquarters that manages more than $30 billion of the Department of Defense budget became obvious. County economic developers, regional workforce development boards, regional universities, community colleges, and K-12 schools from the 11 counties were included as partners or stakeholders and four key objectives for the task force were identified and include:

- Plan and prepare regional communities for the changes due to BRAC 2005 and other transformational growth;
- Provide military personnel and their families with information about the region;
- Improve quality of life for both military and the surrounding communities; and
- Develop economic opportunities.

THE GROWTH PARADIGM

Establishing a task force for a BRAC growth community changed the paradigm. The U.S. Department of Defense Office of Economic Adjustment (OEA) was chartered to fund communities that were adversely impacted by BRAC through base closure. The BRAC RTF made the case to OEA that although the local military installations and surrounding communities declared "BRAC wins", the region and the installation would be challenged by the impending growth.

The University of North Carolina at Chapel Hill School of Government conducted a study of the region to show the economic impact of BRAC 2005 across the surrounding counties. The study results spoke volumes about the BRAC 2005 impact and how growth at Fort Bragg and Pope AFB would adversely impact and challenge infrastructure, schools, and workforce in the region.

The regional planning approach suggested by the BRAC RTF centers upon a key principle: Organize regionally, optimize locally. Moving the region toward sustainable long-term economic development goals requires community-level planning efforts that are multi-faceted and regional in scope. The impetus for regional planning must transcend artificial political boundaries, as counties and municipalities realize that infrastructure can be more efficiently planned, funded, and constructed in a regional context.

The BRAC RTF's regional approach to planning was approved by the Office of Economic Adjustment and, in May 2006, the BRAC RTF was recognized by OEA as the regional organization representing the Fort Bragg area. The BRAC RTF subsequently received a regional planning grant totaling $1.16 million that would be used to study the BRAC impact on the Fort Bragg region.

The BRAC RTF has taken a unique approach to planning for the impact of this influx of personnel by addressing all of the regional planning factors in a Comprehensive Regional Growth Plan (CRGP). The growth plan integrates the impact of mission growth in 12 study areas: Housing; Education (K-12); Workforce Development and Higher Education; Transportation; Information and Communication Technology; Water, Sewer and Solid Waste; Public Safety and Emergency Services; Health Care; Social Services and Child Care; Hospitality; Parks, Recreation, and Cultural Resources; Regional Planning, Compatible Land Use, and Sustainable Development.

This regional comprehensive planning effort, the first ever of its kind for a BRAC community, has identified implementation actions needed to address the impacts of military growth from a regional perspective and has been recognized by OEA as a model for other BRAC regions to follow.

Working groups met for over a year while a contractor pulled together subject matter experts from across the state and a vast number of resources to work with survey data, the military installations, community groups, businesses, and many others to develop a regional planning document that identifies opportunities and challenges in each of the 11 counties. Last October, the BRAC RTF released the final Comprehensive Regional Growth Plan at a large community meeting of more than 450 stakeholders. This regional comprehensive planning effort, the first ever of its kind for a BRAC community, has identified implementation actions needed to address the impacts of military growth from a regional perspective and has been recognized by OEA as a model for other BRAC regions to follow. The BRAC RTF received national recognition by

the Association of Defense Communities and was awarded the Community Innovation Award in 2007 and the Active Base Community of the Year Award in 2008.

The BRAC RTF was recently awarded a follow-on grant from OEA totaling $1.65 million over the next 18 months to implement the recommendations and suggestions contained in the CRGP.

One aspect of the working groups was a constant – the regional representation of business owners, community leaders, and interested citizens. One example of how well the regional concept continues to work is illustrated by the region's economic development professionals. This was one of the first stakeholder groups convened by the BRAC RTF. The early inclusion of economic development professionals has proven to be a positive factor in the Fort Bragg region, as they have brought unprecedented collaboration and a strong sense of regionalism.

More than other stakeholder groups, the economic developers have demonstrated an understanding of the importance of a high quality of life for the potential success of the region, and that quality of life comes from many interlinked elements, including school quality, transportation, amenities, workforce development, infrastructure, and environment. These professionals also understand that the different communities in the region are dependent on one another, and should work together rather than compete with one another.

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Since 2006, the economic development directors from the 11 counties of the Fort Bragg region have worked jointly, establishing a Regional Working Group that meets quarterly. BRAC RTF hired an economic development consulting firm to work directly with this group to ensure the region "speaks with one voice" when meeting with prospective developers, defense firms, and other businesses seeking to relocate or expand in the region as a result of mission growth.

In support of the regional planning effort to engage the agricultural community, the BRAC RTF received a $200,000 grant from the North Carolina Tobacco Trust Fund Commission to establish a Regional Agricultural Sustainability Program, established in 2007. The goal of this program is to transform agriculture in southeastern North Carolina by linking the agricultural community to the opportunities emanating from the population growth related to BRAC 2005 affecting Fort Bragg and Pope AFB. This initiative is intended to guide the region toward sustainable growth and development, and will ensure that agriculture is fully integrated into the regional plan for sustainability.

Along the same lines, a $400,000 grant from the North Carolina Agricultural Development and Farmland Preservation Trust Fund will establish a regional Working Lands Protection Strategy in the 11-county BRAC region. The continued viability of the region's working lands will help maintain the operational readiness of Fort Bragg. The installation can continue to perform its mission, lessening the problems posed by suburban encroachments and other land uses that are

North Carolina's port system operates international deepwater ports at Wilmington and Morehead City within 700 miles of more than 70 percent of the U.S. industrial base. Two inland terminals at Greensboro and Charlotte make shipping across the Atlantic direct and highly economical.

incompatible with the Army's training and operational objectives. The Working Lands Protection Strategy will build upon the ongoing efforts of the Regional Agricultural Sustainability Program.

ADDRESSING WORKFORCE AND EDUCATION NEEDS

Relocating two major Army commands to Fort Bragg and an Air Force Reserve Wing to Pope AFB will place significant demands on the local civilian workforce. A total of 19,200 jobs will be created by 2013 as a result of additional military investment in the region.

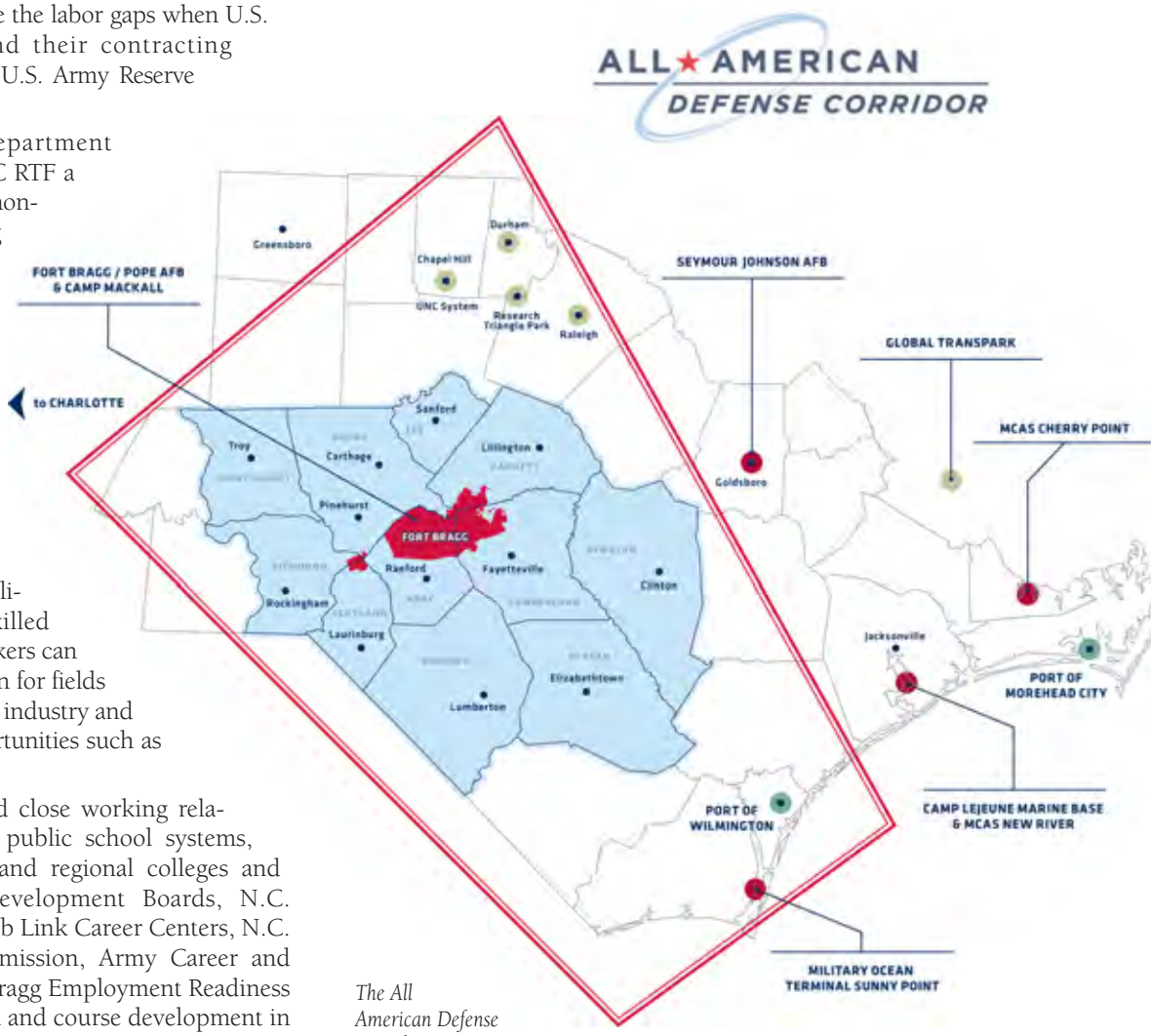
In the past 10 years, the Fort Bragg region has lost over 16,000 jobs due to a decline in traditional industries such as textiles, manufacturing, and tobacco farming. Fort Bragg has more than 5,000 soldiers each year who retire or leave the military and take with them valuable professional skills, abilities, and a work ethic in high demand by businesses across the country. The BRAC RTF recognized a need to educate, retrain, and develop the existing workforce and give these highly talented soldiers a reason to stay in the region to bridge the labor gaps when U.S. Army Forces Command and their contracting civilian counterparts, and U.S. Army Reserve Command relocate.

In July 2007, the U. S. Department of Labor awarded the BRAC RTF a $5 million workforce demonstration grant. This funding will be used to plan for regional workforce transformation and ensure that workers are prepared for high tech jobs supporting national military preparedness and homeland security. This program will ensure that transitioning military, military spouses, a lower skilled workforce, and other job seekers can receive training and education for fields such as the emerging defense industry and other key employment opportunities such as healthcare and education.

BRAC RTF has developed close working relationships with the region's public school systems, community colleges, local and regional colleges and universities, Workforce Development Boards, N.C. Department of Commerce Job Link Career Centers, N.C. Employment Security Commission, Army Career and Alumni Program, and Fort Bragg Employment Readiness Program to assist in program and course development in support of the workforce retraining needs and furthering the education demands in the region.

Establishing the *All American Center for Workforce Innovation* last year is an excellent example of how the BRAC RTF is bringing regional education and workforce partners together toward a common goal: tying together the educational assets to support future workforce and career development needs in the 11 counties. The Center, located at Fayetteville Technical Community College, connects local businesses and educators who have a common interest in using modeling and simulation technology with training and classroom instruction assets. Interactive 3-D technology experts at Fayetteville Tech work with the military, businesses and educators to develop custom, interactive 3-D imaging (i3D) of equipment, processes and classroom applications which become part of a 3-D image repository.

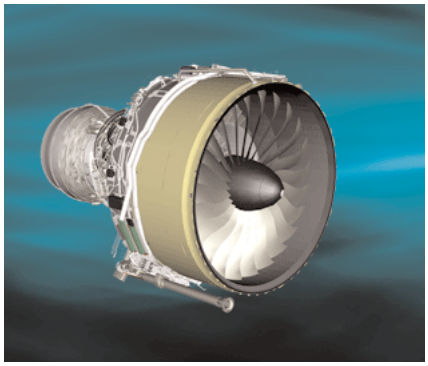
The All American Center for Workforce Innovation has taken a step forward to bring this technology to all of the community colleges in the region. The BRAC RTF purchased portable i3D theaters for each of the community



The All American Defense Corridor encompasses six major military installations which give a financial boost to support cities, towns and communities, inspire new technologies, and create an exceptional business opportunity for the region.

Counties within the Corridor have outstanding resources in higher education, research and development, innovative military technologies, and a trained and ready workforce to meet the business demands of defense contracting firms. For example, in the heart of the Corridor, Fayetteville State University and the University of North Carolina at Pembroke have established a regional electron microprobe – the latest generation of a scanning electron microscope (SEM) facility in southeastern North Carolina to house the world's most advanced technology in an effort to build research infrastructure for metallurgy, mineralogy, chemistry, and biology.

colleges to enrich the classroom setting and provide students with the ability to manipulate images and further the learning process. The i3D database is shared among the community colleges and continuously updated. Taking it one step further, the BRAC RTF will place the same i3D technology in one pilot high school in each of the 11 BRAC counties – a $200,000 grant from the Golden Leaf Foundation has made this connection to our regional high schools possible.



Fayetteville Technical Community College and a consortium of world-renowned technology partners have established the nation's first interactive 3D center offering modeling and simulation training and development for military and civilian applications.

Another area of study under this U.S. Department of Labor grant is identifying and mapping the targeted emerging industries and associated labor demands that will transform the regional economy during this period of transition. The study will also identify the academic and vocational demands of targeted industry clusters. In the next three years, more than 6,400 government jobs will be created, bringing the total number of government-related jobs to 134,872. Construction-related sector jobs will grow by 6,267 and the professional and technical services sector will grow by 2,515. This study will result in much-needed data regarding in-demand careers and will identify the most highly competitive occupations, and the skills and education required in the region by 2011.

In the coming months, the mapping study will fold into a larger project – one that will give the region's workforce access to comprehensive education, training and employment tools that will also connect the Fort Bragg transition office and career centers, regional businesses, higher education partners, 11-county school systems, workforce development boards, NC Department of Commerce, and many other state and local partners. The interactive Regional Career Exploration and Talent Acquisition Platform will be the first of its kind in the country.

This online system will have a regional focus for employment, education, and career exploration. Users may conduct a skills assessment; explore high-demand, wage and skill occupations and careers; and find college classes to shore up educational requirements or to complete a certification or degree program.

AN ALL AMERICAN CONCEPT AND ECONOMIC TRANSFORMATION

Taking a regional approach to BRAC 2005 resulted in an opportunity for the BRAC RTF to link Fort Bragg and Pope AFB with the strengths that already exist in North Carolina. These strengths include world class research and development, skilled and trained workforce, excellent transportation system, top-notch college and R&D capacity, and an exceptional quality of life – all of which will attract defense companies and transform the region's economy many times over in the next ten years.

Uniting these important assets for the state is key with the relocation of the U.S. Army Forces Command and U.S. Army Reserve Command. Establishing these commands at Fort Bragg will serve as the catalyst for defense industry growth in southeastern North Carolina. With this in mind, the BRAC RTF formed the All American Defense Corridor stretching over the 11 BRAC counties and encompassing the Raleigh-Durham and the Research Triangle region to the north and Wilmington and its major port system in the south.

Counties within the Corridor have outstanding resources in higher education, research and development, innovative military technologies, and a trained and ready workforce to meet the business demands of defense contracting firms. For example, in the heart of the Corridor, Fayetteville State University and the University of North Carolina at Pembroke have established a regional electron microprobe – the latest generation of a scanning electron microscope (SEM) facility in southeastern North Carolina to house the world's most advanced technology in an

effort to build research infrastructure for metallurgy, mineralogy, chemistry, and biology. Nearby, the Defense Security and Technology Accelerator is an innovative incubation program that assists entrepreneurs with the rapid development of dual-use defense and security technology solutions. The Army Research Office is a critical facility in the Corridor, which focuses on far-reaching technological discoveries in educational institutions, nonprofit organizations, and private industry.

Considering the economic impact created by BRAC 2005 and the anticipated demand of the defense sector, the region stands to benefit in many ways. Over $2 billion in military construction on Fort Bragg will bring more than 6,000 economic migrants to the region who will contribute to a steady and growing economy. Fort Bragg will hire over 6,000 civilians to staff workforce needs. By 2013, total demand under the Fort Bragg expansion is expected to grow by $1.69 billion with components of personal income increasing by $1.47 billion and disposable income growing by $1.27 billion.

Pulling together a regional approach to mandated BRAC actions and making it work did not happen overnight. The city and county leaders within the 11 counties knew the outcomes of BRAC 2005 would bring many questions and challenging situations to the table.

LESSONS LEARNED

Pulling together a regional approach to mandated BRAC actions and making it work did not happen overnight. The city and county leaders within the 11 counties knew the outcomes of BRAC 2005 would bring many questions and challenging situations to the table. It has been very important to work hand-in-hand with each county and municipality, making sure their needs were identified and giving them tools to work through the opportunities and challenges. Keeping board members included and involved in all aspects of our work has been and will continue to be imperative. Involving the military leadership has been an important piece of this process and making sure they understand our organization is working in their best interest takes time and effort. Establishing close working relationships with state and federal agencies and working through issues such as transportation, education, project funding and other matters on a regional basis has been very productive. Representing the Fort Bragg region with one voice will continue in the future.