Entrepreneurship, Creativity, and Regional Development

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"If one wanted to select the best novelist, artist, entrepreneur, or even chief executive officer, one would most likely want someone who is creative."

--Robert Sternberg, *Handbook of Creativity*.[1]

Entrepreneurship, both in the conventional wisdom and the academic view, has long been seen as the province of great individuals. Scores of books and articles have been written extolling the virtues of heroic entrepreneurs. This chapter starts from the assumption that this "great man" theory misses the fundamental mechanisms that spur entrepreneurship and economic growth. Indeed, entrepreneurship is more than an economic process and extends beyond the process of new business formation. At bottom, entrepreneurship is a social process that stems from a broad set of social and cultural conditions.

In the contemporary United States, the entrepreneurial impulse has become embedded in a social ethos. The forces that produced this ethos have been building at least since the 1960s, and perhaps longer, but the rise of the entrepreneurial society – or way of life – has become apparent just recently. Entrepreneurship is part of a broader social movement, a shift in what Americans want out of their lives. Consider the following facts.

- Some 60 percent of teenagers and young adults say they want to be entrepreneurs, according to a recent survey.[2]
- A survey of research on entrepreneurship by Patricia Thornton points out that 4% of Americans at any given time are involved in starting businesses.[3]
- A 26 year-old woman that I interviewed in the course of my research put it this way:

> Me, I always felt like the weirdo. I can only imagine the number of times it was said, just do it that way because that's the way it's done. I always have felt a sense that to be or do anything outside of the realm of the norm was not different but wrong. I wish I had a dime every time people said, get a real job. You see? You're seen as the weirdo if you take risks and build something different. I know I always wanted to create things for myself but I didn't know how to do it. I finally realized what it is. What I want to do to build things isn't weird; it's called entrepreneurship. I'm an entrepreneur.[4]

These facts hint at the broad shift occurring in American society, a shift that goes beyond the conventional notion that we now live in an "information" or "knowledge" economy. This economy is powered not by information or by knowledge, but by human creativity. Creativity — "the ability to create meaningful new forms," as *Webster's Dictionary* puts it — is now the decisive source of competitive advantage. As Paul Romer likes to say, the big advances in the standard of living — not to mention the big competitive advantages in the marketplace — come from "better recipes, not just more cooking."[5]

Creativity is multifaceted and multidimensional. I identify three interrelated types of creativity: (1) *technological creativity* or innovation, (2) *economic creativity* or entrepreneurship, and (3) *artistic and cultural creativity*. I argue that these three types of creativity are mutually dependent. In order to generate entrepreneurship (evident in higher rates of new business formation), a region must create conditions that stimulate innovation, arts, and culture. The three types of creativity stimulate and reinforce one another.

Creativity requires diversity. As the great urbanist Jane Jacobs observed forty years ago, creativity thrives when the environment allows people of all lifestyles, cultures, and ethnicities to interact.[6] Regions that wish to encourage economic creativity must also encourage diversity. My focus groups and interviews with young, talented people indicated time and time again that one of the most important attributes they seek in looking for in a place to live and work is diversity. In order to become an entrepreneurial center, a region must nurture a community that encourages all forms of creativity, which means supporting populations that are highly linked to creativity.

Entrepreneurship of the Schumpeterian sort—that is, the creation of technologically dynamic, high-value added, high growth firms, with which this volume as a whole is mainly concerned -- is intimately linked to creativity, defined in this broad fashion.[7] I have reached this conclusion after years of research on entrepreneurship, technological innovation, and economic growth at the regional level with a team of students and colleagues at Carnegie Mellon University. My qualitative research, drawing on interviews and focus groups, lays bare the changing attitudes and desires of creative people and ties these to key factors in the social environment. Our quantitative work substantiates these findings, using new measures that are more reliable and more

focused on the dependent variable of interest -- Schumpeterian entrepreneurship -- than previous research in this vein.[8]

This chapter provides an empirically-based assessment of the relationship between entrepreneurship and other forms of creativity and diversity at the regional level. The next section reviews prior work and introduces some of the central precepts of my creativity-based perspective. The third section presents the basic designs, methods, and indicators used in our research. I then examine the relationship between entrepreneurship, technological and cultural creativity, and diversity. The last section discusses the implications of these trends and findings for the emerging field of entrepreneurship policy.

Creativity, Entrepreneurship and Regional Economic Growth

Economists and geographers have always accepted that economic growth is regional, that it is driven by and spreading from specific regions, cities, or even neighborhoods. Robert Park, Jane Jacobs, and Wilbur Thompson, among others, long ago pointed to the role of places as incubators of creativity, innovation, and new firms and industries.[9] The earliest explanation of this phenomenon was that places grow either because they are located on transportation routes or because they have endowments of natural resources that encourage firms to locate there. According to this conventional view, the economic importance of a place is tied to the efficiency with which one can make things and do business. Governments employ this theory when they use tax breaks and highway construction to attract business. But these cost-related factors are no longer key to success.

Another major theory of regional growth suggests that place remains important as a locus of economic activity because of the tendency of firms to cluster together. This view builds on the seminal insights of the economist Alfred Marshall. The contemporary variant of this view, advanced by Michael Porter, has many proponents in academia and in the practice of economic development.[10] It is clear that similar firms tend to cluster. Examples of this sort of agglomeration include not only Detroit and Silicon Valley, but the *maquiladora* electronics-and- auto-parts districts in Mexico, the clustering of makers of disk drives in Singapore and of flat-panel displays in Japan, and the garment district and Broadway theater district in New York City.

The question is not whether firms cluster but why. Several answers have been offered. Some experts believe, as Marshall did, that "agglomerations" of similar firms capture efficiencies generated from tight linkages between the firms. Others say it has to do with the positive benefits of co-location, which are sometimes referred to as "spillovers." Still others claim agglomeration occurs because certain kinds of activity require face-to-face contact.[11] But these are only partial answers.

Over the past decade or so, a more powerful theory to explain city and regional growth has emerged. The basic idea behind this theory is that people are the motor for growth. Its proponents thus refer to it as the "human capital" theory of regional development. The proponents of the human capital theory argue the key to regional growth lies not in reducing the costs of doing business nor in the clustering of firms, but in enhancing regional endowments of highly educated and productive people.

The human capital theory owes a particular debt to the work of Jane Jacobs. Decades ago, Jacobs noted the ability of cities to attract creative people and thus spur economic growth.[12] For a long time academic economists ignored her ideas, but in the

past decade or two, they have been taken up with gusto. The Nobel-prize winning economist Robert Lucas, for instance, sees the productivity effect that comes from the clustering of human capital as the critical factor in regional economic growth, referring to it as a "Jane Jacobs externality." (In a widely circulated e-mail Lucas went so far to suggest that Jacobs should be considered for a Nobel prize in economics.) Building on Jacobs' seminal insight, Lucas contends that cities would be economically infeasible if not for the productivity effect associated with endowments of human capital:

> If we postulate only the usual list of economic forces, cities should fly apart. The theory of production contains nothing to hold a city together. A city is simply a collection of factors of production – capital, people and land – and land is always far cheaper outside cities than inside… It seems to me that the 'force' we need to postulate to account for the central role of cities in economic life is of exactly the same character as the 'external human capital'…What can people be paying Manhattan or downtown Chicago rents for, if not for being near other people?[13]

Studies of national growth find a clear connection between the economic success of nations and their human capital, as measured by the level of education. This connection has also been found in regional studies of the United States. In a series of studies, Edward Glaeser and his collaborators, for example, have found considerable empirical evidence that human capital is the central factor in regional growth.[14] According to Glaeser, such clustering of human capital is the ultimate source of regional agglomerations of firms. Firms concentrate to reap the advantages that stem from common labor pools and not to tap the advantages from linked networks of customers and suppliers, as Porter and others argue. Research by Spencer Glendon shows that a

good deal of city growth over the twentieth century can be traced to cities' levels of human capital at the beginning of the century.[15] Places with greater numbers of talented people grew faster and were better able to attract more talent. For our purposes, places with high concentrations of human capital both attract existing firms and provide the habitat required to create new entrepreneurial firm formations

The human capital theory asserts that economic growth will occur in places that have highly educated people. It thus begs the question: Why do talented, creative, and entrepreneurial people cluster in certain places? My focus groups and interviews suggest three basic reasons.

- **Thick Labor Markets:** People don't just want a job, they want a lot of jobs. They know they're going to move around a lot, so they want a "thick labor market."
- **Diversity:** People in my interviews and focus groups look for visible signs of diversity, such as prevalence of various nationalities and ethnicities as well as a visible gay community. These are visual cues that a place is open to all and possesses "low entry barriers" to human capital.
- **Quality of place***:* I define quality of place in terms of three attributes: what's there – the buildings, the neighborhoods, the physical design; who's there – the people, the diversity, the human energy; and what's going on – the bustling street life, sidewalk cafes, restaurants and music venues, active outdoor recreation.

I argue, then, that regional economic growth is driven by creative people who prefer places that are diverse, tolerant and open to new ideas. This "creative capital" theory thus differs from human capital theory in two respects. First, it identifies a type of human capital, creative people, that is the key to economic growth. Second, it identifies the underlying factors that shape the location decisions of these people,

instead of merely saying that regions are blessed with certain endowments of them. Furthermore, it suggests that creativity is linked to diversity. Diversity increases the odds that a place will attract different types of creative people with different skill sets and ideas. Places with diverse mixes of creative people are more likely to generate new and novel combinations. Diversity and concentration work together to speed the flow of knowledge. Greater and more diverse concentrations of creative capital in turn lead to higher rates of innovation, high-technology business formation, job generation, and economic growth. This theory suggests that places that are open to creativity of all sorts (technological and cultural as well as economic) reflect an underlying environment or habitat which favors risk taking and thus will stimulate entrepreneurship and new firm formation.

In more pragmatic terms, my creativity-based theory of regional growth says that technological innovation, new firm formation and regional growth are all related to what I call the "3 T's" of economic development*: technology, talent, and tolerance.* To spur innovation, economic growth and other good things a region must have all three of them. The 3 T's explain why regions like Baltimore, St. Louis, and Pittsburgh fail to tilulate entrepreneurship and to grow despite their deep reservoirs of technology and world-class universities: they are unwilling to be sufficiently tolerant and open to attract and retain top creative talent and stimulate risk-taking behavior. The interdependence of the 3 T's also explains why regions like Miami and New Orleans do not make the grade even though they are lifestyle meccas: they lack the required technology base. The most successful places—the San Francisco Bay Area, Boston, Washington D.C., Austin, and Seattle—put all 3 T's together. They are truly creative places.

Research Design and Methods

To test this theory, my team and I have developed a series of new and unique indicators of the social and economic factors that are associated with innovation, entrepreneurship, and regional economic growth. Conventional studies of regional entrepreneurship have been plagued by an absence of reliable and systematic measures of new firm formation. Those that have developed such measures typically fail to discriminate among types of businesses, which means that small service establishments swamp entrepreneurship of the Schumpeterian sort, which is of most interest in explaining regional economic growth.

High Technology Growth and Innovation

In order to overcome this difficulty, I use an indicator of the regional concentration of high-tech firms developed by Ross De Vol and a team of researchers at Milken Institute[16]. I use the following indices to analyze a region's success and potential growth:

High Tech Entrepreneurship Index: Ranks metropolitan areas based on a combination of two factors: (1) its high-tech industrial output as a percentage of total U.S. high-tech industrial output; and (2) the percentage of the region's total economic output that comes from high-tech industries compared to the nationwide percentage. The first factor favors large metropolitan areas, while the second favors smaller regions with large technology sectors.

Innovation Index: This index is a measure of patents per capita, 1990-1999, based on data from the U.S. Patent and Trademark Office. Regions that have a high number of patents per capita are regions that my team and I consider highly innovative.

Diversity

As Jacobs long professed, diversity of people is the catalyst for diversity of thought and innovation. In order to get at this phenomenon from a quantitative perspective, I use a variety of novel indicators to account for the social and economic factors that may condition or affect the process of high-tech entrepreneurship.

Gay Index: Drawing on research by Gary Gates and his collaborators,[17] this index is based on the decennial U.S. Census. The "gay index" is a location quotient ranking of gay households per capita, based on tThe percentage of all U.S. gays who live in the region divided by the percentage of the total U.S. population who live there. If the Gay Index is greater than 1.0, the region has a greater-than-average share of gays.

Bohemian Index: In the same way that the gay population represents a region's openness and tolerance, the Bohemian Index reveals a region's level of aesthetic creativity. The Bohemian Index is a measure of artistically creative people calculated in the same fashion as the Gay Index. The Bohemian Index includes authors, designers, musicians, composers, actors, directors, painters, sculptors, artist printmakers, photographers, dancers, artists, and performers. It is based on the 1990 U.S. Decennial Census Public Use Microdata Sample.

Talent Index: This index is a measure of human capital, based on a region's share of people holding a bachelor's degree and above. It is based on the 1990 U.S. Decennial Census Public Use Microdata Sample.

Melting Pot Index: This index measures the relative percentage of foreign-born people in a region, based on the 1990 U.S. Decennial Census Public Use Microdata Sample.

Composite Diversity Index (CDI): This index combines the Gay, Bohemian, and Melting Pot Indices. The CDI is a unique way to look at many different facets of creativity at the same time. Often, regions that are highly diverse in one element tend to be diverse in our other measurements too.

The Creative Class

The rise of creativity as an economic force has registered itself in the rise of a new class. Some 38 million Americans, or about 30 percent of our workforce, are members of the Creative Class, up from 15 percent in 1950 and less than 20 percent as recently as 1980. Their ranks will swell further as the "creative content" of many formerly rote jobs continues to increase. In order to gauge the level of creativity across the country, I created two new indices:

Creative Class: Creativity has become the most ubiquitous facet of many of our careers today. Scientists and engineers, artists and designers, as well as creative professionals, managers and technicians in many fields who create marketable new forms or work primarily at creative problem-solving are included in my definition of the Creative

Class. This index draws on the Bureau of Labor Statistics OLS occupation categories for the year 1999 as percent of the workforce.[18]

Creativity Index: In order to get at the full magnitude of creativity and its link to entrepreneurship, I combined a number of different indices that are representative of a regions openness, tolerance and innovation. The Creative Index is a composite measure based on four indices for the most current year available: High Tech Entrepreneurship Index (2000), Innovation Index (1999), Gay Index (2000) and the Creative Class (1999).

Entrepreneurship, Innovation, and the Creative Class

Using my measure of the Creative Class and the Talent Index, my research team examined these relationships for the 49 regions with more than one million people in the United States (see Table 1).

Table 1: High-Tech Entrepreneurship and the Creative Class

High-Tech Rank	Region	Creative Class		Talent	
		Share	Rank	Share	Rank
1	San Francisco	34.8%	5	32.3%	5
2	Boston	38.0	3	35.2	3
3	Seattle	32.7	9	26.4	12
4	Los Angeles	30.7	20	17.4	47
5	Washington DC	38.4	1	35.3	2
6	Dallas	30.2	23	27.3	10
7	Atlanta	32.0	16	30.6	7
8	Phoenix	28.6	35	22.0	29
9	Chicago	32.2	14	25.1	15
10	Portland, OR	29.4	30	24.4	17
40	Buffalo	28.9%	33	20.6%	39
41	Oklahoma City	29.4	29	22.9	23
42	Las Vegas	18.5	49	13.9	49

43	Grand Rapids,	24.3	48	20.1	42
44	Providence, RI	27.6	41	21.9	31
45	New Orleans	27.5	42	22.2	24
46	Louisville	26.5	46	19.3	44
47	Jacksonville,	30.3	21	18.7	46
48	Memphis	24.8	47	23.1	22
49	Detroit	31.0	19	20.5	40

The findings indicate that both innovation and the high-tech industry are strongly associated with the locations of the Creative Class and of talent in general. For example, four of the top five regions on the High-Tech Index also rank in the top five for the Creative Class, while three of the top five Talent regions also do so. The correlation between the Creative Class and the High-Tech Index (0.38) are positive and significant.

Economic and Cultural Creativity

I now turn to the less obvious relationship between economic and cultural creativity. In their studies of Chicago, Richard Lloyd and Terry Clark dubbed revitalizing urban areas "entertainment machines."[19] Joel Kotkin found a similar shift to lifestyle amenities as the fuel for urban revitalization in the cities he examined.[20] In a detailed statistical study, Glaeser and his collaborators found considerable support for this view, which they referred as a shift from the producer to the "consumer city."[21] Our Bohemian Index is an improvement over the measures used by these scholars, because it directly counts the producers of cultural amenities using reliable Census data.

Table 2: High-Tech Entrepreneurship and the Bohemian Index

High-Tech Rank	Region	Bohemian Index
1	San Francisco	5
2	Boston	4
3	Seattle	7
4	Los Angeles	10
5	Washington DC	13
6	Dallas	15

7	Atlanta	12
8	Phoenix	23
9	Chicago	26
10	Portland, OR	6
40	Buffalo	46
41	Oklahoma City	47
42	Las Vegas	9
43	Grand Rapids	31
44	Providence, RI	17
45	New Orleans	41
46	Louisville	33
47	Jacksonville	49
48	Memphis	40
49	Detroit	24

The Bohemian Index is strongly related to High-Tech entrepreneurship. Five of the top 10 and twelve of the top 20 Bohemian Index regions number among the nation's top twenty high-technology regions. Eleven of the top 20 Bohemian Index regions number among the top 20 most innovative regions. The Bohemian Index is also a strong predictor of both regional employment and population growth. A region's Bohemian Index in 1990 predicts both its high-tech industry concentration and its employment and population growth between 1990 and 2000. The Bohemian Index correlates with the High-Tech Index at 0.64 and with the Innovation Index at 0.60, and both correlations are statistically significant. This evidence supports the view that places that provide a broad creative environment are the ones that also encourage entrepreneurship, and that entrepreneurship is one dimension of creativity, which is dependent on an environment that encourages other types of creativity

Creativity and Diversity

Economists have long argued that diversity is important to economic performance, but they have usually meant the diversity of firms or industries. The

economist John Quigley, for instance, argues that regional economies benefit from the presence of a diverse set of firms and industries.[22] Jane Jacobs was one of the few who understood diversity more broadly. As Jacobs saw it, great cities are places where people from virtually any background are welcome to turn their energy and ideas into innovations and wealth.[23]

Immigrants as a Source of Diversity

From Andrew Carnegie in steel to Andy Grove in semiconductors, immigrants have been a powerful source of innovation and entrepreneurship. People who choose to leave their countries of origin are predisposed to take risks and can be thought of as "innovative outsiders." It seems obvious too that people and groups facing obstacles in traditional organizations are more likely to start their own enterprises, and the facts bear this out. Roughly one quarter of new Silicon Valley businesses established since 1980, according to Annalee Saxenian's study, a figure that increased to 30 percent after 1995.[24] In *The Global Me,* G. Pascal Zachary contends that America's successful economic performance is directly linked to its openness to innovative and energetic people from around the world. Zachary attributes the decline of once-prospering countries, such as Japan and Germany, to the homogeneity of their populations.[25]

Table 3: High-Tech Entrepreneurship and Immigration

High-Tech Rank	Region	Melting Pot Index
1	San Francisco	4
2	Boston	8
3	Seattle	16
4	Los Angeles	2
5	Washington DC	14
6	Dallas	17
7	Atlanta	31

8	Phoenix	21
9	Chicago	7
10	Portland	24
40	Buffalo	28
41	Oklahoma City	38
42	Las Vegas	13
43	Grand Rapids	36
44	Providence	6
45	New Orleans	26
46	Louisville	49
47	Jacksonville	34
48	Memphis	46
49	Detroit	22

I explore this question with the Melting Pot Index (see Table 3). Four out of the top ten regions on the Melting Pot Index are also among the nation's top ten high-technology areas; and seven of the top ten are in the top 25 high-tech regions. The correlation between the Melting Pot Index and the High-Tech Index is 0.26 and significant.

The Gay Index and Regional Diversity

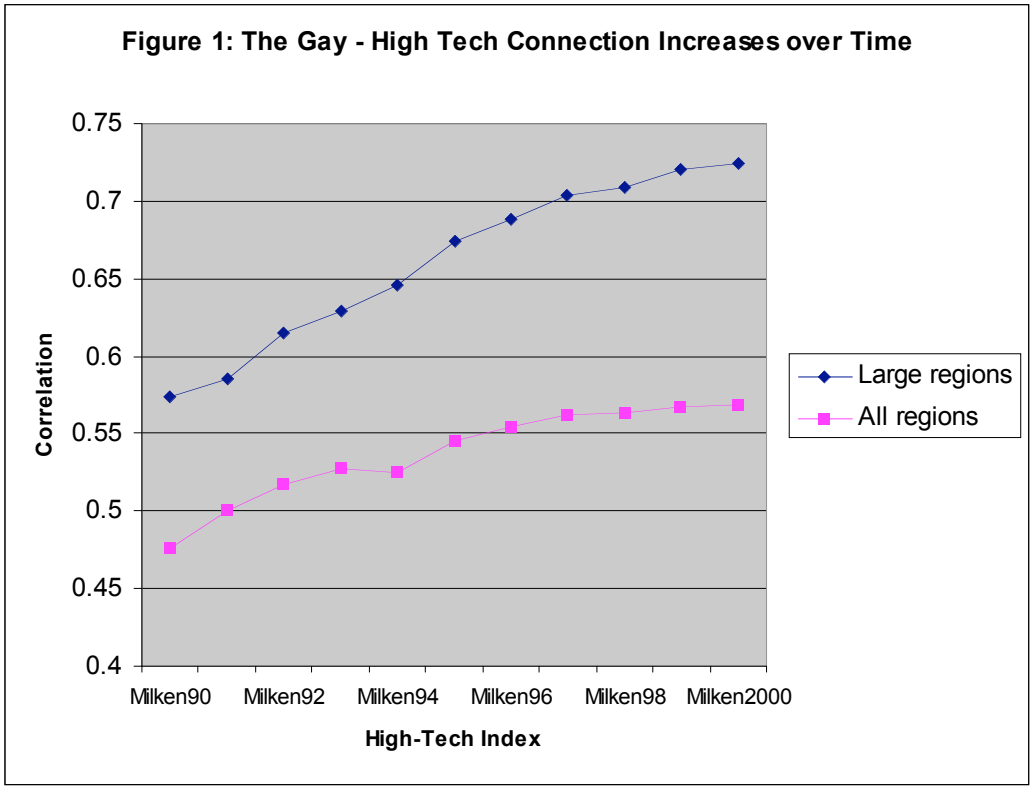
Immigrants are surely important to economic growth, but the gay population is an even stronger indicator of a region's openness, and in turn, its innovative and entrepreneurial activity. Primarily this relationship is due to the fact that the gay population, historically, has been one of the groups most discriminated against. A region that is open to the gay population most likely will have low barriers to human capital for other populations as well. These low barriers to entry are critical for stimulating high-tech growth and innovation. Table 4 provides evidence for this claim.

Table 4: High-Tech and the Gay Index

High-Tech Rank	Region	Gay Index Rank (1990)	Gay Index Rank (2000)
1	San Francisco	1	1
2	Boston	18	22
3	Seattle	5	8
4	Los Angeles	3	4
5	Washington DC	7	11 (tie)
6	Dallas	12	9
7	Atlanta	8	7
8	Phoenix	23	15
9	Chicago	17	24 (tie)
10	Portland	22	20
40	Buffalo	49	49
41	Oklahoma City	40	40
42	Las Vegas	28	5
43	Grand Rapids	32	38
44	Providence	31	32
45	New Orleans	25	11 (tie)
46	Louisville	47	36
47	Jacksonville	38	24 (tie)
48	Memphis	43	41
49	Detroit	42	45

The Gay Index is a very strong predictor of a region's high-tech industry concentration. Six of the top ten 1990 and five of top ten 2000 Gay Index regions also rank among the nations top ten high-tech regions. The Pearson correlation between the 1990 Gay Index and the High-Tech Index is 0.57, and it is 0.48 using the 2000 Gay Index. Both are significant at the 0.001 level. Gays not only predict the concentration of high-tech industry, they also predict its growth. Four of the regions that rank in the top ten for high-technology growth from 1990 to 1998 also rank in the top ten on the Gay Index in both 1990 and 2000.[26] The Pearson correlation between the 1990 Gay Index and high-tech growth is 0.17, and it is 0.16 using the 2000 Gay Index. Again, both are significant at the 0.001 level. In addition, the correlation between the Gay Index (measured in 1990)

and the High-Tech Index calculated for 1990-2000 increases over time *(see Figure 1*). The benefits of diversity may actually compound over the years.



The Gay Index also correlates highly with the Innovation Index. Based on 1999 patents, the correlation is 0.69. Again, this relationship supports my theory that places that are open to different backgrounds and cultures, especially the gay population, are places that have a strong creative, innovative, and entrepreneurial culture.

Diversity in the Broadest Sense

In order to fully measure a region's openness and tolerance for all walks of life, it is necessary to combine several different factors taken into account when measuring diversity. From our perspective the Composite Diversity Index (CDI) provides such a proxy. The CDI, which combines the Gay, Bohemian, and Melting Pot Indices, provides

further support for the argument that openness and tolerance often begets innovation and entrepreneurial activity (see Table 5).

Table 5: High-Tech and Diversity Go Together

High-Tech Rank	Region	Composite Diversity Index
1	San Francisco	1
2	Boston	4
3	Seattle	8
4	Los Angeles	2
5	Washington DC	7
6	Dallas	14
7	Atlanta	13
8	Phoenix	18
9	Chicago	15
10	Portland	16
40	Buffalo	48
41	Oklahoma City	39
42	Las Vegas	26
43	Grand Rapids	36
44	Providence	11
45	New Orleans	27
46	Louisville	49
47	Jacksonville	41
48	Memphis	44
49	Detroit	28

Five of the top ten regions on the CDI are also among the top ten high-tech regions: San Francisco, Boston, Seattle, Los Angeles and Washington DC. The statistical correlation between the High-Tech Index and the CDI rankings is also quite high. The correlation coefficient between CDI and High-Tech is 0.475. The Spearman rank order correlation between the High-Tech Index and CDI is 0.63. Even more compelling, the CDI strongly predicts high-tech growth. When we estimate the effect of the CDI on high-tech growth and factor in the percentage of college graduates in the region, population, and measures of culture, recreation, and climate, the CDI continues to have a positive and significant effect on high-tech growth from 1990 to 1998. What this

research tells us is that diversity may be the most crucial component for regions that hope to encourage entrepreneurship.

High-Tech Entrepreneurship and Overall Creativity

Finally, the Creativity Index provides a single baseline indicator of a region's overall standing in the creative economy, and it is also a strong indicator of its entrepreneurial capacity (see Table 6). Three of the top five regions and five of the top ten regions on the Creativity Index are also among leaders on the High-Tech Index.

Table 6: High-Tech Entrepreneurship and Overall Creativity

High-Tech Rank	Region	Creativity Index Rank	Creativity Index Score
1	San Francisco	1	1057
2	Boston	3	1015
3	Seattle	5	1008
4	Los Angeles	12	942
5	Washington DC	8	964
6	Dallas	11	960
7	Atlanta	14	940
8	Phoenix	19	909
9	Chicago	15	935
10	Portland, OR	16	929
40	Buffalo	46	609
41	Oklahoma City	42	668
42	Las Vegas	47	561
43	Grand Rapids	44	639
44	Providence, RI	40	698
45	New Orleans	43	668
46	Louisville	45	622
47	Jacksonville	37	715
48	Memphis	49	530
49	Detroit	39	708

What Can – and Should-- Be Done?

Entrepreneurship has become the driving force of wealth and growth across the country. As this chapter has shown, entrepreneurship requires a supportive social context that can stimulate and nurture creativity. Openness to people of all cultures and walks of life underlies entrepreneurship. In order to succeed as a region and promote innovation and entrepreneurship, a region must establish a multi-dimensional creative community.

Much of what government does to support economic growth right now is targeted at the wrong goals and often counter-productive. The traditional formula for economic development revolves around the use of financial incentives to attract manufacturing facilities, branch plants, big-box retail outlets and (in its more recent

iterations) call centers. The other main prong of regional development strategy revolves around downtown revitalization through massive public subsidies for sport stadiums, convention centers and retail malls of various sorts. The economists, Andrew Zimbalist and Roger Noll among others, have shown the limits of these strategies. Recent research actually finds that sports stadiums tend to reduce net local income, rather than adding to local economies.[27]

My research indicates that such approaches have little if any effect on the location decisions of the talented and creative people who are the driving force behind regional development. Not once in my focus groups and interviews around the country did anyone mention sports stadiums or traditional economic development packages. In fact, these are the economic development strategies of the industrial and organizational age: new approaches are needed for regions to compete and prosper in the Creative Age.

State and local governments need to broaden their visions of entrepreneurship policy. Over the past two decades, interest in so-called "grow your own" strategies to support local entrepreneurship and the formation in particular of high-tech companies has proliferated, as described by Pages and his colleagues in this volume. The typical formula in this realm revolves around a combination of entrepreneurial assistance, high-tech incubation, technology transfer, and support for local venture capital funds. Josh Lerner and others have shows the limits of these direct entrepreneurial assistance strategies.[28] The gist of their critique is that such approaches are too narrow and too targeted and that local support for venture funds in particular is a problematic strategy.

The main task of regional development policy should be—and is – to set in place the broad environment or ***habitat*** that can attract people and in which creativity and

entrepreneurship can flourish. That means investing in talent as well as technology and ensuring that regions are open and tolerant of diversity and risk taking. What it boils down to from my perspective is moving beyond the notion of a business climate and supplementing or replacing that concept with a "people climate." Cities and regions need to invest in creating the broad people climate that can attract creative and talented people of all sorts. And since people are different, a people climate must be broad enough to appeal to a wide range of them, regardless of age, gender, race, ethnicity or marital status and sexual orientation.

Cities and regions alike must look beyond traditional methods of economic development and start encouraging a creative climate that allows people of all backgrounds to plug into their milieu. Only by doing so will a region become a truly creative and entrepreneurial center.

Appendix:
Ranking Regions on the Creativity Index

Rank	Region	Creativity Index	Rank				
			Overall Rank	Creative Class	High Tech	Innovation	Diversity
1	San Francisco	1057	1	12	1	5	1
2	Austin	1028	2	7	13	6	23
3	Boston	1015	3	6	2	12	41
3	San Diego	1015	3	30	14	13	4
5	Seattle	1008	5	20	3	34	11
6	Raleigh Durham	996	6	5	16	8	52
7	Houston	980	7	22	19	39	16
8	Washington DC	964	9	4	5	85	18
9	New York	962	10	25	15	54	20
10	Minneapolis	960	11	14	28	11	60
10	Dallas	960	11	55	6	40	15
12	Los Angeles	942	13	46	4	79	5
13	Atlanta	940	14	32	7	87	10
14	Denver	940	14	17	65	29	25
15	Chicago	935	16	29	10	56	46
16	Portland, OR	929	18	73	11	32	31
17	Philadelphia	927	19	27	17	36	70
18	Hartford, CT	922	21	16	41	35	61
19	Phoenix	909	22	92	8	46	21
20	Indianapolis	891	24	68	20	55	42
21	Rochester, NY	877	25	34	51	4	115
22	Sacramento	872	26	40	26	103	34
23	West Palm Beach	852	32	123	40	44	17
24	Columbus, OH	832	33	70	48	102	24
25	Kansas City	818	35	24	25	135	73
26	Tampa--St. Petersburg	804	38	76	42	128	26
27	Salt Lake City	798	41	139	35	45	59
28	Charlotte, NC	787	42	69	46	124	51
29	Miami	775	43	99	62	138	2
30	Cleveland	774	44	71	57	42	134
31	St. Louis	770	45	57	24	76	153
32	Orlando	752	49	108	43	164	9
33	Cincinnati	742	52	119	50	23	141
34	San Antonio	737	55	84	34	126	93
35	Milwaukee	736	56	111	61	38	128
36	Pittsburgh	734	57	53	31	50	210
37	Jacksonville, FL	715	64	50	95	168	47
38	Nashville	711	66	79	70	171	45
39	Detroit	708	68	42	147	27	150
40	Providence, RI	698	70	120	80	108	71
41	Greensboro, NC	697	71	128	53	119	78

42	Oklahoma City	668	83	72	72	150	113
42	New Orleans	668	83	122	87	180	19
44	Grand Rapids, MI	639	95	197	76	52	110
45	Louisville	622	100	150	91	131	83
46	Buffalo	609	105	83	71	73	240
47	Las Vegas	561	117	257	74	178	8
48	Norfolk--Virginia Beach, VA	555	120	97	60	200	162
49	Memphis	530	132	184	100	141	119

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