

City Success:

Theories of Urban Prosperity

Choosing the right path to success is one of the most important decisions urban leaders will make. City Success is a comprehensive review of the principal theories of urban success divided into three categories:

Theories of Firms [, **Theories of People** [,
and **Theories of Place** [.

Joseph Cortright,
Impresa Consulting

CEOs for Cities

Made possible with
generous support from

 John S. and James L.
Knight Foundation

City Success:

Theories of Urban Prosperity



Theories of Firms 10

- Business Climate City 12
- Headquarters City 15
- Diversified City 19
- Technology & Transport City 21
- Government City 25
- Cluster City 28
- Entrepreneurial City 31



Theories of People 34

- Human Capital City 36
- Gateway City 39
- Connected City 42
- Creative City 45



Theories of Place 48

- Attraction City 50
- Amenity City 53
- Consumer City 55
- Green City 57
- Distinctive City 59
- Sorting City 61
- Megapolitan City 64

Theories of Urban Prosperity

Introduction

City leaders face a wide range of choices about what to do to improve their economies. They often find themselves buffeted by the latest economic development fad and are pushed to adopt so-called best practices to keep up with their competitors. The objective of this report is to sort through all of the different theories that underlie alternative approaches to economic development and give policymakers a firm footing for deciding what to do.

Our focus on theories may seem academic. But to paraphrase John Maynard Keynes, many policymakers who believe themselves utterly practical in their outlook may unwittingly be the slaves of some defunct urban theorist. Whether acknowledged or not, all tactics aimed at improving urban prosperity imply some theory of what makes cities successful. In our view, policymakers ought to be explicit about what theory they believe and be aware of the strengths and limitations of that theory, including knowing when and where it has worked, and more importantly, where and why it has failed.

The objectives of this work are to develop an outline of the principal theories of urban success that are guiding efforts to revitalize U.S. metro areas today, describe their basic implications for policy, and analyze the underlying arguments and evidence for each theory. The report begins with some general observations and advice to policymakers about how to be good consumers of alternative theories. The body of the report surveys the broad scope of theories that have been offered about cities, dividing them into three principal groups: theories about firms, theories about people and theories about place. Our focus is on urban economies, and we use the term cities throughout this paper to refer to entire metropolitan areas, not merely the central political jurisdiction. Our objective is to explain how entire metropolitan areas prosper or stagnate. As a result, we don't directly touch on issues of the distribution of economic activity within metropolitan economies (although many of these theories bear on that question as well).

We want to gratefully acknowledge the support of the John S. and James L. Knight Foundation, and in particular, Paula Ellis, who challenged us to undertake this ambitious effort. We also want to thank the participants in an expert review panel who commented on an earlier draft of the paper, offering many helpful suggestions for organizing and improving the report. The panelists were Bob Weissbourd, Mary Jo Waits, John Talmadge, Heike Mayer, Bill Bishop, Kip Bergstrom, Pilar Guzman Zavala and Damian Thorman. We received valuable advice subsequently from Paul Brophy, Barry Bluestone, James Rooney and David Luberoff. The work is much improved as a product of their advice.

A Policymakers Guide to City Success

As this report will illustrate, there is no shortage of theories to explain why some urban economies are successful and others are not. The challenge for policymakers, beyond simply being acquainted with all of them, is to discern which are appropriate for the particular situation confronted by their city. The theories presented here cover a wide scope of thinking and factors, and it is difficult to distill them down to a few short lessons or conclusions. However, several key themes emerge when viewing these theories as a group.

Having a clear goal is critical. While there are many theories about “why” urban economies perform as they do, these do not necessarily answer the question of “what” the goal of a successful urban economy ought to be. In general terms, we associate economic success with higher incomes, lower rates of poverty and unemployment, less crime and pollution and higher levels of growth in jobs. It is also likely that most cities will care about the distribution of income and equality of opportunity as indicators of economic well-being. In practice, there may be tradeoffs between these goals, and ultimately this implies some political judgment about what combination of these outcomes constitutes success. In choosing among economic strategies, policymakers would be well advised to be clear about the economic goals they are seeking.

Think of theories as a color palette. In discussions of alternative theories of urban success, there is often a temptation to assert that one theory has displaced another or that some theory is better or more correct than alternatives. We take a somewhat more agnostic view. Each of the competing theories offered here sheds at least some light on past and contemporary patterns of urban development. Rather than thinking

of them as mutually exclusive or necessarily competing explanations, we think that urban policymakers ought to think about theories as an artist would view a color palette. Like an artist, an analyst of urban economies has to select a complementary set of theories that is appropriate to the composition of the urban economy. Different cities are like different subjects and will likely demand different combinations of hue and intensity if their essence is to be rendered correctly.

Common problems, but different opportunities. All cities are affected to varying degrees by a formidable set of common problems and challenges, including globalization, technological change, demographic shifts, the global value chain and evolving product life cycles. But despite the similarity of these challenges, our view is that each city will need to fashion its own distinct solutions. Each city's opportunities depend on a myriad of particular factors. Geographic location, the size of city population and economic base, the city's history and the spatial relation of one city to others in a region can all influence development opportunities. The big challenge in applying City Success is determining which theories are the best fit with the particular characteristics of any given city.

Fitting theory to practice. The methods and objectives of urban researchers and urban policymakers, while related, are quite different. Economists and other social scientists are interested in making generalizations about the processes at work in cities nationally and typically pay little attention to the idiosyncrasies of any particular place (Glaeser 2008). They are looking for the broad trend and how it plays out across the nation's 300 metropolitan areas. In contrast, city policymakers—mayors, business leaders and development officials—are interested in what they can do in *their* cities to make things better. Advice that may be correct for some generic city may not be correct for any particular city.

The work of urban theorists may be primarily valuable for identifying rules of thumb and overall patterns of change, but this may be only partially useful for a particular city. While the performance of most cities will follow overall trends, some cities will be exceptions. For example, one city growth model correctly predicted the overall pattern of growth for most U.S. cities based on factors of educational attainment, climate and industrial base, but significantly under-predicted economic growth in all three metropolitan areas in one state (Glaeser and Shapiro 2001). Knowing when one is likely to adhere to the predictions of a model and when one might be one of the exceptions is critical to policy.

Sharp turns ahead? As presented in the academic literature, many theories give the impression that economic development is a deterministic process and that individual cities have little opportunity to affect global trends. But much of the statistical analysis of city development is essentially looking at past patterns. Extrapolating these results to the future—an out-of-sample prediction—may be uncertain. The models work best when they address shorter periods of time in which long-standing trends continue to unfold smoothly along a clear trajectory. The models work poorly in predicting responses to disruptive change or discontinuities. When the economy experiences a major change, as with the advent of information technology or from the emergence of new competitors through globalization or rising energy prices or the falling value of the U.S. dollar, this may fundamentally change the factors determining urban success.

Are city economies one hit wonders? The hardest thing for a city to do may be to transition from one source of economic strength to another. The growth stories of many cities can be encapsulated in a single critical economic event. One cannot explain the Pittsburgh economy without reference to the steel industry or talk about Detroit without reference to automobiles. But as those industries decline, can the cities where these industries dominated reinvent themselves and their economic bases? It may be relatively rare and traumatic. Boston, for example, has reinvented itself several times, most recently moving from a declining manufacturer of textiles and apparel to a burgeoning center for higher education and knowledge-driven industries like electronics and biotechnology. The area's relatively high levels of educational attainment appear to have been one key to this transformation (Glaeser 2004).

Timing matters. It is possible, in retrospect, to identify successful cities and deduce the conditions and strategies that enabled their success. For decades, people have studied the growth of Silicon Valley and tried to emulate aspects of its development process. More recently, many cities have tried to emulate the success of Boston, San Francisco and San Diego in building biotechnology industry clusters. And while there was little to dictate the future location of the semiconductor industry in the 1950s or the biotech industry in the 1970s, the situation is very different today. Some economic trends create natural first mover advantages or produce "lock-in," where activity clusters in a single location. Strategies that worked when a trend was just emerging or when an industry was in its infancy may not work today. Building railroads in the 19th century mattered greatly to city success. It is doubtful that building a new railroad today would generate another Denver or Chicago.

For all these reasons, cities need to avoid fads and copycat policymaking. Some theories become suddenly fashionable and then are widely copied among cities. Fashions change more often than opportunities for cities to change their economic bases, and what works in one city often will not work in others. One thing urban theorists need to do is tell policymakers that there are no magic bullets (Storper and Manville 2006).

Is the World “Flat” or “Spiky”?

What does this mean for cities?

One metaphor for economic development has crept into the popular lexicon from Thomas Friedman’s book “The World is Flat” (Friedman 2006). In its simplest terms, this view holds that because of globalization, different places around the world now compete, on a more or less equal basis, for all economic activity. Friedman warns that every developed country—and by implication, every local economy—stands to be thrown into direct competition with much lower cost businesses and workers in China, India and other developing countries. The contrasting view is provided by Richard Florida, who argues that the world is actually spiky (Florida 2006). Florida notes that key correlates of prosperity - the talented workers and the inventors of new ideas - are disproportionately concentrated in just a few cities around the world. Florida’s view, echoed in part by the observation that talented people are concentrating in some cities (Glaeser and Berry 2006), theories of superstar cities (Gyourko, Mayer et al. 2006) and Bill Bishop’s book “The Big Sort” (2008), suggest that the key intellectual assets of the knowledge economy are becoming increasingly concentrated in fewer leading places.

Both of these viewpoints pose real challenges for those who would design economic strategies for cities. The problem is particularly perplexing for cities “in the middle”—places that are not the superstar cities atop some spike of talent, but who face potential competition from low-cost producers elsewhere.

The answer to this conundrum is likely to be found in understanding and exploiting a city’s cultural, economic and geographic distinctiveness as a source of competitive advantage. Even though only a few places realistically have a chance to be competitive in a global market for industries like finance (New York) or media (Hollywood), there are many smaller industries and specializations that provide an ample source of economic activity to drive a local economy. And evidence shows that different cities develop and

flourish because of their ability to define and improve their distinctive advantages, like Memphis in air freight or Las Vegas in gaming and entertainment. A strategy that identifies a city’s own special “small spikes” can help it stand out from the flat world, even though its scale may be much less dramatic than in the “superstar” cities.

In “Murder on the Orient Express,” Hercule Poirot was baffled because the clues to the crime pointed in so many different directions. None of the suspects could be ruled out as the murderer. The solution, ultimately, was that everyone did it. The same may well be true of these competing theories of urban success. None can be ruled out, and it may be the case for any city that it is not one theory that is the answer but several.

Cities, as it turns out, may be simply the opposite of Tolstoy’s families. In “Anna Karenina,” Tolstoy famously observed that happy families are all alike in their happiness, while each unhappy family is unhappy in its own way. In contrast, while troubled cities may exhibit many of the same symptoms, successful cities are successful each in their own way. The challenge for cities may be to find their own unique combination of theories for achieving success.

Primary Connections Between City Success and the Four Dimensions of City Vitals



The **Talented** City



Theories of Firms

Business Climate

Headquarters

Diversified

Technology & Transport

Government

Cluster

Entrepreneurial

Related

Related



Theories of People

Human Capital

Gateway

Connected

Creative

Critical

Critical

Critical

Critical



Theories of Place

Attraction City

Amenity City

Consumer City

Green City

Distinctive City

Sorting City

Megapolitan City

Related

Related



The **Innovative** City



The **Connected** City



The **Distinctive** City

| | | |
|----------|----------|----------|
| | | |
| | Critical | |
| | | Limiting |
| | Critical | |
| Critical | | Critical |
| Critical | | |
| Related | | |
| | Critical | |
| | Critical | |
| Related | Related | Critical |
| | | Critical |
| | | Critical |
| | Related | Related |
| | | Critical |
| | Related | Critical |
| | Critical | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Part One: Theories of Firms

Business Climate City 12

Headquarters City 15

Diversified City 19

Technology & Transport City 21

Government City 25

Cluster City 28

Entrepreneurial City 31



Theories of Firms

A first set of theories centers on the economics of firms. What are the characteristics of cities that enable businesses to be successful? This set of theories focuses on the decisions of firms and the ways in which corporate organization and changes in technology and globalization affect a city's economic development.

Business Climate City

Theory: Cities succeed because they are inexpensive and convenient places to do business. They have low taxes, cheap labor, abundant land and few regulations.

This theory focuses on geographic variations in the costs of doing business with an emphasis on costs influenced by government policy, including taxes and regulations. A key assumption is that businesses are relatively indifferent among alternative locations, and that all other things equal, they will gravitate to the region with the lowest prices.

Policy Implication: Business climate theory implies that cities can improve their economies by lowering the cost of doing business. Tax cuts and policies that reduce public service costs and result in lower wages and rents are often part of a business climate-driven approach.

Analysis: This theory is still prevalent among business groups and in many political discussions. In a global economy, though, cities in developed economies like the U.S. can't be the cheapest location, so they have to offer a different value proposition.

In practice, this theory is often advanced by indices that rate and rank different jurisdictions based on variations in a range of inputs and factors, including wage levels, rents, energy costs, tax levels, workers compensation rates and so on. Places with lower costs and prices are rated as having a better business climate than places with higher costs. The business climate argument is frequently embedded in published rankings that show how costs or a composite of costs compare across cities. These get wide media attention, and include the Small Business Survival Index, the Beacon Hill Institute Competitiveness Index, Forbes Best Cities for Business, the

Economic Freedom Index, and the Cato Institute's Fiscal Report Card. A good example is the Tax Foundation's State Business Tax Climate study. It computes the amount of taxes levied on businesses as a share of state domestic product, giving high rankings to states with the lowest shares of taxation on business (Dubay 2007). One analysis of these indexes found that none of them had any consistent correlation with state economic growth (Fisher 2005).

One important conceptual problem with one-size-fits-all business climate indices is that different businesses can have radically different, even conflicting, notions of what constitutes a favorable business environment. One detailed comparison of tax systems among western states showed that, depending on a business' size, capital structure and industry, states that were the highest tax location for one business were the lowest tax location for other businesses (Washington Department of Revenue, 1996).

The business climate perspective often reinforces the view that businesses move frequently among places and that differences in costs of doing business between jurisdictions are important factors in choosing where they locate. In fact, relatively few businesses ever move outside the area in which they are established. Over a three-year period, about 3/10ths of 1 percent of U.S. businesses made an interstate move, and many of these were to locations in adjacent states within a single metropolitan area (Brandow 1999). In Silicon Valley—a region of famously high costs and the frequent target of industrial recruiters promoting lower-cost alternative locations—relatively few businesses move away. Over a 10-year period, fewer than 3 percent of all of Silicon Valley's high-tech establishments relocated outside of the region, and of these, fewer than a third left the state of California (Zhang 2003).

One implicit assumption of business climate studies is that the difference in measured prices among jurisdictions doesn't represent important qualitative differences in what is being purchased. The variation in rents (or land prices) among jurisdictions may reflect differences in the productivity of alternative locations. Businesses willingly pay high rents to locate in places that are close to lots of customers and workers. As Nobel laureate Robert Lucas famously observed:

"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... What can people be paying Manhattan or downtown Chicago rents for, if not being near other people?" (Lucas 1988)





The logic of the business climate theory is that all of the important differences among places are captured in the measured price differences of ubiquitous

characteristics. At its root, the business climate theory is a kind of “all other things equal” argument about urban success. If we assume that all other factors are equal, then it does stand to reason that observed differences in prices for land, labor (wages) or government services (taxes) ought to be a powerful influence on the location of economic activity. The weakness of this approach is that it is seldom the case that “everything else is equal.” There are many other important qualitative differences among places that serve as the basis for economic competition. These other qualitative differences are the basis of most of the other theories explored in this report.

Questions to Consider:

- *Can my city be the cheapest place to do business for any industry?*
- *If so, can we sustain that position over time?*
- *Do we want to be the cheapest?*
- *What are the implications for education (essential to building the talent pool) and other public amenities if my city is the cheapest?*

Business Climate City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|--|---|---|
| | | | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Headquarters City

Theory: Cities succeed because they are the command and control centers for capitalist enterprises. As the economy has become more global, a few cities have achieved dominant positions, and this process has eroded the economies of non-leader cities. Success can be measured by counting the number of corporate headquarters or closely related professional service (legal, accounting) firms.

Policy Implication: This theory implies that city economic success depends on getting to the top of the value chain for corporate decision making. Arguments are often made for tax breaks or other concessions for corporate headquarters (a narrower variant of the business climate theory), but for the most part, it is recognized that location patterns of headquarters are shaped by scale (city size), availability of skilled workers and related professional service firms. Air transportation and amenities (especially those of the sort that might appeal to a CEO) are also thought to be important to headquarters location.

Analysis: Corporate headquarters sit atop the “value chain” of capitalism and are the icons of the economic system. With globalization of the economy and the consolidation of many industries, the power of larger corporations appears to be increasing. The traditional headquarters firms of many city economies—banks, utilities, hospitals, department stores—have been merged into much larger national and international businesses, resulting in the decline in the number of business leaders with roots in a local economy. The CEOs of these consolidated firms appear to command much more power (and receive considerably higher compensation). These large firms, particularly the publicly traded ones, capture the attention of the business media.

All of these trends seem to imply that the cities that can be the preferred locations of corporate headquarters will have significant economic advantages.

Some have argued that the processes of globalization and industry consolidation have produced a few winners and many losers, with a few cities emerging as “global cities,” enjoying concentrations both of headquarters firms and very high-value professional, financial, legal and business services (Sassen 2001). Sassen argues that the economy has become increasingly “financialized”—that important decisions are made by a few large corporations that control and decide financial transactions and that these functions have become increasingly concentrated in just a few global cities. Sassen claims that the concentration of high-income professionals in these global cities has caused growing inequality. Others argue that the same processes are at work in cities of all sizes. Indeed some other, smaller cities have higher concentrations of financial and professional services, and patterns of wage and income inequality in so-called global cities are no different than for the overall U.S. economy (Storper 1997). And while it may be the case that some headquarters operations may be more centralized in a handful of global cities, the globalization of the economy has increased the international interactions in many businesses and communities. As a result, international connections and the openness of cities to relationships and interactions with people around the world is an increasingly important ingredient in community economic success (Kantor 1995).

Business relocation is remarkably rare. (See discussion under business climate.) The relocation of corporate headquarters is rarer still. One study identified 1,245 corporate headquarters of firms with worldwide employment of 2,500 or more in 1990, and 1,703 such firms in 2000. Excluding mergers and acquisitions, 100 of these moved during the decade (Klier 2006). Cities are much more likely to get additional headquarters by growing them than by attracting them from other places. Most corporate headquarters are located in the state or metropolitan area where the company was founded. Indeed, over the past decade, the San Francisco Bay area recorded the nation’s largest increase in the number of large corporate headquarters, principally because of the success of high-tech firms founded there in earlier years (Testa 2006).

Most firms tend to locate their headquarters relatively close to their operational base. Firms that establish headquarters in locations away from their operational base appear to place a premium on larger cities and locations that provide close proximity and face-to-face interaction with a range of business and professional service providers. In general, only relatively large firms’ headquarters are widely separated from their operational base (Ono 2006).

The economic benefits of acquiring corporate headquarters in a community appear to be diminishing. As large corporations downsize, de-layer and outsource operations, the number of jobs associated with the headquarters itself is much smaller than in years past. The most prominent corporate headquarters relocation of the past decade, Boeing’s move from Seattle to Chicago in 2001, represented the relocation of about 500 jobs (Katz 2002). In some cases, corporate headquarters may be only a tiny fraction of corporate employment and may not even include all of a company’s leading managers. For example, while Intel is headquartered in Santa Clara, Calif., its largest worldwide operation is in the Portland, Ore., metro. It gets a majority of patents from its Oregon operations, and at various times its Chief Financial Officer and Chief Technology Officer have both been based in Oregon rather than California.





Some speculate that the vertical disintegration of companies (physically separating different corporation functions into different locations) is leading to the functional specialization of metropolitan areas. Some metro areas specialize in production, others in distribution, and still others in headquarters related activities. In effect, cities may be developing new industry clusters around these functional specializations (Duranton and Puga 2005).

The decline in the number of locally headquartered firms with roots in the local community is visible and widespread. There are simply fewer local banks, utilities and department stores heavily engaged in civic affairs and contributing to local philanthropy. Many of the new firms that have taken their place may have stronger interest in the global economy than in local affairs and see little reason to engage locally. The headquarters operation everywhere is a leaner and meaner affair than in the heyday of the big, vertically integrated corporation. And while many cities would like to somehow replace the loss of these corporate icons, relatively few firms relocate from place to place, and those that do represent remarkably few jobs. Aside from a few cities that have already established strong positions as leaders, it seems unlikely that the growth of headquarters operations will be an important driver for many metropolitan economies in the years ahead.

Questions to Consider

- In a merging, converging world with fewer headquarters, where can my city compete in this declining market?
- Do we have the professional services necessary for headquarters companies?
- Do we have the educated and professional labor force typically required for headquarters companies?

Headquarters City Primary Connections

| | | | |
|--|---|---|---|
|  |  |  |  |
| Talented | Innovative | Connected | Distinctive |
| Related | | Critical | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Diversified City

Theory: “Economic diversification” is one of the most frequently used buzz phrases in economic development. It is widely assumed that cities will achieve better economic performance if they diversify their economies. Greater diversity is associated with a more stable economy.

Policy Implication: Cities should seek to attract or develop industries different from the ones that currently drive their economies.

Analysis: There is some evidence that cities with more diversified economies are more productive and that their workers earn higher wages (Quigley 1998). The observed correlation between diversity and economic performance may be largely because larger cities are more diverse (Essletzbichler 2005).

For communities that are dependent on a single industry, especially when that industry is cyclical or declining, economic diversification makes a lot of sense. The quintessential mill town lives or dies with the mill, and developing other sources of economic activity may be essential to survival. The situation may arguably be similar for towns with large military bases. But for larger cities with robust economies, it is not clear that increasing diversification will improve local performance.

This theory makes a direct analogy to portfolio theory—more diverse investment portfolios have lower variance. It is not clear that city economies are analogous to stock portfolios. On one level, the diversified city prescription is the inverse of the cluster city prescription. It suggests that cities grow (and should seek to grow) by becoming less specialized. Taken literally, the advice to diversify one’s economy would imply that Seattle would be better off if Boeing or Microsoft had fewer employees because then one would be less dependent on these industries (Cortright and Mayer 2002a).





While the argument for economic diversification is based in part on an analogy to portfolio theory, it is typically the case that most investors have a local industry bias. (Their financial portfolios are more weighted to local than non-local businesses.) While this may appear to be economically irrational, if investors have better information about local than non-local investments, it may, in fact, be a higher return strategy (Goetzman, Massa et al. 2005). What is true for local investors may be true for local governments. Working with industries you know may provide higher economic returns than seeking to develop an industry you know nothing about.

The observation that more diverse cities have better performing economies, while true, may be of limited policy relevance if cities lack the tools to materially change their economic base. Unlike a stock portfolio where investors can simply buy and sell different stocks, radically changing their investments at very little cost, there is no way for cities to buy and sell their economic base. A city's economic base may be more akin to an individual worker's human capital: it is something she or he can add to at some expense over time. And even a city that changes its economic base may not be competitive with other places.

Questions to Consider:

- *Is my city's economy exposed to unusual or unacceptable risks because it relies on a particular firm or industry?*
- *What kinds of skills and capabilities exist within my city's existing industries? Can those skills and capabilities be redeployed to power new industries?*
- *Are my city's best opportunities for development to extend current areas of specialization or develop entirely new specializations?*

Diversified City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|--|---|---|
| | | | Limiting |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Technology & Transport City

Theory: Cities succeed because they are at the hub of transportation and/or communication networks. Cities with superior infrastructure (ports, airports, railroads and highways) perform better than other cities.

Policy Implication: This theory implies that cities should invest in infrastructure that enables the movement of goods, people and information. The technology and transport theory is used to justify a wide range of investments, including ports, airports, highways, and more recently, telecommunications systems.

Analysis: This view of economic development has strong roots in historical observations about the growth and development of cities in the United States. Many of the nation's earliest settlements were located in places with great natural harbors. In the 19th Century the location of the railroad network was pivotal in the growth and development of many cities, especially in the West. Being at the hub of important transportation networks plays a key role in the economies of several cities in the United States. On the U.S. West Coast, the ports of Los Angeles and Long Beach have become the dominant handlers of exports from Asia and account for a majority of container movements, even as their share of coast-wise traffic continues to increase (Pacific Maritime Association, 2007). Containerization and improving information technology have resulted in an increasing concentration of freight movement in fewer "load center" ports, magnifying the economic importance of transport for some cities and lessening it for others (Kuby and Reid 1992).

Many have applied this analogy to more contemporary forms of infrastructure, arguing that the location of airports or high-speed internet connections will similarly

dictate the location of economic activity. Several places have sought to develop expanded or freight-only airports as a way of stimulating economic activity (Kasarda 1998). While a few cities, like Memphis, have emerged as national and international hubs with considerable concentrations in distribution activity, other places that have tried to emulate this development pattern by investments in infrastructure have largely failed (Carey and Stanley 2007), (Regional Technology Strategies Inc. 1999).

The cost of transporting physical objects (inputs and products) is a small and declining share of the cost of producing most goods. Over the past century, the cost of moving a ton of freight has declined by more than 90 percent in real terms (Glaeser and Kohlhase 2003). Freight transportation costs are arguably less important to urban success now than at any time in history. And economists have long held that the role of goods movement is essentially irrelevant to industrial location. Writing almost a half-century ago, Benjamin Chinitz concluded that nobody believes that the logic of location is dictated by transportation infrastructure for most manufacturing industries, and that as time goes by, the fraction of industry that is transport-oriented is declining (Chinitz 1961). A few places occupy important nodes in transportation networks, but in most cases this is due as much to their large local population base as to the capacity of the infrastructure (the ports of Los Angeles and Long Beach). This is not to say that transportation costs and technology don't have an impact on urban form. The interstate highway act played a key role in encouraging automobile travel and decentralized housing (Fishman 2000). In addition, the combination of the electrification of industrial machinery and the advent of interstate highways and trucking led to the decentralization of manufacturing activity within metropolitan areas.

A parallel argument has been made for communication technology, especially high-speed internet connections. Some have argued that the growing availability of high-speed communication technologies will eliminate the need for many businesses to be located in cities (Blakely 2001). An eerily similar argument was made following the advent of electricity early in the 20th Century. It was imagined that freed from the need to be located near large coal-powered factories with belt-driven machinery, electricity would enable a return to rural cottage industry manufacturing (Mumford 1938).

It may be the case that improved telecommunications is a complement to the benefits of proximity and face-to-face interaction rather than a substitute for it. Instead of rearranging economic advantage, it may intensify the advantage of places that already have established concentrations of activity (Moss 1998). To be successful in the knowledge economy, workers and businesses need both "buzz" (close, intense, local interaction) and pipelines (links to other places in the world

with similar kinds of intense local interaction) (Storper and Venables 2003). The growth of commercial applications of the internet was concentrated in three cities (San Francisco, Los Angeles and New York), and in each city, the leading applications mirrored local economic specializations (technology, entertainment and finance, respectively) (Zook 2000). A study of broadband deployment in Canada showed that smaller communities that received broadband experienced a decline in new business investment, while larger cities enjoyed an increase (Cumming and Johan 2006). Modern communication infrastructure is effectively place-neutral for urban areas. Cities don't gain competitive advantage from being the hubs of data traffic the way they did for railroads or ports.

For a few cities that have established positions, transportation would seem to be a key component of their economic health. Southern California benefits from its dominance of container trade with Asia and as chief distribution point for these products to U.S. markets. Memphis is a key center for airfreight because of its location as FedEx's hub. Chicago, Dallas and Atlanta are all key hubs for passenger air transportation, with closer proximity to all other U.S. airports, measured in travel time (Grubestic 2007). Whether other cities can use investments in transportation infrastructure to challenge these leaders is uncertain at best.





Infrastructure investments seem to have their greatest influence on economic development when they are part of major technological or institutional shifts. Steam displaced sail, railroads displaced canals, trucking displaced railroads, and in each case, altered the opportunities for economic success of different cities. Future technological and institutional changes could create similar opportunities. For example, the advent of more widespread high-speed passenger rail in the United States could lead to the tighter integration of urban economies and influence future industrial location (Regional Plan Association 2007).

Other kinds of technology can also play crucial roles in shaping regional patterns of economic development. Prior to World War II, almost no automobiles and few private residences, offices or stores had central air conditioning. Improving technology, rising incomes and falling real energy prices made air conditioning much more widely available. The advent of inexpensive air conditioning dramatically changed the desirability of living in the South, with its hot, humid summers (Fishman 2000). In 1957, The Federal Housing Administration agreed to allow central air conditioning to be financed as part of its mortgages (Waits 2000). In part because of this improved habitability, in the 1960s for the first time since the Civil War more people moved into the South than out (Shi 1998).

Questions to Consider:

- *When is additional infrastructure disruptive, and when is it marginal?*
- *Does my city have a true competitive edge in its technology or transport infrastructure?*
- *Are there forces at work (rising gas prices, larger containers) that may dramatically shift infrastructure needs?*

Technology & Transport City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|--|---|---|
| | | Critical | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Government City

Theory: Cities succeed by attracting investment or subsidies from the federal government.

Policy Implication: Cities should work to encourage federal policies and expenditures that bolster their local economies.

Analysis: While it may seem counter intuitive to speak of government-driven economic activity as one of the theories of how firms influence urban economies, the role of government spending, at about 20 percent of gross domestic product, is hard to overlook as a source of economic activity. Allocation of federal funds is critical to the growth of some industries. These include direct government expenditures (military bases), entitlement programs (Social Security, Medicare), research (National Institutes of Health funding), and government contracts (military procurement). It would be hard to explain Washington, D.C.'s economy without reference to the role of the federal government. Where this significant share of GDP gets spent has a big impact on many city economies. The most obvious and explicit economic targeting is in the form of earmarks —appropriations designated for specific projects that are incorporated in key spending bills (especially defense and transportation).

The role of federal spending in contributing to local economic development is most apparent in recent transportation spending bills passed by Congress. The latest bill contained more than 6,300 earmarks, amounting to more than \$20 billion, including the now infamous “bridge to nowhere” (Puentes 2007).

Federal procurement—purchases of goods and services from private sector firms—can directly stimulate local economies. Federal defense spending arguably played a key role in the development of the U.S. aerospace and electronics industries. Cities that are home to major government contractors, like Boeing in Seattle, got

a major boost from federal spending, which helped fuel the subsequent growth of commercial activity. In this way, federal contracts have helped spur the concentration of technology industries in some regions of the country (Markusen 1991).

Just as federal defense contracts have been important to the formation of knowledge-based industries, federal funding for medical research has helped spur the development of biotechnology industries. The federal government spends more than \$20 billion annually on medical research. More than 60 percent of that goes to nine areas that are the nation's leading centers for commercial biotechnology (Cortright and Mayer 2002b).

In the past few years, federal spending for homeland security has flowed disproportionately to a few metropolitan areas, most prominently the nation's capital. Between 2001 and 2004, firms in the Washington, D.C., metropolitan area, including suburban areas in Virginia and Maryland, accounted for a majority (52 percent) of the more than \$5 billion spent on procurement related to homeland security (Mayer 2005). Even though the federal workforce in the capital region was declining in the 1990s, from 396,600 in 1993 to 328,900 in 2001, federal procurement spending increased approximately 100 percent from \$15.6 to \$31.5 billion with the full-time equivalent number of contractor jobs growing from an estimated 194,500 to 389,000 workers (Fuller 2002). Federal spending, especially procurement, was a major reason that the Washington economy outperformed that of other metropolitan regions during the national recession that began in 2001.





Even expenditures that are allocated by formula—so-called entitlement funds, like Social Security and Medicare—can have important implications for different regions. Social Security obviously flows to states like Maine, Florida and Arizona with high proportions of older citizens and retirees. Medicare has an even more disproportionate allocation. Not only does the share of the population enrolled in the program vary from state to state (roughly following the size of the older population), but utilization and reimbursement rates vary substantially. The combined result is that Medicare is more than twice as big a share of some metropolitan economies than others.

Government spending seems likely to continue to be an important part of the nation's economy, with the result that many city economies will continue to depend on government spending on state capitals, universities, research institutions, prisons, military bases, procurement and health care. For many places—some state capitals, university towns—such spending may be the dominant factor in their economic futures, while for most cities, government spending will play a supporting or secondary economic role.

Questions to Consider:

- What role does government spending play in my city's economic growth?
- Are there new categories of government spending (such as homeland security) that my city could capture?
- Is government spending (such as Medicare, Medicaid) at risk?

Government City Primary Connections

|  |  |  |  |
|---|---|---|---|
| Talented | Innovative | Connected | Distinctive |
| | | | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Cluster City

Theory: Cities succeed because they have agglomerations of particular industries. The interaction of related firms, workers and institutions in urban environments makes businesses more successful and encourages urban growth.

Policy Implications: This theory implies that cities should understand which industries represent clusters or specializations locally, and that the region should work to develop or expand these clusters. The theoretical implications for attempting to grow clusters or start clusters are less clear. Cluster theory suggests that cities that do not already have strong agglomerations of a particular industry will find it extremely difficult to develop them. Cluster strategies need to be sensitive to the life cycle of an industry (whether it is emerging, growing, established or mature) and candid about whether a particular location has significant competitive advantages over other alternative locations for an industry.

More broadly, clustering implies that different metropolitan areas will tend to specialize in different kinds of activity. Not every metropolitan area will have the same sources of growth. For example, some places will be centers for the biotechnology industry, while others may specialize in financial services, entertainment or information and communication technology.

Analysis: “Industry cluster” is a broad concept rather than a precise term. A cluster consists of firms and related economic actors and institutions that draw productive advantage from their mutual proximity and connections. While based on well-established economic theory about agglomeration economies, the notion of clusters has gained wide acceptance in economic development circles since the publication of Michael Porter’s “Competitive Advantage of Nations” (1990).

Clusters are the principal analytical tool for understanding metropolitan economies. Most metropolitan areas have their own distinctive set of export or traded-sector industry clusters, and these clusters are key determinants of regional economic performance. A fundamental component of any regional economic development strategy should be identifying and working with the industry clusters that constitute a region’s export base.

One of the challenges of incorporating clusters into economic strategy is that the geography of clustering varies from industry to industry. Some clusters are geographically tightly focused, while others like the U.S. automobile industry span two interstate highway corridors and several states (Klier 1999). Particularly in knowledge-based industries, where face-to-face interaction is important, very close proximity may be critical to cluster success. A quintessential example is Hollywood, where continually changing constellations of actors, writers, directors, producers and dozens of other specialists are recombined picture by picture—a process dependent on face-to-face interaction (Scott 2004). One study of biotechnology industry clustering showed that the advantages of proximity were concentrated in places where firms were 500 meters or less from other firms (Aharonson, Baum et al. 2005). Silicon Valley venture capitalists are said to operate on a 20-minute rule: startups that are farther than 20 minutes away from their offices don’t get funded (Stross 2006).

Metropolitan areas can use a wide range of techniques to identify their industry clusters, beginning with quantitative analyses of employment and patent data that reveal industry and knowledge specializations (Hill and Brennan 2000). But cluster analysis is as much an art as a science, and quantitative work needs to be combined with close interaction with local firms and other actors to identify the actual contours of a local cluster and its challenges and opportunities (Feser and Luger 2002).

While the concept of clusters has achieved widespread prominence in the past decade in economic circles, economic practice has yet to fully embrace some of its implications.





One of the big questions in economic development policies is to what extent, if any, cities can create clusters. The obvious success of Silicon Valley as a cluster in the 1990s prompted many places to seek to create their own high-tech clusters, including the Silicon Forest, Silicon Alley, Silicon Bayou, Silicon Prairie and others. Many jurisdictions are attempting to duplicate the process by which they believe clusters formed in other regions. Such strategies often overlook the many critical, irreproducible conditions that are required for cluster formation (Fogarty 1999). For example, most states and large metropolitan areas are trying to develop biotechnology industry clusters, despite the fact that the industry is highly concentrated in just nine metropolitan areas and has grown even more concentrated in those cities over the past decade (Cortright and Mayer 2002b).

Clustering is often viewed as a by-product of the co-location of suppliers and original equipment makers in manufacturing industries, and while this is one key component of clustering, there are good examples of clustering in service industries as well. Las Vegas and Orlando have emerged as dominant clusters in the nation's convention industry, accounting for a large and increasing share of total convention business (Sanders 2006). While outsourcing threatens many routine jobs in service industries (call centers, transaction processing), higher-value services are more likely to persist and thrive in places that have strong clusters that facilitate face-to-face interaction (Atkinson and Wial 2007).

Questions to Consider:

- *What are the distinctive industry clusters in which my city is highly competitive?*
- *In what stage of development are those clusters, and what does that suggest for the future?*
- *Do we understand the relationships among cluster participants and where new opportunities may be occurring [and encouraged]?*
- *Do we understand the markets for my city's clusters and how they may be changing?*

Cluster City Primary Connections

| | | | |
|--|---|---|---|
|  |  |  |  |
| Talented | Innovative | Connected | Distinctive |
| Related | Critical | | Critical |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Entrepreneurial City

Theory: Cities are places that give rise to new firms and new work.

Policy Implications: Cities should see themselves as places for the creation of new ideas, new businesses and creative endeavors. Economic development policies should encourage research and experimentation and entrepreneurship.

Analysis: In an increasingly knowledge-based economy, the ability to create all kinds of new ideas is an important source of economic growth and resilience. The juxtaposition of different people and firms within cities stimulates the formation of new ideas. Physical proximity, the built environment, institutional characteristics and social norms found within cities influence this process of idea creation.

Economists are coming to the conclusion that the creation of new knowledge, including everything from fundamental scientific breakthroughs to better ways to sew a shirt, is the driving force behind long-term economic growth (Romer 1986). The process of knowledge creation is not random. Cities play a key role in generating new ideas. As Jane Jacobs pointed out nearly four decades ago, cities mix different people together, and the resulting interactions are a fertile ground for the creation of all kinds of new work. This new work helps drive economic growth, not just in the city, but in the larger world as well (Jacobs 1969).

While it has become fashionable to argue that the combination of globalization and improving communication technologies has erased the importance of place and distance to economic growth (Friedman 2006), in fact, the process of new knowledge creation remains highly concentrated and occurs primarily in cities. It's difficult to measure the process of idea creation, but one good indicator is the location of patents. Patent data show that, far from being a flat world, the geography of new idea generation is highly concentrated in a few cities around the world.



The nation's key assets for creating new ideas are highly concentrated, especially in larger cities. The 100 largest cities account for 78 percent of patents issued, 81 percent of research and development jobs and 94 percent of all venture capital investments (Metropolitan Policy Program 2007).

While perhaps more evident in some industries than others, it cannot be said that innovation or creativity is the exclusive province of some industries (art, writing, entertainment, information technology) and is completely absent in others (manufacturing, restaurants, food distribution). In fact, innovation and creativity are pervasive in a wide variety of industries. In many markets, firms distinguish their products and create value by improving the design, aesthetics and experience around their products, just as Starbucks and thousands of local espresso shops have done with the formerly prosaic cup of java. In this sense, the production of wealth comes not just from labor or raw materials but also from new ways to give people what they want. The economy renews itself by matching creativity and desire (Postrel 2003).

Cities are great places for entrepreneurs, and entrepreneurship is a key factor in city growth. The number of small firms in an industry is strongly correlated to later employment growth in that industry in that city. A city's level of self-employment in 1970 predicted growth in population and income over the next three decades (Glaeser 2007b). For many industries, entrepreneurship is a highly localized process. Even within cities, entrepreneurship varies by neighborhood. Localization economies are important. New firms in an industry tend to be born close to existing firms in the same industry, and the effect of an industry concentration declines sharply with distance (Rosenthal and Strange 2005).





Large firms can rely on an internal network of resources to develop and refine new ideas. The abundance of complementary skills in small firms and professionals in a city enables small firms located in cities to tap the same kind of resources. The resources afforded to firms by city locations substitute for the same capacities that larger firms have to create internally (Forman, Goldfarb et al. 2007). Similarly, the line between entrepreneurs and customers in innovation is increasingly blurred in cities. The depth and diversity of customers in cities is attractive and advantageous to entrepreneurs (a point considered more fully under Consumer City below), and many important innovations are the result of user modifications (von Hippel 2005).

Cities are places that toss different people and ideas together in ways that generate new work and new firms. This process is at work in many urban economies and in many different industries. Its influence is not the exclusive province of so-called creative sectors of the economy (though they may be more prolific and obvious). Cities are good places for consumers to try new things, which make them good places for entrepreneurs to try new ideas and start new businesses.

Questions to Consider:

- *Does my city encourage new business formation, and is it open to new ideas?*
- *Is it easy to start a business here? Are the rules and regulations clear and not onerous? Are tax and regulatory systems, like permitting, free from corruption and influence? Are public sector regulatory decisions timely and reasonable?*
- *Is there a tradition of spin-off activity from current businesses, or do people tend to stay with large firms?*
- *Is the labor market fluid among companies so that workers cross-pollinate their skills and ideas?*
- *Do immigrants and young people readily become entrepreneurs?*

Entrepreneurial City Primary Connections

|  |  |  |  |
|---|---|---|---|
| Talented | Innovative | Connected | Distinctive |
| | Critical | | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Part Two: Theories of People

Human Capital City 36

Gateway City 39

Connected City 42

Creative City 45



Theories of People

A second group of theories deals with the human element of cities and the ways in which the demographic composition, skills and attitudes of a city's residents influence its economic opportunity. Theories of human capital are not entirely separate from other theories of city economic success, and as a practical matter, many strategies will necessarily embrace or intersect with actions that improve worker skills. For example, some strategies aimed at bolstering the role of firms involve worker training and education; similarly a strong place-based strategy works in part by facilitating the attraction and retention of talented workers. Consequently, human capital will be a component or adjunct of even those strategies based on other theories.

Human Capital City

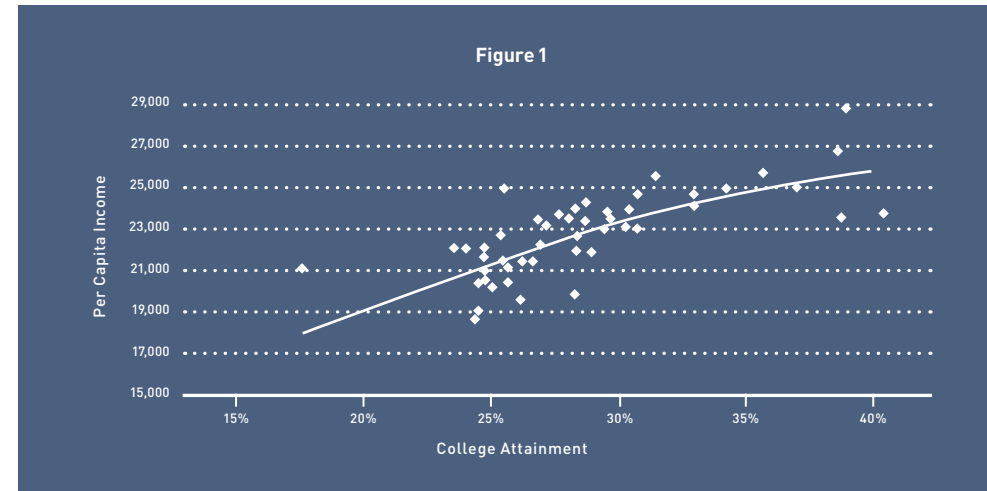
Theory: Cities succeed because they attract talented workers and further develop the talent of their labor force. Workers are more productive in cities than elsewhere.

Policy Implications: The implication of human capital theory is that cities should focus on raising the skills and educational attainment of their populations. Cities can do this in a number of ways: better educating existing residents, attracting new, well-educated residents and discouraging the out-migration of talented workers.

Analysis: Human capital is a key determinant of urban prosperity. Per capita incomes are strongly correlated with levels of educational attainment. Figure 1 shows the correlation between the fraction of the adult population with a four-year degree or higher level of education and the per capita income of the 50 largest U.S. metropolitan areas in 2000. Cities with better-educated populations have significantly higher per capita incomes.

We use levels of education to measure the amount of human capital, recognizing that years of education are only an imprecise measure and that the choice of any particular threshold (in this case, completion of a four-year degree) is arbitrary. Human capital is much richer and more varied than can be captured in these simple measures. Scholars working in this field have identified a broad set of cross-cutting skills, ranging from the basics (reading, writing and mathematics) to what have been termed the new basic skills: problem solving, teamwork and communication (Levy and Murnane 1996). Most researchers use data on educational attainment because it is more easily and accurately measured.

The level of human capital in a city is the product of many factors. It is influenced, in part, by the level of education infrastructure and investment in the metropolitan area. But because Americans are very mobile, the in-migration and out-migration of



the population also can raise (or lower) a city's average educational level. In addition to formal schooling, workers acquire skills and experience on the job, and cities are important places for such skill acquisition. There is some evidence that, especially early in their careers, when workers are looking to acquire experience and develop their marketable job skills, they are willing to incur the higher costs of living in cities (Peri 2001). It also appears that workers working in cities are more productive than similarly educated workers employed in other locations (Rauch 1993). Part of the improvement in worker productivity is due to the ability of workers to use dense city labor markets to easily move from job to job, exploring different possible careers, both building their skills and ultimately settling in a job that maximizes their productivity (Wheeler 2005).

Cities with higher levels of education not only have higher incomes but faster rates of income growth (Gottlieb and Fogarty 2003). In particular, the presence of a population with college degrees rather than just high school completion was strongly correlated with income growth. For cities, each 2 percent increase in the fraction of the population with a college degree was associated with a 1 percent increase in personal income growth in the 1990s (Weissbourd 2004). The combination of better education and higher productivity not only tends to lead to faster economic growth in better educated cities, it also appears that cities with higher levels of educational attainment are better able to deal with economic shocks (Glaeser 2003).

Migration plays an important role in determining which cities experience increases in human capital over time. The propensity to migrate is related to age and education. Young adults are among the most likely to move across state lines of any citizens, and those

with more education are both more likely to move, and move longer distances (Cortright 2005). The combination of in-migration and out-migration affects a city's endowment of human capital. Talented workers move away from some cities (depleting their supply of human capital) and toward others (increasing their human capital). Amenities appear to be an important factor in influencing this migration (Shapiro 2003).





The migration of talent is also influenced by the changing gender balance in education. As recently as 1960, women were only half as likely as their male counterparts to have completed a four-year degree. Today, in the 25- to 34-year-old age group, women are almost 20 percent more likely to have completed this amount of education (Cortright 2005). As a result, many households consist of a husband and wife who have both completed a college degree. These "power couple" households tend to select metropolitan areas that are large enough to accommodate both of their career objectives. Over time, power couples have become more concentrated in larger metropolitan areas, fueling their growth in human capital (Costa and Kahn 2000), (Chen and Rosenthal 2006).

Human capital appears to be a key ingredient to city economic success, particularly in generating higher incomes for city residents. Cities are places that help create human capital, both through formal education and through experience and selection in the labor market. The ability of cities to retain workers who acquire skills and to attract talented workers from elsewhere is also vital to a human capital strategy.

Questions to Consider:

- o *What is the educational level of my city?*
- o *Is our region gaining or losing talented younger workers?*
- o *How effective are existing educational institutions at upgrading the skill levels of my city's workforce?*
- o *Are we investing in education at all levels?*
- o *Do we have the kind of city that can attract and retain a mobile, educated workforce?*

Human Capital City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|--|---|---|
| Critical | Related | | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Gateway City

Theory: Cities succeed by attracting immigrants from around the world. Immigrants bolster the local labor force and provide entrepreneurship, diversity and global connections that enable cities to grow.

Policy Implications: Openness to immigrants and building on connections between existing immigrant communities and their countries of origin can stimulate population growth in metropolitan areas. On balance, the influx of immigrants tends to produce higher wages and job growth in metropolitan areas, and this is especially the case for those areas that attract highly skilled immigrants.

Analysis: Immigrants have been a major contributor to U.S. population growth in recent years. Overall, 40 percent of U.S. population growth can be directly attributed to immigration. The impact of immigration disproportionately affects the nation's larger cities. In the nation's 17 largest metropolitan areas—those with populations of 2 million or more—27 percent of the population was born outside the United States, a fraction roughly double the national average. Second-generation Americans—those with at least one foreign-born parent—account for an additional 20 percent of the population of these large cities, again roughly double the proportion for the rest of the country (Card 2007).

The pattern of migration has shifted over the past several decades. Traditionally, immigrants entered the United States primarily through a few large Eastern cities and lived primarily in older, inner-city neighborhoods (think immigrants coming to Ellis Island and settling on the Lower East Side of New York). But these patterns have shifted dramatically with more recent migration. Cities whose growth was propelled by migration in the early 20th Century, such as Cleveland and Buffalo, have seen very

limited immigration more recently. Traditional gateway cities like New York continue to be important, but new gateways, like Miami and Los Angeles, have emerged. A third of migration has gone to states that were previously not major immigrant destinations, including Colorado, Georgia and North Carolina. And today's immigrants are now more likely to settle in suburbs than in central cities (Singer 2004).

Immigrants play a key role in expanding the nation's labor supply. As the U.S. birth rate declines, foreign immigration has emerged as the wild card in future projections of labor force growth (Ellwood 2002). Not only are national levels of immigration uncertain in the years ahead, it is difficult to forecast which cities will see the most foreign immigration. Studies of previous waves of immigration find it difficult to disentangle the cause and effect relationships between immigration and city growth, in part, because immigrants are disproportionately drawn to faster-growing cities. But immigrants tend to migrate to cities that already have an established base of previous immigrants (Card 2007).

Immigrants are not merely additional workers. They are also entrepreneurs, creating new businesses and generating new knowledge that gets put to use in the U.S. economy. Immigrants are much more likely than native born residents to start new businesses (Ewing Marion Kauffman Foundation 2008). Immigrants play a key role in the growth of many high-tech industries. Foreign nationals and foreign residents contributed more than half of the international patents filed by a number of large multinational companies including Qualcomm, Merck, General Electric, Siemens and Cisco (Wadhwa, Jasso et al. 2007). The relationships that many immigrant entrepreneurs maintain with their countries of origin facilitate the globalization of U.S. industries. Ties between Chinese and Indian engineers in Silicon Valley and their countries of origin have played a key role in the globalization of high technology (Saxenian 2006).





Immigrants also contribute to metropolitan economic success indirectly by increasing cultural diversity. There is evidence that non-immigrants value cultural diversity. It makes cities more interesting and attractive places to live, and productivity is higher in cities with more immigrants (Ottaviano and Peri 2004). Openness to immigration is one of the correlates of a successful "creative economy" (Florida 2002).

Though frequently controversial, immigration has important impacts on local economies. Immigrants are already an important source of labor for the U.S. economy, and demographic trends promise to make them more important in the future. The evidence of the past few decades indicates that the nation's openness to immigration has been an important contributor to innovation and entrepreneurship. Cities that can navigate the difficult politics of immigration may be well positioned to grow in the decades ahead.

Questions to Consider:

- What role does immigration play in increasing or decreasing the skill level of our region's population?
- Do we understand the skills immigrants possess, and are we putting those to work quickly?
- Does my city easily assimilate new immigrants into the community and the economy?
- Do we make it easy for immigrants to access opportunities to learn English?

Gateway City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|---|--|--|
| Critical | | Critical | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Connected City

Theory: Cities succeed by promoting social capital—norms of cooperation and reciprocity and loose ties that facilitate exchange, opportunity and innovation.

Policy Implications: Cities should work to encourage trust and social interaction. The insights from social capital suggest that civic culture and business culture are not entirely separate, and cities that have good government—open, honest, efficient—will promote the kind of social trust that encourages economic development. Cities that integrate diverse populations effectively will have better functioning economies.

Analysis: A number of scholars have identified the key role that social norms of reciprocity and mutual trust play in facilitating the function of market economies. Robert Putnam's comparative study of Italian regions argued that the flourishing of cooperative behaviors in successful industrial districts was in large part a product of a strong and effective civic tradition in these communities (Putnam, Nanetti et al. 1993). An active, informed citizenry, open and responsive local governments, and widespread participation in community organizations formed "social capital" in northern Italian communities that enabled the commercial cooperation in industrial districts and supportive public policy. In contrast, Putnam found that struggling regions in southern Italy typically lacked the civic engagement and norms of trust and reciprocity and so had few industrial districts and limited economic success.

According to Annalee Saxenian, California's Silicon Valley triumphed over Boston's Route 128 in the development of the personal computer and related technologies in the 1980s because of differences in the business culture of the two regions (Saxenian 1994). While Silicon Valley had an open, democratic culture,

reflecting the "newness" of the region and its residents, Route 128 was influenced by the more formal, hierarchical civic culture of Boston. These differences in local culture, in turn, produced differences in business organization and strategy, social acceptance of risk-taking, and inter-firm collaboration and labor mobility as key factors in shaping this outcome. Silicon Valley firms more quickly adapted to changing technologies and markets because firms had more informal internal practices (supporting innovation) and worked well with outside firms (enabling them to move more quickly), and the region had more entrepreneurs and stronger networks (because people felt free to start their own firms). In contrast, firms in Route 128 were less collaborative and open, thereby inhibiting innovation.

Norms of reciprocity and social interaction are also important to the formation and success of industry clusters. One of the principal forces behind industry clustering is "knowledge spillovers," and these flows of knowledge and ideas between firms are influenced by the formal and informal norms for social interaction (Maskell and Malmberg 1999).

For cities, a key component of social capital is how effectively they bridge disparate racial, ethnic and class groups that make up their populations. Cultural diversity is a double-edged sword for cities. Homogeneity tends to facilitate interaction but impedes adaptability and learning (Putnam 2007).

More broadly, institutions, defined as the combination of formal rules like laws and informal social conventions and attitudes, play an important role in the evolution of economic development. Having institutions and attitudes that encourage knowledge creation and are open to change are critical to economic development (North 1990).

Social capital is so diffuse and pervasive that it may be difficult to easily influence. Putnam's own work suggests that patterns of social capital at the city level in Italy today still reflect the influence of political and economic systems of several centuries ago (Putnam, Nanetti et al. 1993).

Still, it is clear that social capital and related networks play an important day-to-day role in urban economies. Especially in labor markets, people depend on extended informal networks of contacts to learn about and find their way to jobs. There is strong evidence that the relative weakness of these networks among the poor and minority communities is a chief obstacle to improving their economic conditions (Chapple 2006). Cities that are badly fragmented or that have highly concentrated poverty suffer from a deficit of social capital.

While there seems to be broad agreement that social capital is often associated with economic progress, the term itself is often vague and poorly defined. Social





capital is not measured directly, only indirectly through indicators like voting and social interaction. In many cases these indicators are only weakly connected to theoretical descriptions of social capital and may give a misleading view of real world relationships (Sabatini 2006).

Social capital—norms of reciprocity, civic engagement, an open, honest government that deals effectively with change, and a community that provides networks to facilitate exchange—appears to be an important contributor to economic progress.

Questions to Consider:

- *Is my city a place that bridges the diversity of its population?*
- *Are there plenty of ways for people to meet and share ideas across the boundaries of race, income, geography, etc.?*
- *Can we strengthen social networks as a way of improving labor markets?*
- *Do we understand our city's special role in the region, the nation and the world?*
- *How can we strengthen our links to each?*

Connected City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|--|---|--|--|
| Critical | | Critical | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Creative City

Theory: Cities succeed by being places that enable their residents to be more innovative and creative, generating new art, new ideas and new innovations.

Policy Implications: Cities should focus on creative and cultural activity and the persons and industries that populate these fields. Economic development policies should encourage research and experimentation, entrepreneurship and culture. Encouraging the development of arts and cultural industries may require direct rather than indirect policies. Direct public support for the arts can be intrusive, and while effective in supporting mainline institutions (museums, theatre, symphony), it is difficult to recognize and support innovative art. As a result, successful cultural policy must acknowledge the complicated nature of creative production and the ambivalence that cultural producers have toward support and intervention (Currid 2007). Some of the most useful policies will be those that promote social interaction and consumption. Some creative city policies address issues of human capital (attracting and retaining creative workers), and other aspects of creative city policies address creative industries as a particular kind of industry cluster.

Analysis: The creative city has many different aspects. The literature about creative cities addresses three different, but interrelated ways of measuring and describing creativity. Some authors focus on creative industries—businesses that are involved in creating new ideas and cultural content including art, writing and entertainment. The second approach to the creative city is to look at particular occupations that have a high creative component, such as artists, performers, scientists, teachers, researchers and lawyers. (Of course, there is considerable overlap between industrial and occupational definitions. Many, though not all, creative workers work

in creative businesses and vice versa). The third aspect of the creative city is cultural consumption, the localized presence of the outputs of creative endeavors in cities.

All three aspects—creative industries, creative occupations and creative content—are seen to have beneficial impacts on city economies.

Creative industries and a number of closely related sectors, including advertising, apparel, and media, tend to cluster in a few larger cities like New York, Los Angeles and London. These cities not only have higher than average concentrations of these kinds of businesses, but average wages in these businesses are higher than in the same industries elsewhere, indicating a higher level of productivity (Schoales 2006). Collectively, arts and culture industries constitute the third or fourth largest employer in New York (Currid 2007).

Richard Florida's 2002 book, "The Rise of the Creative Class," triggered considerable interest and debate about the role of creative occupations in shaping urban economic growth. Relying on Census data classifying working people by their reported occupation, Florida studied geographic concentrations of those people working in occupations he identified as creative. Florida's primary measure of the creative class includes about 30 percent of all workers in the United States, including not just artists, writers and designers, but also teachers, librarians, nurses, lawyers, business managers and sales executives (Florida 2002).

Is the Creative Class a separate theory of urban success?

In his book, Florida makes a series of arguments that draw from or connect to other theories outlined in this paper, rolling them all together under the rubric of "creative class." Creative class incorporates elements of human capital theory, amenity theory, social capital theory, and innovation theory. In terms of human capital, there is a very high correlation between Florida's creative class occupations and educational attainment. (Creative class workers are much more likely to have a four-year degree than other workers.) Florida highlights the importance of amenities in attracting and retaining creative class workers, with an emphasis on participatory cultural and recreational amenities (entertainment, cycling), and a de-emphasis on iconic characteristics and passive activities (sports stadia). Florida touches on issues of social capital by highlighting the role of tolerance—measured by his Gay Index—as one indicator of the kinds of cities in which "creatives" flourish. Finally, as in innovation theory, Florida finds that concentrations of creative class workers are correlated with measures of innovation, like patenting. Finally, Florida's creative class argument points to the important role of immigrants, and his later work emphasizes the global competition for talent (Florida 2005).

Creative consumption is, in part, related to creative occupations and industries. Because cultural content is often consumed locally, the presence of workers and industries that create content is needed to support consumption. Cultural content is, in part, a special case of an urban amenity—one that can have a positive effect on the health of a city economy.

In addition to their direct economic impacts, the presence of creative workers, creative firms and creative consumption may influence the number and kinds of new ideas that are created in cities, giving rise to other kinds of economic activity through innovation and entrepreneurship. In addition, creative activity is especially important to the health of city economies. Creative industries and creative workers tend to be more likely to locate in or close to the center of urban areas. They also tend to have important interactions with other industries, facilitating innovation and entrepreneurship.

Questions to Consider:

- *What are the distinctive arts, cultural and creative enterprises in my community that have a national or international reputation?*
- *Does my city have a high concentration of workers in creative occupations and creative industries?*
- *Does my city work to unlock the creative potential of every citizen?*
- *Is creativity valued in my community?*

Creative City Primary Connections



Talented

Critical



Innovative

Related



Connected

Related



Distinctive

Critical

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Part Three: Theories of Place

Attraction City 50

Amenity City 53

Consumer City 55

Green City 57

Distinctive City 59

Sorting City 61

Megapolitan City 64



Theories of Place

Our third group of theories revolves around the qualities of place— the built urban environment and the way it encourages or supports economic activity.

Attraction City

Theory: Cities succeed by developing iconic attractions—parks, sports stadia, architectural wonders and museums—that appeal to visitors from other places and establish a city’s brand.

Policy Implications: The attraction city strategy is predicated on image, brand and marketing considerations. Cities can stimulate their economies by increasing awareness of the city in the national and international marketplace. Interesting and iconic structures and popular attractions can capture public and media attention, making consumers, businesses and potential residents more aware of a city and generate investment and tourism. Similarly, a city’s sports teams provide a focus for civic pride. Media coverage of games generates publicity for a city, and events, particularly the Olympics or championship games, attract visitors. It is also believed that sporting facilities generate a positive economic impact in their own right, triggering spending and employment in the local economy.

Analysis: Iconic investments like Bilbao’s museum or Chicago’s Millennium Park (or in an earlier age, Seattle’s Space Needle or St. Louis’ Gateway Arch) are often regarded as catalysts for urban economic growth. Giving a city a unique landmark gives the rest of the world a greater awareness of a city and a positive impression of its character and dynamism. Similarly, investments in sports stadia and arenas are regarded as a way of attracting visitors and building a city’s brand and sense of identity. Unique or iconic amenities may be part of a region’s brand or distinctiveness and influence sorting.

The economic effects of sporting events and tourist attractions have long been debated. There is a cottage industry of economic impact consultants who prepare

studies purporting to estimate the sales, income and jobs associated with these facilities and events. Studies produced by sponsoring organizations for the Super Bowl, for example, claim that the event generates as much as \$250 million in economic impact for a metropolitan economy, while independent analyses suggest that the impact is perhaps 10 percent of that amount (Seaman 2007). There are often serious problems of attribution and potential double counting in economic impact studies. A study of the economic impact of a region’s airport, for example, might attribute to the airport the same visitor expenditures that would be attributed to a particular event like a convention or sporting championship (Seaman 2007).

While there are positive economic effects associated with sports events, the money spent on them is mostly matched by reductions in expenditures elsewhere in the local economy. Professional sports have a small positive effect on earnings per employee in the amusements and recreation sector and an offsetting decrease in both earnings and employment in other sectors consistent with the notion that the money consumers spend on professional sports is diverted from other kinds of local spending (Coates 2007) (Baade and Sanderson 1997).





One argument for icons such as stadia and arenas is that they might be one of the assets that attract or retain talented workers. While the buildings themselves may not attract new residents, the presence of sports teams may be a desirable amenity for an urban area. In addition, local sports teams can be a source of local identity and civic pride, even bridging a community’s varied demographic groups.

Others have argued that it may be just as important, or perhaps even more important, for city economic development to focus on nurturing the environment for the fine grained social and economic activity that gives places interest and character. Small wonders like local restaurants, boutiques, artists lofts and similar activities contribute to a fine-grained urban texture that makes places desirable to residents and visitors alike (Fulton, Weaver et al. 2004).

Questions to Consider:

- Does my city have distinctive attractions?
- Do our attractions capitalize on our distinctiveness?
- Are proposed attractions sufficient to give my city a clear advantage over other cities?
- Will our attractions give us an unfair share of attention in the national and even international press?

Attraction City Primary Connections

| | | | |
|--|---|---|---|
|  |  |  |  |
| Talented | Innovative | Connected | Distinctive |
| | | | Critical |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Amenity City

Theory: Cities succeed by providing social amenities: schools, safety, entertainment, architecture, parks and other characteristics that people value.

Policy Implications: The amenity city approach suggests that cities should invest in amenities that will attract and retain residents and businesses and improve their quality of life.

Analysis: Amenity theory is one of the most widespread theories underlying urban development. A wide range of public investments (in the arts, public buildings, parks, schools, etc.) can be thought of as increasing the amenity value of a metropolitan area. To the extent residents and businesses choose locations based on amenities, this can be a powerful source of growth. In addition, amenities can also be seen as directly increasing the welfare of urban residents. Many of the most important amenities are what economists call “public goods,” the kind of aspects of a region that accrue widely, if not equally, to all of a region’s residents. Many of these public goods are either produced by the public sector or are strongly influenced by public policy. Others are inherited assets, like climate and landscape. Some privately produced goods and services have characteristics of amenities, too, but we focus on these localized private goods in our discussion of the “consumer city.”

Amenity theory is closely related to human capital theory. The line of reasoning goes like this: individuals with high levels of human capital—measured by levels of education—generally earn higher incomes and have a preference for amenities. They choose to locate in areas that offer these amenities.

One challenge with amenity theory is determining what constitutes an amenity. Different consumers have different tastes. Those with a preference for snow-skiing

may see Denver as having more amenities, while those who like boating may think Miami has more amenities. Research that attempts to estimate the effect of amenities typically grades metropolitan areas on a single scale (from high amenity to low amenity), but reality is more complex. (The role of divergent tastes is addressed in the sorting city and the distinctive city below.)





While the common meaning of an amenity strategy focuses on improving or increasing positive amenities, it is also possible to build an amenity strategy around decreasing disamenities. Crime, or the perception of crime, can discourage population and economic growth. The decline in crime rates in many parts of New York City in the past 15 years has helped stimulate the local economy (Schwartz, Susin et al. 2003).

One of the principal amenities that has influenced the location of population in the United States has been the quality of local education. Much of the impetus for suburbanization, for example, has been attributed to the desire for families to access higher quality education afforded by suburban schools that have both more resources per student and a less challenging (wealthier) set of students.

Questions to Consider:

- Does my city invest in amenities?
- Does my city measure the value and performance of its amenities against those of other cities?
- Are there important amenities that my city lacks that are found in other cities?

Amenity City Primary Connections

| | | | |
|--|---|---|---|
|  |  |  |  |
| Talented | Innovative | Connected | Distinctive |
| Related | | | Critical |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Consumer City

Theory: Cities succeed by providing a wide range of privately produced goods and services that consumers increasingly value.

Policy Implications: Cities should improve the quality and variety of local consumption opportunities and market these advantages to workers and businesses.

Analysis: The role of variation in private consumption opportunities among places has traditionally been neglected in most analyses of urban economic development. Increased product variety and the growth of services, coupled with rising incomes and divergent consumer tastes, means that some places, particularly large, diverse cities, will better meet the needs of consumers, especially more demanding consumers, than will smaller, less urban areas. The growth of consumer centers may trigger a virtuous cycle where consumption variety encourages growth, stimulating further variety and additional growth.

If consumption opportunities were identical in all places (if all goods and services were ubiquitous), then evaluating standards of living and economic well-being would simply be a matter of comparing the differences in wages and prices among places. But some goods and services are only available in some locations. Restaurant meals, museums, social interaction and clubs are much more prevalent in some places than others. Large cities make people better off because of the range and convenience of consumption opportunities they provide (Glaeser, Kolko et al. 2000). The “value proposition” that cities offer is that their residents can enjoy a higher standard of living than persons could enjoy in other locations because of the four key assets that are found disproportionately in urban areas: variety, convenience, discovery and opportunity (Cortright 2007a).





The consumer city approach turns the usual calculus of economic development on its head. We're used to thinking of cities as being specialized and superior in some aspect of production and that this specialization enables higher productivity, allowing workers to earn higher salaries (and thereby enjoy a higher standard of living). But today, because many talented workers have wide choices about where to live and work, the varying sets of consumption opportunities available in different places are playing an increasingly important role in shaping economies.

As consumers, we are not born with our preferences. We learn them in the social context in which we live (Scitovsky 1992). Cities are places where people learn to consume and discover their preferences for different kinds of goods, services and experiences. Especially for higher-income families and those with an interest in exploring new things, cities provide an advantage. Variations in tastes and preferences among consumers in different cities may be one of the factors stimulating the formation of industry clusters (Tabuchi and Thisse 2001). The more varied types of consumption opportunities available in cities can attract more highly skilled workers and offset the higher costs of city living (Lee 2004).

Questions to Consider:

- Does my city have a wide variety of consumer offerings?
- Does my city have a distinctive set of consumer offerings?
- Does my city have a convenient set of consumer offerings?
- Does my city offer consumer goods, services and experiences in an especially appealing way?

Consumer City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|--|---|---|
| | | Related | Related |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in CityVitals.

Green City

Theory: Cities succeed by having strong connections to their local environment and enabling their citizens to live more sustainable lifestyles.

Policy Implications: Cities can grow their regional economies by promoting connections to sustainability. Cities can also provide denser living opportunities that enable people to travel shorter distances, consume less energy and generate fewer greenhouse gases. As energy prices rise and concern for global warming influences the decisions of more consumers, cities that offer denser environments with more transportation choices and a smaller carbon footprint may attract more growth. Cities that emphasize more environmentally conscious living and policies that encourage sustainability may stimulate the development of private sector businesses creating green technologies or providing related services.

Analysis: The high density of cities enables people to live with a smaller environmental footprint than in rural and less dense locations. Cities offer more things close at hand, so city residents don't have to travel as far. Density is strongly correlated with per capita vehicle miles traveled. The densest urban neighborhoods have far less travel than the least dense (Lawton 1999).

While there is no definitive agreement on what constitutes a "green city," most people have an intuitive sense that green cities have clean air and water, pleasant streets and parks, and enable green behavior like use of transit (Kahn 2006). More generally, green cities also offer a wider variety of travel modes, including walking, bicycling and transit. City dwellers tend to consume much less land per resident and substitute denser, shared public spaces for private ones. Parks, restaurants and theatres substitute for larger yards, bigger kitchens and entertainment rooms.

While environmental policies are sometimes portrayed as invariably producing significant economic costs, green policies can enable savings for consumers that redound to the benefit of local economies. Residents of dense urban areas use not only far less land but travel much shorter distances than the average American, saving energy and reducing greenhouse gas generation (Glaeser and Kahn 2008). In Portland, Ore., for example, denser land use patterns and good transit have reduced vehicle miles traveled to about 16 percent below the metropolitan average, saving consumers there about \$1 billion per year (Cortright 2007b).





In addition, the environmental aspects of city living are regarded as an attractive amenity to many talented workers. Promoting a city's sustainability may be one way to attract and retain such workers. (See discussion of amenity strategies above.) There is some evidence that people with "green" preferences cluster near one another, and places that enact green policies, like building new rail transit systems, attract residents that value these characteristics (Kahn 2007).

Growing concern with environmental sustainability generally, and with global warming in particular, is likely to be of increasing importance to cities and city economies in the decades ahead. Cities are beginning to wrestle with strategies that mesh urban development with environmental concerns, but this field is still very much in its infancy.

Questions to Consider:

- *What are the advantages and opportunities we can use to build a sustainability advantage?*
- *Are day-to-day decisions on land use, zoning and transportation made with the goal of reducing the number and length of car trips?*
- *Do we understand the competitive environment and the way new green industries are likely to develop?*
- *Are existing businesses incorporating green practices?*
- *Does the city make it easy for its citizens and businesses to act sustainably?*

Green City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|--|---|---|
| | | | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Distinctive City

Theory: Cities succeed by having a distinctive identity and related set of attitudes that differentiate them from other cities. Local characteristics and behaviors that are "first, best or only" in some way influence economic development.

Policy Implications: Cities should look to identify unique characteristics. Distinctive local attitudes, beliefs and behaviors can contribute to innovation. Distinctiveness can be part of a marketing strategy, appealing to residents and businesses that share similar interests and beliefs. It can also be an important source of innovation, as distinctive local attitudes, beliefs and behaviors can give rise to new ideas and businesses. The policy implications of the distinctiveness approach contrast sharply with the business climate strategy, which recommends, for example, eliminating local policies that impose requirements different from federal laws.

Analysis: Every city represents a different bundle of characteristics, with different population characteristics, varied physical settings, social institutions, economic bases and histories. The combination of these differences positions each city differently to compete for talent and businesses and to develop new ideas. As technology erases or mutes some characteristics that differentiated cities, other previously less important distinctions become relatively more important.

Harvard Business School's Michael Porter, the nation's leading scholar of business strategy, has argued that distinctiveness is the new competitive imperative. He writes that the essence of competitive strategy is about being different, being able to do things that your rivals can't do (1996). In the same vein, the famous urbanist Jane Jacobs said, "The greatest asset that a place has is something that is different from everywhere else" (2002).

Distinctiveness influences the economy in many ways, and many distinctive local characteristics can be reinforced by the economy. As Porter has argued, local or national passions—like car racing in Italy or gardening in Britain—produce demanding local customers who provide the natural base for developing a globally competitive industry cluster (1990).

In an era when the formation and growth of new industries is driven more and more by insights into market demand and customer-produced innovation, close proximity to customers whose tastes anticipate the larger market is an important business advantage (von Hippel 2005). For example, the early popularity of jogging and running in Oregon in the 1960s led to the formation of Nike, now the world's largest sports-apparel firm (Cortright 2002).

Local distinctiveness and the economy can be self-reinforcing. As the city grows certain economic niches based on its culture and behaviors, the firms that grow locally, the occupations they employ, the workers they train and the in-migrants they attract will often have similar or complementary interests. (In this way, local distinctiveness can be related to the process of sorting described below.) In addition, local distinctiveness is multi-dimensional and influenced by the decisions of many different actors. The complementarity between public policies, private sector decisions, local tastes and attitudes is likely to be complex and highly interrelated (Feldman and Martin 2004).





Over time, it appears that the economic bases of major metropolitan areas are becoming more specialized—more different from one another—and that city economic success is increasingly explained by cities finding their right niche (Markusen, Schrock et al. 2004).

While related to the idea of branding, distinctiveness is something more. Real distinctiveness springs from authenticity and represents local characteristics. Building a strategy based on distinctiveness requires a critical and objective understanding of a city's strengths and limitations.

Questions to Consider:

- *Is there a clear understanding of how my city is first, best or only?*
- *Have we determined how to capitalize on our differences and add value to our economy?*
- *Do we have the confidence to act on our differences?*

Distinctive City Primary Connections

| | | | |
|--|---|---|---|
|  |  |  |  |
| Talented | Innovative | Connected | Distinctive |
| | | | Critical |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Sorting City

Theory: Cities succeed by being the preferred location for highly skilled workers as the U.S. population sorts itself out by interests and shared values.

Policy Implications: The tendency of city development to be driven by sorting may limit development options for some cities. Superstar cities may benefit from in-migration of human capital and high-income citizens that help drive further economic growth but find that housing becomes increasingly less affordable for low- and moderate-income households. Declining cities may find it difficult to overcome the opposite problem: a stock of low-cost housing attracts and retains a population with lower human capital and lowers the desirability of the city as a place to live for well-educated and highly skilled workers with a wide choice of residential locations.

Analysis: Divergent incomes and tastes, coupled with population mobility and the relatively slow adjustment of housing markets, produces strong and self-reinforcing tendencies for households to sort themselves by place. Influxes of talent drive up rents, pushing out lower-skilled workers. Places with declining economies have surplus housing, which holds down rents and locks many lower-skilled workers in place. Mobile populations (young adults, retirees, higher income) sort themselves among metropolitan areas based on their personal and social preferences.

The notion that people would sort themselves among different political jurisdictions to take advantage of common preferences is an old one in economics. Writing in the 1950s, Charles Tiebout argued that people with different preferences for levels of taxes and public services would choose to locate in different municipalities and that this process of sorting would result in a more efficient provision of public services than a single, one-size fits all government (1956). Tiebout's original argument was about

municipalities within a single metropolitan area, but the concept can be applied more widely to think about cities in different states or regions.

Today, the results of sorting are very much in evidence. The popular discussions of red states and blue states, for example, highlight the extent to which the population has sorted itself by political attitudes. This difference appears to be more pronounced at smaller geographic levels (Bishop 2004). The process of sorting is especially evident in political segregation; the share of the U.S. population living in landslide counties, those where one major party won the presidential election by a margin of 20 percentage points or more, essentially doubled between the equally close 1976 and 2004 elections. More broadly, Americans are using their mobility to sort themselves into neighborhoods of culturally, socially and economically like-minded residents (Bishop 2008). The sorting process influences the economy, too, because highly educated individuals are sorting themselves into different communities and metropolitan areas as well.

Over time, the growth of consumption variety in some cities creates a self-reinforcing dynamic. The growing inequality in the distribution of income coupled with the limited supply of housing in some desirable cities has resulted in an increasing concentration of higher-income and higher-skilled workers in some cities, producing what some are calling superstar cities. In these cases, the growing high-income population further bids up housing prices, further changing incentives to live in these areas. Migration plays an important role in driving the formation of these superstar cities. Recent movers into superstar cities tend to have higher incomes than movers to other cities, and those moving out of superstar cities are more likely to be lower income (Gyourko, Mayer et al. 2006).

The process of sorting can work in reverse in declining cities. Low urban amenity values get reflected in rents, attracting and retaining a population with limited human capital and discouraging further economic development (Glaeser and Gyourko 2001). A large stock of inexpensive housing can serve as a magnet for low-income populations who find it unattractive to move to other locations where their income would be even lower because they would have to pay a high price for housing.





Housing prices have important effects on migration over a person's life cycle. Most Americans are homeowners, and homes are often a family's largest financial asset. Households that have owned their homes for two or more decades in metropolitan areas that have experienced rapid housing price escalation (like San Francisco) have seen a substantially greater increase in their real estate assets, and consequently may have the financial ability to move to a desirable location, compared to an otherwise

similar homeowner in Buffalo, where housing prices have risen only a fraction as much. Consistent with this observation, San Francisco has experienced higher net out-migration of older residents than Buffalo over the past decade (Cortright 2005).

Questions to Consider:

- o *Is there an understanding of the demographics and psychographics of my city and what they mean for the city's future?*
- o *If we get more of what we have, will that likely mean success for our city?*
- o *If not, how will we change the trajectory, knowing that the sorting taking place is more likely to give us more of the same?*

Sorting City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|---|---|--|--|
| Related | | Related | Critical |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

Megapolitan City

Theory: Cities succeed by being part of multi-metropolitan combinations. The relevant geography for determining economic success has expanded. The notion of a megalopolis challenges us to think differently about the geographic scope of a “city.” Traditional notions of urban form are built around a single urban core, a central municipality, and closely connected suburbs. The megapolitan view looks at cities as much larger geographic entities.

Policy Implications: Cities should work to take advantage of their position as part of larger mega-regions, developing common policies, especially for infrastructure. More generally, the proximity to other large metropolitan areas can broaden and complement a single metropolitan region’s assets and amenities.

Analysis: The term megalopolis was coined by French geographer Jean Gottman in his 1961 book that examined the sprawling pattern of urban growth from Portland, Maine, to Richmond, Va. In recent years there has been a renewed interest in some circles in seeking a higher unit of geographic aggregation to describe the organization of the nation’s cities (Regional Plan Association 2006).

The hallmark of the megapolitan or mega-region viewpoint is a new national map demarcating between 10 and 20 large urban regions, collections of existing metropolitan areas and intervening counties. Typical examples include maps generated by researchers at Virginia Tech (Figure 3) and New York’s Regional Plan Association (Figure 4) (Todorovich 2007) (Lang and Dhavale 2005). Researchers look at a variety of factors in determining what constitutes a mega-region including population, commuter flows, business relationships, freight movements and so on.

Some draw on other indicators of development for example, levels of illumination measured from space at night (Florida, Gulden et al. 2007).

Figure 3 The Megapolitans

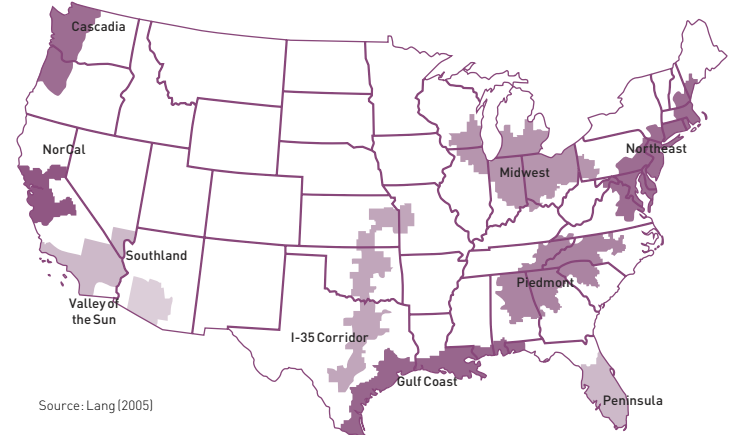
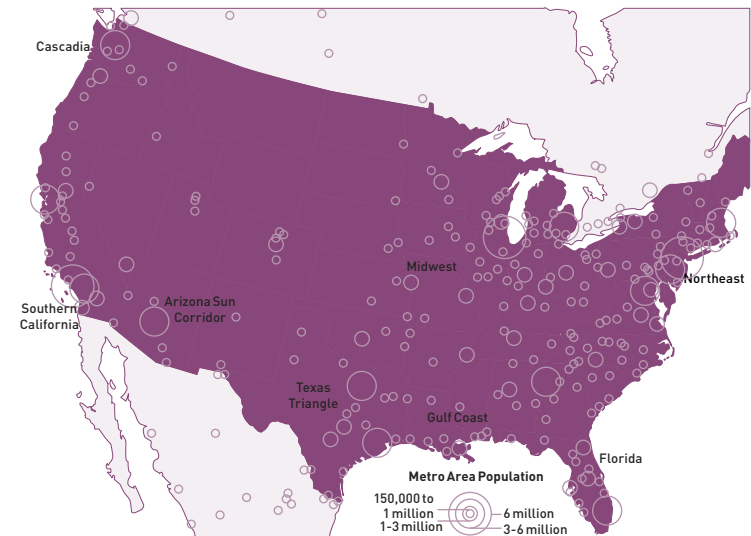


Figure 4



¹ In 2003, Medicare reimbursements per enrolled recipient among the 50 most populous metropolitan areas varied from more than \$11,000 per enrollee in Miami to about \$5,000 per enrollee in Minneapolis, Portland and Salt Lake City, according to the Department of Health and Human Services.

² It may seem odd to call schools an “amenity.” Here we define amenities as local public goods, things that are equally available to all residents of a particular community or metropolitan area by virtue of their location in that area. In this sense, things like climate, air quality, crime and parks are “amenities,” as are the quality of local public services, including the quality of public education.

There is no agreed upon definition as to what constitutes a mega-region, and in practice, definitions vary. Deciding which cities belong in which regions is a matter of judgment, and while some mega-regions are relatively easily defined, others are not (Dewar and Epstein 2007). The Virginia Tech definition splits Texas between two regions and has an I-35 mega-region that reaches from San Antonio to Kansas City, while the Regional Plan Association definition combines four big Texas metropolitan areas (Austin, Dallas, Houston, San Antonio) into a single region and leaves Oklahoma City and Kansas City out of the mega-region altogether (See Figures 3 and 4). Some large cities—St. Louis, Minneapolis and Denver—are left out of most mega-region designations. Does this mean that their economic opportunities are any lesser than similar cities that are part of mega-regions?

It is unclear whether the mega-region concept adds anything to our understanding of regional economic health or function. Some authors have asserted that there are transportation connections (rail and air) between neighboring metropolitan areas and that they have similar economic bases and that they follow roughly similar economic cycles (Todorovich 2007). But such analyses don't examine whether the economic cycle and economic base of such cities are more different (or similar) than other cities around the country. Adjacent metropolitan areas also can have substantially different economic bases and trajectories, such as Detroit and Chicago or Washington and Baltimore.

While there is little question that metropolitan areas have become more decentralized over the past 50 years, this may not mean that nearby metropolitan areas are becoming more connected to one another (Bryan, Minton et al. 2007). The spread of urban growth may have been a product of automobile-related growth patterns, which are now, ironically, threatened by rising energy prices, concerns over climate change and changing tastes. The fact that two metropolitan areas expand so much that their peripheries abut one another is not any indication that there are any economic advantages—agglomeration economies—that stem to the region as a result (Sassen 2007).

The spatial structure of economies does not appear to have any consistent pattern across these identified mega-regions. Some mega-regions continue to have highly concentrated employment in and near central business districts, while others are sprawling. More than 40 percent of employment is within 5 miles of a traditional metropolitan central business district in Cascadia and the Northeast, while only about 20 percent is so centralized in Texas and Southern California (Glaeser 2007a).

Does aggregating economic activity to a mega-regional scale improve our understanding of the way urban economies grow or reveal any different sources of economic growth? A statistical analysis of the correlates of income and population growth shows that the same factors that appear to drive metropolitan growth (notably education levels and differences in climate) operate in the same way at the megapolitan level (Glaeser 2007a).





Ultimately, the policy rationale for thinking about mega-regions has to be that some problems can only or best be addressed on a mega-region scale. While it seems clear that some issues like watershed management or inter-city passenger rail service lend themselves easily to this larger geographic scope, the mega-region perspective has the tendency to obscure or minimize other problems, like economic inequality (Dewar and Epstein 2007).

The mega-region seems like a logical extension of the growth of urban geography from city to metropolitan to something larger. Some problems, such as inter-city transportation and environmental issues, may be better addressed at a larger scale. The economic rationale for working at a mega-region scale is less clear, and the lack of political institutions that match mega-region boundaries may make designing and implementing strategies at this level problematic.

Questions to Consider:

- *How does my city's metropolitan area relate to and interact with other nearby metropolitan areas?*
- *Do we leverage the strengths of neighboring metropolitan areas to offset our limitations?*
- *Can we collaborate with neighboring metropolitan areas on issues of common interest that will be advantageous to all of us?*

Megapolitan City Primary Connections

|  Talented |  Innovative |  Connected |  Distinctive |
|--|--|---|---|
| | | Critical | |

A blank field indicates that there is no essential relationship between this theory and one of the four dimensions in City Vitals.

References

Aharonson, B. S., J. A. C. Baum, et al. (2005). Desperately Seeking Spillovers: Increasing returns, Industrial Organization and the Location of New Entrants in Geographic and Technological Space. Toronto, University of Toronto.

Atkinson, R. and H. Wial (2007). The Implications of Service Offshoring for Metropolitan Economies. Washington, Brookings Institution.

Baade, R. A. and A. R. Sanderson (1997). The Employment Effect of Teams and Sports Facilities. Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadia. R. G. Noll and A. S. Zimbalist. Washington, DC, Brookings Institution Press: 525.

Bishop, B. (2004). The Great Divide: An utterly polarizing U.S. election. American Statesman. Austin. (December 4).

Bishop, B. (2008). The Big Sort: Why the Clustering of like-Minded America is Tearing Us Apart. New York, Houghton-Mifflin.

Blakely, E. J. (2001). "21st Century Cities: Can a Place-Based Approach to Economic Development Survive in a Cyberspace Age." Journal of the American Planning Association 67(2): 133-144.

Brandow, J. (1999). US Interstate Business Migration 1996-1999. Camp Hill, PA, The Brandow Company.

Bryan, K. A., B. D. Minton, et al. (2007). "The Evolution of City Population Density in the United States." Economic Quarterly (Federal Reserve Bank of Richmond) 93(4): 341-360.

Card, D. (2007). How Immigration Affects U.S. Cities, UC Berkeley.

Carey, S. and B. Stanley (2007). Flight Plan—Airports Take Off as Development Hubs; Professor Urges the Use Of an Asian Strategy; Fix for Detroit's Woes? Wall Street Journal. New York. (January 24) 1.

Chapple, K. (2006). "Overcoming Mismatch: Beyond Dispersal, Mobility and Development Strategies." Journal of the American Planning Association 72(3).

Chen, Y. and S. S. Rosenthal (2006). Local Amenities and Life Cycle Migration: Do People Move for Jobs or Fun? Syracuse, Syracuse University.

Chinitz, B. (1961). "Contrasts in Agglomeration: New York and Pittsburgh." American Economic Review, Papers and Proceedings, 51: 279-289.

Coates, D. (2007). "Stadiums and Arenas: Economic Development or Economic Redistribution?" Contemporary Economic Policy 25(4): 565-577.

Cortright, J. (2002). "The Economic Importance of Being Different: Regional Variations in Tastes, Increasing Returns and the Dynamics of Development." Economic Development Quarterly 16(1): 3-16.

Cortright, J. (2005). The Young and Restless in a Knowledge Economy. Chicago, IL, CEOs for Cities.

Cortright, J. (2007a). City Advantage. Chicago, CEOs for Cities 1-7276-1308-7.

Cortright, J. (2007b). Portland's Green Dividend. Portland, Impresa, Inc., .

Cortright, J. and H. Mayer (2002a). "Increasingly Rank: The Use and Misuse of Rankings in Economic Development." Economic Development Quarterly 18(1): 34-39.

Cortright, J. and H. Mayer (2002b). Signs of Life: The Growth of Biotechnology Centers in the US. Washington, DC, Brookings Institution.

Costa, D. L. and M. Kahn (2000). "Power Couples: Changes in the Locational Choice of the College Educated, 1940-1990." Quarterly Journal of Economics 115(4): 1287-1316.

Cumming, D. J. and S. A. Johan (2006). Does the Internet Spur Regional Economic Development?, SSRN.

Currid, E. (2007). "How Art and Culture Happen in New York." Journal of the American Planning Association 73(4): 454-467.

Dewar, M. and D. Epstein (2007). "Planning for "Megaregions" in the United States." Journal of Planning Literature 22(2): 108-124.

Dubay, C. S. (2007). 2008 State Business Tax Climate Index. Washington, The Tax Foundation No. 57.

Duranton, G. and D. Puga (2005). "From sectoral to functional urban specialisation." Journal of Urban Economics 57(2): 343-370.

Ellwood, D. (2002). How we got here. Grow Faster Together. or Grow Slowly Apart: How Will America Work in the 21st Century? The Aspen Institute Domestic Strategy Group. Washington, DC, Aspen Institute: 23-33.

Essletzbichler, J. (2005). Diversity, growth and stability: Employment evolutions in US labor market regions. Paper prepared for the 4th European Meeting of Applied Evolutionary Economics (EMAE), Utrecht.

Ewing Marion Kauffman Foundation. (2008, June 5, 2008). "Entrepreneurial Activity Remained Strong in 2007 With Major Shifts Among Men, Women and Immigrants." Retrieved June 5, 2008, from <http://www.kauffman.org/kauffmanindex/>.

Feldman, M. and R. Martin (2004). Jurisdictional Advantage. Toronto, Rotman School of Management, University of Toronto.

Feser, E. J. and M. I. Luger (2002). "Cluster Analysis as a mode of inquiry: Its use in sciences and technology policymaking in North Carolina." European Planning Studies.

Fisher, P. (2005). Grading Places: What Do the Business Climate Rankings Really Tell Us? Washington, Economic Policy Institute.

- Fishman, R. (2000). "The American Metropolis at Century's End: Past and Future Influences." Housing Policy Debate 11(1): 199-213.
- Florida, R. (2002). The Rise of the Creative Class. New York, Basic Books.
- Florida, R. (2005). The Flight of the Creative Class. New York, Basic Books.
- Florida, R. (2006). Where the Brains Are. The Atlantic Monthly.(October) 34-36.
- Florida, R., T. Gulden, et al. (2007). The Rise of the Megaregion. Toronto, University of Toronto.
- Fogarty, M. (1999). Why Older Region's Can't Generalize From Route 128 and Silicon Valley: University-Industry Relationships and Regional Innovation Systems. Center for Regional Economic Issues, Case Western Reserve University.
- Forman, C., A. Goldfarb, et al. (2007). Understanding the Inputs into Innovation: Do Cities Substitute for Internal Firm Resources?. SSRN.
- Friedman, T. (2006). The World Is Flat: A Brief History of the Twenty-first Century. New York, Farrar, Straus and Giroux.
- Fuller, S. S. (2002). The Impact of Federal Procurement on the National Capital Region. Washington, National Capital Planning Commission.
- Fulton, W., S. Weaver, et al. (2004). Playing the Inside Game: The Challenge of Urban Revitalization in Arizona. Morrison Institute for Public Policy.
- Glaeser, E. (2004). Mother of Reinvention: How Boston's Economy Has Bounced Back from Decline, Time and Again. Greater Philadelphia Regional Review14-17.
- Glaeser, E. L. (2007a). Do Regional Economies Need Regional Coordination? The Economic Geography of Megaregions. Keith S. Goldfeld. Princeton, Woodrow Wilson Institute for Public and International Affairs: 98.
- Glaeser, E. L. (2007b). Entrepreneurship and the City. Cambridge, Harvard University.
- Glaeser, E. L. (2008). The Economic Approach to Cities. Cambridge, Harvard Institute of Economic Research 2149.
- Glaeser, E. L. and C. R. Berry (2006). Why Are Smart Places Getting Smarter? Cambridge, MA, Rappaport Institute for Greater Boston.
- Glaeser, E. L., Jose A. Scheinkman, Andrei Shleifer (2003). The Rise of the Skilled City. Cambridge, MA, Harvard University.
- Glaeser, E. L. and M. Kahn (2008). The Greenness of Cities. Cambridge, MA, Rappaport Institute for Greater Boston.
- Glaeser, E. L. and J. E. Kohlhase (2003). Cities, Regions and the Decline of Transport Costs. Cambridge, MA, Harvard Institute of Economic Research Discussion Paper Number 2014.
- Glaeser, E. L., J. Kolko, et al. (2000). "Consumer City." NBER Working Paper 7790.
- Glaeser, E. L. and J. Shapiro (2001). City Growth and the 2000 Census: Which Places Grew, and Why. Washington, D.C., Brookings Institution.

- Goetzman, W. N., M. Massa, et al. (2005). Portfolio Diversification, Proximity Investment and City Agglomeration. New Haven, Yale University.
- Gottlieb, P. D. and M. Fogarty (2003). "Educational Attainment and Metropolitan Growth." Economic Development Quarterly 17(4): 325-336.
- Grubestic, T. (2007). "A ticket to ride: Evolving landscapes of air travel accessibility in the United States." Journal of Transport Geography 15: 417-430.
- Gyourko, J., C. Mayer, et al. (2006). Superstar Cities. Philadelphia, The Wharton School, University of Pennsylvania.
- Hill, E. W. and J. F. Brennan (2000). "A Methodology for Identifying the Drivers of Industrial Clusters: The Foundation of Regional Competitive Advantage." Economic Development Quarterly 14(1): 65.
- Jacobs, J. (1969). The Economy of Cities. London, Penguin Books.
- Jacobs, J. (2002) "An Urban Visionary Speaks Out." Active Living Network, DOI.
- Kahn, M. (2007). "Do greens drive Hummers or hybrids? Environmental ideology as a determinant of consumer choice." Journal of Environmental Economics and Management(in press): 37.
- Kahn, M. E. (2006). Green Cities: Urban Growth and the Environment. Washington, DC, Brookings Institution Press.
- Kantor, R. M. (1995). World Class: Thriving Locally in the Global Economy. New York, Simon & Schuster.
- Kasarda, J. D. (1998). Time-based Competition and Industrial Location in the Fast Century. Real Estate Issues. (Winter 98/99) 24.
- Katz, J. (2002). Get Me Headquarters. Regional Review (Federal Reserve Bank of Boston). (Fourth Quarter) 9-19.
- Klier, T. (2006). "Where the Headquarters Are: Location Patterns of Large Public Companies, 1990-2000." Economic Development Quarterly 20(2): 117-128.
- Klier, T. H. (1999). "Agglomeration in the US Auto Supplier Industry." Economic Perspectives 17(3): 2.
- Kuby, M. and N. Reid (1992). "Technological Change and the Concentration of U.S. General Cargo Port System." Economic Geography 68(3): 272-289.
- Lang, R. E. and D. Dhavale (2005). Beyond Megalopolis: Exploring America's New Megapolitan Geography. Alexandria, Metropolitan Institute, Virginia Tech.
- Lawton, T. K. (1999). The Urban Structure and Personal Travel: An Analysis of Portland, or Data and Some National and International Data.
- Lee, S. (2004). Ability Sorting and Consumer City, University of Minnesota.
- Levy, F. and R. J. Murnane (1996). Teaching the New Basic Skills, Principles for Educating Children to Thrive in a Changing Economy. New York, The Free Press.

- Lucas, R. E. (1988). "On the Mechanics of Economic Development." Journal of Monetary Economics 22: 3.
- Markusen, A. (1991). The Rise of the Gunbelt: The Military Remapping of Industrial America. New York, Oxford University Press.
- Markusen, A., G. Schrock, et al. (2004). "Making the City Distinctive: A Guide for Planners and Policymakers." 26.
- Maskell, P. and A. Malmberg (1999). "Localized Learning and Industrial Competitiveness." Cambridge Journal of Economics 23(2): 167-185.
- Mayer, H. (2005). Is the Gunbelt protecting the Homeland? The Economic Geography of Homeland Security Contracting, 2001-2004. Alexandria, Virginia Tech.
- Metropolitan Policy Program (2007). MetroNation: How U.S. Metropolitan Areas Fuel American Prosperity. Washington, DC, Brookings Institution.
- Moss, M. (1998). "Technology and Cities." Cityscape: A Journal of Policy Development and Research 3(3).
- Mumford, L. (1938). The Culture of Cities. New York, Harcourt Brace.
- North, D. C. (1990). Institutions, Institutional Change and Economic Performance. Cambridge, Cambridge University Press.
- Ono, Y. (2006). "What Do Census Data Tell Us About Headquarters Location?" Economic Development Quarterly 20(2): 129-141.
- Ottaviano, G. I. P. and G. Peri (2004). The Economic Value of Cultural Diversity: Evidence from US Cities. Bologna, University of Bologna.
- Peri, G. (2001). Young People, Skills and Cities. Munich, Germany, Center for Economic Studies & IFO Institute for Economic Research.
- Porter, M. E. (1990). The Competitive Advantage of Nations. New York, Free Press.
- Porter, M. E. (1996). What is Strategy? Harvard Business Review. Cambridge, MA.(November-December) pp. 61-78.
- Postrel, V. (2003). "The Aesthetic Imperative: Why the creative shall inherit the economy." Wired.
- Puentes, R. (2007). Not So Fast: Key Policy Considerations for Surface Transportation Investment Needs. Washington, Brookings Institution.
- Putnam, R. (2007). "E Pluribus Unum: Diversity and Community in the Twenty-first Century" Scandinavian Political Studies 30(2): 137-174.
- Putnam, R. D., R. Nanetti, et al. (1993). Making Democracy Work: Civic Culture and Regional Government in Contemporary Italy. Princeton, NJ, Princeton University Press.
- Quigley, J. M. (1998). "Urban Diversity and Economic Growth." Journal of Economic Perspectives 12(2): 127-138.
- Rauch, J. E. (1993). "Productivity Gains from Geographic Concentration of Human Capital: Evidence from the Cities." Journal of Urban Economics 34: 380-400.

- Regional Plan Association (2006). America 2050: A Prospectus. New York.
- Regional Plan Association (2007). Northeast Megaregion 2050: A Common Future. New York.
- Regional Technology Strategies Inc. (1999). Federal Express in the Piedmont Triad: Economic Impacts and Opportunities. Chapel Hill, NC, Regional Technology Strategies.
- Romer, P. M. (1986). "Increasing Returns and Long Run Growth." Journal of Political Economy 94: 1002-38.
- Rosenthal, S. S. and W. C. Strange (2005). The Geography of Entrepreneurship in the New York Metropolitan Area. Syracuse, Syracuse University.
- Sabatini, F. (2006). The Empirics of Social Capital and Economic Development: A Critical Perspective. SSRN.
- Sanders, H. T. (2006). Space Available: The Realities of Convention Centers as Economic Development Strategy. Washington, Brookings Institution.
- Sassen, S. (2001). The Global City: New York, London, Tokyo. New York, Princeton University Press.
- Sassen, S. (2007). Megaregions: Benefits beyond Sharing Trains and Parking Lots? The Economic Geography of Megaregions. K. S. Goldfeld. Princeton, Woodrow Wilson Institute for Public and International Affairs: 98.
- Saxenian, A. (1994). Regional Advantage: Culture and Competition in Silicon Valley and Route 128. Cambridge, Harvard University Press.
- Saxenian, A. (2006). The New Argonauts: Regional Advantage in a Global Economy. Cambridge, Harvard University Press.
- Schoales, J. (2006). "Alpha Clusters: Creative Innovation in Local Economies." Economic Development Quarterly 20(2): 162-177.
- Schwartz, A. E., S. Susin, et al. (2003). "Has Falling Crime Driven New York City's Real Estate Boom?" Journal of Housing Research 14(1): 101-132.
- Scitovsky, T. (1992). The Joyless Economy: the Psychology of Human Satisfaction. New York, Oxford University Press.
- Scott, A. J. (2004). On Hollywood: The Place, The Industry. Princeton University Press.
- Seaman, B. A. (2007). The Supply Constraint Problem in Economic Impact Analysis: An Arts/Sports Disparity. Atlanta, Georgia State University—Andrew Young School of Policy Studies Working Paper 07-04.
- Shapiro, J. (2003). "Smart Cities: Explaining the Relationship Between City Growth and Human Capital." 24.
- Shi, D. E. (1998, September 6, 1998). "Air conditioning of the South profound." Retrieved December 4, 2000, 2000, from <http://www.furman.edu/plan/design4/president/column4.htm>.
- Singer, A. (2004). The Rise of New Immigrant Gateways. Washington, Brookings Institution.
- Storper, M. (1997). The Regional World: Territorial Development in a Global Economy. New York, The Guilford Press.

Storper, M. and M. Manville (2006). "Behavior, preferences and Cities: Urban Theory and Urban Resurgence." Urban Studies 43(8): 1247-1274.

Storper, M. and A. J. Venables (2003). Buzz: Face-to-Face Contact and the Urban Economy. London, Center for Economic Performance, London School of Economics and Political Science.

Stross, R. (2006). It's Not the People You Know. It's Where You Are. New York Times. (October 22).

Tabuchi, T. and J.-F. Thisse (2001). Taste heterogeneity, labor mobility and economic geography. Tokyo, University of Tokyo.

Testa, W. (2006). "Headquarters Research and Implications for Local Development." Economic Development Quarterly 20(2): 111-116.

Tiebout, C. (1956). "A Pure Theory of Local Public Expenditures." Journal of Political Economy 64(5): 416-424.

Todorovich, P. (2007). Introduction. The Economic Geography of Megaregions. K. S. Goldfeld. Princeton, Woodrow Wilson Institute for Public and International Affairs: 98.

von Hippel, E. (2005). Democratizing Innovation. Cambridge, MA, MIT Press.

Wadhwa, V., G. Jasso, et al. (2007). Intellectual Property, the Immigration Backlog, and a Reverse Brain-Drain: America's New Immigrant Entrepreneurs, Part III, SSRN.

Waits, M. J. (2000). Hits and Misses: Fast Growth in Metropolitan Phoenix. Phoenix, AZ, Morrison Institute.

Weissbourd, R. (2004). The Changing Dynamics of Urban America. Chicago, CEOs for Cities.

Wheeler, C. H. (2005). Cities and the Growth of Wages Among Young Workers: Evidence from the NLSY, SSRN.

Zhang, J. (2003). High Tech Start-Ups and Industry Dynamics in Silicon Valley. San Francisco, Public Policy Institute of California.

Zook, M. (2000). "The Web of Production: The Economic Geography of Commercial Internet Content Production in the United States." Environment and Planning A 32: 411-426.

CEOs for Cities
177 North State Street
Suite 500
Chicago, Illinois 60601
T 312.553.4630
F 312.553.4355
www.ceosforcities.org