

Economic Development Evolution

The missing link between Porter and Florida: Human Capital Clusters

In the early 1980s, economic development was about incentives. The basic premise of the incentive era was that the city or region whose incentive package most effectively minimized the costs to the firm, through a combination of tax abatements, site improvements, job training, and other public sector investments, would capture the business that was considering relocation. Cities competed, sometimes irrationally, against one another to offer the best incentive package. Eventually critics and practitioners alike suggested that short-term tax breaks could not offset the long-term competitive advantages of particular areas and wondered if firms merely used these incentive negotiations to lower the cost of doing business in their preferred locations.

In response to the concerns regarding the effectiveness of incentives, and based on Michael Porter's revolutionary work identifying industry clusters,¹ a new, more sophisticated economic development strategy based on competitive advantages and industry clusters emerged. The basic premise of this strategy assumes that a community or region provides an industry group (cluster) with a unique local economic environment that enables the industries in that cluster to be more competitive in that region than it would be in most other regions. As competitive advantage theory gained traction, cities across the nation engaged in studies to identify their local competitive industries and then adjusted their economic development policies targeting their efforts on retaining and attracting industries in the competitive clusters.

Perhaps the most important notion of the competitive advantage theory is the idea that one primary competitive advantage is provided by a skilled and specialized workforce that is able to move from business to business, or even create new business, and ensure that all businesses located in a

particular cluster benefit from a well prepared, highly productive workforce. Based on this notion, the attraction and retention of creative individuals became an important element of many local and regional economic development strategies.

Richard Florida's book, *The Rise of the Creative Class*,² captured the imagination of many economic development professionals and civic leaders. In this book, Florida argues that creative people power regional economies and that those places (typically places that are tolerant and diverse) that are most attractive to creative folks (typically young and single) will experience greater economic success than places that are less attractive to the creative class. In response, many cities and regions began to develop new economic development strategies based on the notion that attracting creative and productive human capital would lead to the retention, attraction, and creation of competitive businesses.



Communities may need to encourage development of amenities that attract productive citizens. Some groups are attracted to communities where they can enjoy trails and greenways.



Laura Reese and Gary Sands have contributed numerous articles about creative class issues to the journal *Economic Development Quarterly*. In February 2008, they suggested that the creative class approach presents many challenges and few specific policy options for economic development practitioners.³ Among the challenges are:

- How do we identify the individuals who comprise the creative class?
- How do we determine the likelihood that creative individuals are attracted to specific cities or regions?
- What types of amenities attract individuals in the creative class?

Others, such as Markusen,⁴ suggest that the notion that there is only one creative class is too restrictive. Must one be young and single to be considered part of the creative class? Or is it possible that the creative class includes some people with two children and the related responsibilities? In spite of these concerns, many cities and regions have repeated history and entered into a competition for the creative class, whomever they may be, encouraging the development of coffee shops and other “creative class amenities” in much the same way they previously competed for industries using tax abatements and other incentives, without well thought out strategies about desirable community characteristics.

Human Capital Clusters

To add focus and direction to this approach, we provide the missing link that binds Porter’s industry clusters and Florida’s creative class by approaching human capital in the same way that Porter analyzed industries. **In this analysis we adapt Porter’s industry cluster approach to Florida’s creative class theory and provide policy makers with the opportunity to develop targeted and focused programs to attract and retain various clusters of human capital by using ESRI marketing data to identify clusters of human capital as well as the cultural and social amenities each cluster finds appealing.**

ESRI is a nationally recognized geographic information system company founded in 1969. The company manages and analyzes geographic information that has been used to help find new markets for fast-growing companies, support optimal land-use planning, and other GIS-related services. The Community Tapestry



Some experts argue that the “creative class” may include individuals with children and the related responsibilities.

data used in this analysis are typically used by companies, agencies, and organizations to identify promising markets and more precisely target their best customers. This is made possible through what ESRI calls segmentation or the grouping of people based on similar tastes, lifestyles, and behaviors. ESRI uses 60 different attributes for their segmentation process.

ESRI created 65 market segments based on their expert use of Census data and a wide variety of public and private data sources that are more current. These 65 segments are then aggregated into 12 Life Mode groups, which for the purposes of this analysis will be known as human capital clusters. The 12 human capital clusters are described in more detail later. Additional descriptions of ESRI and their products can be found at <http://www.esri.com>.

Using Porter’s methodology and substituting the ESRI Community Tapestry life mode groups for the industry data used by Porter, we identify the dominant human capital clusters in the Indianapolis MSA just as previous industry cluster analysis revealed the region’s most competitive industries. Next, for additional perspective, we compare the relative share of each human capital cluster within the Indianapolis MSA with the proportional shares for the total households within the 100 largest MSAs (ranging from New York with nearly 7 million households to MSAs such as Boise (ID) and Lansing (MI) with fewer than 200,000 households).

Additionally, location quotient analysis based on the 100 MSAs can provide policy makers in central Indiana with an understanding of



which clusters of human capital the region is competitively advantaged to attract and retain as well as those human capital clusters that are under captured.

Finally, for a regional perspective, we compare the Indianapolis MSA to seven regional competitors (Charlotte, Cincinnati, Columbus, Dayton, Louisville, Nashville, and St. Louis). Most importantly, when used in conjunction with ESRI's marketing data describing the likes and dislikes of households in each cluster, location quotient analysis can help policymakers begin to develop targeted human capital attraction strategies designed specifically for central Indiana based on the attributes of the specific human capital clusters they seek to attract and retain, rather than by developing even more coffeehouses.

While this issue brief focuses on determining the competitiveness of the Indianapolis MSA in attracting and retaining households and briefly describes the amenities that appeal to households in the 12 human capital clusters, in the future, additional analyses will seek to provide policymakers with more detailed information intended to enable them to further develop and refine attraction and retention strategies. Future topics will include determining the relationship between each of the 12 clusters of human capital and economic growth (jobs and income), and analyzing the amenities desired by the different market segments within each of the human capital clusters.

Human Capital Clusters in the Indianapolis MSA

Figure 1 displays the share of total households in the Indianapolis MSA for each of the 12 human capital clusters defined by ESRI. The four largest clusters in the area, each with more than 10 percent of the total number of households, are:

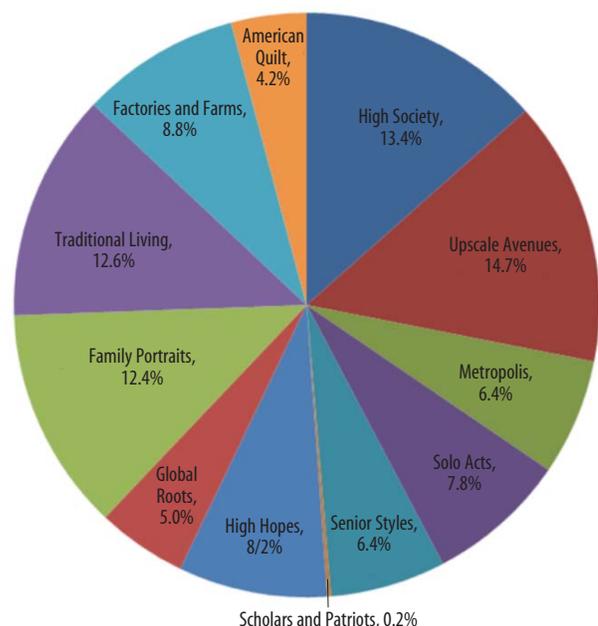
- **Upscale Avenues** (14.7 percent): The key word for this cluster is *prosperous*, as many in this group are well educated with above average earnings. Nationally the median income for the group is \$66,700 and their net worth exceeds \$175,000. They invest in their homes and their activities include sports such as golf and biking. They enjoy domestic vacations and save and invest a portion of their earnings.
- **High Society** (13.4 percent): This cluster is also affluent and many in this group are likely to hold high-paying professional and managerial positions. Most of these households consist of married couples who are active financially, civically, and physically. They participate in a wide variety of public activities

and sports and they travel extensively. They tend to get their information from the internet or radio rather than television.

- **Traditional Living** (12.6 percent): This cluster might be described as middle America, hardworking and settled people who work to earn a modest living while residing in single-family homes in established neighborhoods. People in this cluster tend to belong to veterans' clubs and fraternal organizations, take care of their own homes and gardens, and rely on newspapers and television for their information.
- **Family Portraits** (12.4 percent): This is the fastest growing cluster nationally and might be thought of as the "up and coming generation." Young couples and their children are common in this cluster. The population tends to be ethnically diverse and the majority of households own their homes. Access to zoos, theme parks, and other family entertainment facilities are important to families in this cluster.

The smallest cluster in the Indianapolis MSA is the Scholars and Patriots cluster with less than one percent of all households (0.2 percent). This cluster primarily consists of young people pursuing college degrees and those in the military. Few own their homes, most live in apartments, and they are among the most transient of populations. While they do not earn much money, they are active participants in a number of sports, are style conscious, and enjoy live entertainment.

Figure 1: Human Capital Clusters in the Indianapolis MSA





Comparing the Relative Share of Human Capital in the Indianapolis MSA to the 100 Largest MSAs

Comparing human capital clusters in the Indianapolis MSA to the composite share of clusters in the 100 largest metro areas in the United States provides additional perspective and insight into the region’s propensity to attract specific clusters. For example, while Upscale Avenue and High Society clusters are the two largest in the Indianapolis MSA, each of these clusters makes up a smaller share of Indianapolis MSA households than it does in the 100 metro areas. This means that while these two clusters are large here, the region attracts fewer households in these clusters than the average for the 100 metro areas, perhaps suggesting that the Indianapolis MSA lacks certain amenities or opportunities that individuals in these types of households find attractive.

The other two large Indianapolis MSA clusters, Traditional Living and Family Portraits, are over-represented in the Indianapolis MSA relative to the 100 metro areas. This suggests that the Indianapolis MSA has a set of cultural and economic assets that make it more

attractive to households in the Traditional Living and Family Portraits clusters than in the Upscale Avenues and High Society clusters. We will further explore this notion later in this issue brief with location quotient analysis.

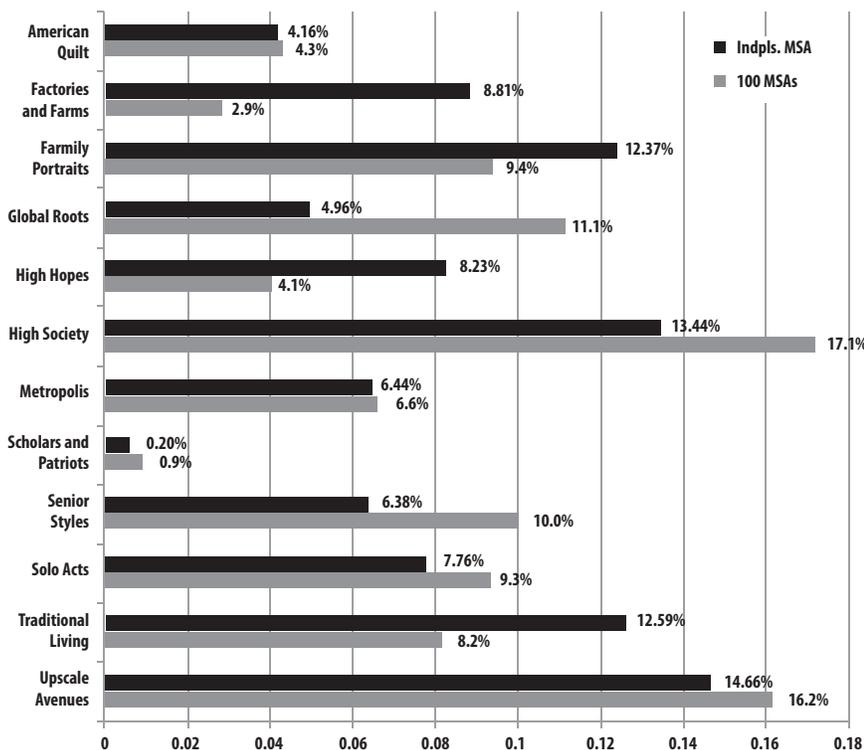
The share of Factories and Farms households (embraces small towns, villages, and farms; are married and own their home; many households include children) in the Indianapolis MSA is more than three times larger than the share within the 100 metro areas; and the share of High Hopes households (young, college educated, and seeking the American dream) is twice that of the share within the 100 metro areas. The Indianapolis MSA clusters for Global Roots (a broad mix of cultural, ethnic, and racial diversity) and Scholars and Patriots is less than half of the sum of the 100 metro area share. This suggests that the Indianapolis MSA region is competitively advantaged in terms of attractiveness to Factories and Farms and High Hope households, and disadvantaged in attracting Scholars and Patriots and Global Roots households.

Location Quotient Analysis: Determining Competitive Advantage

In this portion of the analysis, *location quotient* (Indianapolis MSA share/share of totals for 100 metro areas) is used to determine the over- or under-representation of each cluster in the Indianapolis MSA relative to the share of households in the 100 largest metro areas. A location quotient greater than one indicates an over-representation of that cluster’s households and a location quotient less than one indicates that these households in these clusters are under-represented in the Indianapolis MSA relative to the larger group of regions. Figure 3 displays the 12 clusters sorted from the highest location quotient to the lowest.

While Farms and Factory households comprise only 8.8 percent of total Indianapolis MSA households, they have the highest location quotient of 3.1. There are

Figure 2: Comparing the Indianapolis MSA to the 100 Largest MSAs





nearly 40,000 more Farm and Factory households in the Indianapolis MSA than there would be if the location quotient were one. Interestingly, as seen in Figure 4, all seven selected regional competitors also appear competitively advantaged for the Farm and Factory cluster, ranking between 14th and 34th among the 100 metro areas with location quotients ranging from 4.0 to 2.3. This suggests that there may be a common regional advantage for all of the comparative MSAs for this cluster.

All of the clusters that the Indianapolis MSA appears to be competitively advantaged to attract share common attributes such as valuing family life, tradition, and stability. Traditional Living households, for example, tend to live, work, and play in the same place year after year and do not follow fads. The High Hopes cluster is not as tradition bound, though these households are aspiring to live the American dream. The High Hopes and the Solo Acts clusters tend to most closely resemble Richard Florida's creative class. And while the Indianapolis MSA and its competitor metro areas tend to be competitively advantaged for High Hopes households, all of these regions have location quotients of less than one for Solo Acts households.

With a location quotient of 2.0, the High Hopes cluster is the second most competitively advantaged cluster in the Indianapolis MSA. There are over 27,500 more High Hopes households in the Indianapolis MSA than there would be if the region's location quotient were one. The Indianapolis MSA has a higher High Hopes location quotient than all but 12 of the 100 metro areas. As with Factories and Farms,

Figure 3: Location Quotients for Human Capital Clusters in the Indianapolis MSA

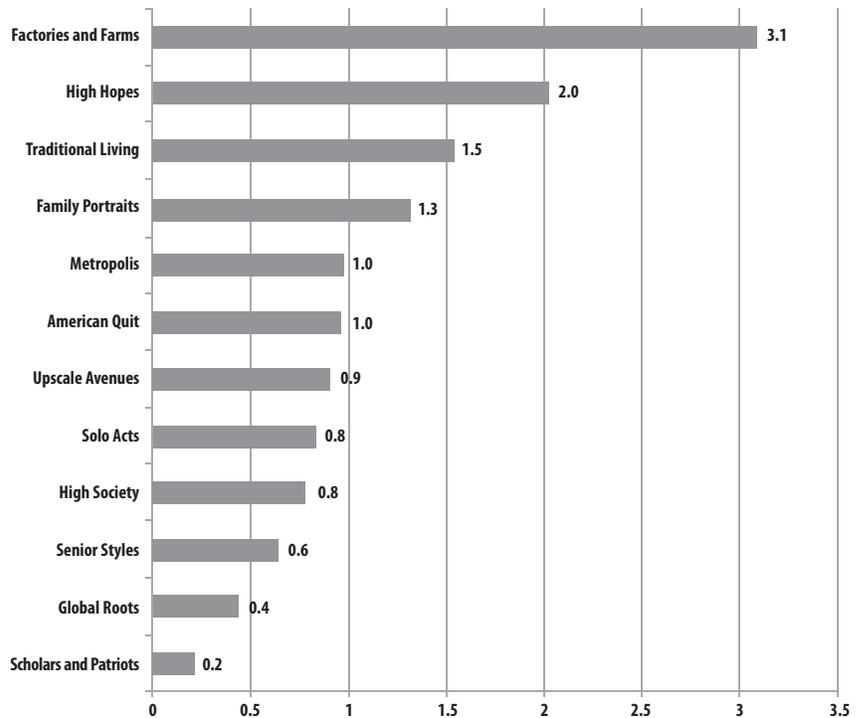
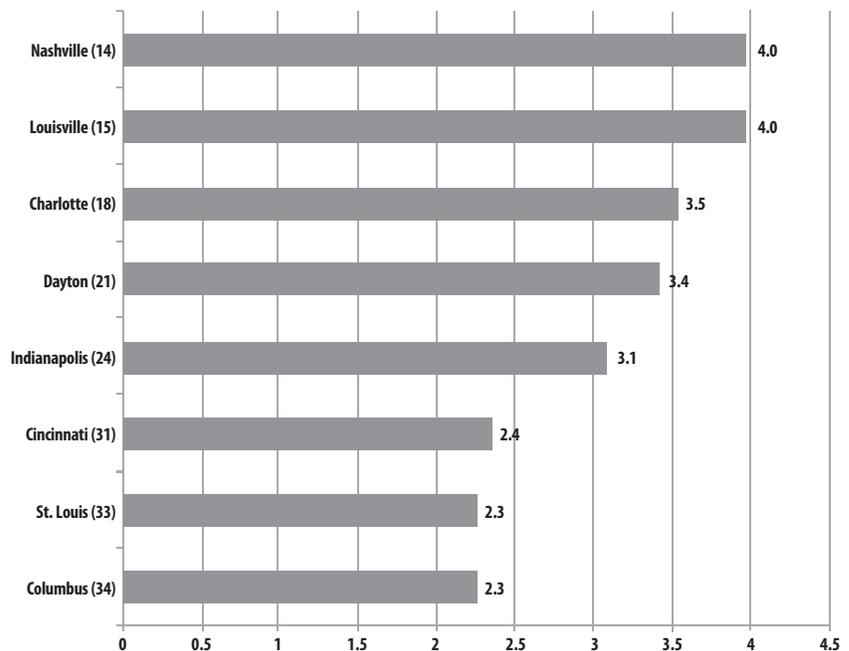


Figure 4: Farm and Factory Households in Competitor Regions (rankings among 100 largest metro areas are shown in parenthesis)





the seven regional competitors have location quotients and rankings very similar to the Indianapolis MSA, ranking between 7th and 25th among the 100 metro areas for the High Hopes cluster.

Individuals in High Hopes households are young and willing to move to a different region to seek better opportunities. This cluster includes married couples and single-parent families as well as the young single people valued by Richard Florida as the creative class. However, adults in this category are more likely to have a high school degree than a college degree (around 25 percent have a college degree) and tend to work in manufacturing, retail, and service industries.

Most High Hopes households are described as seeking the American dream—homeownership and rewarding jobs. Leisure activities include dining out, going to the movies (particularly foreign films), and attending professional sports events, particularly football and auto racing. They also enjoy participating

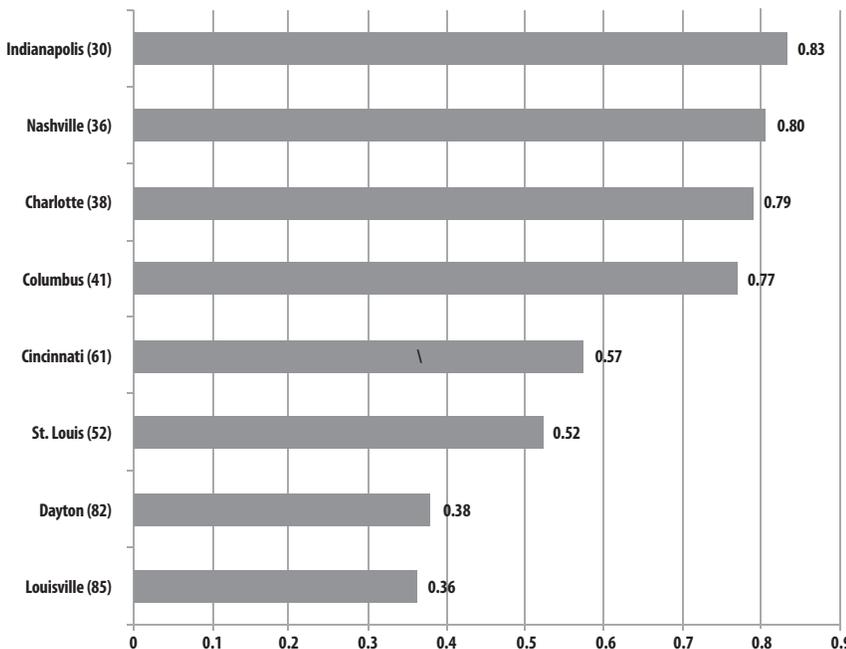
in athletic activities such as weightlifting, basketball, rollerblading, Frisbee, chess, and playing pool. Many of these activities are a good match with the amenities available in the Indianapolis MSA (especially auto racing and football) which may help explain the region’s attractiveness to High Hopes households.

Of the 12 clusters, Solo Acts households are perhaps most similar to Richard Florida’s concept of the creative class. While the Indianapolis MSA has a location quotient of less than one (0.8), it enjoys the highest location quotient of the selected regional competitor regions and has a location quotient twice that of Dayton and Louisville. If the Indianapolis MSA’s location quotient were one it would attract 10,000 more Solo Acts households.

Only 20 metro areas enjoy a Solo Acts location quotient of one or more. The top five metro areas for Solo Acts are location advantaged regions including San Francisco (2.7), San Jose, Seattle, San Diego, and Denver (1.7). The only regions located in the Midwest/rustbelt with a location quotient of one or more are

Chicago, Minneapolis, and Madison, Wisconsin.

Figure 5: Comparison of Solo Acts Households in the Indianapolis MSA with Regional Competitors (rankings among the 100 largest metro areas is shown in parenthesis)



Solo Acts households are, as the name implies, single, and they prefer city life. They tend to be well-educated working professionals who, if they don’t have a college degree, are attending college as they work. Most enjoy dining out, attending plays, and visiting museums. The Solo Acts cluster includes five lifestyle segments. Many of the households in the lifestyle segments enjoy attending professional baseball and basketball games and taking adult education classes. Additionally, they tend to belong to exercise clubs (yoga is a preferred form of exercise, and they enjoy playing tennis, volleyball, baseball, and golf) and to be civically involved, particularly in environmental issues.



Thoughts for Policymakers

The use of a cluster analysis of human capital can provide central Indiana policymakers with a marketing-based understanding of the region's attractiveness to specific household types and the opportunity to develop more focused and potentially more efficient policy attraction strategies (much like the Porter industry cluster work allowed policy makers to identify the Life Sciences, Advanced Manufacturing, Logistics, and Technology clusters and begin the work of developing strategies to capitalize on the opportunities these cluster present).

For example, a review of the type of amenities that are attractive to both High Hopes and Solo Acts human capital clusters suggests that the region's amateur sports/professional sports strategies have played an effective and important role in the Indianapolis MSA's ability to attract High Hopes (location quotient of 2.0) and Solo Acts households (location quotient of 0.8, but outperforming our regional competitors). It also suggests that the Indiana Film Festival, IUPUI, Butler University, University of Indianapolis, Ivy Tech, Martin University, and other post secondary education institutions, as well as many of the region's recreation facilities, will continue to play an important role in efforts to attract and retain households in these two clusters.

An exploration of the preferences of people in these two clusters and the preferences of households in the other 10 clusters in greater detail will provide even more insight into the development of specific policy options designed to capitalize on our strategic advantages for clusters for which the Indianapolis MSA enjoys a competitive advantage and develop strategies designed to address issues that might limit the region's attractiveness to clusters that are currently under-captured but important to the region.

In addition to directing investments in specific amenities and the development of attraction/retention campaign content, the cluster approach may also help policymakers determine where to focus attraction efforts. For example, the fact that the Indianapolis MSA outperforms its regional competitors in the attraction of Solo Act households yet trails some regions such as San Francisco, San Jose, San Diego, Seattle, and Denver by wide margins may suggest that a marketing campaign directed toward Solo Acts households already located in Midwestern regions might be more successful

than trying to overcome the strong competitive advantages that appear to be enjoyed by some other regions.

Furthermore, an examination of the relationships between the competitive industry clusters identified by Porter (and those who have followed his example) and the human capital clusters identified in this report provides us with an opportunity to identify links between the two forms of clusters. And it gives policymakers the information they need to develop specific human capital attraction strategies designed to be most attractive to the types of individuals most likely to work in specific clusters.

The critical point is that identifying the national and regional competitiveness of the Indianapolis MSA or potentially an expanded region relative to the clusters as well as the cultural and recreational amenities and other factors that affect the region's ability to attract/retain specific cluster(s) of human capital will enable policymakers within the region to separate themselves from the behaviors of other regions and become national trend setters in developing focused and target efforts to attract and retain human capital.

Each of the twelve clusters are analyzed individually in a working paper located at the Center for Urban Policy and the Environment's Web site <http://www.policyinstitute.iu.edu/PubsPDFs/12clusters.pdf>. This expanded analysis provides an overview of the types of activities and amenities that are attractive to households in each cluster, identifies the metro areas with the highest and lowest concentrations, and compares the Indianapolis MSA to some of its regional competitors (Cincinnati, Columbus, Nashville, Charlotte, St. Louis, and Dayton). The activity and amenities attribute data are critical because they will help policymakers make more focused investment in the types of cultural and recreation amenities that most appeal to people in the human capital clusters they wish to attract and retain.

¹Porter's analysis began with *The Competitive Advantages of Nations*. (1990). New York: New York Free Press.

²Florida, R. (2002). *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. New York: Basic Books.

³Sands, G. & Reese, L. (February 2008). Cultivating the creative class: And what about Nanaimo? *Economic Development Quarterly*. 22(1); 8-23.

⁴Markusen, A., Wassall, G.H., DeNatale, D., & Cohen, R. (February 2008). Defining the creative economy: Industry and occupational approaches. *Economic Development Quarterly*. 22(1); 24-45.



Indiana's Future: Identifying Choices and Supporting Action to Improve Communities

This project, funded by an award of general support from Lilly Endowment, Inc., builds on the Center's research to increase understanding of Indiana. The Center's faculty and staff work to identify choices that can be made by households governments, businesses, and nonprofit organizations to improve our quality of life. Our goal is to understand the people, economics, problems, and opportunities in Indiana, and to help decision-makers understand the impact of policy decisions. The Center also works to mobilize energy to accomplish these goals.

This issue brief is intended to bring the policy and marketing potential of the human capital cluster approach to the reader's attention and provide an overview how it might be used. Delving into the 12 clusters (and the 65 lifestyle segments that comprise the clusters) in greater detail is essential to the focused and targeted development of amenities and marketing strategies. Furthermore, the use of additional sources of marketing data (perhaps from other vendors) could be useful as a tool to both check the findings of the ESRI data and further refine policy development.

The Center for Urban Policy and the Environment is part of the Indiana University Public Policy Institute and the School of Public and Environmental Affairs at Indiana University-Purdue University Indianapolis. An electronic copy of this document and other information about other community issues can be accessed via the Center Web site (www.urbancenter.iupui.edu). For more information, visit the Web site or contact the Center at 317-261-3000.



State of Indiana

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