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**Creative thinking, the kind that fuels innovation, is now the world's most valued commodity. If North Carolina is to remain competitive in this new economic era, our 21st century job strategy must focus on creativity, imagination, and invention.**

**North Carolina is no stranger to economic change. The state has already witnessed global forces undermine its agriculture, textiles, electronics and manufacturing industries. To adapt, we ushered in the Knowledge Economy, expecting it to last forever and play to our state's strengths: great universities, significant labs, renowned research parks, and an entrepreneurial business culture. But, we are losing our advantage. The ability to compete on price, quality and much of the left-brain digitized work associated with knowledge — once central to America's businesses — is now being reproduced by highly trained and lower paid workers in countries across the world. As a result, our Knowledge Economy is being replaced by a Creativity Economy.**

# **New Thinking, New Jobs**

In this era of a Creativity Economy, one that author Daniel Pink calls “The Conceptual Age” and New York Times columnist David Brooks calls “The Cognitive Age,” more and more jobs are beginning to depend on a complex and creative set of “right-brain” skills — including problem solving, communications, entrepreneurship and collaboration. It is not that the “left-brain” capabilities that powered us in the 20th century are no longer necessary. Rather, these skills are not enough to power economic growth in the future, according to Pink.

For states to be competitive in today’s economy, they must develop a workforce capable of thinking and working creatively. This creative workforce does not just include artists, architects, fashion designers or photographers. According to the Pew Center on the States, it also increasingly includes teachers, marketers, medical researchers, geographers, chemists and many others generating new knowledge and new ideas. Economic success will be largely determined by the ability to create new products, re-imagine old ideas, see unlikely connections, and develop novel solutions to complex problems. This shift is not cause for despair. An ever-emerging generation of creative occupations and industries stands ready to transform North Carolina’s economic landscape.

## Measuring Our Creative Workforce

If North Carolina is to move forward in its development of a creative workforce, we must first assess what that workforce looks like and its level of economic influence. Once we know where we are, we can better determine where we need to be and how to get there.

For all of creativity’s importance, there is no accepted definition or methodology for measuring its economic influence. In measuring North Carolina’s creative workforce, this study used federal work activity data to identify “creative workers” — those holding the top 10% of jobs that routinely require creative thinking and at high levels.

Creative workers represent 5.5% of North Carolina’s creative workforce, versus 6% for the United States. We identified “creative industries” as the fifteen with the highest concentrations of creative workers. As is true of many studies seeking to measure the economic influence of creativity, this methodology omits important, but difficult to capture, economic impacts, such as innovative activities in the nonprofit or government sectors that generate more effective methods of delivering goods and services. While we fully recognize creativity-based problem-solving approaches, such as design thinking, can be applied to any sector of the economy and generate substantial economic benefits, those benefits are not identified in this study.

The analysis of North Carolina’s creative workforce resulted in five key takeaways illustrated below:

### 1) Creative Jobs Pay Above State Average

In 2009, workers in creative occupations earned an average \$59,200 per year compared to \$36,697 for all state workers. Above average salaries for creative work exist in metropolitan counties as well as more rural ones. For some occupations that pay below average, it is possible workers have supplemental income.

AVERAGE SALARY, 2009

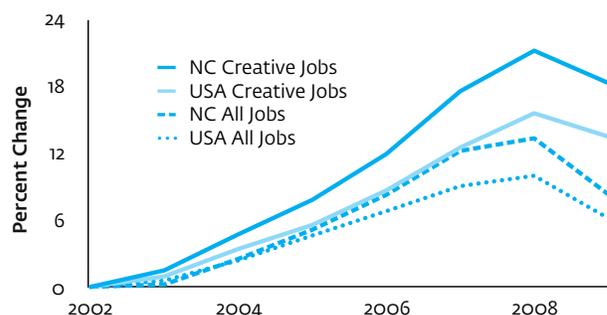


### 2) Faster Job Growth and Slower Job Loss

Creative workers are in high demand, and more of our workers will require right-brained skills to compete for these jobs. Creative job growth in North Carolina far outpaced total employment increases for the state as a whole from 2002 through 2008 (21.1 percent v. 13.3 percent), our most recent period of economic growth. What is more, creative work increased faster in North Carolina than it did in the United States as a whole (21.1 percent v. 15.5 percent). Within the state, creative employment increased more than the state average in all areas of the state, often at substantially higher rates.

Given the recent hemorrhaging of jobs in North Carolina, the best news may be that North Carolina’s creative occupations shed jobs at a much slower rate compared to all jobs during the current recession (2.4 percent loss compared to -4.4 percent from 2008 to 2009). This mirrors national trends. Geographically, non-metro areas of the state experience creative job loss at a rate one-half that of metropolitan areas (-2.6 percent compared to -1.2 percent). This data suggesting that creative jobs are particularly “sticky” in non-metropolitan areas of North Carolina will be good news for rural developers, and it begs for further and serious exploration.

NORTH CAROLINA AND UNITED STATES JOB GROWTH, 2002–2009



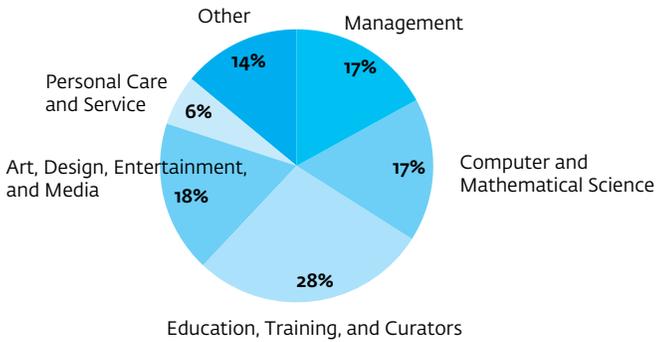
### 3) Diverse Occupations and Industries

Creative workers are located in 69 occupations spread among many sectors of the economy. These workers include, among others, scientists, technologists, health professionals, artists, managers and analysts. The diversity of industries is mirrored in the distribution of workers found in the 15 industries with the heaviest concentration of creative workers. This implies creativity cannot be reduced to particular categories, but its implications must be considered across the breadth of North Carolina's economy.

#### PERCENTAGE OF NORTH CAROLINA WORKFORCE IN CREATIVE INDUSTRIES, 2008

Internet publishing and broadcasting	0.02%
ISPs and web search portals	0.04%
Television broadcasting	0.06%
Radio broadcasting	0.06%
Performing arts companies	0.07%
Software publishers	0.15%
Specialized design services	0.19%
Newspaper publishers	0.20%
Data processing and related services	0.21%
Computer and peripheral equipment mfg.	0.26%
Physical, engineering and biological research	0.35%
Independent artists, writers, and performers	0.46%
Personal care services	0.48%
Computer systems design and related services	0.79%
Religious organizations	1.18%
<b>TOTAL</b>	<b>4.52%</b>

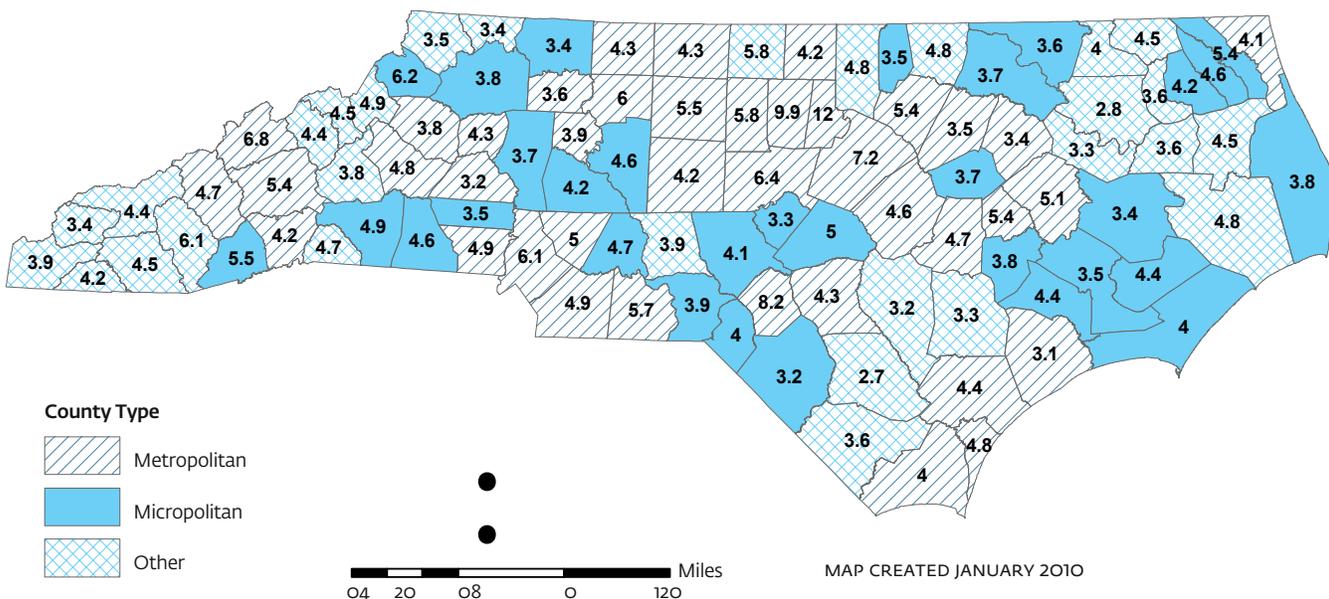
#### DISTRIBUTION OF NORTH CAROLINA'S CREATIVE OCCUPATIONS, 2009



### 4) Distributed Across the State

Creative occupations are located across the state, although more heavily concentrated in North Carolina's 40 metropolitan counties (5.9 percent of total jobs) compared to other areas (4.0 percent).

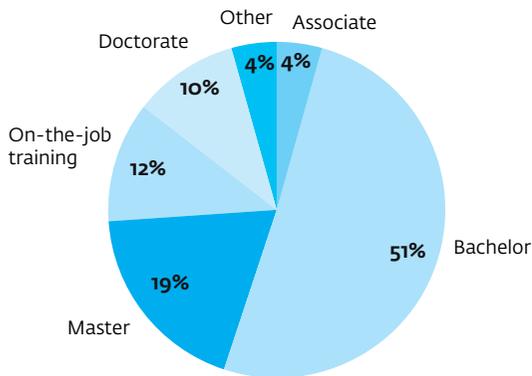
#### CREATIVE JOBS AS A PERCENT OF TOTAL JOBS BY COUNTY TYPE, 2009



## 5) Higher Education Achievement Important

Creative occupations generally require some amount of post-secondary education. However, there are many occupations for which only a Bachelor's degree (or less) is required, and others that require no advanced degrees. This suggests an increased strain on our systems of higher education to train a workforce skilled in creative thinking and problem solving.

EDUCATIONAL ATTAINMENT REQUIRED FOR CREATIVE OCCUPATIONS



In sum, North Carolina is already benefitting in significant ways from its creative workforce. This is exactly the type of work we need: jobs that pay well, expand fast when times are good and prove resilient in the face of recession. Our existing creative workforce provides a strong and diverse base on which to build our economy's future and holds out an opportunity to create good jobs across the whole state, not just in our urban areas. For all of our progress to date, however, North Carolina has fewer creative workers proportionately than the national average and many fewer than our competitors.

## Catching Up with Our Competitors

Other regions and states have already made it a priority to establish innovative programs and collaborations to support creative workers. In one of the oldest examples, Innovation Philadelphia, a nonprofit economic development organization, works with 11 counties in southeastern Pennsylvania, including downtown Philadelphia, to generate a total economic impact of \$60 billion. From 2003 to 2005, earnings increased by an impressive 19 percent for the region's creative jobs. Innovation Philadelphia's support for creatives includes entrepreneurial assistance, investment funds, and regular public events.

Massachusetts, under Governor Deval Patrick, launched a Creative Economy Initiative in 2008 and appointed a Creative Economy Industry Director. The state is now home to more than 14,000 creative enterprises with 80,000 workers. The Initiative focuses on film, television, design, gaming and advertising.

Silicon Valley is home to the nation's leading technology companies such as Google and Apple. 1stAct Silicon Valley focuses on bringing the arts and other amenities to that region as a talent recruitment and retention strategy. Launched in 2003, 1st Act to maintain the culture and quality of life in the Silicon Valley region, with a focus on the development of downtown San Jose.

## Moving Ahead: Teaching Buffaloes to Dance

Other regions across the country and globe are seeking to develop their creative economies. Likewise, blue-chip executives and entrepreneurs are seeking to produce paragons of the creative corporation. How will North Carolina move from an economic development strategy focused on company branch recruitment to one that grows creative workers and entrepreneurs? And how will it support its executives and entrepreneurs seeking to grow the next Apple, GE or Proctor and Gamble, just three of the many companies betting their future on creativity?

It is no secret that creativity flourishes in special interactive environments. These environments contain numerous factors that together provide a fertile soil for the generation of new ideas and their execution in the form of products, services, processes and new paradigms. Through our program of work, Creativity, iNC, the Institute for Emerging Issues seeks to improve the state's environment for creativity. Going forward, our work will be guided by the four strategies identified by IEI's working group, comprised of a diverse group of stakeholders, as critical for moving ahead:

- foster connectivity to encourage the exchange of ideas, increase efficiency, and build important partnerships;
- enhance education to infuse creative practices into core curricula as well as offer greater opportunities for cross-disciplinary collaboration;
- transfer ideas to market through an established process designed to transform creative ideas into marketable products, processes or services; and
- cultivate creative assets and gain broad-based public awareness and support of creative culture to promote and sustain positive economic and community development in both urban and rural areas of the state.

By doing these things well, we can take significant steps forward in our efforts to catalyze creativity and close the gap with our competitors. If we are serious about being "a State of Minds," we need to act. Now.