

Creative Enterprises in the Piedmont Triad Economy

A Report to the Piedmont Triad Partnership

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From the Alliance for Creative Advantage
Regional Technology Strategies
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Stuart Rosenfeld, Principal
Regional Technology Strategies
December 2008

Executive Summary

Introduction

The Piedmont Triad's best bet to ignite and sustain a widely distributed renaissance of its regional economy is to nurture and promote a forward-looking mix of advanced technologies and applied creativity. The region's emergent creative economy should build upon its earlier foundations—manufacturing, furniture and fabrics—while developing its new and emerging digital arts, media, and craft industries. It will realize its greatest success in the former, the more established industries, by boldly breaking the mold of more traditional designs, fashions, and markets. Now is the time to promote the Piedmont Triad's most inventive designers, to pursue higher-end markets, and to strengthen its position in new niches.

In so doing, the regional economy can become a robust, dynamic hub of creative individuals and firms. It already has the fundamental assets upon which to build such an environment—cultural heritage, creative talent, creative firms, and a strong post-secondary network of colleges and universities. As yet, however, the Piedmont Triad's creative economy has not come into its own. It awaits the concerted resolve of its public and private sector leaders to build a critical mass of world-class creative enterprises and develop a brand that distinguishes it from other places. Simply put, the creative challenge facing the Piedmont Triad is to transform itself into a world-class center for design.

This report defines the assets, support systems, and emergent opportunities that comprise the Triad's creative economy. It illustrates how a more fully fledged network of creative enterprises and cutting-edge support systems—especially focused around design as its overarching competitive advantage—will attract creative talent, generate well-paying jobs, accelerate innovation, and support the success of other economic clusters in the region, including technology-related growth sectors and tourism. As it develops, a more vigorous creative economy will enhance the Triad region's overall quality of life. Finally, the report recommends a four-step set of specific goals and action strategies that can guide the region's public and private leaders as they prioritize the targeted investments needed to make this promising vision an established reality.

What is the Piedmont Triad's Creative Economy?

The true economy of the Piedmont Triad has always been more diverse than its well-recognized public image as a center for traditional manufacturing. Despite recent outsourcing and lost production, the region still has a large number of design-oriented and customized furniture and apparel companies. While taking a backseat for decades to the large mass-production companies, these high-end firms have been less affected by low-cost imports. Perhaps just as significantly, the region's history in furniture and the High Point Market are likely to ensure that the region will retain a strong furniture cluster, although it likely will be organized around different functions than in the past.

Its future may be built on design, showrooms, logistics, marketing, administration as well as smaller niche and customized manufacturing.

Moreover, the Piedmont Triad's cultural roots extend widely across the region, from traditional music in Mount Airy to the potteries of Seagrove. Winston-Salem's UNC School of the Arts is a national treasure. However, these considerable creative assets have too often been viewed chiefly as cultural goods, not economic opportunities and profit-driven enterprises; as part of the region's quality of life, not quantity of jobs; as peripheral to industrial recruitment, not essential.

What would it mean, then, to fully consider these and other Triad creative assets as vital resources and contributors to a well-integrated, high-functioning regional creative economy? For the purposes of this report, the creative economy is defined by its economic value and potential. It includes all those enterprises that contribute to the production and marketing of economic goods and services that distinguish themselves by qualities associated with aesthetics, authenticity, or culture; that is, qualities in which the experience that is associated with the product or service adds substantially to its economic value and market potential.

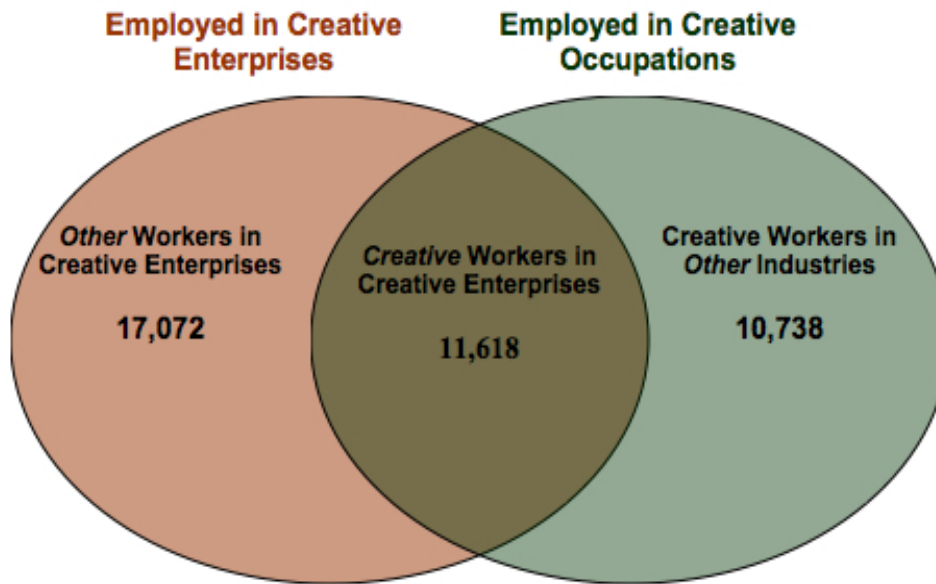
This definition encompasses not just the "core" of the creative economy—the companies that make art and creative products—but also the full breadth of the value chain that it takes to transform original art and design into products and services and get them to their final markets and customers. The creative enterprise economy operates as an economic production system that extends from the raw materials, equipment, and sources of learning through the software, technical support systems, distribution channels, and marketing outlets. It also includes the underlying support system of education and training programs, business and financial assistance programs, and the associations, guilds, and cooperatives that facilitate networking and provide services.

Assessing the Scale of the Regional Creative Economy

For its analysis presented in this report, the Alliance for Creative Advantage has relied upon standardized data collected by various government agencies, providing consistency and comparability to other parts of the economy, both with the region and beyond. These figures, however, have their limitations, missing out on some industries where companies produce artistic goods but lack a distinguishing classification, such as glass and ceramic artists who are counted in manufacturing sectors dominated by standardized products, or computer gaming, which is embedded within computer software industries. Moreover, even though the basic unit of analysis in the RTS report is the economic "enterprise," it is important to note that the Triad regional economy includes large numbers of individuals who earn their living by applying or developing creative talents but are not employed by an enterprise that meets the classification criteria. Accordingly, the analysis of this data presents an essentially conservative measure of the region's creative economy.

With these caveats in mind, this report seeks to help leaders and citizens better understand the true breadth and diversity of the Piedmont Triad's creative economy, as well as its specific needs and overall potential. Overall, the Piedmont Triad region has more than 22,300 jobs in 48 creative occupations across all industries in the economy. Jobs grew 14 percent between 2002 and 2007 in creative occupations. The 2007 median hourly earnings for individuals employed in these occupations combined were \$15.77, or roughly \$32,486 per year. Across the region, Guilford and Forsyth Counties employed over 67 percent of all 2007 jobs in creative occupations.

Figure 1: Total employed in creative economy, 2007



Counting the Creative Economy (See Figure 1)

Creative Enterprise Employment = Employment in creative occupations in creative enterprises + Employment in other occupations in creative enterprises

Used in economic development and cluster policy

Creative Occupations = Employment in creative occupations in creative enterprises + Employment in creative occupations in other enterprises

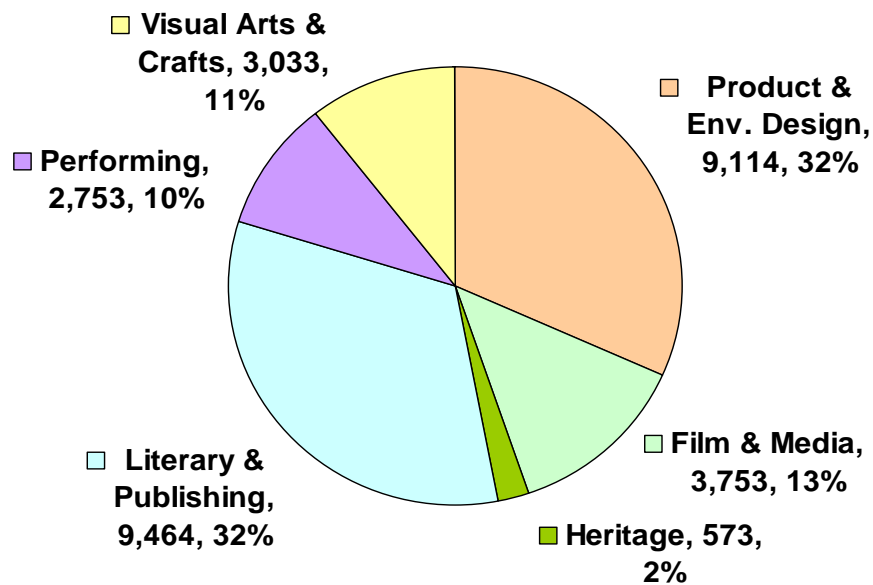
Used in education and training and employment policy

In terms of employment, the Piedmont Triad's overall creative enterprise cluster was the region's ninth largest cluster in 2007, ranking just behind information technology and telecommunications and just ahead of agribusiness, food processing, and technology. While substantially smaller than biotechnology and business services, the creative enterprise cluster is comparable to logistics and advanced materials and significantly larger than chemicals, transportation manufacturing, and computer manufacturing.

Creative enterprises in the Piedmont Triad grew three percent during 2002 through 2007, while the overall economy was stagnant and traditional manufacturing declined. Although the cluster grew slower than biotechnology, advanced materials, and computer manufacturing, the growth in creative enterprises was comparable to business services and logistics.

Employment and Concentration by Subcluster, Piedmont Triad Region

(Total Employed 2007 = 28,690)



Source: EMSI Complete Employment - Spring 2008 Release v. 2.

Benefits of Focusing on Creative Assets and Enterprises

The principal argument, of course, for focusing on companies producing creative and cultural goods is their direct contribution to the overall economy. They generate many more jobs and wealth generally realized or even suspected from conventional analyses.

The direct impact of creative enterprises on job growth is only one part of the larger picture. Because just their presence within a community affirms specific values and provides certain amenities, they also attract talent and other businesses. They contribute to increased tourism and spending. Finally, because they help establish a climate of “thinking outside the box,” they accelerate the pace of innovation. Over time, for example, the Center for Design Innovation, which focuses on the connections between art, design, and technology, is likely to have a major impact on the innovation process and the competitiveness of firms in the Piedmont Triad.

In fact, the creative enterprise cluster can be thought of as a keystone species within the larger ecology of key industry clusters that comprise the overall regional economy. It intersects and impacts the competitiveness of all of those clusters, including advanced manufacturing, logistics and transportation, and health care.

Next Steps

Although the Piedmont Triad has not yet fully established itself as a world-class creative regional economy, it can accomplish that ambitious vision by strengthening and capitalizing upon existing assets, including its historical legacy with manufacturing, rich cultural assets in both traditional and emerging media, strong educational resources, and the progressive vision of its leadership.

After all, even given recent reversals in key economic sectors, the High Point Market remains the most important furniture event in the world. The region also has a very strong set of programs and resources in entrepreneurial development, which could give much more attention to creative enterprises. It boasts a strong funding environment for arts and cultural institutions through the region’s arts councils and local philanthropy. And the Piedmont has a robust economic development infrastructure, which, if it chooses, could significantly bolster the region’s creative sectors.

It is essential for the goals and actions outlined in this report to be coordinated regionally. A fragmented approach by individual communities will prevent the creative enterprise cluster from realizing its full potential. Now is the time to seize the opportunities for working together to build a dynamic, competitive creative economy in the Piedmont Triad.

As such, the report recommends that the Piedmont Triad embrace five overarching goals, each with specific action steps that are essential to moving forward:

Goal I: Provide oversight, direction, and coordination to the region’s creative economy.

Goal II: Capitalize on the creative economy assets of the region's educational institutions.

Goal III: Strengthen the business, marketing, and entrepreneurial capabilities of creative enterprises.

Goal IV: Advance the application of design as source of competitive advantage for the region.

Goal V: Promote packaging and branding of the region's creative assets.

Successfully addressing all of these goals, especially with a strong emphasis upon design as the leading competitive advantage of the creative enterprises cluster, likely will bring lasting benefits to every sector of the overall Piedmont Triad regional economy.



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Prologue

A Creative Vision for the Piedmont Triad

The Piedmont Triad region offers a rich fount of creative energy, creative talent, and creative enterprises. Its premier private sector and institutional creative assets already are well known across the nation, and a small number of regional designers, architects, artists, and animators are winning their own plaudits.

Even with these assets, however, the Piedmont Triad has yet to come fully into its own as a robust, dynamic hub of creative people and companies. The individual parts of its creative economy have yet to combine and collaborate in sufficient ways to produce synergy, boost creative output, and draw attention to the whole. It must resolve to build the critical mass of creative enterprises and develop a brand that can distinguish it from other places—thereby meriting attention as a world-class creative region.

Ironically, in its ongoing efforts to move forward with this emergent creative economy, the Piedmont Triad region actually may have been held back in some ways by its previous economic successes. For more than half a century, the Piedmont Triad was one of America's leading manufacturing centers, widely known around the world for the mass production of tobacco, furniture, and textiles. Creativity, on the other hand, was widely viewed either as support for the manufacturing base (e.g., architects, landscapers, and interior designers), as elements in the value chain of manufacturing sectors (e.g., photographers, writers, and advertising), or as a cultural byproduct to fill the leisure time of a population heavily dependent on manufacturing (e.g., museums, entertainment, and galleries).

Moreover, during this earlier industrial era, the Piedmont Triad's manufacturing base chiefly made its mark by producing quality, standardized low- and medium-cost products that were widely marketed under recognized brand names. For the most part, regional manufacturers have not been competing with high-end Nordic or Italian design-oriented furniture.

Today, with the tobacco sector almost gone and textiles and furniture in deep decline, the regional economy is necessarily changing course, looking to both technology and creativity as its future. Technology clearly has a connection to—and will play a major role in—the region's dominant and emerging economic sectors: biotechnology, nanotechnology, information technologies, and logistics/transportation, all of which are based on (or formerly were) elements of the region's manufacturing sectors.

The region's emergent creative economy will retain many such connections, building upon the region's tradition of furniture, furnishings, and fabrics but moving forward in ways that break the mold of its more traditional designs, styles, and markets. It will build upon tradition without being traditional. And it will take greater risks by promoting the Piedmont Triad's most inventive designers and pursuing higher-end markets.

The challenge facing the Piedmont Triad region, then, is how to transform itself into a center for design.

It must construct both an environment that supports creative enterprises and a scene that attracts talented young, mature, and retired people. It then must brand and

market that image to the world. In other words, the Piedmont Triad must strive to become a widely recognized, innovative creative enterprise cluster. We recommend the following four-step program as a starting point.

It is essential for the goals and actions outlined in this report to be coordinated regionally. A fragmented approach by individual communities will prevent the creative enterprise cluster from realizing its full potential. Now is the time to seize the opportunities for working together to build a dynamic, competitive creative economy in the Piedmont Triad.

STEP ONE: Organize the members of the Creative Enterprise Cluster.

Nearly every successful cluster-based economic development strategy begins with and depends upon an organization that represents, facilitates, and speaks for the cluster. In most places it is at least partially supported by the public sector. Some clusters have been able to build on existing trade associations (Oregon's Software Association) while other clusters have needed to form new organizations (Berkshire Plastics Network, New Hampshire Furniture Masters Association). The Piedmont Triad creative economy needs a similar type of organization. It could be called the Piedmont Triad Creative Enterprise Council, and it might either operate independently or, perhaps, function under the auspices of the Piedmont Triad Partnership.

Because the creative segment of the Piedmont Triad's overall economy encompasses such a wide variety of sectors and needs, the Council will operate most effectively if it creates a set of industry working groups that represent the six subclusters used in the report's cluster analysis: visual arts and crafts; product and environmental design; literary art and publishing; film and interactive media; performing arts; and heritage and museums. These working groups can establish priorities, identify resources, catalyze collaborative projects, and facilitate networking.

The first step toward organizing and launching the Piedmont Triad Creative Enterprise Council will be to involve high-level leadership from the business and arts community. The Council also should include representation that reflects the diversity of the creative economy as well as the rural and urban nature of the region. Its action agenda would include the following:

- a. Identify two local champions respected both by the business community and across the spectrum of creative economy subclusters to serve as Council co-chairs, with a PTP staff member serving as director. Partially supported by public funds, the Council will serve as a collective voice for the creative economy. It will establish overall priorities, facilitate collaborations, and assign responsibilities. Each industry working group will develop its own work plan that articulates needs, sets priorities, and identifies resources.
- b. Provide competitive grants for innovative ideas that promise to produce positive economic outcomes, as the John and Abigail Adams Funds does in Massachusetts. The Piedmont Triad Partnership will help raise the funds for this program from some of the larger foundations and corporations in the region, and awards will be made with external peer review committees.

- c. Provide matching funds for the working group members to attend industry and professional events, organize study tours, and build external networks on behalf of their industry. Such grants will require at least three or more participating enterprises and a commitment to share information about what is learned.
- d. Create a regional web portal for creative enterprises and assets of the Piedmont Triad Creative Council that both promotes the region and enables creative enterprises and individuals to find and interact with one another.

STEP TWO: Distinguish the Piedmont Triad cluster from other creative enterprise clusters nationwide by taking advantage of existing strengths and reputation.

Design would appear to be the Piedmont Triad creative cluster's leading existing comparative advantage, particularly among small and mid-sized manufacturers of furniture and home furnishings, provided that the cluster can shift its emphasis from traditional to more edgy, avant-garde designs. Some design activity and expertise already exists in the region but is overshadowed by more functional, mass-produced goods that dominate trade shows and advertising. To accomplish this change, the region must help small and mid-sized companies to move beyond competing on the basis of lowest cost, as well as expand and upgrade the design programs in its schools.

- a. Establish a baccalaureate and graduate School of Design that becomes the equivalent of the Rhode Island School of Design or the Savannah School of Design, attracting the world's best designers as faculty and recruiting promising students worldwide. It should include a research institute comparable to the Danish Centre for Design Research. The school might possibly renovate and use closed furniture factories as classroom space or student housing. In 1990, Ireland established a Furniture College in a tiny rural village in Connemara. Today it combines Scandinavian design principles with advanced production technologies, and its graduates readily find job placements across the region.
- b. Expand the applications of art and design in small and mid-sized companies by developing expertise among regional industrial extension agents. It may be useful to establish PT-CAD (Piedmont Triad Center for Applied Design) similar to PT-CAM (Piedmont Triad Center for Advanced Manufacturing) to bring companies together with artists and designers.
- c. Use interior designers as coordinators to facilitate collaboration among manufacturers of furniture and furnishings, builders of demonstration homes (e.g., The Ramble at Biltmore Estates), and potential corporate and institutional customers.
- d. Reestablish the connection between the High Point Furniture Market and local producers of home furnishings, including high-quality crafts and fine art, and give local artisans and design-oriented companies greater prominence in the show. This will provide an opportunity for furniture manufacturers and artisans to explore whether collaboration around customization can improve their marketing position.

Increase the support for and visibility of the Center for Design Innovation (CDI), particularly among corporate prospects that might then access the CDI as a source of innovative ideas and educational opportunities.

STEP THREE: Invest in creating and promoting aesthetics, creative, and cultural assets to increase the attractiveness of the environment to new professionals, young families, and high-tech companies.

The region already has a number of music and performing arts venues, creative districts, and creative scenes, but strengthening and expanding these place-based assets makes it possible to achieve a synergy in which the whole is greater than the sum of its parts.

- a. Offer rental and/or renovation incentives in designated neighborhoods for creative enterprises such as art galleries, coffee shops and restaurants, film, music, and artists' studios, art installations, and boutique hotels and shops. Paducah, Kentucky revived a dilapidated section of town by offering artists low-interest mortgages and architectural grants for building improvements.
- b. Work with local architects to give these areas a distinctive physical environment, building on the local heritage where possible but with a unique flair, as in Miami Beach's South Beach and Portland, Oregon's Creative Industries District. Denver, for example, established the Scientific and Cultural Facilities District in 1989 that uses one-tenth of a one percent sales tax (about \$40 million annually) exclusively for cultural facilities in a seven-county metro area.
- c. Support regular art and heritage trails and walks that highlight the scale and connectedness of the artistic and cultural assets of the region while generating business opportunities as well.

STEP FOUR: Increase investments and further develop programs in education and training in promising new fields.

It has been difficult to justify education programs in new and emerging creative sectors because of the difficulty in reliably anticipating industry demand in fields that are new and lack standard industrial classification. By taking risks, however, the availability of such programs with expert faculty can attract promising students. The creative sectors also often attract talented but non-traditional learners, particularly from marginalized populations, who may not have succeeded in conventional programs of study. Strong programs attract talent to the area, as regional surveys confirm, and companies are looking for local access to a talented labor pool with particular talents. These decisions will be the responsibility of the Piedmont Triad Creative Economy Higher Education Working Group.

- a. Build on the existing strengths of the film, animation, and music technology programs at regional community colleges (Piedmont, Forsyth Tech, Guilford Tech) and colleges (the UNC School of the Arts (UNCSA), Elon University, UNC Greensboro, Winston-Salem State University), promoting the programs nationally and internationally and further expanding partnerships with the global industry. This strategy intends to enhance the region's position in the highly competitive film, video, animation, and music production sectors.

- b. Invest in the emerging serious gaming and simulation sectors, which are closely linked to other digital media, as well as existing information technology and software sectors.
- c. Increase emphasis on entrepreneurial skills in all programs in creative sectors and expand the continuing education courses in business skills across the region, especially in the smaller communities. Focus on the unique business skills of creative enterprises whose success often depends on portfolio, reputation, and networks. Help educate regional investors—whether individuals, private sector firms, or foundations—about how to evaluate creative projects and entrepreneurial ventures.
- d. Through the working groups, expand internships and apprenticeships so that students better understand what is expected in a creative workplace, giving them the opportunity to gain the kind of hands-on knowledge that classrooms can't impart, and offering employers a chance to get to know potential future employees. Such internships will be essential for both artists and artisans who specialize in traditional media (working with manufacturing, architecture, interior design and construction firms) and for practitioners in the new digital media arts (working with film and video production companies, animation firms, advanced learning technology companies, and music production firms).

These four steps alone will not put the Piedmont Triad on the map of the world's most creative region; however, they will make it known that the region values and invests in creativity and has the cultural and creative amenities to attract and retain talent. The support of the region's writers, journalists, publishers, and advertisers is essential in spreading the word about the Piedmont Triad. Over time, with a strong marketing and advertising campaign, the region will brand itself effectively across its particular niches and will become a global leader.

I. Introduction

North Carolina's Piedmont Triad region is, in the minds of many, the heartland of the state's industrial economy, the locus of jobs that earlier drove the transition of North Carolina from a poor agricultural state following the depression years to America's most highly industrialized state by the 1980s. The Research Triangle may have been the wellspring for the state's research but the Piedmont Triad represents the core of the state's traditional manufacturing legacy.

When the state's dominance in textile, furniture, and tobacco manufacturing was threatened in the late 1980s, the region turned to technologies and innovative techniques to modernize its aging manufacturing base while simultaneously recruiting new businesses in emerging higher tech sectors. An analysis of the Piedmont Triad's economy conducted in 1999 by RTS recommended reducing its dependence on traditional manufacturing in favor of transportation, communications and electronic sectors in addition to growth services such as logistics and financial services.

By 2005, the nation's and the region's economy was operating in a very different environment. The decline that hit traditional mass production manufacturing was also affecting many more advanced sectors and the decline in manufacturing employment appeared to be largely irreversible. Global value chains had inserted themselves into the tightly constructed U.S. industry clusters leaving the region with shells of research, administration, design, logistics, and some assembly while firms outsourced much of the routine production and the bulk of its jobs.

Fortunately, the true economy of the Piedmont Triad has always been more diverse than the traditional manufacturing-intensive image it projected. First, the region still has a large number of design-oriented and customized furniture and apparel companies. While taking a backseat for decades to the large mass production companies, these high-end firms have been less affected by low-cost imports. Perhaps even more important, the region's history in furniture and the High Point Market are likely to ensure that even with outsourcing and lost production, the region will retain a strong furniture cluster, although around different functions than in the past. Its future may be built on design, showrooms, logistics, marketing, administration as well as smaller niche and customized manufacturing. Second, the region's cultural roots cut across the region, from traditional music in Mount Airy to the potteries of Seagrove. Winston-Salem's UNC School of the Arts is a national treasure. But those considerable creative assets in the past have been viewed primarily as cultural goods, not economic opportunities; as part of the region's quality of life, not quantity of jobs; as peripheral to industrial recruitment, not essential.

It wasn't until a new set of economic analyses of economies in 2000-01 assigned numbers to the jobs associated with creative pursuits that states begin to take this part of the economy seriously. In 2005, Angelou Economics conducted an analysis of select parts of the Piedmont Triad's creative economy. That study focused on design, assessed strengths and weaknesses, and recommended stronger marketing, website

portal, networking, an annual design conference, incubators and connections to regional funding sources.

This report examines the Piedmont Triad's creative enterprises using a broader definition, examines its assets, assesses its opportunities, and briefly describes benchmark regions and strategies. Using that information, it will put forth directions that can give the region its greatest advantage in developing its creative economy, to support the growth of other new technology-related growth sectors, and to create an environment that improves the quality of life and learning.

II. Defining the Piedmont Triad's Creative Economy

The term creative economy in the past often has been associated with the pure arts and non-profit organizations that support arts, not with profit-driven enterprises. For the purposes of this analysis, the "creative economy" is defined by its economic value and potential. It includes all those enterprises that contribute to the production and marketing of economic goods and services that distinguish themselves by qualities associated with aesthetics, authenticity, or culture; that is, qualities in which the experience that is associated with the good adds substantially to its economic value and market potential.

A. What can be counted and what can't

To measure the scale of the creative enterprises in the economy, we rely on data collected by various government agencies. While the use of standardized data—primarily the North America Industry Classification System (NAICS) and U.S. Census—allows for provides consistency and comparability to other parts of the economy, they also have its limitations and is a conservative measure of the region's true creative economy. For example, standard industry classifications miss companies that produce artistic goods but lack a distinguishing classification, such as glass artists, ceramics artists, and high-fashion apparel, which are counted in manufacturing sectors dominated by standardized products and computer gaming and animation, embedded in computer software industries. It also misses restaurants and coffee shops that also have art galleries or music stages, and it misses the large number of people whose creative work is a secondary—though often essential—source of income.

Our definition of the creative enterprises based on the contribution of aesthetics and authenticity to competitive advantage covers a quite large economic territory and variety of enterprises. Thus, to make the creative economy more easily understandable in terms of its needs and potential, we have further subdivided it into six more cohesive subclusters with more in common and greater possibilities for collaboration and synergy.

In defining the creative economy, we include not just the "core," the companies that originate art and creative products, but the full breadth of the value chain that it takes to transform original art and design into products and services and get them to their final markets and customers. The creative enterprise economy operates as an economic production system that extends from the raw materials, equipment, and sources of learning through the software, technical support systems, distribution channels, and marketing outlets. It also includes the underlying support system of education and training programs, business and financial assistance programs, and the associations, guilds, and cooperatives that facilitate networking and provide services. All of this information is integrated into six creative enterprise subclusters described below.

1. Product and Environmental Design comprises those companies that apply artistic content to commercial products and environments and whose markets depend on that artistic input. The artistic content of architects' plans, landscapes,

advertising, websites, office and home interiors, and some manufactured products influences customers and determines profitability.

2. Film and Digital Media Arts covers the technical and distributive elements of the region's entertainment sectors, including those firms that provide the technical production support systems such as sound, lighting, digital art, animation, set design, and the studios, broadcasting, and distribution channels via motion picture, video, and music production companies, radio, cable, and Internet, and motion picture theatres.
3. Heritage and Museums includes historical sites, museums, botanical gardens, and zoos.
4. Literary and publishing includes the region's authors, poets, and writers; the editors, publishers, printers that reproduce the text; and the libraries, bookstores, and newsstands that make them available to the public.
5. Performing arts is composed of actors, musicians, promoters, dancers, producers, and directors and the venues at which they perform.
6. Visual arts and crafts is the group most closely associated with the creative economy, the sketchers, painters, photographers, sculptors, potters, glassblowers, metal artists, jewelers, paper artists, carvers, and other artisans who create products as well as the shops and galleries that show and sell them.

Although the basic unit of analysis in our study is the economic "enterprise," we understand that the economy includes large numbers of individuals who earn their living by applying or developing creative talents but are not employed by an enterprise that meets the classification criteria. For example, there are many art teachers in the public schools and interior designers, architects, editors and staff writers working within traditional corporations and, thus, are not classified in creative enterprises. Conversely, the creative economy defined by industry codes includes large numbers of support staff that rely mainly on prescribed procedures and practices and not creative talents in their jobs.

B. What is unique or unusual about the Piedmont Triad's creative economy?

With virtually every major city and region now trying to brand itself as a major cultural center and hot spot in the creative economy, in the absence of some unusual physical feature, it is becoming more and more difficult to find a niche that distinguishes one place from another. Developing cultural quarters in major cities and even in small cities is becoming the norm, not an exception. Terry Clark¹ calls it "Making Culture into Magic," and argues that creating local "scenes" is a response to globalization. A 2008 consultant's report recommended that Greensboro spend \$14 million over the next

¹ Clark, T. N. (2007). Making Culture Into Magic: How Can It Bring Tourists and Residents? *International Review of Public Administration*, 12(1), 13-26.

decade to create an expanded cultural district east of Elm Street that includes an International Civil Rights Center and Museum.²

What are the particular strengths of the Piedmont Triad that can be developed to position itself as one of the nation's leading regional creative enterprise clusters? While all aspects of the Piedmont Triad's creative economy have selected strengths and significant potential for job creation, the region is best known for the national dominance of its manufacturing sectors. Though in transition from traditional mass production to a more technology-based sector driven in part by global cost-based competition and in part by foresighted leadership, manufacturing and the activities that support it, e.g., logistics, research and engineering, and energy, manufacturing remains the region's core strength in terms of value added to the economy.

The region's future may hinge on its ability to increase its design capabilities to shift to products for living and work environments, which may be less susceptible to low-cost imitation, and to developing regional "scenes" that enhance the quality of place and attract young, educated, and skilled residents.

Examples of where the region has particularly strong resources and even greater potential related to the Piedmont Triad's abilities include to:

1. apply art and design to products and production capabilities to achieve new forms of globally competitive advantages;
2. integrate creativity into the R&D capacities of the region through organizations such as the Center for Design Innovation;
3. take advantage of the UNC School for the Arts as a magnet for youth who may stay in the area, faculty who contribute to region's creative economy, and patrons who value the schools productions;
4. develop a rich concentration of aesthetic and cultural amenities that will appeal to companies and the talented workforce that more advanced companies need;
5. strengthen relationships among Seagrove's potters and with other craftspeople to develop a more comprehensive region-wide trail that highlights crafts, artisanal foods, and heritage; and
6. develop within its youth an appreciation for the arts and culture and new sets of skills that will prepare them for high growth sectors in filmmaking, music production, interactive media, digital arts, and graphic design.

C. How does the Piedmont Triad region benefit from its creative assets and enterprises?

Comparative measures only provide relative measures, not value and impact. They fail to show just how strengthening the Piedmont Triad's creative sectors can benefit the

² Donald Patterson, "City aims to create cultural mecca," *Greensboro News & Record*, August 26, 2008.

region's economy. The direct impact on jobs is only one part of the larger picture (Figure 3).

1. Generating jobs & businesses

Our principal argument for focusing on companies producing creative and cultural goods is their direct contribution to the economy. They generate many more jobs and wealth than generally realized, or even suspected from conventional analyses. Because so much of the revenue comes from very small enterprises or proprietorships, firms classified in other sectors, secondary products or production functions, or secondary and underreported income it is undervalued.

2. Attracting talent and businesses

The day of the "organization man" following the large corporations wherever they might send him is over. Now it's much more common for highly educated individuals to choose a place to live based on values, amenities, and community and then look for work. For that very reason, companies who depend on an educated and talented labor pool choose those same locations. Richard Florida in "Who's Your City" writes, "where we live is a central life factor that affects all the others—work, education, and love—follow."³ Cities, he argues, have personalities. Economic developers recognize the increased attention to amenities, or quality of place, and therefore have been more willing to invest in them as part of the attraction package.

3. Increasing tourism and spending

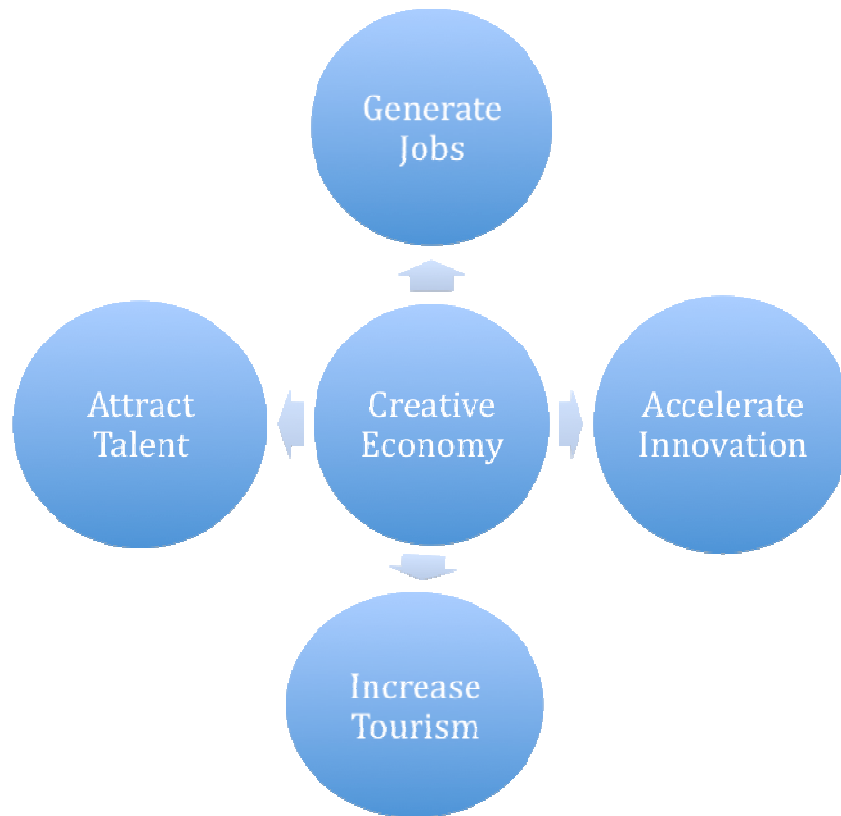
A recent study of North Carolina's creative economy found that the concentration of artists, performers, and designers in a county independently influenced expenditures on tourism.⁴ Creative and cultural attractions not only bring more tourists but they cause them to stay longer and spend more. Seagrove's pottery studios, Lexington's barbeque, Winston-Salem's Old Salem village, and the Yadkin Valley wineries all bring people who may visit galleries, museums, or other arts events. People attending professional conferences or university events are apt to visit other creative venues and purchase local art.⁵

³ Richard Florida, *Who's Your City?* New York: Basic Books, 2008.

⁴ North Carolina Arts Council, *Creative Economy: The Arts Industry in North Carolina*. Raleigh: Department of Cultural Resources, 2007.

⁵ David Long, *Tourism: Strategic Plan for the Piedmont Triad Region*, Draft, May 2006.

Figure 3: Value of Creative Economy



4. Accelerating innovation

The mere presence of creative enterprises contributes to innovation by establishing a creative milieu that inspires people to think “outside of the box.” Success in many sectors now depends on the ability to innovate—but in ways different from how engineers and technicians were taught in the past.⁶ To compete, businesses have to rely on all of their employees to innovate and creatively solve new problems or suggest changes that attract and keep customers. Over time, the region’s Center for Design Innovation, which focuses on the connections between art, design, and technology and is gaining a national reputation, will have a major impact on the innovation process and competitiveness of firms in the Piedmont Triad.

⁶ Rob Austin and Lee Devon, *Artful Making*, New York: Prentice-Hall, 2003.

III. Depth, Breadth, and Geography of the Creative Economy

Using the enterprise as the unit of analysis allows us to identify the creative enterprise cluster by the industry sectors that best represent it, to analyze it as a cluster, and to compare it to other clusters. The region's creative economy, using data described in Appendix H, consists of 72 industry sectors (listed in Section IV, by subcluster) with more than 1,500 establishments that have employees. About five percent of the entire region's workforce earns its living from the creative economy also including those firms without employees, which represents a large proportion of creative industries.

In 2007, the region's creative economy employment reached almost 28,700 jobs, an increase of 800 jobs since 2002 (see Table 1). These workers have combined total earnings, including benefits, of \$1.05 billion, which represents roughly 2.9 percent of the Piedmont Triad economy's total earnings. The employment includes all employees of enterprises designated as creative, the 11,618 employees involved directly in creative activity as well as the 17,072 employees responsible for the more routine functions required to operate a successful creative enterprise (Figure 1).⁷ The total employed found in the standardized databases is obviously conservative because it omits both creative enterprises embedded in industries that are largely not creative and individuals who earn secondary, but essential, income from creative pursuits or are temporarily employed while they develop their creative enterprise. Table 1 presents a clearer view of employment, employment growth, and relative concentration for the six creative subclusters.

A. Relative concentration vs real importance

The Piedmont Triad region, as Table 1 shows, does not have a high concentration of employment in any of the six subclusters. The common indicator of relative concentration is the location quotient, which is simply the ratio of the concentration employment of subcluster in the Piedmont Triad region to the concentration of employment the same subcluster for the entire United States. This is measure commonly used to identify and compare industry clusters. If the location quotient is less than 1.0, it means that there are fewer people employed in that particular cluster or subcluster as a percent of total employment in the region than that same ratio for the U.S.

⁷ The data used in this table includes self-employed workers. While the data includes employment covered by unemployment insurance typically reported under the Quarterly Census of Employment and Wages (QCEW) program by state labor market information divisions, the addition of self-employment, and others who are not counted provides a more complete picture of the 12 counties served by the Piedmont Triad Partnership.

Table 1. Employment and Concentration by Subcluster, Piedmont Triad Region

	Employed 2002	Employed 2007	(+/-)	Percent Change	Location Quotient	Average wages
Product & Env. Design	8,546	9,114	568	7	0.95	\$51,654
Film & Media	3,074	3,753	679	22	0.60	\$43,419
Heritage	527	573	46	9	0.86	\$21,017
Literary & Publishing	10,461	9,464	-997	-9	0.98	\$41,880
Performing	2,378	2,753	375	16	0.65	\$18,932
Visual Arts & Crafts	2,953	3,033	80	3	0.80	\$20,264
Total	27,939	28,690	751	3		

Source: EMSI Complete Employment - Spring 2008 Release v. 2.

A location quotient of less than 1.0, however, may not reflect a low level of importance. The distribution of creative enterprises is highly skewed by the heavy concentrations in nation’s largest metropolitan areas, particularly in New York and Los Angeles. Therefore, a region can have a location quotient of below 1.0 (calculated as the mean) but still rank higher than most other regions in the nation (the median). For example, in the U.S. Department of Agriculture’s Bohemian Index of concentration of artists, performers, and designers by county, Guilford and Forsyth counties both rank in the top quartile of all metro counties—despite lower than average concentrations.⁸ Further, individual industries within the subclusters may be highly concentrated. For example, the industrial design industry is four times more concentrated in the Piedmont Triad region than the national average. Thus, to understand the real strengths and potential of the Piedmont Triad requires a look beneath the data.

B. A Workforce Perspective

In addition to examining creative enterprises, the chosen unit of analysis, we recognize that many people perform creative work in enterprises that are not defined as “creative.” Such creative talent defined by occupations, not place of employment, is a complementary part of the creative economy that has implications for education and training. Thousands work in occupations that require creativity but in businesses that do not meet the industry criteria of a creative enterprise. This includes, for example, art teachers in the public and private schools, musicians in the region’s many religious organizations, designers working in manufacturing to ensure that products combine “artistry and usefulness,” or landscapers employed by institutions to maintain the artistic grounds and gardens (see Appendix A for list of creative occupations by category).

Overall, the Piedmont Triad region has more than 22,300 jobs in 48 creative occupations across all industries in the economy (Table 2). Jobs grew 14 percent between 2002 and 2007 in creative occupations. The 2007 median hourly earnings for individuals employed in these occupations combined were \$15.77, or roughly \$32,486 per year.

⁸ <http://www.ers.usda.gov/Data/CreativeClassCodes/>

Guilford and Forsyth Counties employed over 67 percent of all 2007 jobs in creative occupations.

Table 2: Employment in Creative Occupations, Piedmont Triad Region

	2002 Jobs	2007 Jobs	Percent Change	2007 Median Hourly Earnings
All Creative Occupations	19,639	22,356	14	\$15.77
Artists & Performers	5,636	6,668	18	\$8.88
Cultural	1,403	1,534	9	\$18.08
Designers	4,045	4,274	6	\$19.84
Media	8,124	9,449	16	\$18.28

Source: EMSI Complete Employment - Spring 2008 Release v. 2.

Of the 381 occupations, 48 are directly involved in the creative production of artistic goods and services. The other 333 occupations are not considered “creative” in nature. Some of the latter, however, are employed in creative enterprises. For example, salespersons held 861 jobs in creative industries in 2007 and thus are included in the creative economy.

Counting the Creative Economy (See Figure 1)

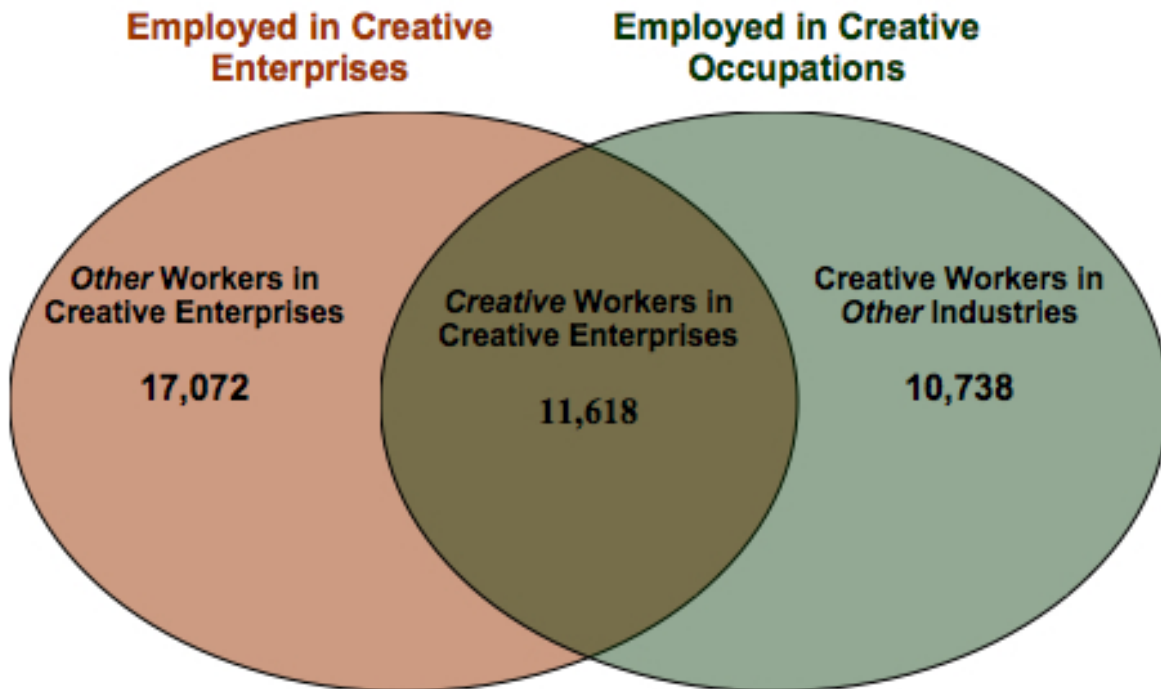
Creative Enterprise Employment = Employment in creative occupations in creative enterprises + Employment in other occupations in creative enterprises

Used in economic development and cluster policy

Creative Occupations = Employment in creative occupations in creative enterprises + Employment in creative occupations in other enterprises

Used in education and training and employment policy

Figure 1: Total employed in creative economy, 2007



Source: Economic Modeling Specialists, Inc., Complete employment, Spring 2008 v.2.

C. Benchmarks

How does the Piedmont Triad's Creative Enterprise cluster stack up against other clusters in the region and against other comparable regions?

1. Cluster comparisons

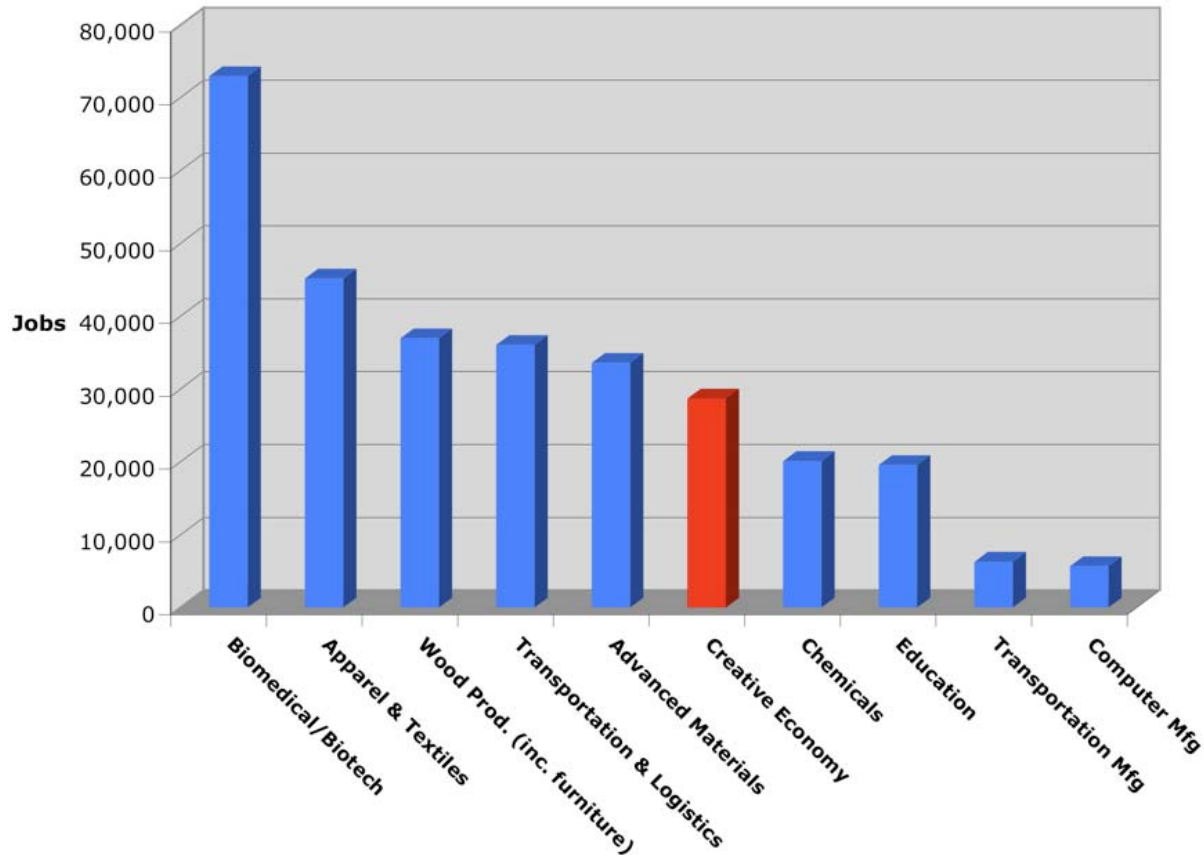
We compared the creative economy cluster to 23 other clusters in order to assess its relative size and importance.⁹ In 2007 the creative economy was the Piedmont Triad region's ninth largest cluster in terms of employment, just behind information technology & telecommunications and just ahead of agribusiness, food processing & technology (see Figure 2).

While substantially smaller than biotech and business services (not shown), the as

⁹ The comparison assumes the EMSI's 17 industry clusters as defined by Purdue University's Center for Regional Development and the Indiana Business Research Center based on NAICS codes, which classify types of business activity. Purdue CRD's recent report *Unlocking Rural Competitiveness: The Role of Regional Clusters* is used by the U.S. Department of Commerce's Economic Development Administration. See <http://www.ibrc.indiana.edu/innovation>.

creative enterprise cluster is comparable to logistics and advanced materials¹⁰ and significantly larger than chemicals, transportation manufacturing, and computer manufacturing.

Figure 2. Employment by cluster, 2007¹¹



Source: *Unlocking Rural Competitiveness: The Role of Regional Clusters*, prepared for the U.S. Department of Commerce’s Economic Development Administration, <http://www.ibrc.indiana.edu/innovation/>.

¹⁰ The advanced materials cluster includes companies who use nano structured materials and other heat resistant materials to improve manufacturing processes and energy consumption, from mineral mining to fabricated metal production.

¹¹ The definitions of “clusters” are not standardized, often based on application and purpose and therefore do not match those used in other analyses in North Carolina. The cited cluster called biomedical/biotech, for example, is larger than the number typically used in the state because it includes medical equipment and supplies manufacturing and wholesalers, health and personal care stores, hazardous waste collection, treatment and disposal, and ambulatory health care services. The source used, however, explains its reasons and can be replicated.

The creative enterprises grew three percent over the period 2002-2007 while the overall economy was stagnant and traditional manufacturing declined. Although it grew slower than biotech, advanced materials and computer manufacturing it was comparable to business services and logistics.

2. Regional Comparisons

Although the proprietary nature of the data used to define the region's creative economy prohibits direct comparison to other regions, it is possible to draw some cursory qualitative comparisons. Creative enterprise clusters in four regions, Northwest Arkansas, Western Massachusetts, Front Range of Colorado, and the Baton Rouge region of Louisiana, are described in more depth detail in Appendix B.

Northwest Arkansas is a 16-county region, formerly very poor but revitalized by the growth of Wal-Mart and a transportation/logistics cluster. Its development of its creative economy, documented in a series of reports by RTS and the Alliance for Creative Advantage funded by the Winthrop Rockefeller Foundation, is anchored by the construction of the one hundred million dollar Crystal Bridges Museum of American Art, The University of Arkansas, the historic art colony of Eureka Springs, and the western heritage of Fort Smith.

Front Range of Colorado covers 10 counties, the cities of Denver, Aurora, Fort Collins, Boulder, and Westminster, and a population of 3.2 million. This once energy and mining dependent region has reinvented itself, attracted talented people, and now is home to one of the highest concentration of creative enterprises in the U.S., according to a recently commission study by the Alliance for Creative Advantage. The Denver metro area allocates a tenth of a percent of its sales tax to the arts, supporting 300 non-profits last year. The state ranks in the top ten in concentrations of architects, designers, photographers, and interior designers and has many design-oriented companies supporting its recreational resources.

Western Massachusetts, including 4 counties and about 818,000 residents, is a former manufacturing-dependent region (metal and plastics) that lost its industry and turned to its creative sectors. About a tenth of its employment is now in the creative economy. With private, foundation, and Adams Fund support, the region turned a former Sprague Electric plant into a Museum of Contemporary Art and studio space, created a consortium of museums, and attracted numerous artists. Following a study by Mt. Auburn Associates, western counties formed the Creative Economy Council and established a web site Berkshire Creative for networking, a job bank, marketing, and information.

The Baton Rouge region of 11 parishes is relatively new in recognizing the importance of arts. Although overshadowed by New Orleans, Baton Rouge's universities offer a rich creative environment, particularly in music. Its long-term interest, however, lies with the digital arts. LSU hopes to develop a Center of Excellence, banking on its Music and Art Digital Studio (MAD studio) and Laboratory for Creative Arts & Technologies.

IV. Describing the Creative Enterprise Economy

Since this report disaggregates the many elements of the creative economy into the six compatible and/or complementary subclusters of creative disciplines or art forms, the analysis follows that same pattern. Each has its own strengths, weaknesses, opportunities and benefits from particular types of interventions. But it is important to keep in mind that the six subclusters, despite their distinctiveness, comprise parts of a larger “creative economy,” and although one might be able to overcome weaknesses in another, they will all be most successful when they work together and produce synergy.

A. Visual Arts and Crafts

The fine arts lie at the core of the creative economy, with talents that cross the boundaries of pure art and applied art, culture and economics. It’s also the most under-rated subcluster because of the large proportion of self-employed, secondary employment, and “off the books” employment. Yet more people identify their primary occupation as artist than as lawyer, doctor, police officer, or farm worker.¹²

Composition, scale, and geography

The visual arts and crafts exist across the region but have somewhat higher concentrations relative to total employment in less populated areas. This subcluster employed 3,033 in 2007, up slightly from 2002. While not highly concentrated by national standards, the region can boast of a large number of well-known artists plus one of America’s best-known pottery hubs, Seagrove. The subcluster is based on the following industry sectors (Table 3).

Table 3: Industry Classifications: Visual Arts and Crafts

NAICS	Industry
327212	Other Pressed and Blown Glass and Glassware Manufacturing
339913	Jewelers’ Material and Lapidary Work Manufacturing
339914	Costume Jewelry and Novelty Manufacturing
451130	Sewing, Needlework, and Piece Goods Stores
453920	Art Dealers
541921	Photography Services, Portrait
611610	Fine Arts Schools
711510	Independent artists

¹² Sam Roberts, “A 21st Century Profile: Arts for Art’s Sake and for the U.S. Economy, Too,” *New York Times*, June 12, 2008.

Of the 416 returns from 609 artists asked to complete an on-line survey in 2008, about half listed a visual art or craft as their primary art form.

- Of that 209, about half work in non-metro counties.
- 64 percent are over 50 years of age and 88 percent are over 40, 70 percent are female, and 46 percent list crafts, 25 percent painting, as their primary art form.
- Three in four are self-employed (although 11 percent employ others) and only 5 percent have a Dun & Bradstreet Number.
- Only one in three is originally from the region; those who came from other places came because of own or spouse's job (44 percent) or quality of life (21 percent).
- Almost half who came for higher education came to UNC-Greensboro.
- The revenues earned are essential income for 45 percent non-essential secondary for 29 percent and a hobby for 17 percent. Half earn less than 10 percent of their family income from their art and only 19 percent earn more than half.
- More than 40 percent do not report all their earnings for tax purposes, more than 8 in 10 barter some of their art, and 77 percent donate some art.
- Almost 70% have their own web site but 85 percent sell less than 10 percent directly over the Internet.
- 41 percent are self-taught, 23 percent learned their art at a university, 12 percent from a mentor, 10% at a community college, and 4 percent at a craft school.

Strengths & assets

Organizations: This is the best organized of all subclusters, largely as a result of its arts councils and long tradition of guilds and cooperatives among artists and craftspeople. The Piedmont Triad region is home to 13 regional arts councils plus local guilds and arts organizations such as the Randolph Quilters Guild, the North Carolina Craft Trail Consortium, North Carolina Custom Knifemakers Guild in Bethania, Cricket Craftsmen, Winston-

Salem Fiber Guild, Caswell Artists League, the Foothills Arts Council in Elkin, Carolina Clay Guild, Piedmont Craftsmen and Associated Artists. The visual artists surveyed assigned the most importance for associative behavior (frequent or critical) to informal connections to other artists (60 percent), next for local groups in their own medium (46 percent), county arts councils (36 percent), state and national organizations (21 percent), and web-based groups like Facebook (17 percent).

Table 4: Enrollments/Completions in Community Colleges, 2008

Davidson		
Fine arts		32/0
Jewelry		4/0
Guilford		
Fine arts		46/2
Montgomery		
Clay		33/4
Piedmont		
Fine arts		5
Randolph		
Clay		45/0
Photography		114/33
Rockingham		
Fine arts		129/5
Woodworking		5/3
Surry		
Fine arts		14/0

Source: Surveys of Piedmont Triad community colleges, 2008

Education: The educational system treats the arts primarily as liberal arts, not as occupational education, a skill with earning potential. All of the universities and community colleges offer some art curricula. The notion that it is a principal interest, not a career—except for the most gifted artists—however is changing, and schools are beginning to add business and entrepreneurial skills in their programs. Community colleges, in particular, offer a small number of Associate of Applied Sciences degrees and certificates, e.g., clay at Montgomery and Randolph Community Colleges, photography at Randolph, Jewelry at Davidson, and a nascent apprenticeship program at Surry (see Appendix E). Completions, however, are low, possibly because students enroll to acquire skills and credentials are less important in this subcluster (Table 4).¹³

Venues: The region is home to many fine art and craft shows, exhibitions, and galleries. Winston-Salem’s Piedmont Craftsmen’s Fair, for example, held annually since 1963, attracts about 120 of the region’s best artists. The Craftsmen’s Classic Arts & Crafts in Greensboro draws about 25,000 people and the city’s Craftsmen’s Christmas Classic, about 35,000. The simultaneous Celebration of Seagrove Potters and Seagrove Pottery Festival together attracted more than 5,000 to the area in 2008. Institutions of higher education also serve as venues to show the work of their students as well as other exhibitions. Bricolage, which connects and serves regional artists and brings art to the community, holds a biannual Arts Festival showcasing collaborative events featuring artists from multiple jurisdictions and/or disciplines. Galleries such as Piedmont Craftsmen, Creative Art Gallery, the Art Gallery Originals, Art Gallery Unlimited, 5ive & 40rty, and the North Carolina Pottery Center are only a few of the region’s many fine art and craft galleries.

Leaders: The region has many leaders in this subcluster—too many to recognize here. A few such leaders are Ben Owen in Seagrove; Anne Willson, director of Bricolage; B. Jane Doub CEO of Piedmont Craftsmen; Doris Petersham at Yadkin Valley Craft Guild; Jon Kuhn, glass sculptor; and Gene King, Seagrove pottery.

Needs and opportunities

Workspace is not a major problem. Four in five artists find their space adequate

Jon Kuhn is one of the world’s foremost cold glass sculptors, and a good example of a successful arts enterprise. His relatively new studio, located in downtown Winston-Salem, includes both exhibit and production space. Most glass is heat-treated or fired, but Kuhn’s glass is cold, polished and then fused to give it unique features and qualities. The glass takes many forms—cubes, circles, and a variety of intricate geometric shapes. Kuhn’s work sells for between several thousand dollars to more than \$1 million. More than 35 museums around the world exhibit his sculptures, including the Metropolitan Museum of Art, the Carnegie Museum, the White House Permanent Collection, and the National Museum of American Art. Kuhn currently employs 30 people, some who are former manufacturing workers, others craftspeople in their own rights, and still others new to the trade.

¹³ This table, and other presenting community college enrollments are based on surveys of all of the region’s community colleges completed by all colleges but one.

and affordable, and three in five work in their homes. Yet more than half also listed more studio space and shared space or incubators high as needs, suggesting they would prefer to work at a studio or with others. More than 70 percent also listed more networking opportunities high as a need.

The highest ranked needs of visual artists and craftspeople, based on the survey and focus groups, were for marketing. They ranked most forms of business assistance high, including access to lawyers and accountants, reflecting either the inadequacy of the support system, its lack of knowledge of their business, or the artists' unfamiliarity with what does exist. Despite their councils and informal relationships, most expressed dissatisfaction with the social infrastructure on two levels. It's too insular and closed to new people and too territorial, lacking a larger sense of regional cohesiveness.

Artists also feel strongly their contributions to the economy are unappreciated by mainstream economic development agencies and chambers of commerce—or by the wider public. Artists feel that they are largely creating for each other and not engaging a broad enough swath of the population. They also would like to strengthen connection to other sectors of the economy, mentioning in particular bed & breakfasts and wineries.

B. Product and Environmental Design

Design is an activity that translates an idea into a blueprint for something useful, whether it's a car, a building, a graphic, a service or a process. The important part is the translation of the idea, though design's ability to spark the idea in the first place shouldn't be overlooked. The strength of the region's design sector is closely linked to its role in the success of its historical strengths in tobacco, furniture, apparel, and textile manufacturing—as advertising, product design, and architecture. This subcluster, described in more depth in Appendix F, does not include the individual companies that make the high end, fashion-based goods that cannot be distinguished by their industry codes. The industries included in this subcluster are shown in Table 5.

Table 5: Industry classifications: Product and Environmental Design

NAICS	Industry
332323	Ornamental and Architectural Metal Work Manufacturing
337212	Custom Architectural Woodwork and Millwork Manufacturing
453110	Florists
541310	Architectural Services
541320	Landscape Architectural Services
541340	Drafting Services
541410	Interior Design Services
541420	Industrial Design Services
541430	Graphic Design Services
541490	Other Specialized Design Services
541810	Advertising Agencies
541820	Public Relations Agencies

541830	Media Buying Agencies
541840	Media Representatives
541850	Display Advertising
541860	Direct Mail Advertising
541890	Other Services Related to Advertising
541922	Commercial Photography

Composition, scale, and geography

The design sector provided 9,114 jobs in the Piedmont Triad region in 2007. The largest component of the design sector is advertising which employs more than 3,360 people in the region in various industry components such as advertising agencies, media representatives, direct mail, public relations, display advertising, and media buying agencies. Beyond advertising, design firms are the next largest employment contributor. Design firms represent more than 2,340 jobs in the region with largest number of jobs coming from industrial design (811 jobs), but followed closely by graphic design (785 jobs), and interior design (626 jobs). The region is also notable for a number of commercial photography firms, which accounts for almost 740 jobs.

The design sector has added more than 660 jobs since 2002, an 8 percent increase, close to the increase nationally of 10 percent for the same period. However, the design sector has not increased as rapidly in the Piedmont Triad as it has statewide, where it increased 16 percent in the same period. More than 75 percent of design jobs are in Guilford and Forsyth counties. The strength of the region's design sector is closely linked to the region's historical strengths, tobacco, furniture, apparel, and textile manufacturing. Interviews suggest that the graphic designers and some advertising professionals are former tobacco company employees, who, as businesses downsized, became self employed and started providing services for other types of products and markets.

The majority of the 811 jobs in industrial design are no doubt primarily related to furniture design with an additional 120 jobs in other specialized design services primarily related to apparel and textile design. When viewed as a percentage of total regional employment industrial designers are four times more concentrated in the Piedmont than in the nation. A 2007 study found that there were 56 firms dedicated specifically to furniture design in Guilford County.¹⁴ The region likely has even more industrial designers whose employment figures are embedded within firms classified as furniture manufacturers.

The design sector's linkages with the furniture industry go well beyond design of the product. The High Point Furniture Market, the largest such trade show in the world, brings more than 80,000 people and 2,000 exhibitors to High Point every six months. In

¹⁴ Gerald Fox, Richard Hargrove, and David Bryden, *The Economic Impact of the Home Furnishings Industry in the Triad Region of North Carolina*, High Point University, May 2007.

addition, the region has dozens of furniture showrooms, factory outlets, and shopping tours open year round.

Commercial photography firms are significant sources of employment in the design sector, no doubt linked to photography for furniture catalogues and other marketing material for exhibitors. A study of the furnishings industry estimated that 20 percent of commercial photography business is related to that industry. Commercial photographers may conjure up visions of the lone photographer with his camera but the region's commercial photographers offer far more. For instance, Kreber is a well-established commercial photographer that offer set styling, interior design, and a sophisticated product tracking system. Albion, another leader, own, owns 110,000 square feet of studio space and more than 38 sets. Albion houses a custom carpentry shop that can build any room design from the kitchen and bath to the bedroom or living room. Albion also employs set designers with access to an extensive inventory of home fashion and exterior accessories to create the client's desired look. Another major photography studio, Atlantic Photographics, owns 32,000 square feet of production space with a vast array of sets and extensive stock prop department. The region also has a high concentration of media representatives and other advertising services which both appear closely linked to the High Point Market.

Additional insights on the characteristics of the design segment can be drawn from two surveys completed for this project: 1) a survey of design firms with 48 respondents and 2) a survey of manufacturers on their use of design with 45 respondents. The firms responding represent a diverse cross section of the design sector including architecture firms, interior designers, public relations firms, graphic designers, multimedia design, communications design, advertising agencies, and industrial designers. Some of the findings from these surveys are summarized below (see Appendix F for more detail):

- More than half of respondents noted that 75-100 percent of their revenue was from business customers. Respondents from the design sector were not particularly dependent on the furniture industry.
- Close to half of the design businesses generate some revenue from the production of goods such as custom designed products, whether that is architectural detailing, brochures and other marketing materials, or online content.
- 95 percent of survey respondents considered networking opportunities as important or critically important to the competitiveness of the sector.
- Some 83 percent reported regional marketing and branding of the design industry was either important or critically important to the competitiveness of the sector.
- About 40 percent of the respondents reported difficulty in accessing skilled labor. The region's manufacturers report that most of them had in-house design capabilities and, when looking outside for design help, used regional consultants half of the time.
- Nearly all firms used some sort of design in their business. Leading design focus was in product and industrial design, graphic design, branding and multimedia.

- Customers, internal staff and consultants were leading sources of design ideas. Over three-quarters employ internal professional designers but over half also contract out some of their design. Six in ten have a dedicated design department.
- Over two-thirds consider design a significant or integral role in their competitiveness. About 20 percent of the firms say that all of their sales are due to design with another 40 percent indicating a majority of sales.
- About three-quarters listed increased market share and improved competitiveness. After financial and operational management, design was listed as the third most important factor to business success.

Strengths & assets

The design sector is recognized as a critical engine for the regional economy. A 2003 study of Northwest North Carolina completed by Angelou Economics, which overlaps significantly with the Piedmont Triad region, concluded that design was the distinguishing characteristic of the region and should be targeted for expansion related to computer-aided animation, graphic design, and industrial design. This study was critical in developing a broad appreciation for design's importance throughout the region and was a catalyst that eventually led to the creation of the Center for Design Innovation, a critical asset for the design industry. The regional design sector includes the following strengths.

- The creative environment and foundation of artists and artistic talent for which the region is known.
- Strengths in product design related to the region's historic manufacturing strengths.
- Marketing, advertising, and graphic design strengths related to the historic strengths of tobacco.
- North Carolina's large film industry also provides a market for design services and a source of employment for the region's design graduates.
- A healthy base of educational institutions insures that the region turns out many well-trained designers and artists each year, which provides a constant supply of talent to area design-oriented businesses.

Table 6: Enrollments/Completions in Community Colleges, 2008

Davidson		
Interior design		4/0
Forsyth		
Architecture technology		46/13
Interior design		35/4
Guilford		
Adver./graphic design		222/34
Architecture technology		90/8
Randolph		
Advertising/graphic design		48/6
Interior design		41/7
Rockingham		
Landscape architecture		10/4
Surry		
Advertising/graphic design		46/8

Source: Surveys of Piedmont Triad community colleges, 2008.

Education: The region's higher

educational institutions represent an area of particular strength in the Piedmont Triad region and one that can become a core element of

further growing the design industry in the region.

Interior Design and Architecture: The region has a unique concentration of educational offerings related to interior design. Clearly connected to the region's strong furnishings industry, the programs in the region are graduating a large number of highly qualified professionals with design expertise in interiors. Offerings range from associates degrees (Table 6) to masters degree levels.

- UNC-Greensboro: The Department of Interior Architecture offers BS and MS degrees in interior architecture. According to the school, "interior architecture can be said to be a marriage of three distinct design disciplines: interior design, architecture, and industrial design. Among those, interior design, which averages 210 undergraduate and 18 graduate students, requires an internship.
- The Knabusch Shoemaker International School of Home Furnishings and Design at High Point University offers a B.S. in Home Furnishings Marketing, B.S. in Interior Design, Home Furnishings Marketing Minor and Interior Design Minor.

While the region has clear competitive strengths related to interior design and furnishings, it lacks a professional architecture degree program. As a result, the new Piedmont Triad Architectural Initiative is working to establish a new architectural degree program. The team is exploring options for agreement with architecture schools at NC State and UNC-Charlotte.

Communication Design, Advertising, Graphic Design and Photography: The community colleges in the region offer an array of credential and degree program that prepare students for careers in the communication side of the design industry. Randolph Community College has Advertising and Graphic Design and Photographic Technology, which prepare students for careers in commercial photography, biomedical photography, photojournalism, and portrait studio management. Guilford Technical Community College offers an Advertising and Graphic Design program emphasizing design, advertising, illustration and digital and multimedia preparation of printed and electronic promotional materials. Forsyth Tech offers Graphic Arts and Imaging, one of only four such programs with an official articulation agreement with Appalachian State and North Carolina A&T State Universities.

Specialized R&D and Industry Centers: The Piedmont Triad region has two university centers focused specifically on design. While new, both of these centers have the potential to bring increased attention and resources to the design segment in the region.

- The Center for Design Innovation, established in 2005, is a collaboration with UNCSA, WSSU, and Forsyth Tech "to foster cross-disciplinary research and entrepreneurial activity related to design and innovation, provide educational programming focused on design and innovation, and act as a design-based business cluster accelerator, to make the Piedmont Triad Region of North Carolina a recognized center of design across the country."

- The Center for Innovation in Interior Architecture at UNC-G is being developed within the Department of Interior Architecture to connect industry needs with students and faculty to solve interior environment and product design issues and to develop a highly skilled design workforce in the region.

Organizations: The Center for Design and Innovation (CDI) has become the major networking hub for design, holding weekly public forums known as Idea Exchanges to discuss design processes, digital media, and business directions among other topics of interest to the creative community. As CDI becomes fully operational, it will become an even stronger focal point of activity in the sector. It specializes in the application of digital design in entertainment, life science, education, product design, and product marketing. It also is a catalyst to others in the areas of design-focused instruction, research, workforce development, and entrepreneurial activity.

Another important forum for building networks and alliances within the design sector is the annual Design, Art and Technology Symposium (DATS). The host duties of this symposium rotate between three Triad campuses: UNC School of the Arts, University of North Carolina at Greensboro, and High Point University. An annual event held since 2005, the symposium attracts around 500-design professionals from throughout the Southeast. The symposium's mission is to promote networking, mutual inspiration, creative partnerships and other forms of collaboration among audience members and other participants, as well as to encourage internships and other training opportunities for art and design students.

Specific segments of the design sector have professional associations as well. For instance, the Interior Design Society (IDS) is an independent national organization with more than 4,000 members serving the residential interior design industry. IDS National headquarters is located in High Point, NC. The Triad chapter of the American Institute of Architects has 125 members.

Needs & opportunities

Networking opportunities continue to be critical needs for the sector. The types of networking opportunities design firms would most value are with the broader business community. Piedmont Triad's design sector also needs a stronger marketing campaign to brand the region as a hub of design activity, as identified by Angelou Economics in its economic study of the region. While the Center for Design Innovation has improved the region's image, survey respondents feel this remains a need.

For the Piedmont Triad's design sector, a source of strength can also be a source of weakness. The region's design sector would certainly not be as large and vital if it weren't for the furnishings industry. While the strength of the furnishings industry allowed segments of the design sector to flourish, it also makes the region's design sector more tied to the industry's fate. Potential weaknesses for the design sector are tied to the performance and reputation of the furnishings sector:

- Effects of the economic downturn on the furniture industry
- Continued off shoring of furniture manufacturing

- Competition from other venues for the marketing/distribution role
- Design image created by the local furnishings industry may not be the one the sector would like to project

The current economic conditions are negatively affecting all sectors of the economy; however, furniture has been particularly hard hit and sales have been dropping for more than a year. Recent attendance figures at the High Point Market demonstrate the on going concern for the industry. Attendance was down nine percent at the October 2008 show. According to Brian D. Casey, president and chief executive officer of the High Point Market Authority, "From the softened housing market to bloated inventories, tightening credit and the melt-down on Wall Street, home furnishings professionals across the industry have been struggling to cope with some of the most difficult business conditions they have ever encountered, and market registrations reflect this. Across all categories, and all facets of the business, we are seeing unprecedented change. Our industry is contracting and consolidating in ways never before experienced."¹⁵

It is unlikely that the current economic conditions will change the long-term trend that has pushed furniture manufacturing to lower cost countries. While for some time, the design sector survived because much of their services were linked to the marketing and sales of the furnishings sector which remained in the region. A recent study of the home furnishings industry noted a shifting local customer base, from furniture manufacturers to distributors.¹⁶ Some design businesses are responding aggressively, following the industry as it shifts geographically. Albion, a major commercial photographer in the region, has set up a studio in Vietnam to accommodate its clients.

A longer-term threat to the region's design sector is competition for the High Point Market. With the rise of the Las Vegas Furnishings market, some local design service providers have opened offices in Las Vegas to accommodate growing demand from the West. Other states such as Michigan are interested in promoting their own alternatives to High Point.

Another weakness is the industry's reputation for very traditional design aimed at mass markets. The region overall is not viewed as on the cutting edge of design compared with Nordic countries, Germany, or Italy. With the right incentives and talents, the region's design industries ought to be able to take advantage of their proximity to past industrial consumers of design and the High Point Market and become a major force. A recent report commissioned by the Piedmont Triad Partnership underscores the opportunity for the Piedmont Triad to be "The Furnishings Capitol of the World" but this will require an unprecedented level of cooperation to be successful.

¹⁵ *The Winston-Salem Journal*, November 15, 2008.

¹⁶ Gerald Fox, Richard Hargrove, and David Bryden, *The Economic Impact of the Home Furnishings Industry in the Triad Region of North Carolina*, High Point University, May 2007.

C. Film and Digital Media Arts

The region's film and digital media arts subcluster, though not large by national standards, has a very strong set of assets and the interest to offer high growth potential. It's a highly competitive field, with most states offering a variety of incentives to attract companies and locations. Its future will depend in part on what the region and state can offer as incentives but also on whether the region can develop a niche based on its own capabilities in, for example, documentaries, advertising, or web-based videos, and how well the region can link to the industry's principal decision makers in the world's film capitals. If proposals for the state to build a dozen new sound stages across North Carolina, including eight in the Piedmont Triad region between Winston-Salem and Greensboro, are adopted and North Carolina increases its tax incentives, then the Triad may soon be well positioned to woo and win a vastly increased number of film productions. The subcluster is made up of the following industries (table 7).

Table 7: Industry classifications: Film and Digital Media Arts

NAICS	Industry
512110	Motion Picture and Video Production
512120	Motion Picture and Video Distribution
512131	Motion Picture Theaters, except drive-ins
512132	Drive-in Motion Picture Theaters
512191	Teleproduction and Other Postproduction Services
512199	Other Motion Picture and Video Industries
512210	Record Production
512220	Integrated Record Production/Distribution
512230	Music Publishers
512240	Sound Recording Studios
512290	Other Sound Recording Industries
515111	Radio Networks
515112	Radio Stations
515120	Television Broadcasting
515210	Cable and Other Subscription Programming
516100	Internet Publishing and Broadcasting
517510	Cable and Other Program Distribution
519110	News Syndicates

Composition, scale, and geography

The jobs in the film and media arts subcluster are located chiefly in the Piedmont Triad's two most urban counties, Guilford and Forsyth, with significantly fewer jobs in the region's rural areas. Three rural counties—Stokes, Montgomery, and Caswell—each had fewer than ten such positions in 2002. Piedmont Community College's campus in Caswell County, however, hosts a strong program in film and video production technology as well as in digital effects and animation technology. But most graduates of the program seek employment or paid contract work in their chosen field elsewhere.

Even if most of its employment is located in the region's urban areas, the subcluster overall demonstrated healthy growth between 2002 and 2007. The number of industry jobs increased by 592, from 2,742 to 3,334, reflecting a positive change of nearly 22 percent. In 2007, average earnings per worker were \$43,419. Significantly, two-thirds of the subcluster's overall growth between 2002 and 2007 may be chiefly attributed to unique competitive advantages of the Piedmont Triad region, as contrasted with national trends in these industries or to the national economy as a whole.

Location quotients for both 2002 and 2007 indicate, however, that the subcluster has not yet achieved its potential. Even though the region is becoming better known as a preferred site location for commercial film and video production, including the recent major motion picture *Leatherheads*, starring George Clooney and Renée Zellweger, this industry has become a very competitive business, with some other states offering very large incentive packages.

The film and digital media arts subcluster, while defined formally by the NAICS codes listed in Table 7, may be significantly broader in its actual employment reach than just the industries included in that list. This is due to the accelerating convergence of multiple digital media art forms into new products and services, including the rise of serious gaming and advanced educational technologies, which have broad applications in distance education and health literacy, among other fields. It also may be due to the symbiotic relationship of the digital media arts with related sectors including marketing, advertising, and public relations.

Total employment in this subcluster, then, is a conservative estimate because it does not include workers who are freelance contractors that divide their employment among several disciplines, including work that is allied but not identical with their primary skills base. A person trained as an audio engineer for music production may also supervise other forms of audio production, including broadcast or cable television production facilities. Moreover, many skilled workers, especially early in their professional careers, will find temporary work managing sound for live events, whether concerts, sporting events, or even church services. Similarly, a film director working on an independent feature film may also be working on advertising and promotional videos, as writer, director, editor, or in some other technical capacity.

The key point is that sustainable employment within a healthy film and digital media arts subcluster exists at the intersection of several related creative economy subclusters, including those that include marketing, public relations, scientific research and medical imaging, live events (including arts, sports, politics, and faith-based activities), and tourism.

Strengths & assets

The Piedmont Triad features a relatively strong infrastructure that supports its film and digital media arts subcluster, especially among the relatively numerous post-secondary institutions that teach relevant workforce development skills. High-profile cultural arts venues and events also are part of this equation, as are an increasing number of small firms that offer services in the digital media arts.

Associations: Founded in 2003, the Triad Indie Film Network is an informal collective of filmmakers, actors, technical crew members, and others who appreciate and support independent filmmaking in the Piedmont Triad. From time to time, the network organizes the Fruitcake Film Festival, which has featured 10-second, 60-second and three-minute short films, many made by first-time filmmakers. The American Advertising Federation of the Triad, which meets monthly, offers a networking platform that makes good use of the synergy with regional marketing and advertising sectors. In October 2008, for example, the group invited Out of Our Minds Animation Studios—a Triad-based, full-service digital art studio that provides special effects, compositing, editing, sound design, illustration, and animation—to talk with its members about its recent projects, including a newly completed full-length animation feature film, *The Magistical*.

There are a number of entrepreneurially oriented associations and organizations in the Triad that can serve the interests and needs of regionally based film and digital media arts firms. These include Springboard, a project of Action Greensboro to stimulate creativity and innovation in the city, and Triad InternNet, an online service that links college and university students to internships to provide experiential learning opportunities with Triad area businesses and organizations.

Educational programs: The Piedmont Triad has a wealth of educational institutions and programs to prepare entry-level workers for careers in the Triad’s film and digital media arts. Some of these institutions also are experimenting with innovative ways to provide continuing education and distance learning opportunities to upgrade and sustain the skills of the existing workforce. One of the most exciting new programs in the Triad is the Center for Design Innovation (CDI). Operating from its temporary quarters in downtown Winston-Salem, the CDI brings together three key partners: the UNC School of the Arts, Winston-Salem State University, and Forsyth Technical Community College. The CDI’s overall goals are to create new businesses and jobs as well as to improve health care and education through design research and practice. In particular, it will focus on cutting-edge techniques in motion capture and analysis, data visualization and modeling, and rapid prototyping to support creative designs for animations, video games, interactive narratives, medical devices, and responsive objects and environments.

Table 8: Enrollments/Completions in Community Colleges, 2008

Forsyth		
Digital/animation		26/n.a
Guilford		
Entertainment Technology		197/29
Digital media		10/0
Piedmont		
Digital/animation		40/2
Film & video		44/6
Source: Surveys of Piedmont Triad community colleges, 2008.		

Among four-year colleges and universities across the Triad region, there are many strong programs that address these workforce development needs. For example, the School of Communications at Elon University in Alamance County offers majors in cinema, broadcast, and new media. The university’s recording studio training facility serves a commercial client base and earns money to support educational programs at Elon. The undergraduate concentration in computer graphics and animation at

Winston-Salem State University is part of a comprehensive curriculum leading to a Bachelor of Arts degree. The school's Department of Fine Arts offers a concentration in music business, including management and advertising.

The School of Filmmaking at the University of North Carolina School of the Arts is a unique conservatory program that offers training in both traditional and new media. Remarkably, the School underwrites the total production and post-production costs of student work required by the program. This financial support is provided through the Thomas S. Kenan Institute for the Arts. Other Triad four-year institutions with digital media arts programs include the University of North Carolina at Greensboro, High Point University, and—within their computer science departments—Wake Forest University and Guilford College.

Community colleges and technical schools also play an important role in developing the film and digital media arts workforce (Table 8). The Larry Gatlin School of Entertainment Technology at Guilford Technical Community College (Guilford County) prepares students for careers in the film and digital media arts sub cluster through course offerings in audio engineering for recording, audio engineering and lighting for live events, performance, and artist management. The school, which opened its doors in 2004, currently serves 400 students in a \$9.25 million state-of-the-art facility located in Jamestown.

Piedmont Community College in Yanceyville (Caswell County) offers a two-year Film and Video Production Technologies Program that leads to an Associate of Applied Science (AAS) degree. The program prepares students for entry-level employment in production support and selected technical areas of film, video and associated media production. Instruction provides training for entry-level crew production and post-production assistants. The school also offers an intensive Digital Effects and Animation Technologies Program that prepare students to use the leading industry-standard software and hardware. Within the past year, Forsyth Technical Community College, in addition to its ongoing participation as a partner in the Center for Design Innovation, has added a five-semester AAS degree program in Digital Effects and Animation.

Events: The River Run Film Festival, located in Winston-Salem, is one of the nation's fastest-growing independent film festivals. Held each spring, the event showcases outstanding new films from independent, international, and student film festivals. The festival is named for the French Broad River in Brevard, North Carolina, where the event originated in 1998 before moving to Winston-Salem in 2003. The Revolve Film and Music Festival, founded by celebrated Triad pop songwriter and performer Shalini Chatterjee, debuted in early August 2008 at the Fine Arts Center at Salem College and at Carswell Hall at Wake Forest University. According to Chatterjee, the nonprofit festival, which represented the culmination of eight months of individual Revolve screenings in Greensboro, Winston-Salem, and Carrboro, focused on 25 films that simultaneously manage to be uplifting, nonviolent, and narrative-based. The event also included live music performances.

Leadership: The most well known and perhaps most influential individual working in the Piedmont Triad film and digital media arts cluster is Jordan Kerner, dean of the School of Filmmaking at the UNC School of the Arts and a feature film producer affiliated with Hollywood's movie industry. In 2008, Kerner announced a proposal to persuade North Carolina's state government to invest immediately in building a dozen soundstages across the state or risk losing its lucrative entertainment industry. Kerner also encouraged the state to increase its film tax credit from 15 to 25 percent to compete with incentives offered by other states. While at the UNC School of the Arts, Kerner has steered the filmmaking program toward high-quality narrative filmmaking that he believes will strengthen both students' career opportunities and bolster the state's filmmaking industry overall.

There also are many other influential leaders of key firms and organizations in the Piedmont Triad film and digital media arts subcluster—too many, in fact, to list all of them in this report. A small sampling of their number, many of whom have participated in the Piedmont Triad Partnership's creative enterprise roundtable discussions, include Rebecca Clark, executive director of the Piedmont Triad Film Commission; Andrew Rogers, executive director of the River Run Film Festival; Jeff Little, department chair at the Larry Gatlin School at Guilford Technical Community College; Herb Burns, department chair for the Digital Effects and Animation Program at Forsyth Technical Community College; Michael Corbett, director of the Film and Video Production Technology Program at Piedmont Community College; Matt Hodges, writer/producer/director for locally based Break of Dawn Productions; Mitch Easter, music producer with the Fidelitorium; John Cernak with Out of Our Minds Animation Studios; Chris Walker, president of 5RingsDesign; and Dawn Bland, president of Keen Innovations.

Needs & Opportunities

The greatest challenge facing the Piedmont Triad film and digital media arts subcluster will be to strengthen existing networks that interconnect workers, firms, educational institutions, venues, and events—and to establish and coordinate new inclusive networks that can help overcome any fragmentation and insularity that may exist across the region. Such fragmentation may be attributed to an overly narrow focus upon one particular discipline within a rapidly converging industry cluster, or to the disparity in subcluster density across the 12 counties that comprise the Piedmont Triad region. Robust assets—whether the digital effects program at Piedmont Community College in Caswell County or freelance cinematographer Jason Dowdle, who lives at Snow Camp in Alamance County—can be found even in the Triad's most rural places. The key is to network, better integrate, and showcase all of these assets so that the region as a whole can prosper. (See Appendix G for more detailed description of needs.)

D. Heritage and Museums

The heritage and museums subcluster, the smallest in terms of employment or numbers of private establishments that can be classified by industry, consists of all places that exhibit cultural, natural, and historical aspects of a region (Table 9). Its size, however, is limited because of the many cultural institutions and museum under public sector management and responsibility, which are not included in standard employment data.

Table 9: Industry classifications: Heritage and Museums

NAICS	Industry
712110	Museums
712120	Historical sites
712130	Zoos and Botanical Gardens

Composition, scale and geography

The heritage and museum subcluster comprises museums, historical sites, and zoos and botanic gardens. Within the Piedmont Triad region, there were approximately 16 establishments (museums, zoos and historical sites) that fit this description in 2007, and they provided 573 jobs. The Piedmont Triad region provides approximately 14 percent of heritage establishments and 20 percent of heritage and museums employment statewide. In reality, this subcluster is much larger because much of it is embedded in public sector employment and depends on interns and volunteers. For example, the zoo and many of the museums are operated under state or local government agencies or part of universities and thus not included in any analyses that use NAICS data.

In the past five years, 2002-2007, employment in this sector has increased by nine percent, or 46 jobs. Most of the new jobs have been teacher assistants, curators and teachers and instructors (all others). Within the sector, museums lost 31 jobs in the 2002-2007 period and historical sites gained 79. The average yearly wage per worker was \$21,017.

Within the Piedmont Triad Partnership region, six counties—Forsyth, Guilford, Surry, Stokes, Randolph and Davidson show jobs in 2002. Of these counties, Forsyth and Guilford Counties employ the majority of the workers—about 83 percent. As would be expected, Forsyth County has a 2.39 location quotient (which means the county's employment in the heritage and museums subcluster is twice as concentrated as the national average). Thus, Forsyth County enjoys some specialization in the heritage and museums subcluster that may need to be further explored. Surry's location quotient is 1.37, and the remaining counties, including Guilford, are less than 0.6, with the lowest LQ 0.05. Thus, while Guilford and other counties may employ a significant portion of the heritage and museums subcluster, the concentration of employment as compared to the nation is low. Within the heritage and museums, the Piedmont Triad region is three times more concentrated in employment at historical sites than the nation as a whole.

While the data used above only reflect 16 establishments, a recent search of area organizations reveals the large number of additional societies and institutions that are directly part of the cluster or fit in with the original definition—the “hidden” employment mentioned earlier, the museums that are part of a university or are operated by state or local government. For example:

- Wake Forest University's Museum of Anthropology is the only museum in North Carolina devoted to the study of world cultures.
- The Weatherspoon Art Museum, part of UNCG, has about 17 employees and is considered one of the foremost collections of contemporary art in the Southeast.
- The Southeastern Center for Contemporary Art (or SECCA), located in Winston-Salem, N.C., is an operating entity of the North Carolina Museum of Art, an entity of the North Carolina Department of Cultural Resources. SECCA, which is in transition, “will be a reflection of the changing face of North Carolina’s interest in contemporary art, craft, design and culture.”
- The North Carolina Zoo in Asheboro is part of the North Carolina Department of Environment and natural Resources. It employs 15 people full-time and hundreds part time as interns and volunteers.

Data gathered from the Internal Revenue Service submissions of the non-profit cultural institutions in the Piedmont Triad found that there were about 40 non-profit museums and heritage sites in the region. The largest 20 of these institutions have an annual income of about \$27 million and spend about \$20 million a year.

Strengths & assets

The museum and heritage organizations are primarily clustered in the metropolitan Winston-Salem and Greensboro area. Each city has its own science museum (SciWorks in Winston-Salem, and the Natural Science Center in Greensboro), as well as childrens’ museums. In addition, the more metropolitan regions also have other significant museums and heritage assets including:

- Old Salem Museums & Gardens in Winston-Salem covers four museums, the Historic Town of Salem, the Museum of Early Southern Decorative Arts (MESDA), the Old Salem Children’s Museum and the Old Salem Toy Museum.
- The Reynolda House Museum of American Art in Winston-Salem is the historic home of tobacco baron R. J. Reynolds and wife. The museum has an historic art collection, vintage clothing and furniture and a new wing, which houses special exhibits.
- In Greensboro, the Greensboro Historical Museum and Guilford Courthouse National Military Park are important sites.

Outside of the region’s metro areas, there are also a number of smaller museums and heritage sites that are an important potential resource for tourism. Many of these sites offer interesting and unique experiences such as the Textile Heritage Museum in Burlington, Graham Historical Museum, Gateway House and History Museum in Yanceyville, the North Carolina Living Historical Farm Committee in Pinnacle, and the Mount Airy Museum of Regional History.

Associations: The region is home to a large number of cultural and heritage organizations that cover all corners of the region, such as the Gujarati Cultural Association of the Piedmont, the Mebane Historical Society, the Cherokee-Moravian Historical Society, Triad Cultural Arts, Thomasville Initiative, Inc., African-American Resource & Multicultural Education Center, Lewisville Historical Society, and Pleasant Garden Historical Society, and Mount Airy Restoration Foundation.

Needs & Opportunities

This subcluster is composed of enterprises that are rarely economically self-sufficient but they are important as tourist attractions, leaning centers, and part of a community’s identity. These establishments often depend on public sector support, donations, volunteers, and student interns—and many are part of public sector agencies.

E. Literary and Publishing

A large portion of the employment in the region is in the literary and publishing subcluster, but this group has also has experienced the largest decline in job growth. The industries most affected were commercial lithographic printing, commercial screen-printing, book stores, books printing, and newspaper publishers. Combined these industries had job losses totaling 997 jobs. The employment loss in each of these industries appears to mimic industries trends. As consumers of literary content alter their preferences for how they receive information, these industries will continue to lose jobs to industries that allow for the digital transmission of literary content.

Table 10: Industry classifications: Literary and Publishing

NAICS	Industry
323110	Commercial Lithographic Printing
323111	Commercial Gravure Printing
323112	Commercial Flexographic Printing
323113	Commercial Screen Printing
323115	Digital Printing
323117	Books Printing
323119	Other Commercial Printing
323121	Tradebinding and related work
323122	Prepress Services
424920	Book and periodical merchant wholesalers
451211	Book Stores
451212	News Dealers and Newsstands
511110	Newspaper Publishers
511120	Periodical Publishers

511130	Book Publishers
511191	Greeting Card Publishers
511199	All Other Publishers
519120	Libraries and Archives
711510	Independent writers

Self-employed writers are less likely than most artists to earn their living from literature. Writing as a craft, however, is a viable occupation and many firms employ technical and advertising writers, editors, as do companies that do their own desktop publishing.

- Of the 35 independent writers who responded to the artists' survey, 83 percent live in metropolitan counties.
- 54 percent are over 50 years of age and only one was under 35 and 71 percent were female.
- Less than 30 percent are originally from the region; of those who came from other places, 63 percent came because of their own or a spouse's job.
- Of those who came to attend college, most came to either UNC-G or Guilford College.
- Only 21 percent state that their income from writing is essential (though a small share of their total income) and almost a quarter do it as a hobby.
- Almost half their income comes from outside the Piedmont Triad region.
- About 27 percent do not report all their earnings for tax purposes and half barter writing for other goods or services.
- Half acquired their skills at a university and a third are self taught.

Strengths & assets

Once the home of writers and poets such as William Sydney Porter (O. Henry), Randall Jarrell, and Peter Taylor, the Piedmont Triad region has a rich history in cultivating literature and its various vehicles of distribution. It is this history of cultivating written works of arts that has drawn the likes of Maya Angelou and Orson Scott Card to the region to promote and influence future writers of various genres. The region also has a rich tradition in publishing, with more than 30 publishers listed in the Internet yellow pages. These include the following.

- *Alamance Magazine*, a monthly periodical featuring gardening tips, cooking advice and recipes, and an events calendar
- *Allosaurus* in Greensboro, which publishes and distributes history, science, and reading books for children plus books related to industry, economics, and African American history
- *The Anthology of Poetry* in Asheboro publishes poems and short stories submitted by student writers (K-12) in soft and hard cover formats.
- *Avisson Press Inc.* in Greensboro specializes in young adult biographies of famous people
- *Burnette Family Publishing* is in Winston-Salem

- *Carson-Dellosa Publishing, Inc.*, in Greensboro was established in 1976 by two teachers/friends employs more than 250 people
- *The Education Center*, in Greensboro, NC publishes teacher resource magazines
- *Empire Publishing* in Madison is a distributor of western movies books
- *Hammer Publications* is located in Greensboro
- *Mann Media Inc.*, publisher of *Our State Magazine*, is located in Greensboro
- *Our State Magazine*, published in Greensboro
- *Pace Communications* located in Greensboro
- *Que Pasa Media Network* in Winston-Salem is the state's oldest Hispanic communications company and publishes the newspaper *Que Pasa*
- *Reed Business Information*, which publishes several business-to-business publications, including *Furniture Today*, is also located in Greensboro
- *Wayne Leupold Editions*, a music publisher in Colfax, is also a book and periodical publisher related to music and musical artists

Organizations: The literary arts have a significant presence in the Piedmont Triad with more than 350 organizations supporting the region. As most of the writers and authors in the region live in metropolitan areas, Greensboro and Winton-Salem play important roles for networking opportunities. Specifically, organizations like the Center for Creative Writing in the Arts, housed on the campus of UNC-G, supports the community through sponsored workshops, readings, and literary publications. Literary artists can also collaborate through non-profit organizations like the Writers Group of the Triad, one of the oldest literary specific groups in North Carolina; and Poetry GSO, a Friends of the Library sponsored group whose purpose is the promotion of poetry through various artistic methods. Various organizations in the region work together and with other state and national organizations to support, foster, recognize, and assist various forms of literature and publishing.

Education: Formal education in the literary arts is confined to a few institutions. UNC-Greensboro offers a Bachelor's Degree in composition and Master's Degrees in composition and creative writing. Credit and non-credit courses specifically related to writing can be found at all levels of post-secondary education. In addition to the creation of literary works, knowledge and skills related to the publishing and printing can be acquired through the advertising and graphic design program at Randolph Community College. Salem College has a Center for Women Writers that offers workshops, readings, lectures, competitions, and networking opportunities. As literary works are fairly easy to transmit to people, many membership organizations offer online forms of training. The Writer's Group of the Triad offers writing workshops and classes as well as critique groups based on the genre.

A few colleges and universities also have programs in more applied literary skills such as mass communications and media studies at both North Carolina A&T and Winston-Salem State University, and UNC-Greensboro offers library sciences. There are a few programs in the region aimed specifically at publishing, broadcast journalism, or radio/TV in 2006. High Point University and Elon University both have added Schools of Communication and broadcast education programs.

Venues: The region offers various locations to showcase published work. Books stores and libraries are the most established and most common venues that both offer book signings and poetry readings. Both of these venues provide access to wider audiences. Poetry GSO publishes a magazine specific to poetry venues in and outside of the region. Playwrights have access to the North Carolina New Play Project, Showcase Reading Series, and Evening of Short Plays, all of which are hosted by the Greensboro Playwrights Forum. A host of websites dedicated to the distribution of literary works, including The Greensboro Review, most of which are not region specific.

Needs & opportunities

Artisans in the literary/publishing sub cluster of the Piedmont Triad region find their greatest expressed need is for networking with other artists. While the region does offer a lot of networking opportunities, these opportunities do not appear to be heavily marketed through defined channels. Instead, writers and others have to actively seek out networking opportunities. In addition, the literary arts environment in the region does not appear to offer enough information about publishing or comprehensive list of independent publishers.

Other priorities for strengthening this subculture would be to offer more information about employment opportunities, health care, and access to sources of funding. Some online sites did offer information about employment opportunities, but not the necessary support structure to help artists make literary arts their primary career. A missed opportunity for health insurance companies and funding organizations is to partner with regional arts groups to market their products and services to writers, composers, and authors.

Training and skills building seems to happen mostly among peer groups and not at the university or community college level. Most writers surveyed expressed interest in enrolling in courses to acquire business skills, especially if offered on a weekend. The community college system could work with the regional organizations, some of which have already developed skills enhancing workshops, to build needed courses into the community college system. Courses could be offered through distance education to enlist artists who are otherwise engaged during daytime hours.

F. Performing arts

The performing arts sub cluster includes theater, music, and dance as well as the supporting industries and venues for these activities (Table 11).

Table 11: Industry classifications: Performing arts

NAICS	Industry
339992	Musical Instrument Manufacturing
451140	Musical Instrument and Supplies Stores
711110	Theater Companies and Dinner Theaters
711120	Dance Companies
711130	Musical Groups and Artists
711190	Other Performing Arts Companies
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
711410	Agents, Managers for Artists, Athletes, Entertainers, and Public Figures
711510	Independent performers

In the artists' survey, 96 of 609 respondents to our on-line survey in 2008 listed a performing art as their primary art form out of the 609 artists.

- Of that 96, three in four live in metro counties.
- 44 percent are over 50 years of age and 76 percent are over 40, about half are male.
- Only one in three is originally from the region; those who came from other places came because of own or spouse's job (85 percent).
- Almost 40 percent came for the UNC School of the Arts and almost 40 percent to attend UNC-Greensboro.
- The revenues earned are essential income for 64% and a hobby for 14 percent. Three in eight earn less than 10 percent of their family income from their art but 27 percent earn more than half.
- Almost half their income comes from outside the Piedmont Triad region.
- About 27 percent do not report all their earnings for tax purposes.
- 58 percent learned their skills at a university and one in five are self taught.

Strengths & assets

The performing arts are well anchored in the region by the University of North Carolina School of the Arts, one of the nation's premier performing arts schools since 1963. The School has one of the most comprehensive theater and performing arts programs in the country. The program brings together faculty who have deep experience in some of the nation's most accomplished theater companies. It has production and set design facilities that are comparable to what exists in the theater industries in New York and

Chicago. The performance space and venues in the program give students an extraordinary opportunity to test out their work, and the program invites some of the most noted playwrights, producers and actors from around the country to serve as resources to the students throughout the year.

The region also includes two magnet high schools for the arts, an array of higher education programs, and a large number of patrons of the arts who support the performing arts with donations, season tickets, and attendance.

Organizations: Since most performing arts are collaborative in nature—dance troupes, stage productions, and musical groups—they are exceedingly well organized in the Piedmont Triad region. A few examples include the Collective Theatre Company, the Greensboro Symphony Orchestra, Triad Stage, Piedmont Opera Theatre, and Festival of Praise Ministries in Winston-Salem, UNC-Greensboro’s Musical Arts Guild, the Greensboro Theatre Alliance, the Glory Street Quartet in Kernersville, the Trinity Quartet in Archdale, Winston-Salem Symphony, Winston-Salem Theatre Alliance, the Little Theatres of Kernersville and Winston-Salem, Young Artists Opera Theatre in Greensboro, High Lonesome Strings Bluegrass Association in Pleasant Garden, and the Lexington Choral Society.

Education: In addition to the University of North Carolina’s School for the Arts, the region is also home to the R.J. Reynolds High School, a magnet school for visual and performing arts that teaches not only the art forms but the skills needed to support performances, such as stage management, lighting and sound, and technical theatre. In Greensboro, Weaver Academy for the Performing & Visual Arts combines arts and education. The high school environment provides “opportunities for creativity, self-expression and collaboration and teaches students to recognize the power of the arts within a global society.” UNC-Greensboro’s North Carolina Theatre for Young People is one of the most far-reaching efforts of its kind, developing theater and performances to nearly two million young people since its inception in 1963. The Theater for Young People has extensive expertise in theatre education and drama-in-residence, and it has become a key component of the region’s efforts to build an infrastructure for performing arts.

Furthermore, nearly all the region’s colleges and universities have programs in the performing arts, and most host performances. The Miles Davis Jazz Program at Greensboro College, for example, works to develop jazz in the region, and Wake Forest’s Scales Fine Arts Center has two theaters, a recital hall, and classrooms for the performing arts. The institutions of higher education are a powerful engine for the region’s performing arts.

Venues: The region is dotted with venues for music, plays, or any type of entertainment that requires a stage. Many are dedicated venues, such as the Stevens Center, Triad Stage, West Side Civic Theatre in Lewisville, Crosslove Theatre in Greensboro, Gateways Music Festival, Montgomery Community Theatre in Troy, and Positive Image Performing Arts Center in Winston-Salem. The Greensboro Coliseum complex, which seats thousands, hosts some of the biggest stars in the world, as does the Lawrence Joel Coliseum in Winston-Salem. But that is only the tip of the iceberg because it excludes the eating establishments that offer music, the public schools that put on plays, and

hotels and B&B's that may have regular entertainment. These smaller and less formal venues offer exposure to new emerging talent.

Needs & opportunities

Performing artists' greatest expressed needs are for help with marketing, health care, and access to sources of funding. Most would enroll in courses to acquire business skills but slightly prefer that it be offered on a weekend. They also frequently need second or full-time jobs to support their art. Ideally, they want work that relates to their field, such as teaching, but often are forced to wait tables or drive taxis to support themselves.

V. Strengths and Opportunities

In what aspects of the creative economy does the Piedmont Triad region excel and why? In fact, the region has a number of well-established, widely recognized strengths upon which to build for the future, whether within traditional fine arts and crafts disciplines or among applied and emergent creative disciplines, such as product design and digital interactive media.

Leading creative assets include world-class educational institutions like the University of North Carolina School of the Arts; the Seagrove Potters, a small community of contemporary artisans whose roots in pottery-making reach back to the 18th Century; the High Point Market, the largest furnishings industry trade show in the world (first held in 1909); and large-scale crafts festivals like the Piedmont Craftsmen's Fair (established in 1963).

Thus, while the Piedmont Triad region may not already be known to the world-at-large as a vibrant creative hub, it has many of the elements necessary to make its mark.

1. The region has a large number of educational institutions and resources that support the creative economy.

The arts assets in higher education are without question one of the most important features of the region's creative economy. Each of the institutions of higher education in the region offers undergraduate programs in virtually all of the key segment areas of the creative economy—fine arts, visual arts, dance, music, theater, design, architecture, animation, and film. These programs provide the foundation for individuals wishing to pursue arts-related employment and for arts entrepreneurs who create art on their own or in arts enterprises. Most of the universities have graduate degree programs in many of these same arts areas.

While the fine arts have been part of community colleges' curricula for many years, occupational programs for creative occupations are relatively new. A few trailblazing examples include the audio recording/music production program at the Larry Gatlin School of Entertainment Technology (Guilford Technical Community College); the film and video production, and digital effects and animation programs at Piedmont Community College; the interior design and photography programs at Randolph Community College; and the advertising and graphic design programs at Surry Community College.

Regarded as a whole, the Piedmont Triad region's educational institutions represent an essential asset that would benefit from a more formally networked, collaborative structure. The Piedmont Triad Partnership's Creative Cluster, funded through its WIRED grant, already has taken an important step in this direction, convening many of these schools in facilitated Roundtable discussions with industry.

2. Specialized centers at educational institutions support various aspects of the creative economy, such as theater, music, film, interactive media, and interior design.

Established in 1963 as the first state-supported, residential arts schools in the nation, the University of North Carolina School of the Arts has emerged today as one of the most respected and influential conservatories in the country. Starting at the middle school level and continuing on through graduate studies, more than 1,100 students train for careers in the arts across five professional schools: Dance, Design and Production (including a Visual Arts Program), Drama, Filmmaking, and Music. Further, the dean of the School of Film, Jordan Kerner, continues to be a working producer of major Hollywood films. He is committed to significantly upgrading the film program, as well as to developing and promoting the film infrastructure within the Piedmont Triad region. Other School of the Arts staff that continue to maintain their ties to arts industries include Chancellor John Mauceri, also professional conductor, and Ethan Stiefel, the Dean of the School of Dance and a principal dancer with the American Ballet Theatre. Other institutions, too, have created designated centers and institutes that enhance the competitive strengths of the region's creative economy and create a high degree of academic and creative excellence in a number of important areas. They include the Music Research Institute, the Center for Creative Writing in the Arts, and the Center for Innovation in Interior Architecture (all located at UNC-Greensboro), the Thomas Kenan Institute for the Arts (which chiefly funds projects and activities at the University of North Carolina School of the Arts) and the Center for Design Innovation.

The Center for Design Innovation (CDI) is an excellent example of collaboration among higher education institutions. Inspired by a 2003 report that described the potential of the design industry to drive the region's economy, CDI launched its operations in 2005 as a partnership of the University of North Carolina School for the Arts, Winston-Salem State University, and Forsyth Technical Community College. It received several million dollars for its start-up phase, and today is poised to move into a new 30,000-square-foot building in Winston-Salem. CDI will support new commercial development in design, using a variety of approaches and tools—offering symposia like the Digital Arts and Technology Symposium, an Idea Exchange program, applied research, and faculty and business partnerships/engagements. CDI also will help provide a skilled workforce and talent pool for professional firms in the region's growing design industry.

3. Beyond preparing a talent pool, regional institutions of higher education have venues, events, and facilities that function as creative economy assets.

The performing arts facilities at Piedmont Triad institutions of higher education—such as the Scales Fine Arts Center, the Stevens Center, Elon University's Center for the Arts, the Hayworth Fine Arts Building, the Salem Fine Arts Center, and Aycock Auditorium—provide important opportunities for students and faculty to produce and perform their original work. These facilities further permit performing artists from throughout the rest of the country and the world to perform for regional audiences. Through these centers and arts facilities, regional institutions of higher learner become, in effect, a key part of the production and distribution of art, and, in some instances, they even position their host towns and cities as arts destinations.

Several higher education institutions play an extremely important role in the promotion and exhibition of artwork. These showcases contribute significantly to the overall visibility of art in the region. The Charlotte and Philip Hanes Art Gallery, the Diggs Gallery, the Weatherspoon Art Museum, the Reynolda House Museum of American Art, the Elliott University Center Art Gallery, the NC A&T University Galleries, the Guilford College Art Gallery, Atelier's Bennett College for Women Gallery, and others are all part of the region's infrastructure of art promotion.

Film and music festivals in the Piedmont Triad also are vitally important to the regional promotion and distribution of art. The Eastern Music Festival, the Carolina Film and Video Festival, the Secret Artists Series, Illuminations, and the River Run International Film Festival are but a few examples.

4. The region's High Point Market remains the most important furniture event in the world.

The historic dominance of the region in legacy manufacturing, especially home furnishings and textile/apparel is legendary. High Point's first furniture factory opened in 1889, and 20 years later, the city held its very first furniture market. Today, the semi-annual High Point Home Furnishings Market is the largest such event in the world. With show rooms totaling 11.5 million square feet and 3,000 exhibitors, it generally registers more than 100,000 home furnishings professionals. The show's continued dominance is now threatened, however, by a new and rapidly growing industry trade show in Las Vegas, which can offer far more accommodation space (a limiting factor in North Carolina).

5. The region has a very strong set of programs and resources in entrepreneurial development with limited attention to creative enterprises.

Important entrepreneurial resources currently available in the region include:

- The Office of Entrepreneurship and Liberal Arts at Wake Forest University, which focuses on artists and arts entrepreneurs and awards stipends and grants to students and faculty projects leading to new businesses, entrepreneurs-in-residence, and conferences. Wake Forest also hosts the University Center for Entrepreneurship, the Babcock Demon Incubator, and the Angell Center for Entrepreneurship.
- The Interdisciplinary Center for Entrepreneurship and E-Business (ICEEB) at North Carolina A&T offers a variety of programs to help students explore and experience entrepreneurship leading to a Certificate in Entrepreneurship.
- The Nussbaum Center for Entrepreneurship, the largest small business incubator in the state, is a private, nonprofit organization that provides mentoring programs, courses and workshops, as well as connections to the Center's network of university, business and arts-related organizations (e.g. NC Business Incubator Association, Piedmont Angel Network, and the Piedmont Triad Partnership).

- The Bryan Business School at UNC-G's BELL Program, "Building Entrepreneurial Learning for Life." An Entrepreneurial Innovation in the Arts (EIA) program soon will be part of this program.
- The state's Small Business Technology and Development Centers (SBTDC) provide direct one-on-one counseling to small businesses and entrepreneurs, although historically they have focused on manufacturing and technology-related businesses.
- Each of the Piedmont Triad region's community colleges has a Small Business Center (SBC).

The current blend of entrepreneurial programs, while growing in size and emphasis on the arts, is still relatively small in scale but could achieve a higher profile if university-based programs and small business centers were more intimately connected to the creative economy and its leadership.

6. The region has a strong funding environment for arts and cultural institutions through the region's arts councils and local philanthropy.

The Piedmont Triad region's arts councils are sources of financial support for artists and arts organizations. The amount of funding is important for the ongoing work of people and institutions in the creative economy. The two largest councils in the region are the United Arts Council of Greensboro and the Arts Council of Winston-Salem and Forsyth County. The United Arts Council of Greensboro, in the last few years, has raised and distributed more than \$1 million to arts organizations, arts festivals and activities, teachers in the public schools who teach or feature art in their work, and artists in the Central Piedmont region. In 2007-2008, the Arts Council of Winston-Salem and Forsyth County awarded \$1.2 million in organizational support to some of the principal arts organizations in the county, including \$63,000 for Art-in Education; \$38,000 for Arts Projects; and \$233,000 for advertising and promotion for nearly 20 arts institutions.

Several major family foundations also are playing a profoundly important role in the development of the urban core in the Piedmont Triad region. The Cemala Foundation, the Covington Foundation, Tannenbaum-Steinberger, Duke Energy Foundation, Wachovia Foundation, Bryan Foundation, the Weaver Foundation, and local community foundations in Winston-Salem, High Point, and Greensboro all have contributed in numerous ways to building organizational and physical infrastructure for the greater Winston-Salem, Greensboro, and High Point area. Their contributions to the arts have been significant. The Cemala Foundation, for example, awarded \$486,000 to arts organizations in the Greensboro area in 2007, making it one of the larger arts contributors within the foundation community. Area banks and many medium-sized and larger businesses in the region also contribute to the area's arts, cultural, and heritage organizations.

7. The region has a strong economic development infrastructure, which, if it chooses, could significantly bolster the creative sectors.

Each of the Piedmont Triad's major cities has substantial economic development capacity, whether through the city directly or a private nonprofit organization. The

Piedmont Triad Partnership is the region's principal marketing and regional economic development organization. Virtually every county has an economic development corporation that focuses on the standard functions of business retention, attraction, and recruitment.

In addition, through the Piedmont Triad Partnership, there is an informal network of many of these organizations. This network, called the Economic Developers Advisory Committee, meets monthly to discuss economic development issues, challenges, successes, and opportunities. Members include:

- Alamance County Chamber of Commerce,
- Caswell County,
- Davidson County Economic Development Commission,
- EDC of Davie County,
- Greensboro Economic Development Alliance,
- Winston-Salem Business Inc.,
- High Point Economic Development Corporation,
- Montgomery County Economic Development Corporation,
- Rockingham County Partnership for Economic Development,
- Stokes County Economic Development,
- Surry County Economic Development Partnership, Inc.,
- Yadkin County Chamber, and
- Randolph County EDC.

Finally, other community-based organizations like Action Greensboro, the Economic Development Alliance, the Downtown Arts District, the Winston-Salem Downtown Partnership, and the regional chambers of commerce also play important economic development roles.

VI. Goals and Action Steps

How can the Piedmont Triad region most effectively and efficiently develop its assets and capacities in order to get the most value from its creative economy? The following are a set of suggested goals and action steps expected to increase the economic output of creative subclusters, to stimulate and support entrepreneurship among creative individuals and creative enterprises, to make the region more attractive as a place to live, and work to highly skilled creative professionals and talent-dependent creative enterprises, and to attract new business investment and tourists.

Goal I: Provide oversight, direction, and coordination to the region's creative economy.

Nearly every successful cluster-based economic development strategy begins with and depends upon an organization that represents, facilitates, and speaks for its member companies. The Piedmont Triad's creative economy will benefit from a Piedmont Triad Creative Enterprise Council (PTCEC) that operates either independently or under the Piedmont Triad Partnership. Because the creative enterprises in the Piedmont Triad's economy cover such a wide variety of sectors and have such diverse needs, the Council will operate most effectively if it also forms various working groups that represent the six sub-groups used in the report's cluster analysis: visual arts and crafts; product and environmental design; literary art and publishing; film and digital media; performing arts; and heritage and museums. These working groups can establish priorities, identify resources, catalyze collaborative projects, and facilitate networking.

Action Step 1: Form a Piedmont Triad Creative Enterprise Council

The Piedmont Triad Creative Enterprise Council (PTCEC) will champion and coordinate the clusters resources, give them more visibility, and use their resources more efficiently. The PTP will identify two local champions respected both by the business community and across the spectrum of creative economy sectors to serve as Council co-chairs, and name a PTP staff member to serve as director. Partially supported by funds raised from private and public sources, the Council will serve as a collective voice for the regional creative economy. It will be charged with establishing overall priorities, facilitating

Berkshire Creative is the recently formed Creative Economy Council for the Berkshires region of Massachusetts, formed in response to a Strategic Creative Economy Plan. The Council has about 25 members from all segments of the arts community, as well as people from the business community. Working committees have formed around design, marketing, an arts database, and entrepreneurial training. The Council hosts a bi-monthly networking activity for artists called "Spark." Funding from the state Cultural Council has allowed the hiring of a new Director and Assistant.

collaborations, and assigning responsibilities. Each industry working group will develop its own work plan that identifies needs, priorities, and resources.

Action Step 2: Facilitate increased collaboration and networking

Although the region already is home to many professional and business associations that facilitate networking, the vast majority of working artists and creative professionals who responded to our surveys ranked networking opportunities high on their list of needs. They further want opportunities to network across disciplines, communities, and regions. Peer feedback is vitally important to creative people for whom there often are no formal standards for assessing their work—and who also continually need new avenues for exposure and new markets. Despite numerous formal and informal associations that bring people together with their immediate peers and colleagues, especially within a particular professional niche, the greatest need may be for the “weaker” ties that take people outside of their immediate circles of comfort and familiarity into new areas that open the door to different ideas, atypical collaborations, and unfamiliar markets.

Networking: The Laboratory of Arts and Ideas at Belmar, Colorado offers regular art exhibitions, music, classes, and discussions, the latter often in quirky formats to bring people together. For example, their Mixed Taste Series pairs lectures on seemingly unrelated topics like “Prairie Dogs and Gertrude Stein,” “Earth Art and Goat Cheese,” or “Swiss Typology and TV Theme Songs.” <http://www.belmarlab.org>.

One strategy would be to expand the social networking role of the Piedmont Triad Film Commission (www.piedmontfilm.com) for the film and digital media cluster. This should be accomplished both online and in real-world settings where spontaneous informal contacts can be initiated and new collaborations can be hatched. Facilitated networking also can include coordinating opportunities to meet those working in other subgroups within the overall digital media cluster, especially by expanding the PTFC’s mission to include both music and serious gaming. Thus positioned, the PTFC could advocate on behalf of the entire film and digital media cluster. While more resources would be required for the PTFC to accomplish this action step, the improved density of social networks throughout the sub cluster would be well worth the investment.

The Piedmont Triad Creative Enterprise Council itself should provide matching grants as incentives to groups of firms that are willing collectively—or perhaps on behalf of their professional associations—to build connections to markets and attend professional meetings. Design companies in the region specifically expressed interest in greater opportunities to network other design professionals at trade shows or by touring benchmark practices in other parts of the U.S. and overseas. The Bricolage Arts Festival, which over four days in November 2007 served to facilitate cross-discipline, cross-county collaboration, as well as to connect artists to the business community, is an excellent example of this sort of networking.

Action Step 3: Establish an annual grant program for creative economy projects.

Create a funding stream that provides incentives for organizations, towns, and counties for joint marketing and promotion of related or complementary assets. The proposals would be evaluated based on their anticipated economic development impacts. The PTP will help raise the funds for this program from some of the larger foundations and corporations in the region, and awards will be made with external peer review committees. They would be evaluated over time to assess their impacts and learn from the successes and failures.

Grants Program: The Massachusetts Cultural Council established the Adams Arts Program for the Creative Economy in 2004 through a \$4.5 million allocation from the state legislature. It provides grants for arts-related projects in the state that can demonstrate an economic development impact. Examples of projects funded include the Boston Cyberarts festival, Sourcebook on Handcrafted architectural elements on Cape Cod (modeled on HandMade in America), and Assets for Artists to develop an Individual Development Account for low-income artists.

<http://www.massculturalcouncil.org/programs/adam>

Goal II: Capitalize on the creative economy assets of the region's educational institutions.

Higher education is a vitally important wellspring for various kinds of creative activity—for labor market entrants with the skills to succeed in creative enterprises, for new knowledge and innovations, for entrepreneurs, for upgrading the skills of those already working in the cluster, as venues for art and culture, and for attracting talented people. A significant number of designers and artists surveyed originally came to the region to attend, work for, or create within the auspices of a regional educational institution.

Action Step 1: Form a Piedmont Triad Creative Enterprise Council (PTCEC) Working Group to promote collaboration and connections among programs and resources within higher education.

There are pockets of very strong programs and resources scattered among the region's institutions of higher education that could have greater impact upon the Piedmont Triad creative enterprise cluster if better connected and coordinated.

Institutions that depend on enrollments for their revenues are not natural educational allies. Concentrating and sharing expertise and resources in various aspects of the creative economy at particular institutions, however, would make the system more cost-effective. Some cooperation and sharing is already happening, due to special agreements and the extraordinary expertise and resources at particular institutions.

A PTCEC working group would represent public and private, two-year and four-year institutions. It could spearhead new initiatives and coordinate activities already underway, set priorities, and help take even those institutions already highly ranked to a higher level. Community colleges already have been discussing a coordinated effort around the creative economy. And the Piedmont Triad Partnership has facilitated discussions about collaborative activities through its ongoing Creative Cluster Roundtable meetings.

Action Step 2: Strengthen exchange and articulation agreements among community colleges and four-year colleges.

Before a particular community college can establish a new program, the state asks for occupational projections for its service area and sets enrollment requirements. In some instances, however, these mandates fail to anticipate both the rapid onset of rising demand for advanced skill sets in newly emergent industries, such as serious gaming, and careers with large rates of self employment. To work around such curriculum restrictions, the region's community colleges can develop working partnerships with other institutions that allow for cross enrollments, particularly in creative economy program areas.

Surry Community College, for example, has forged a cross-enrollment agreement with Wake Tech that permits cross-enrollment for courses in simulation and game development. Surry's arrangement with Wake Technical Community College could serve as a model for other programs that address the workforce development needs of the creative economy. In addition to creating stronger creative economy programs, this strategy would also address the WIRED recommendations to coordinate interactive media and gaming curricula among the Piedmont Triad region's community colleges in order to help the state as a whole meet industry demand for trained workers. Smaller, more rural colleges are most hampered by minimum class requirements for programs that lack sufficient local workforce demand but which may have self-employment potential or that can meet regional demand.

Further, many creative occupations eventually require higher-level skills and the expanded industry connections available at four-year institutions. Articulation agreements among institutions are needed to allow students to continue their studies and aspire to higher credentials. With transfer to four-year schools becoming a higher priority in the North Carolina Community College System and more students choosing community colleges for affordability, the challenge will be to ensure that community college courses meet the transfer requirements of four-year institutions.

Action Step 3: Increase the emphasis on arts and creativity in the public schools.

Young people begin to choose their careers and develop their appreciation of arts and culture in the public schools. North Carolina has retained the arts in its public school curricula, although they often take a back seat to the academics that drive the standardized tests. Yet many research studies find that arts improve academic outcomes. For example, a new small-scale study at Harvard Medical School reportedly found that three or more years of musical training boosts verbal reasoning skills by 15 percent and non-verbal reasoning by 10 percent. By increasing the emphasis on the arts in the public schools, students will gain an appreciation for the arts and better understand their potential career opportunities.

My Community documentary filmmaking: Arkansas supports My Community, a documentary filmmaking program that engages high school and college students in their communities, encourages creativity, and teaches valuable career skills. By making digital documentary films about places in Arkansas, students learn communication skills, planning, teamwork, digital technologies, writing, and editing skills in a real-world environment. They also develop an appreciation for what makes places special. The videos compete for awards from the state based on content, theme, story, narration, camera techniques, editing, and music. Recent documentaries include student art murals at Fayetteville High School; Randolph County's great outdoors with a historical backdrop; Batesville, the second-oldest city in the state; and World War II Japanese internment camps in Arkansas.

Source: *Deep Roots, High Hopes*, <http://www.rtsinc.org>

Action Step 4: Expand internships and apprenticeships in creative enterprises for community colleges and universities students.

A few universities and colleges already have internship programs that place undergraduates in creative enterprises, primarily with arts and cultural institutions. For example, Winston-Salem State University has an Arts Co-op Program, UNCG's interior design program requires an internship, and the Yadkin Valley Craft Guild is developing an apprenticeship program with Surry Community College for crafts that could be replicated at other community colleges. In all of our surveys, we found that companies and artists value these internship relationships and would like to see them enhanced. If such programs were expanded and coordinated among the higher education institutions, they could have

Apprenticeships: At the Arkansas Craft School in Mountain View, a partnership among the Arkansas Craft Guild, Ozarka College, and the Ozark Fork Center, the 2008 - 2009 Apprenticeship Program is underway in weaving, wood turning and carving, jewelry, stained glass, pottery, quilting, and photography. Students are paired with expert artisans as mentors but they also get marketing and management courses.
<http://www.arkansascraftschool.com>

a significant impact on the students who want to learn more about the region's creative economy, as well as bring new knowledge into the creative enterprises.

Expansion, however, requires business cooperation, and the United States lacks the history and business culture to support work experience that western Europe has, where apprenticeships and internships are generally required, and students are almost always paid a wage. The Triad InternNet has an excellent web-based model for internships but needs stronger support and more cooperation from creative enterprises to provide positions.

Action Step 5: Expand continuing education, accelerated, and distance education opportunities for creative occupations.

Artists and designers expressed an interest in attending continuing education workshops, and most preferred to do it in the evenings or on weekends. Those working in the digital media arts strongly articulated their preference for on-demand access to online training resources. Further, the older and disabled populations interested in acquiring new skills and/or starting careers often prefer a less traditional setting and more accelerated program. Expanding on-demand, web-based, and weekend/evening credit and continuing education opportunities would make it much easier for people in the workforce and/or with families to enroll in programs to upgrade their skills or even change careers.

Action Step 6: Promote greater transparency in and awareness of career paths and employment opportunities in the creative economy.

Information about careers in many of the creative occupations—from hand crafts to animation—is scarce, either because the occupations are new and/or do not have standardized titles or skill sets, or because they are heavily oriented toward freelancing and microenterprises and not included in official projected employment figures. Also contributing to the scarcity of career information is the prevailing heavy emphasis upon articulating the workforce demands of large-scale industries such as health care, automotive, information technology, and energy. Organizations that advise students need far more comprehensive and up-to-date information about work in the creative sectors.

Career awareness: The PTP awarded a Transformation Grant to the Center for Entrepreneurship at Winston-Salem State University in 2008 for an innovative new outreach project that uses a game-show format called "Guess What I Do for a Living" to provide career information and entrepreneurial opportunities to at-risk youth and young adults. Working professionals also participate in the interactive game, allowing younger audiences to interview them. The second phase of the program lets the at-risk youth apply for scholarships to learn more about industry or for the apprenticeship program.

We recommend systematically educating career, counseling, and placement offices in schools, workforce investment

centers, and employment offices about creative sector opportunities so that students can better appreciate, understand, and access career opportunities and paths within the various components of the creative economy. This will require equipping guidance and career counselors and employment services with more and better information and knowledge about economic—not just employment—opportunities in creative fields. In addition, artists-in-residence programs would add a personal touch to introducing career opportunities as well as increasing local appreciation of arts and influencing creativity in technical curricula.

Goal III: Strengthen the business, marketing, and entrepreneurial capabilities of creative enterprises.

The creative economy is largely entrepreneurial, with many opportunities for self-employment (as well as freelancing) in the arts, writing, and digital media growth sectors. Yet many creative enterprises are managed by people who have acquired the creative but not necessarily the business or entrepreneurial skills to succeed as an enterprise. Marketing expertise also emerged in our surveys as one of the highest priority needs of creative individuals and firms. Small creative enterprises often lack the business skills, connections, and knowledge to effectively manage their business or market their goods and services. Further, they often are unable to secure the venture or working capital they need to get started or expand. Nonprofits, too, are often limited by their inability to find the sources of support they need to sustain their operations.

Action Step 1. Take existing entrepreneurial resources and programs to a higher level.

Bring the various entrepreneurial development programs together and create a more integrated and unified effort that can achieve a larger-scale entrepreneurial support network. Right now, such programs are scattered throughout the region with some duplication and function on a modest scale.

We recommend that artist organizations in the region become part of the entrepreneurial development system in the region. Currently, it functions without that kind of institutional relationship.

This will require greater knowledge of creative enterprises within the region’s Small Business Centers and SBTDC offices—possibly by establishing one or two lead centers staffed by individuals with extensive experience in the creative sector who can advise other centers. Also, we recommend

ArtBusiness: Seedco’s ArtBusiness Initiative provides loans and services to non-profit and for-profit arts-related enterprises. Loans can be used for “start-ups and expansions, construction and renovation of facilities, purchase of new equipment, and debt consolidation.” Services cover Strategic Marketing, Business Planning, Financial Management, and Access to Financing.

www.seedcofinancial.org/newyork/arts

expanding the set of business assistance programs currently under development through UNCG's BELL Program and the Entrepreneurial Innovation in the Arts program. Support for this budding partnership might be found with the United Arts Council of Greensboro.

Action Step 2: Expand venture development for creative enterprises and funding for nonprofits.

The Office of Entrepreneurship and Liberal Arts at Wake Forest provides small grants that essentially function as venture funding for artists who want to develop the commercial side of their work. This effort ought to be significantly expanded, raising additional funds from several of the foundations in the region. In addition, the Piedmont Triad Partnership should become the focal point for organizing a formal system that brings artists and arts enterprises together with the business community. Artists and arts enterprises are eager to have this kind of relationship with the private sector to forge new strategic alliances and to provide more market opportunities for artists and arts enterprises with existing businesses.

Action Step 3: Improve the full-time and supplementary employment opportunities of artists

In our surveys, artists rated "information on employment opportunities" highest among desired forms of assistance, with 79 percent rating it significantly or critically important. Many artists, writers and performers are unable to support themselves through their art. The region has an extraordinarily rich community of highly skilled artists who could help raise the profile of the arts and creative economy in the region and expand the overall appreciation of the arts, which many interviewees perceived as weak.

Some full and part-time job opportunities that would serve multiple purposes include an artists-in-residence program in the public schools and community colleges that could introduce career opportunities, increase local appreciation of arts, and influence creativity in technical curricula; part-time teaching opportunities that would provide educational resources and income; and corporate employment in advertising, design, or technical writing—or as artists in residence, as Kohler Corporation uses. Berkshire Creative maintains a job bank for its region's creative economy.

Action Step 4: Expand marketing assistance for creative enterprises.

Provide more targeted marketing assistance to creative enterprises, including helping them learn how to most effectively use the Internet for marketing and sales techniques; how to better connect with the tourism industry and customer base; and how to gain access to and be more successful at festivals and trade shows

E-commerce for artists: CraftNet, an alliance of community colleges supported by the Appalachian Regional Commission, to develop a community college curriculum to teach artists to use e-commerce more effectively. The curriculum supplements successful entrepreneurial curricula such as "Artrepreneurship" in Montana and "Real Enterprises" in North Carolina. By drawing on existing tested models, the region's community colleges could quickly adapt the curriculum to their particular needs.

outside their regions, and even outside of the U.S. North Carolina's World Trade Center, for example, could take groups of artists to other countries to create trade opportunities, as the Montana's World Trade Center did for artists with Ireland. The PTCEC could provide matching grants to three or more enterprises willing to join together, travel abroad to market the region, and upon their return share the knowledge gained during the trip. Such network-based grants have been used effectively for many years for industrial trade shows.

Action Step 5: Support further development of the film and interactive digital media industry.

We recommend investing additional resources to strengthen the Piedmont Triad Film Commission (PTFC) and further develop the film and digital media industries, including gaming and animation, as part of its regional economic development agenda.

Currently the PTFC operates on a relatively small budget with just one staff person, primarily scouting locations for film and video productions and maintaining a database of industry technicians living and working in the region. Increasing its size by at least one or possibly two staff would allow the PTFC both to enhance its existing subcluster networking efforts as well as add regional music and serious gaming constituencies to its portfolio. Encourage the State Legislature to increase from 15 percent to 25 percent the film incentive tax credit offered to productions that spend at least \$250,000 in the state, which would match tax incentives currently offered by, for example, South Carolina, Louisiana, and New Mexico. The Triad could also subsidize office space to film production companies while working on projects in the region and/or offer reduced accommodations, such as eliminating room taxes, after 30 days for production crews.

In addition, the interactive digital media arts increasingly are converging and creating new and hybrid products in simulation and gaming, both rapidly growing industries. Artists and technicians specializing in one or more of these disciplines typically come together for brief periods of time to collaborate on special projects with workers in other digital media arts. Consequently, facilitated networking can enhance entrepreneurial opportunities—both within the subcluster itself and with enterprises in other clusters. Based on its long successful track record, operating even with limited means, the PTFC is the best candidate to manage a larger networking and facilitation role.

Goal IV: Advance the application of design as source of competitive advantage for the region.

If consumer products are to remain a force within the Piedmont Triad economy, they will have to compete on a different basis than they have in the past. For example, even with high transportation costs, mass-produced commodity-like furniture is unlikely to return to the region. Its future will depend on whether the industry will be able to turn more to customized products that are rooted in the region's historic design and authenticity, a strategy that has kept high-cost home furnishings made in Finland,

Denmark, and Italy competitive. A large proportion of the jobs in industrial design are already related to consumer products, but these changes will require even closer ties between the companies, designers, and artists. Even as production declines, the region can maintain its industry leadership by shifting its competencies to design, logistics, marketing, education, and finance—as the sport shoe cluster in Oregon has done successfully. The majority of the Piedmont Triad’s 811 jobs in industrial design are no doubt primarily related to furniture and apparel design. Industrial designers are four times more concentrated in the Piedmont Triad than in the nation. A 2007 study found 56 firms dedicated specifically to furniture design in Guilford County,],¹⁷ with even more industrial designer embedded within firms. In addition to the potential of home furnishings, the region has opportunities to apply its design capabilities to emerging and growing digital products, such as interactive games and animation.

Action Step 1: Assist manufacturers to better utilize art and design.

Develop expertise in the university system’s Industrial Extension Service, Cooperative Extension and/or Small Business Technology & Development Center (depending on levels of interest and capacity), and use their extension agents to conduct outreach to traditional manufacturing firms on the potential and application of design. This may include events where design firms and manufacturers are brought together to discuss collaborative arrangements that can add value to manufacturers’ products. It may also include developing an aggressive internship program between design school students and traditional manufacturers as well as job fairs between design schools and manufacturers.

The region could organize groups of manufacturers who would be willing to work with designers and artists on developing prototypes of new products, perhaps with small incentives to cover initial facilitation costs. Such networks have been used effectively for many years to accelerate the utilization of new technologies to increase their competitiveness. They could be equally effective in helping businesses use design to increase competitiveness. The region could also schedule events to acquaint companies that now contract for design outside of the region with regional design firms.

Business Networks: From 1993 to 1998, RTS managed a program funded by the U.S. Department of Commerce called USNet. RTS worked with 15 partner states to train network brokers and to encourage and incent collaboration among companies and the formation of flexible manufacturing networks, a precursor to cluster strategies in most countries. Many of the networks formed still exist, and cooperation has become common practice in many sectors.

Action Step 2: Establish a world-class design school

¹⁷ Gerald Fox, Richard Hargrove, and David Bryden, *The Economic Impact of the Home Furnishings Industry in the Triad Region of North Carolina*, High Point University, May 2007.

Establish a baccalaureate and graduate School of Design that can become the equivalent of the Rhode Island School of Design or Savannah School of Design by attracting the world's best designers to the faculty and by recruiting promising students from around the world. The school should include a research institute comparable to the Danish Centre for Design Research. The school, which could be associated with an existing school including the UNC School of the Arts, might renovate and use closed furniture factories as classroom space or student housing.

Part of the school's responsibilities would be to develop a first professional degree in architecture in order to increase the attractiveness to architects. This would support the region's ongoing efforts to develop a first professional degree in architecture, perhaps in cooperation with existing programs at North Carolina State University or UNC-Charlotte. While in progress, the region could develop internships and summer employment in Piedmont Triad region for students at those two schools to expose them to opportunities and develop possible employment opportunities.

The school would include a world-class Furnishings Research and Development Center that addresses all facets of the furnishings industry from materials, to process and design innovations, to technology applications to leading edge research, possibly a shared effort with the Center for Design Innovation in Winston-Salem.¹⁸

Action Step 3. Integrate markets for interior design, home furnishings, and art with furniture markets.

Interior designers—who often make recommendations, and even purchases, for customers, and show rooms—can influence office furnishings and spur interest in more locally produced design-oriented home furnishings. The connections are symbiotic, with everything that goes into furnishing a home or office interconnected. A thorough analysis of how to make the region's home furnishings industry a global leader written in 2008 establishes a solid framework that includes making the region a year-round destination for tourists, wholesalers, and customers. The High Point Market is the nation's premier furniture event and is a large potential market for all the associated products and services,

Konstfack, University College of Arts, Craft and Design, Stockholm, Sweden was founded in 1844. It is unique among Swedish art and design schools in offering design, arts, craft, and art teacher education. The study programs are between three and five years and lead to BA and MA degrees. The school has 10 departments: Animation & Animated Film, Art Teacher Training, Ceramics and Glass, Fine Arts (Photography, Painting, Sculpture, and Curator Program), Graphic Design & Illustration, Industrial Design, Interior Architecture and Furniture Design, Metal Design, Textiles and Color & Form. The development of the research activities is under preparation. Konstfack is also part of the Stockholm Schools of Entrepreneurship.

Hanna Heikkinan, Innovation Network of Art and Design Universities in Nordic and Baltic Countries, Designium, 2004.

¹⁸ J. Holmes, *A Strategic Report on the Piedmont Triad Furnishings Cluster: Making The Piedmont Triad Region The Capital Of The World Furnishings Industry*, August 2008.

from artisanal home products to photography and advertising.

The region could establish an “art market” that corresponds with the High Point Market and allows local artists and artisans to market their products, particularly related to home furnishings. This was attempted about five years ago and judged to not be successful, and therefore it would be important to examine the reasons and determine whether conditions have changed. The regional market also has contributed to the development of a very strong cluster of commercial photographers.

This action ought to include developing a single portal or directory for fashion-oriented furniture, home furnishings, designers, and interior designers. Although many have their own web sites, and some places have developed collective web sites, there is no single portal to the region’s creative economy. A central directory or map of the creative enterprises and assets would enable customers or visitor to locate a vendor. A clearinghouse of information on individuals in the region who have goods and services related to servicing the design, as already is being considered through the WIRED program, would promote increased purchasing of local goods and services.

Action Step 4: Support inter-region and international connections.

As international cooperation and markets become more important to the furnishings industry, region-to-region and international connections are increasingly important to overall global development. Much of the residential bedroom furniture sold in the United States is today produced in Vietnam. Although these low-cost regions are the source of domestic job loss, they are also potential partners for North Carolina firms. They also represent rapidly growing markets, and increasing demand for novel and high fashion consumer goods among rapidly growing middle classes. China, for example, has become a major consumer of imported fashions, causing Italy’s hosiery clusters to open sales office in China. The region—and state—should provide support to clusters to pursue new partnerships, markets, and learning opportunities.

Goal V: Promote packaging and branding of the region’s creative assets.

If the Piedmont Triad is to develop a reputation as a creative region, it will have to find a way to distinguish itself, a brand that will set the region apart from others and presents it as a world leader. The region’s public and private sector leadership will have to decide how to package its strengths to get the most from its overall creativity.

Action Step 1. Develop a distinctive regional brand and communications strategy.

A formal strategy is needed that better reflects both the importance and particular strengths of the creative economy in the Piedmont Triad region that can be used in marketing the region. All parts of the region need a cogent and compelling story that

can impress new immigrants, investors, and tourists. Create a communication strategy for telling the creative economy “story” in the region. Take this on the road and meet with economic development groups, chambers of commerce, and other local business organizations around the region. The region’s arts, economic development, and business communities should fully embrace and support the newly revised publication, Triad Living. The magazine, similar to publications in other regions throughout the country, can be a major asset in strengthening the arts and culture-related identity of the region.

Action Step 2: Create regional web presence, portal, and directory for the creative economy.

The Piedmont Triad region lacks a single unified web presence for the creative economy, although WIRED is taking steps to develop such a presence. In the past, websites have been split among various arts councils, guilds, and development agencies. A central portal for the region’s economy will make it more cohesive and more likely that customers and tourists extend their visits to see more of the region.

A comprehensive directory and mapping—or wayfinding trail—of artists, designers, other creative enterprises, and related areas of interest such as wineries, bed and breakfasts, and heritage sites would help promote the entire area as a creative region, not merely a collection of independent communities. The directory of the region’s creative talent would be available to other artists who wish to collaborate and to Piedmont Triad firms who wish to post job openings that require artistic or design talents. It would include detailed information about the artists and their interests, studio hours, examples of their work with descriptions about when and where to view and purchase it—as well as how to contact the artists directly. It would also supply maps or wayfinding paths among artisans, artists, and creative venues.

Action Step 3: Support stronger institutional linkages between the creative community and tourism.

An earlier analysis of North Carolina’s creative economy demonstrated the impact of artists, performers, and designers on tourism expenditures. With individual cities and 12 counties spread across the region, each having its own secondary school system and access to a community college and each with its own chambers, organizations and networks, the ability to coordinate the multitude of assets to achieve some sense of cohesion and regional unity becomes even more important. The Piedmont Triad’s creative people are underappreciated as economic assets and thus are not sufficiently marketed, whether within or beyond the region.

Action Step 4: Encourage businesses and institutions, and communities to purchase and/or display public art.

The Piedmont Triad Partnership should become a focal point for organizing efforts to bring artists and arts enterprises together with the business community. This would enable commercial-oriented interactions between these two communities, with the intent of developing business opportunities and new products. Corporate offices, banks, hospitals, and public buildings are increasingly using art to beautify their public spaces while at the same time promoting local artists. Hospitals, in particular, are finding that art has a curative and

soothing effect on patients and visitors. Outdoor public art is a community good and can be used to promote tourism. Businesses can improve their own corporate image while supporting the local economy. Artists and arts enterprises are eager to have this kind of relationship with the business community to forge new strategic alliances and to provide more market opportunities for artists and arts enterprises with existing businesses.

Public art: Sheridan, Wyoming, population 17,000, has 50 outdoor art installations, possibly the highest concentration of downtown public sculpture art in the U.S. A public resolution by the Mayor established the "Art in Public Places" program in 2000. Initially the artwork followed a western theme but over time has branched into a wide range of forms, including a rhino, turtle, and a penguin, providing tourists with an unexpected blend of art. About half of the sculptures have been purchased by local residents and donated for permanent display; half are loaned by artists paid \$500 for each piece and are for sale at prices ranging from a few thousand dollars to \$38,000.

Appendix A

Goals and Action Steps Worksheet

Goal I: Provide oversight, direction, and coordination to the region's creative economy.		
Action Step 1: Form a Piedmont Triad Creative Enterprise Council		
Action Step 2: Facilitate increased collaboration and networking		
Action Step 3: Support cross-discipline and cross border networking		
Action Step 4: Establish an annual grant program for creative economy projects		
Goal II: Capitalize on the creative economy assets of the region's education institutions.		
Action Step 1: Form a PTCEC Working Group to promote collaboration and connections among programs and resources within higher education		
Action Step 2: Strengthen exchange and articulation agreements among community colleges and four-year colleges		
Action Step 3: Increase the emphasis on arts and creativity in the public schools		
Action Step 4: Expand internships and apprenticeships in creative enterprises for students at colleges and universities		
Action Step 5: Expand continuing education, accelerated, and distance education opportunities for creative occupations		
Action Step 6: Promote greater transparency in and awareness of career paths and employment opportunities in the creative economy		

Goal III: Strengthen the business, marketing, and entrepreneurial capabilities of creative enterprises.		
Action Step 1: Take the current entrepreneurial resources and programs to a higher level		
Action Step 2: Expand venture development for creative enterprises and funding for non-profits		
Action Step 3: Improve the full-time and supplementary employment opportunities of artists		
Action Step 4: Expand marketing assistance		
Action Step 5: Support the development of the film and interactive digital media industries		
Goal IV: Advance the application of design as source of competitive advantage.		
Action Step 1: Assist manufacturers to better utilize art and design		
Action Step 2: Establish a first-rate design school		
Action Step 3: Integrate interior design, home furnishings, and art with furniture		
Action Step 4: Enhance and support international connections		
Goal V: Package and brand the region's creative assets.		
Action Step 1: Develop distinctive regional brand and communications strategy		
Action Step 2: Create regional web presence, portal, and directory for creative economy		
Action Step 3: Support stronger institutional linkages between the creative community and tourism		
Action Step 4: Encourage businesses and institutions, and communities to purchase and display public art		

Appendix B

Funding and Implementation Options

New and expanded creative economy initiatives can require significant resources in dollars, time, and people. Fortunately there are options available to find and generate those resources. Some require grant applications, others lobbying, while some can be developed by reallocating resources and coordinating efforts.

Significant impacts can result from concentrated coordination efforts between foundations, groups, agencies, individuals, and various levels of government. These efforts can reduce overlap and help groups with the synergy possible when efforts are coordinated. These efforts also can demonstrate the depth and breadth of activities occurring in a region and demonstrate that nobody “has to go it alone.”

A key need is to explain the value—economic, educational, and cultural—of creativity and the arts. This effort needs to be made to the business, foundation, individual philanthropist, government and even the arts sector. In developing creative economy projects, it is fundamentally important to demonstrate how creativity and the arts generate significant economic impact, promote educational achievement, and catalyze community cohesiveness.

Specific efforts and organizations can use various means for resource and fund development. Arts and crafts organizations use membership dues, events and relationships with other organizations to provide services. Organizations commonly use fees for services that provide win-win arrangements for organization and business or individual.

Major funding opportunities include federal, state, regional and local government, state, regional and national foundations and private philanthropists. At the federal level, funding options include the following organizations.

- **Department of Labor:** for workforce related issues.
- **National Endowment for the Arts:** the NEA has provided substantial funding for regional arts efforts.
- **Appalachian Regional Commission:** Five Triad counties, Davie, Forsyth, Stokes, Surry and Yadkin are within the ARC. ARC has funded substantial efforts related to the creative economy including infrastructure, entrepreneurship, tourism and arts and crafts. Coordination with the state ARC representative is recommended.
- **Department of Education:** for arts education issues. This includes funding for efforts under the *No Child Left Behind Act*.
- **Housing and Urban Development: CDBG grants:** for performing arts in central cities, support for artists workspace, community arts and school arts programs.
- **Department of Transportation:** For artists residencies, public art funding, cultural guides, downtown redevelopment, and historic preservation.

- **Federal earmarks:** Specific earmarks are possible for projects. For example Raleigh received funding for North Carolina Symphony for musical and artistic residency activities for elementary and secondary students.

On the state, regional and local level funding options include:

- **Department of Commerce:** for tourism, film, community development, and the wine industry
- **NC Arts Council:** a division of the Department of Cultural Resources, arts, culture, parks, museums and education
- **NC Rural Economic Development Center:** the Rural Center has a array of programs that fund infrastructure, downtown development, leadership in the arts, community development corporation (CDC) and entrepreneurship that can be used for creative economy efforts.
- **Regional and local governments:** can play a role

Foundation and philanthropic funding is available on a local, regional, state and national level. All should be included in resource efforts. For North Carolina and the Piedmont Triad they include:

- **Z. Smith Reynolds:** funding in community development particularly in low income communities
- **Community Foundation of Greensboro:** for example, their arts as a connector program
- **The Winston-Salem Foundation:** in arts and education
- **The Duke Endowment:** arts education and rural development
- **Wachovia Foundation:** education, arts and culture
- **Mary Duke Biddle Foundation:** culture and education

National foundations include:

- **Bill and Melinda Gates Foundation:** arts, culture, and education
- **The Pew Foundation:** including the Pew Fellowships in the Arts
- **Doris Duke Charitable Foundation:** dedicated to the performing Arts
- **Paul Allen Foundation:** program areas in Arts and Culture and Education and Youth Engagement
- **American Express Foundation:** resources for cultural heritage

Information on grant opportunities can be found at the organizations websites in the following table.

Table: Funding Sources

Organization	URL	About Us
Grantmakers in the Arts	http://www.giarts.org/	"Grantmakers in the Arts is a membership organization whose trade is discourse on ideas about arts philanthropy within a diverse community of grantmakers. Founded in 1985, GIA maintains a lightweight infrastructure that supports its members' work together. Members include private, community, corporate, and family foundations, as well as public sector grantmakers, regrating organizations whose primary purpose is arts grantmaking, and individual donors who give through eligible organizations."
National Endowment for the Arts	http://www.nea.gov/	"The National Endowment for the Arts is a public agency dedicated to supporting excellence in the arts, both new and established; bringing the arts to all Americans; and providing leadership in arts education. Established by Congress in 1965 as an independent agency of the federal government, the Endowment is the nation's largest annual funder of the arts, bringing great art to all 50 states, including rural areas, inner cities, and military bases."
Americans for the Arts	http://www.artsusa.org/	"Americans for the Arts is the nation's leading nonprofit organization for advancing the arts in America. With 45 years of service, we are dedicated to representing and serving local communities and creating opportunities for every American to participate in and appreciate all forms of the arts." For their resource guide: http://www.artsusa.org/pdf/information_resources/research_information/policy_roundtable/2006NAPRFinalReport.pdf
Foundation Center	http://foundationcenter.org/	"Established in 1956, and today supported by more than 600 foundations, the Foundation Center is the nation's leading authority on philanthropy, connecting nonprofits and the

		grantmakers supporting them to tools they can use and information they can trust. The Center maintains the most comprehensive database on U.S. grantmakers and their grants — a robust, accessible knowledge bank for the sector.” For their guide on the arts go to: http://foundationcenter.org/getstarted/topical/arts.html . For arts-related requests for proposal: http://foundationcenter.org/pnd/rfp/cat_arts.html
Council on Foundations	http://www.cof.org/index.cfm	The Council on Foundations is a Washington, DC, area-based nonprofit membership association of more than 2,100 grantmaking foundations and corporations. The assets of Council members total more than \$307 billion. As the voice of philanthropy, the Council works to create an environment in which the movement can grow and thrive, and to provide Council members with the products and services they need to do their best work.
Creative Capital Foundation	http://www.creative-capital.org/	Creative Capital, a nonprofit organization, acts as a catalyst for the development of adventurous and imaginative ideas by supporting artists who pursue innovation in form and/or content in the performing and visual arts, film and video, and in emerging fields.
Southern Arts Federation	http://www.southarts.org/	The Southern Arts Federation, a non-profit regional arts organization founded in 1975, creates partnerships and collaborations; assists in the development of artists, arts professionals and arts organizations; presents, promotes and produces Southern arts and cultural programming; and advocates for the arts and arts education.

Appendix C

Creative Occupations by SOC Code¹⁹

Table 1. Artists Occupations

27-3043 Writers and authors
27-2042 Musicians and singers
27-2041 Music directors and composers
27-1014 Multi-media artists and animators
27-1013 Fine artists, including painters, sculptors, and illustrators
27-1012 Craft artists

27-1019 Artists and related workers, all other
27-2012 Producers and directors
27-2099 Entertainers and performers, sports and related workers, all other

27-2011 Actors
27-2032 Choreographers
27-2031 Dancers

Table 2. Cultural Occupations

25-4021 Librarians
25-4031 Library technicians
25-9011 Audio-visual collections specialists
25-4012 Curators
25-4013 Museum Technicians and Conservators
25-4011 Archivists

Table 3. Designer Occupations

27-1021 Commercial and industrial designers
27-1023 Floral designers
27-1025 Interior designers
27-1024 Graphic designers
27-1027 Set and exhibit designers
27-1022 Fashion designers
27-1029 Designers, all other
17-1012 Landscape architects
17-1011 Architects, except landscape and naval

Table 4. Media Occupations

27-4021 Photographers

¹⁹ SOC stands for Standard Occupational Classification. The SOC system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of over 820 occupations according to their occupational definition.

11-2021 Marketing managers
27-3031 Public relations specialists
27-3099 Media and communication workers, all other
27-1011 Art directors
27-3041 Editors
27-3011 Radio and television announcers
27-3022 Reporters and correspondents
11-2031 Public relations managers
11-2011 Advertising and promotions managers
27-4011 Audio and video equipment technicians
27-3042 Technical writers
27-4012 Broadcast technicians
13-1011 Agents and business managers of artists, performers, and athletes
27-3021 Broadcast news analysts
27-4032 Film and video editors
27-4031 Camera operators, television, video, and motion picture
27-4099 Media and communication equipment workers, all other
27-4013 Radio operators
27-4014 Sound engineering technicians

Appendix D

Benchmark Regions

1. *Front Range of Colorado*

Boundaries and core economy: The Front Range region, includes 10 counties and the cities of Denver, Aurora, Fort Collins, Boulder and Westminster. The region is the most populous region in the state of Colorado with current population of 3,245,357. The quality of life in the region has made it an extremely attractive location for highly skilled workers. As a result, the region has been growing rapidly and has a strong reputation as a destination of choice for creative workers.

MetroDenver is also one of the first WIRED Partnerships. The focus of the WIRED grant is to support the region's growth industry clusters and to build a pipeline of workers for high-demand occupations. The partnership targeted four industry clusters: aerospace, bioscience, information technology, and energy. The WIRED implementation grant acknowledges the critical importance of the arts in terms of the quality of life in the region.

Studies: The Colorado Council on the Arts, a division of the Colorado Office of Economic Development and International Trade recently commissioned a report on the creative economy in the state, due to be released in early 2009. In 2006, the Colorado Business Committee for the Arts sponsored an economic impact study of the arts in the Denver region, which found that culture creates generated \$1.4 billion in metro area economic activity in 2005. The city of Denver completed a Creative Vitality Index Study, as well as an extensive study of all of the "creative spaces" within the city.

Scale: A recent study of the creative economy in the state found that the region had a total of about 85,000 jobs in the creative economy. The largest component of the creative economy in the region is the extremely large concentration of individual artists, writers and performers, a total of about 17,000.

Core strengths and Assets: In addition to the large concentration of individual artists, writers, and performers, this region has one of the highest concentrations of architects, interior designers and landscape designers in the U.S. Both the Denver metro area and the Boulder metro area are ranked within the top five of all metros in the US in terms of the concentration of architects, and Denver is also in the top five in both interior designers and landscape architects.

Another area of strength in the region is in multimedia. The Boulder region has an extremely high concentration of multimedia artists and is the home to a large number of computer game development companies. Designers in Colorado have helped to build a stronger manufacturing sector. The state's apparel, accessories, furniture and sports equipment makers have benefited from the strong design community within the state.

Finally, the region has invested heavily in its arts and cultural organizations. In 2006 a \$91 million expansion of the Denver Art Museum was completed, increasing the gallery space by 40 percent. Denver is also home to the Denver Center for the Performing Arts, the second largest performing art center in the US. In 2007, the new Museum of Contemporary Art/Denver was opened.

Investments: Seven metro counties in the Denver region have enacted the *Scientific & Cultural Facilities District*, an innovative source of funding for the region's arts and cultural organizations. A sales tax of 0.01 percent generates about \$38 million in annual support for cultural institutions in the region. The SCFD supports over 300 nonprofit art, music, theater, dance, zoology, botany, national history and cultural organizations.

Create Denver was created by the Denver Office of Cultural Affairs with the purpose of promoting and growing the creative sector. In addition to overseeing an extensive website and e blast, Create Denver operates a Creative Businesses Revolving Loan Fund, sponsors a Building Creative Businesses Expo, and is involved in supporting career development within the creative sector.

Education: The state's major research universities are located in the region. Boulder is the home of the University of Colorado, Fort Collins is the location of the Colorado State University, and Denver is the home of the University of Colorado Denver. Each of these universities have significant programmatic specializations in the creative economy including the College of Arts and Media at the University of Colorado-Denver, Doctoral degree programs in music and theater at the University of Colorado, and the Department of Merchandising at Colorado State University which is the home to the Avenir Museum of Design and Textiles. In addition to the state colleges and university the region is the home of the Rocky Mountain College of Art and Design, which has particular expertise in the area of "green design."

Events: The Front Range hosts a large number of national art festivals throughout the year. These include the Boulder International Film Festival, the Starz Denver Film Festival, the NewWestFest in Fort Collins which showcases Colorado Artists, and the Cherry Creek Arts Festival in Denver which attracts over 350,000 visitors every year.

2. *Western Massachusetts*

Boundaries and core economy: There are four counties that make up the Western Massachusetts region—Franklin, Berkshire, Hampden and Hampshire. Together, these counties have a population of more than 800,000. The region includes the city of Springfield, one of the larger cities in the state, as well as smaller cities of Greenfield and Pittsfield, which are old industrial centers. Much of Berkshire County, as well as parts of Franklin and Hampshire Counties remain largely rural.

This entire region was a thriving hub of manufacturing for most of the last century and half, principally in paper, cutting and machine tools, firearms, rubber, wood, electronic components and power transformers. Large companies like Sprague Electric, General Electric, Goodyear, Smith and Wesson, and Union Butterfield dominated the economy,

along with several hundred smaller manufacturers that served the large firms as well as other markets around the country.

Like the industrial landscape of most New England, the manufacturing base in Western Massachusetts declined significantly during the 1970's, 80's, and 90's. Although manufacturing is still important to the economy, it is populated with small, specialty niche companies. Health care, higher education, financial services, insurance and tourism account for much of the rest of the region's economy. What has begun to re-shape the economic foundation of the region is the Creative Economy.

Studies: A Creative Economy Strategic Plan was prepared for Berkshire County in 2005.

Scale: The study of the creative economy in the Berkshires found a total of about 6,100 jobs or about 10 percent of the total employment base.

Core strengths and Assets: The county is home to several major arts and cultural institutions—Tanglewood, Jacob's Pillow, the Clark Art Institute, the Norman Rockwell Museum, the Berkshire Theater Festival, the Williamstown Theater festival, and the Hancock Shaker Village.

In addition to these institutions, the County is rich in other cultural assets. Williams College has one of the most prestigious museums of its kind and just recently built a new performing arts center. The Massachusetts Museum of Contemporary Art (Mass MOCA) transformed the old Sprague Electric complex. Hundreds of visual artists and artisans who make very high-end fabric, pottery, furniture and sculpture add to the creative richness of Berkshire County. In addition, the Massachusetts College of Liberal Arts and Berkshire Community College have become very important players in the Creative Economy with new exhibit space, galleries, performing arts, and new arts-related curricula.

The museums at Hampshire, Smith, UMASS, Amherst, and Mount Holyoke recently formed a consortium with the Emily Dickinson Museum, Historic Deerfield, the Eric Carle Museum and the National Yiddish Book Center. The consortium is called "Museums10" and it presents and promotes some of the best artistic, historical and cultural resources in the region.

Additionally, there are rural towns and small communities in Western Mass. that have used the arts and entertainment to re-position and revitalize themselves. For example, Mass MOCA is the driving force in North Adams, in Shelburne Falls glassblower Josh Simpson is a key artistic asset, in Turner Falls the Hallmark School of Photography is turning around the downtown, the Mahaiwe Theater and the arts programs at Simon's Rock College have helped Great Barrington become an arts destination, and performances at the Calvin Theater and Iron Horse café have positioned Northampton as an entertainment hub in the region.

Investments: The major creative economy initiative in the region was the development of the Berkshire Creative Economy Council, an outcome of the Berkshire Creative Economy Report. The Council is an umbrella group that lead a number of initiatives including sponsoring networking events, promoting a creative marketplace, *Assets for*

Artists; a collaborative initiative under the umbrella of Berkshire Creative, helped nine low- to moderate-income artists open state-subsidized IDAs and the Berkshire Cultural Resource Center (BCRC), which provides training, resources, and support to artists and art managers.

In Franklin County a collaborative of the local CDC, Chamber of Commerce, community college, and others has created the Fostering the Arts and Culture Partnership. This group has held a regional creative economy summit and has promoted interest and investment in the creative economy.

Education: In Franklin, Hampshire and Hampden counties, higher education leads the way in the Creative Economy. Green Community College, UMASS, Hampshire College, Smith College, Amherst College, Mount Holyoke College, and Springfield Technical Community College, collectively, have museums, art galleries, exhibition space, studios, performing arts facilities, as well as undergraduate and graduate programs in the arts. The University of Massachusetts has made a strong commitment to supporting the creative economy and has a Director of Creative Economy Outreach. The university's creative economy outreach office "seeks to develop highly collaborative partnerships in the region to promote the arts, encourage youth participation in the arts, engage our communities, and position UMass Amherst as a premier environment and facilitator for innovative arts activity."

3. Northwest Arkansas

Boundaries and core economy: This once very poor but now fast growing region covers 16 counties that include the cities of Fayetteville, Fort Smith, Bentonville, Rogers, and Eureka Springs, home to about 824,000 residents. Much of its growth has been fueled by logistics and transportation associated with Wal-Mart and 1,200 of its suppliers, Tyson Foods, and J.B Hunt. Although the region has a strong history of traditional art and music, the need to attract talent from all over the world is why expanding its arts and culture has become so important. The two billion dollars in new construction also generates demand for architects, interior decorators, architectural crafts, landscape designers, and web designers, and for more diverse cultural events.

About 50 miles east of Bentonville, Eureka Springs has become a magnet for artists and writers and popular site for weddings and conventions. Nearly 38 percent of the county's work force is employed in the arts, entertainment, recreation, accommodations, and food services—more than six times the state average. South of Bentonville, the largest cities, Fayetteville and Fort Smith, increasingly are relying on the arts and culture and investing in downtown cultural districts to compete for the new people and companies and their incomes.

Studies: The Winthrop Rockefeller Foundation awarded a three-year grant to RTS in 2006 to study the state's creative economy and recommend policies and practices to strengthen it. Three reports are public (<http://www.rtsinc.org>) and the final report is due in January 2009.

Scale: The region is home to 2,812 artists, performers, or designers, with the concentration in Carroll County among the top 5 percent of all counties in the nation.

Core strengths and Assets: The rapid growth, the historic Eureka Springs, the performing arts associated with the universities, and the Walton family's investments are some of the region's major assets.

Investments: The biggest investment is in the Crystal Bridges Museum of American Art, 100,000 square foot, \$100 million buildings designed by world-renowned architect Moshe Safdie and set to house hundreds of millions of dollars of art. Now under construction on a 100-acre site in Bentonville, home of Wal-Mart, it will include three galleries, a public education learning center and auditorium, a professional education area, visitor services, meeting spaces, museum store, and dining areas. Scheduled to open in 2011, it is expected to bring hundreds of thousands of visitors annually to the region.

Education: The major educational resources are the University of Arkansas at Fayetteville, which has the state's only School of Architecture; MFA programs in ceramics, design, painting, printmaking, photography and sculpture; and one of the strongest graduate creative writing programs. Northwest Arkansas Community College has a graphic design degree program, communication arts, performing and visual arts; North Arkansas College in Harrison offers studio art, multimedia and graphics/web design; and the University of the Ozarks in Clarksville, the first racially integrated college west of the Mississippi, hosts the Walton Fine Arts Center, a state-of-the-art performing arts complex. Private schools, such as the Eureka Springs School of the Arts and the New Design Center in Fayetteville, the state's first school of design, fill unmet needs.

Associations: The region's creative economy is locally along very specific disciplines, such as crafts and performing arts, not geographically and with no overarching organization for the full creative economy.

Events: The region lists with the state more than 200 major and annual events, fairs, and festivals that feature, market, or highlight the region's art, design, entertainment, and history, including 30 arts and crafts shows. 105 community celebrations, 13 culinary festivals, 4 design shows, 6 film festivals, 4 literary events, and 37 nature or seasonal festivals. The second annual Fayetteville Arts Festival resulted in \$50,000 in sales, more than doubling its previous year's sales.

4. Baton Rouge Region, Louisiana

Boundaries and core economy: The region includes 11 parishes (counties) and the city of Baton Rouge, with a total population in 2007 of about 930,000. The Capital region, which includes the city of Baton Rouge, has recognized the importance of the cultural industries to the region's future. Public, private, non-profit and educational resources focus on creative arts related to the unique culture of the region and south Louisiana.

Scale: The 11-county region has 11,688 employed in the creative cluster, compared to 28,690 in the Triad. When adjusted for total employment, the Triad has a significantly

higher concentration within the cluster, 3.0 percent compared to 2.3 percent, though both areas have creative economy location quotients below average for the nation.

The Baton Rouge region has a significant concentration within the display advertising industry, four times the national average. This is likely the result of the headquarters location of a major outdoor billboard firm, Lamar Advertising. Other areas of concentration include drafting services perhaps resulting from the engineering intensive nature of some major regional industries such as cable programming and digital printing.

Educational assets: The region's two major universities, Louisiana State University (LSU) and Southern University (a Historically Black University) play critical roles in the creative economy. Between them, they have over 40,000 students and substantial departments in music composition and performance, art, graphics, architecture and multidisciplinary creative programs. LSU's arts and humanities degree programs often spawn a new generation of performers, dancers, musicians, writers, and visual artists. The LSU Press (original publisher of the Pulitzer Prize winning novel *Confederacy of Dunces*), and on-campus theaters, museums, and galleries are an important part of the employment base of the region.

LSU also houses what is hoped to be a "Center of Excellence" in digital media. Its Music & Art Digital Studio (The MADstudio) is an interdisciplinary program that brings visual artists and composers together to collaborate on projects involving 3D computer modeling, computer animation, digital video, and computer music. The newly established Laboratory for Creative Arts & Technologies (LCAT) is "envisioned as a place for exploration of how Information Technology affects all forms of human expression, whether that expression is artistic, commercial, scientific, or instructional in nature."

Southern University is noted for its arts and music programs. The Jazz Institute, created by jazz legend Alvin Batiste, has trained luminaries like Branford Marsalis, Randy Jackson and Donald Harrison. The College of Arts and Humanities offers an associate's of arts in jazz degree with an emphasis in Louisiana music. The Southern Marching Band has been ranked as number one in the nation and has performed in the Super Bowl and at presidential inaugurations. The SU Museum of Art houses a prized collection of African and African-American Art.

Organizations: The region has an array of arts organizations. The Arts Council of Baton Rouge sponsors major festivals such as FestForAll, a weekly artist market in the Baton Rouge downtown area, and music events particularly related to jazz, zydeco and other musical traditions associated with south Louisiana. The Council distributes grant funds, \$450,000 in 2008, throughout the 11-parish region with a policy of broad geographic sharing. Arts education is a prime grant beneficiary.

Particularly innovative programs include ZAPP, an on-line system for artists' submittals to fairs and shows used by eight arts organizations in the U.S., and Culture Candy, a grassroots arts promotion organization that attempts to work "outside the mainstream."

Core strengths: Museums and galleries are found throughout the region, including the River Road African-American Museum and Gallery, the Old Arsenal Museum, the River Bend Energy Center Museum, the Baton Rouge Gallery and Center for Contemporary Art, the LSU School of Art Gallery, the Southern University Museum of Art, the West Feliciana Historical Society Museum, and the Zachary Historic Village Museum.

The area has begun a focus on the younger generation in order to stem the tide of out-migration. A6 is an organization formed after a Baton Rouge Chamber visit to Austin, Texas. A diverse group developed out of the visit to build a more progressive and creative community. Forum 35 is a Gen Y organization dedicated to building a stronger and more creative community. Both of these organizations grew out of the leadership of younger residents.

Appendix E

Training for and Marketing Crafts In Seagrove and the Yadkin Valley

By Becky Anderson and Robert Donnan

In interviews and discussion groups with artisans, arts administrators, and educators, two overarching needs were identified.

- top-quality training in the making of the work and in the business of craft
- unified marketing strategy to attract new customers

A. Training

The artisan training needs for Seagrove and the Yadkin Valley region differ significantly in their respective approaches, although there are common threads. Seagrove covers a much smaller geographic area and features a relatively high concentration of established artisans working in the same field—pottery. Moreover, the direct lineage of Seagrove’s mature pottery tradition reaches back to the eighteenth century. Formal crafts development in the Yadkin Valley, when viewed as contributing to livelihood, is more recent, more geographically dispersed, and reaches across a wider spectrum of media.

Both regions acknowledge the primacy of one-on-one learning with a master artisan in both work-based and institutional settings. Seagrove, however, emphasizes the more informal journeyman apprenticeship system, which draws upon a model established in medieval times by European craft guilds. Beginning potters typically take their first instruction at one of several regional community colleges, but thereafter they may work closely with one or more established pottery studios to develop their mastery and work ethic.

The Yadkin Valley Craft Guild, on the other hand, has recently experimented with a pilot apprenticeship program funded through a grant from the Golden Leaf Foundation. It seeks to establish an ongoing apprenticeship program across several crafts disciplines that will be administered in collaboration with continuing education programs at community colleges, most likely beginning with Surry Community College. The Guild views this initial effort as a first step toward a more formal certificate or degree program. Eventually, recognition by the U.S. Department of Labor’s Bureau of Apprentice and Training (BAT) would make it possible for students to receive Pell grants to subsidize their training.

Given the differing needs of each region, we recommend that Seagrove and the Yadkin Valley each continue to pursue their respective apprenticeship strategies. However, we also recommend that each supplement its approach to teaching artisan production skills with training in business entrepreneurship and marketing. For each

region, these skills are likely best provided through local community colleges, whether through a degree program, continuing education, or their small business centers.

We also suggest that Seagrove arrange with the North Carolina Museum of Pottery to sponsor weekend or weeklong workshops with master potters that would be open to the general public, including tourists. The Pottery Museum, while enjoying strong support from the local community, has been an underutilized resource. Some contend, too, that its mandate to showcase the pottery of the entire state has diluted its emphasis upon the local pottery industry. Hosting workshops led by local artisans would both provide income for those master posters as well as attract more tourism dollars to the region. In that sense, this strategy is both a training opportunity and an important marketing strategy.

As the crafts cluster develops further in the Yadkin Valley, we recommend that the Yadkin Valley Craft Guild take advantage of the new Clay Center in Elkin to provide similar workshops, also led by established and emerging artisans from throughout the region.

B. Marketing

The preferred marketing strategy for both Seagrove and the Yadkin Valley Craft Guild focused on expanding the tourism market. Seagrove potters expressed a need for a tourism marketing strategy to connect Randolph, Moore, and Montgomery counties through their tourism organizations. We recommend that such a tourism strategy be developed working in partnership with the Seagrove Area Potters Association, the North Carolina Pottery Center, the Museum of North Carolina Traditional Pottery, and the three county tourism organizations.

This strategy would be facilitated by an independent consultant and developed through a series of one-to-one sessions and group meetings of all participants. The overarching goals will be to identify markets, provide tourism way finding systems, develop a regional brand, and create packaged learning experiences for visitors that reflect the region's craft heritage.

Throughout these efforts it also will be essential to preserve and protect the authenticity of the longstanding Seagrove pottery tradition. The regional brand ought not dilute the unique historical and cultural flavor that uniquely distinguishes Seagrove from other North Carolina pottery traditions. For example, while the NC Pottery Center is clearly a cultural asset to Seagrove, its mission embraces pottery traditions from across the entire state. At the same time, it will be important to emphasize all things unique and superlative about Seagrove.

For the Yadkin Valley region, which is more geographically widespread and diverse in its crafts offerings than Seagrove, regional marketing efforts nonetheless can focus upon many of the same goals: identify markets, provide tourism way finding systems (including the development of crafts and heritage trails akin to those in western North Carolina), create a regional brand (perhaps integrated with the wine-making industry in the Yadkin Valley), and create packaged learning experiences.

It will serve the Yadkin Valley region best to further develop the crafts exhibition capacities of existing venues, including the Yadkin Valley Craft Guild gallery in Elkin as well as shops and galleries in towns and cities such as Greensboro and Winston-Salem. It is not recommended here that the region pursue a goal of building a Tamarack-style crafts center on I-77 near Elkin, as has been discussed in the past. Such an investment is unlikely to either be cost effective or profitable in the long run.

Finally, we suggest that both Seagrove and Yadkin seek to better coordinate their online marketing, integrating, and cross-linking (where feasible) their existing websites. Each region would benefit from more comprehensive wayfinding systems that include easily accessible online guides. Each also can find better ways to document and present the stories that comprise its unique history and cultural heritage, including the less well-documented stories of their evolving contemporary crafts traditions.

Appendix F

Product Design in the Piedmont Triad

By Beth Siegel

1. Describing the Subcluster

The product and environmental design sector provided 8,285 jobs in the Piedmont Triad region in 2007. The largest component of the product and environmental design subcluster is advertising which employs more than 3,360 people in the region in various industry components such as advertising agencies, design, media representatives, direct mail, public relations, display advertising, and media buying agencies. Beyond advertising, design firms are the next largest employment contributor. Design firms represent more than 2,340 jobs in the region with largest number of jobs coming from industrial design (811 jobs), but followed closely by graphic design (785 jobs), and interior design (626 jobs). The region is also notable for a number of commercial photography firms for almost 740 jobs.

Product and environmental design has added over 660 jobs since 2002, a 9 percent increase. This increase is close to the increase in design jobs nationally, which was 10 percent for the same period. However, this subcluster has not increased as rapidly in the region as it has statewide, which experienced a 16 percent increase in the same period. Industrial design led the job growth with more than 540 new jobs.

The strength of the region's product and environmental design subcluster is closely linked to the region's historical strengths: tobacco, furniture, apparel, and textile manufacturing. Interviews suggest that the graphic designers and some advertising professionals are former tobacco company employees, who, as those businesses downsized, became self employed and started providing services for other types of products and markets.

The majority of the 811 jobs in industrial design are very likely primarily related to furniture, with an additional 120 jobs in other specialized design services, many related to apparel and textiles. When viewed as a percentage of total regional employment, industrial designers are four times more concentrated in the Piedmont than in the nation. A 2007 study by High Point University on the furnishings industry found that there were 56 firms dedicated specifically to furniture design in Guilford County. The region likely has even more industrial designers whose employment figures are embedded within firms classified as furniture manufacturers. The design industry's linkages to furniture go well beyond design of the product. The High Point Market, the largest furnishings industry trade show in the world, brings more than 80,000 people and 2,000 exhibitors to High Point every six months. As a result, the region has developed a unique specialization in design.

Commercial photography firms are significant sources of employment in the design sector no doubt linked to photography for furniture catalogues and other marketing

material for exhibitors. A study of the furnishings industry estimated that 20 percent of commercial photography business is related to that industry. Commercial photographers may conjure up visions of the lone photographer with his camera but the region's commercial photographers offer far more. For instance, Kreber is a well-established commercial photographer that offer set styling, interior design, and a sophisticated product tracking system. Another leader, Albion, owns 110,000 square feet of studio space and over 38 sets. Albion houses a custom carpentry shop that can build any room design from the kitchen and bath to the bedroom or living room. Albion also employs set designers with access to an extensive inventory of home fashion and exterior accessories to create the client's desired look. Another major photography studio, Atlantic Photographics, owns 32,000 square feet of production space with a vast array of sets and extensive stock prop department. The region also has a high concentration of media representatives and other advertising services which both appear closely linked to the High Point Market.

The design industry is quite concentrated in Guilford and Forsyth counties, which combined represent more than 75 percent of all design jobs in the region. Guilford County alone accounts for 52 percent of all design jobs. Given the strong linkages between the design sector and the region's furniture industry it is not surprising the activity would be clustered near High Point, which is in Guilford County.

Additional insights on the characteristics of the design segment can be drawn from two surveys completed for this project: (1) a survey of design firms with 48 respondents and (2) a survey of manufacturers on their use of design with 45 respondents.

Some of the findings from these surveys are summarized below:

A. Survey of Designers:

- The firms responding represent a diverse cross section of the design sector including architecture firms, interior designers, public relations firms, graphic designers, multimedia design, communications design, advertising agencies, and industrial designers.
- Design companies primarily serve other businesses. More than half of respondents noted that 75-100% of their revenue was from business customers. Survey respondents from the design sector were not overly dependent on the furniture industry. While eight firms report that some of their sales are to the furniture sector, no one reported that sales to furniture businesses accounted for more than half of sales. The region's design sector caters both to the regional market and a broader market. According to the survey of design firms, almost half of respondents sold the majority of their services outside the region.
- While the design sector is primarily a service sector, some firms do produce goods as well. Close to half of the design businesses generate some revenue from the production of goods such as custom designed products whether that is architectural detailing, brochures and other marketing materials, or on-line content.
- 95 percent of survey respondents considered networking opportunities as important or critically important to the competitiveness of the sector. Networking

with other businesses give the design community a chance to find new customers and promote the role of design in other industries. Design firms also value networking with other design businesses. The survey found that 78 percent of respondents saw networking opportunities with other design businesses as important or critically important to the sector's competitiveness.

- The survey of design firms indicated that 83 percent felt regional marketing and branding of the design industry was either important or critically important to the competitiveness of the sector.
- About 40 percent of the respondents reported difficulty in accessing skilled labor. Of those responding to this question a number noted their problems in hiring talented architects in the region.

B. Survey of Manufacturers on the Use of Design

- The region's manufacturers report that most of them had in-house design capabilities and, when looking outside for design help, used regional consultants half of the time.
- Nearly all of firms used some sort of design in their business. Leading design focus was in product and industrial design, graphic design, branding and multimedia. Design was incorporated into products and branding and, to a lesser extent, in packaging and advertising.
- Design ideas and expertise came from numerous sources. Customers, internal staff and consultants were leading sources of design ideas. Over three-quarters employ internal professional designers but over half also contract out some of their design. Six in ten have a dedicated design department. Interestingly, half of the design conducted by consultants went to out-of-state firms and nearly a quarter to within state but not region design firms.
- One of the most important findings was the importance the firms placed in design for the future of their company. Over two-thirds consider design a significant or integral role in their competitiveness. About 20 percent of the firms say that all of their sales are due to design with another 40 percent indicating a majority of sales. Nearly half expected to increase their expenditures on design over the next three years. Lastly, about four in ten described design as critical to business success.
- Design was seen as strongly contributing to company performance. About three-quarters listed increased market share and improved competitiveness. Design was also seen as important to developing new markets and products and making the firms more profitable. After financial and operational management, design was listed as the third most important factor to business success. This importance lead four in ten to spend over \$100,000 annually on design with 21 percent spending more than \$500,000.
- While seen as fundamental to their success, firms reported facing challenges to integrating design. Cost of investment (70 percent) was the leading challenge factor but availability of properly skilled workforce and lack of knowledge about using design in their business were also important impediments. The latter two factors in particular, offer fruitful avenues for helping firms bolster design integration.

II. Strengths and assets

The design sector is recognized as a critical engine for the regional economy. A 2003 study of Northwest North Carolina, which overlaps significantly with the Piedmont Triad region, completed by Angelou Economics Design concluded that design was the distinguishing characteristic of the region and should be targeted for expansion related to computer-aided animation, graphic design, and industrial design. This study was critical in developing a broad appreciation for design's importance throughout the region and was a catalyst that eventually led to the creation of the Center for Design Innovation, a critical asset for the design industry. The strengths of the regional design sector include:

- the creative environment and foundation of artists and artistic talent for which the region is known;
- strengths in product design related to the region's historic manufacturing strengths;
- marketing, advertising, and graphic design strengths related to the historic strengths of tobacco;
- North Carolina's large film industry also provides a market for design services and a source of employment for the region's design graduates; and
- a healthy based of educational institutions insure that the region turns out many well-trained designers and artists each year which provides a constant supply of talent to area design-oriented businesses.

The region is in the process of addressing a previous sector weakness, fragmentation, and is quickly turning associational behavior and networking into strength with the activity of the Center for Design Innovation.

A. Education

The region's higher educational institutions are one of the most critical assets in the region's product and environmental design subcluster. This is an area of particular strength in the Piedmont Triad region, and one that can become a core element of further growing the design industry in the region.

1. Interior Design and Architecture

The region has a unique concentration of educational offerings related to interior design. Clearly connected to the region's strong furnishings industry, the programs in the region are graduating a large number of highly qualified professionals with design expertise in interiors. Offerings range from associate degrees to master degree levels.

- **UNCG: The Department of Interior Architecture** offers both baccalaureate and maasters degrees in interior architecture. According to the school, "interior architecture can be said to be a marriage of three distinct design disciplines: interior design, architecture, and industrial design." The B.S. is a five-year professional degree and the M.S. is a post-professional degree with opportunities for concentrations in historic preservation, museum studies, and interior design. Interior design, which requires an internship, alone has 210 undergraduate majors

and 18 graduate students. Although students work with firms across the U.S. and overseas, the intern at furniture companies, design companies and architecture firms in the Piedmont Triad region.

- **The Knabusch Shoemaker International School of Home Furnishings and Design at Highpoint University:** offers a B.S. in Home Furnishings Marketing, a B.S. in Interior Design, a Home Furnishings Marketing Minor and an Interior Design Minor. The home furnishings department has close relationships to local industry and trains students for marketing and management positions with manufacturers, suppliers, and retailers.
- **Randolph Community College's Interior Design Program** prepares students for careers in interior design by providing them with skills in AutoCAD design and use of state of the art equipment. Gerald T. Hampton, Program Head. 336.629.4965
- **Forsyth Technical Community College's Associates Degree in Interior Design** includes residential and non-residential interior design, architectural drafting, computer-aided design, and universal design plus basic design, history of interiors and furnishings, products, business practices, graphic presentations, general education courses as well as cooperative education.
- **Forsyth Technical Community College's Architectural Technology** program trains individuals for employment in the field of architecture, construction and CAD-related industries.

While the region has clear competitive strengths related to interior design and furnishings, it lacks a professional architecture degree program. As a result, the Piedmont Triad Architectural Initiative is working to facilitate the establishment of a new architectural degree program so talent does not have to leave region. The team, which includes UNCG, is exploring collaborative options with North Carolina State University and UNC Charlotte.

2. Communication Design: Advertising, Graphic Design and Photography

The community colleges in the region offer an array of credential and degree program that prepare students for careers in the communication side of the design industry.

- **Randolph Community College's Advertising and Graphic Design** curriculum prepares students for careers in graphic design, with emphasis on design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.
- **Randolph Community College's Photographic Technology** prepares students for careers in commercial photography, biomedical photography, photojournalism, and portrait studio management. A 30,000 square foot facility provides studios, labs, lighting equipment, and camera checkout.
- **Guilford Technical and Community College's Advertising and Graphic Design** curriculum is designed to provide students with the knowledge and skills necessary for employment in the graphic design profession. The program emphasizes design, advertising, illustration and digital and multimedia preparation of printed and electronic promotional materials. An Advertising and Graphic Design degree and certificates in Photography and Computer Graphics are offered.

- **Forsyth Technical Community College's Graphic Arts and Imaging** includes graphic design, computer graphics, image assembly and image carrier preparation; offset lithographic printing, flexography, screen printing, digital printing, finishing and packaging. This curriculum is one of only four of its type in North Carolina and has official articulation agreements with Appalachian State University and A&T State University.

3. Specialized R&D and Industry Centers

The Piedmont Triad Region is unusual in having two university centers that are focused specifically on the design segment. While new, both of these centers have the potential to bring increased attention and resources to the design segment in the region.

- **Center for Design Innovation, with NCSA, WSSU, Forsyth Technical Community College** was established in 2005. The Center for Design Innovation is a collaboration among the multiple institutions with a mission "to foster cross-disciplinary research and entrepreneurial activity related to design and innovation, provide educational programming focused on design and innovation, and act as a design-based business cluster accelerator, to make the Piedmont Triad Region of North Carolina a recognized center of design across the country." The Center received several million dollars for its start-up phase, and is now preparing to move to a new 30,000 square foot building.
- **Center for Innovation in Interior Architecture—UNCG** is developing a new R&D Center within the Department of Interior Architecture to take full advantage of the strengths of local faculty and connections with local industry. Its goal is to "marry local industry needs with students and faculty who engage with them to solve interior environment and product design issues" and to develop a highly skilled design workforce.

B. Associational behavior

Since 2004, there have been attempts to bring the product and environmental design industries together. The recently disbanded Piedmont Triad Entrepreneurial Network (PTEN) organized and hosted a Creativity and Design Roundtable to raise the visibility of the regional design sector. The Roundtable met monthly and held quarterly events with speakers from outside the region. With the formation of the Center for Design and Innovation (CDI) in 2005, the charge for networking has shifted to CDI. Since 2007, CDI has held weekly forums, known as Idea Exchanges, open to the public, to discuss design processes, digital media, and business directions among other topics of interest to the creative business community in the Triad.

CDI is still in interim space while its permanent facility is under construction. As it becomes fully operational, it will become an even stronger focal point of activity in the sector. CDI specializes in the application of digital design in entertainment, life science, education, product design, and product marketing and will be a catalyst for others in the areas of design-focused instruction, research, workforce development, and entrepreneurial activity.

Another important forum for building networks and alliances within the design sector is the annual Design, Art and Technology Symposium (DATS), which rotates annually

among UNCSA, UNCG and High Point University. An annual event since 2005, the symposium attracts about 500 design professional from throughout the Southeast promoting networking, mutual inspiration, creative partnerships and other forms of collaboration among audience members and other participants and encouraging internships and other training opportunities for art and design students.

Specialized segments within the product and environmental design subcluster have their own associations, as well. For instance, the Interior Design Society (IDS) is an independent national organization with more than 4,000 members serving the residential interior design industry. IDS National headquarters is located in High Point, NC.

C. Needs and opportunities

Networking opportunities continues to be a critical need for the sector. The survey of design firms indicate that, of any kind of assistance, design firms believe that more networking opportunities would have the greatest impact in making the sector more competitive. The types of networking opportunities design firms would most value are with the broader business community.

Piedmont Triad's design sector also needs a stronger marketing campaign to brand the region as a hub of design activity, identified by Angelou Economics in its economic study of the Northwest region. While the creation of the Center of Design Innovation has aided the region's image, survey respondents continue to feel that this is a need.

Weaknesses: For the Piedmont's design sector, a source of strength can also be a source of weakness. The region's design sector would certainly not be as large and vital if it weren't for the furnishings industry. While the strength of the furnishings industry allowed segments of the design sector to flourish, it also makes the region's design sector more tied to the industry's fate. In fact four potential weaknesses, discussed below, are tied to the performance and reputation of the furnishings sector:

- Current economic conditions: The economic downturn is having a particularly strong impact on the furniture industry
- Continued off shoring of furniture manufacturing
- Competition from other venues for the marketing/distribution role
- Design image created by the local furnishings industry may not be the one the sector would like to project

The current economic conditions are negatively affecting all sectors of the economy, however, furniture has been particularly hard hit. Recent attendance figures at the High Point Market demonstrate the ongoing concern for the industry. The *Winston-Salem Journal* reported on November 15, 2008 that attendance was down 9 percent at the October show. Brian D. Casey, president and chief executive officer of the High Point Market Authority was quoted in the article stating, "From the softened housing market to bloated inventories, tightening credit and the melt-down on Wall Street, home furnishings professionals across the industry have been struggling to cope with some of the most difficult business conditions they have ever encountered and market registrations reflect this. Across all categories, and all facets of the business, we are

seeing unprecedented change. Our industry is contracting and consolidating in ways never before experienced."

It is unlikely that the current economic conditions will change the long-term trend that has pushed furniture manufacturing to lower cost countries. While for some time, the design sector survived because much of their services were linked to the marketing and sales of the furnishings sector which remained in the region. A 2007 study of the home furnishings industry completed by High Point University, "The Economic Impact of the Home Furnishings Industry in the Triad Region of North Carolina," noted the shifting local customer base from furniture manufacturers to distributors. However, some design businesses are responding to the shifts more aggressively, following the industry as it shifts geographically. Albion, a major commercial photographer in the region, has set up a studio in Vietnam to accommodate its clients.

Perhaps a longer-term threat to the region's design sector is competition for the High Point Market. With the rise of the Las Vegas Furnishings market, some local design service providers have opened offices in Las Vegas to accommodate growing demand from the West. Some other states such as Michigan are interested in promoting their own alternative to High Point.

The final weakness of the design sector related to the home furnishings sector is the reputation of the furnishing produced and marketed in the region. Overall, North Carolina furniture producers are viewed as traditional mass market manufacturers. While they certainly rely on design, neither the North Carolina industry nor the U.S. industry overall is viewed as on the cutting edge of design. As a result the region does not benefit from any sort of halo effect from its association with the furnishings industry. Anything that can be done to promote or attract top contemporary international design talent would help the area's image. Even when the CEO of Bernhardt tried to address the United State design image problem by creating an international contemporary furniture fair, he created it in New York City despite the fact that his business is headquartered in High Point.

The weaknesses resulting from the interdependence with the furnishings industry have been listed above. This is not to say that the furnishings industry will no longer be important to design nor should it. The continued interdependence of the two is mutually beneficial to the region.

At the same time, the region will benefit from greater diversity of end markets for design services. One of the most promising opportunities appears to be North Carolina's growing life sciences sector. As North Carolina's biotech industry continues to grow, there will be increasing demand for design services related to drug design, medical equipment design, and molecular imaging. Our survey of design firms indicates that those relationships are already developing. One respondent already is a designer of medical equipment. The region's opportunity with life sciences is two-fold. First is merely to garner a larger portion of the design spending currently allocated by the state's biotech firms. The second is to grow demand by helping the life science sector recognize the value of increased design services in marketing and advertising. A stronger alliance between the biotech firms and design sector in North Carolina could potentially create a competitive advantage for both sectors.

Appendix G

Film and Digital Media Arts

By Robert Donnan

As one would expect, jobs in the film and digital media arts subcluster are located chiefly in the Piedmont Triad's two most urban counties Guilford and Forsyth, with significantly fewer jobs in the region's rural areas. Three rural counties—Stokes, Montgomery, and Caswell—each had fewer than 10 such positions in 2002.

Piedmont Community College's campus in Caswell County hosts a strong program in film and video production technology, as well as in digital effects and animation technology. However, most graduates of the program who seek employment or paid contract work in their chosen field must look for those opportunities elsewhere.

Even if most of its employment is located in the region's urban areas, the film and digital media arts subcluster overall demonstrated healthy growth between 2002 and 2007. The number of industry jobs increased by 592, from 2,742 to 3,334, reflecting a positive change of nearly 22 percent. In 2007, average earnings per worker were \$43,419.

Significantly, two-thirds of the subgroup's overall growth between 2002 and 2007 may be chiefly attributed to unique competitive advantages of the Piedmont Triad region, as contrasted with national trends in these industries or to the national economy as a whole. The region is becoming better known as a preferred site location for feature and commercial film and video production, such as the film *Leatherheads*, starring George Clooney and Renée Zellweger, which shot scenes in many rural and urban locations in the Piedmont Triad.

It is important to note that the film and digital media arts subcluster, while defined formally by the NAICS codes listed earlier in this report, is significantly broader in its actual employment, including digital media arts such as motion graphics and serious gaming, which are not included because they lack an assigned industry classification. This is due to several factors, including: 1) the rapid evolution and integration of computer-based animation and digital effects processing technologies, including motion graphics; 2) the accelerating convergence of multiple digital media art forms into totally new products and services, such as the rise of immersive learning environments, which have broad applications in distance education and health literacy, among other fields; and 3) the symbiotic relationship of the various digital media arts with related sectors such as marketing, advertising, and public relations.

Total employment estimated for this subcluster is conservative because it does not include freelance contractors who divide their employment among several disciplines, including work that is allied but not identical with their primary skills base. A person trained as an audio engineer for music production likely will supervise other forms of audio production, including broadcast or cable television production facilities.

Moreover, many skilled workers, especially early in their professional careers, likely also will find temporary work managing sound for live events, whether concerts, sporting events, or even church services. Similarly, a film director who is working on an independent feature film likely also is working on advertising and promotional videos, whether as a writer, director, editor, or in some other technical capacity.

The key point is that sustainable employment within a healthy film and digital media arts subcluster exists at the intersection of several related creative economy subclusters, including those that include marketing, public relations, scientific research and medical imaging, live events (including arts, sports, politics, and faith-based activities), and tourism.

Strengths and assets

The Piedmont Triad features a relatively strong infrastructure that supports its film and digital media arts subcluster, especially among the relatively numerous post-secondary institutions that teach relevant workforce development skills. High-profile cultural arts venues and events also are part of this equation, as are an increasing number of small firms that offer services in the digital media arts.

Associations

The Piedmont Triad Film Commission, with only one staff person and a modest budget of about \$130,000, provides the 12-county Piedmont Triad region with a diverse array of support services for commercial film and video companies. Pre-production and production assistance to those firms ranges from finding affordable office and housing accommodations to supplying information on locations, stages, crew, and production support services. Projects served range from relatively small productions, which range from industrial videos, local commercials, and low-budget independent feature films to major motion pictures.

Founded in 2003, the Triad Indie Film Network is an informal collective of filmmakers, actors, technical crew members, and others who appreciate and support independent filmmaking in the Piedmont Triad. From time to time, the network organizes and operates the Fruitcake Film Festival, which has featured 10-second, 60-second and three-minute short films, many made by first-time filmmakers.

The American Advertising Federation of the Triad offers a networking platform for the Triad's film and digital media arts subcluster that makes good use of the synergy with the Triad's marketing and advertising sectors. The AAF Triad meets monthly; in October 2008, the group invited Out of Our Minds Animation Studios—a Triad-based, full-service digital art studio that provides special effects, compositing, editing, sound design, illustration, and animation—to talk with its members about its recent projects, including a newly completed full-length animation feature film, *The Magistical*.

There are a number of entrepreneurially oriented associations and organizations in the Triad that can serve the interests and needs of regionally based film and digital media arts firms. These include Springboard, a project of Action Greenboro that seeks to

stimulate creativity and innovation in the city; and Triad InternNet, an online service that links college and university students to internship, co-op, and experiential learning opportunities with Triad-area businesses and organizations.

Educational programs

The Piedmont is blessed with a wealth of educational institutions and programs that can prepare entry-level workers for careers in the Triad's film and digital media arts subcluster. Some of these institutions also are experimenting with innovative ways to provide continuing education and distance learning opportunities to upgrade and sustain the skills of the existing workforce.

One of the most exciting new programs in the Triad is the multidisciplinary Center for Design Innovation (CDI, a collaborative research center established by the University of North Carolina in 2005. Operating from its temporary quarters in downtown Winston-Salem, the CDI brings together three key partners: the UNC School of the Arts, Winston-Salem State University, and Forsyth Technical Community College. The CDI's overall goals are to create new businesses and jobs as well as to improve health care and education through design research and practice. In particular, it will focus on cutting-edge techniques in motion capture and analysis, data visualization and modeling, and rapid prototyping to support creative designs for animations, video games, interactive narratives, medical devices, and responsive objects and environments. Among four-year colleges and universities across the Triad region, there are many strong programs that address these workforce development needs. Examples are highlighted below.

- The School of Communications at Elon University (Alamance County) which offers majors in cinema, broadcast, and new media. The university's Recording Studio training facility serves a commercial client base and earns money to support educational programs at Elon.
- The undergraduate concentration in computer graphics and animation at Winston-Salem State University (Forsyth County) which is part of a comprehensive curriculum leading to a bachelor of arts degree. The Department of Fine Arts at WSSU also offers a concentration in Music Business, including management and advertising.
- The School of Filmmaking at the University of North Carolina School of the Arts (Forsyth County) is a unique conservatory program that offers training in both traditional and new media. Remarkably, the total production and post-production costs of student work required by the program was underwritten by the School with financial support provided through the Thomas S. Kenan Institute for the Arts.
- Other Triad four-year institutions with significant digital media arts programs include Guilford College, the University of North Carolina at Greensboro, High Point University, and Wake Forest University.
- Community colleges and technical school also play an important role in developing the film and digital media arts workforce. Selected highlights of these important programs include:

- The Larry Gatlin School of Entertainment Technology at Guilford Technical Community College prepares students for careers in the film and digital media arts subcluster through course offerings in audio engineering for recording, audio engineering and lighting for live events, performance, and artist management. The School, which opened its doors in 2004, currently serves 400 students in a \$9.25 million state-of-the-art facility located in Jamestown.
- Piedmont Community College in Yanceyville (Caswell County) offers a two-year Film and Video Production Technologies Program that leads to an Associate of Science degree. The program prepares students for entry-level employment in production support and selected technical areas of film, video and associated media production. Instruction provides training for entry-level crew production and post-production assistants. The school also offers an intensive Digital Effects and Animation Technologies Program that educates students to use the most popular industry-standard software and hardware.
- Within the past year, Forsyth Technical Community College, in addition to its ongoing participation as a partner in the Center for Design Innovation, has added a five-semester AAS degree program in Digital Effects and Animation.

Events

The River Run Film Festival, located in Winston-Salem, is one of the nation's fastest-growing independent film festivals. Held annually each Spring, the event showcases outstanding new films from independent, international, and student film festivals. The festival is named for the French Broad River in Brevard, North Carolina, where the event originated in 1998 before moving to Winston-Salem in 2003.

The Revolve Film and Music Festival is an up-and-coming new film festival in the Triad founded by celebrated Triad pop songwriter and performer Shalini Chatterjee. The festival debuted in early August 2008 at the Fine Arts Center at Salem College and at Carswell Hall at Wake Forest University. According to Chatterjee, the nonprofit festival—which represented the culmination of eight months of individual Revolve screenings in Greensboro, Winston-Salem, and Carrboro—focused on 25 films that simultaneously manage to be uplifting, non-violent, and narrative-based. The event also included live music performances.

Leadership

The most well-known—and perhaps the most influential—individual working in the Piedmont Triad film and digital media arts subcluster is Jordan Kerner, dean of the School of Filmmaking at the University of North Carolina School of the Arts. He is also a working feature film producer affiliated with the movie industry in Hollywood; one of his recent productions was *Charlotte's Web* (2006). In Summer 2008, Kerner announced a proposal to persuade North Carolina's state government to invest immediately in building a dozen soundstages across the state—or risk losing its lucrative entertainment industry. Kerner also encourages the state to increase its film tax credit from 15 to 25 percent in order to compete effectively with incentives offered by other states. While at the UNC-School of the Arts, Kerner has steered the filmmaking program toward high-

quality narrative filmmaking that he believes will strengthen both students' career opportunities and bolster the state's filmmaking industry overall.

There also are many other influential leaders of key firms and organizations in the Piedmont Triad film and digital media arts subcluster—too many, in fact, to list all of them in this report. A small sampling of their number, many of whom have participated in the Piedmont Triad Partnership's creative enterprise roundtable discussions include Rebecca Clark, executive director of the Piedmont Triad Film Commission; Andrew Rogers, executive director of the River Run Film Festival; Jeff Little, department chair at the Larry Gatlin School at Guilford Technical Community College; Herb Burns, department chair for the Digital Effects and Animation Program at Forsyth Technical Community College; Michael Corbett, director of the Film and Video Production Technology Program at Piedmont Community College; Matt Hodges, writer/producer/director for locally based Break of Dawn Productions; Mitch Easter, music producer with the Fidelitorium; John Cernak with Out of Our Minds Animation Studios; Chris Walker, president of 5 Rings Design; and Dawn Bland, president of Keen Innovations.

Needs and Opportunities

The greatest challenge facing the Piedmont Triad film and digital media arts subcluster will be to strengthen existing networks that interconnect workers, firms, educational institutions, venues, and events—and to establish and coordinate new inclusive networks that can help overcome any fragmentation and insularity that may exist across the region.

Such fragmentation may be attributed to an overly narrow focus upon one particular discipline within a rapidly converging industry cluster, or to the disparity in subcluster density across the 12 counties that comprise the Piedmont Triad region. Robust assets—whether the digital effects program at Piedmont Community College in Caswell County or freelance cinematographer Jason Dowdle, who lives at Snow Camp in Alamance County—can be found even in the Triad's most rural places. The key is to network, better integrate, and showcase all of these assets so that the region as a whole can prosper.

Benchmarks

Wilmington is indisputably the hub of—and thus sets the benchmark for—North Carolina filmmaking. The city began to establish its highly developed infrastructure—including professional sound stages and state-of-the-art location equipment, as well as a substantial local pool of skilled acting and production talent—back in the 1980s, when Hollywood producer Dino de Laurentis established DEG studios. In September 2008, EUE/Screen Gems broke ground to begin construction on its new 37,500-square-foot sound stage, which will be the third largest movie sound stage in the world. When the new facility comes online in Spring 2009, Wilmington will be well positioned to compete

globally for very large-budget feature film productions, most of which require sound stages to implement sophisticated digital effects.

It is worth noting, however, that if proposals advanced by Jordan Kerner and others for the state government to build a dozen new sound stages across North Carolina, including eight in the Piedmont Triad region between Winston-Salem and Greensboro, are adopted, then the entire state—and certainly the Triad—may soon be nearly as well-positioned as Wilmington to woo and win a vastly increased number of film productions.

Recommendations

The following recommendations are based on site visits and interviews with key actors in the industry.

Networking

- *Strengthen the Piedmont Triad Film Commission in order to: 1) expand the scope of its mission to include music and electronic gaming; 2) facilitate more intensive networking within the regional digital media arts; 3) promote greater dialogue and collaboration among private sector companies and educational institutions; 4) allow for greater policy advocacy on behalf of the digital media arts.*

Across the breadth of the Piedmont Triad's digital media arts industry—encompassing a diverse blend of film and video, live performance and recorded music, animation, and serious gaming—networking among firms and individuals is highly important. Film and music, in particular, are highly networked. Successful completion of any specific project typically involves a large number of companies, freelancers, and consultants. Moreover, the larger and more networked the local support system for such productions, the lower the costs of local production and the more attractive the region is as a site.

For its Creative Enterprises and the Arts Cluster, the Piedmont Triad Partnership (PTP) has held a series of successful Roundtable discussions that have brought together private sector companies and freelancers with educators from regional four-year colleges and two-year technical schools. A key goal has been for both groups to engage in a constructive dialogue about workforce development, yet a collateral benefit has the all-too-rare opportunity for industry professionals to meet and talk informally among themselves.

We recommend that the Piedmont Triad Partnership act to ensure that such conversations continue well beyond the three-year term of the WIRED grant. One implementation strategy might be to partner with the Piedmont Triad Film Commission (PTFC), housed within the PTP offices in Greensboro. Doing so would require expanding the nonprofit agency's current mission, but it would build upon a solid foundation—the PTFC's formidable 15-year expertise networking the film and video industry in the region.

The PTFC, with only one staff person and a modest budget of about \$130,000, provides the 12-county Piedmont Triad region with a diverse array of support services for commercial film and video companies. Pre-production and production assistance to those firms ranges from finding affordable office and housing accommodations to supplying information on locations, stages, crew, and production support services. Projects served range from relatively small productions, which range from industrial videos, local commercials, and low-budget independent feature films to major motion pictures, such *Leatherheads*, a 2008 Universal Studios release starring George Clooney and Renee Zellweger.

The PTFC began in 1993 as a project of the Winston-Salem Chamber of Commerce. For its first five years, with a three or four-person professional staff and \$350,000 budget, the nonprofit agency was better able to help develop networks within the local film industry. It sponsored networking events hosted by regionally based production firms, allowing local industry businesses to meet one another, tour their facilities, and better forge working partnerships. After 1998, the PTFC revamped its institutional affiliations, cut its budget, released all but one employee, and focused more narrowly on providing direct services to production companies that seek to undertake projects in the region.

With recent increases in the region of both modest and large-budget film and video productions, the continued rise of music production, and the more recent emergence of gaming development, it makes sense to secure funding to expand the scope of the PTFC's mission. Other regions and states already approach their interrelated film and video, music, and gaming industries in a similar way. Tennessee, for example, integrates music and film into its state Film, Entertainment, and Music Commission.

With appropriate levels of investment, the PTFC could support the film and video, music, and serious gaming industries in important ways, including: 1) sustaining in a variety of settings the valuable networking interactions that the PTP has initiated through its roundtable discussions; 2) building databases of firms and individuals that profile their skills and experience; and 3) eventually developing a membership-style organizational structure that provides timely information and even needed services, like lower-cost health insurance, to digital media arts workers.

Of course, identifying and sustaining appropriate levels of financial support for a revamped and enhanced PTFC is likely to be a challenge, especially given recent events in the nation's financial markets. Conducting an economic impact study of the region's digital media arts subcluster across all 12 counties might prove a useful way to make the case for such investment to city and county governments, foundations, and other potential funders.

Finally, an enhanced PTFC could act as a policy advocate for beneficial changes in governmental regulations, including raising the film incentive available to local productions that spend more than \$250,000 in the region.

- *Enhance the social networking role of the Piedmont Triad Film Commission's website (www.piedmontfilm.com) for the digital media arts, both online and in coordinating meet-up opportunities both among and across various subclusters within the overall digital media arts, including film and video, music, and serious gaming.*

A facilitated approach to strengthening social networking within the digital media arts will be especially important for the Piedmont Triad region, which includes a broad geographic area that is both metropolitan and very rural. There are significant economic disparities among the region's counties, too, which, while not necessarily a location impediment for digital media professionals, do suggest that individuals, especially freelancers, can experience a sense of isolation in rural places. Even in its urban centers, the Piedmont Triad region is demographically older than other metro areas in the state, a fact that may further underscore the need to catalyze and support greater social interaction among the region's creative professionals.

Building upon its current strength with developing and maintaining a database of company and crew contacts in the film and video business, we recommend that the PTFC, consistent with the enhanced mission described above, implement a strong social networking emphasis for its website. Such an approach could use a platform like the online social networking website, www.ning.com, to engage local industry professionals with a Facebook-like interface that would further strengthen existing informal ties and prompt the cultivation of new ones. It also would enable groups of industry workers more easily to forge alliances and manage online the initial stages of proposed projects. Finally, the PTFC could take advantage of such networking to organize or facilitate face-to-face meet-up opportunities that also might catalyze new working partnerships.

- *Focus upon developing a workforce prepared to support the emergent electronic games and simulation industry in the Triad through networking colleges and technical schools that teach game development, motion graphics, digital effects, and digital animation.*

In 2007, the sales growth in the gaming industry overall far outpaced growth in either movies, which saw a modest increase, or music, which fell about 10 percent for the year. Moreover, nine educational institutions in the Triad teach digital skills that support the gaming industry, and the number of young game developers who live and work in the Triad, many of whom are independent entrepreneurs, also has risen. The Piedmont Triad Partnership has taken the lead in convening these educators and professionals, including inviting first-rank game developers from the Research Triangle area to advise the nascent Triad industry about both emergent opportunities and workforce development. We recognize the timely nature of this initiative and recommend that PTP sustain such efforts, perhaps in partnership with an expanded and revamped Piedmont Film Commission, as outlined earlier.

Workforce Skill Development

- *Encourage regional education providers, especially community and technical colleges, to provide innovative classroom instruction and online-based continuing education opportunities, including on-demand courses, targeted to entry-level and seasoned professional workers in the digital media arts.*

The Piedmont Triad Partnership currently is fostering development of an 8-12 week Digital License Program, entitled *Marketing and Publishing in a Digitally Enabled World*. The course, which will be webcast from an area-based community college or university to several audiences gathered at other educational institutions throughout the region, aims to provide industry professionals with up-to-date information about the implications for the industry of social networking, display ads, rich media, viral video, widgets, gadgets, gaming, and search engine optimization.

We applaud such innovative educational outreach efforts. Moreover, we recommend that regional educational institutions take this approach one step farther and look into packaging and making available such instruction in additional formats, including on-demand, subscription or pay-per-view. Discussants at a recent PTP Roundtable readily endorsed having 24-7 access to such tutorials, which would be attuned with the digital media arts professional work—and learning—cultures. For many digital media arts professionals, formal certification is not a chief concern. The most pressing need is for convenient, timely access to support information that helps them master and deploy new skills in real-time, task-oriented, deadline-driven work situations.

- *Create diverse opportunities—ranging from formal certificate-granting curriculum to informal workshops to online offerings—that introduce and teach skills related to the business and entrepreneurial side of the digital media arts.*

The PTP already has recognized the need to develop business skills for visual and performing artists through a certificate program. In fact, it is discussing possible approaches with the region's arts councils, UNC-Greensboro, and community college small business centers and entrepreneurship programs. We recommend that the PTP expand the scope of such outreach efforts to freelance and entrepreneurial workers in the digital media arts.

By the very project-oriented nature of the digital media arts, most production companies tend to hire crew only for short lengths of time. As such, most crew members are self-employed contract workers who need to understand and apply a broad range of business-related skills, including accounting, taxes, marketing, and project management. Moreover, there are also simply survival tips to sustaining and thriving along a freelance career path.

Anticipated growth in certain sectors of the digital media arts subcluster, such as serious gaming, also argues in favor of providing entrepreneurial training about how to start and develop a business. There also appears to be a need for workshops, seminars, and networking opportunities that bring together filmmakers, game

developers, and financial investors in support of their respective effort to secure funding for or to invest in entrepreneurial projects.

- *At the primary and secondary school level, implement one or more EAST Initiative programs through which students engage in self-directed service learning projects that make use of advanced technologies, including digital media.*

Originally developed at a high school in Arkansas, EAST Initiative programs today have spread to more than 200 classrooms across eight states: California, Hawaii, Illinois, Louisiana, Oklahoma, and Pennsylvania. The program offers students and teachers' professional technology and software to apply to their self-directed service learning projects, which typically are implemented through collaborative teamwork.

Moreover, professionals in various fields often provide training and guidance to the students during their projects. Projects are not restricted to technologies appropriate to workforce development for the digital media arts, but film and video, animation, motion graphics, and gaming are popular choices among students participating in various EAST programs. Another popular feature of the EAST Initiative is the annual national conference at which students from schools across the United States showcase their work and compete for awards in specific categories. For more information, please see www.eastinitiative.org.

- *Within both secondary and post-secondary educational institutions, create new opportunities for students to better comprehend and access the career ladder within the digital media arts subcluster in the Piedmont Triad.*

In September 2008, the PTP awarded a Transformation Grant to The Center for Entrepreneurship at Winston-Salem State University to initiate an innovative new outreach project that uses a game-show format, called "Guess What I Do for a Living," to provide career information and entrepreneurial opportunities to at-risk youth and young adults. Working professionals also participate in the interactive game, where their younger audiences have the opportunity to interview them. The second phase of the program allows the at-risk young people to apply for scholarships that will help them learn more about industry or that may involve them in an apprenticeship program.

We recommend that other area-based educational institutions follow Winston-Salem State's example and explore other innovative strategies that can help young people learn more about the opportunities available in the Piedmont Triad's digital media arts, the skills required of entry-level workers and senior professionals, and the work ethic inherent in building a successful career. Innovative educational outreach efforts certainly will benefit at-risk youth. It also is important that industry-oriented programs also target the wider population of students, many of whom may never have considered the multiple, interrelated career opportunities that can be found within the Piedmont Triad's emergent digital media arts subcluster.

Research and Marketing

- *Conduct an economic impact study of the film and digital media arts—or update previous analyses—and document the emergence of electronic gaming.*

The rise of the region's digital media arts subcluster—chiefly characterized by the nearly 22 percent increase in jobs documented since 2002—deserves more careful scrutiny in terms of its overall economic impact and links to allied industries such as tourism and hospitality. Moreover, existing data has not included a survey of the electronic gaming industry, which some observers believe holds forth a potential strategic advantage for the Triad region.

- *Increase investments in the region's film and digital media arts subcluster assets AND market the overall cluster more assertively.*

The Piedmont Triad Partnership certainly deserves credit for its forward-looking emphasis upon developing and marketing the region's creative economy assets. It has taken prominent leadership role with its Roundtable discussions and innovative workforce development projects. Even so, regarding its Focus and Transformation grantmaking, at least as represented on the PTP's own website, the digital media arts is not nearly as well-represented as other, more traditional economic clusters such as Healthcare and Logistics. Moreover, PTP also could do more on its website to help define and illustrate the breadth and depth of the cluster's emergence in the region. Alternatively, it might work closely with a revamped Piedmont Triad Film Commission, which already promotes the cluster's film and video assets, to assure a more intensive emphasis upon assertively marketing the entire cluster.

Advocacy

- *Encourage the N.C. Legislature to increase from 15 percent to 25 percent the film incentive tax credit offered to productions that spend at least \$250,000 in the state. This increase would match the tax incentives currently offered by neighboring South Carolina, as well as other states such as Louisiana and New Mexico.*
- *Explore the feasibility of a state-level, time-limited tax credit granted to production companies who—for specified types of media productions—employ crew members who are legal residents of the Triad region.*
- *Encourage localities within the Triad to provide free or very low-cost office space to film production companies while they are working on projects in the Piedmont Triad region. Another option would be to cut their hotel room tax after 30 days for the crew of productions underway in the region.*

Appendix H

About Economic Modeling Specialists, Inc.

Economic Modeling Specialists, Inc. (EMSI) provides integrated regional economic and labor market data, web-based analysis tools, data-driven reports, and consulting services. EMSI's expertise is centered on regional economics, data analysis, programming, and design so that it can provide the best available products and services for regional decision makers.

In an effort to present the most "complete" possible picture of local economies, EMSI estimates jobs and earnings for all workers using Bureau of Labor Statistics data, data from the U.S. Bureau of Economic Analysis and information from the U.S. Census Bureau. Because the number of non-covered workers in a given area can be large, job figures in EMSI Complete will often be much larger than those in state LMI data.

Occupational Data

In order to estimate occupation employment numbers for a region, EMSI first calculates industry employment. EMSI then uses regionalized staffing patterns for every industry and applies the staffing patterns to the jobs by industry employment data in order to convert industries to occupations. EMSI bases occupation data on industry data because it is generally more reliable and is always published at the county level, whereas occupation data is only published by Occupational Employment Statistics (OES) region (usually 4-6 economically similar counties). Occupation employment data includes proprietors and self-employed workers.

Annual Openings and Replacement Jobs

When projecting occupational employment, EMSI measures a change in New Jobs and Replacement Jobs. The New Jobs figure captures the change in the total number of workers employed in the occupation (the difference between the base and projection year), while the Replacement Jobs figure estimates the number of jobs needing to be filled within existing positions on account of people migrating out of the region, retiring, or dying. A combination of both numbers indicates total job openings over the projection period. Replacement jobs are an estimate based on national occupation-specific percentages from the U.S. Bureau of Labor Statistics Employment Projections program.

Occupation earnings

These are displayed in the tool are, by default, median hourly earnings based on data from Occupational Employment Statistics (U.S. Bureau of Labor Statistics) and the American Community Survey (U.S. Census Bureau). Unlike industry earnings, earnings for occupations do not include benefits. In addition, county/ZIP industry earnings are used to adjust occupational earnings at the county and ZIP level. If local industries generate more income per worker than the state average, our data will show higher occupational earnings for occupations in that industry.

Reprinted from Economic Modeling Specialist Inc.

EMSI Federal Data Sources

U.S. Department of Commerce

Bureau of Economic Analysis

- * Local Area Annual Estimates
- * Local Area Personal Income Reports
- * State Annual Estimates
- * State Quarterly Income Estimates
- * Industry Economic Accounts, Benchmark and Annual Input-Output (I-O) Accounts

U.S. Census Bureau

- * American Community Survey
- * County Business Patterns
- * ZIP Code Business Patterns
- * Nonemployer Statistics
- * Population Division, County Population Estimates
- * Population Division, Housing Units Estimates
- * Population Division, State Interim Population Projections
- * Census 1990 Summary Tape Files 1 and 3
- * Census 2000 Summary Files 1 and 3

U.S. Patent and Trademark Office

- * USPTO Patent Full-Text and Image Database

U.S. Department of Labor

Bureau of Labor Statistics

- * Quarterly Census of Employment and Wages (QCEW)
- * Division of Labor Force Statistics, Current Population Survey (CPS)
- * Division of Occupational Employment Statistics, Occupational Employment Statistics (OES)
- * Local Area Unemployment Statistics (LAUS)
- * Office of Compensation and Working Conditions, National Compensation Survey (NCS)
- * Office of Occupational Statistics and Employment Projections: 2004-14 National Employment Matrix; Employment by occupation (current and 10-year projections); Occupational Employment, Training, and Earnings

Employment and Training Administration (ETA)

- * Characteristics of the Insured Unemployed
- * National O*NET Consortium, O*NET Production Database

U.S. Department of Education, National Center for Education Statistics

- * Integrated Postsecondary Education Data System (IPEDS)
- * Common Core of Data (CCD) (Public Elementary and Secondary Education Database)
- * Characteristics of Private Education in the United States
- * Office of Educational Research and Improvement for the CIP, 2000 Standard Occupational Classification Crosswalk to 2000 Classification of Instructional Programs

U.S. Department of Health and Human Services, National Center for Health Statistics

- * Health, United States

U.S. Postal Service

- * Address information Systems (AIS) Products, Delivery Statistics
- * AIS Products, 5-Digit ZIP Product
- * AIS Products, City State Product

Internal Revenue Service

- * Statistics of Income Division, County-to-County Migration Data

U.S. Department of Housing and Urban Development

- * Office of Policy Development and Research, 50th Percentile Rent Estimates

U.S. Railroad Retirement Board

- * Annual Railroad Retirement Act and Railroad Unemployment Insurance Act Statistical Tables