

Report:
DESIGN CENTER STUDY



Presented to:
NORTHWEST PIEDMONT COUNCIL OF GOVERNMENTS

REPORT:
Design Center Study

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Introduction

This *Design Center Study* provides the Northwest Piedmont Council of Governments with information and recommendations to assist in the creation of a Design Incubator in Winston-Salem. The incubator will become a model of success throughout the U.S. The report is the culmination of significant research, public input, and strategic meetings. The final strategic recommendations aim to position the Center for Design Innovation (CDI) and accompanying incubator for success.

The goal of the CDI is clear: *to bring more jobs to the Triad.*

This study was performed for the Northwest Piedmont Council of Governments. Many organizations and groups were interviewed throughout AngelouEconomics' assessment and preparation of this report. We would like to thank each of them for their participation:

- North Carolina School of the Arts
- Forsyth Technical Community College
- Winston-Salem State University
- Northwest Piedmont Council of Governments
- Economic Development Organizations
- Chambers of Commerce
- Small Business Technical Development Centers
- Design Incubators
- Local companies

Some of these organizations have completed or are currently undergoing their own assessments of issues that relate to the design industry. Some of the recommendations in this report will no doubt overlap with existing efforts. Our intent for this report is to assemble a complete range of actions for state and local agencies in four major areas:

1. **Information**
2. **Marketing**
3. **Infrastructure**
4. **Organization**

As such, this report aims to be an aggregator of the many productive efforts currently underway. Through it, we seek to support these efforts and enhance the collaborative environment for design issues.

Clearly, the stakes are high in today's economy, and success will depend on the state and local partnerships created. We look forward to your comments on these recommendations and your future participation in this joint effort.

Review of the Process

Specifically, the study was designed to result in the:

- Identification of specific sectors of the design industry that are expected to experience the highest demand and business growth in the next 5-10 years
- Assessment of the Triad design industry, including identification of local strengths
- Case studies of successful design incubators worldwide
- Potential role of partner organizations in the incubator
- Top line recommendations for the successful development and marketing of the design incubator
- Local company demand analysis

Economies will always be subject to the business cycle, undergoing periods of expansion and then recession. Creative destruction within our economy and competition from abroad continues to undercut traditional American industries. New industries, production methods, or replacement products appear on the scene, mature, and either get replaced by the next best thing or relocate production to lower cost environments, often overseas. This process was first evidenced in the late 1700's when the newly independent United States began competing with Britain in the textile industry.

Economic developers are left with two options: 1) constantly search for that new industry, maintain it for as long as possible, then repeat the cycle once the industry diminishes or moves away, or 2) invest in the areas of the economy that are always emerging, never mature, and thus will always provide long term growth prospects. AngelouEconomics recommends the second strategy: a community must invest in emerging industries.

Design is about investing in innovation: creating the economic networks and social structure necessary to constantly produce new ideas and products. By focusing on design, the Piedmont Triad can diversify the local economy, provide a buffer from the decline in traditional manufacturing, and insulate itself from future economic downturns.

Design nearly always provides the greatest value-add to any product or service. Companies are able to maintain high margins on new technologies and products due to the perceived value; consumers are willing to pay a premium for cutting edge and stylish merchandise. Apple allocated significant resources to the iPod's design, and although the mp3 player is not fundamentally different from its competitors, the iPod maintains a unique status, and a majority of the industry's market share. As products and manufacturing technologies mature, prices fall dramatically, forcing many producers to move manufacturing to cheaper locations. Anyone who has purchased an iPod will remember the sticker on the package: "manufactured in China, designed in California."

These long term trends are clearly illustrated in the data. Even during periods of slow growth throughout the economy, design and its supporting industries continue to expand. Between 1999 and 2004, the Greensboro-Winston-Salem-High Point metro area saw a 30 percent increase in design jobs even though total employment fell.

Of course, regional design centers do not develop independently; they are the product of economic development planning and implementation. For the Piedmont Triad, this work began in 2002 with a Comprehensive Economic Development Strategy for Northwest North Carolina. Regional leaders launched the Center for Design Innovation (CDI) following a recommendation in the CEDS plan and the CDI is scheduled to have its own facility by 2008. Future plans include expanding the concept into a National Institute of Design (NID).

The CDI and NID will create a nationally recognized image for design in the region. Academic programs and entrepreneurial efforts are flourishing in the Triad. Indeed, these efforts are an excellent example of the second economic development strategy mentioned above.

1.1: A Growth Industry

The American economy is undergoing a transition, with manufacturing continuing to struggle domestically. Pundits are fond of pointing out that traditional manufacturing in the U.S. is no longer competitive globally. The reality is this transition has been underway for some time, and was masked in recent times by a booming domestic economy. In fact, productivity improvements within the manufacturing sector have caused more job losses than low-cost competition from overseas. The U.S. must create a new economic platform. Low value-added manufacturing and assembly jobs will continue to be difficult to maintain in the U.S.. What industries, then, are both fundamental to the way business works today and provide long term growth prospects for our communities? In short – design and design-intensive aspects of traditional industries.

Product innovation is both our current economic base and source of future growth. In a world where production costs are being driven down, design has become the distinguishing value-added component of the goods we buy. In 1996, content-based goods, such as film, books, and software, surpassed function-based (manufactured goods) as the country's largest export. According to the International Federation of the Phonographic Industry, content-based goods are growing three times as fast as the annual rate of the economy.

Competitive U.S. industries all have one defining characteristic: value-added design.

1.1.1 Employment and Wage Trends

Innovation is a defining feature of the design industry, making tracking employment trends especially difficult. In 2004, for example, the BLS counted over 31,000 design jobs in occupations not even classified in 1999. Of those classified, nearly one third are self-employed, which is five times the national average for all professional occupations. Because of the large amount of self-employed designers, total industry size is actually much larger than the data suggest.

Between 1999 and 2004, a period when total U.S. employment grew a mere 2 percent, design and its supporting industries saw considerable gains. There was a 25 percent increase in design employment and reached an all time high of 660,000 people employed.

As more people choose the web for their *primary* means of shopping, communicating, and working, the need for consumer-friendly interfaces becomes critical. Interactive DVD menus demonstrate how designers have changed the way we watch movies. Digital imaging and visualization has opened up new areas of medicine, improved product design, and increased manufacturing efficiency. Demand for such interface and visualization services makes graphic design the fastest growing of all design occupations, increasing 33 percent from 1999 to 2004.

The need for tech employees of all sorts helped raise design wages in the late 1990s. With high wages and a real need for their services, high tech design became an industry in its own right. Design wages stalled somewhat during 2002 and 2003 as the U.S. struggled out of the recession. Professional designers were forced to settle for lower wages, which opened up the door for many people looking to break into the profession. This fresh batch of designers is largely responsible for the innovations in recent years. In the past two years wages have begun to increase, up 6 percent

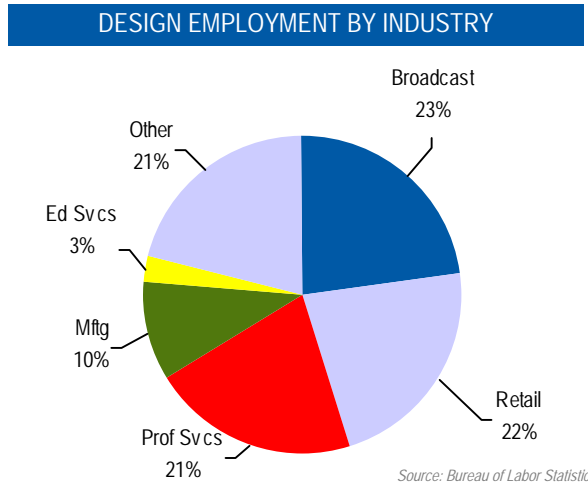
and up 24 percent over 5 years. Wages for multi-media artists, particularly, have taken off; they have seen an increase of 40 percent in average annual wage since 1999.

1.1.2 Major Design Industries

Design has become an integral part of all industries. Those that are the most design-intensive are also the largest source of new jobs throughout the U.S. We examine the major design-intensive industries below.

Broadcasting, Motion Pictures, and Sound.

Broadcasting, motion pictures, and sound recording employ the greatest number of designers and pay the highest wages. The average designer in this industry earns over \$51,000 annually. They are highly specialized and include a large number of technicians, sound and video editors, and multi-media artists.



These designers are tied to products used in our everyday lives. They design video and sound interfaces for automated goods and services as well as a growing amount of made-for-Internet broadcasting. Filmmaking is a highly digital process and employs a growing number of designers.

Cell phones will be responsible for the next broadcasting revolution. At the end of 2004 cell phone use in America outnumbered traditional land lines. There are approximately 181 million cell phone users in the U.S. Games, email, web browsing, cameras and music players are already commonplace features. Cell phones capable of streaming television shows are already commonplace in Asian markets and will arrive in the Americas within a year.

Retail. Retail employs over 132,000 designers, mostly interior designers and decorators. Like most occupations in retail, designers earn below the average of all designers with a mean annual salary of \$26,000. Designers employed in retail are largely concerned with making customers' experience within the store more satisfying and more profitable. Retail will always be a large part of design, though growth in any one geography is limited by regional population and income growth.

Professional Services. The professional service sector accounts for less than 13 percent of U.S. jobs yet employs 21 percent of all designers. This is also the fastest growing sector of the American economy. Both ten-year and annual growth rates are more than double that of total employment.

Designers for professional services firms primarily work in small shops that perform highly specialized contract design work for other businesses. Of particular demand are graphic designers (63,000 employed), interior designers (24,000 employed), and multi-media artists (12,000

employed), occupying the top three spots in the industry. Professional services designers are well paid, earning \$48,000 on average.

The entrepreneurial needs of designers cannot be overstated, especially for small service firms. A disproportionate share of designers in professional services is self-employed, either as a primary means of income or as a second job. A significant amount of design work can be done on a personal computer with specialized software, allowing many designers to startup out of their homes. However, purchasing and maintaining the equipment and software as well as the network of contacts necessary to survive in this business is costly and time consuming. There is a real need for design-specific entrepreneurial support if a region is to have a successful design industry.

Educational Services. One of the fastest growing industries for design is the educational services sector. Electronic media and interactive learning has become the norm in better schools across America. Breakthroughs in teaching technology are allowing tailored programs of study aimed at the unique needs of each student from kindergarten to college. Over the past few years, E-Learning and online universities have outpaced traditional university and college enrollment. About 18,000 designers currently work directly in educational services. Over 50,000 more are working in closely related fields for publishers and printers who are increasingly turning towards electronic formats and professional service firms who design products for teachers and students. Among the top design occupations within educational services are audio, video, and broadcast technicians, graphic designers, and multi-media artists. The average wage for designers employed in educational services is \$39,000

Manufacturing. Manufacturing currently employs over 66,000 designers (about one in ten), making it the 4th largest sector for design employment. The sector employs over 27,000 graphic designers and 15,000 commercial and industrial designers. The average annual wage is about \$43,000, just above the average for all designers. As actual manufacturing production moves overseas, it will largely be the design and management jobs that keep the industry competitive in America. Foreign car companies, aerospace firms, pharmaceutical companies, and technology manufacturers are currently locating facilities in the United States and will be a source of many of these jobs. Industrial and commercial design is a good fit for traditional manufacturing regions looking to modernize their economy.

Industries that invest heavily on design outperform those that do not. Design makes processes more efficient and goods more valuable. The growth of designers in virtually all industries, but particularly those mentioned above, illustrates this fact. Rapid wage growth indicates a current shortage of qualified designers. A regional economy can promote growth by successfully connecting professional designers with local manufacturers, media companies, and retailers. Aiding this connectivity is especially important for design entrepreneurs who may possess the talent but could use assistance with the resources and know-how needed to prosper.

1.2: Forecast

Overall employment of designers is expected to outpace the average for all occupations over the next 10 years as the economy expands and consumers, businesses, and manufacturers continue to rely more heavily on the services provided by designers. Design will continue to become a more essential part of traditional industries such as manufacturing, retail, and wholesale trade, and the general transition to a service-based economy will make design firms and self-employed designers more prevalent. The forecasts below extend over the next 10 years and are based on Bureau of Labor Statistics and Angelou Economics models.

1.2.1 Graphic Design

Graphic designers are projected to provide the most new jobs. Demand for graphic designers should increase because of the rapidly expanding market for web-based information and expansion of the video entertainment market, including television, movies, video, and made-for-internet outlets. This will translate into over 6,000 new jobs split evenly between retail and wholesale trade and manufacturing. In addition, another 30,000 graphic design jobs are expected to be added in small service firms and one-man shops. Over one third of all growth in graphic design will be among the self-employed.

1.2.2 Industrial Design

Increased demand for industrial designers will stem from the continued emphasis on the quality and safety of products, demand for new products that are easy and comfortable to use, and the development of high-technology products in medicine, transportation, and other fields. 10,000 new jobs in industrial design will be created over the next 10 years. The largest single area of growth will be manufacturing simply because it employs the greatest number of industrial and commercial designers. Plastics, pharmaceuticals, aerospace, and automobile manufacturing will lead manufacturing in new job creation. Furniture design is regionally specialized and is expected to expand in existing markets.

1.2.2 Multi-Media Design

10,000 traditional multi-media artist jobs are expected to be created over the next 10 years in software publishing, motion pictures, and private professional services design firms. Most of the jobs will be created within large companies looking to expand the capabilities of existing products. New services for cell phones and wireless products will need a number of digital designers over the next 10 years.

Design Employment in Select U.S. Industries

	Average Wage	% Design Jobs	Growth, '99-04	
			Wages	Jobs
Broadcasting/ Motion Picture/Sound	\$51,000	23%	10%	11%
Retail	\$26,000	22%	7%	17%
Prof Svcs/ Graphic Design	\$48,000	21%	3%	33%
Educational Services	\$39,000	3%	11%	30%
Manufacturing	\$43,000	10%	8%	22%
All Design Occupations	\$42,400	100%	24%	25%
Average of all US Employment	\$37,000	----	18%	2%

Source: Bureau of Labor Statistics

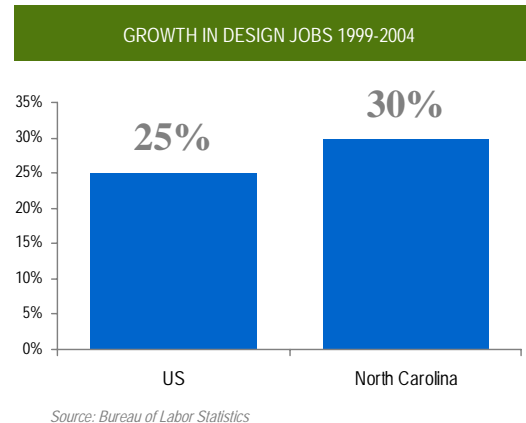
We now examine the design industry in North Carolina and the Triad. The current state of the industry is evaluated as well as its prospects for the future.

2.1 North Carolina

North Carolina has the 11th largest workforce and the 14th largest concentration of designers in the country. Designers statewide earn wages above the national average. In fact, North Carolina ranks third in wages of multi-media artists and animators. Growth of design in the state has outpaced the rest of the country over the last five years.

These achievements are largely due to statewide economic development efforts, particularly in the area of film. The North Carolina Film Office opened in 1980 to attract film production to the state, and their efforts have paid off. North Carolina has ranked third among U.S. states in filmmaking for the past 19 years, behind only California and New York. North Carolina is now home to six studio complexes, 28 sound stages, and 400 production and support companies.

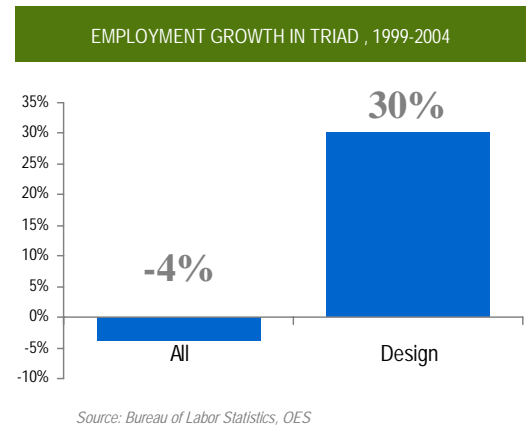
North Carolina, however, has yet to capture many post-production jobs, nor has it focused its efforts on other areas of design. These may be future targets for economic development, but to date the state comes in a disheartening 35th in percentage of workforce devoted to design. Despite the larger number of designer graduates from state schools and universities, most have trouble finding local jobs, leading to a drain of North Carolina's best and brightest.



2.2 Greensboro-Winston-Salem-High Point

The Piedmont Triad, in the near future, will develop as the center of design in North Carolina due to already developing clusters of design-intensive industry, focused economic development efforts by area leaders, and regional enthusiasm. Despite falling regional employment over the past five years, design employment has grown by 30 percent.

Employment figures from 2002 to 2004 show the importance of design in helping the metro area recover from the recession. During the three year period significant employment gains were made in service firms in interior design (26 percent growth), industrial design (157 percent growth), and graphic design (72 percent growth). Companies in architectural firms and computer service firms saw large employment losses, with 16 percent and 18 percent



reductions, respectively. The largest occupational increases across all industries highlighted the technical and industrial character of the region. Commercial and industrial design jobs rose 62 percent, audio and video technicians and broadcast technicians saw increases of 18 and 78 percent respectively.

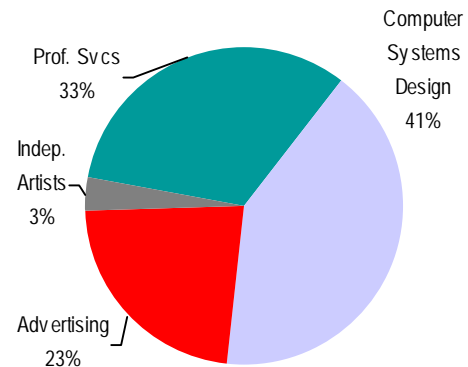
In 2003 Angelou Economics recommended design as the primary focus of economic development efforts for Winston-Salem and the rest of the 5th Congressional District. This recommendation was part of a regional Comprehensive Economic Development Strategy funded in part by the U.S. Economic Development Agency. It was determined that design was the distinguishing characteristic of Northwest North Carolina. The report recommended that the region target computer-aided animation, graphic design, and industrial design.

The same report showed that, unbeknownst to many, the area already had all of the individual pieces of a design industry. The Triad boasts an array of homegrown artists and craftsmen. Arts councils are well funded and, with assets such as the North Carolina School for the Arts, there are formal development programs for “creatives.” Programs in graphic arts and imaging technologies at Forsyth Tech were already in place. Between the School of the Arts, Forsyth Tech, and Winston-Salem State, the area graduates a large number of designers each year.

Local companies were already relatively design-intensive. Furniture design and textile and apparel design have always been staples of the local economy, employing hundreds of skilled designers. The emerging biotech industry has begun to travel down the path of drug design, medical equipment design, and molecular imaging. Small business incubators were established in Greensboro and High Point to promote the necessary entrepreneurial environment.

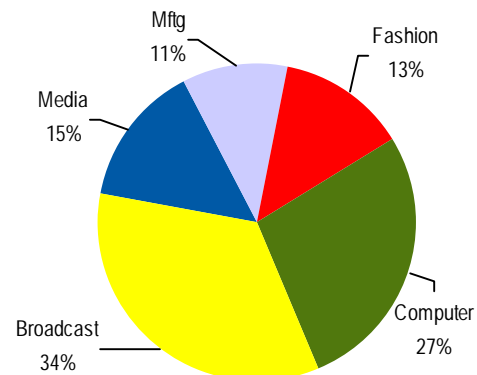
Compared to the rest of North Carolina, the Triad has a much stronger occupation cluster (percentage of workforce devoted to design occupations compared to U.S. average) but a weaker industry cluster (percentage of employment in design companies compared to U.S. average). Companies located in the Triad

DESIGN EMPLOYMENT BY INDUSTRY - TRIAD



Source: Bureau of Labor Statistics

DESIGN EMPLOYMENT BY OCCUPATION - TRIAD



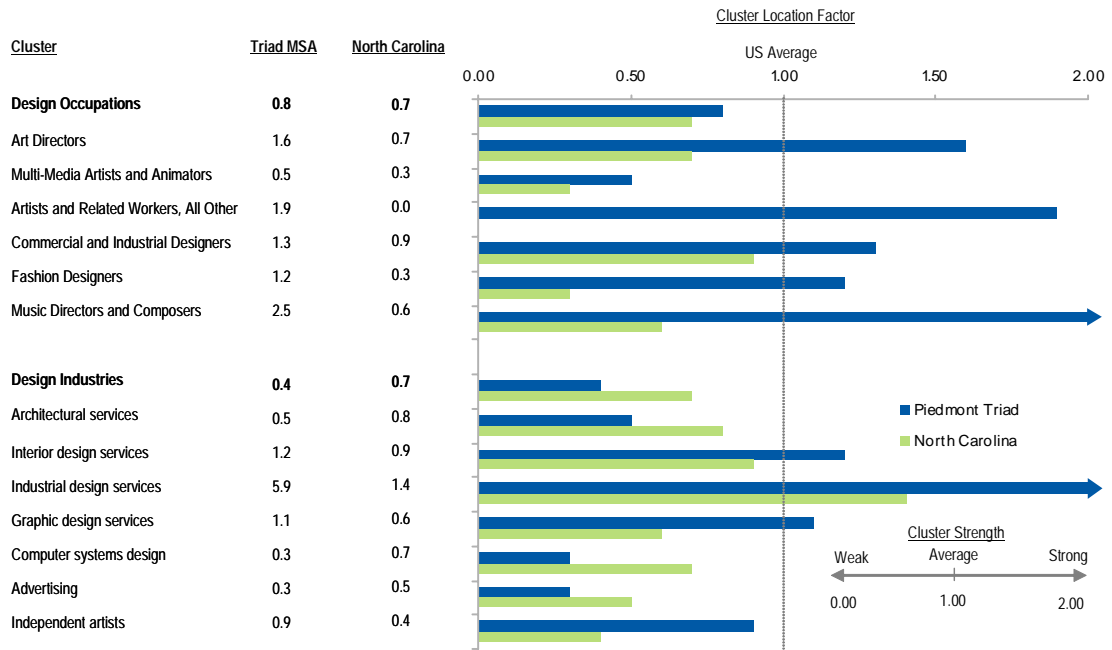
Source: Bureau of Labor Statistics

are highly design-oriented even though they are not in traditional design industries. It should be easy for the Triad to use this advantage to attract traditional design firms as well.

With the completion of the plan AngelouEconomics recommended a central focus, a way to organize all of the separate pieces into one integrated economic development initiative and a linked industry cluster. Without this, the area will continue to lose its young talent to other states and bigger metros. With this in mind, one of the primary recommendations of the AngelouEconomics report was a national center for design. This center would unify the economic development efforts, host a design incubator, and provide an opportunity to retain local talent. If a fraction of the talent produced locally stayed to work locally, the results would be exceptional.

OCCUPATION & INDUSTRY CLUSTERS, 2003

Piedmont Triad MSA and North Carolina



SELECT DESIGN INDUSTRIES, NAICS

NAICS	Description	Employment		Average Yearly Wage		Growth '02-'04	
		2002	2004	2002	2004	Employment	Wage
54131	Architectural Services	508	426	\$51,360	\$49,118	-16%	-4%
54141	Interior Design Services	156	196	\$28,279	\$30,674	26%	8%
54142	Industrial Design Services*	102	262	\$55,732	\$43,305	157%	-22%
54143	Graphic Design Services	189	325	\$41,233	\$51,693	72%	25%
5415	Comp Sys Design & Related Svcs	1868	1523	\$60,049	\$62,149	-18%	3%
5418	Advertising and Related Svcs	501	512	\$48,777	\$49,412	2%	1%
54181	Advertising Agencies	242	254	\$58,678	\$57,335	5%	-2%
54182	Public Relations Agencies	70	73	\$48,068	\$46,892	4%	-2%
7115	Independent Artists, Writers, Performers	130	126	\$22,591	\$22,715	-3%	1%

Source: Bureau of Labor Statistics.

* Decreases in average wage often accompany large employment increases, reflecting the fact that the industry is open to a wider range of skills. Total industry wages increased 116%

SELECT DESIGN OCCUPATIONS, OES*

SOC Code	Occupation Title	Employment			Mean Yearly Wage		
		2002	2004	% Change	2002	2004	% Change
27-1011	Art Directors	-	210	-	\$54,470	\$56,840	4%
27-1014	Multi-Media Artists and Animators	110	70	-36%	\$41,200	\$43,130	5%
24-1021	Comm & Industrial Designers	130	210	62%	\$47,570	\$52,120	10%
27-1022	Fashion Designers	90	70	-22%	\$46,370	\$54,340	17%
27-1024	Graphic Designers	510	520	2%	\$35,630	\$39,720	11%
27-1025	Interior Designers	250	180	-28%	\$34,600	\$43,870	27%
27-1027	Set and Exhibit Designers	40	40	0%	\$24,280	\$23,980	-1%
27-2012	Producers and Directors	110	100	-9%	\$39,680	\$45,220	14%
27-2022	Music Directors & Composers	100	110	10%	\$46,750	\$48,750	4%
27-3042	Audio & Video Equipment Techs	170	200	18%	\$28,220	\$29,490	5%
27-3043	Broadcast Technicians	90	160	78%	\$28,320	\$23,010	-9%
27-4011	Camera Ops, TV, Video, Motion Pic	70	40	-43%	\$22,390	\$31,210	39%

Source: Bureau of Labor Statistics.

* Employment by occupation rather than industry

2.3 Centers for Design

The community leadership responded quickly to Angelou Economics' recommendations. The North Carolina School for the Arts, Winston-Salem State University, and Forsyth Technical Community College came together to form the Center for Design Innovation. The group would work to establish a recognized design identity for the region through education and entrepreneurial activity.

To date, \$2 million has been approved by the UNC Board of Governors to establish the Center and another \$10 million has been allocated by the State for the construction of a facility at the Piedmont Triad Research Park. It will include space for instruction in digital design technologies such as computer graphic, animation, 3-D modeling, and geospatial modeling. To encourage local business development, the Center will also include an incubator to support startup companies in each of these fields.

The three schools behind the Center for Design Innovation have also joined with UNC-Greensboro, NC A&T State University, and Guilford Technical Community College to form the National Institute of Design. The Institute is still in the planning stages, but it has already received high praises for bringing all six schools together, something that is unprecedented within the state. And while the specifics of the Institute are still being worked out, results can already be seen. The goals of the Institute include linking design programs between schools and attracting design faculty, students, and businesses.

2.4 Strengths and Weaknesses of Design in the Piedmont Triad

Piedmont Triad's **strengths** in developing a regional design industry:

- Regional enthusiasm and momentum of economic development efforts
- First region in the country to target design industry
- Educational resources linked through the Center for Design Innovation and National Institute of Design
- Regional support of the arts and crafts
- Complementary economic development goals tied to biotech, transitioning from traditional manufacturing, and film
- Budding entrepreneurial network
- Large film production industry throughout North Carolina
- Large number of established design companies in the region
- Home of headquarters for many large companies that are likely to employ local designers
- Growth of the Piedmont Triad Research Park.
- Growing cultural scene that will help retain young talent

Piedmont Triad's **weaknesses** in developing a regional design industry:

- Slow to negative growth in total regional employment
- No current design image or brand
- Ability to compete with other areas of North Carolina for high tech jobs
- Need to retrain manufacturing workers
- Cultural amenities necessary to retain young talent not firmly established

The Center for Design Innovation may be the first collaborative effort of an arts conservatory, a research university, and a community college in the nation. The North Carolina School of the Arts, Winston-Salem State University, and Forsyth Technical Community College each bring unique assets to the table. Likewise, they each have specific needs that must be met for the CDI to be a success. This section presents a summary of numerous discussions Angelou Economics has conducted with stakeholders in each of the educational institutions as well as community leaders.

A1.1 North Carolina School of the Arts

The North Carolina School of the Arts is an arts conservatory with the mission to train students from middle school through graduate school in the performing, visual, and film and television arts. The school sees itself as the creative force in the partnership. Students and faculty excel in thinking outside of the box. They bring experience in performance and filmmaking; its School of Filmmaking is currently the only film-oriented program in the Triad and will play a large role in the school's early work at the CDI. 230 students are enrolled and 50 students graduate from their film program every year.

- One third of the North Carolina School of the Arts' students are in high school and the entire school is devoted to performance. This facet has been emphasized several times during conversations. **The Center for Design Innovation must expand the performance capabilities of NCSA.**
- The North Carolina School of the Arts, as well as the Triad in general, is in need of studio and blue/green screen space and virtual sets. This space does not have to be particularly large, but motion capture and the technology to process motion and sound are particularly important.
- Because of the nature of NCSA, only NCSA students are allowed to take courses on campus. Many fields are open by audition only, and there is no way to transfer into NCSA. By participating in the Center for Design Innovation, NCSA's resources become accessible to a wider audience and expand what the school can offer. There has been talk of a 2+2 program with Forsyth Tech allowing students to transfer into NCSA via the CDI.
- The NCSA currently has no strong ties to area companies (Out of Our Minds has been mentioned several times as a model for local design success. The company hires NCSA interns), many students leave upon graduation for larger job markets and entertainment centers. One role of CDI will be to make these connections between NCSA and the Triad business community.

A1.2 Winston-Salem State University

Winston-Salem State University is a research university with strong programs in education, physical sciences, and biological sciences. WSSU plays an active role in regional economic development efforts aimed at the biomedical and biotech industry. As the only partner with a research focus, the research needs of the university will play a large part in WSSU's involvement in the CDI.

- The major theme discussed among WSSU representatives was faculty research. They look forward to collaborating with faculty at NCSA and FTCC for cross-discipline studies. They stressed breaking down barriers between arts and the sciences. **CDI must promote research in design.**
- WSSU participants expressed a need for studio space for modeling the human body and movement in computer space. Animation will thus serve a more scientific than artistic purpose for WSSU.
- Projects taken on at the CDI by WSSU science faculty are dependent on their ability to obtain research grants. This makes planning for specific design uses particularly hard for WSSU needs; instead, ensuring the CDI technology stays cutting edge and allowing the space to be highly flexible is important.
- Winston-Salem State University faculty members are also very excited about opportunities for commercialization of research through the incubator. The incubator can help commercialization by promoting spin-offs from faculty research and hosting companies with complementary research needs. The CDI can also serve to connect faculty with larger Triad companies interested in expanding research capabilities.

A1.3 Forsyth Technical Community College

Forsyth Technical Community College is a two-year community college with a strong technical background. FTCC serves a critical role in workforce development within the Triad. Because of this workforce development role, FTCC representatives are in constant contact with area employers. They take care to assess the needs of local businesses and design programs to meet these specific needs. The school has expertise in technical skills other campuses in the partnership do not. FTCC grounds the CDI in the practical.

- Forsyth Technical Community College is tied heavily to workforce development. This serves as a reminder that the CDI is primarily an economic development initiative to create jobs in the Triad. The CDI can complement this role by becoming a resource center for designers throughout the community. FTCC representatives envision offering public forums, open classes, and business assistance. **CDI must be grounded in usable skills needed by local employers.**
- The FTCC student body is diverse and includes many part-time and one-course students. Many FTCC students move on to other universities and programs, so transferability of CDI work and inclusiveness are important. Design students at FTCC often go on to programs at UNC-Charlotte, UNC-Greensboro, and the Pratt School of Design.
- Forsyth Tech is not a research university but the ability to partner with research institutions is important. One of the primary roles FTCC will play is bringing industry needs back to the research community at other schools. At the same time, the research at other institutions brings FTCC students closer to cutting edge research.
- Representatives of FTCC stressed the need for open studio space and particularly emphasized multi-use for disciplines including biological sciences, film, and information technology.

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- One discussant's wish list for the CDI included a "play space." The space would be a material warehouse where students can reverse engineer products – a hands-on toy box. Also important is space to actually create and manufacture design products (a need that has been echoed by local business leaders). The hands-on aspect of the CDI is unique to conversations with FTCC participants.
 - CDI will be important in advancing the technical capabilities of FTCC, making it more competitive with other programs in the state.

A1.4 Recurring Themes

The strength of the CDI is that it can accomplish more than each of the member schools could accomplish on their own. There were many common themes repeated during conversations with people from all schools. The following section presents points that were brought up repeatedly by participants from each of the schools.

- All participants expected the CDI to contain one or two classrooms that would be shared by all institutions on a first-come first-serve basis and for joint courses offered through CDI. They also expect computer labs, studio space, and lab space open for faculty research.
- The single most frequent desire stated was for up-to-date computers and technology related to motion capture and human interaction with machines. NCSA is extremely interested in expanding its capabilities in digital animation, gaming, and digital entertainment. WSSU is interested in sound and movement capture as it relates to biological sciences and learning. FTCC is interested in industrial engineering capabilities and technical applications in design industries. Because of the rapid pace of technological progress, a formal plan must be in place to ensure CDI resources do not become obsolete.
- Technology classes are a natural fit for CDI since the courses can be skills-based rather than specific to an industry or field of study. This makes them accessible to students from all campuses as well as members of the community not enrolled with a school. Examples of suggested courses include Photoshop, sound engineering software, vector works, CAD, intelligent (robotic) lighting, and industrial digital applications to film, furniture, and architecture.
- Factors such as cultural resources in North Carolina and the financial status of students have limited students' exposure to master works of design and modern design innovations. By amassing design resources (by digitizing large shows, for example), the CDI opens up the design world for students that rarely travel outside of North Carolina. The CDI can serve to bring design as a principal in front of the students.
- Similarly, CDI must have a vehicle for exposing the world to work performed at CDI, perhaps through a storefront, gallery, or studio open to the public.

A successful partnership between Winston-Salem State, Forsyth Tech, and NC School of the Arts means:

- **Modeling human movement for performance and a wide variety of research fields**
- **Cutting edge digital design technologies**
- **Accessibility to students on each campus and businesses throughout the Triad**
- **Flexible research space and an open, collaborative research environment**
- **Strong understanding of local business needs**

There are a number of designers in the Triad working in a wide array of fields for a wide range of company sizes. This section is a summary of opinions and input from owners of large design firms and entrepreneurs working in fields from interior design to advertising. Because of the entrepreneurial emphasis of the CDI particular attention was paid to small design businesses in the Triad.

A2.1 Defining Design in the Triad

There are a number of parties involved in the planning and operation of the Center for Design Innovation. Between businesses, schools, and economic developers, it is important to know exactly what is meant by “design” in the Triad. When asked what design in the Triad means to them, local businesses’ answers centered on creative services like marketing, graphic design, animation, video production, architectural and industrial design. There is a very thin thread holding all of these services together and it cannot serve as a working definition for the CDI. The business community is eager to get involved in Center activities, but must know exactly where they fit into its objectives.

Most people in the Triad believe marketing and advertising firms are important to the regional definition of design. There are already a large number of such firms in the area, allowing the Triad to build on its competencies. Likewise, film and performance are discussed often, especially in association with the School of the Arts and a growing art culture in Winston-Salem. Many packaging, industrial, and furniture design companies are well established in the Triad, building on the strong manufacturing history of the region. All of these could be good fits for the Center for Design Innovation.

Biotech and medical design cannot be ignored in a local definition of design. There are a number of biotech and life science initiatives already under way, including research programs at Winston-Salem State and technical programs at Forsyth Tech. A medical device accelerator already operates in the Piedmont Triad Research Park. The accelerator is promotes small medical device companies and includes an FDA approved manufacturing facility.

To a lesser degree, architecture has been mentioned as an important area of design, though it may not be a good fit for the Center for Design Innovation. Many state universities already offer architectural programs, and CDI would have to compete with these programs for talent, recognition, and funding. UNC-Charlotte’s College of Architecture, for example, is building a center for digital architecture that capitalizes on Charlotte’s large established architecture background. Design skills in animation and 3-D rendering for film or graphic design do not necessarily transfer to building design. CDI graduates would be competing with established architects skilled in the same technologies.

There is still a need for stakeholders to define design more narrowly. Focused efforts in the early phases may lead to competencies in broader areas, but it is critical that the business community, as well as the academic partners involved, know their major objectives.

A2.2 Entrepreneurial Needs

There are only a few large clients in the Triad for local design companies. Small companies state that it is hard to make the right contacts within these companies and win the larger accounts. Roughly one year ago the Piedmont Entrepreneurial Network and the Triad Entrepreneurial Initiative joined together to form the Piedmont Triad Entrepreneurial Network (PTEN) to address some of these issues. PTEN is a resource for entrepreneurs throughout the Triad focusing on education and mentoring, networking, business plan competitions, capital access, and communications. PTEN organizes and hosts the Creativity and Design Roundtable which raises awareness among large national corporations and local businesses about the design capabilities within the Triad. Besides monthly meetings, the Roundtable holds quarterly events with high level guest speakers as a way to bring cutting edge design into the Triad.

The Roundtable members excel in guerilla marketing, and meetings and events have high attendance. Perhaps because the group is relatively new, there is a need for a larger vision and strategic mission for the group. The word is just getting out about the Roundtable and its work. Combined efforts with the CDI will help develop this mission as well as make the group more open and inclusive. This will help develop the character and color of entrepreneurial design initiatives in the Triad.

The Roundtable is only getting off the ground but already it has seen some small successes. Through events and meetings, creative firms are beginning to do business with each other. Small businesses and entrepreneurs hope that the CDI will build on these efforts to make Triad firms more competitive. The Center can serve to attract talented designers, expand networking opportunities, unite many smaller firms, expand their capabilities, and allow them to bid for projects too large for each of them to handle alone.

A2.3 What Design Companies are Saying about CDI

Several small and mid-sized companies are excited about the amount of recognition the CDI will bring to the Triad's design industry. It brings a formal affiliation to the area – a network of design, architecture, and service firms. Companies can sell clients on the fact that they are in the same metro as a leading design center. They also benefit from a pool of inexpensive student workers, interns, and research staff. Combined with affordable rent within the incubator, the CDI will make it possible for cost-constrained companies to establish themselves.

One of the major roles of the CDI will be to make local businesses competitive by bringing new technologies into the area. It will be a source of services such as 2-D and 3-D rendering and animation. This has some companies worried. They fear competing against student labor essentially working for free. Care must be taken to ease these fears. On the other hand, the younger companies unable to invest in large staffs and technology look forward to this aspect of the CDI. It must be understood that the CDI is not a source of state subsidized design services, but rather a tool for making all design companies in the Triad more competitive. Current companies must feel they have open access to the internships, partnerships, and general resources at the Center.

Service companies survive according by billable hours; they can not afford to “play” and research larger problems. They are expected to already have the knowledge base to solve problems. The CDI allows a client to present an unsolved problem, a local company to accept the job, present the research problem to the CDI, and have them work it. This is perhaps one of the greatest ways the CDI expands the capabilities of local companies.

Larger companies report a need for workers skilled in industrial design and engineering. Marketing and graphic design firms report that skilled workers often leave for larger metros. It is difficult to attract graduates from universities in other North Carolina cities to the Triad. Employers look for applicants with some other tie to the region, such as a spouse with a job or family members near by. Some suggest the CDI serve as a clearing house for design labor.

Companies of all sizes recognize the need for CDI to invest in the digital arts. Businesses understand what stronger programs at each of the schools mean to the health of the Winston-Salem economy. Local talent skilled in 2-D, 3-D, and live animation increases the competitiveness of local architecture, interior design, and advertising firms. CDI will create a bridge between the schools (talent) and applied creativity (businesses).

Entrepreneurs Need:

- Startup advice and funding
- Affordable rent and technology
- Business contacts

Small and Mid-Size Companies Need:

- Affordable design services
- Business contacts and the ability to pool resources on larger contracts
- Recognition brought by CDI
- Access to cutting edge technology
- Access to research

Large Companies Need:

- Competitive design firms to hire
- Talented labor force
- Access to research
- Strong regional economy

The Center for Design Innovation is an economic development initiative with the direct purpose of strengthening the Triad economy and creating jobs. The CDI's business incubator will be an important tool in achieving these goals. The incubator is currently planned to occupy 6,000 square feet within the CDI and will have space for 10 tenant companies. The incubator will have a reception area, an administrative office, a conference room, a project development work space, and a resource center with shared copier, fax, and printer. Incubator companies will also have access to CDI studios for sound design, lighting design, animation, and 3-D modeling.

Beyond these specifics, questions remain about what kind of companies will locate into the incubator and where these companies will come from. This section summarizes opinions of both the schools involved and suggestions about the incubator from local businesses of all sizes.

- The vision for the design incubator at the CDI seems to largely involve startups and spin-offs from student work and research. Many people at the various schools see a business development program within the CDI which would have students present a business plan in their final year, obtain funding, and graduate into the incubator. During their early years at the CDI students could participate in other projects that have already been moved into the incubator phase.
- Faculty members have expressed interest in finding companies for the incubator that need research support. As stated earlier, faculty research programs are highly dependent on funding sources.
- Small designers are primarily interested in affordable rent and student internships. They are also interested in making contacts through the CDI. They have expressed frustration that large Triad companies continually go outside the region for their design work. Companies are hopeful that the CDI will make them more competitive for these larger contracts.
- Larger companies emphasized the need for incubator companies to not only design a product, but also manufacture the product. They rarely hire separate companies to design and produce the good. Thus, CDI should include a small shop or have access to a facility for manufacturing.
- Because of the performance focus of NCSA and many of the interests of WSSU and FTCC, discussants expect most incubator companies to be linked to the entertainment industry in some way.
- While the students at each of the schools are extremely talented, many have financial constraints that make starting a business extremely difficult. They have neither the contacts nor knowledge to obtain funding. It is important that the CDI help connect people with ideas, people with funding, and people in industry.

Regional demand for design incubation facilities and services was more than adequate. Full occupancy for the incubator is a reasonable expectation 18 months of launch:

- Sufficient local demand exists for the design incubator
- With over 35 design start-ups annually, numerous regional candidates exist
- Companies of varying sizes and maturity indicated strong interest in relocating or partnering with the CDI
- Pricing and services were the key location determinants for most firms

Based upon the findings presented in this report, as well as information gathered from design focused incubators around the world, AngelouEconomics presents the following recommendations for marketing and developing the design incubator within the CDI.

The recommendations are organized into the four following categories:

1. **Information**
2. **Marketing**
3. **Infrastructure**
4. **Organization**

Marketing Recommendations

1. CONDUCT EXTERNAL MARKETING

Conduct a campaign to promote the design incubator. An external marketing campaign will deliver a unified branding message for the center, as well as provide a positive impact for local economic development efforts. The overarching goal is to build awareness and attract interested businesses. Incubators not only bolster economic development through the creation of new businesses for a community, they are also a tremendous marketing tool for gaining recognition for the community and the region. Their efforts and successes should be shared through a targeted campaign to multiple audiences: research and development entities, the financial community, state and federal funding resources, target industry businesses, and trade publications.

Targeted marketing is often the most successful and cost effective means to distribute information. With the availability of Internet marketing options and the falling cost of printed materials, targeted marketing is now more attainable than ever.

Create a brochure. Hire a design firm to develop a 4-page marketing brochure highlighting North Carolina's defense assets.

Email newsletter. An email newsletter is an effective method for long-term image development. Hire a web design firm to create a unique format for the newsletter. Staff members of CDI can help create content with assistance from other interested parties such as local economic developers, local design firms, educational staff, and interns. The newsletter should be delivered quarterly.

Market the CDI. Hire a national PR firm to market the CDI and incubator to interested design firms.

2. LAUNCH A TRIAD “DESIGN WEEK”

The Triad region should develop a regional “Design Week” that provides a marketing venue for local design firms, a marketing opportunity for the Triad region, and a networking opportunity for members of the design community and the community at large. Santa Fe launched its own Design Week at the conclusion of the city’s most recent economic development strategic plan. Design week in Santa Fe includes tours of local design firm’s studios and local work. For instance, local interior design firms showcase their workspace and recent client homes.

Networking. The event provides numerous networking opportunities, with other local design firms, potential clients, and the community.

Facility Tours. Tours are given of relevant design space in the area, including the CDI and incubator, but also local design companies.

Panel Discussions. Industry speakers and panel discussions provide a draw for a more national audience interested in specific design industry information.

Exhibition. Exhibit space is useful for companies to showcase products and services.

3. THE CDI OR INCUBATOR WEBSITE SHOULD BECOME AN INFORMATION PORTAL

The CDI website should include information on the local design industry, company product and service offerings, a searchable company database, and a section for posting contracting opportunities. Additionally, information about services provided at the CDI should also be included.

Maintain a “Guide to Triad Design Resources.” Many businesses, both large and small, are not aware of the local resources available for design firms and those seeking design work. A guide to what resources exist locally would alleviate this situation.

Maintain a list of local design firms. Even a simple online listing of design firms and services available would be helpful to larger firms looking for contract design work.

Provide a section for contract opportunities. Local firms could post listings and information could be aggregated from other third party sources.

Provide a networking feature for regional design firms. Create news boards that allow designers from different industries to network, share opportunities, and discuss issues related to the industry. This will provide more marketing for the CDI and another opportunity to tie together the local design industry.

4. BUSINESS PLAN COMPETITION

Hold a business plan competition among design firms, with the winner receiving 6 months to one year free rent in the incubator. The competition would increase awareness of the incubator, act as marketing for the launch, and further solidify the Triad’s status as a design hub. Leading venture capitalists, design industry professionals, and other national figures should be brought in, expenses paid, as judges. Design firms from across the nation should be allowed to submit. The CDI facility could be presented to a new audience and the marketing would benefit all involved.

Operations Recommendations

5. JOIN NBIA – NATIONAL BUSINESS INCUBATION ASSOCIATION (<http://www.nbia.org>)

This is the premiere organization for incubators around the country. Not only does it offer effective networking opportunities, it is also a great resource for training, information, support, and funding. This organization is the “go to” source for on-going questions related to the overall success of your incubator. Their Fall conference is worth attending: October 24-26, San Diego, CA.

There are different levels of membership, ranging from individual to corporate: \$125 - \$1000 annual.

6. BEGIN RECRUITING BOARD MEMBERS FOR INCUBATOR

The incubator should have an independent Board of Directors and consideration should also be given to the establishment of a Board of Advisors (as appropriate). While many individuals in the Triad and throughout North Carolina would be ideal for such a board, consideration should be given to design industry leaders from outside the area. Establishing a firm link with companies and individuals that are leaders in the design field is important for long-term success.

7. A STRONG RELATIONSHIP MUST EXIST WITH THE SBTDC

North Carolina’s small business center network is among the strongest in the nation. The program offers a wide array of support and services for nearly any type of small business. SBTDC staff can assist with general management counseling, permitting questions, and funding sources.

8. ENCOURAGE COLLABORATION BETWEEN TENANTS AND MEMBERS OF THE DESIGN COMMUNITY

Encourage collaboration between tenants and members of the design community by hosting exhibitions, facility tours, and networking events. The importance of creating a collaborative culture around the center and the incubator can not be overstated. By providing exhibition space for designers inside and outside the center and providing networking opportunities, the CDI would become the center of the Triad design cluster. These events in general have verified success in allowing individuals from all corners of the industry to network and exchange ideas.

9. OFFER AFFILIATE MEMBERSHIPS

Affiliate memberships should be offered to area firms that wish to utilize the design center and incubator services without relocating to the facility. Services offered would include not only office related activities such as copying, but also use of equipment located in the center. This would increase incubator and CDI ties to the community and help diversify the incubators revenue stream.

10. DEVELOP A STRUCTURED INTERNSHIP PROGRAM

FTCC, WSSU, and NCSA should organize a design internship program through the CDI and incubator. Many local firms indicated a desire to utilize an internship program and sending interns out into the field will raise the centers profile.

Infrastructure Recommendations

11. PROVIDE THE RIGHT MIX OF SPACE AND SERVICES

All participants expected the CDI to contain one or two classrooms that would be shared by all institutions on a first-come first-serve basis and for joint courses offered through CDI. They also expect computer labs, studio space, and lab space to be open for faculty research.

The single most frequent stated desire was for up-to-date computers and technology related to motion capture and human interaction with machines. NCSA is extremely interested in expanding its capabilities in digital animation, gaming, and digital entertainment. WSSU is interested in sound and movement capture as it relates to biological sciences and education. FTCC is interested in industrial engineering capabilities and technical applications in design industries. Because of the rapid pace of technological progress, a formal plan must be in place to ensure CDI resources do not become obsolete.

12. CONSIDER THE DEVELOPMENT OF A STOREFRONT GALLERY

Many companies indicated a strong desire for the incubator to include a space to showcase products to potential customers. This storefront space should be located away from the incubator offices.

13. CONSIDER THE DEVELOPMENT OF PROTOTYPING FACILITIES

Larger companies emphasized the need for incubator companies to not only design a product, but also manufacture initial prototypes. They rarely hire separate companies to design and produce the good. Thus, CDI should include a small shop or have access to a facility for manufacturing so companies can meet low volume manufacturing needs.

Information Recommendations

14. ASSEMBLE A BROAD ARRAY OF FUNDING SOURCES

Many of the small to mid sized firms surveyed indicated interest in utilizing incubator facilities, but most were concerned primarily with the associated costs. In broad terms, funding is one of the key areas of concern for any small business or start-up enterprise. The incubator will need to address this issue by providing local design firms with access to funding sources from the federal, state, and private sector.

15. ESTABLISH A RELATIONSHIP WITH REGIONAL ANGEL FUNDS AND VENTURE FIRMS

The largest source of private sector funding for incubator candidate companies will be angel and venture funding. This industry is booming once again after a few tough years following the dot com crash. Angels and Venture Capitalists are very picky though, and a strong relationship is required to even gain an audience with top tier firms.

Possible methods for gaining an introduction include: hiring angel investors or venture capitalists as judges for the business plan competition, offering positions on CDI or incubator board of directors, and offering a keynote speaking engagement during Design Week or the Annual Design Conference.

16. CREATE AN ANNUAL DESIGN CONFERENCE

SBTDC, FTCC, WSSU, and NCSA should organize an annual Design Industry conference to educate regional and state companies about industry trends and opportunities, as well as promote the CDI. Awards should be developed that recognize North Carolina small businesses for achievements in design. The conference could also be an opportunity to recognize graduate firms.

Networking. The conference will give design firms from across the state a networking opportunity that crosses industry lines.

Industry Trends. An update to AE's national and local design industry analysis report should be presented. Speakers should highlight major trends and overall design industry growth for the U.S. and North Carolina.

Funding Opportunities. The conference should provide current information on available funding in the private and public domain.

Recognition. The conference should be utilized as an opportunity to promote design success stories in North Carolina. Awards should be developed to recognize successful design firms that have graduated from the incubator. Creating "Best of" awards for companies will drive attendance to the conference and increase awareness of success stories.

17. PURSUE SBIR FUNDING

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are designed to provide small businesses access to the federal research market. As with most federal programs, the DoD accounts for the majority share of SBIR funding, but the National Institutes of Health is a large grantor as well. STTR is a much smaller program that requires a university partner and for our purposes is included in the overall discussion of small business research. The programs purpose is to assist small business in developing unique technologies needed by the federal government. Small companies are flexible and can adapt research and development to meet immediate needs. The funding is designed to

allow the company to development a new technology or product and then manufacture that product for the commercial and military markets without further financial assistance. Companies own the research and are encouraged to pursue commercial opportunities with any products or findings resulting from SBIR research.

The program is the largest source of early stage technology financing available in the U.S. and numerous commercial companies developed with the assistance of SBIR funding. North Carolina has a strong small business network and numerous research assets, yet supplies a comparatively small amount of SBIR awards, 0.3% in 2004. The Triad area performs even worse, with very few awards being granted to area firms.

Both the SBIR and STTR programs provide up to \$100,000 in funding for Phase 1 awards and \$750,000 for Phase 2 awards. The government will also match private funding dollar for dollar, up to \$750,000, under a component program.

The CDI and incubator should encourage tenant firms and faculty to pursue SBIR funding.

SUMMARY

The Piedmont Triad may very well be the first region in America to target the design industry. The community leadership has worked hard and has gained tremendous momentum. The need to maintain that momentum is crucial. Design should integrate into every niche in the economy. At first glance, this seems like a fairly ambitious statement, but it is firmly based on two facts: 1) Design employment in the Piedmont Triad has seen tremendous growth, and 2) the rest of the economy has not. The ability to become a recognized center for design will require the support of the whole community.

Building a design industry will not be easy. The Triad will have to work within the state to receive funding and high tech jobs that traditionally went to other metros. Furthermore, the entrepreneurial network and cultural amenities needed to attract designers to the region are only just taking off. But on the other hand, they are quickly improving. The Piedmont Triad Entrepreneurial Network has started the Creativity and Design Leadership Roundtable and venture capital funding is on the rise. More young people are socializing downtown, and a number of clubs and restaurants have opened. All of these efforts should help connect small local design firms, large local companies in need of design services, and students looking to start a design career.

Design is also at the heart of many of the State of North Carolina's economic development initiatives. It blends well with film, biotechnology, and general technology development. Design employment throughout the state has outpaced that of the rest of the county. The State should support the Triad's efforts, since what they accomplish will have a large impact on communities throughout North Carolina.

Nationally, design outperforms virtually every other sector of the economy. Design is innovation, and innovation is long term growth. Communities able to grasp this fact and build off of it will continue to provide jobs and a livelihood for its citizenry.

New York Designs

NY Designs is an entrepreneurial design center in Manhattan, created in 2002 as product of CUNY Economic Development Corporation and LaGuardia Community College.

FUNDING

- Funded through several state and federal grants
- \$5 million from the state, \$1.2 million in federal funds, and \$150,000 for environmentally conscious initiatives, and other government grants
- Rent from tenants and revenue from classes offered at the center also helps to defray costs

TENANTS

- New York based designers in the fields of: product design, industrial design, fashion design, graphic design, interior design, architecture, lighting and set design, and jewelry.
- Target graduation is within three years or less and all residents undergo bi-annual business reviews
- Entry criteria requires a 2 page executive summary
- Tenants have a three-year lease at below-market annual rents of \$5,200 to \$26,000 for spaces of 400 to 2,000 square feet.

FACILITIES

- The incubator can accommodate 20 firms
- Meeting rooms, a library, workshops including basic saws, computerized mills, and prototype machinery, conference rooms, and a gallery

SERVICES

- Business counseling including business plan development, sourcing, design management, and funding access. Private consulting sessions offered at \$50/hr
- Design skill courses, where model making has been especially popular
- Access to professional services such as accounting, legal, bookkeeping, public relations, marketing real estate, and information technology
- The center plans to create a \$1 million collateral fund to back designers trying to secure bank loans

The Design + Business Entrepreneurship Center

The Center was established in 2002 and is managed by The Center for Design and Business, a joint venture between Bryant College and the Rhode Island School of Design.

FUNDING

- Received \$90,000 from the U.S. Small Business Administration
- Some companies have their rent paid for by the Samuel Slater Technology Fund, which invests in growing Rhode Island companies
- Rents pay for about 50% of the cost of running the center

TENANTS

- Companies need to be established and design-based
- Rent requires a one year commitment, and \$900-\$1,050/ month includes 100-300 square-foot offices, business support services, wireless network for voice, data, and video communications, and reduced rate parking
- Collaboration between tenants has generated third businesses being formed between different members
- Currently the center is seeking manufacturers and companies interested in creating links with research programs at either RISD or Bryant
- Tenants have a monthly meeting with the center's business advisors

FACILITIES

- The center includes workspace for nine businesses, conference room, and a kitchen
- Access to RISD and Bryant University resources

SERVICES

- Services are available to on and off-site clients
- Business and commercialization skills training
- One-on-one consulting
- Center Associate membership benefits include invitations to special events and reduced fees for all programs
- The Center sponsors the Rebrand 100 Awards

iMedio

Established in 1998 in Osaka, Japan, iMedio is a multimedia business incubator.

FUNDING

- The incubator is managed by the Osaka City Industrial Promotion Foundation and was jointly established by the City of Osaka, private firms, and institutions concerned with industrial promotion in educational and governmental sectors

TENANTS

- 29 small to mid-sized companies occupy iMedio
- Facilities are available to on and off-site clients

FACILITIES

- iMedio has a total area of 3,000 square meters
- Incubation office space occupies 2,100 square meters
- Other facilities include a conference room, a seminar room, presentation rooms, work studios, a research library, showers, and a café
- Work studios include a non-linear editing studio equipped with a HD/SD videocassette recorder and highly efficient editing machine, a 5.1ch mix down studio, DVD authoring studio which is combined with a DVD authoring toll and a non-linear editing system, a narration studio, and a full-digital mastering studio.

SERVICES

- iMedio offers specialized publications with multimedia business content
- Consulting services include website and content development, corporate tax, financing, and copyright and contract law
- Business Coordinating Services that provide firms inside and outside the incubator with new business opportunities by promoting business and technological tie-ups among firms in different fields working towards a similar goal
- Seminars cover cutting edge technology that is often unavailable at conventional educational institutions
- On-line news groups, mailing lists, as well as intra-industry gatherings help promote collaboration between firms in the multimedia, information, and telecommunications fields

Austin Digital Media Collaboratory

The DMC works with a variety of collaborators from academia, industry, and government to study the influence of digital content.

FUNDING

- Managed by IC2 Institute, a research unit of the University of Texas
- Some DMC research projects are funded by and partnered with Sandia National Labs, the U.S. Army, and the National Science Foundation

FACILITIES

- The digital media project has eight employees and 20 affiliated UT researchers
- The base for the DMC is a laboratory with advanced computers and video game consoles

RESEARCH

- The DMC is not a full-fledged incubator, but they do collaborate with Austin businesses to define the digital media market and research products, which often attracts investors
- They attempt to bring together the research community with the corporate community by working together on new technologies and studying where business opportunities lie
- A primary interest of the DMC includes researching business models that might work with the changing terrain of digital media

lab.3000

Funded by the State Government and hosted at RMIT University, lab.3000 is dedicated to Victoria's future as a world leading design capital and a creative hub that stimulates collaboration between design professionals, industries, ICT specialists and educational institutions.

FUNDING

- In 2002 they were funded by the State with \$4.2 million to develop the lab over 2 years

SERVICES

- Several ongoing research projects, such as mapping the emerging digital design industry cluster in Victoria
- Offers educational programs that are designed to meet the needs of individual schools or school clusters, and are conducted for small groups of students and teachers
- Design professionals can participate in seminars, workshops, and exhibitions
- Online directory that allows you to search for digital design freelancers or companies by name, location or field of expertise.

Design Business Association

Located in London, the Design Business Association provides members with advice, training, events, and information on all aspects of the design industry

SERVICES

- They provide information and guides on the design management process, the latest research on what design can do for business, inspiring case studies, and networking events are available to members who pay fees ranging from £1040 to £5200 per year, depending on company size
- Sponsor of the UK "Design Effectiveness Awards"

Website offers online PDF electronic guides for legal advice and business management

INCUBATORS: SNAPSHOT

Most of the country's roughly 950 nonprofit incubators exist to promote local business development. But a few fulfill a mission that's even more highly specialized.

Consider the Entergy Arts Business Center, an incubator to promote the development of the arts in New Orleans. Created in 1992, it has incubated such peculiarly homegrown endeavors as the Louisiana Philharmonic Orchestra, the Louisiana Jazz Federation, and the Dog and Pony Theatre.

Then there's the Denver Enterprise Center that developed a different niche: assisting catering and food-products businesses and minority-owned businesses in the Denver area. One of its tenants is the Chocolate Farm, which makes animal-shaped chocolate pieces.

Below is a chart that highlights some of the nation's more successful incubators:

Incubator / Location	Founded / Affiliation	Claim to Fame	Number of Participants
Advanced Technology Development Center Atlanta, GA	1980 Georgia Tech	Strong relationship with state government. The Georgia Legislature, under the auspices of the state-funded Georgia Tech, strongly supports it, both politically and financially.	40
Austin Technology Incubator Austin, TX	1989 University of Texas at Austin	Close ties to an angel network, notably Teledyne cofounder George Kozmetsky, and to the prestigious University of Texas Moot Corp. Business Plan Competition.	19
Boulder Technology Incubator Boulder, CO	1989 University of Colorado	Influence in galvanizing local businesses to help promote start-ups with backing from major Boulder-area businesses, including Public Service of Colorado.	15
Denver Enterprise Center Denver, CO	1987 none	Located in an inner-city neighborhood, features a kitchen that houses catering and food-products businesses and assists minority- and female-owned companies.	52
Entergy Arts Business Center New Orleans, LA	1992 Arts Council of New Orleans	National leader among niche incubators. Director Mary Kahn is known for her expertise in applying business principles to the arts.	9
The Entrepreneurial Center Birmingham, AL	1987 none	Connections to the local business community. Both its director, Susan Matlock, a former banker and economic-development official, and its large board of directors are known for strong leadership.	30
Rensselaer Polytechnic Institute Incubator Center Troy, NY	1980 Rensselaer Polytechnic Institute	Full, integrated relationship with a university. Considered a model in the commercialization of technology, involvement of students and faculty, and ability to be self-sustaining.	28

Software Business Cluster San Jose, CA	1994/none	Founder and manager Jim Robbins with tremendous clout in Silicon Valley is credited with almost single-handedly making San Jose a center for software start-ups.	15
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Incubator/ Location	Executive Quote	Budget	Number of Graduates
Advanced Technology Development Center Atlanta, GA	"The brown-bag lunches were invaluable. Every week you got training in something. I needed help negotiating loans, so I called a staff member, and within 30 minutes I was on the phone with a former senior vice-president at Nationsbank." -- <i>Daniel Day, chairman of Worldwide Testing, Scientific Carbons</i>	\$2.5 million	70
Austin Technology Incubator Austin, TX	"The #1 benefit is that getting in is a validation in a very small but very meaningful way. It's a win. It gives you an additional boost; it gives you self-confidence." -- <i>Manoj Saxena, president and cofounder, Exterprise</i>	\$900,000	60
Boulder Technology Incubator Boulder, CO	"The best thing they did is they assisted us in assembling a world-class-level advisory board. They taught us how to fish rather than handing us the fish." -- <i>Victoria Eckes, CEO, Yakalo Solutions</i>	\$1 million	50
Denver Enterprise Center Denver, CO	"They've given me a strong sense of how to do business. They taught me how to cut costs, like by getting lists of suppliers and comparing their prices." -- <i>Michael McCrea, CEO, Big Mike's Original BarBQ Sauce</i>	\$390,000	78
Entergy Arts Business Center New Orleans, LA	"Their strongest area was in the development of a business plan. They provided us with two women: someone who works with nonprofit organizations and an arts administrator, who worked with us very closely." -- <i>Ann Cohen, cellist and president, The Louisiana Philharmonic Orchestra</i>	\$200,000	5-10
The Entrepreneurial Center Birmingham, AL	"The director had people in the program speak at board meetings every six to eight weeks. I made a presentation and got a major contract because of one of those meetings." -- <i>Tim Lewis, CEO, T.A. Lewis & Associates</i>	\$650,000	24
Rensselaer Polytechnic Institute Incubator Center Troy, NY	"They have a global network. They serve a brokering role for venture groups. They have business plan competitions to hone your skills." -- <i>Michael Marvin, cofounder of MapInfo, graduate, and current mentor</i>	\$500,000	150
Software Business Cluster San Jose, CA	"A lot of times you know your business well, but articulating it [to potential investors] can be difficult. It helped to get Jim Robbins's perspective. He coached me through that process. I had access to a coach who was always there." -- <i>Krishna Subramanian, CEO, Kovair</i>	\$2 million	52

RESOURCES

ORGANIZATIONS

- National Business Incubation Association (<http://www.nbia.org>)
- Texas Business Incubator Association (<http://www.tbiaonline.org>)
- SBA (<http://www.sba.gov>)
- National Collegiate Inventors & Innovators Alliance (<http://www.nciia.org>)
- Ewing Marion Kauffman Foundation (<http://www.kauffman.org>)
- MIT Entrepreneurship Center (<http://www.entrepreneurship.mit.edu>)
- DECA/Delta Epsilon Chi (<http://www.deca.org>)
- Kansas Technology Enterprise Corporation (KTEC) – (<http://www.ktec.com>)
- Texas Center for Rural Entrepreneurship (TCRE) – (<http://www.tcre.org>)

PUBLICATIONS

- Entrepreneur Magazine (<http://www.entrepreneur.com>)
- Inc. Magazine (<http://www.inc.com>)
- Fast Company Magazine (<http://www.fastcompany.com>)
- Technology Review (<http://www.technologyreview.com>)
- Wired Magazine (<http://www.wired.com>)
- Business Nation (<http://www.businessnation.com>)
- Red Herring (<http://www.redherring.com>)

BEST PRACTICES

- The University of Arizona (<http://www.arizona.edu>) – The Karl Eller Center entrepreneurship program/national
- Babson College (<http://www.babson.edu>) -- entrepreneurship program/national
- Baylor University (<http://www.baylor.edu/business/entrepreneur/>) – entrepreneurship program/national
- Louisiana State University (<http://www.lsu.edu>) -- entrepreneurship program/national
- University of Houston (<http://www.bauer.uh.edu/cei>) -- entrepreneurship program/regional
- University of North Texas (<http://www.murphycenter.unt.edu>) -- entrepreneurship program/regional
- Virginia BioTech Research (<http://www.vabiotech.com>)
- Second Century Innovation and Ideas (<http://www.sci2.org>)
- Advanced Technology Development Center (<http://www.atdc.org>) - Georgia Tech
- Tech Ranch (<http://www.techranch.org>) - Bozeman, MT
- Santa Fe Business Incubator (<http://www.sfbi.net>) - Santa Fe, NM
- Technology Advancement Program (<http://www.tap.umd.edu>) - University of Maryland
- Louisiana Business & Technology Center (<http://www.bus.lsu.edu/centers/lbtc>) - Louisiana State University