

# Economic Contribution of the Creative Industry in North Carolina



## **CREATIVE ECONOMY:**

The Creative Industry in North Carolina



NORTH CAROLINA  
DEPARTMENT OF  
**CULTURAL**  
**RESOURCES**

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Cover:

The Imperial Centre in Rocky Mount exemplifies the adaptive re-use of historic mill buildings for community cultural programs.

Photo: Andre C. Jenkins

## Creativity Contributes to North Carolina

The creative industry contributes to North Carolina beyond our economy. We value creativity as essential to our quality of life, appreciation of our heritage, and pride in our community identity. We know that the arts, history, and libraries are integral to our strong education programs and unique sense of place.

These intrinsic cultural values are woven into our economy. Creativity attracts visitors and businesses. Creativity retains residents and workers. Creativity provides opportunities to experience excellence while inspiring and enriching our lives.

An economic contribution analysis looks at what North Carolina would lose if creativity were not part of the jobs and revenue equation. We know we would experience a void if we could no longer be uplifted by a joyous choir or moved by a stirring drama. We would be disoriented if our small towns all looked alike or we could not see buildings that were skillfully crafted centuries ago. We need our libraries and archives and museums where we can find resources — from family records, books, and job search sources, to evidence of the best work of our civilized society.

Beyond the absence of what makes North Carolina distinctive, we would lose jobs for over a quarter of a million workers sustained by the Creative Industry. We would lose billions of dollars in the market value of cultural goods and services, double the amount of state government’s general fund budget.

North Carolina has rich traditions in its support of crafts, literature, historical drama, music, the built environment, and cultural repositories. When this support is translated into economic terms we can appreciate more fully how culture contributes to our way of life in North Carolina.

In 2009 the North Carolina Department of Commerce conducted an analysis of the creative enterprise industries that comprise the culture sector to estimate their total economic contribution. This total includes direct, indirect, and induced impacts.

### Commerce Model Results<sup>1</sup>

Impact Type	Employment	Gross Domestic Product	Employee Compensation	Market Value of Goods and Services
Direct	164,325	\$11,136,921,703	\$6,073,130,187	\$25,626,336,024
Total	293,475	\$19,501,961,770	\$10,327,902,546	\$41,415,122,745
% of NC total	5.54%	5.31%	4.93%	5.86%

<sup>1</sup> IMPLAN 2007 data

# Summary Findings: Economic Contribution of the Creative Industry in North Carolina

## Creativity: A New Paradigm for our Economy

Our cultural resources are an essential element of North Carolina's economic and social well-being.

- The Creative Industry contributes about 5 percent of North Carolina's economy.
- People come to North Carolina to experience our unique cultural attractions — over 20 percent of the state's visitors participate in cultural activities.

## Culture Contributes to Our Economy

Cultural Resources supports creative individuals and businesses.

The products and services of more than 100 creative industries related to Arts, Libraries and History contribute significantly to North Carolina's vitality.

### Arts

artists, artisans, craftmakers and their distribution ecosystem including museums and fine arts schools

### Information, Entertainment and New Media

theater, movies, video, film, music industry, software and internet publishers, archives and their suppliers

### Design

architects, designers, fashion apparel, advertising, and associated manufacturers

- The Creative Industry creates and sustains more than 293,000 jobs in North Carolina, or 5.54 percent of total state employment.
- North Carolina's Creative Industry directly and indirectly accounts for 5.31 percent of the state's gross domestic product with a contribution of more than \$19.5 billion.
- The market value of goods and services produced and sustained by North Carolina's Creative Industry is more than \$41.4 billion, or 5.86 percent of North Carolina's total production.
- The Creative Industry sustains over \$10 billion of employee compensation, greater than 4.9 percent of the state's total wages and benefits.
- The non-profit and for-profit enterprises in the Creative Industry thrive through their symbiotic relationship, fostering and distributing original creative content.

## **Creativity at Work**

- The presence of creative professionals in a given county is the single most important factor associated with the amount that visitors will spend.
- The presence of creative workers is also strongly associated with rising household incomes.
- Counties with higher proportions of workers in arts-related occupations are more likely to retain current residents and attract new ones.
- The creative workforce provides a competitive edge to North Carolina products and services.
- Creative workers are found not only in cultural industries but also contribute to the success of other businesses.
- Artisans, skilled trades, researchers, archaeologists, architects, and designers are some of the occupations essential to the over \$1 billion historic preservation industry.
- Photographers, musicians, writers, actors, dancers, publishers, and producers are some of the occupations included in the arts industry alone, infusing more than \$3.9 billion into North Carolina's economy in 2006.
- Librarians, archivists, educators, service professionals, and administrators facilitate the development of the creative economy.
- The people and companies who produce creative products and use creativity in their work include micro-enterprises, freelancers, and entrepreneurs, so the reported jobs are vastly underestimated.

## Background Research

Recent studies of North Carolina's creative economy informed the direction of this economic contribution analysis. The Department of Commerce used the same process for obtaining employment data that the 2007 Creative Clusters study used. Instead of estimating wage data, this study used IMPLAN software to correlate with other recent studies of the nonprofit arts sector and the historic preservation sector.

Findings from background research include:

- A culture rich in history and the arts makes North Carolina a highly desirable place for businesses to attract and keep skilled workers.<sup>1</sup>
- Arts and culture-related industries provide direct economic benefits. They create jobs, attract investments, generate tax revenues, and stimulate local economies through tourism and consumer purchases. They infuse other industries with creative insight and prepare workers to participate in the contemporary workforce.<sup>2</sup>
- In 2006, creative sector employment was estimated at more than 4 percent of total employment in North Carolina. Nearly 159,000 people were employed in creative industries, with total wages of more than \$3.9 billion.<sup>3</sup>
- Every 100 jobs in the arts in North Carolina can be expected to support an additional 29 jobs in other industries. Every \$100 spent by a nonprofit arts organization generated another \$90 in spending elsewhere in the North Carolina economy in 2006.<sup>4</sup>
- North Carolina's Rehabilitation Investment Tax Credit program returns over \$1.4 billion in revenues, 14,100 jobs, and \$438 million in additional employee compensation.<sup>5</sup>

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<sup>1</sup> <http://www.nccommerce.com/en/BusinessServices/LocateYourBusiness/WhyNC/QualityofLife/>, 2009

<sup>2</sup> National Governor's Association Center for Best Practices, "Using Arts and Culture to Stimulate State Economic Development," 2009

<sup>3</sup> Creative Economy: The Arts Industry in North Carolina, 2007, summary of "Clusters of Creativity: The Role of Arts and Design in North Carolina's Economy" study by Regional Technology Strategies

<sup>4</sup> "The Economic Impact of the North Carolina Arts Council" study by UNC-Greensboro, 2007

<sup>5</sup> "The Economic Impact of North Carolina's Historic Tax Credit" study by UNC-Chapel Hill, 2008

## Methodology

### Defining the Creative Industry

The 2005 definition of creative enterprises in North Carolina included most of the culture industries. Libraries and archives, museums, heritage festivals, and architects were integral to the creative enterprise economy. The original creative enterprise criteria examined the degree to which art and design were interwoven into a given industry's products and services.

The definition was expanded for the Department of Commerce analysis to include the degree to which cultural resources were interwoven into a given industry's products and services. The categories for inclusion allowed the addition of specialized craftsmen working in historic preservation trades.

The industry codes included were expanded from 76 to 109 to more completely capture the interrelationships in the creative workforce.

<b>Creative Enterprise Principle</b>	<b>Industry Examples</b>
<b>Creation</b> originates artistic or cultural intellectual property	Architectural Services Design Services Independent Artists, Writers, and Performers Musical Groups and Artists Advertising Agencies
<b>Production</b> produces art, culture, or design-based goods or services	Jewelry and Glassware Manufacturing Record and Film Production Dance and Theater Companies Publishers of Books, Periodicals, News & Software Custom Architectural Woodwork Renovation and Remodeling Trades
<b>Dissemination</b> delivers art, culture, or design-based product to the public	Art and Antique Dealers Book Stores Broadcasting Motion Picture and Video Distribution Libraries and Archives Heritage Festivals
<b>Inputs</b> Materials, artifacts, supplies, part or equipment used by other categories	Musical Instrument Manufacturing and Supplies Photographic Film Manufacturing Archaeology Research Agents and Managers
<b>Support</b> Infrastructure facilitating and providing services to the industry activity	Fine Arts Schools Museums Historic Sites Grantmaking and Civic Organizations



## Industries in North Carolina's Creative Sector

The state's entire creative sector comprises 109 industries and spans services, manufacturing, and retail goods and services.

### Overview of North Carolina's Creative Industry

Category	Establishments	Workers
Design manufacturing	317	7,387
Artists	15,571	17,727
Design services	14,175	24,453
Other services	3,910	9,422
Retail	7,271	19,903
Information and entertainment	4,343	29,343
Public sector and education	635	26,127
Publishing and printing	1,323	29,963
Total	47,545	164,325

The North American Industry Classification System (NAICS) codes were used to identify culture industries following the definition criteria. These codes were cross-referenced with IMPLAN codes to obtain economic measures. The NAICS codes were also cross-referenced with occupation codes and pro-rated for those industries where the classification was broader than creative focus alone.

The Labor Market Information Division of the Employment Security Commission provided 2008 3rd Quarter July data which was merged with nonemployer Census data to preserve confidentiality. Notes on the data sources are itemized in the Appendix to this report.

The following table lists the NAICS codes, corresponding IMPLAN codes, number of workers and number of establishments (units) for each industry included in the analysis.

## Industry and IMPLAN Codes

<b>NAICS</b>	<b>NAICS Title</b>	<b>2007 IMPLAN Code</b>	<b>Workers</b>	<b>Units</b>
111422	Floriculture Production	6	697	44
236118	Addition, alteration, renovation, remodeling residential contractors	40	510	149
236220	Addition, alteration, renovation, remodeling commercial contractors	39	370	5
238990	Specialty trades: housemoving	40	87	29
238140	Specialty trades: masonry	40	108	36
238150	Specialty trades: glass and glazing	40	234	78
238160	Specialty trades: roofing	40	105	35
238310	Specialty trades: plaster	40	75	25
238320	Specialty trades: painting	40	117	39
238340	Specialty trades: terrazzo and tile	40	6	2
312120	Breweries	71	918	14
312130	Wineries	72	508	35
323110	Commercial Lithographic Printing	113	5,913	262
323111	Commercial Gravure Printing	113	172	13
323112	Commercial Flexographic Printing	113	948	42
323113	Commercial Screen Printing	113	1,036	146
323115	Digital graphics and pre-press design	113	987	46
323117	Books Printing	113	285	9
323122	Pre-press Design services	114	613	38
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing	141	1,174	15
327112	Vitreous China, Fine Earthenware and Other Pottery Product Manufacturing	153	581	71
327212	Other Pressed and Blown Glass and Glassware Manufacturing	154	1,877	9
332323	Ornamental and Architectural Metal Work Manufacturing	187	755	55
337212	Custom Architectural Woodwork and Millwork Manufacturing	301	556	38
339911	Jewelry (except Costume) Manufacturing	310	59	10
339913	Jewelers' Material and Lapidary Work Manufacturing	310	87	3
339914	Costume Jewelry and Novelty Manufacturing	310	41	8
339992	Musical Instrument Manufacturing	316	134	15
423940	Jewelry, Watch, Precious Stone & Precious Metal Wslrs	319	829	534
424920	Book and periodical wholesalers	319	548	57
443130	Camera and Photographic Supplies Stores	322	397	85
448310	Jewelry Stores	327	5,135	2,180

<b>NAICS</b>	<b>NAICS Title</b>	<b>2007 IMPLAN Code</b>	<b>Workers</b>	<b>Units</b>
451130	Sewing, Needlework, and Piece Goods Stores	328	1,545	619
451140	Musical Instrument and Supplies Stores	328	983	330
451211	Book Stores	328	3,551	578
451220	Prerecorded Tape, Compact Disc, and Record Stores	328	666	233
453110	Florists	330	3,043	1,327
453310	Antique Shops	330	1,158	173
453920	Art Dealers	330	1,013	678
511110	Newspaper Publishers	341	9,086	237
511120	Periodical Publishers	342	1,519	170
511130	Book Publishers	343	1,186	79
511191	Greeting Card Publishers	344	707	6
511199	Art and calendar print publishers	344	687	34
511210	Software Publishers	345	6,824	241
512100	Motion Picture and Video Production, Distribution and Exhibition	346	876	876
512110	Motion Picture and Video Production	346	635	166
512120	Motion Picture and Video Distribution	346	29	5
512131	Motion Picture and Video Exhibition	346	3,564	125
512191	Teleproduction and Other Postproduction Services	346	40	18
512199	Other Motion Picture and Video Industries	346	140	8
512200	Record and Music Production	347	428	428
512210	Record Production	347	3	3
512220	Integrated Record Production/Distribution	347	47	8
512230	Music Publishers	347	81	8
512240	Sound Recording Studios	347	128	39
512290	Other Sound Recording Industries	347	57	10
515000	Radio and Television	348	488	488
515111	Radio Networks	348	901	54
515112	Radio Stations	348	2,163	165
515120	Television Broadcasting	348	2,557	57
515210	Cable and Other Subscription Programming	349	5,823	74
516110	Internet Publishing (nonemployer)	350	585	585
519110	News Syndicates	353	193	17
519120	Libraries and Archives	353	10,244	108
519130	Internet Publishing and Broadcasting	353	1,181	130
541310	Architectural Services	369	7,401	2,608
541320	Landscape Architectural Services	369	3,651	1,947
541340	Drafting Services	369	985	854
541400	Design Services	370	4,724	4,724
541410	Interior Design Services	370	975	372
541420	Industrial Design Services	370	335	89

<b>NAICS</b>	<b>NAICS Title</b>	<b>2007 IMPLAN Code</b>	<b>Workers</b>	<b>Units</b>
541430	Graphic Design Services	370	1,178	423
541490	Other Specialized Design Services	370	239	54
541720	Archaeology Research	376	219	30
541810	Advertising Agencies	377	2,814	430
541850	Display Advertising	377	809	96
541860	Direct Mail Advertising	377	1,175	72
541890	Other Services Related to Advertising	377	1,189	190
541920	Photography Services	378	2,570	2,570
541921	Photography Services, Portrait	378	1,871	441
541922	Commercial Photography	378	524	93
611110	Elementary and Secondary Schools	391	6,094	115
611310	Colleges and Universities	392	6,660	110
611610	Fine Arts Schools	393	2,289	301
711100	Performing Arts	402	1,049	1,049
711110	Theater Companies and Dinner Theaters	402	1,155	54
711120	Dance Companies	402	119	3
711130	Musical Groups and Artists	402	618	54
711190	Other Performing Arts Companies	402	29	8
711300	Promoters	404	971	971
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities	404	708	34
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	404	306	43
711410	Agents and Managers for Artists, Athletes, Entertainers, and Public Figures	404	510	396
711500	Artists (nonemployer)	405	14,168	14,168
711510	Independent Artists, Writers, and Performers	405	589	235
712000	Museums, Historic Sites, and Institutions	406	159	159
712110	Museums	406	1,837	114
712120	Historic Sites	406	1,441	18
811420	Furniture Repair and Restoration	418	2,379	1,916
812920	Photofinishing	422	442	442
812921	Photofinishing Laboratories (except one-hour)	422	581	28
812922	One-Hour Photofinishing	422	12	7
813211	Grantmaking Foundations	424	607	41
813219	Other Grantmaking and Giving Services	424	117	9
813319	Other Social Advocacy Organizations	424	205	16
813410	Cultural and Historical Clubs	425	1,596	41
813920	Professional Organizations	425	192	15
926110	Arts and cultural program administration	432	840	1
Totals			164,325	47,545

## Technical Appendix

### NAICS Code Data Sources

<b>NAICS code</b>	<b>NAICS title</b>	<b>ESC Data Notes</b> new: not used in 2007 study PTP: Piedmont Triad Partnership	<b>Nonemployer Data Notes</b>
111422	Floriculture Production		not included at 5-digit level
236118	Addition, alteration, renovation, remodeling residential	pro-rated at 7.3% to match percent of NC total housing units historic pre-1939	not included at 5-digit level
236210	Addition, alteration, renovation, remodeling industrial	industrial and commercial codes ESC data not used - contractors coded from DCR lists	not included at 5-digit level
236220	Addition, alteration, renovation, remodeling commercial	industrial and commercial codes ESC data not used - contractors coded from DCR lists	not included at 5-digit level
238990	Specialty trades: housemoving	coded from DCR lists	not included at 5-digit level
238140	Specialty trades: masonry	coded from DCR lists	not included at 5-digit level
238150	Specialty trades: glass and glazing	coded from DCR lists	not included at 5-digit level
238160	Specialty trades: roofing	coded from DCR lists	not included at 5-digit level
238310	Specialty trades: plaster	coded from DCR lists	not included at 5-digit level
238320	Specialty trades: painting	coded from DCR lists	not included at 5-digit level
238340	Specialty trades: terrazzo and tile	coded from DCR lists	not included at 5-digit level
312120	Breweries	coded from DCR lists	not included at 5-digit level
312130	Wineries	coded from DCR lists	not included at 5-digit level
312140	Distilleries	none found 3rd Qtr 2008 ESC data	not included at 5-digit level
323110	Commercial Lithographic Printing	PTP	not included at 5-digit level
323111	Commercial Gravure Printing	PTP	not included at 5-digit level
323112	Commercial Flexographic Printing	PTP	not included at 5-digit level
323113	Commercial Screen Printing	PTP	not included at 5-digit level
323115	Digital graphics and pre-press design	new; PTP	not included at 5-digit level
323117	Books Printing	PTP	not included at 5-digit level
323122	Pre-press Design services	new, PTP	not included at 5-digit level
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing		not included at 5-digit level
327112	Vitreous China, Fine Earthenware and Other Pottery Product Manufacturing		not included at 5-digit level
327212	Other Pressed and Blown Glass and Glassware Manufacturing	PTP	not included at 5-digit level
332323	Ornamental and Architectural Metal Work Manufacturing	PTP	not included at 5-digit level
337212	Custom Architectural Woodwork and Millwork Manufacturing	PTP	not included at 5-digit level
339442	Lead Pencil and Art Good Manufacturing	none found 3rd Qtr 2008 ESC data	not included at 5-digit level
339911	Jewelry (except Costume) Manufacturing		none found at 5-digit level
339913	Jewelers' Material and Lapidary Work Manufacturing	PTP	not included at 5-digit level
339914	Costume Jewelry and Novelty Manufacturing	PTP	not included at 5-digit level

339992	Musical Instrument Manufacturing	PTP	not included at 5-digit level
423940	Jewelry, Watch, Precious Stone & Precious Metal Wslrs		5-digit 42394 included
424920	Book and periodical wholesalers	new	not included at 5-digit level
443130	Camera and Photographic Supplies Stores		5-digit 44313 included
448310	Jewelry Stores		5-digit 44831 included
451130	Sewing, Needlework, and Piece Goods Stores	PTP	5-digit 45113 included
451140	Musical Instrument and Supplies Stores	PTP	5-digit 45114 included
451211	Book Stores	PTP	6-digit 451211 included
451220	Prerecorded Tape, Compact Disc, and Record Stores		5-digit 45122 included
453110	Florists	PTP	5-digit 45311 included
453310	Antique Shops	pro-rated at 31% from analysis of defintions included	not included at 5-digit level
453920	Art Dealers	PTP	5-digit 45392 included
511110	Newspaper Publishers	PTP	none found at 5-digit level
511120	Periodical Publishers	PTP	none found at 5-digit level
511130	Book Publishers	PTP	none found at 5-digit level
511191	Greeting Card Publishers	PTP	none found at 5-digit level
511199	Art and calendar print publishers	new, PTP	none found at 5-digit level
511210	Software Publishers		none found at 5-digit level
512110	Motion Picture and Video Production	PTP	4-digit 5121 included
512120	Motion Picture and Video Distribution	PTP	4-digit 5121 included
512131	Motion Picture and Video Exhibition	new, PTP	4-digit 5121 included
512191	Teleproduction and Other Postproduction Services	PTP	4-digit 5121 included
512199	Other Motion Picture and Video Industries	PTP	4-digit 5121 included
512200	Record and Music Production		4-digit 5122 included
512210	Record Production	PTP	4-digit 5122 included
512220	Integrated Record Production/Distribution	PTP	4-digit 5122 included
512230	Music Publishers	PTP	4-digit 5122 included
512240	Sound Recording Studios	PTP	4-digit 5122 included
512290	Other Sound Recording Industries	PTP	4-digit 5122 included
515000	Radio and Television		entire 515 subsector included
515111	Radio Networks	PTP	entire 515 subsector included
515112	Radio Stations	PTP	entire 515 subsector included
515120	Television Broadcasting	PTP	entire 515 subsector included
515210	Cable and Other Subscription Programming	none found 3rd Qtr 2008 ESC data, PTP	entire 515 subsector included
516100	Internet Publishing (nonemployer)		4-digit 5161 included
519110	News Syndicates	PTP	none found at 5-digit level
519120	Libraries and Archives	PTP	none found at 5-digit level
519130	Internet Publishing and Broadcasting	was 516100 in 2007 study, PTP	5-digit 51611 included

541310	Architectural Services	PTP	5-digit 54131 included
541320	Landscape Architectural Services	PTP	5-digit 54132 included
541340	Drafting Services	new, PTP	5-digit 54134 included
541400	Design Services		4-digit 5414 included
541410	Interior Design Services	PTP	4-digit 5414 included
541420	Industrial Design Services	PTP	4-digit 5414 included
541430	Graphic Design Services	PTP	4-digit 5414 included
541490	Other Specialized Design Services	PTP	4-digit 5414 included
541720	Archaeology Research	coded from DCR lists	not included at 5-digit level
541810	Advertising Agencies	PTP	none found at 5-digit level
541850	Display Advertising	PTP	none found at 5-digit level
541860	Direct Mail Advertising	PTP	none found at 5-digit level
541890	Other Services Related to Advertising	PTP	none found at 5-digit level
541920	Photography Services		5-digit 54192 included
541921	Photography Services, Portrait	PTP	5-digit 54192 included
541922	Commercial Photography	PTP	5-digit 54192 included
611110	Elementary and Secondary Schools	Department of Public Instruction licensed arts teachers	not included at 5-digit level
611310	Colleges and Universities	postsecondary occupational codes	not included at 5-digit level
611610	Fine Arts Schools	PTP	none found at 5-digit level
711110	Theater Companies and Dinner Theaters	PTP	4-digit 7111 included
711120	Dance Companies	PTP	4-digit 7111 included
711130	Musical Groups and Artists	PTP	4-digit 7111 included
711190	Other Performing Arts Companies	PTP	4-digit 7111 included
711300	Promoters		4-digit 7113 included
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities	pro-rated at 59%, PTP	4-digit 7113 included
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities	pro-rated at 62%, PTP	4-digit 7113 included
711410	Agents and Managers for Artists, Athletes, Entertainers, and Public Figures	pro-rated at 56%, PTP	5-digit 71141 included
711500	Artists		4-digit 7115 included
711510	Independent Artists, Writers, and Performers	PTP	4-digit 7115 included
712110	Museums	PTP	entire 712 subsector included
712120	Historic Sites	new, PTP	entire 712 subsector included
811420	Furniture Repair and Restoration	new -all definitions are inclusive	5-digit 81142 included
812921	Photofinishing Laboratories (except one-hour)		5-digit 81292 included
812922	One-Hour Photofinishing		5-digit 81292 included
813211	Grantmaking Foundations	pro-rated at 60%	not included at 5-digit level
813219	Other Grantmaking and Giving Services	pro-rated from 2007 proportions	not included at 5-digit level
813319	Other Social Advocacy Organizations	pro-rated from 2007 proportions	not included at 5-digit level
813410	Cultural and Historical Clubs	pro-rated from 2007 proportions	not included at 5-digit level
813920	Professional Organizations	pro-rated from 2007 proportions	not included at 5-digit level
926110	Arts and cultural program administration	Department of Cultural Resources staff only	not included at 5-digit level



## Nonemployer Statistics

Nonemployer Statistics originate from tax return information of the Internal Revenue Service. The data are subject to nonsampling error such as errors of self-classification by industry on tax forms, as well as errors of response, nonreporting and coverage. Values provided by each firm are slightly modified to protect the respondent's confidentiality.

Undercounts occur because this data includes only businesses subject to federal income tax. Some artist income, i.e. employment, may not be reported as sole proprietor or other business income from individual tax returns.

Data provides number of establishments only. For analysis purposes, each establishment is assumed to be a sole proprietorship with one employee. This is likely an undercount, as some establishments may be partnerships or corporate entities with more than one worker included.

Not all NAICS codes can be assigned as representing creative industries. Some NAICS definitions at the 5-digit level include other industries that are not directly related to arts, design, history and library services. The 'creative enterprise' definition excludes industries that do not fulfill the 'creative product' primary focus.

The data was obtained for 2006 from <http://www.census.gov/epcd/nonemployer> and compared to data from <http://esec23.esc.state.nc.us/d4/OESSelection.aspx?geog=NC> at both the county and the state level. The state level data was used due to confidentiality suppression at the county level.

The 2007 definition file was used to determine which industry groups to exclude from the nonemployer data. The nonemployer data was merged with the employer data from the Employment Security Commission to avoid any inadvertent identification of any employing unit.



## Occupational Classification Codes

To capture sectors of the creative economy vulnerable to undercounting, the employer and nonemployer data was cross-referenced to occupational classification codes. While industry data is the best measurement for how creative enterprises impact business competitiveness and relationships, occupational data does identify creative activity and work occurring outside traditional employer and nonemployer reporting sources.

The number of workers in an industry sector NAICS code is not directly comparable to the number of workers in an occupation code because the industry counts include support workers who are not classified as creative workers. However, the Bureau of Labor Statistics (BLS) occupational estimates do not include self-employed workers.

The occupational code employment was compared in the industry sectors listed below.

<b>Industry Sector</b>	<b>Industry NAICS Codes</b>	<b>ESC/Census Count of workers</b>	<b>BLS SOC Codes</b>	<b>BLS SOC Count of workers</b>
Libraries and Archives	519120	1,341	254021 254031 254011	7,740
Architects	541310	6,425	171011	2,900
Landscape Architects	541320	3,651	171012	450
Designers: interior industrial graphic other	541400 541410 541420 541430 541490	7,451	271025 271021 271024 271029	6,950
Artists, Writers, Performers	711510	14,757	271012 271013 271014 271019 272011 272012 272032 272041 272042 273041 273042 273043	7,400
Photographers	541920 541921 541922	4,965	274021	1,700

For educators, the number of workers was not available with enough detail to identify only creative economy workers. For library occupations, the industry code count was substantially less than the Standard Occupational Classification (SOC) estimate. In these two industry sectors, the SOC count of workers was substituted as a proxy for industry data.

### Library Occupations

Librarians and library technicians are employed in a variety of sectors in addition to libraries and archives. In the 2007 Clusters of Creativity study, Regional Technology Strategies found that “A very small proportion of the profession nationally is employed in some sector that does not contribute to the creative economy (such as manufacturing or scientific research), and another proportion is employed in sectors that are already accounted for in our industry-based data. By applying these percentages to North Carolina’s occupational numbers for library-related occupations, thus eliminating the possibility of double-counting or of including nonrelevant data, we can arrive at a solid estimate of creative economy library employment.” The percentages applied in 2007 were used to estimate North Carolina employment in library occupations.

### Library and Archive employment

Occupation/Industry	NAICS/SOC Code	ESC/Census Count of workers	BLS SOC Count of workers	Percentage to remove	Resulting employment estimate
Libraries and Archives	519120	1,341	7,740	-	-
Librarians	254021	-	4,610	9.1%	4,190
Library technicians	254031	-	3,020	6.1%	2,836
Library assistants, clerical	434121	-	3,310	6.1%	3,108
Archivists	254011	-	110	-	110
Total					10,244

### Education Occupations

Education workers focused on development of creative economy skills are an important component of the creative enterprise workforce. Without instruction in creative occupations, workers will not have the skills demanded by the creative enterprise industries.

Several distinct postsecondary teaching occupations that relate to the creative economy are tracked through BLS occupational codes. Not every element of the creative economy that may be taught is represented, but enough for a solid estimate of effort and investment statewide. Art, drama, and music teachers relate to the traditional arts element (as do language and literature, though more indirectly); architecture relates to the design element; communications relates to the entertainment and new media element; and library science, history, anthropology and archaeology relate to the development of creative economy supports and dissemination outlets.

The number of establishments (110) for postsecondary education includes the University of North Carolina system campuses (16), community colleges (58), and independent colleges and universities (36). It does not include commercial vocational training schools.

### Creative sector Postsecondary Teachers

Occupation Description	Occupation Code	BLS SOC Count of workers
Architecture teachers, postsecondary	251031	150
Anthropology and Archaeology Teachers, postsecondary	251061	100
Library Science teachers, postsecondary	251082	70
Art, drama and music teachers, postsecondary	251121	2,390
Communications teachers, postsecondary	251122	660
English language and literature teachers, postsecondary	251123	2,450
History teachers, postsecondary	251125	840
<b>Total</b>		<b>6,660</b>

Occupational codes do not categorize elementary and secondary teachers by specialization. Occupational, employer and nonemployer data is also not available specific to teachers of art forms such as ballet or voice or piano who serve students of all ages, often independently of educational institutions. Further, teachers of vocational subjects in arts- or artisan-based technical or career oriented areas, such as welding and applied design, can not be distinguished in the codes for vocational education. Teachers in design arts and crafts can not be identified at the postsecondary level, so are not included in the elementary and secondary level either.

Data from the Department of Public Instruction identifying 6,094 licensed teachers in dance, music, theatre arts and visual arts in local education agencies (LEA) provides an estimate of the number of creative economy education jobs in elementary and secondary institutions. The number of establishments (115) is the count of LEAs with licensed teachers.

### Licensed creative sector teachers in North Carolina Public Schools

Art	Dance	Music	Theatre Arts
2,399	231	3,013	451

The occupational data was obtained for May, 2007 from the Bureau of Labor Statistics at <http://data.bls.gov/oes/search.jsp> for state level data, and compared to <http://eslmi23.esc.state.nc.us/oeswage/>

## Nonprofit Sector

Because the nonprofit sector NAICS codes are so broad, a proportion of the establishments in the code that are focused on activities relevant to the creative economy must be estimated. In the 2007 Clusters of Creativity study, Regional Technology Strategies determined the proportion of establishments in each nonprofit sector industry code that were related to the creative economy by reviewing establishment-level data from the North Carolina Employment Security Commission to separate out the arts-related organizations from other civic groups.

The estimates of the proportion of establishments in each industry code that were arts-related in 2007 is applied to the 2008 data. While the 2007 analysis looked only for arts-related organizations and not historical organizations, the percentage is assumed to be similar.

### Creative Sector Employment in North Carolina's Nonprofit Sectors

Industry Category	NAICS code	2006 Total Establishments	Percentage Included	2006 Adjusted Establishments	Employment
Other Grantmaking and Giving Services	813219	55	16%	9	114
Other Social Advocacy Organizations	813319	123	12%	15	238
Civic and Social Organizations	813410	470	9%	42	1,929
Professional Organizations	813920	87	14%	12	76
Totals				78	2,357

Industry Category	NAICS code	2008 Total Establishments	Percentage Included	2008 Adjusted Establishments	Employment
Other Grantmaking and Giving Services	813219	59	16%	9	117
Other Social Advocacy Organizations	813319	131	12%	16	205
Civic and Social Organizations	813410	460	9%	41	1,596
Professional Organizations	813920	108	14%	15	192
Totals				81	2,110

## NAICS Code Adjustments

### 2007 NAICS Index File Definitions of Codes

The definitions for some NAICS industry sectors include more than creative enterprise industries. These codes were pro-rated by the percentage of definitions that are clearly related to the creative economy.

NAICS code	Title	Number of Definitions	Clearly related Definitions	Percentage used
453310	Antique shops	19	6	31%
711310	Promoters with facilities	78	46	59%
711320	Promoters without facilities	74	46	62%
71140	Agents	27	15	56%
813211	Grantmaking Foundations	10	6	60%

## History Sector

Many of the Archives and History constituent industries are already included in the codes for libraries and archives, architectural services, museums, and cultural and historical organizations.

Antique shops (prorated), furniture repair and restoration and historic sites codes were clearly related and could be included. However, the NAICS definitions relating to the archaeology, historic survey and research, and historic preservation activity were too broad to be applicable.

This segment of creative enterprises was captured using the following methodology.

Data from ESC establishments and employees for NAICS code 236118 “Addition, alteration, renovation, remodeling residential” was used as a pro-rated 7.3 percent share of the total to reflect the share of housing units where the work can be assumed to be related to preservation. The housing stock in North Carolina built prior to 1939 is 7.3 percent of the total.

ESC data for codes 236210 and 236220 for industrial and commercial was not used. Instead, the average number of employees in the residential renovation sector was calculated and this employment figure was used to estimate the number of employees working for the general contractors doing commercial projects in the lists of Consultants, Contractors, and Suppliers compiled by the State Historic Preservation Office (SHPO).

The appropriate NAICS subsector 238 trade contractor codes were assigned to the specialty contractors on the SHPO list. The number of workers per establishment was assumed to be three, the mode of the residential contractor employees in code 236118.

Census non-employer data was not used for any of the contractor codes, assuming that all establishments are included on the SHPO list.

The Office of State Archaeology list of archaeology professionals and establishments was assigned to the NAICS code 541720. The historic preservation consultants in the fields of design, engineering, arborists, real estate, law, insurance, millwork and development were not included in this analysis. Design and millwork are assumed to be included in the employer and nonemployer data. The other fields were assumed to derive more than half of their employment from work in sectors other than creative enterprises, so in order to be conservative they were omitted from the culture industry counts.

## **Employment Security Commission ES-202 Data**

The Labor Market Information Division provided non-suppressed annual industry data, both public and private sector, at the six digit NAICS code level. The number of establishments and number of workers from 2008 3<sup>rd</sup> Qtr July data was used for those NAICS codes representing the creative enterprise sector.

This data was provided subject to N.C. General Statute 96-4(t) and may not be used to identify, either directly or indirectly, a specific employing unit. The data includes federal, state, and local employment establishments as well as the private sector.

## **For More Information**

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# The Creative Industry



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