

**The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda
Through the Arts**

2003-2004

**Cultural Policy Center at The University of Chicago
The Irving B. Harris Graduate School of Public Policy Studies**

Project Team:
Don L. Coursey, Ph.D, Principle Investigator
Emily Adriaens
Caryn Kuebler
Sarah Lee
James Leuschen
Annette Marek
Jennifer Novak
Leslie Sperber

Table of Contents

Introduction	2
Literature Review	3
Literature Review Matrix	18
Report to Creative Industries Task Force, April 18, 2003	21
Report to Creative Industries Task Force, May 5, 2003	46
Data on Chicago's Arts and Culture Workforce, 1999-2001	58
Rankings of Chicago and other Major Cities	68

Introduction

In response to city governments' increasing awareness of the economic potential of a vibrant and growing workforce engaged in arts and culture, the Cultural Policy Center at the University of Chicago developed the Arts and Culture Workforce Project, a multi-year quantitative research project. The project's goals are to identify the magnitude and causal direction of the relationship between the size of the workforce in the arts and culture sector and regional economic performance and to identify the magnitude and causal direction of the relationship between the size of the workforce in the arts and culture sector and regional amenities.

During the course of this project, the Cultural Policy Center provided relevant research and knowledge to the City of Chicago's initiative "Advancing Chicago's Civic Agenda Through the Arts." This report assembles all of the documents prepared specifically for the Creative Industries Task Force of Advancing Chicago's Civic Agenda through the Arts by the Arts and Culture Workforce Project team.

The Arts and Culture Workforce Project team summarized research that had been done on the segment of the economy devoted to artistic and/or cultural endeavors to provide context to the work being done by Advancing Chicago's Civic Agenda Through the Arts.

Advancing Chicago's Civic Agenda Through the Arts Creative Industries Task Force

Review of relevant literature, conducted by University of Chicago, Harris School of Public Policy Interns

Broad Inventories of Arts/Culture/Creative Industry

- ❖ Artists in the Workforce: Employment and Earnings, 1970-1990 – *National Endowment for the Arts*
- ❖ The Creative Economy in Iowa – *Iowa Creative Economy Unconference*
- ❖ Culture Counts – *New York Foundation for the Arts* (cross-listed under The Urban Development Approach)
- ❖ Creative Community Index: Measuring Progress Toward a Vibrant Silicon Valley – *Cultural Initiatives, Silicon Valley* (cross-listed under The Talent Approach)
- ❖ Economic Impact of the Nonprofit Arts Industry in Illinois – *Illinois Arts Alliance Foundation*
- ❖ The Creative Economy Initiative: The Role of Arts and Culture in New England's Economic Competitiveness – *The New England Council* (cross-listed under The Talent Approach and The Urban Development Approach)

The Talent Approach (Developing Local Talent and/or Attracting Talent)

- ❖ Cultivating Portland's Creative Services Talent – *Oregon Creative Services Alliance* (Developing Local Talent)
- ❖ Creative Capital? (Austin)– *Michael Erard* (Developing Local Talent)
- ❖ Creative Community Index: Measuring Progress Toward a Vibrant Silicon Valley – *Cultural Initiatives, Silicon Valley* (Developing Local Talent)
- ❖ The Creative Economy Initiative: The Role of Arts and Culture in New England's Economic Competitiveness – *The New England Council* (Developing Local Talent)
- ❖ Technology, Talent, and Tolerance: Attracting the Best and Brightest to Memphis – *Memphis Talent Magnet Project* (Attracting Talent)

The Urban Development Approach/Neighborhood-Level Analysis

- ❖ Culture and the Changing Urban Landscape: Philadelphia 1997-2002 – *Social Impact of the Arts Project, University of Pennsylvania*
- ❖ The Creative Engine – *Center for an Urban Future*
- ❖ The Creative Economy Initiative: The Role of Arts and Culture in New England's Economic Competitiveness – *The New England Council*
- ❖ Culture Counts – *New York Foundation for the Arts*

Theoretical Approaches

- ❖ From the Information Economy to the Creative Economy: Moving Culture to the Center of International Public Policy – *Shalini Venturelli*
- ❖ The Shape of Culture – *Judith Blau*
- ❖ The Rise of the Creative Class – *Richard Florida* (summary not included)

“Artists in the Work Force: Employment and Earnings, 1970-1990” National Endowment for the Arts

This study is a broad, longitudinal look at the composition of the work force classified as “artists” by US Census data. Details are broadly summarized below.

- ✓ Breaks findings down into four broad groups of artists:
 - Authors
 - Architects and designers
 - Performing artists
 - Artists who work with their hands
- ✓ Key considerations guiding research:
 - Do artists support their work or does it support them?
 - How does the pace of growth in arts occupations compare with other professional fields?
 - General trends regarding economic conditions, age, gender, race, ethnicity, education, area of residence, employment sector, earnings, and incidence of multiple job holdings among artists
- ✓ Data culled from US Census data (and backed up by additional limited and targeted surveys):
 - Census defines 11 artist occupations:
 - Actors and directors
 - Announcers
 - Authors
 - Dancers
 - Designers
 - Musicians and composers
 - Painters, sculptors, craft-artists, and print-makers
 - Photographers
 - Artists, performers, and related workers not classified elsewhere
 - Architects
 - Postsecondary art, drama, and music teachers
 - In 1970, 736,960 artists accounted for 1% of experienced civilian labor force
 - In 1990, 1,671,277 artists accounted for 1.4% of experienced civilian labor force
 - Major concerns, among NEA researchers, regarding Census data:
 - Census defines “artist” too broadly
 - Census misclassifies or ignores some artists because of multiple job holding patterns
 - The method of classification and the phenomenon of multiple job holding among artists may make artists appear to be more successful in their chosen occupation than they actually are
- ✓ Authors:
 - In 1990, 107,000 authors accounting for 0.09% of the labor force
 - LA and NYC have highest concentrations of artists
 - 70-90% worked other jobs
 - Average earnings (1990) \$23,335, but more likely to have zero/negative earnings and more likely to have earnings over \$90,000 than other artists
- ✓ Architects & Designers
 - 0.6% of the experienced civilian labor force
 - More than half live in South and West
 - Number of architects who were self-employed decreased from 1970 to 1990, while number of decorators and designers who were self-employed increased over the same period
 - Median income for architects (1990) was \$56,773; for decorators and designers was \$45,873
- ✓ Performing Artists:
 - Number of performing artists grew slightly faster than other professional occupations

- Performing artists experience higher rates of unemployment and more cycling in and out of unemployment than other artists
- Performing artists are clustered in the West and Northeast (specifically in LA and NYC)
- Characterized by volatile earnings
- ✓ Artists who work with their hands:
 - In 1990, 1.67 million artists (more than doubling from 1970)
 - 75% are located in urban areas, but that number declined from 1970
 - In 1990, 47% of males were self-employed, 48% of women were self-employed

The Creative Economy in Iowa – a report presented by David Swenson of Iowa State University at the Iowa Creative Economy Unconference March 5, 2003
(<http://www.culturalaffairs.org/Conferences/notes.htm>)

This study looks at a broad scope of creative industries and workforce employees that comprise the creative sector of Iowa's economy. The economy is analyzed in two components: the creative industries and the creative workforce. The creative workforce is two-tiered: the *super-creative core* and the *creative professionals*. The creative industries and workforce are broadly defined relying heavily on recent work by Richard Florida (2002), focusing more on a broad definition of creativity rather than industries and occupations directly related to arts and culture.

This report defines "creative industries" as: industries that employ large fractions of the creative workforce, invest heavily in research and development, or create and distribute technologically sophisticated or artistic goods or services. A sample includes: manufacturing, communications, education providers, applied arts, visual arts, performing arts and commercial sports.

The *Super-creative core* includes: computer professionals, architects, physical and social scientists, library professionals, arts, design, entertainment, sports and media occupations.

The *Creative professionals* include: managers and administrators, finance professionals, legal professionals, high-end sales professionals, and community and social service workers.

Findings:

- Iowa's creative economy has both strengths and weaknesses, especially when compared with the US creative economy.
- During the 1990s, Iowa and the US posted strong gains in creative employment growth.
- There are distinct gender differences in the composition of Iowa's creative workforce – 53% of all creative jobs went to men and 47% to women.
- On an annualized basis, Iowa's creative professionals earn less than their national counterparts.
- Iowa's creative industries make up 22.5% of all nonfarm jobs compared to 25.6% for the US.
- During the 1990s, jobs in Iowa's creative industries grew 14%, 10% points less than the US rate.
- Average earnings per job in Iowa's creative industries were 73.4% of the US average

The report concludes that Iowa must make concerted efforts in order to attract and retain talented professionals as part of their creative economy. The report highlights its universities as magnets for talent that can contribute toward the growth of the creative sector. The report emphasizes that job creation should not be the only goal, but job growth in the context of building a stronger creative economy.

Culture Counts by The New York Foundation for the Arts (NYFA)

The NYFA published this report as part of a special initiative called A Cultural Blueprint for New York City. The report was produced (in part) to provide a resource for policy makers that would suggest strategies to improve benefits of culture to the lives of New Yorkers and visitors to the City. The NYFA hopes to improve access to the cultural industry and improve support for the industry from the City.

Four objectives guided the research and content of the report:

1. Examine existing cultural policy.
Findings: Despite its standing as the cultural capital of the world, New York City lacks a comprehensive and comprehensible cultural policy that benefits organizations of all sizes and disciplines, as well as artists in all boroughs, and thus optimizes the City's role as a national and international cultural capital.
2. Research and analyze the Department of Cultural Affairs' current funding structure.
Findings: The accomplishments of the Dept. of Cultural Affairs are substantial, but the agency requires significant strengthening to operate more effectively as an agent, catalyst, and convener for a large and complex cultural economy.
3. Survey current levels of public participation in arts and culture.
Findings: There is enthusiastic participation in arts and culture among New Yorkers and strongly held beliefs about the benefits of that participation. But barriers exist that prevent many New Yorkers from participating fully in arts and culture.
4. Identify the major issues affecting artists and cultural organizations and their ability to serve all New Yorkers.
Findings: Inadequacies in the sector's infrastructure limit the ability of cultural organizations to deliver services to the public.

Three issues the authors felt required further study: (1) capital funding for cultural organizations is more vital than ever. How capital funding decisions are made warrants further study. (2) The untapped potential of the cultural workforce and its lack of competitive wages and benefits deserve research. (3) The capacity of the cultural sector for creative research and development, as seen in small and community-based organizations, in artists' studios, and throughout the boroughs, is worth closer examination.

The report outlined 4 strategies for City Leaders: (1) create a comprehensive cultural policy with clear goals, standards, and methods of review and evaluation. (2) Empower DCA to operate more effectively and provide better service to new and existing grantees through increased funding and staffing and more explicitly and clearly articulated grantmaking criteria. (3) Ensure active participation in arts and culture through expanded public school programs, reduced admission costs for the underserved, and improved transportation and information. (4) Develop long-term strategies to strengthen the cultural infrastructure.

Creative Community Index: Measuring Progress Toward A Vibrant Silicon Valley – A report presented by Cultural Initiatives – Silicon Valley (2002)
(http://www.ci-sv.org/pdf/ci_creative_index.pdf)

Cultural Initiatives – Silicon Valley contracted Cultural Access Group (CAG) to survey Silicon Valley residents in order to conduct a quantitative research project seeking to measure creativity and cultural vitality – intangible constructs that are difficult to measure. This research will be complemented by future qualitative sociological research of participation in the arts within the region. The report states that two factors are vital to fostering a community: creativity and social connectedness.

CAG conducted 361 residential surveys throughout Santa Clara County in January and February 2002 regarding residents' beliefs and behavior toward arts and cultural programming in Santa Clara County. After constructing a database, Cultural Initiatives – Silicon Valley determined a universe of 531 organizations and associations that were considered to be potential providers of arts and cultural programming, and estimated 350-400 to be active providers. The Survey of Santa Clara Arts Organizations was sent to the 531 organizations, of which 125 responses were received.

Creative Community Index: Measuring Progress Toward A Vibrant Silicon Valley measures four core cultural indicators:

1. Outcomes: The desired outcomes of a healthy cultural life; broad-based creativity, social connectedness among diverse people and contribution to the quality of life in Silicon Valley.
2. Participation: Residents' participation in arts and cultural activities, including the extent to which diverse people participate together.
3. Assets: The mix of cultural assets present in the community, including talent in the creative sector (nonprofit, public and private), venues and facilities, and the aesthetic quality of our environment.
4. Levers: The extent to which we leverage and build our cultural assets and encourage people's interaction with these assets through arts education, leadership, investment and policies.

The report presents quantitative data regarding participation in arts and cultural activities, the creative sector, venues and facilities, civic aesthetics, creative education, leadership, policies, and investment.

The Creative Community Index reports that their analysis of the creative sector is based on Richard Florida's work, utilizing his definitions of "creative" and "super-creative" to divide segments of the workforce. The report states that on the basis of a combination of all the factors considered in his book, Florida ranks the Silicon Valley region first overall as a place for creative people to live and work. Using census data, the report states that of the more than one million jobs in Santa Clara County, more than 12% are "super-creative" and, on average, they pay more than 42% above the average for all other jobs in the county. A sample of the "super-creative" include: software engineers, computer programmers, electrical engineers, biochemists and biophysicists, librarians, graphic designers, multi-media artists and animators, and musicians and singers.

The report centers itself on Richard Florida's point that "all forms of creativity should be supported to maximize the community's creative potential."

Economic Impact of the Nonprofit Arts Industry in Illinois by Conventions, Sports & Leisure International (CSL)

CSL conducted its analysis of the economic impact of the nonprofit arts industry on the state of Illinois, so that the Illinois Arts Alliance Foundation might use it as a resource. The study covered a 6-year period (from 1996-2002) and attempted to quantify the impact of the arts industry on Illinois. The authors of the report evaluated spending from several different groups:

- ✓ the nonprofit arts organizations applying for Illinois Arts Council (IAC) grants,
- ✓ the other organizations/individuals applying for IAC grants,
- ✓ out-of-state people coming to Illinois to attend arts institutions and events, and
- ✓ the Museums in the Parks.

The authors found total output (spending) doubled during the period studied, from \$1 billion in 1996 to nearly \$2 billion in 2002.

CSL defines arts and culture by the impact the industry has on lives, rather than in economic terms. The report credits the creative industry with a number of positive outcomes:

- ✓ preservation of cultural heritage,
- ✓ teaches diversity of cultures,
- ✓ increases student achievement test scores, and
- ✓ improves communication and coping skills of individuals.

The authors demonstrate the methodology used to justify the nearly 100% increase in spending by the nonprofit arts industry. For example, data was taken from Dun & Bradstreet in order to identify the number of jobs included in the nonprofit arts industry, as well as total spending on and by the individuals and the arts industry. The impact of the increase in spending includes the effect it has on Illinois in terms of employment, increased spending, earnings, and tax revenues. CSL takes the analysis one step further and outlines the positive economic impact the arts have on other industries, such as manufacturing, transportation, real estate, trade, and government. There are other immeasurable effects, according to the study, such as the following:

- the learning experience that quality museums offer for children,
- the use of cultural organizations as anchors for downtown development, preservation, and restoration,
- an image for Chicago as a competitive, progressive cultural center, and
- attraction for relocation of businesses, conventions, and tradeshow.

The Creative Economy Initiative: The Role of the Arts and Culture in New England's Economic Competitiveness (June 2000) – A report by The New England Council
(http://www.nefa.org/projinit/createecon/phase1_report.html)

This report defines the “Creative Economy” as comprising both the nonprofit and commercial sectors, as well as individuals in both artistic and cultural fields. There are three primary components to the analytical framework: 1) creative clusters – the direct and indirect production of cultural products; 2) creative workforce – individuals trained in specific cultural and artistic skills; and 3) creative community – a geographic area with a concentration of artistic and cultural individuals and firms.

The *Creative Economy* report hypothesizes that if the arts are creating a significant economic impact with limited coordination among government, business and arts leaders, then the impact could grow exponentially if a collaborative approach, a strategic plan of support, for the arts was designed.

▪ Creative Cluster

The report primarily uses cluster analysis, which assumes the export of goods and services, the attraction of income into the region, and substantial economic links between creative and other clusters in the region.

The *Creative Economy* accounts for employment in creative cluster product lines in applied arts, performing art (music, theater and dance), visual arts, literary arts, media, heritage, support and independent artists, writers and performers, both incorporated and unincorporated, drawing data from the 1997 US Economic Census.

▪ Creative Workforce

The *Creative Economy* uses data from the US Bureau of Labor Statistics, Occupational Employment Statistics, 1998-2008 Projections to calculate a higher than average concentration of creative workers in New England than in the national workforce (2.1 % compared to 1.5%); and to project that New England's percentage of creative workers will grow faster than employment in other sectors. In this report, creative workers are not considered to be industry specific, for example consider the graphic designer who is employed by a bank. The presence of training programs, such as universities and summer institutes, in the arts, culture and design are concluded to be significant factors contributing to the presence of a regional creative workforce.

The *Creative Economy* accounts for workers in performing arts, craft and visual arts, professional service and art education occupations, drawing data from 1996 Current Population Survey.

▪ Creative Community

“These communities feature significant concentrations of both creative workers and creative industries, including a variety of arts venues and activities.” These features are assumed to improve a community's quality-of-life and create an attractive comparative advantage for relocation and expansion. This report suggests that local arts events are valued as tools for community development.

“The cornerstone of the *Creative Economy Initiative* is the fact that an investment in the arts and culture will play a meaningful role in improving the lives of all residents throughout New England, in every type of community” - large cities, low-income neighborhoods, smaller industrial towns, and rural communities.

The Creative Economy Initiative: A Blueprint for Investment in New England's Creative Economy (June 2001) – A report by The New England Council
(http://www.nefa.org/projinit/createecon/phase2_report.html)

Blueprint for Investment in New England's Creative Economy is a follow-up to the New England Council's June 2000 report. This report proposes a series of initiatives that, taken in their entirety, create a regional investment strategy for New England's creative economy.

What is the "Creative Economy"?

"At the core of the creative economy are those activities which have their origin in individual creativity, skill and talent, and which have their potential for wealth and job creation through the generation and exploitation of intellectual property." –Creative Industries Task Force, *Creative Industries Mapping Document* (Dept. of Culture, Media and Sports 1998 U.K.)

The regional investment plan defines four goals:

1. Creative New England creates a regional structure to provide the ongoing leadership, resources and knowledge needed to ensure long-term support for the creative economy.
2. Creative Cluster addresses the particular needs and opportunities facing those enterprises and individuals that directly and indirectly produce cultural products.
3. Creative Workforce recommends strategies for supporting the life blood of the economy: the thinker and doers trained in specific cultural and artistic skills.
4. Creative Communities seek to support those geographic areas that enjoy a concentration of creative workers, creative businesses and cultural organizations.

Initiatives are based on four core criteria:

1. Regional impact: These initiatives are designed to capitalize on the strength of the New England region's identity, and for residents to benefit from the shared markets and the economies of scale gained through regional cooperation. The regional approach is intended to reflect the actual flow of economic activity.
2. Regional partnerships: These initiatives are designed to capitalize on collaborative advantage, to create successful working partnerships between the creative cluster and its subsequent support infrastructure – out of self-interest, not altruism, each partner can benefit from a strengthened industry. Partners are needed from sectors such as:
 - Financial institution and investors
 - Businesses from outside the creative economy that employ creative workers
 - Technology companies
 - State and local government agencies
 - Educational institutions
 - Foundations and other donors
 - Regional associations
3. Creating investment opportunities based on existing models.
4. Providing investment opportunities for short and long term action.

Goals & Initiatives of the New England's Strategic Plan:

Goal 1: To promote the sustainable economic development of New England's culture-based creative economy so that it may fully contribute to regional economic competitiveness and quality of life.

Initiative One: Creative Economy Council

The proposed Creative Economy Council will assemble members from the creative cluster as well as education, business and local government in order to initiate policies, partnerships and programs that strengthen the creative sector and its regional impact.

Initiative Two: Creative Economy Research Program

The Creative Economy Research Program will coordinate a regional network of policymakers, researchers and consultants to conduct research and analysis on the regional creative economy and coordinate the dissemination, discussion and exchange of information about the creative economy.

Goal 2: To generate new jobs and economic activity by increasing the growth vitality and competitiveness of New England's creative cluster.

Initiative Three: Creative Industries

The Council will support development of New England's creative cluster by sponsoring a series of cluster initiatives designed to expand the creation, financing, distribution and consumption of regionally-produced creative products.

Initiative Four: Technology

The Council will actively promote opportunities for creative collaboration between technology-based artists and engineers.

Initiative Five: Finance

The Council will assess existing sources of funding and finance for the sector, adapt existing mechanisms, and finally develop new vehicles to meet the needs and opportunities presented by the sector.

Initiative Six: Expanding Markets

The Council will seek to increase the market for New England creative products through regional promotional and market expansion campaigns.

Goal 3: Strengthen and expand New England's creative workforce by promoting understanding, awareness, opportunities and access to training and employment in creative occupations.

Initiative Seven: Workforce and Career Development

The Council will work with educators, employers and government agencies to develop a regional mechanism that will foster training and career opportunities on all levels, student to professional.

Goal 4: Enhance the economic and social quality of life in New England communities by fostering a rich arts and cultural environment, including creative expression in all of its formal and informal forms.

Initiative Eight: Creative Exchange

The Council will foster the development of New England's creative communities by sponsoring Creative Exchange, a community-based peer learning network.

Initiative Nine: Creative Community of the Year Award

The Council will sponsor a Creative Community of the Year award to recognize New England communities that have successfully integrated culture into local development efforts.

Initiative Ten: Recruitment materials

The Council will showcase creative communities in regional and statewide corporate and employee recruitment materials.

The report outlines avenues of investment for how businesses –general, arts-related and creative - and the public sector can make investments to foster and strengthen the creative economy. These avenues of investment are such that unilateral action and local level action can strengthen the creative economy as well as large coordinated regional investment.

A third follow-up report is currently underway at the New England Council (http://www.nefa.org/projinit/createecon/phase3_report.html).

“Cultivating Portland’s Creative Services Talent” November, 2001

The overall aim of this report is to identify a skill-set necessary to work in the creative services industry and ways that education and training programs can best develop those skills in Portland. It is instructive for our purposes primarily in how it defines the “creative services” industry.

- ✓ Commissioned and funded by Oregon Department of Community Colleges and Workforce Development and Oregon Creative Services Alliance
- ✓ Goals:
 - Provide students with information about career paths, education and skill requirements, and ways to find jobs in the creative services industry
 - Provide information to educators and training providers on how to align programs with the trends and needs of the creative services industry
- ✓ “Creative Services” industry defined as 5 high-demand occupational clusters:
 - advertising
 - marketing
 - public relations/communications
 - web design and development
 - graphic design
- ✓ Functional aspect of jobs in creative services industry fall out into 4 broad areas:
 - Account management/account services
 - Creative function
 - Production/media
 - Research/support services
- ✓ Key skills of the labor force required to support a thriving creative services industry are technical & discipline-specific skills; operational skills; and “soft” skills and star qualities.
- ✓ In Portland, industry is estimated at 15,000 employees (not including those who are self-employed or working in other industries) with an average salary of \$50,000 (which is 60% higher than the average regional wage)
- ✓ Not included in the definition of the industry are:
 - Media/video production
 - Animation/game art
 - Broadcasting
 - Computer engineers and programmers

Creative Capital?
by Michael Erard (February 28, 2003)

This article appeared in *The Austin Chronicle*, largely in response to Richard Florida's ideas of a "Creative Class." The author defines his notion of The Day Job, something that members of the creative industry must endure to support their artistic passions. He looks at those who have day jobs (versus those who don't) as a method of determining the state of the economy and what level of commitment is necessary on the part of the City in building a future creative economy.

The article critiques some of Richard Florida's theories, specifically the lack of differentiation that is made between economic functions and economic interests that this author believes causes separation among those whose art is science and those whose art is sculpture. The need exists for a "knowledge economy" – a strategy that acknowledges that members of the "Creative Class" need and want different things.

The income disparity that exists among those in the "Creative Class" is largely disregarded by Florida, which is another critique of his study. The article elaborates this point by defining aspects of The Day Job that sustain the disparity – low-skill and low-income – as well as aspects that are attractive to artists – flexible shifts, comp time, and relaxed atmospheres.

"Technology, Talent, and Tolerance: Attracting the Best and Brightest to Memphis"
A Report by the Memphis Talent Magnet Project

Overall, this report is highly influenced by the work of Richard Florida. In short, it is an exploration of the question, how can cities attract knowledge workers in order to spur on economic development within that city? It enumerates some of the assets that Memphis already has and recommends ways for Memphis to promote those assets (and develop new ones) that will attract the highly sought after young, educated, talented, creative knowledge worker.

- ✓ Commissioned by Memphis Chamber of Commerce, City of Memphis, and Shelby County Government
- ✓ Conducted by Coletta & Company, Inc. and Williams Company, with assistance from Richard Florida
- ✓ Qualitative research (one-on-one interviews and focus groups) conducting regarding Memphis' image and insight derived from case studies of Atlanta, Austin, Denver, and Seattle
- ✓ Objectives of study identified as:
 - Put the issue of making Memphis a talent magnet for young, mobile knowledge workers on the community agenda
 - Identify "best practices" of cities successfully acting as talent magnets
 - Identify the factors that motivate young, mobile knowledge workers to choose a city
 - Assess Memphis' current profile and ability to act as a talent magnet – its strengths and weaknesses
 - Recommend actions to be taken by various entities to enhance Memphis' profile and ability to act as a talent magnet
- ✓ Factors that make a city attractive to knowledge workers: status, amenities, creativity & creative energy, diversity (defined as presence of gay, artist, and foreign-born populations), and quality of place (which is further defined as vibrant center, variety of distinctive neighborhoods, environmental quality, and interesting building stock)
- ✓ Key elements in becoming a talent magnet: downtown renaissance, visible creative community, cultural diversity, potential for "thick" labor markets, and authenticity.
- ✓ Recommendations: Promote technology, tolerance, and talent in:
 - Outdoor Recreation

- Cuisine
- Life of the Mind
- Arts and Culture
- ✓ Specific recommendations in the area of arts and culture:
 - promote the music industry
 - develop a hip-hop and house "scene"
 - support works by up-and-coming Memphis artists
 - exhibit art/stage performances in "outside the box" and non-traditional settings
 - promote "alternative" arts including comedy, film, and digital
 - use awards and grants to promote and recognize local arts/artists
 - develop mechanisms for promoting and reporting on all arts/culture events in Memphis

"Culture and the Changing Urban Landscape: Philadelphia 1997-2002"
Social Impact of the Arts Project, University of Pennsylvania, School of Social Work
Mark J. Stern, Professor of Social Welfare and History, Co-Director, Urban Studies Program
Presented at University of Chicago, Cultural Policy Center Workshop Series, March 2003

In short, this study presents information on the number of cultural organizations in Philadelphia neighborhoods across two times (1997 and 2001) and broken down by a number of neighborhoods characteristics (including ethnic and economic diversity). The data presented are a first-cut of a larger and on-going analysis which seeks to indicate: a) correlations between culture and aspects of urban life; and b) the mechanisms by which cultural agents influence neighborhoods particularly in "not-world cities," those cities that cannot claim "global city" status and are therefore, less subject to pressures for cultural development and growth of the creative class. Among the key findings of the broader study are:

- Social diversity and cultural expression reinforce one another.
- Cultural engagement has important spillover effects on neighborhoods.
- There is a strong and demonstrable relationship between poverty decline and cultural engagement.
- Indexes of child welfare are closely tied to cultural engagement.

The data presented in this document are part of the second phase, called the Dynamics of Culture and funded by the Rockefeller Foundation, and intend to introduce an element of time into the analysis of correlations between culture and urban characteristics.

Data

Neighborhood Data

- Population change
- Poverty rate
- Change in poverty rate
- Change in ethnic composition
- Ethnic diversity
- Economic diversity : broken into "pov-prof" (defined as highly economically diverse); "concentrated poverty" (40%+); "above average poverty" (20-40%); "below average poverty"
- Average residential property sale price
- Historical presence of cultural organizations

Culture Data

- New cultural providers (since 1997)
- Disappeared ("dead") cultural providers (since 1997)

- Type of institution (performing group; facility, museum; community; film, media, publishing; resource organization; library, archive; non-arts organization; historic site; educational)
- Organization budget

Data is cross-tabulated to illustrate the correlations between neighborhood characteristics and the incidence of new cultural providers since 1997 in those neighborhoods.

Conclusions

The total number of cultural providers in the city as a whole and within each neighborhood remained virtually stable across time. However, this aggregate stability was comprised of a high degree of turnover of particular cultural providers (in other words, many organizations died from 1997 to 2002, but an equal number were born in the same period). New cultural providers were, by and large, more prevalent in ethnically and economically diverse neighborhoods.

The Creative Engine – A report presented by Center for an Urban Future (November 2002) (www.nycfuture.org)

The Creative Engine assesses arts and economic development that has occurred overtime in seven of New York City's neighborhoods – South Bronx, Fort Greene, Jamaica, Long Island City, Harlem, Lower Manhattan, and St. George in Staten Island.

Key findings:

1. Arts and culture is a significant source of employment.
2. Economic development intermediaries are significant to cultural development, but the majority of them are not engaged in current arts development activities.
3. New York has developed model solutions to the city's space problem, specifically for artists and cultural organizations.
4. Issues of gentrification and displacement are the biggest barriers to cultural development at the neighborhood level.
5. The most promising indicators for innovative development strategies exist at the local level – this includes the ability to tackle issues of displacement, leadership, environment for sustainable growth and successful mixing of various sectors of the creative industries.
6. Funders rarely make the connection between arts and culture and local economic development.
7. New York lacks a clear understanding of the impact and potential of the creative economy.

The Creative Engine argues that one of the greatest strengths of the creative economy is the ability to attract other business and jump-start neighborhood development, and that it serves as an attraction for relocation and as a positive indicator of quality-of-life.

A primary difficulty is the categorization of the arts and the lack of coherent data collection, which creates the immediate difficulty of defining what the creative sector exactly is. The city lacks a cohesive culture-based economic development strategy that can maximize the effectiveness of existing programs and initiatives. *The Creative Engine* suggests that this comprehensive arts-economic development plan be the effort of city government, funders and development organizations. The Center for an Urban Future argues that development efforts, both large and small, clearly prove the potential for culture-related economic development in neighborhoods throughout New York. The problem is that most of these efforts and strategies are working in isolation from one another.

Recommendations:

1. Accurately identify the creative sector – better understand how the sector operates, which industries are included in the definition and the current trends within the cultural sector.

2. Focus city agencies on this sector – cultural liaisons should be assigned to each city agency in order to coordinate resources and activities through the work of an inter-agency commission.
3. Local stakeholders should establish a local entity at the outset of any development plan, charged with insuring meaningful participation from the community as well as cultural, private and government sectors.
4. Bridge the gap between cultural and economic development intermediaries.
5. Promote the ownership of artistic space – either establish a resource website to link cultural groups and artists with realtors and nonprofit developers creating space for artists or encourage ownership of artistic spaces by offering incentives for space development.
6. Fuel local collaboration.

At present, The Center for an Urban Future is planning a project for New York City similar to The New England Council's report.

From the Information Economy to the Creative Economy: Moving Culture to the Center of International Public Policy – Shalini Venturelli, American University

(<http://www.culturalpolicy.org/pdf/venturelli.pdf>)

Venturelli writes that contemporary society inherited its ideas regarding cultural dimensions of life from three traditions – aesthetic tradition, anthropological tradition, and industrial and commercial. She argues that these traditions define our approaches to cultural policies and problems, and must change to accommodate the new creative economy.

There are two primary changes that Venturelli argues: 1) conventional thought assumes the value of products decreases with repeated use; ideas and cultural expression are meant to be used repeatedly, becoming more valuable with each use. This difference is a disjuncture between information economics and industrial economics; 2) “Legacy” approaches to culture (notions of inheritance, receiving past symbolic forms, practices and institutions) constrain the emphasis that should be placed of the creative capacity of the present. Venturelli writes: “A culture persists in time only to the degree it is inventing, creating and dynamically evolving in a way that promotes the production of ideas across all social classes and groups. Only in this dynamic context can legacy and tradition have real significance.”

Venturelli explains that in the new economy, cultural wealth must be a “measure of the vitality, knowledge, energy and dynamism in the production of ideas that pervades a given community.” And, that wealth-creation is dependent upon a state's ability to continually create content and new forms of expression, which will require investment in “creative human capacity throughout the economy.” She argues that “a nation without a vibrant creative labor force...does not possess the knowledge base to succeed in the Information Economy, and must depend on ideas produced elsewhere.” Venturelli uses a broad definition of the “creative labor force,” which includes artists, designers, painters, film producers, and dancers as well as engineers, scientists, researchers and intellectuals.

The notion of ‘ideas as capital’ has shifted public policy attention toward culture. Venturelli suggests that the goals of policy initiatives should provoke creative dynamism and stimulate creative enterprises by:

- Broadening access to capital from conventional and unconventional sources.
- Lowering taxation on creative risk-taking.
- Removing content obligations and liabilities for entities that produce and distribute expression.
- Ensuring that a constant stream of new ideas and cultural forms trickle into the public domain through ‘fair use’ access protections.
- Assuring reasonable intellectual property right for innovation in ideas, technology and science.

Venturelli outlines policy challenges:

- There is an urgent need to reorder our basic thinking about education.
- The value of the creative economy enhances the asset value of ideas as well as the critical need for access to ideas and creative forms.
- The financial base of creative enterprises, such as capital markets, must also be transformed through policies favoring greater diversification and de-institutionalizing.
- Nations will need to be alert to the monopolization of ideas and content, of culture as it were, since the networked society of the Information Economy exponentially boosts information power.

Venturelli surmises: “The truly substantive question concerns structural arrangements that govern the diversity and range of forms of creative expression that are distributed in the Information Society and the scope of social participation in the exploitation and benefits of such forms.”

The Shape of Culture
by Judith Blau (1989)

The focus the author takes in this book is on establishing the relationship between demographic characteristics and demand for the arts. She takes into account popular culture as well as fine arts. She found that increasing nationwide urbanization and narrowing inequality between classes had been important forces underlying the diffusion of arts institutions. She also found that fine arts institutions were relatively more evenly distributed nationally than popular culture institutions, which were concentrated in urban areas. Blau's methodology incorporated the selection of 125 of the largest Standard Metropolitan Statistical Areas (SMSA). SMSAs were characterized in terms of the social conditions that influence their cultural supply, cultural organizations, and cultural workers.

This matrix summarizes the various ways that the reports included in the Literature Review define the segment of the economy/workforce in question.

Literature Review Matrix

	BROAD INVENTORIES OF ARTS/CULTURE INDUSTRIES						TALENT APPROACH			URBAN DEVELOPMENT		THEORETICAL APPROACH	
	NEA	Iowa	NYFA	Silicon Valley	IAA	New England Council	Portland	Austin	Memphis	Mark Stern/ SIAP	Center for an Urban Future	Venturelli	Blau
ARTISTS													
Actors and Directors	x	x	U			x		U	U		U		x
Architects	x	x	N	x	x	x		N	N		N		
Artists and Artists' Studios			D			x		D	D		D		x
Art-Print Gravure Printing		x	E			x		E	E		E		
Authors/Writers	x		F			x		F	F		F		x
Cultural Council Grantees			I		x			I	I		I		
Dancers/Dance Companies	x	x	N			x		N	N		N	x	x
Designers	x		E					E	E		E	x	x
Entertainers & Entertainment Groups			D		x			D	D		D		x
Multi-Media Artists & Animators				x									
Musical Groups & Artists(including bands, chamber music, orchestra)		x				x							x
Musicians & Composers	x			x	x								x
Opera Companies													x
Other Performing Arts Companies						x							x
Painters, Sculptors, Craft Artists & Printmakers	x											x	x
Performing Artists						x						x	x
Photographers	x												
Theater/Theater Companies		x				x							x
MUSEUMS & ART GALLERIES													
		x			x	x							x
NON-PROFIT ARTS													
				x	x	x				x			x
APPLIED ART													
Advertising		x			x	x	x						
Commercial Photography		x			x								
Graphic Design		x		x	x	x	x						
Greeting Card Publishing		x											
Industrial Design Services						x							
Interior Design Services						x							
Other Design Services						x							
Photographic Studios, Portrait					x								
Web Design							x						
ART - RETAIL													
Antique Art Stores; Used Musical Instrument Stores						x							
Artcraft and Carvings Stores						x							
Commercial Art Dealers		x			x	x							x
Record & Pre-recorded Tape Stores					x								
ART SUPPLIES - RETAIL & WHOLESALE													
Arts and Crafts Equipment/Supply Stores and Mail-Order						x							
Camera and Photographic Supply Stores					x	x							
Costumes, Masquerade/Theatrical - Wholesale						x							
Musical Instrument and Supplies Stores - Commercial & Wholesale					x	x							
Theatrical Equipment & Supplies - Wholesale						x							

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

	BROAD INVENTORIES OF ARTS/CULTURE INDUSTRIES						TALENT APPROACH			URBAN DEVELOPMENT		THEORETICAL APPROACH	
	NEA	Iowa	NYFA	Silicon Valley	IAA	New England Council	Portland	Austin	Memphis	Mark Stern/ SIAP	Center for an Urban Future	Venturelli	Blau
	ART SUPPLIES - MANUFACTURING												
Lead Pencils & Art Goods - Manufacturing					x	x							
Photographic Film, Etc. - Manufacturing		x											
Musical Instrument (Including Cases) - Manufacturing		x			x	x							
Paints & Varnishing - Manufacturing					x								
Photographic Equipment & Supplies - Wholesale					x	x							
Pottery Products - Manufacturing					x								
Prerecorded Records & Tapes - Manufacturing					x	x							
Signs & Advertising Specialities - Manufacturing					x								
Theatrical Costumes & Scenery - Manufacturing					x								
ARTS-RELATED PROFESSIONAL SERVICES													
Agents & Managers for Artists						x							
Auditorium and Hall; Theater Building, Ownership and Operation					x								
Cable & Other Program Distribution						x							
Commercial Photographic Services						x							
Music Licensng & Royalties; Music Royalties, Sheet & Record					x								
Musical Instrument Rental					x								
Musical Instrument & Camera Repair Services					x								
Theatrical Producers & Services					x								
Photo-Finishing Labs		x			x								
Promoters of Performing Arts						x							
Video Tape Rental					x								
PUBLISHING													
Book Publishing		x				x							
Magazine Publishing		x											
Newspaper Publishing		x											
MOTION PICTURE & SOUND RECORDING INDUSTRY													
Motion Picture & Video Production					x							x	
Motion Picture & Tape Distribution & Distribution Services					x								
Motion Picture Theaters (Including Drive-Ins)					x								x
Other Services Allied to Motion Pictures					x								
EDUCATION													
All Other Education		x											
All Postsecondary Educational Institutions (Private & Public)		x											
Arts and Crafts Schools; Music and Drama Schools					x								
Dance Studios, Schools & Halls					x								x
Elementary School Teachers					x								
Fine Arts Schools						x							
Postsecondary Art, Music & Drama Teachers	x												
Self-Enrichment Education Teachers					x								
Vocational Schools		x											

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

	BROAD INVENTORIES OF ARTS/CULTURE INDUSTRIES						TALENT APPROACH			URBAN DEVELOPMENT		THEORETICAL APPROACH	
	NEA	Iowa	NYFA	Silicon Valley	IAA	New England Council	Portland	Austin	Memphis	Mark Stern/ SIAP	Center for an Urban Future	Venturelli	Blau
BROADCAST MEDIA & COMMUNICATIONS													
Announcers	x												
Music and Broadcasting Services					x								x
Communications Equipment & Signaling Systems, Manufacturing		x											
Magazine & Advertising Representatives					x								
News Syndicates		x											
Public Relations & Communications							x						
SPORTS & RECREATION													
Botanical and Zoological Gardens					x								
Professional Sports		x											
Racing		x											
Theme Parks		x											
HERITAGE													
Heritage Parks		x											
Historical Sites		x				x							
MANUFACTURING													
Aerospace Products		x											
Creative Recreation - Toys & Games, Crafts & Videogames		x											
Instruments for Navigation, Measuring, Electro-Medical Instruments		x											
Other Medical Equipment		x											
Pharmaceuticals and Medicines		x											
Products of Purchased Glass					x								
Recording & Playback Heads, Magnetic					x								
Semi-Conductors & Related		x											
Video Game Machines					x								
MEMBERSHIP ORGANIZATIONS													
Art Council; Literary, Film or Cultural Clubs					x								
Business Associations		x											
Chemicals		x											
Labor & Civic Associations		x											
Other Non-Profit Organizations		x											
Religious Organizations		x											
SCIENTIFIC & TECHNICAL													
Atmospheric & Space Scientists				x									
Biochemists & Biophysicists				x									
Commercial & Governmental Scientific Research		x											
Computer Programmers/Systems Design		x		x									
Computer Scientists				x									
Engineering		x									x		
Software Engineers				x									
PROFESSIONAL SERVICES													
Accounting Services		x											
Electrical Engineers				x									
Health Care Services		x											
Legal Services		x											
Librarians				x									
Management, Scientific & Technical Consulting		x											
Marketing							x						
Mechanical Engineers				x									
Professional Services		x											
Psychologists				x									

City of Chicago Project, Cultural Policy Center, University of Chicago
Presented to the Creative Industries Task Force, Advancing Chicago's Civic Agenda Through the Arts
April 18, 2003

Several prominent difficulties reveal themselves throughout existing literature and research regarding the "creative economy":

- Defining the "creative economy"
- Availability and reliability of data sources
- Identifying factors significant to the development of the "creative economy" and providing rigorous statistical justification for government support of those factors

To tackle these pervasive challenges, our project will be developed as follows:

Goals

- a. Analyze Chicago's creative industries in context – within Chicago and nationally
- b. Avoid critique of "creative economy" and "culture" definitions – explore all definitions and each of their strengths as an economic sector

1) Defining the "creative economy"

Expected completion: End of April 2003

The question as to what and who should be included in this definition is subject to the goals of the overall report and subjective interpretation of "creative industries". To avoid critique of our definition, we will create "baskets" that represent varying concentrations of culture, from the most publicly accepted definition of museums and high arts, to more abstract "little c" culture. (See Appendix A)

2) Data Sources

Expected completion: End of Summer 2003

We will use existing data on both the national and local levels. Data will be pooled from nationally relied upon sources in order to curtail critiques of reliability and to have a standard for comparison with other industries and locations. For non-comparative Chicago analyses, we will integrate surveys of Chicago-specific data. When possible, time-series analyses will be conducted. We plan to use the 350 Metropolitan Statistical Areas (See Appendix B.2, p. 28-31) from the Census for city-to-city comparisons of the creative industries data as determined by baskets described above.

Data Sources include:

- a. Bureau of Labor Statistics (BLS) (See Appendix B.1)
- b. US Census (See Appendix B.2)
- c. Illinois Arts Alliance
- d. Data from national membership organizations

3) Building Context

Expected completion: End of Summer 2003

We will aggregate existing data that surveys the number of arts and cultural organizations, institutions, and city-supported events (e.g. the number of city-permits given annually for street fairs/festivals/parades) as indicators of the size and scope of each city's creative industry and overall culture.

We will use Chicago-specific data collected by entities within the city to develop an understanding of Chicago's niche strengths, as well as how it compares to the rest of the nation.

4) Identifying factors significant to the development of the "creative economy"
To begin Fall 2003

We will use multivariate statistical analysis to isolate the impact of socio-economic and employment variables on the creative industry – variously defined - in order to fully examine the strength of support for Chicago's creative industries in a national context and within the city itself.

The analyses will:

a. Provide data that will enable comparisons between the creative industries and other economic sectors within Chicago.

b. Compare the creative industries and cultural landscape of Chicago with other 'competitive cities.'

c. Identify causal factors for why businesses are leaving Chicago, and what incentives could be effective in retaining and attracting businesses.

d. Identify city characteristics significant to the development of the creative industries and to what extent increased government support of these factors will encourage growth of the sector.

University of Chicago Project Team:

Emily Adriaens

Professor Don Coursey

Sarah Lee

Jennifer Novak

Christopher Perrius

Cultural Policy Center

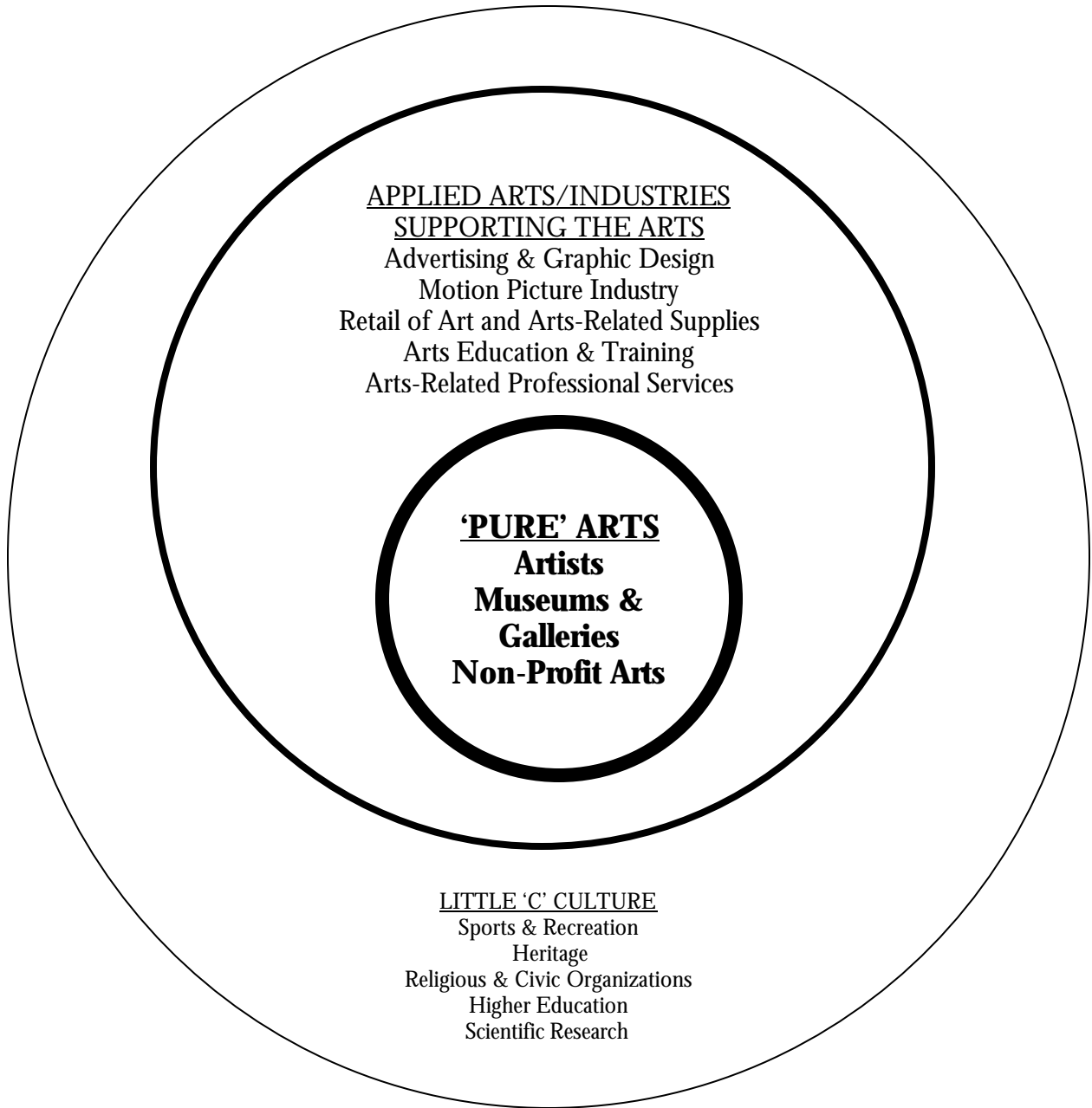
Irving B. Harris Graduate School of Public Policy

University of Chicago

1155 East 60th Street

Chicago, IL 60637

Error!Error!



BLS: Metropolitan Area Occupational Employment and Wage Estimates

SOC Code Number	Occupation Title
11-0000	Management Occupations
11-1011	Chief Executives
11-1021	General and Operations Managers
11-1031	Legislators
11-2011	Advertising and Promotions Managers
11-2021	Marketing Managers
11-2022	Sales Managers
11-2031	Public Relations Managers
11-3011	Administrative Services Managers
11-3021	Computer and Information Systems Managers
11-3031	Financial Managers
11-3040	Human Resources Managers
11-3051	Industrial Production Managers
11-3061	Purchasing Managers
11-3071	Transportation, Storage, and Distribution Managers
11-9011	Farm, Ranch, and Other Agricultural Managers
11-9021	Construction Managers
11-9031	Education Administrators, Preschool and Child Care Center/Program
11-9032	Education Administrators, Elementary and Secondary School
11-9033	Education Administrators, Postsecondary
11-9041	Engineering Managers
11-9051	Food Service Managers
11-9061	Funeral Directors
11-9071	Gaming Managers
11-9081	Lodging Managers
11-9111	Medical and Health Services Managers
11-9121	Natural Sciences Managers
11-9131	Postmasters and Mail Superintendents
11-9141	Property, Real Estate, and Community Association Managers
11-9151	Social and Community Service Managers
SOC Code Number	Occupation Title
13-0000	Business and Financial Operations Occupations
13-1011	Agents and Business Managers of Artists, Performers, and Athletes
13-1021	Purchasing Agents and Buyers, Farm Products
13-1022	Wholesale and Retail Buyers, Except Farm Products
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products
13-1031	Claims Adjusters, Examiners, and Investigators

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

13-1032	Insurance Appraisers, Auto Damage
13-1041	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation
13-1051	Cost Estimators
13-1061	Emergency Management Specialists
13-1071	Employment, Recruitment, and Placement Specialists
13-1072	Compensation, Benefits, and Job Analysis Specialists
13-1073	Training and Development Specialists
13-1111	Management Analysts
13-1121	Meeting and Convention Planners
13-2011	Accountants and Auditors
13-2021	Appraisers and Assessors of Real Estate
13-2031	Budget Analysts
13-2041	Credit Analysts
13-2051	Financial Analysts
13-2052	Personal Financial Advisors
13-2053	Insurance Underwriters
13-2061	Financial Examiners
13-2071	Loan Counselors
13-2072	Loan Officers
13-2081	Tax Examiners, Collectors, and Revenue Agents
13-2082	Tax Preparers
SOC Code Number	Occupation Title
15-0000	Computer and Mathematical Occupations
15-1011	Computer and Information Scientists, Research
15-1021	Computer Programmers
15-1031	Computer Software Engineers, Applications
15-1032	Computer Software Engineers, Systems Software
15-1041	Computer Support Specialists
15-1051	Computer Systems Analysts
15-1061	Database Administrators
15-1071	Network and Computer Systems Administrators
15-1081	Network Systems and Data Communications Analysts
15-2011	Actuaries
15-2031	Operations Research Analysts
15-2041	Statisticians
SOC Code Number	Occupation Title
17-0000	Architecture and Engineering Occupations
17-1011	Architects, Except Landscape and Naval
17-1012	Landscape Architects
17-1022	Surveyors
17-2011	Aerospace Engineers
17-2031	Biomedical Engineers
17-2041	Chemical Engineers

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

17-2051	Civil Engineers
17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer
17-2081	Environmental Engineers
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers
17-2161	Nuclear Engineers
17-2171	Petroleum Engineers
17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters
17-3021	Aerospace Engineering and Operations Technicians
17-3022	Civil Engineering Technicians
17-3023	Electrical and Electronic Engineering Technicians
17-3024	Electro-Mechanical Technicians
17-3025	Environmental Engineering Technicians
17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technicians
17-3031	Surveying and Mapping Technicians
SOC Code Number	Occupation Title
19-0000	Life, Physical, and Social Science Occupations
19-1010	Agricultural and Food Scientists
19-1021	Biochemists and Biophysicists
19-1022	Microbiologists
19-1023	Zoologists and Wildlife Biologists
19-1031	Conservation Scientists
19-1041	Epidemiologists
19-1042	Medical Scientists, Except Epidemiologists
19-2021	Atmospheric and Space Scientists
19-2031	Chemists
19-2032	Materials Scientists
19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers
19-3011	Economists
19-3021	Market Research Analysts
19-3022	Survey Researchers
19-3031	Clinical, Counseling, and School Psychologists
19-3041	Sociologists
19-3051	Urban and Regional Planners
19-4011	Agricultural and Food Science Technicians

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

19-4021	Biological Technicians
19-4031	Chemical Technicians
19-4051	Nuclear Technicians
19-4091	Environmental Science and Protection Technicians, Including Health
19-4092	Forensic Science Technicians
19-4093	Forest and Conservation Technicians
SOC Code Number	Occupation Title
21-0000	Community and Social Services Occupations
21-1011	Substance Abuse and Behavioral Disorder Counselors
21-1012	Educational, Vocational, and School Counselors
21-1013	Marriage and Family Therapists
21-1014	Mental Health Counselors
21-1015	Rehabilitation Counselors
21-1021	Child, Family, and School Social Workers
21-1022	Medical and Public Health Social Workers
21-1023	Mental Health and Substance Abuse Social Workers
21-1091	Health Educators
21-1092	Probation Officers and Correctional Treatment Specialists
21-1093	Social and Human Service Assistants
21-2011	Clergy
21-2021	Directors, Religious Activities and Education
SOC Code Number	Occupation Title
23-0000	Legal Occupations
23-1011	Lawyers
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers
23-1022	Arbitrators, Mediators, and Conciliators
23-2011	Paralegals and Legal Assistants
23-2091	Court Reporters
23-2092	Law Clerks
23-2093	Title Examiners, Abstractors, and Searchers
SOC Code Number	Occupation Title
25-0000	Education, Training, and Library Occupations
25-1011	Business Teachers, Postsecondary
25-1021	Computer Science Teachers, Postsecondary
25-1022	Mathematical Science Teachers, Postsecondary
25-1031	Architecture Teachers, Postsecondary
25-1032	Engineering Teachers, Postsecondary
25-1041	Agricultural Sciences Teachers, Postsecondary
25-1042	Biological Science Teachers, Postsecondary
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
25-1052	Chemistry Teachers, Postsecondary
25-1053	Environmental Science Teachers, Postsecondary

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

25-1054	Physics Teachers, Postsecondary
25-1061	Anthropology and Archeology Teachers, Postsecondary
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary
25-1063	Economics Teachers, Postsecondary
25-1064	Geography Teachers, Postsecondary
25-1065	Political Science Teachers, Postsecondary
25-1066	Psychology Teachers, Postsecondary
25-1067	Sociology Teachers, Postsecondary
25-1072	Nursing Instructors and Teachers, Postsecondary
25-1081	Education Teachers, Postsecondary
25-1082	Library Science Teachers, Postsecondary
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary
25-1112	Law Teachers, Postsecondary
25-1113	Social Work Teachers, Postsecondary
25-1121	Art, Drama, and Music Teachers, Postsecondary
25-1122	Communications Teachers, Postsecondary
25-1123	English Language and Literature Teachers, Postsecondary
25-1124	Foreign Language and Literature Teachers, Postsecondary
25-1125	History Teachers, Postsecondary
25-1126	Philosophy and Religion Teachers, Postsecondary
25-1191	Graduate Teaching Assistants
25-1192	Home Economics Teachers, Postsecondary
25-1193	Recreation and Fitness Studies Teachers, Postsecondary
25-1194	Vocational Education Teachers, Postsecondary
25-2011	Preschool Teachers, Except Special Education
25-2012	Kindergarten Teachers, Except Special Education
25-2021	Elementary School Teachers, Except Special Education
25-2022	Middle School Teachers, Except Special and Vocational Education
25-2023	Vocational Education Teachers, Middle School
25-2031	Secondary School Teachers, Except Special and Vocational Education
25-2032	Vocational Education Teachers, Secondary School
25-2041	Special Education Teachers, Preschool, Kindergarten, and Elementary School
25-2042	Special Education Teachers, Middle School
25-2043	Special Education Teachers, Secondary School
25-3011	Adult Literacy, Remedial Education, and Ged Teachers and Instructors
25-3021	Self-Enrichment Education Teachers
25-4010	Archivists, Curators, and Museum Technicians
25-4021	Librarians
25-4031	Library Technicians
25-9011	Audio-Visual Collections Specialists
25-9021	Farm and Home Management Advisors
25-9031	Instructional Coordinators
25-9041	Teacher Assistants
SOC Code Number	Occupation Title

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

27-0000	Arts, Design, Entertainment, Sports, and Media Occupations
27-1011	Art Directors
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators
27-1014	Multi-Media Artists and Animators
27-1021	Commercial and Industrial Designers
27-1022	Fashion Designers
27-1023	Floral Designers
27-1024	Graphic Designers
27-1025	Interior Designers
27-1026	Merchandise Displayers and Window Trimmers
27-1027	Set and Exhibit Designers
27-2012	Producers and Directors
27-2022	Coaches and Scouts
27-2031	Dancers
27-2032	Choreographers
27-2041	Music Directors and Composers
27-2042	Musicians and Singers
27-3010	Announcers
27-3020	News Analysts, Reporters and Correspondents
27-3031	Public Relations Specialists
27-3041	Editors
27-3042	Technical Writers
27-3043	Writers and Authors
27-3091	Interpreters and Translators
27-4011	Audio and Video Equipment Technicians
27-4012	Broadcast Technicians
27-4014	Sound Engineering Technicians
27-4021	Photographers
27-4031	Camera Operators, Television, Video, and Motion Picture
27-4032	Film and Video Editors
SOC Code Number	Occupation Title
29-0000	Healthcare Practitioners and Technical Occupations
29-1020	Dentists
29-1031	Dietitians and Nutritionists
29-1041	Optometrists
29-1051	Pharmacists
29-1061	Anesthesiologists
29-1063	Internists, General
29-1064	Obstetricians and Gynecologists
29-1065	Pediatricians, General
29-1066	Psychiatrists
29-1067	Surgeons
29-1071	Physician Assistants
29-1081	Podiatrists

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

29-1111	Registered Nurses
29-1121	Audiologists
29-1122	Occupational Therapists
29-1123	Physical Therapists
29-1124	Radiation Therapists
29-1125	Recreational Therapists
29-1126	Respiratory Therapists
29-1127	Speech-Language Pathologists
29-1131	Veterinarians
29-2011	Medical and Clinical Laboratory Technologists
29-2012	Medical and Clinical Laboratory Technicians
29-2021	Dental Hygienists
29-2031	Cardiovascular Technologists and Technicians
29-2032	Diagnostic Medical Sonographers
29-2033	Nuclear Medicine Technologists
29-2034	Radiologic Technologists and Technicians
29-2041	Emergency Medical Technicians and Paramedics
29-2051	Dietetic Technicians
29-2052	Pharmacy Technicians
29-2053	Psychiatric Technicians
29-2054	Respiratory Therapy Technicians
29-2055	Surgical Technologists
29-2056	Veterinary Technologists and Technicians
29-2061	Licensed Practical and Licensed Vocational Nurses
29-2071	Medical Records and Health Information Technicians
29-2081	Opticians, Dispensing
29-2091	Orthotists and Prosthetists
29-9010	Occupational Health and Safety Specialists and Technicians
29-9091	Athletic Trainers
SOC Code Number	Occupation Title
31-0000	Healthcare Support Occupations
31-1011	Home Health Aides
31-1012	Nursing Aides, Orderlies, and Attendants
31-1013	Psychiatric Aides
31-2011	Occupational Therapist Assistants
31-2012	Occupational Therapist Aides
31-2021	Physical Therapist Assistants
31-2022	Physical Therapist Aides
31-9011	Massage Therapists
31-9091	Dental Assistants
31-9092	Medical Assistants
31-9093	Medical Equipment Preparers
31-9094	Medical Transcriptionists
31-9095	Pharmacy Aides

31-9096	Veterinary Assistants and Laboratory Animal Caretakers
SOC Code Number	Occupation Title
33-0000	Protective Service Occupations
33-1011	First-Line Supervisors/Managers of Correctional Officers
33-1012	First-Line Supervisors/Managers of Police and Detectives
33-1021	First-Line Supervisors/Managers of Fire Fighting and Prevention Workers
33-2011	Fire Fighters
33-3011	Bailiffs
33-3012	Correctional Officers and Jailers
33-3021	Detectives and Criminal Investigators
33-3031	Fish and Game Wardens
33-3041	Parking Enforcement Workers
33-3051	Police and Sheriff's Patrol Officers
33-9011	Animal Control Workers
33-9021	Private Detectives and Investigators
33-9031	Gaming Surveillance Officers and Gaming Investigators
33-9032	Security Guards
SOC Code Number	Occupation Title
35-0000	Food Preparation and Serving Related Occupations
35-1011	Chefs and Head Cooks
35-1012	First-Line Supervisors/Managers of Food Preparation and Serving Workers
35-2011	Cooks, Fast Food
35-2012	Cooks, Institution and Cafeteria
35-2014	Cooks, Restaurant
35-2015	Cooks, Short Order
35-2021	Food Preparation Workers
35-3011	Bartenders
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
35-3031	Waiters and Waitresses
35-3041	Food Servers, Nonrestaurant
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers
35-9021	Dishwashers
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
SOC Code Number	Occupation Title
37-0000	Building and Grounds Cleaning and Maintenance Occupations
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners
37-2012	Maids and Housekeeping Cleaners
37-2021	Pest Control Workers
37-3011	Landscaping and Groundskeeping Workers

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation
37-3013	Tree Trimmers and Pruners
SOC Code Number	Occupation Title
39-0000	Personal Care and Service Occupations
39-1011	Gaming Supervisors
39-1021	First-Line Supervisors/Managers of Personal Service Workers
39-2011	Animal Trainers
39-2021	Nonfarm Animal Caretakers
39-3011	Gaming Dealers
39-3021	Motion Picture Projectionists
39-3031	Ushers, Lobby Attendants, and Ticket Takers
39-3091	Amusement and Recreation Attendants
39-3092	Costume Attendants
39-3093	Locker Room, Coatroom, and Dressing Room Attendants
39-4021	Funeral Attendants
39-5011	Barbers
39-5012	Hairdressers, Hairstylists, and Cosmetologists
39-5091	Makeup Artists, Theatrical and Performance
39-5092	Manicurists and Pedicurists
39-5093	Shampooers
39-5094	Skin Care Specialists
39-6011	Baggage Porters and Bellhops
39-6012	Concierges
39-6021	Tour Guides and Escorts
39-6022	Travel Guides
39-6031	Flight Attendants
39-6032	Transportation Attendants, Except Flight Attendants and Baggage Porters
39-9011	Child Care Workers
39-9021	Personal and Home Care Aides
39-9031	Fitness Trainers and Aerobics Instructors
39-9032	Recreation Workers
39-9041	Residential Advisors
SOC Code Number	Occupation Title
41-0000	Sales and Related Occupations
41-1011	First-Line Supervisors/Managers of Retail Sales Workers
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers
41-2011	Cashiers
41-2012	Gaming Change Persons and Booth Cashiers
41-2021	Counter and Rental Clerks
41-2022	Parts Salespersons
41-2031	Retail Salespersons
41-3011	Advertising Sales Agents
41-3021	Insurance Sales Agents

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

41-3031	Securities, Commodities, and Financial Services Sales Agents
41-3041	Travel Agents
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
41-9011	Demonstrators and Product Promoters
41-9012	Models
41-9022	Real Estate Sales Agents
41-9031	Sales Engineers
41-9041	Telemarketers
41-9091	Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
SOC Code Number	Occupation Title
43-0000	Office and Administrative Support Occupations
43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers
43-2011	Switchboard Operators, Including Answering Service
43-2021	Telephone Operators
43-3011	Bill and Account Collectors
43-3021	Billing and Posting Clerks and Machine Operators
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-3041	Gaming Cage Workers
43-3051	Payroll and Timekeeping Clerks
43-3061	Procurement Clerks
43-3071	Tellers
43-4011	Brokerage Clerks
43-4021	Correspondence Clerks
43-4031	Court, Municipal, and License Clerks
43-4041	Credit Authorizers, Checkers, and Clerks
43-4051	Customer Service Representatives
43-4061	Eligibility Interviewers, Government Programs
43-4071	File Clerks
43-4081	Hotel, Motel, and Resort Desk Clerks
43-4111	Interviewers, Except Eligibility and Loan
43-4121	Library Assistants, Clerical
43-4131	Loan Interviewers and Clerks
43-4141	New Accounts Clerks
43-4151	Order Clerks
43-4161	Human Resources Assistants, Except Payroll and Timekeeping
43-4171	Receptionists and Information Clerks
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks
43-5011	Cargo and Freight Agents
43-5021	Couriers and Messengers
43-5031	Police, Fire, and Ambulance Dispatchers
43-5032	Dispatchers, Except Police, Fire, and Ambulance
43-5041	Meter Readers, Utilities
43-5051	Postal Service Clerks

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

43-5052	Postal Service Mail Carriers
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators
43-5061	Production, Planning, and Expediting Clerks
43-5071	Shipping, Receiving, and Traffic Clerks
43-5081	Stock Clerks and Order Fillers
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
43-6011	Executive Secretaries and Administrative Assistants
43-6012	Legal Secretaries
43-6013	Medical Secretaries
43-6014	Secretaries, Except Legal, Medical, and Executive
43-9011	Computer Operators
43-9021	Data Entry Keyers
43-9022	Word Processors and Typists
43-9031	Desktop Publishers
43-9041	Insurance Claims and Policy Processing Clerks
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
43-9061	Office Clerks, General
43-9071	Office Machine Operators, Except Computer
43-9081	Proofreaders and Copy Markers
43-9111	Statistical Assistants
SOC Code Number	Occupation Title
45-0000	Farming, Fishing, and Forestry Occupations
45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers
45-2011	Agricultural Inspectors
45-2041	Graders and Sorters, Agricultural Products
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
45-2093	Farmworkers, Farm and Ranch Animals
45-4022	Logging Equipment Operators
SOC Code Number	Occupation Title
47-0000	Construction and Extraction Occupations
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers
47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons
47-2031	Carpenters
47-2041	Carpet Installers
47-2043	Floor Sanders and Finishers
47-2044	Tile and Marble Setters
47-2051	Cement Masons and Concrete Finishers
47-2053	Terrazzo Workers and Finishers
47-2061	Construction Laborers
47-2071	Paving, Surfacing, and Tamping Equipment Operators
47-2072	Pile-Driver Operators

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

47-2073	Operating Engineers and Other Construction Equipment Operators
47-2081	Drywall and Ceiling Tile Installers
47-2082	Tapers
47-2111	Electricians
47-2121	Glaziers
47-2130	Insulation Workers
47-2141	Painters, Construction and Maintenance
47-2142	Paperhangers
47-2151	Pipelayers
47-2152	Plumbers, Pipefitters, and Steamfitters
47-2161	Plasterers and Stucco Masons
47-2171	Reinforcing Iron and Rebar Workers
47-2181	Roofers
47-2211	Sheet Metal Workers
47-2221	Structural Iron and Steel Workers
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters
47-3012	Helpers--Carpenters
47-3013	Helpers--Electricians
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters
47-3016	Helpers--Roofers
47-4011	Construction and Building Inspectors
47-4021	Elevator Installers and Repairers
47-4031	Fence Erectors
47-4041	Hazardous Materials Removal Workers
47-4051	Highway Maintenance Workers
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners
47-5021	Earth Drillers, Except Oil and Gas
47-5042	Mine Cutting and Channeling Machine Operators
47-5081	Helpers--Extraction Workers
SOC Code Number	Occupation Title
49-0000	Installation, Maintenance, and Repair Occupations
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers
49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Electronic Home Entertainment Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers
49-3011	Aircraft Mechanics and Service Technicians
49-3021	Automotive Body and Related Repairers

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

49-3022	Automotive Glass Installers and Repairers
49-3023	Automotive Service Technicians and Mechanics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics
49-3042	Mobile Heavy Equipment Mechanics, Except Engines
49-3043	Rail Car Repairers
49-3051	Motorboat Mechanics
49-3052	Motorcycle Mechanics
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics
49-3092	Recreational Vehicle Service Technicians
49-3093	Tire Repairers and Changers
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
49-9031	Home Appliance Repairers
49-9041	Industrial Machinery Mechanics
49-9042	Maintenance and Repair Workers, General
49-9043	Maintenance Workers, Machinery
49-9044	Millwrights
49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers
49-9061	Camera and Photographic Equipment Repairers
49-9062	Medical Equipment Repairers
49-9063	Musical Instrument Repairers and Tuners
49-9064	Watch Repairers
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers
49-9094	Locksmiths and Safe Repairers
49-9096	Riggers
49-9098	Helpers--Installation, Maintenance, and Repair Workers
SOC Code Number	Occupation Title
51-0000	Production Occupations
51-1011	First-Line Supervisors/Managers of Production and Operating Workers
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
51-2021	Coil Winders, Tapers, and Finishers
51-2022	Electrical and Electronic Equipment Assemblers
51-2023	Electromechanical Equipment Assemblers
51-2031	Engine and Other Machine Assemblers
51-2041	Structural Metal Fabricators and Fitters
51-2092	Team Assemblers
51-3011	Bakers
51-3021	Butchers and Meat Cutters
51-3022	Meat, Poultry, and Fish Cutters and Trimmers
51-3023	Slaughterers and Meat Packers
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
51-3092	Food Batchmakers

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

51-3093	Food Cooking Machine Operators and Tenders
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic
51-4012	Numerical Tool and Process Control Programmers
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4041	Machinists
51-4051	Metal-Refining Furnace Operators and Tenders
51-4052	Pourers and Casters, Metal
51-4061	Model Makers, Metal and Plastic
51-4062	Patternmakers, Metal and Plastic
51-4071	Foundry Mold and Coremakers
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
51-4192	Lay-Out Workers, Metal and Plastic
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
51-4194	Tool Grinders, Filers, and Sharpeners
51-5011	Bindery Workers
51-5012	Bookbinders
51-5021	Job Printers
51-5022	Prepress Technicians and Workers
51-5023	Printing Machine Operators
51-6011	Laundry and Dry-Cleaning Workers
51-6021	Pressers, Textile, Garment, and Related Materials
51-6031	Sewing Machine Operators
51-6041	Shoe and Leather Workers and Repairers
51-6051	Sewers, Hand
51-6052	Tailors, Dressmakers, and Custom Sewers
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders
51-6062	Textile Cutting Machine Setters, Operators, and Tenders
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

51-7011	Cabinetmakers and Bench Carpenters
51-7021	Furniture Finishers
51-7031	Model Makers, Wood
51-7032	Patternmakers, Wood
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
51-8012	Power Distributors and Dispatchers
51-8013	Power Plant Operators
51-8021	Stationary Engineers and Boiler Operators
51-8031	Water and Liquid Waste Treatment Plant and System Operators
51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers
51-9011	Chemical Equipment Operators and Tenders
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders
51-9022	Grinding and Polishing Workers, Hand
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9031	Cutters and Trimmers, Hand
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9071	Jewelers and Precious Stone and Metal Workers
51-9081	Dental Laboratory Technicians
51-9083	Ophthalmic Laboratory Technicians
51-9111	Packaging and Filling Machine Operators and Tenders
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9122	Painters, Transportation Equipment
51-9123	Painting, Coating, and Decorating Workers
51-9131	Photographic Process Workers
51-9132	Photographic Processing Machine Operators
51-9141	Semiconductor Processors
51-9191	Cementing and Gluing Machine Operators and Tenders
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
51-9193	Cooling and Freezing Equipment Operators and Tenders
51-9194	Etchers and Engravers
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9196	Paper Goods Machine Setters, Operators, and Tenders
51-9198	Helpers--Production Workers
SOC Code Number	Occupation Title
53-0000	Transportation and Material Moving Occupations
53-1011	Aircraft Cargo Handling Supervisors
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand
53-1031	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

	Operators
53-2011	Airline Pilots, Copilots, and Flight Engineers
53-2012	Commercial Pilots
53-2021	Air Traffic Controllers
53-2022	Airfield Operations Specialists
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3022	Bus Drivers, School
53-3031	Driver/Sales Workers
53-3032	Truck Drivers, Heavy and Tractor-Trailer
53-3033	Truck Drivers, Light Or Delivery Services
53-3041	Taxi Drivers and Chauffeurs
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers
53-5011	Sailors and Marine Oilers
53-5021	Captains, Mates, and Pilots of Water Vessels
53-5022	Motorboat Operators
53-5031	Ship Engineers
53-6011	Bridge and Lock Tenders
53-6021	Parking Lot Attendants
53-6031	Service Station Attendants
53-6041	Traffic Technicians
53-7011	Conveyor Operators and Tenders
53-7021	Crane and Tower Operators
53-7032	Excavating and Loading Machine and Dragline Operators
53-7033	Loading Machine Operators, Underground Mining
53-7041	Hoist and Winch Operators
53-7051	Industrial Truck and Tractor Operators
53-7061	Cleaners of Vehicles and Equipment
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7063	Machine Feeders and Offbearers
53-7064	Packers and Packagers, Hand
53-7071	Gas Compressor and Gas Pumping Station Operators
53-7072	Pump Operators, Except Wellhead Pumps
53-7081	Refuse and Recyclable Material Collectors
53-7121	Tank Car, Truck, and Ship Loaders

Data available for each occupation code:
 Employment numbers
 Wage estimates: median, mean hourly, mean annual
 Estimates do not include self-employed workers.

Metropolitan Statistical Areas (MSAs)

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

Abilene, Texas
Aguadilla, Puerto Rico
Akron, Ohio
Albany, Georgia
Albany-Schenectady-Troy, New York
Albuquerque, New Mexico
Alexandria, Louisiana
Allentown-Bethlehem-Easton, Pennsylvania
Altoona, Pennsylvania
Amarillo, Texas
Anchorage, Alaska
Ann Arbor, Michigan
Anniston, Alabama
Appleton-Oshkosh-Neenah, Wisconsin
Arecibo, Puerto Rico
Asheville, North Carolina
Athens, Georgia
Atlanta, Georgia
Atlantic-Cape May, New Jersey
Auburn-Opelika, Alabama
Augusta-Aiken, Georgia-South Carolina
Austin-San Marcos, Texas
Bakersfield, California
Baltimore, Maryland
Bangor, Maine
Barnstable-Yarmouth, Massachusetts
Baton Rouge, Louisiana
Beaumont-Port Arthur, Texas
Bellingham, WA
Benton Harbor, Michigan
Bergen-Passaic, New Jersey
Billings, Montana
Biloxi-Gulfport-Pascagoula, Mississippi
Binghamton, New York
Birmingham, Alabama
Bismarck, North Dakota
Bloomington, Indiana
Bloomington-Normal, Illinois
Boise City, Idaho
Boston, Massachusetts-New Hampshire
Boulder-Longmont, Colorado
Brazoria, Texas
Bremerton, WA
Bridgeport, Connecticut
Brockton, Massachusetts
Brownsville-Harlingen-San Benito, Texas
Bryan-College Station, Texas
Buffalo-Niagara Falls, New York
Burlington, Vermont
Caguas, Puerto Rico
Canton-Massillon, Ohio
Casper, Wyoming
Cedar Rapids, Iowa
Champaign-Urbana, Illinois
Charleston, West Virginia
Charleston-North Charleston
Charlotte-Gastonia-Rock Hill
Charlottesville, Virginia
Chattanooga, Tennessee-Georgia
Cheyenne, Wyoming
Chicago, Illinois
Chico-Paradise, California
Cincinnati, Ohio-Kentucky-Indiana
Clarksville-Hopkinsville
Cleveland-Lorain-Elyria, Ohio
Colorado Springs, Colorado
Columbia, Missouri
Columbia, South Carolina
Columbus, Georgia-Alabama
Columbus, Ohio
Corpus Christi, Texas
Corvallis, Oregon
Cumberland, Maryland-West Virginia
Dallas, Texas
Danbury, Connecticut
Danville, Virginia
Davenport-Moline-Rock Island
Dayton-Springfield, Ohio
Daytona Beach, Florida
Decatur, Alabama
Decatur, Illinois
Denver, Colorado
Des Moines, Iowa
Detroit, Michigan
Dothan, Alabama
Dover, Delaware
Dubuque, Iowa
Duluth-Superior, Minnesota-Wisconsin
Dutchess County, New York
Eau Claire, Wisconsin
El Paso, Texas
Elkhart-Goshen, Indiana
Elmira, New York
Enid, Oklahoma
Erie, Pennsylvania
Eugene-Springfield, Oregon
Evansville-Henderson, Indiana-Kentucky
Fargo-Moorhead, North Dakota-Minnesota
Fayetteville, North Carolina

Fayetteville-Springdale-Rogers, Arkansas
Fitchburg-Leominster, Massachusetts
Flint, Michigan
Florence, Alabama
Florence, South Carolina
Fort Collins-Loveland, Colorado
Fort Lauderdale, Florida
Fort Myers-Cape Coral, Florida
Fort Pierce-Port St. Lucie, Florida
Fort Smith, Arkansas-Oklahoma
Fort Walton Beach, Florida
Fort Wayne, Indiana
Fort Worth-Arlington, Texas
Fresno, California
Gadsden, Alabama
Gainesville, Florida
Galveston, Texas
Gary, Indiana
Glens Falls, New York
Goldsboro, North Carolina
Grand Forks, North Dakota-Minnesota
Grand Rapids-Muskegon-Holland, Michigan
Great Falls, Montana
Greeley, Colorado
Green Bay, Wisconsin
Greensboro--Winston-Salem--High Point
Greenville, North Carolina
Greenville-Spartanburg-Anderson
Hagerstown, Maryland
Hamilton-Middletown, Ohio
Harrisburg-Lebanon-Carlisle
Hartford, Connecticut
Hickory-Morganton, North Carolina
Honolulu, Hawaii
Houma, Louisiana
Houston, Texas
Huntington-Ashland
Huntsville, Alabama
APPENDIX B.2

Indianapolis, Indiana
Iowa City, Iowa
Jackson, Michigan
Jackson, Mississippi
Jackson, Tennessee
Jacksonville, Florida
Jacksonville, North Carolina
Jamestown, New York
Janesville-Beloit, Wisconsin
Jersey City, New Jersey

Johnson City-Kingsport-Bristol
Johnstown, Pennsylvania
Jonesboro, Arkansas
Joplin, Missouri
Kalamazoo-Battle Creek, Michigan
Kankakee, Illinois
Kansas City, Missouri-Kansas
Kenosha, Wisconsin
Killeen-Temple, Texas
Knoxville, Tennessee
Kokomo, Indiana
La Crosse, Wisconsin-Minnesota
Lafayette, Indiana
Lafayette, Louisiana
Lake Charles, Louisiana
Lakeland-Winter Haven, Florida
Lancaster, Pennsylvania
Lansing-East Lansing, Michigan
Laredo, Texas
Las Cruces, New Mexico
Las Vegas, Nevada-Arizona
Lawrence Massachusetts-New Hampshire
Lawrence, Kansas
Lawton, Oklahoma
Lewiston-Auburn, Maine
Lexington, Kentucky
Lima, Ohio
Lincoln, Nebraska
Little Rock-North Little Rock, Arkansas
Longview-Marshall, Texas
Los Angeles-Long Beach, California
Louisville, Kentucky-Indiana
Lowell, Massachusetts-New Hampshire
Lubbock, Texas
Lynchburg, Virginia
Macon, Georgia
Madison, Wisconsin
Manchester, New Hampshire
Mansfield, Ohio
Mayaguez, Puerto Rico
McAllen-Edinburg-Mission, Texas
Medford-Ashland, Oregon
Melbourne-Titusville-Palm Bay, Florida
Memphis, Tennessee-Arkansas-Mississippi
Merced, California
Miami, Florida
Middlesex-Somerset-Hunterdon, New Jersey
Milwaukee-Waukesha, Wisconsin
Minneapolis-St. Paul
Mobile, Alabama

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

Modesto, California
Monmouth-Ocean, New Jersey
Monroe, Louisiana
Montgomery, Alabama
Muncie, Indiana
Myrtle Beach, South Carolina
Naples, Florida
Nashua, New Hampshire
Nashville, Tennessee
Nassau-Suffolk, New York
New Bedford, Massachusetts
New Haven-Meriden, Connecticut
New London-Norwich
New Orleans, Louisiana
New York, New York
Newark, New Jersey
Newburgh, New York-Pennsylvania
Norfolk-Virginia Beach-Newport News
Oakland, California
Ocala, Florida
Odessa-Midland, Texas
Oklahoma City, Oklahoma
Olympia, WA
Omaha, Nebraska-Iowa
Orange County, California
Orange County, New York
Orlando, Florida
Owensboro, Kentucky
Panama City, Florida
Parkersburg-Marietta, West Virginia-Ohio
Pensacola, Florida
Peoria-Pekin, Illinois
Philadelphia, Pennsylvania-New Jersey
Phoenix-Mesa, Arizona
Pine Bluff, Arkansas
Pittsburgh, Pennsylvania
Pittsfield, Massachusetts
Pocatello, Idaho

Ponce, Puerto Rico
Portland, Maine
Portland-Vancouver, Oregon-WA
Portsmouth-Rochester
Providence-Fall River-Warwick
Provo-Orem, Utah
Pueblo, Colorado
Punta Gorda, Florida
Racine, Wisconsin
Raleigh-Durham-Chapel Hill
Rapid City, South Dakota
Reading, Pennsylvania

Redding, California
Reno, Nevada
Richland-Kennewick-Pasco, WA
Richmond-Petersburg, Virginia
Riverside-San Bernardino, California
Roanoke, Virginia
Rochester, Minnesota
Rochester, New York
Rockford, Illinois
Rocky Mount, North Carolina
Sacramento, California
Saginaw-Bay City-Midland, Michigan
Salem, Oregon
Salinas, California
Salt Lake City-Ogden, Utah
San Angelo, Texas
San Antonio, Texas
San Diego, California
San Francisco, California
San Jose, California
San Juan-Bayamon, Puerto Rico
San Luis Obispo-Atascadero-Paso Robles
Santa Barbara-Santa Maria-Lompoc
Santa Cruz-Watsonville, California
Santa Fe, New Mexico
Santa Rosa, California
Sarasota-Bradenton, Florida
Savannah, Georgia
Scranton--Wilkes-Barre--Hazleton
Seattle-Bellevue-Everett, WA
Sharon, Pennsylvania
Sheboygan, Wisconsin
Sherman-Denison, Texas
Shreveport-Bossier City, Louisiana
Sioux City, Iowa-Nebraska
Sioux Falls, South Dakota
South Bend, Indiana
Spokane, WA
Springfield, Illinois
Springfield, Massachusetts
Springfield, Missouri
St. Cloud, Minnesota
St. Joseph, Missouri
St. Louis, Missouri-Illinois
Stamford-Norwalk, Connecticut
State College, Pennsylvania
Steubenville-Weirton, Ohio-West Virginia
Stockton-Lodi, California
Sumter, South Carolina
Syracuse, New York

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

Tacoma, WA
Tallahassee, Florida
Tampa-St. Petersburg-Clearwater, Florida
Terre Haute, Indiana
Texarkana, Texas-Texarkana
Toledo, Ohio
Topeka, Kansas
Trenton, New Jersey
Tucson, Arizona
Tulsa, Oklahoma
Tuscaloosa, Alabama
Tyler, Texas
Utica-Rome, New York
Vallejo-Fairfield-Napa, California
Ventura, California
Victoria, Texas
Vineland-Millville-Bridgeton, New Jersey
Visalia-Tulare-Porterville, California
Waco, Texas
Washington
Waterbury, Connecticut
Waterloo-Cedar Falls, Iowa
Wausau, Wisconsin
West Palm Beach-Boca Raton, Florida
Wheeling, West Virginia-Ohio
Wichita Falls, Texas
Wichita, Kansas
Williamsport, Pennsylvania
Wilmington, North Carolina
Wilmington-Newark, Delaware-Maryland
Worcester, Massachusetts-Connecticut
Yakima, WA
Yolo, California
York, Pennsylvania
Youngstown-Warren, Ohio
Yuba City, California
Yuma, Arizona

Open Issues

- **Museums:** The nature of the data does not allow us to separate art museums from museums of other disciplines. As a result, should they be counted as “‘Pure’ Arts” or “Little ‘C’ Culture”?
- **Manufacturing of Arts-Related Goods:** How does the manufacturing of arts-related goods fit into the “basket” definition of the creative industries? Does this sector have more in common with the retail of arts-related goods or with the general manufacturing industry?
- **Boundaries of the Outer Ring (“Little ‘C’ Culture”):** What else should this basket include? What clearly shouldn't be included?
- **Non-Descriptive Definitions of Baskets:** How do we define these baskets in words (as opposed to defining them by listing what they include)?
- **Notions of Quality; High versus Popular Art; Commercially versus Independently Produced Art:** How should these be addressed? How can they be addressed within the constraints of this analysis?

City of Chicago Project, Cultural Policy Center, University of Chicago
Presented to the Creative Industries Task Force, Advancing Chicago's Civic Agenda Through the Arts
May 5, 2003

To build upon our April 18th meeting, this packet includes the details of our initial slating of Bureau of Labor Statistics (BLS) data categories into our tiered-circle model. Once again, we are using BLS data in order to make use of nationally recognized and respected data source, and to maintain consistency when comparing results between cities.

- Tiered-circle model with new basket titles
- Explanation of each basket title
 - Inner Circle: "Arts as an End Itself"
 - Middle Circle: "Commercial Arts"
 - Middle Circle: "Art Facilitators"
 - Outer Circle: "City Culture"

(For these pages, please note: bold headings are BLS Occupational Categories and non-bolded occupations are BLS occupations that fall within each of the broader categories.)

We are beginning to research additional arts- and culture-related national data sources to complement the BLS data. Our initial survey begins with sources compiled by Princeton University's Cultural Policy & the Arts National Data Archive (CPANDA). (<http://www.artsdata.princeton.edu>)

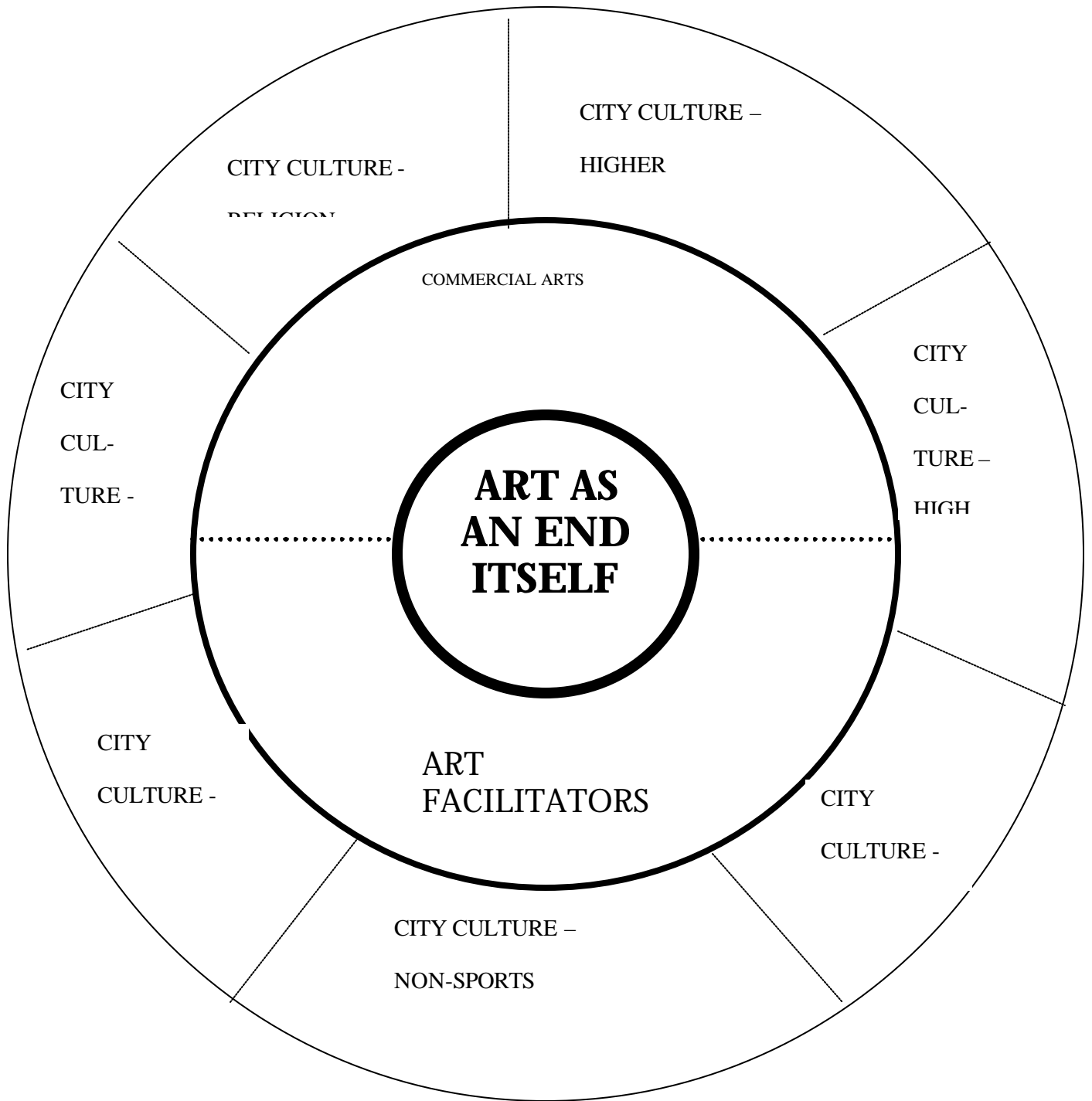
- National Arts and Cultural Policy Resources

In addition to national data, we are compiling data sources specific to Illinois and Chicago.

- Regional Arts and Cultural Policy Resources

Open Issues

- Uncertainty regarding slating of specific BLS Occupational Categories



Art as an End Itself

“Those involved in the creation and collection of works of art that exist, primarily, as ends in themselves.”

Architecture and Engineering Occupations

Architects, Except Landscape and Naval
Landscape Architects

Education, Training, and Library Occupations

Archivists, Curators, and Museum Technicians

Arts, Design, Entertainment, Sports, and Media Occupations

Art Directors
Fine Artists, Including Painters, Sculptors, and Illustrators
Producers and Directors
Dancers
Choreographers
Music Directors and Composers
Musicians and Singers
Writers and Authors
Photographers

Commercial Arts

**“Those involved in the creation of works of art that exist,
primarily, for a commercial purpose.”**

Architecture and Engineering Occupations

Architectural and Civil Drafters

Education, Training, and Library Occupations

Audio-Visual Collections Specialists

Arts, Design, Entertainment, Sports, and Media Occupations

Multi-Media Artists and Animators

Commercial and Industrial Designers

Fashion Designers

Floral Designers

Graphic Designers

Interior Designers

Merchandise Displayers and Window Trimmers

Set and Exhibit Designers

Editors

Technical Writers

Camera Operators, Television, Video, and Motion Picture

Film and Video Editors

Personal Care and Service Occupations

Makeup Artists, Theatrical and Performance

Production Occupations

Tailors, Dressmakers, and Custom Sewers

Fabric and Apparel Patternmakers

Art Facilitators

“Those involved in enhancing the factors of production (human and physical capital) used in the creation of works of art.”

Management Occupations

Advertising and Promotions Managers

Business and Financial Operations Occupations

Agents and Business Managers of Artists, Performers, and Athletes

Education, Training, and Library Occupations

Architecture Teachers, Postsecondary
Art, Drama, and Music Teachers, Postsecondary

Installation, Maintenance, and Repair Occupations

Musical Instrument Repairers and Tuners

City Culture

**“Those involved in fields and institutions that define
the culture of a city.”**

Higher Education

Management Occupations

Education Administrators, Postsecondary

Education, Training, and Library Occupations

Business Teachers, Postsecondary
Computer Science Teachers, Postsecondary
Mathematical Science Teachers, Postsecondary
Engineering Teachers, Postsecondary
Agricultural Sciences Teachers, Postsecondary
Biological Science Teachers, Postsecondary
Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
Chemistry Teachers, Postsecondary
Environmental Science Teachers, Postsecondary
Physics Teachers, Postsecondary
Anthropology and Archeology Teachers, Postsecondary
Area, Ethnic, and Cultural Studies Teachers, Postsecondary
Economics Teachers, Postsecondary
Geography Teachers, Postsecondary
Political Science Teachers, Postsecondary
Psychology Teachers, Postsecondary
Sociology Teachers, Postsecondary
Nursing Instructors and Teachers, Postsecondary
Education Teachers, Postsecondary
Library Science Teachers, Postsecondary
Criminal Justice and Law Enforcement Teachers, Postsecondary
Law Teachers, Postsecondary
Social Work Teachers, Postsecondary
Communications Teachers, Postsecondary
English Language and Literature Teachers, Postsecondary
Foreign Language and Literature Teachers, Postsecondary
History Teachers, Postsecondary
Philosophy and Religion Teachers, Postsecondary
Graduate Teaching Assistants
Home Economics Teachers, Postsecondary
Recreation and Fitness Studies Teachers, Postsecondary
Vocational Education Teachers, Postsecondary
Librarians

Sports

Arts, Design, Entertainment, Sports, and Media Occupations

Coaches and Scouts

Personal Care and Service Occupations

Fitness Trainers and Aerobics Instructors

City Culture

**“Those involved in fields and institutions that define
the culture of a city.”**

Media

Arts, Design, Entertainment, Sports, and Media Occupations

Announcers
News Analysts, Reporters, and Correspondents

Culinary

Food Preparation and Serving Related Occupations

Chefs and Head Cooks
Cooks, Restaurants
Bartenders
Waiters and Waitresses
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

Non-Sports Recreation

Personal Care and Service Occupations

Motion Picture Projectionists
Ushers, Lobby Attendants, and Ticket Takers
Amusement and Recreation Attendants
Animal Trainers
Tour Guides and Escorts
Travel Guides

Religion

Community and Social Service Occupations

Clergy
Directors, Religious Activities and Education

High Tech

Computer and Mathematical Occupations

Computer and Information Scientists, Research
Computer Programmers

National Arts and Cultural Policy Resources

<http://www.artsdata.princeton.edu>

Nonprofit Organizations

American Arts Alliance	http://www.americanartsalliance.org
American Association of Museums	http://www.aam-us.org
American Symphony Orchestra	http://www.symphony.org
Americans for the Arts	http://www.artsusa.org
Arts4AllPeople	http://www.arts4allpeople.org
Association of Art Museum Directors	http://www.aamd.org
Association of Arts Administration Educators	http://www.artsnet.org/aaae
Association of Art Museum Directors	http://www.aamd.org
Association of Performing Arts Presenters	http://www.artspresenters.org
Center for Arts & Culture	http://www.culturalpolicy.org
Chamber Music America	http://www.chamber-music.org
Dance/USA	http://www.danceusa.org
National Art Education Association	http://www.naea-reston.org
National Arts Strategies	http://www.artstrategies.org
National Assembly of State Arts Agencies	http://www.nasaa-arts.org
National Center for Charitable Statistics	http://NCCS.urban.org
National Foundation for Advancement in the Arts	http://www.ARTSawards.org
OPERA America	http://www.operaam.org
The Independent Sector	http://independentsector.org
The Pew Charitable Trusts	http://www.pewtrusts.com
Theatre Communications Group	http://www.tcg.org
Urban Institute	http://www.urban.org

Social Science Data Archives

American Religion Data Archive	http://www.thearda.com
Inter-university Consortium for Political and Social Research	http://www.icpsr.umich.edu
National Science Foundation, Division of Science Resource Statistics	http://www.nsf.gov/sbe/srs/stats.htm
Odum Institute for Research in Social Science, Univ. of North Carolina	http://www.irss.unc.edu
The Roper Center for Public Opinion Research	http://www.ropercenter.uconn.edu

US Government	
Census of Service Industries	http://www.census.gov/svsd/www/sas0500.html
Institute of Museum and Library Services	http://www.imls.gov
National Center for Education Statistics	http://nces.ed.gov
National Endowment for the Arts	http://www.arts.gov
National Endowment for the Humanities	http://www.neh.fed.us
Artist Unions	
Actors' Equity Association	http://www.actorsequity.org
American Federation of Musicians	http://www.afm.org
American Federation of Television and Radio Artists	http://www.aftra.org
American Guild of Musical Artists	http://www.musicalartists.org
Directors Guild of America	http://www.dga.org
International Alliance of Theatrical Stage Employees	http://www.iatse.lm.com
National Artists Equity Association	http://artists-equity.org/naea.html
New York Dramatists Guild	http://dramaguild.com
Producers Guild Of America	http://www.producersguild.org
Screen Actors Guild	http://www.sag.org
Writers Guild of America	http://www.wga.org
Commercial-Sector Organizations	
Association of American Publishers	http://www.publishers.org
Book Industry Study Group	http://www.bisg.org
National Book Critics Circle	http://www.bookcritics.org
National Book Foundation	http://www.nationalbook.org
Publishers Weekly	http://www.publishersweekly.com
Pollstar	http://www.pollstar.com
Audit Bureau of Circulations	http://www.accessabc.com
Magazine Publishers of America	http://www.magazine.org
Publishers Information Bureau	http://www.magazine.org/pib
Academy of Motion Picture Arts & Sciences	http://www.oscars.org
American Film Institute	http://www.afi.com

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

Baseline	http://baseline.hollywood.com
Exhibitor Relations Co.	http://www.exhibitorrelations.com
Motion Picture Association of America	http://www.mpa.org
National Film Preservation Board	http://www.loc.gov/film
Variety	http://www.variety.com
Editor & Publisher	http://www.editorandpublisher.com
Newspaper Association of America	http://www.naa.org
BIA Research Inc.	http://www.bia.com
M Street Corporation	http://www.mstreet.net
Billboard	http://www.billboard.com
IFPI	http://www.ifpi.org
National Academy of Recording Arts & Sciences	http://www.grammy.com
Recording Industry Association of America	http://www.riaa.org
SoundScan	http://www.soundscan.com
Academy of Television Arts & Sciences	http://www.emmys.com
Cabletelevision Advertising Bureau	http://www.cabletvadbureau.com
Kagan World Media	http://www.kagan.com
Marketing Evaluations/TvQ, Inc.	http://www.qscores.com
National Association of Broadcasters	http://www.nab.org
National Cable and Telecommunications Associations	http://www.ncta.com
Nielsen Media Research	http://www.nielsenmedia.com
American Theatre Wing	http://www.tonys.org
The League of American Theatres and Producers	http://www.livebroadway.com
The NPD Group	http://www.npd.com
Alexander & Associates	http://www.alexassoc.com
Video Software Dealers Association	http://www.vstda.org

Regional Arts and Cultural Policy Resources

Arts & Business Council of Chicago	http://www.artsbiz-chicago.org
Arts Bridge	http://www.artsbridge.org
Arts Marketing	http://www.artsmarketing.org
Chicago Architectural Foundation	http://www.architecture.org
Chicago Art Deco Society	http://www.chicagoartdecosociety.com/
Chicago Artists' Archives	http://www.chipublib.org/008subject/001artmusic/chicago_art_archives.html
Chicago Artists' Coalition	http://www.caonline.org
Chicago Dance and Music Alliance	http://www.chicagoperformances.org
Chicago Society of Artists	http://www.csa-artists.com/
Chicago Theatre Homepage	http://www.studioz.org/chicago/
City of Chicago Art Program	http://www.ci.chi.il.us/tourism/PublicArt/PublicArt.html
ETA Creative Arts Foundation Inc.	http://www.etacreativearts.org
Friends of the Arts	http://www.fota.com/
Illinois Arts Alliance	http://www.artsalliance.org/
Illinois Arts Council	http://www.state.il.us/agency/iac/
Intuit: The Center for Intuitive and Outsider Art	http://outsider.art.org/
Landmarks Preservation Council of Illinois	http://www.landmarks.org
Society of Architectural Historians	http://www.sah.org
Tangerine Arts Group	http://www.tangerinearts.org/
The Three Arts Club of Chicago	http://www.threearts.org/
Woman Made Gallery	http://www.womanmade.org

Open Issues

- We are unsure whether the following BLS occupations should be included in our definition of the creative industries. If they are to be included, they would likely be slotted as follows:

COMMERCIAL ARTS

Construction and Extraction Occupations

Brickmasons and Blockmasons
Stonemasons
Carpenters

Production Occupations

Model Makers, Metal and Plastic
Patternmakers, Metal and Plastic
Foundry Mold and Coremakers
Upholsterers
Cabinetmakers and Bench Carpenters
Furniture Finishers
Model Makers, Wood

Patternmakers, Wood
Jewelers and Precious Stone and Metal Workers
Painting, Coating, and Decorating Workers
Etchers and Engravers
Molders, Shapers, and Casters, Except Metal and Plastic

ART FACILITATORS

Management Occupations

Marketing Managers
Public Relations Managers

Arts, Design, Entertainment, Sports, and Media Occupations

Public Relations Specialists
Audio and Video Equipment Technicians
Sound Engineering Technicians

Personal Care and Service Occupations

Costume Attendants

Production Occupations

Photographic Process Workers

CITY CULTURE – MEDIA

Arts, Design, Entertainment, Sports, and Media Occupations

Broadcast Technicians

Office and Administrative Support Occupations

Desktop Publishers

CITY CULTURE – NON-SPORTS RECREATION

Business and Financial Occupations

Meeting and Convention Planners

Personal Care and Service Occupations

Hairdressers, Hairstylists, and Cosmetologists

CITY CULTURE – HIGH TECH/SCIENCE

Computer and Mathematical Occupations

Computer Software Engineers, Applications
Computer Software Engineers, Systems Software

Architecture and Engineering Occupations

Aerospace Engineers
Biomedical Engineers
Chemical Engineers
Civil Engineers
Computer Hardware Engineers
Electrical Engineers
Electronics Engineers, Except Computer
Environmental Engineers
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
Industrial Engineers
Materials Engineers
Mechanical Engineers
Mining and Geological Engineers, Including Mining Safety Engineers
Nuclear Engineers
Petroleum Engineers

Life, Physical, and Social Science Occupations

Agricultural and Food Scientists
Biochemists and Biophysicists

Microbiologists
Zoologists and Wildlife Biologists
Conservation Scientists

Epidemiologists
Medical Scientists, Except Epidemiologists
Atmospheric and Space Scientists

Chemists
Materials Scientists
Environmental Scientists and Specialists, Including Health
Geoscientists, Except Hydrologists and Geographers

Economists
Clinical, Counseling, and School Psychologists
Sociologists

CITY CULTURE – HIGHER EDUCATION Education, Training, and Library Occupations

Library Technicians

CITY CULTURE – NON-PROFIT

Management Occupations

Social and Community Service Managers

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

As the Arts and Culture Workforce team began to collect data, they compiled the following data and graphs (culled from the Bureau of Labor Statistics' Occupational Employment Statistics program) on Chicago's arts and culture workforce, based on the definitional schema set out in the May 5, 2003 report to the Creative Industries Task Force.

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

BLS OCCUPATION	2001	2000	1999
	Employment (1)	Employment (1)	Employment (1)
ART AS AN END ITSELF			
Architects, Except Landscape and Naval	3,060	2,420	data not reported
Landscape Architects	data not reported	data not reported	340
Archivists, Curators, and Museum Technicians	510	440	data not reported
Art Directors	1,440	1,470	750
Fine Artists, Including Painters, Sculptors, and Illustrators	520	640	1,140
Actors	data not reported	1,370	data not reported
Producers and Directors	1,130	1,080	740
Dancers	130	210	data not reported
Choreographers	700	290	310
Music Directors and Composers	130	240	400
Musicians and Singers	2,540	3,890	data not reported
Writers and Authors	data not reported	1,410	1,400
Photographers	1,700	1,710	1,560
"ART AS AN END ITSELF" TOTAL	11,860	15,170	6,640
"Art as an End Itself" (Chicago) as % of total workforce (Chicago)	0.29	0.36	0.16
"Art as an End Itself" (Chicago) as % of "Art as an End Itself" (National)	2.40	3.37	1.48
COMMERCIAL ARTS			
Architectural and Civil Drafters	2,990	1,860	1,950
Audio-Visual Collections Specialists	130	130	190
Multi-Media Artists and Animators	2,170	2,520	data not reported
Commercial and Industrial Designers	700	880	1,250
Fashion Designers	200	270	370
Floral Designers	data not reported	data not reported	data not reported
Graphic Designers	5,240	4,340	2,830
Interior Designers	870	980	data not reported
Merchandise Displayers and Window Trimmers	1,550	1,750	1,410
Set and Exhibit Designers	350	200	data not reported
Editors	4,060	4,060	3,240
Technical Writers	1,450	1,580	1,880
Camera Operators, Television, Video, and Motion Picture	data not reported	480	320
Film and Video Editors	380	440	730
Makeup Artists, Theatrical and Performance	data not reported	data not reported	data not reported
Tailors, Dressmakers, and Custom Sewers	890	1,110	1,210
Fabric and Apparel Patternmakers	130	190	230
Etchers and Engravers	330	360	data not reported
Jewelers and Precious Stone and Metal Workers	data not reported	data not reported	data not reported
Cabinetmakers and Bench Carpenters	1,790	1,960	2,290

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

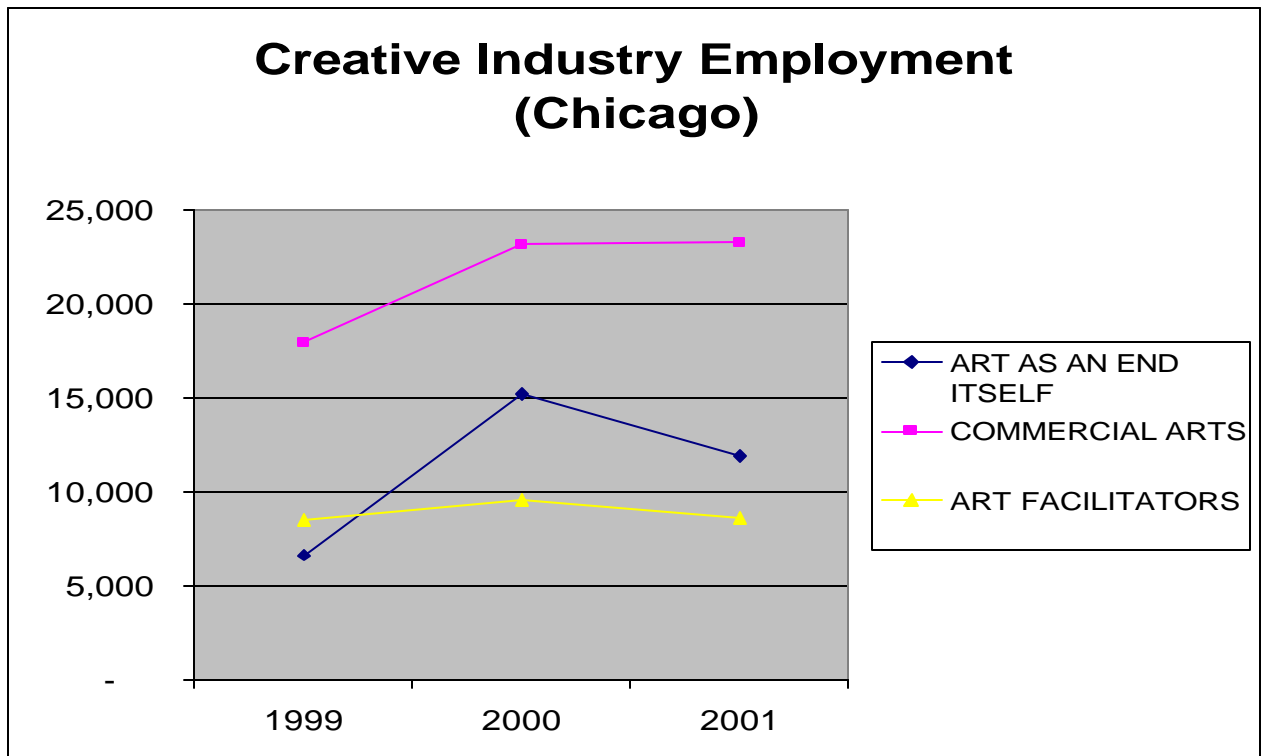
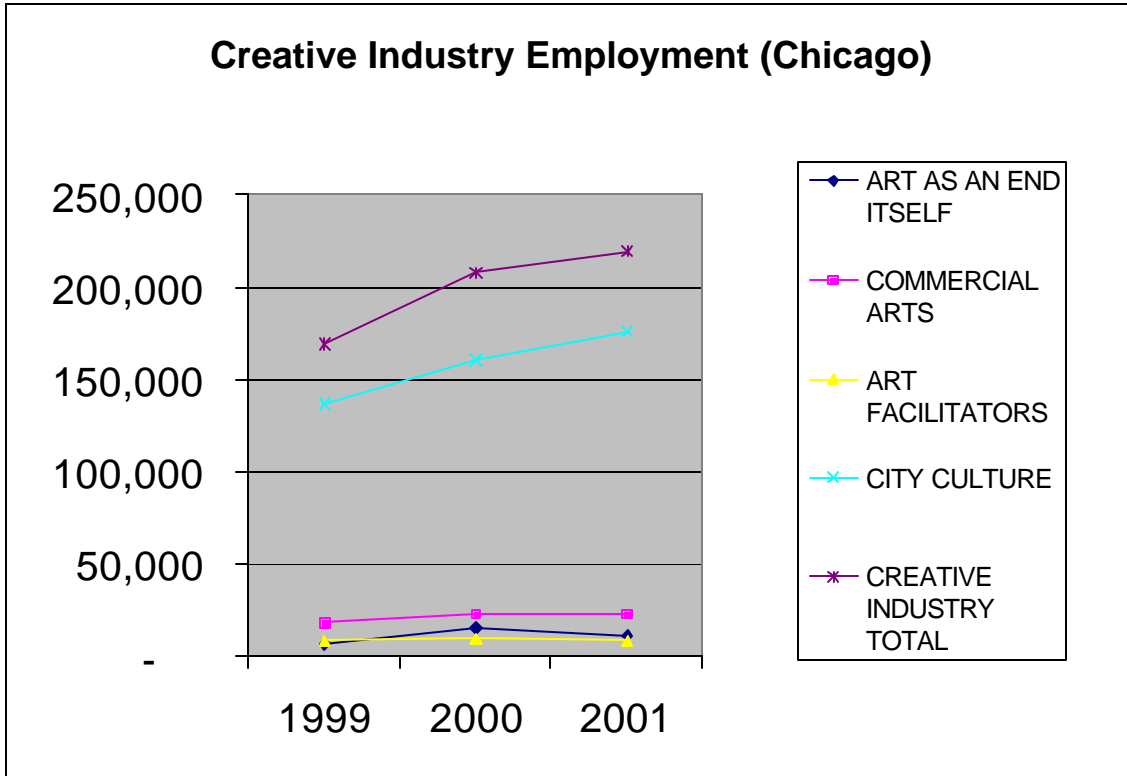
BLS OCCUPATION	2001	2000	1999
	Employment (1)	Employment (1)	Employment (1)
"COMMERCIAL ARTS" TOTAL	23,230	23,110	17,900
"Commercial Arts" (Chicago) as % of total workforce (Chicago)	0.58	0.56	0.44
"Commercial Arts" (Chicago) as % of "Commercial Arts" (National)	2.63	2.62	2.11
ART FACILITATORS			
Advertising and Promotions Managers	4,300	4,650	4,690
Agents and Business Managers of Artists, Performers, and Athletes	data not reported	230	data not reported
Architecture Teachers, Postsecondary	220	250	290
Art, Drama, and Music Teachers, Postsecondary	2,850	3,010	1,650
Audio and Video Equipment Technicians	930	1,130	1,620
Sound Engineering Technicians	220	220	220
Costume Attendants	70	data not reported	data not reported
Musical Instrument Repairers and Tuners	data not reported	data not reported	data not reported
"ARTS FACILITATORS" TOTAL	8,590	9,490	8,470
"Arts Facilitators" (Chicago) as % of total workforce (Chicago)	0.21	0.23	0.21
"Arts Facilitators" (Chicago) as % of "Arts Facilitators" (National)	4.15	4.43	3.81
CITY CULTURE			
Higher Education			
Education Administrators, Postsecondary	3,900	3,050	4,650
Business Teachers, Postsecondary	2,390	2,210	1,630
Computer Science Teachers, Postsecondary	1,050	850	data not reported
Mathematical Science Teachers, Postsecondary	960	1,070	1,060
Engineering Teachers, Postsecondary	1,370	1,580	data not reported
Agricultural Sciences Teachers, Postsecondary	360	400	data not reported
Biological Science Teachers, Postsecondary	2,320	3,010	1,990
Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	data not reported	data not reported	data not reported
Chemistry Teachers, Postsecondary	640	740	710
Environmental Science Teachers, Postsecondary	data not reported	70	data not reported
Physics Teachers, Postsecondary	580	680	data not reported
Anthropology and Archeology Teachers, Postsecondary	260	290	360

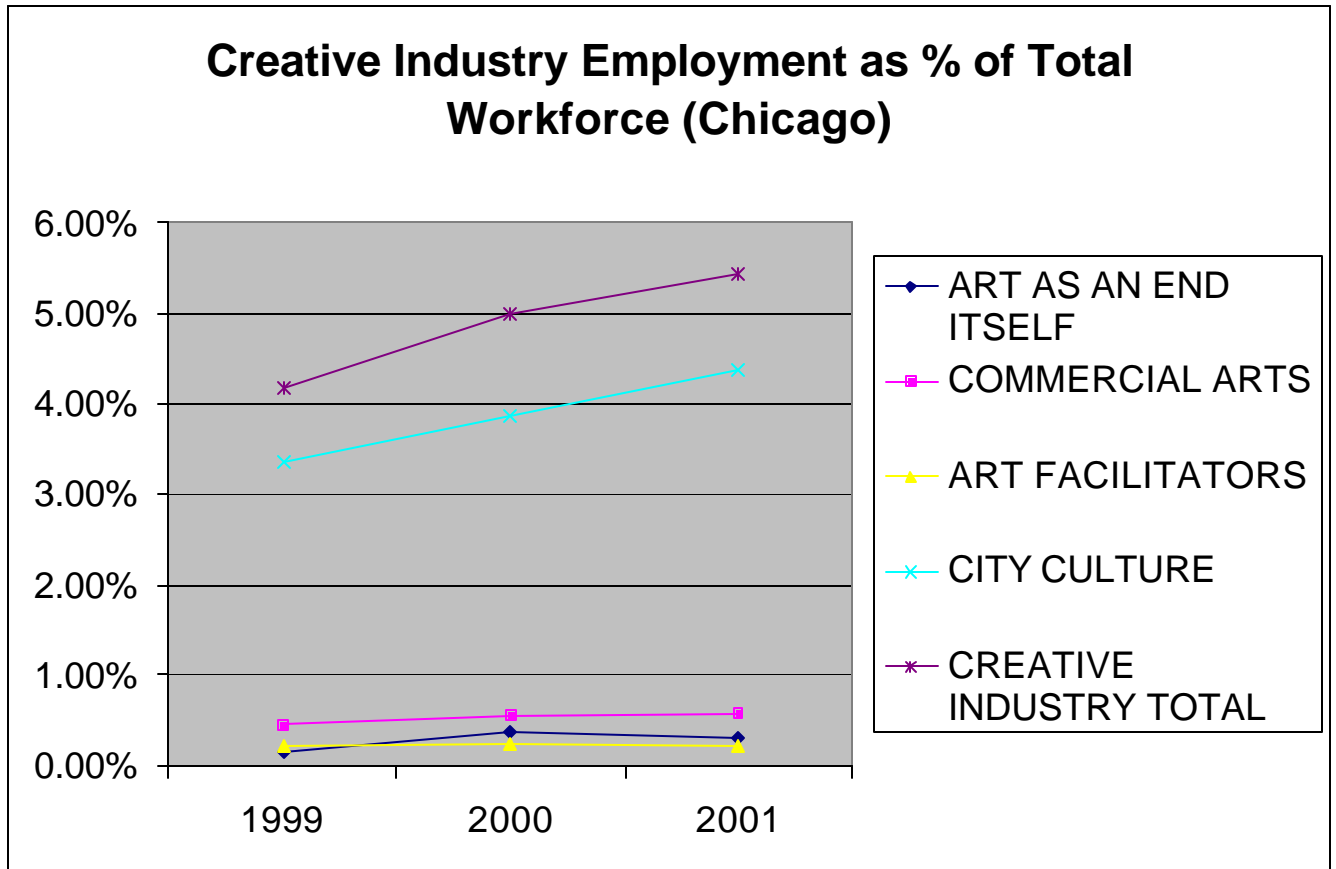
The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

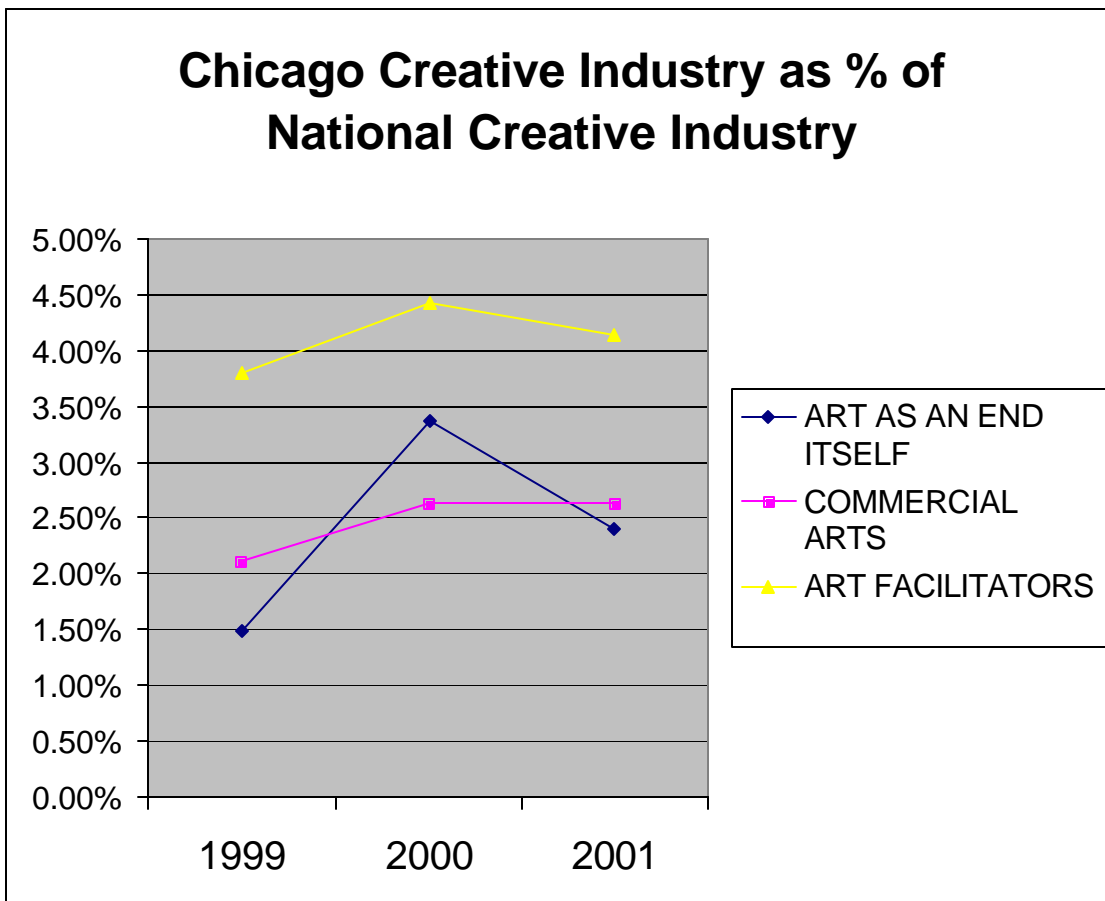
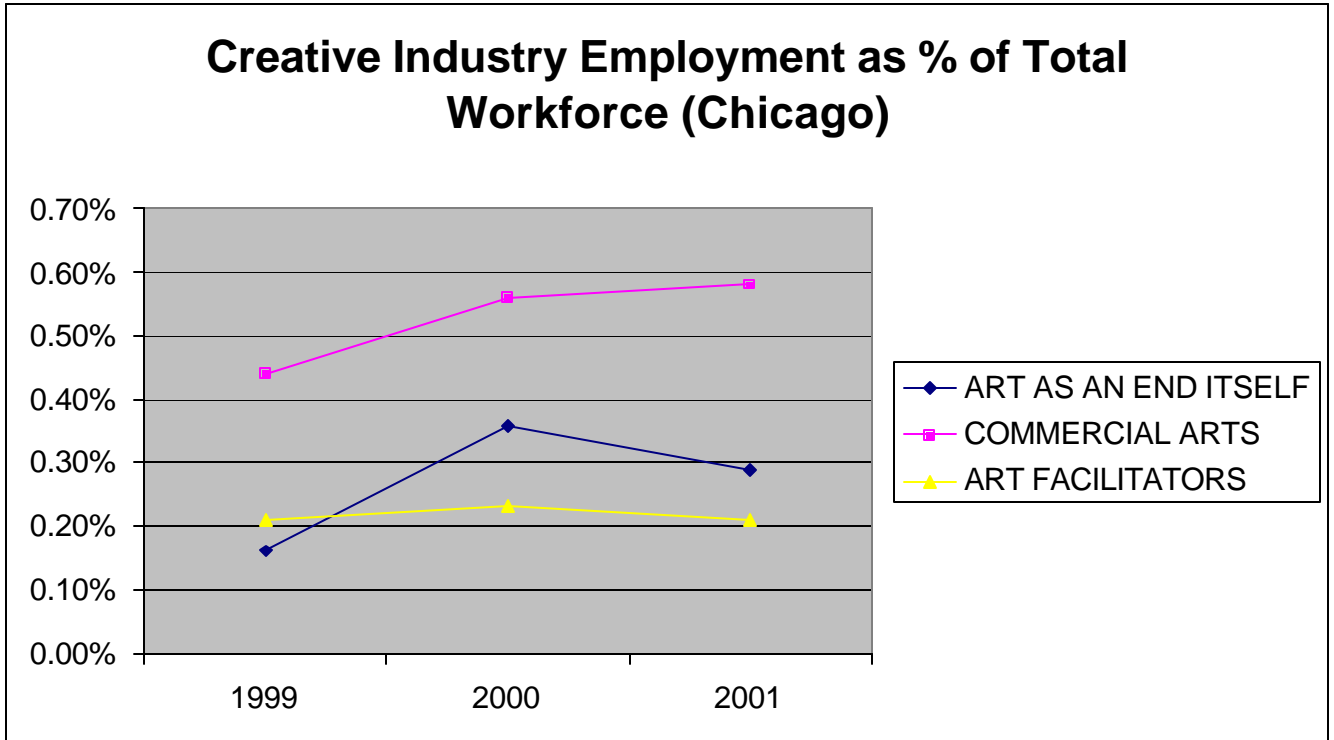
BLS OCCUPATION	2001	2000	1999
	Employment (1)	Employment (1)	Employment (1)
Area, Ethnic, and Cultural Studies Teachers, Postsecondary	100	data not reported	40
Economics Teachers, Postsecondary	480	500	data not reported
Geography Teachers, Postsecondary	130	150	130
Political Science Teachers, Postsecondary	340	370	340
Psychology Teachers, Postsecondary	700	790	650
Sociology Teachers, Postsecondary	230	270	data not reported
Nursing Instructors and Teachers, Postsecondary	760	930	720
Education Teachers, Postsecondary	1,120	1,080	700
Library Science Teachers, Postsecondary	320	340	data not reported
Criminal Justice and Law Enforcement Teachers, Postsecondary	170	220	data not reported
Law Teachers, Postsecondary	420	430	310
Social Work Teachers, Postsecondary	80	110	data not reported
Communications Teachers, Postsecondary	410	510	data not reported
English Language and Literature Teachers, Postsecondary	1,190	1,280	1,240
Foreign Language and Literature Teachers, Postsecondary	600	530	410
History Teachers, Postsecondary	360	380	300
Philosophy and Religion Teachers, Postsecondary	480	470	200
Graduate Teaching Assistants	4,390	4,470	7,690
Home Economics Teachers, Postsecondary	230	230	data not reported
Recreation and Fitness Studies Teachers, Postsecondary	440	400	400
Vocational Education Teachers, Postsecondary	930	1,370	960
Librarians	4,720	4,070	2,580
BASKET SUB-TOTAL	34,431	34,850	29,069
Basket as % of total workforce (Chicago)	0.86	0.84	0.72
Sports			
Coaches and Scouts	2,440	1,030	1,100
Fitness Trainers and Aerobics Instructors	3,490	2,770	1,480
BASKET SUB-TOTAL	5,930	3,800	2,580
Basket as % of total workforce (Chicago)	0.15	0.09	0.06
Media			
Announcers	530	650	620
Broadcast Technicians	960	1,110	700
Desktop Publishers	1,670	1,790	1,750
News Analysts, Reporters, and Correspondents	1,780	1,700	1,590
BASKET SUB-TOTAL	4,940	5,250	4,660
Basket as % of total workforce (Chicago)	0.12	0.13	0.12
Culinary			
Chefs and Head Cooks	1,930	1,250	3,020

The Arts and Culture Workforce Project:
 Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

BLS OCCUPATION	2001	2000	1999
	Employment (1)	Employment (1)	Employment (1)
Cooks, Restaurants	20,050	15,920	17,400
Bartenders	7,200	5,310	8,800
Waiters and Waitresses	71,570	59,700	33,420
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	9,800	8,980	9,470
BASKET SUB-TOTAL	112,551	93,160	74,109
Basket as % of total workforce (Chicago)	2.80	2.24	1.83
Non-Sports Recreation			
Motion Picture Projectionists	160	110	data not reported
Ushers, Lobby Attendants, and Ticket Takers	data not reported	data not reported	1,570
Amusement and Recreation Attendants	3,750	4,070	data not reported
Animal Trainers	data not reported	data not reported	data not reported
Tour Guides and Escorts	630	790	2,200
Travel Guides	data not reported	data not reported	data not reported
BASKET SUB-TOTAL	4,540	4,970	3,770
Basket as % of total workforce (Chicago)	0.11	0.12	0.09
Religion			
Clergy	780	840	1,030
Directors, Religious Activities and Education	970	data not reported	data not reported
BASKET SUB-TOTAL	1,750	840	1,030
Basket as % of total workforce (Chicago)	0.04	0.02	0.03
High Tech			
Computer and Information Scientists, Research	530	data not reported	data not reported
Computer Programmers	15,120	21,300	24,960
BASKET SUB-TOTAL	15,650	21,300	24,960
Basket as % of total workforce (Chicago)	0.39	0.51	0.62
"CITY CULTURE"			
TOTAL	179,792	164,170	140,178
"City Culture" (Chicago) as % of total workforce (Chicago)	4.47	3.95	3.47
CREATIVE INDUSTRIES			
TOTAL	223,472	211,940	173,188
"Creative Industries" (Chicago) as % of total workforce (Chicago)	5.55	5.10	4.28







What do these percentages mean?

Each point on the time-series graph represents a comparison between the Chicago Creative Industry employment (as a percentage of the total Chicago workforce) and the National Creative Industry employment (as a percentage of the total National workforce).

For example:

Let's consider the *Art Facilitators* line. The point on the graph for the year 2000 tells us what the Chicago Arts Facilitator employment was as a % out of the entire Chicago workforce compared to what the National Arts Facilitator employment was as a % out of the entire National workforce. The calculation is a result of the fraction that is formed by the ratio of these 2 percentages.

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

The following tables, prepared for Advancing Chicago's Civic Agenda Through the Arts, present Chicago in the context of other major American cities on the basis of Bureau of Labor Statistics data on the arts and culture workforce and on the basis of US Census data on arts and culture establishments.

msa name	population rank	overall creativity rank (from 1 based 1000)	quotient, artistic core	rank, artistic core (controlled for population)	rank, artistic core (raw numbers)	quotient, applied arts	rank, applied arts (controlled for population)	rank, applied arts (raw numbers)	quotient, arts facilities	rank, arts facilities (controlled for population)	rank, arts facilities (raw numbers)	quotient, total	rank, total (controlled for population)	rank, total (raw numbers)
Los Angeles--Long Beach, CA PMSA	1	12	2.84	3	2	1.27	7	2	0.69	26	3	1.31	6	2
New York, NY PMSA	2	9	3.76	1	1	1.60	3	1	0.86	20	2	1.68	2	1
Chicago, IL PMSA	3	15	0.82	14	3	0.90	20	3	1.21	9	1	1.02	12	3
Philadelphia, PA--NJ PMSA	4	17	0.81	15	8	0.93	19	6	0.86	19	7	0.88	21	6
Washington, DC--MD--VA--WV PMSA	5	8	1.26	7	5	1.34	6	4	1.10	13	4	1.22	7	4
Detroit, MI PMSA	6	68	0.81	16	10	0.93	18	8	0.85	21	12	0.87	22	9
Houston, TX PMSA	7	7	0.44	25	20	0.90	21	11	0.91	18	10	0.82	24	12
Atlanta, GA MSA	8	13	0.87	12	9	0.86	23	12	0.97	15	8	0.91	17	10
Dallas, TX PMSA	9	11	0.85	13	11	1.16	8	9	0.72	25	19	0.91	18	13
Denver, CO PMSA	25	14	1.33	6	13	1.05	10	19	1.23	7	18	1.18	10	20
Portland--Vancouver, OR--WA PMSA	28	16	1.08	9	17	1.03	11	22	1.09	14	22	1.07	11	22
San Francisco, CA PMSA	30	1	3.11	2	6	1.77	2	15	1.36	4	21	1.84	1	14
Indianapolis, IN MSA	37	20	0.58	23	23	0.75	26	25	1.22	8	23	0.93	16	24
Austin--San Marcos, TX MSA	48	2	0.50	24	27	1.02	12	24	0.67	27	27	0.76	27	27
Raleigh--Durham--Chapel Hill, NC MSA	51	6	0.62	22	25	1.00	15	26	0.78	23	25	0.83	23	25
Hartford, CT MSA	52	18	0.64	20	24	1.00	14	27	0.73	24	26	0.81	25	26
Boston, MA--NH PMSA	10	3	1.92	4	4	1.54	4	5	1.17	10	9	1.45	4	5
Riverside--San Bernardino, CA PMSA	11	*	0.21	27	26	0.58	27	23	1.59	1	5	0.96	15	16
Phoenix--Mesa, AZ MSA	12	19	0.78	18	15	0.97	16	13	1.59	2	6	1.21	8	7
Minneapolis--St. Paul, MN--WI MSA	13	10	1.40	5	7	1.36	5	10	1.25	6	13	1.32	5	8
Orange County, CA PMSA	14	*	0.36	26	22	1.08	9	14	0.93	17	17	0.88	20	19
San Diego, CA MSA	15	4	0.69	19	19	0.96	17	16	1.13	12	15	0.98	14	17
Nassau--Suffolk, NY PMSA	16	*	1.03	10	12	0.79	25	20	1.16	11	14	1.00	13	18
St. Louis, MO--IL MSA	17	45	0.96	11	16	1.00	13	17	1.46	3	11	1.20	9	15
Baltimore, MD PMSA	18	*	0.80	17	18	0.90	22	18	0.93	16	20	0.89	19	21
Seattle--Bellevue--Everett, WA PMSA	19	5	1.12	8	14	1.85	1	7	1.29	5	16	1.46	3	11
Tampa--St. Petersburg--Clearwater, FL MSA	20	38	0.63	21	21	0.86	24	21	0.80	22	24	0.79	26	23

The Arts and Culture Workforce Project:
Documents Prepared for Advancing Chicago's Civic Agenda Through the Arts

msa	rank	per capita rank	per capita rank (low rank)	per capita rank (high rank)	quotient	rank	per capita rank	per capita rank (low rank)	per capita rank (high rank)	quotient	rank	per capita rank	per capita rank (low rank)	per capita rank (high rank)	quotient	rank	per capita rank	per capita rank (low rank)	per capita rank (high rank)	quotient	rank	per capita rank	per capita rank (low rank)	per capita rank (high rank)	quotient
New York--Northern New Jersey--Long Island, NY--NJ--CT--PA CMSA	1	9	1.29	2	2	1.09	1	7	2.63	1	2	1.64	1	4	2.12	2	2	0.93	1	8	0.94	1	5		
Los Angeles--Riverside--Orange County, CA CMSA	2	12	1.75	1	1	0.44	5	24	3.22	2	1	0.56	4	22	6.32	1	1	0.57	2	14	0.42	3	24		
Chicago--Gary--Kenosha, IL--IN--WI CMSA	3	15	0.84	3	18	0.69	7	17	1.03	3	8	1.06	3	13	0.95	3	8	0.23	15	20	0.49	7	19		
Washington--Baltimore, DC--MD--VA--WV CMSA	4	8	0.90	4	11	0.98	4	10	0.77	5	14	0.98	5	15	0.99	4	7	0.94	3	7	0.89	4	7		
San Francisco--Oakland--San Jose, CA CMSA	5	1	0.88	5	15	1.23	2	5	1.11	4	7	2.15	2	1	1.00	5	6	0.86	4	12	0.95	5	4		
Philadelphia--Wilmington--Atlantic City, PA--NJ--DE--MD CMSA	6	17	0.88	7	14	1.08	6	8	0.82	6	12	0.95	9	16	0.57	10	20	0.29	17	19	1.02	6	3		
Boston--Worcester--Lawrence, MA--NH--ME--CT CMSA	7	3	0.96	6	9	1.34	3	2	0.61	11	19	1.11	7	10	0.65	8	15	1.04	5	5	1.66	2	2		
Detroit--Ann Arbor--Flint, MI CMSA	8	68	0.83	8	19	0.57	10	21	0.46	13	23	0.45	17	23	0.56	13	21	0.52	12	15	0.37	17	25		
Dallas--Fort Worth, TX CMSA	9	11	0.73	10	22	0.58	11	20	0.64	12	17	0.91	10	18	0.57	14	18	0.89	6	11	0.48	11	20		
Houston--Galveston--Brazoria, TX CMSA	10	7	0.62	14	25	0.54	13	23	0.42	18	25	0.42	19	24	0.37	17	24	0.31	19	18	0.70	8	15		
Atlanta, GA MSA	11	13	0.82	12	21	0.62	12	19	1.12	7	6	0.87	12	19	0.90	9	9	0.43	16	17	0.44	19	22		
Miami--Fort Lauderdale, FL CMSA	12	43	1.07	9	4	0.40	21	25	1.02	10	9	0.42	22	25	1.05	7	5	0.92	7	9	0.42	20	23		
Seattle--Tacoma--Bremerton, WA CMSA	13	5	0.99	11	7	1.36	8	1	1.18	9	5	1.96	6	3	0.88	12	10	0.91	9	10	0.79	9	10		
Phoenix--Mesa, AZ MSA	14	19	0.69	18	24	0.64	19	18	0.74	14	15	0.84	16	20	0.56	16	22	1.10	8	4	0.45	22	21		
Minneapolis--St. Paul, MN--WI MSA	15	10	1.11	13	3	1.25	9	4	1.50	8	3	2.03	8	2	1.37	6	3	0.72	14	13	0.91	10	6		
Cleveland--Akron, OH CMSA	16	44	0.95	15	10	0.84	14	13	0.55	20	20	1.01	15	14	0.51	20	23	0.00	23	23	0.76	13	14		
San Diego, CA MSA	17	4	0.72	21	23	0.84	15	14	0.71	17	16	1.09	13	11	0.60	18	16	0.00	21	21	0.79	12	9		
St. Louis, MO--IL MSA	18	45	1.02	16	5	0.87	18	12	0.90	15	10	0.91	18	17	0.58	21	17	0.96	13	6	0.77	16	13		
Denver--Boulder--Greeley, CO CMSA	19	14	0.98	17	8	0.91	16	11	0.80	16	13	1.41	11	6	1.32	11	4	1.11	10	3	0.77	15	12		
Tampa--St. Petersburg--Clearwater, FL MSA	21	38	0.90	19	13	0.54	24	22	0.64	21	18	0.64	24	21	0.69	19	13	1.19	11	1	0.61	21	17		
Portland--Salem, OR--WA CMSA	23	16	0.90	20	12	1.01	17	9	0.46	23	22	1.35	14	8	0.81	15	11	0.47	20	16	0.86	18	8		
Indianapolis, IN MSA	29	20	1.00	22	6	0.81	23	15	0.83	22	11	1.16	21	9	0.57	22	19	0.00	22	22	0.62	23	16		
Austin--San Marcos, TX MSA	38	2	0.86	23	17	0.76	25	16	1.38	19	4	1.49	20	5	0.67	23	14	1.14	18	2	0.61	25	18		
Raleigh--Durham--Chapel Hill, NC MSA	41	6	0.86	24	16	1.33	20	3	0.52	24	21	1.36	23	7	0.71	24	12	0.00	25	25	0.79	24	11		
Hartford, CT MSA	42	18	0.82	25	20	1.22	22	6	0.44	25	24	1.08	25	12	0.32	25	25	0.00	24	24	1.74	14	1		

Data on numbers of establishments come from 1997 US Economic Census.
Data on population come from 2000 US Census.

Quotients are calculated as follows: quotient = (# of establishments in msa/# of establishments in nation)/(msa population/national population). A quotient greater than 1 indicates that an MSA has a larger number of establishments than would be predicted from its population.

Please note that the 1997 US Economic Census does not provide data at the PMSA level; as a result, population rankings differ from those indicated in workforce rankings.

The Chicago-Gary-Kenosha MSA is comprised of Chicago PMSA (Cook, DeKalb, DuPage, Grundy, Kane, Kendall, Lake, McHenry & Will Counties); Gary PMSA (Lake & Porter Counties); Kankakee PMSA (Kankakee County); and Kenosha PMSA (Kenosha County).