

The Creative Economy in Iowa: An Overview

This study is an assessment of Iowa's creative economy. It represents a broad inventory of the creative composition of the Iowa economy with an eye towards defining its size and scope, measuring how it compares with the U.S., and discerning the value of the creative economy to the larger Iowa economy.

The creative economy has two important dimensions. The first is Iowa's creative workforce. The second is Iowa's creative industrial composition. The creative workforce is further segmented into two groups. The first, borrowing from Florida's work (2002), is the *super creative core*, which is composed of computer and mathematical professionals; architects and engineers; life, physical, and social scientists; education, training, and library professionals; and arts, design, entertainment, sports, and media occupations. The second subgroup is composed of the occupations termed *creative professionals*. Creative professionals include managers and administrators, business and financial professionals, legal professionals and health care practitioners, high-end sales professionals, and community and social service workers.

Creative industries are those that employ large fractions of the creative workforce, invest heavily in research and development, or create and distribute technologically sophisticated or artistic goods and services. These industries include specific kinds of manufacturing; broadcasting and communications industries; professional services; scientific and technical services and activities; membership organizations for business, labor, and other groups; all education providers; applied, performing, visual, and performing arts; commercial sports; heritage institutions; and independent artists, performers, and writers.

Iowa's creative economy has both strengths and weaknesses, especially when compared with the U.S. creative economy.

- By occupational grouping, Iowa's *super-creative core* of occupations makes up 10.8 percent of the workforce compared to 12 percent for the U.S.
 - Iowa has proportionately more creative workers in education, training, and library arts and sciences, but proportionately less in computer and mathematical specialists, architecture and engineering.
 - Iowa is proportionately close to the U.S. in life, physical, and social scientists and in its arts, design, entertainment, sports, and media workers.
- Iowa's *creative professional* composition (16.2 percent) is also slightly smaller than the U.S. (17.3 percent), which is more noticeable in its share of business and financial operations professionals and in its high end sales and related professionals.
- When combined, the Iowa creative occupational composition is 27 percent of the nonfarm workforce compared to a U.S. average of 29.2 percent.

During the 1990s, Iowa and the U.S. posted strong gains in creative employment growth.

- Iowa's *super creative core* occupations grew by 33 percent compared to just under 32 percent for the U.S.

- Iowa grew faster than the U.S. in mathematics and computer careers; life, physical, and social scientists; and artists.
- Iowa grew more slowly than the U.S. in education, training, and library professionals.
- Iowa and the U.S. posted low or negative growth in the number of engineers and architects.
- Iowa's *creative professional* occupations grew by almost 45 percent compared to just under 25 percent for the U.S.
 - Most of these gains were made in managerial and financial occupations, which grew by more than twice the rate of the U.S.
 - Legal and health related jobs grew more slowly than the U.S.
- In all, Iowa's creative occupations grew by 40 percent between 1990 and 2000 compared to 27.3 percent for the U.S.
- According to 2000 census respondents, the rate of increase in Iowans working in creative occupations was 3.5 times greater than all other occupations considering all change in occupations since the 1990 census.

There are distinct gender differences in the composition of Iowa's creative workforce.

- Women were about 54 percent of the *super creative core* group in 2000.
 - Men were disproportionately dominant in math and computer fields, engineers and architects, and in life, physical, and the social scientists.
 - Women were much more prominent in education, accounting for 72 percent of the occupations. Prominence in this category weights the total for the super-creative core group slightly in favor of women.
- There are more male *creative professionals* than female.
 - In managerial and financial and in legal professions, there are significantly more men.
 - Women, however, make up 78.5 percent of occupations in the health care group.
- When we look at growth over the last decade, we find that women have made proportionately strong gains in the *super-creative core* professions by gaining nearly 2 of every three jobs.
 - In math and computer fields, two new jobs went to men for every one that a women got.
 - But in the education, training, and library professions, women accounted for 94.2 percent of the new jobs, and in the arts, they captured 62 percent.
- Men received the lion's share of new *creative professional* jobs.
 - Over 70 percent of new managerial and financial jobs went to men.
 - Women posted very strong gains in legal (94 percent) and health care jobs (84 percent), but these gains were not enough to offset the numerical gains men made in managerial and finance careers.
- Despite gains in many categories, 53 percent of all creative jobs went to men and 47 percent to women.

On an annualized basis, Iowa's creative professionals earn less than their national counterparts.

- The average for all *super creative core* workers is 82.7 percent of the U.S. average.
 - The highest percentage, 88.3 percent, was found for mathematical and computer workers.

- The lowest percentage, 71.7 percent, was found for Iowa's arts, design, entertainment, sports, and media professionals.
- The average for all creative professionals was 83.7 percent of the U.S. amount.
 - Community and social service professionals had the highest value at 86.3 percent.
 - High end sales and related occupations fared more poorly at 80.3 percent.

When we switch our focus to Iowa's *creative industries*, some interesting comparisons with the U.S. emerge

- Iowa's creative industries make up 22.5 percent of all nonfarm jobs compared to 25.6 percent for the U.S.
 - Iowa is proportionately very under-represented in creative manufacturing, broadcast and media firms, scientific and technical firms, applied and performing arts, and in jobs in heritage establishments.
 - Iowa is proportionately competitive with the U.S. in post-secondary education, all other education, in the literary and visual arts, and in commercial sports.
- During the decade of the 1990s, jobs in Iowa's creative industries grew by 14 percent, ten percentage points less than the U.S. rate.
 - The state had relatively high growth rates in professional services firms (43 percent), performing arts (49 percent), visual arts (35 percent), commercial sports (39 percent).
 - Rates of growth were low or negative in creative manufacturing, broadcast and media firms, literary arts, and membership organizations.
- Average earnings per job in Iowa's creative industries were 73.4 percent of the U.S. average
 - Iowa's post-secondary education jobs paid slightly above the U.S. average. All other industry groupings were substantially less.
 - Among the lowest paying industries were commercial sports (25 percent), performing arts (29.5 percent), broadcast and media jobs (53 percent), scientific and technical jobs (63 percent), and applied arts (64 percent).

The study also finds rural and urban differences in the accumulation of creative jobs in Iowa.

- Nonmetropolitan areas were able to capture nearly 33 percent of all jobs in creative industries between 1990 and 2000.
 - They, however, post substantially smaller shares of the gains in scientific and technical jobs (17.5 percent) and arts and entertainment jobs (6.8 percent).
 - The study concludes that there are concentrations of creative job change in the state that align with the state's more populated regions.

Economic impact estimates were estimated for Iowa's creative workers and Iowa's creative firms.

- In all, Iowa's creative workforce converts \$8.57 billion of its take home compensation into spending in the Iowa economy, which in and of itself supports 45,812 jobs.
- After all of this spending multiplies its way through the Iowa economy, Iowa's creative workforce sustains \$13.1 billion state sales, creates \$8.002 billion in value added, and pays \$4.7 billion in labor income to 195,464 job holders.

- Iowa's creative industries directly generate \$18.1 billion in industrial output, create \$12.1 billion in value added, and require 305,972 job holders receiving \$10.95 billion in labor income.
- When compared to all other jobs in the economy, jobs in creative industries pay 60 percent higher earnings per worker.
- It is inappropriate to add creative industry economic impact values together as many firms purchase from each other. The major industries that stand out are
 - Search and navigation equipment manufacturing creating \$2.9 billion in total industrial output, 22,724 jobs, and \$868 million in labor income
 - Total economic effects of newspaper publishing was \$828.8 million in output, 10,833 jobs, and \$292 million in labor income.
 - Iowa's hospitals accounted for \$6.22 billion in total industrial output, required 96,188 jobs, and paid \$2.8 billion in wages.
 - Doctors and dentists created \$5.1 billion in total, multiplied through output, 61,059 jobs, and \$2.3 billion in labor income.
 - All other education (primary and secondary) linked to \$5.26 billion in total statewide industrial output, 107,156 jobs, and \$3.8 billion in labor income.
 - Post-secondary education created \$3.3 billion in total output, 60,192 jobs, and \$2.94 billion in labor income.

How does this research inform policy makers? There are serious efforts currently underway in Iowa to promote the retention of specific kinds of creative workers, to entice professionals to consider the state, and to attract the kinds of firms that provide employment opportunities for a talented and industrious workforce that will help Iowa rise above current rates of economic change. Strong arguments have been made that Iowa's creative occupational structure needs more attention from state leaders than it perhaps has received in the past.

An honest summary of this research would conclude that Iowa has a ways to go if it is to achieve creative economy competitiveness with much of the rest of the nation. This research represents the statistical baseline from which planners and policy makers can proceed in promoting the state and its human resources. Politically and professionally there is now an obvious open-mindedness regarding what is needed to stimulate economic and social growth. It is equally obvious that the state has tremendous assets to use in cultivating its creative economy. It has nationally ranked universities that are powerful magnets for talent. It has major cities that are highly livable places with exciting and diverse economies, social structures, and entertainment options. It has rural spaces that are diverse and interesting, offering hosts of recreation and entertainment opportunities.

Comparatively few places in Iowa will likely realize the majority of economic and social growth over the next decade. Still, the overall livability in those places and the rest of the state depends on far more than merely the number of jobs they create. There is great opportunity for growth and enhancement in non-traditional areas of Iowa's economy – its artistic, cultural, and recreational institutions. These opportunities can only be enhanced when state and community leaders recognize that the sum of a community is greater than the sum of its jobs.

*Dave Swenson and Liesl Eathington
Iowa State University*