

THE JOBS IN NEW ENGLAND'S CREATIVE ECONOMY AND WHY THEY MATTER

Produced for the New England
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About The Findings

At the New England Foundation for the Arts (NEFA), one of our missions is to strengthen the region's creative economy through research that informs public policy. That is why we partnered with the Economic and Public Policy Research group of the UMass Donahue Institute (UMDI) to answer a few important questions. What are New England's creative enterprises? Who are New England's creative workers? How do they overlap? How do they vary by state and what role are they playing in the overall economy? By finding data on and accounting for creative sector employment, income, demographics, and socioeconomic attributes, this report aims to provide a full story of creative work and workers in New England.

What we know is that the creative sector is not just creative enterprises like museums and magazines, or artists such as musicians, painters, and dancers.

It includes many industry sectors and occupations that contribute to the economic vitality and cultural attractiveness of a place. Creative enterprises employ workers with all kinds of expertise, and creative economy workers are employed in nearly every sector that powers New England, from the arts, to education, to technology and science, to major global brands. They create what we listen to, watch, read, wear and buy. And they play a key role in determining where we want to live, work, and go on vacation.

There are nearly 310,000 people employed by the creative economy of New England—working within an organization or freelancing—who combined earn nearly \$17 billion a year. This group is a more prominent part of New England's economy than the national average, and they comprise nearly as many as those who work in either government or construction in the region.

How are these enterprises and workers faring? Those in the creative core industries and occupations, such as theater and photography, are in a segment that is stable or increasing. But the rest are being impacted by global trends in technology and changing consumer habits.

For example, as purchasing moves online, creative enterprises face more competition and less connection to the buyer. Creative workers become even more entrepreneurial—often because they have no choice—which means they are living job to job, with fluctuating wages, and without much of a safety net.

The data about the sector also show a high level of education, but a lack of racial diversity and affordable places to live or work in urban areas.

These trends present a great opportunity for new ideas, policies and business models. The ability of local artists and creative workers to interact with and offer their products within their communities is fragile and maintaining such markets requires purposeful action.

In New England, work life varies across geography and discipline, each place and creative worker has different needs and access to different resources. Working together to grow the region's creative economy is a collective effort with the goal of strengthening New England's overall economy, attracting and retaining young people, and reinforcing New England as a thriving place to live and work.

Our key takeaways:

- » The creative economy - through creative enterprises and freelance work - employs nearly 310,000 people in New England, which puts it in about the middle of all sectors supporting regional jobs.
 - » The share of creative employment and establishments (compared to other employment and establishments) is higher in New England than nationally. It is important to keep this edge to help advance awareness for and support of the arts in all forms.
 - » The presence of creative enterprises in New England's cities and towns tends to be concentrated in places with higher population and income levels.
 - » A quarter of all creative workers and a third of artists are self-employed, whereas only 10 percent of New England's overall workforce is self-employed.
 - » All sectors employ - and need - creative workers. People with creative occupations like writer and designer work everywhere, not just in the arts.
- » New England has an especially high concentration of artists compared to the U.S. with a 20 percent higher prevalence of artists in its employment base.
 - » There is a strong need for small business-type services for those in the creative economy, especially given the rise of self-employment to compensate for payroll employment declines. But the system is interdependent; both larger enterprises and sole proprietors require support.
 - » Some industries of the creative sector have grown since the recession (film, visual and performing arts, culture and preservation) - but employment increases are modest and need to keep up with economic and audience trends in the future.

Overall, this report builds upon our prior studies (*The Creative Economy Initiative: The Role of the Arts and Culture in New England's Economic Competitiveness in 2000* and *The Creative Economy: A New Definition in 2007*) as well as the real-time online community, CreativeGround, which we launched in 2014 to reflect the creative people and places at work in New England. CreativeGround serves as a tool to promote and connect creatives to each other and those who know that vibrant neighborhoods go hand-in-hand with a vibrant creative sector.

NEFA commissioned the Economic and Public Policy Research group of the UMass Donahue Institute (UMDI) to assess the current scale and long-term trends of New England's creative economy. But there is more to be done. Our Creatives Count survey, launched for the first time to complement this third installment in the creative economy report series, suggests that creative workers spend over a quarter of their income on space, equipment, and materials for their work – an amount equal to their rent or mortgage payments. Their spending on supporting their work injects thousands of dollars into the local economy but also results in an average savings rate of six percent, leaving some creative workers vulnerable to financial hardship.

When asked in the survey what resources are important for the advancement of their careers, creative workers top five responses were a mix of the expected and unique:

- » The need for income from one's work
- » The need for a market to sell the work
- » Collaboration with others
- » Affordable health care
- » Affordable housing

The employment and workforce data this report provides will allow states and cities to craft investments, policies, and programs to reach the workers and objectives of concern. As this research is updated in the future, the results of these investments can be tracked.

For now, we hope you'll agree that this research shows how important arts and culture is in our economy. They're not just nice to have—they're essential to our region's competitive advantage.



CATHY EDWARDS, Executive Director



DEE SCHNEIDMAN, Program Director, Research & Creative Economy


History and Contextualization of Creative Economy Research

For almost 40 years, The New England Foundation for the Arts has played a leadership role in the national conversation around defining the creative economy, measuring its economic activity, and supporting the diverse organizations, individuals, and locations in which creative work takes place. This report is the most recent in a long series that have generated expanding and increasingly refined views of New England's creative economy. During this time, New England as a region, and NEFA as its regional arts organization, has led the nation in systematic research and data-driven policy discussions around arts and culture organizations, workers and the sub-regional clusters in which they congregate. After briefly discussing this regional research history, we identify several broad trends that have developed since the publication of NEFA's last report on the regional creative economy definition and employment in 2007.

In 1980, NEFA pioneered the assessment of artistic activity in New England with the publication of its report *The Arts and the New England Economy* (Wassall, 1980) based on a survey of 2,830 organizations across

six states. During the 1980s, data collection remained challenging and relied on paper surveys mailed to organizations identified by state arts agencies in the region. Nevertheless, between 1978 and 1988, the number of organizations identified for surveying had grown to 3,154 (Wassall & DeNatale, 2006: 7). This research was among the first in the nation to identify the creative economy as an important driver of regional economic and cultural prosperity.

Building on nearly two decades of research, in 2000 NEFA worked with the New England Council to publish one of the first systematic definitions of the regional creative economy resulting in *The Creative Economy Initiative: The Role of the Arts and Culture in New England's Economic Competitiveness*. This work was path breaking in its recognition of the creative economy as a complex ecology comprised of commercial and non-profit organizations, creative workers, and the communities in which they seemed to cluster. At that time, the publication of Richard Florida's (2002) *The Rise of the Creative Class* was still two years away and the definition of placemaking (Markusen & Gadwa, 2010) was more



Akwaaba Ensemble workshop
photo by Laura Chadwell

than a decade away. Nevertheless, the fundamental ideas behind these two field-defining ideas were anticipated by this early NEFA-sponsored work.

In 2007, with the publication of *The Creative Economy: A New Definition*, NEFA again updated its definition of the creative economy to reflect changes in available data and growing nuance in defining the sector. The current study retains the industry and occupational definitions of the 2007 NEFA report while adding a New-England-wide artist survey to explore nuances in the occupations of individual of artists and creative workers. As such, this report continues the NEFA tradition of deepening and broadening our understanding of the regional creative economy.

Since the publication of NEFA's last report in 2007, there have been some developments in the broader economy and regional policy developments that bear mentioning as they may help explain some of the trends in the findings that follow. These include:

- » The increasing impact of the internet and digital technology on the distribution and production of creative content;
- » Film and television industry tax credits;
- » Creative economy's mutually-reinforcing relationship with placemaking and tourism.

Since 2007, digital technology and the internet have continued to disrupt and transform the production and distribution of creative products. This broad economic trend may help explain the decline of employment in bookstores, music stores and other establishments that are particularly susceptible to disruption from digital distribution. However, not all occupations or industries are impacted equally by these changes. While sectors focused on the manufacturing and physical distribution of creative products have clearly experienced declines, those that deal in the creation of digital content (like film and television production, electronic game development, advertising and design) might benefit from these technological changes. Future research

could explore the extent to which declines in some sectors driven by digitization are offset by increases in sectors that benefit from these same technologies.

Another important regional and national development since the 2007 is the growth of regional incentive programs designed to stimulate local film and television production. In 2006, Massachusetts launched an incentive program that provides a 25 percent transferable and refundable tax credit for television shows and films produced in the state. Since that time, Rhode Island, Connecticut and Vermont also have developed incentives for this sector.

Although the net return on investment of these programs remain contested, they have clearly stimulated the growth of film industry employment and establishments in the region. In the results that follow, the location quotient for the film and television production shows that New England has more than its expected share of employment in this sector compared to the rest of the country. While it is not possible to draw a causal link between regional incentive programs and this relatively high location quotient, this correlation is worth noting and could be addressed in future research.

Although it has not received the same degree of policy-making attention, digital games have also emerged as an important sector of the regional creative economy since 2007. Like film and television production, this sector seems to benefit from digital production and distribution technology. Unfortunately, the current federal industry classification system makes detailed analysis of this and other emergent creative sectors particularly difficult.

The last trend that bears recognition is the way that public arts funding and local economic and community development initiatives have intersected over the last decade. Not surprisingly, NEFA's work has played a significant role in this development as well. In 2000, the publication of *The Creative Economy Initiative: The Role of the Arts and Culture in New England's Economic Competitiveness* identified an important link between arts and culture and regional economic competitiveness. This study in turn helped the Massachusetts Cultural Council refocus its funding activity and informed the design of the Adams Arts Program. Since 2007, this program alone has invested \$12,945,685 in 452 grants to 188 different projects. Other states in the region have similar arts funding programs, many of which focus on placemaking and tourism as outcomes of interest.

In the results that follow, we see clustering of creative activity around locations with high levels of tourism, providing additional evidence of the importance of community and location in the clustering of creative workers and their connection with related creative industries like tourism, entertainment, dining, etc. The fact that some of these clusters may be dependent on the disposable income of tourists, or located in higher income communities, also raises questions about the equitable distribution of arts and culture activity and the extent to which these concentrations may overlook natural cultural districts that have lower socioeconomic status but equally rich cultural activities (Stern, 2014).

*Ronald K. Brown/EVIDENCE, A
Dance Company, by Sally Cohn
courtesy of The Yard*

About the Report

The Jobs in New England's Creative Economy and Why They Matter has the following sections:

- » An examination of the current state of the creative economy of New England including enterprise and occupational employment, enterprise counts, and its geographical distribution.
- » The change of the creative economy over time including an identification of important trends.
- » An overview of the creative workforce of New England including demographic and other attributes from the U.S. Census and Creatives Count survey.
- » Concluding sections including lessons learned and advice for future researchers, methodology, and appendices.

The Creative Economy: A New Definition, commissioned by NEFA in 2007, set out a classification system for

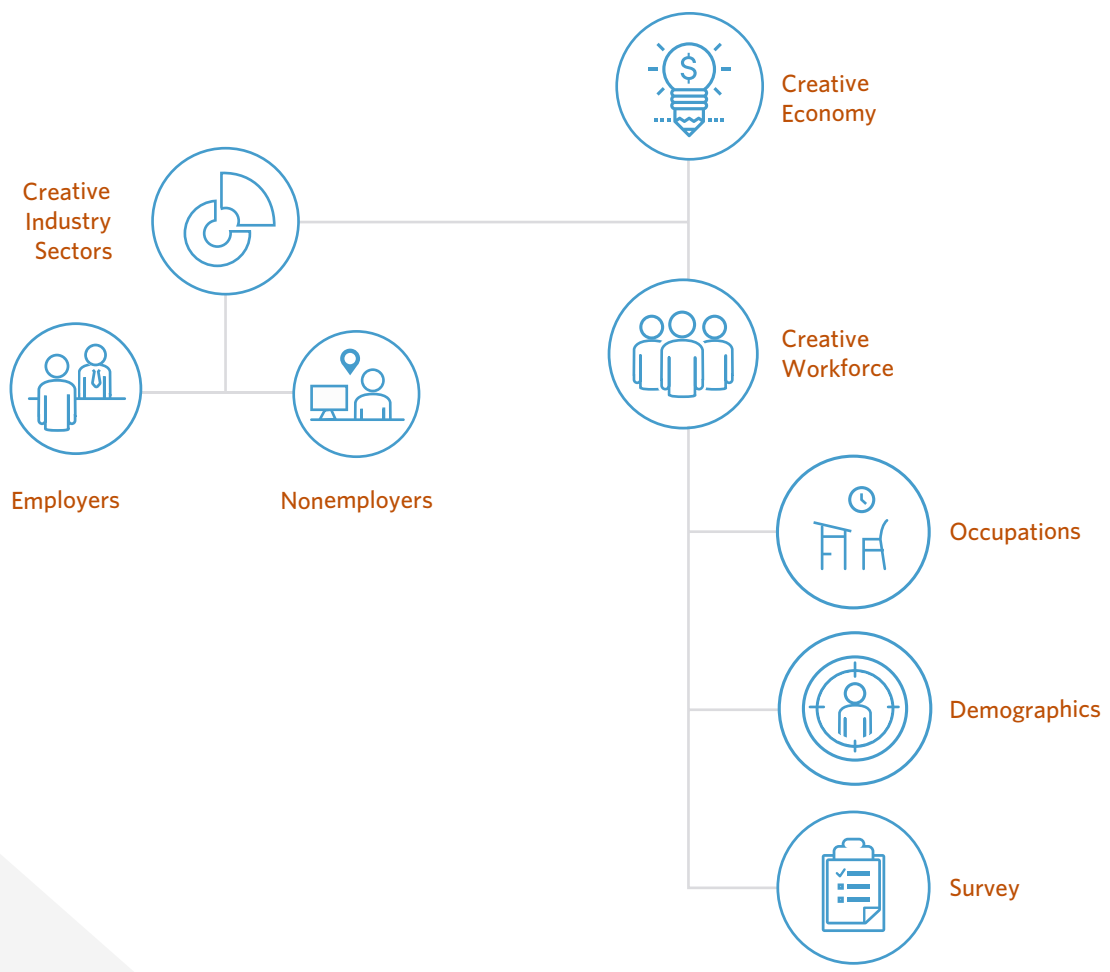
the creative economy that we retain in this report. It divides industry sectors and occupations into three categories based on the extent to which they “focus on the production and distribution of cultural goods, services and intellectual property.” Those sectors or

“*Those sectors or occupations that, at a national level, have a categorical focus on cultural goods, services, and intellectual property are assigned to the creative core such as architecture, graphic design, and sound recording.*”

occupations that, at a national level, have a categorical focus on cultural goods, services, and intellectual property are assigned to the creative core such as architecture, graphic design, and sound recording. Sectors and occupations without a categorical focus at the national level but have the possibility of it at a small geography are in the periphery such as leather product manufacturing that could be at an industrial scale or artisanal. An implied third category is all remaining firms and

occupations that are not associated with the creative economy. This report and the 2007 report both focus only on the core of the creative economy, which, by definition, will only capture the activities that can be reliably attributed to the creative economy no matter the geography of interest.¹

¹ A list of the industries and occupations that are used in this report can be found in the appendix.



Because the research questions tackled in this report involve both firms and workers, it was necessary to use multiple existing data sources, as well as conduct new primary data collection. When measuring the creative economy, we are focused on both **place of work** and **type of work**, which includes enterprises and occupations that fall within the definition of the core creative economy. For example, creative enterprises include architecture firms or museums while examples of creative occupations are architects and curators.

Creative enterprises employ many people in occupations that are not creative while conversely many creative occupations are inside firms that do not produce creative goods or services. For example, many creative enterprises employ receptionists while designers and writers can work in a number of different industry sectors. In some

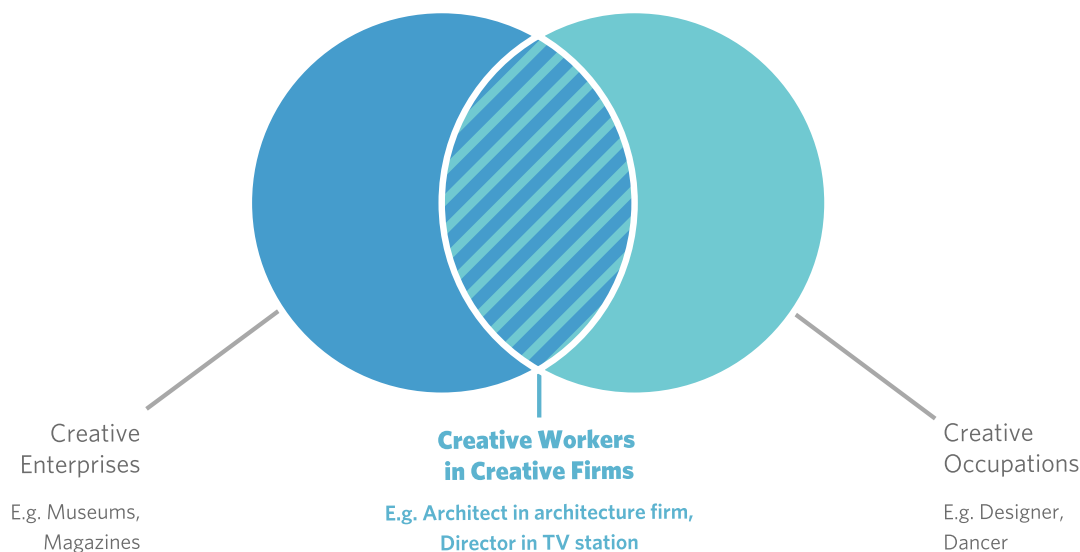
cases, these two groups overlap, resulting in creative workers who are employed at creative enterprises. These different relationships are better understood through an example. Anyone who works at a publisher is part of the creative economy, including the security guard at the front desk because his or her job depends

on a creative product. Conversely, an editor who reviews technical documentation for a manufacturer is a creative worker because the nature of the job is creative, even though the primary business objective of the employer may not necessarily be “creative.” Finally, an editor employed by a publisher is doing creative work at an employer that is also producing a creative product. Additionally, other creative

workers are self-employed and pursuing their own creative goals. Many are both employee and independent worker.

“Creative enterprises employ many people in occupations that are not creative while conversely many creative occupations are inside firms that do not produce creative goods or services.”

FIGURE 2 | The Relationship Between Creative Enterprises And Creative Occupations



When reviewing the information that follows, it is important to remember the relationships between the elements of the creative economy that are shown in Figure 2. The following pages include employment by enterprise and employment by occupation. These data overlap in the same way as the diagram in the figure: workers in creative occupations who are employed by creative enterprises will appear in both datasets. Because of this overlap, these two concepts cannot be summed together. **Readers should interpret creative enterprise employment as the number of jobs of all occupations that are inside firms producing creative goods and services, i.e. jobs dependent on the revenues and business health of creative enterprises. Creative occupation employment should be seen as the demand for creative workers from all types of employers, i.e. the need for workers in creative fields across the overall economic landscape.**

Most of the place of work and type of work data discussed above is collected at the firm level and therefore only counts jobs at established businesses with paid employees. However, this data source excludes the many creative workers who work independently, i.e. the self-employed. Understanding these workers requires yet another data source. Finally, none of the employment or self-employment data describes the demographic characteristics, needs, and opinions of the people who do this work. For this information, the research relies on existing data from the U.S. Census Bureau and new data from Creatives Count, NEFA's online survey targeted at New England's creative workers. **Greater detail on all our data sources can be found in the methodology section of the report.**

Definitions

This report makes use of a number of terms and categorizations of businesses and jobs. They are as follows:

- » **Creative economy:** The creative economy is a subset of the overall economy that only includes those industry sectors and occupations with a categorical focus on the “production and distribution of cultural goods, services and intellectual property.” This definition is taken from and is consistent with NEFA’s prior creative economy work. More detail on the derivation and justification for this definition can be found in *The Creative Economy: A New Definition* from 2007, which is available on NEFA’s website.
- » **Enterprise:** An enterprise is an individual business, which may or may not have paid employees. For example, an architectural firm with dozens of employees or a self-employed architect are both one enterprise.
- » **Industry group:** An industry group is a collection of similar industry sectors that reflects a common

underlying product or service rather than a specific product or service as is the case in industry sectors. For example, the industry sectors of commercial lithographic printing, commercial screen printing, books printing, and trade-binding and related work are combined into the industry group “printing.” Similarly, museums, historical sites, and other similar industry sectors are combined into “culture and preservation.” In this report, most of the analysis of enterprises is done at the industry group level because the economic forces acting on each industry sector within an industry group are typically similar.

- » **Industry sector:** An industry sector is the lowest level of classification used in this report for the categorization of enterprises. All enterprises that produce similar products or services are combined into one industry sector. Examples of industry sectors used in this report include music publishers, commercial lithographic printing, fine arts schools, and printing and writing paper merchant wholesalers.

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- » **Location quotient (LQ):** The measurement of the relative concentration of employment. An LQ greater than one implies that creative economy employment in an area is more prevalent as a percentage of all jobs than in the U.S. An LQ of less than one implies the opposite.
 - » **Nonemployer:** These are the subset of all enterprises that have no paid employees. In other words, the only person or people who work at these enterprises are the owners. The majority of nonemployer enterprises are self-employed individuals. While self-employed enterprises are only provided as a count of business establishments, throughout the report we also interpret each nonemployer establishment as one worker because they are mostly self-employed individuals. Insofar as there are nonemployer establishments with more than one owner – in a partnership for example – it would only result in an undercounting of workers. A nonemployer enterprise must earn at least \$1,000 in a calendar year to be included in our data.
 - » **Occupation:** An occupation is the lowest level of classification used in this report for the categorization of jobs. All jobs that produce similar products or services are combined into one occupation. An occupation is the equivalent of an industry sector, but for jobs rather than enterprises. Examples of occupations used in this report include architects, historians, curators, actors, graphic designers, and photographers. This report focuses on payroll occupations though self-employed workers and occupational data from the U.S. Census are also discussed among the occupations where appropriate.
 - » **Payroll employment:** These are the jobs that are covered by the unemployment insurance system. They are what most people think of as a job. These workers typically receive a W-2 from their employers. Payroll employment is only found in enterprises with paid employees. Payroll employment covers over 95 percent of all jobs in the economy but does exclude self-employed workers. This exclusion is partially why this report includes

nonemployers as a supplement to payroll employment.

It is critical to understand that **the creative economy or “the creative sector” is not a sector or an industry by the definitions of the federal government.** The federal government, specifically the U.S. Census Bureau, maintains the North American Industry Classification System, widely known simply as the NAICS codes. Its classification system is based on production and therefore groups establishments together into industry sectors based on the processes they use to produce goods and services.² This system does combine industry sectors into larger groups but always retains its production focus. Because studies of the creative economy seek to divide segments of the economy by the nature of the product rather than the production process, there is not a NAICS code available for “the creative industry sector.” Instead, **researchers must comb all the available industry sectors and pull out those that fit the organizing framework of their study, in this case sectors that produce goods and services that are cultural in nature.** The individual creative industry sectors combined for analysis in this study are drawn from a diverse array of industries:

- » **Manufacturing**
 - E.g. books printing, pottery and glass manufacturing, and jewelry manufacturing
- » **Wholesale Trade**
 - Jewelry, precious metals, and book wholesalers
- » **Retail Trade**
 - Art dealers and book stores
- » **Information**
 - Newspaper publishers, movie theaters, music publishers, and internet publishing
- » **Real Estate and Rental and Leasing**
 - Video and disc rental
- » **Professional, Scientific, and Technical Services**
 - Architecture services, interior design, ad agencies, and commercial photography
- » **Educational Services**
 - Fine arts schools
- » **Arts, Entertainment, and Recreation**
 - Theater and dance companies, museums, and historical sites
- » **Other Services (except Public Administration)**
 - Photofinishing³

² NAICS FAQs: <https://www.census.gov/eos/www/naics/faqs/faqs.html#q1>

³ A full list of industry sectors used in the study and the aggregate sectors from which they are drawn is available in the appendix.

For example, here is the classification hierarchy of an industry sector used in this study from most aggregated down to the individual industry sector:

» **Information**

- Motion Picture and Sound Recording Industries
 - Sound Recording Industries
 - **Music Publishers**
(industry sector meeting creative economy definition)

By removing the establishment counts and employment of Music Publishers from the larger information sector and moving them to our creative economy sector, we can now create an industry that the NAICS does not recognize but is useful for study and does not include double-counting and overlap with other segments of the economy.

Angelique Kidjo
by Judy Sirota Rosenthal

Summary of Findings

SNAPSHOT OF THE CURRENT STATE OF NEW ENGLAND'S CREATIVE ECONOMY

Across the six New England states there are 22,600 **creative establishments** employing 238,500 workers and paying more than \$14.9 billion of wages and salaries. In addition, there are nearly 70,800 **creative nonemployers**, most of which are self-employed individuals. New England's creative economy employment compares favorably to that of other sectors, coming in the middle of the rankings of all sectors in the economy. Compared to 3.3 percent and 5.3 percent, at 3.4 percent of all jobs and 6.3 percent of all self-employed workers, the concentrations of creative economy employment in New England are higher than the national average indicating that the creative economy is a larger component of **New England's economic base** than that of the U.S. overall. In New England, the top three **creative industry groups** by employment are media, arts and electronics-related retail, and publishing.

The **communities in New England** with a large number of creative enterprises tend to be population centers or

tourism and shopping hubs. Their above average per capita spending supports more arts-related retail and wholesale establishments such as art galleries, book stores, jewelry stores, and art dealers. In the case of the tourism centers, the higher spending is supported by out-of-town visitors who add greater demand for creative goods and services than local residents alone could support. On the other hand, it is the above average income of the local residents themselves that allows wealthy areas to support more creative businesses per person than the regional average.

There are 156,260 workers in **creative occupations** at New England's employers, some of whom are also counted in creative enterprise employment. These occupations only include workers that are performing work of great enough ongoing need to be hired and put on the payroll of New England's businesses. Creative occupations in New England are 2.2 percent of all payroll occupations compared with 2 percent nationally, reinforcing the finding that creative work is a more prominent piece of the economic picture in New England than the U.S. as a whole. The region's top payroll



Lemonade Stand; Photo by Leonardo March

occupations are public relations specialists, librarians, and graphic designers. The **artist subset of creative workers** is also more concentrated in New England. Census data suggests that artists are 20 percent more prevalent in the region's employment base than the nation's.

Creative workers are much more likely to be **self-employed**. A quarter of all creative workers and a third of core artist occupations are self-employed compared to only 10 percent of all workers. According to the Creatives Count survey conducted for this study, their sources of income reflect their employment types. The survey respondents say that roughly one-third of their income comes from self-employed activities while nearly half comes from outside employment (i.e. wage and salary work where one receives a W-2).

Creative workers reveal the high value they place on their work through their spending patterns. The survey suggests that **creative workers spend** over a quarter of their income on space, equipment, and materials for their work – an amount equal to their rent or mortgage

payments. Their spending on supporting their work injects thousands of dollars into the local economy but also results in an average savings rate of six percent, leaving some creative workers vulnerable to financial hardship.

When asked in the survey what resources are important for the **advancement of their careers**, creative workers top five responses were a mix of the expected and unique. While the need for income and markets to sell one's work would be important to workers in most fields, the importance of collaboration intuitively seems more applicable to creative workers than others. Likewise, while everyone would be concerned about housing and health care affordability, the unique patterns of work for creative workers can make these more critical issues. For example, 50 percent of creative workers reported using their home as their primary work space, so their home life and work life are intimately intertwined. Similarly, with many creative workers being self-employed, issues of health care coverage and affordability would be of critical importance to this community.

CHANGE OF THE CREATIVE ECONOMY OVER TIME

The story of the creative economy over the past decade has been mixed. Overall creative payroll employment has fallen nearly constantly for over a decade in both New England and the nation. However, the overall change hides significant differences among the components of the creative economy. Most of the job losses have been concentrated in the manufacturing, wholesale, and retail sectors of the creative economy, which are also among the largest in absolute terms, while those sectors that rely on an audience (e.g. artists, museums, theaters, etc.) have remained stable or have grown over time.

Since 2007, **payroll employment** growth occurred in three creative industry groups in New England—in motion picture and teleproduction; visual arts, music and other performing arts (e.g. independent artists, fine arts schools, and dance companies); and culture and preservation (e.g. museums and historical sites) — three industry groups that rely on an audience for their revenues. Combined, these three groups added 3,027 jobs from 2007 to 2015.

In contrast to the overall decrease in payroll jobs at creative enterprises, the numbers of **nonemployer (self-employed) firms** in New England's creative

economy have increased over time, adding on net nearly 2,400 businesses or 3.5 percent since 2007. Overall, this rate of growth is slightly higher than the rate of growth of all self-employed workers in the regional economy but slower than the national rate of self-employed growth in the creative economy (12.0 percent) over the same period. Independent artists, writers, and performers added the most self-employed establishments, adding more than 2,600 since 2007 (5.9 percent).

An examination of the **creative occupations** in New England confirms that since 2007 the core artistic occupations comprise the principal components of growth. Growing occupations include those related to motion picture and broadcast production; arts-related postsecondary educators; writers and authors; actors, producers, and directors; and musicians.

While we do see these growth areas in creative sector employment, and New England's total payroll employment has increased by 2.9 percent since 2000, payroll jobs at creative enterprises overall have declined by nearly 20 percent, representing over 50,000 jobs. Comparatively, the nation lost nearly 17 percent of its creative jobs during the same time. Until approximately 2010, New England's creative enterprise jobs roughly paralleled the overall employment trends in the broader economy. But after the end of the recession in 2010,

while total employment continued to recover and grow, creative enterprise employment progressively declined.

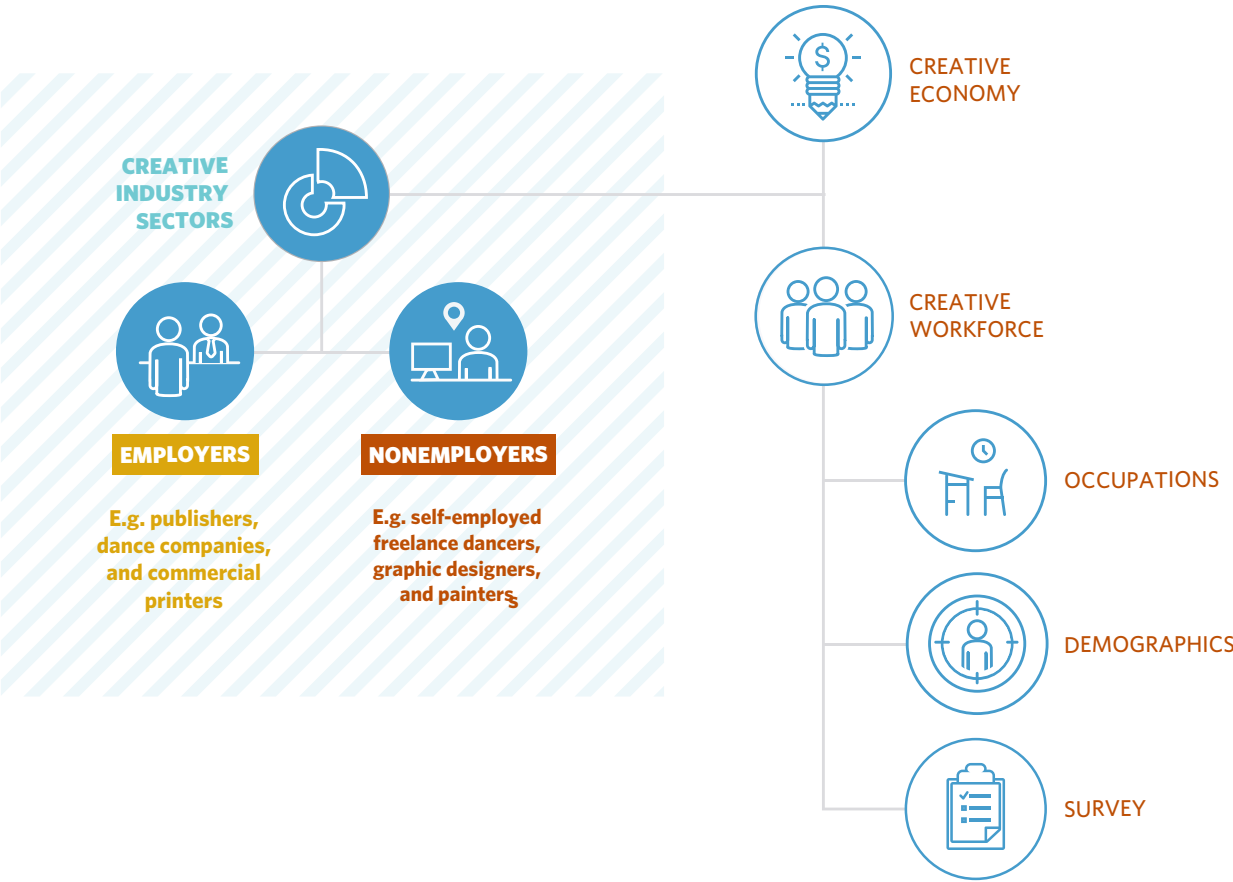
Technological change has altered the way people consume, produce, and shop for creative goods and services in such a way that the economic “winners” and “losers” are often in different **creative industry sectors**. However, an obstacle to tracking these developments is the definition of the industry sectors themselves, which underlies all federal and state data gathering. These definitions have not evolved as

quickly as the creative economy, and therefore are not yet granular enough to provide a suitable window into these shifting elements. The result is an undercounting of gains that should be attributed to the creative economy.

The creative economy is a more prominent part of the New England economy than the national economy, but it is not insulated from national and global trends including recessions, technological advancement and changing consumer habits. As the way creative goods and services are produced, sold, and consumed has changed, manufacturing and printing firms along with wholesalers and retailers have felt the greatest negative impacts from the evolving market. Yet, these same changes have benefited the central core of artists and cultural preservation organizations that create and present art and artistic endeavors to an audience as new markets are created and the demand for creative goods and services is supported. From these facts, it is our assessment that the demand for creative goods and services is stable, but the continued evolution of the way they are produced and consumed will create hardship and opportunity that will not fall equally on the various sectors, regions, and individuals who make up the creative economy.



The Current Creative Economy



CREATIVE ENTERPRISES

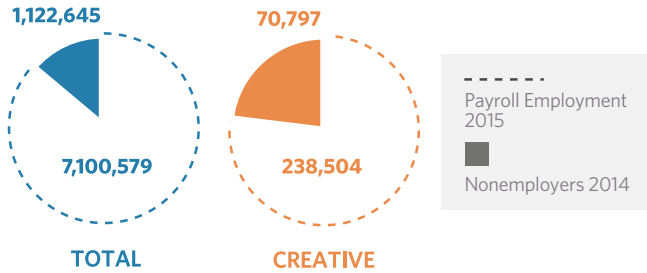
Across the six New England states there are 22,600 creative establishments employing 238,500 workers and paying more than \$14.9 billion of wages and salaries. In addition, there are nearly 70,800 creative nonemployers, most of which are self-employed individuals. New England's creative economy employment compares favorably to that of other sectors, coming in the middle of the rankings of all sectors in the economy. The creative economy employs similar numbers of workers as other vital sectors including transportation and warehousing (215,235 jobs), wholesalers (254,735), government (286,140), and construction (298,234). Compared to 3.3 percent and 5.3 percent, at 3.4 percent of all jobs and 6.3 percent of all self-employed workers, the concentrations of creative economy employment in New England are higher than the national average indicating that the creative economy is a larger component of New England's economic base than that of the U.S. overall. In New England, the top three industry groups by employment are media, arts and electronics-related retail, and publishing.

As in NEFA's 2007 creative economy report, this current report seeks to understand the structure of New England's creative economy by measuring the employment at all creative enterprises. It also expands on the previous report by adding a count of the enterprises themselves. As discussed in more detail in the methodology section, we chose not to use Economic Census data, the primary source used in the 2007 creative economy study, because its most recent data sample was from 2012, now five years ago. Instead, the discussion of the size and composition of creative economy enterprises and employment uses data from two sources that are available on a more frequent basis. The first of these sources, the Quarterly Census of Employment and Wages (QCEW) from the U.S. Bureau of Labor Statistics, is a data set providing information on all firms subject to unemployment insurance contributions. The QCEW provides payroll employment numbers, wage and salary information, and enterprise counts. To supplement payroll employment from the QCEW, we use the Nonemployer Statistics (NES) series from the U.S. Census Bureau. This data set provides information on businesses that are mostly individual proprietorships without paid employees and

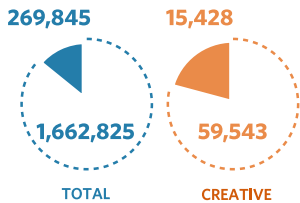
GRAPHIC 1 | Total Creative Economy Employment⁴, Nonemployers from 2014 and Payroll from 2015

NEW ENGLAND

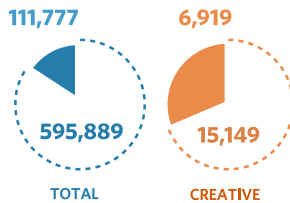
EMPLOYMENT



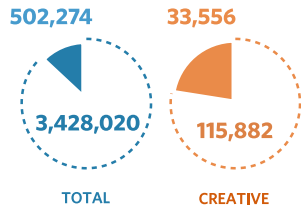
CONNECTICUT



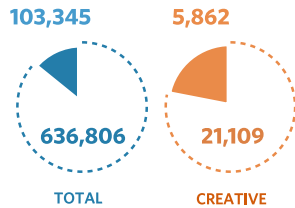
MAINE



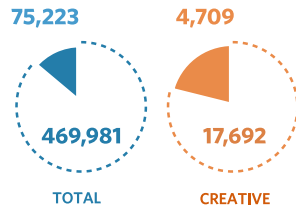
MASSACHUSETTS



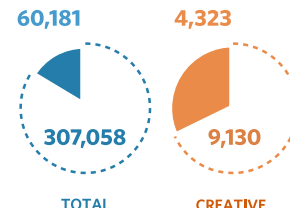
NEW HAMPSHIRE



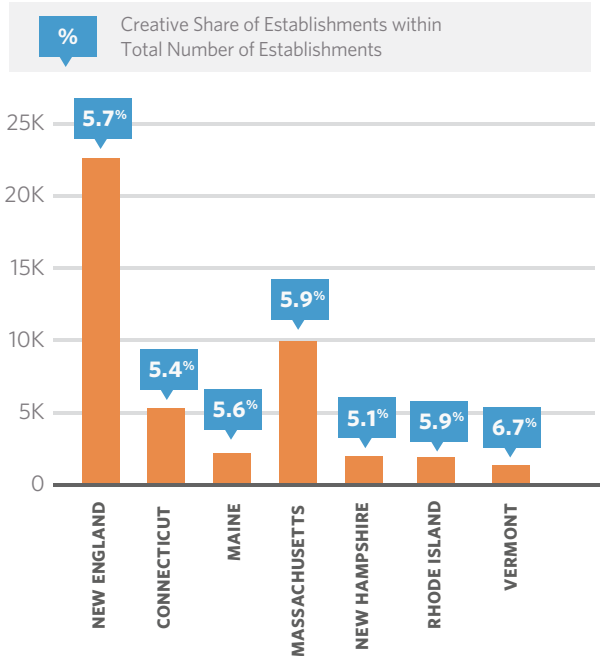
RHODE ISLAND



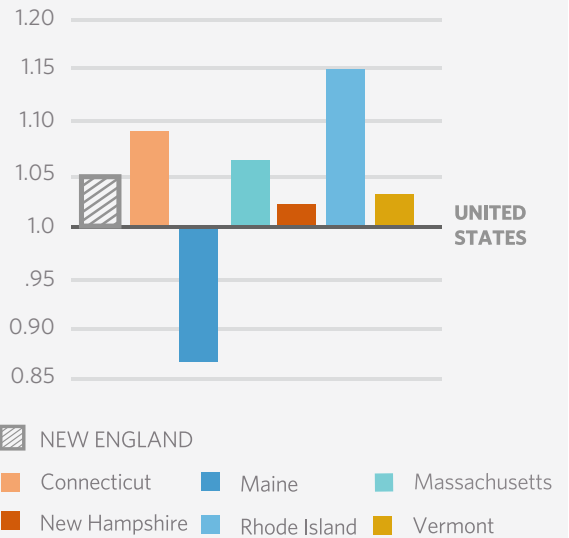
VERMONT



CREATIVE ECONOMY ESTABLISHMENTS



LOCATION QUOTIENT OF CREATIVE SHARE OF EMPLOYMENT (including Nonemployers)



⁴In this analysis, each nonemployer firm is considered the equivalent of one worker. However, it is important to note that each nonemployer firm does not necessarily equate to a full-time job. Most are freelancers or independent contractors.

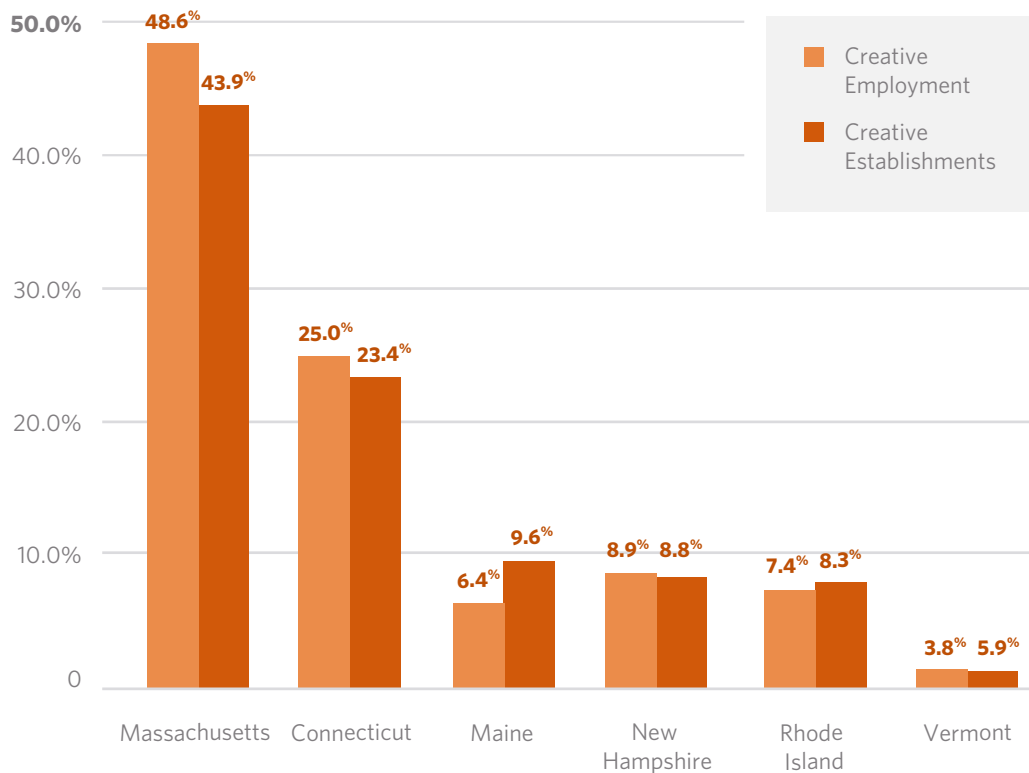
Source: U.S. Bureau of Labor Statistics, QCEW; U.S. Census Bureau, Nonemployer Statistics and County Business Patterns (for suppressed values).

self-employed persons. The use of these two data sets combined provides a fair measure of the full range of employment in the New England creative economy – everything from employment in the largest firms and organizations to those in the smallest enterprises, including individual freelancers. Graphic 1 summarizes the current employment counts.

Creative employment in New England exceeds 300,000, including both nonemployers (self-employed workers) and all those employed at creative enter-

prises. These jobs comprise 3.8 percent of all employment, which slightly exceeds the national share of 3.6 percent. By virtue of its relative size and economic importance, nearly half of all New England’s creative jobs are in Massachusetts while another quarter are in Connecticut. The remaining four states comprise the final 25 percent. Of roughly 22,600 creative enterprise employer firms in New England, approximately 44 percent of these are located in Massachusetts (9,943 firms employing 115,882); 23 percent (5,300 firms employing 59,543) are located in Connecticut; 9.6

FIGURE 4 | Creative Economy Payroll Employment And Establishments By State's Share Of New England Total, 2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

percent (2,179 firms employing 15,149) are located in Maine; 8.9 percent (1,980 firms employing 21,109) are located in New Hampshire; followed by 8.3 percent in Rhode Island (1,881 firms employing 17,692), and 5.9 percent in Vermont (1,341 firms employing 9,130). Figure 4 shows the share of employment and establishments by state. Because the share of employment exceeds the share of establishments in Massachusetts and Connecticut, it can be inferred that the average establishment size in these two states is bigger than the regional average.

In comparison to other sectors, New England's creative economy is larger than its transportation and warehousing sector (215,235 jobs) while being smaller than the wholesale trade sector (254,735). In other words, employment at creative establishments exceeds employment at all warehousing, storage, and air, land, and water transportation firms but is smaller than the combined employment of wholesalers all durable and nondurable goods.

The scale and concentration of creative enterprise employment remains varied across the New England states. The relative concentration of employment (or many other economic concepts) is measured by the location quotient (LQ).⁵ An LQ greater than one implies that creative economy employment in an area is more prevalent as a percentage of all jobs than in the

U.S. An LQ of less than one implies the opposite. New England's highest LQ of 1.14 is in Rhode Island, implying that creative economy employment is 14 percent more prevalent in the employment base of Rhode Island than in the employment base of the U.S. Maine has the region's lowest creative economy LQ of 0.775, or nearly 23 percent less creative economy employment prevalence than the nation. The sectoral composition of each state – and growth trends in those sectors in recent years – play a major role in the differing concentration of creative enterprise employment across the region. For example, one reason that creative economy employment is most concentrated in Rhode Island is that the economy of that state is smaller and does not contain the kind of large, fast growing sectors outside the creative economy that dilute creative economy employment concentrations in other states. The section that follows discusses the sectoral composition of the New England creative economy in more detail.

⁵ Definition of location quotient: A location quotient is the share of total employment in a region existing in a particular sector divided by the same sector's share in national employment: (% of Total in Region) / (% of Total in Nation). A location quotient greater than one shows that the region has more than the national average share of employment in that sector. A location quotient less than one shows that the region has less than the national average share.



Chachi Carvalho

Chachi Carvalho is a multi-talented artist, educator, and front man for the International Players band. He is a native born-and-raised Rhode Islander with roots that stem from the islands of Cabo Verde. As an educator, Chachi spends his days as a Learning Specialist and interim advisor at the Metropolitan Regional Career and Technical Center in Providence. He is also an advisor for a cohort of adult learners enrolled in the College Unbound Prison Bridge Program. Chachi is the newest appointed board member of Providence based organization AS220. He is also celebrating the 10th anniversary of his business, Beatbox Studio.

Provided
courtesy of
the artist

Institution/Business Type:

Artists (Individual)

Professional Disciplines:

Music - Rap / Hip-Hop

Literature - Spoken Word

Media - Audio / Sound, Marketing, Advertising, Video

Theater - Storytelling

Populations Served:

Adults

Businesses

General Public

Incarcerated (or Formerly Incarcerated) Individuals

Nonprofits

School Groups

Teens

Youth-At-Risk

Languages Available:

Creole

Activities and Services:

Arts for Social Change / Creative Activism

Audio or Video Recording

Performance / Concert / Reading / Assembly

Writing Services

Workshops / Demonstrations / Master Class / Presentation

I am on the Rhode Island Education Roster

I am a Touring Artist

I am a Teaching Artist



Learn more about Chachi on CreativeGround

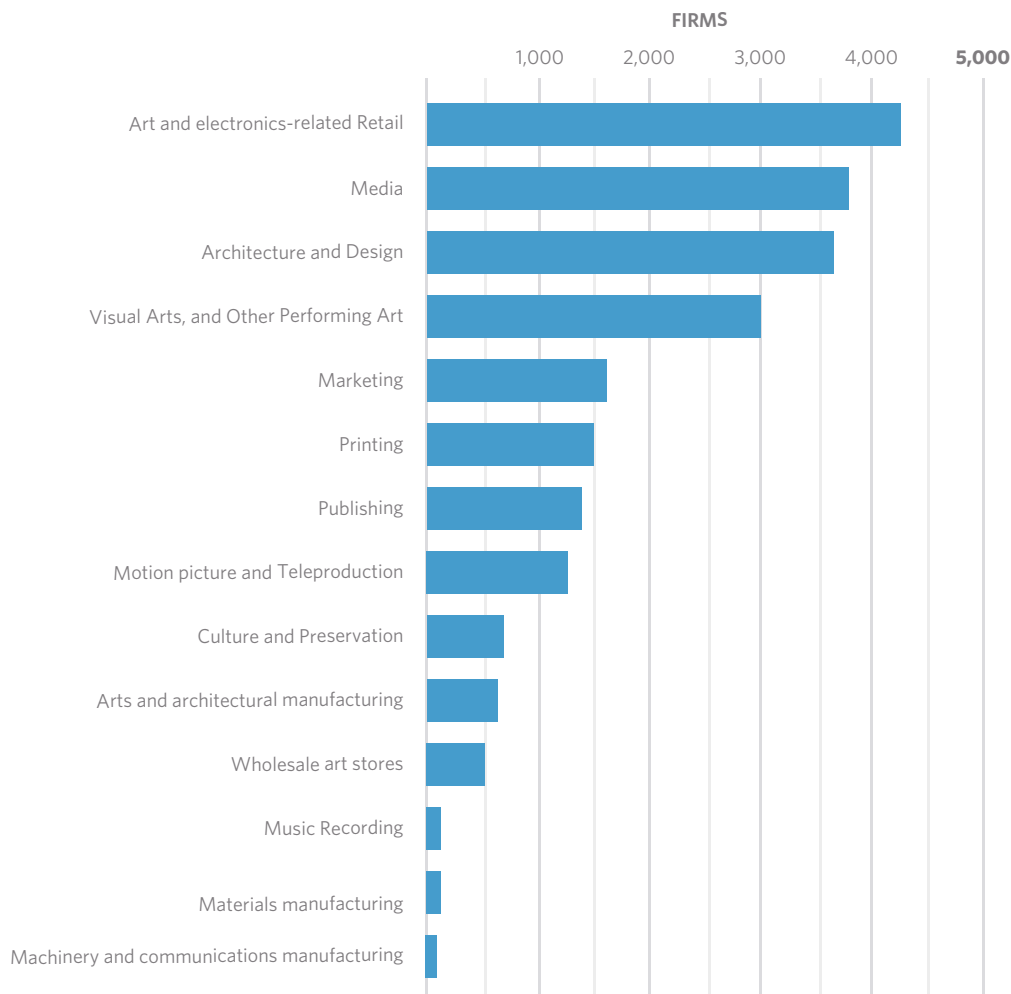
Professional experience

Awards

Media gallery



FIGURE 5 | New England Creative Economy Establishment Counts By Industry Group, 2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

CREATIVE ECONOMY INDUSTRY GROUPS

An analysis of the industry sector composition of New England’s creative economy allows a look at major business activities and areas of employment in the region.⁶ New England’s largest creative industry group by establishment count is arts and electronics retail businesses with more than 4,200 firms or 18.7 percent

of all creative establishments in the region. The main types of firms in this group are electronics stores, jewelry stores, and bookstores. Media-related firms (dominated by cable distribution firms and internet publishing and broadcasting businesses) and architecture and design (mainly architectural, graphic design and interior design services firms) each include more than 3,700 firms or 16.7 percent of creative establish-

⁶ Methodology Note: In order to better describe and quantify the range of business activity within the Creative Economy, the industry’s six-digit codes (listed in the technical appendix for this report) have been grouped into distinct areas of business activity. The groupings were inspired by an organizing structure for creative economy business development during then Massachusetts Governor Deval Patrick’s administration. Manufacturing, retail and wholesale groups are also included as they are part of the 2007 NEFA study definition.

TABLE 1 | Creative Economy Payroll Employment By Industry Group, 2015

Creative Industry Group	New England		United States	
	Employment	Share	Employment	Share
Architecture and Design	18,702	8%	352,977	8%
Art and Electronic-Related Retail	34,923	15%	763,166	17%
Arts and Architectural Manufacturing	9,297	4%	97,066	2%
Culture and Preservation	11,840	5%	239,189	5%
Machinery and Communications Manufacturing	2,078	1%	39,246	1%
Marketing	11,631	5%	272,066	6%
Materials Manufacturing	2,204	1%	54,827	1%
Media	65,761	28%	1,113,263	24%
Motion Picture and Teleproduction	12,014	5%	388,568	8%
Music Recording	379	0%	16,153	0%
Printing	22,952	10%	451,227	10%
Publishing	23,177	10%	368,073	8%
Visual Arts, Music, and Other Performing Arts	18,022	8%	313,427	7%
Wholesale Art Stores	5,528	2%	108,873	2%
Total, Creative Economy	238,504		4,578,121	
Total, All Industries	7,100,579		139,491,699	

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

ments. Finally, visual arts, music and other performing arts firms (more than 3,000 firms) are the fourth largest group of businesses in the region and are dominated by fine arts schools and independent artists, writers and performers.

Because the average number of employees per establishment differs across creative industry groups, the groups with the most establishments do not necessarily employ the most people.

Media-related businesses are the biggest employers in the New England region offering nearly 65,800 jobs with large numbers in cable and other program distribution, in libraries and archives, and in internet publishing and broadcasting. Media alone accounts for over 25 percent of all creative payroll employment in New England, much higher than the group's 16.7 percent share of establishments. Publishing and printing both also rise up in the rankings of employment relative to their place in the establishment counts.

A granular look at the individual building blocks that make up the industry groups of the creative economy reveals that the top three sectors by employment are the same, and in the same order, in both New England and the U.S. Overall, seven of the top ten sectors are the same. The sectors where they differ highlight one of New England's key industries: education. Libraries and archives, museums, and fine arts schools are

the fourth, ninth, and tenth sectors with the largest employment in the creative economy. These three sectors are 36th, 12th, and 14th in the national rankings of creative employment, respectively. The disparity of employment in the library and archive sector is especially noteworthy as it shows the greatest difference in rankings among the 75 industry sectors in the core creative economy.

TABLE 2 | Top Ten Creative Industry Sectors by Payroll Employment in New England and United States, 2015

New England		United States	
Industry Sector	Employment	Industry Sector	Employment
Cable and Other Program Distribution	27,335	Cable and Other Program Distribution	587,792
Radio, Television, and Other Electronics Store	18,548	Radio, Television, and Other Electronics Store	458,251
Commercial Lithographic Printing	16,376	Commercial Lithographic Printing	331,662
Libraries and Archives	12,274	Motion Picture and Video Production	227,549
Newspaper Publishers	11,732	Advertising Agencies	194,590
Architectural Services	11,296	Newspaper Publishers	190,426
Internet Publishing and Broadcasting	10,919	Internet Publishing and Broadcasting	186,125
Advertising Agencies	7,555	Architectural Services	177,071
Museums	7,397	Motion Picture Theaters (except Drive-Ins)	133,519
Fine Arts Schools	7,234	Television Broadcasting	130,888

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), and U.S. Census Bureau, County Business Patterns (CBP)

As suggested by the inclusion of libraries, museums, and schools among its top employment sectors, the creative economy of New England contains a significant subset of nonprofits, including establishments like theaters, dance companies, and orchestras. The nonprofits that are classified as part of the industry sectors of relevance to this study are fully accounted for in the QCEW data presented in the pages above. However, the QCEW data does not provide a means of separating for-profit and nonprofit establishments. In an effort to highlight the contributions of this segment of the creative economy, this section of the report relies on data from the IRS to provide estimates of the number and employment of creative nonprofits in New England. Because it relies on data from the IRS, which is a different data source from the larger discussion above, the following data should be considered as a reasonable estimate of the size of the nonprofit sector and not as an exact subset of the QCEW data. Crucially, these establishments are only a small subset of those found in CreativeGround, NEFA's directory of creative enterprises and artists. Because the IRS data only captures entities that file a tax return, this analysis excludes all nonprofits that do not file with the IRS, most substantially those that are embed-

“The nonprofits that are classified as part of the industry sectors of relevance to this study are fully accounted for in the QCEW data presented in the pages above.”

ded within, or are themselves, a government entity.

As of the end of 2016, there were 6,346 registered creative nonprofits in New England. Of these, 2,396 reported revenues greater than zero in 2015 via a filing with the IRS. Based on their reported revenues, we estimate that nonprofit employment in 2015 was 54,852. These numbers suggest that creative nonprofits with reported revenues in 2015 are estimated to be roughly 11 percent of all creative establishments and have 23 percent of the sector's payroll employment.

Table 3 shows summary estimates of nonprofits by state. Massachusetts is home to not only the most nonprofits but also the largest ones. By count, 44 percent of New England's registered creative nonprofits are in Massachusetts though this share increases to 50 percent if looking at only those with reported 2015 revenues. The average size of nonprofits by employment in the Bay State are 1.5 times that of the next highest state. Hence, Massachusetts' employment share of 70 percent greatly exceeds its share of establishments of 50 percent.

TABLE 3 | Estimate of the Number and Employment of Creative Nonprofits with 2015 Revenues in New England States

State	Count	Count with Revenues	Employment	Avg. Employment per Establishment
CONNECTICUT	1,259	460	7,959	17
MASSACHUSETTS	2,776	1,191	38,376	32
MAINE	819	231	1,973	9
NEW HAMPSHIRE	560	203	1,958	10
RHODE ISLAND	410	127	2,604	21
VERMONT	522	184	1,982	11
Total	6,346	2,396	54,852	23

Source: IRS and UMDI calculations

CREATIVE NONEMPLOYER ESTABLISHMENTS

Nonemployer firms – a measure of businesses with no paid employees – are an area of strength in the creative economy.⁷ Recent research by the Brookings Institution found that approximately 86 percent of nonemployer firms nationwide are actually self-employed, unincorporated sole-proprietors – individuals earning income as independent contractors.⁸ However, it is important to note that nonemployer firms or freelancers only need a minimum of \$1,000 of annual business receipts to be counted in the data and therefore should not be equated to full-time jobs. Furthermore, self-employed workers are not subject to the regularity of wages and work hours or the extent of benefits and legal protections of employees, which means that for some workers they are a suboptimal alternative to or supplement for full-time employment. In spite of these qualifica-

tions, the latest data available in the Nonemployer Statistics series reports that there are nearly 70,800 creative economy nonemployer (self-employed) firms based in New England that earned nearly \$2 billion in annual sales receipts in 2014.

Independent artists, writers, and performers comprise over 66 percent of all self-employed creatives by count but only 47 percent of receipts. They averaged \$19,500 of income per establishment in 2014, which is the lowest of all creative nonemployer industry groups. Jewelry, watch, precious stone and metal wholesalers—essentially private, independent dealers—earned the most at an average of \$88,000 in receipts in 2014. This data is corroborated by the findings of the Creatives Count survey, which suggests an average annual self-employed income of \$10,000 to \$13,000 for artists.

⁷ This study utilizes an additional data set to provide information on nonemployers, a group of creative enterprises that are not measured in the employer series discussed earlier. Through its Nonemployer Statistics (NES) series, the U.S. Census Bureau provides statistics on the smallest creative enterprises —those who do not employ workers. These types of businesses have no paid employees and are in many but not all cases self-employed workers or sole proprietorships.

⁸ See: Hathaway, Ian and Mark Muro. October 13, 2016. 'Tracking the gig economy: New numbers.' The Brookings Institution.

TABLE 4 | Creative Nonemployers By Creative Industry Group, 2014

Industry Group and Sector	New England		United States	
	Firms	Receipts (\$M)	Firms	Receipts (\$M)
Architecture and Design	6,810	\$347	110,178	\$4,855
Architectural Services	3,528	\$214	49,120	\$2,843
Drafting Services	976	\$26	21,627	\$595
Landscape Architectural Services	2,306	\$107	39,431	\$1,417
Art and Electronics-Related Retail	6,913	\$316	147,530	\$5,432
Art Dealers	1,182	\$80	17,686	\$958
Book Stores and News Dealers	948	\$31	16,252	\$532
Electronics and Appliance Stores	963	\$60	27,040	\$1,343
Jewelry Stores	1,946	\$85	45,646	\$1,551
Musical Instrument and Supplies Stores	419	\$23	6,901	\$316
Photofinishing	678	\$16	15,999	\$328
Sewing, Needlework, and Piece Goods Stores	777	\$21	18,006	\$405
Materials Manufacturing	149	\$5	3,082	\$118
Glass and Glass Product Manufacturing	149	\$5	3,082	\$118
Media	36	\$1	1,771	\$63
Video Tape and Disc Rental	36	\$1	1,771	\$63
Visual Arts, Music and Other Performing Arts	55,065	\$1,123	959,026	\$21,413
Independent Artists, Writers, and Performers	46,974	\$915	798,730	\$17,781
Photographic Services	8,091	\$208	160,296	\$3,632
Wholesale Art Stores	1,824	\$119	37,055	\$2,258
Book, Periodical, and Newspaper Merchant Wholesalers	694	\$19	11,096	\$353
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	1,130	\$100	25,969	\$1,905
Nonemployers, Creative Economy Total	70,797	\$1,910	1,258,642	\$34,139
Nonemployers, All Industries Total	1,122,645	\$59,212	23,836,937	\$1,115,921

Source: U.S. Census Bureau, Nonemployer Statistics

GEOGRAPHIC ANALYSIS OF CREATIVE ECONOMY ENTERPRISES

Figure 7 shows creative enterprises in New England by town, as reported by Infogroup.⁹ These records include businesses of all sizes—including nonemployers (self-employed enterprises)—that fall under the core creative industry sectors of this study, including the widely-prevalent creative industry sectors within the retail and wholesale industries. When mapped by the number of enterprises, the concentration of establishments matches New England’s main population centers, especially the metro Boston area. The City of Boston itself is home to the most creative enterprises of any other city or town in New England, with over four percent of the region’s total. This concentration is not surprising given that Boston is also the largest city in New England. In many other cases, the size of a city correlates well with its number of creative enterprises. For instance, Providence, Rhode Island, Stamford, Connecticut, and Norwalk, Connecticut all rank in the top ten in terms of both population and creative enterprises.

However, the number of creative enterprises in a community cannot always be predicted by its population. For example, Cambridge, Massachusetts; Portland, Maine; Newton, Massachusetts; and Burlington, Vermont rank significantly higher in their counts of creative enterprises than in their population. Meanwhile, places like Worcester, Springfield, and Lowell in Massachusetts and Bridgeport, Connecticut all show lower numbers of creative enterprises than their population numbers would suggest. To further delve into the geographic distribution of creative enterprises, it is helpful to remove the effects of population size on the number of creative establishments by examining the number of

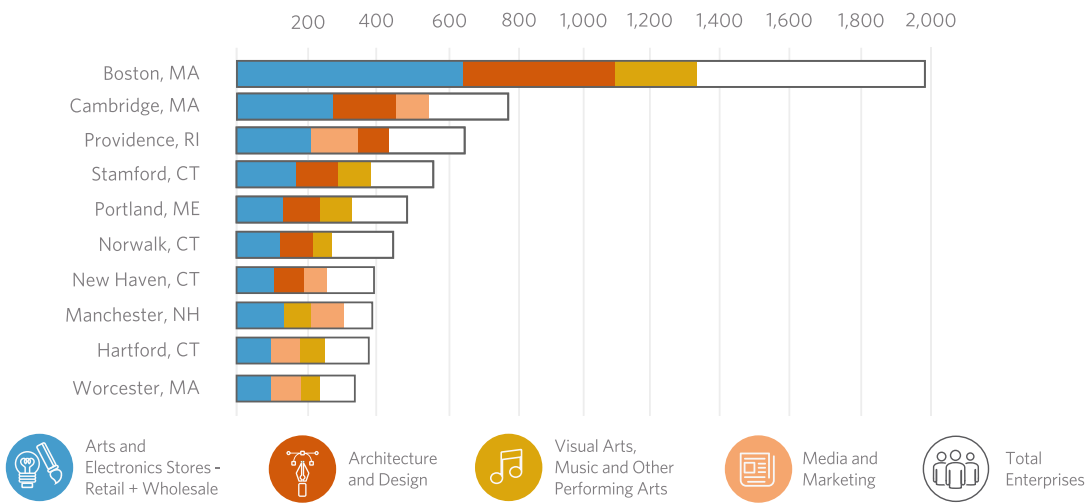
creative enterprises per capita as shown in Table 5.

In some cases, the communities with the highest number of creative enterprises per capita are extremely small communities with only one or two creative enterprises. As a result, it is more informative to focus on which regions in New England see a large number of creative enterprises in relation to their population versus within individual communities. Here the pattern breaks from population centers and instead reveals the travel and tourism centers of New England. The Cape and Islands region of Massachusetts, Coastal Maine, towns around the White Mountains in New Hampshire, the Berkshires, and various communities in Vermont all emerge as having high concentrations of creative enterprises relative to their populations. Similar patterns are seen in places that are not necessarily tourism destinations but rather shopping destinations or high-income communities such as Burlington, Marblehead, Newton, and Wellesley in Massachusetts or Westport and Newport in Connecticut and Rhode Island, respectively.

A commonality among all these diverse communities is their above average per capita spending, which in turn supports more arts-related retail and wholesale establishments such as art galleries, book stores, jewelry stores, and art dealers. In the case of the tourism centers, the higher spending is supported by out-of-town visitors who add greater demand for creative goods and services than local residents alone could support. On the other hand, it is the above average income of the local residents themselves that allows wealthy areas to support more creative businesses per person than the regional average.

⁹ Infogroup business data is collected from thousands of different sources, most of which are event-driven (for example, new business filings, utility connections, and annual reports), and verified by their staff. The Infogroup data was obtained through Esri Business Analyst and manipulated and tabulated using Stata and ArcGIS. These establishment counts are unlikely to match those provided by official government sources given this unique methodology for collecting the data.

FIGURE 6 | Top 10 New England Towns by Number of Creative Enterprises

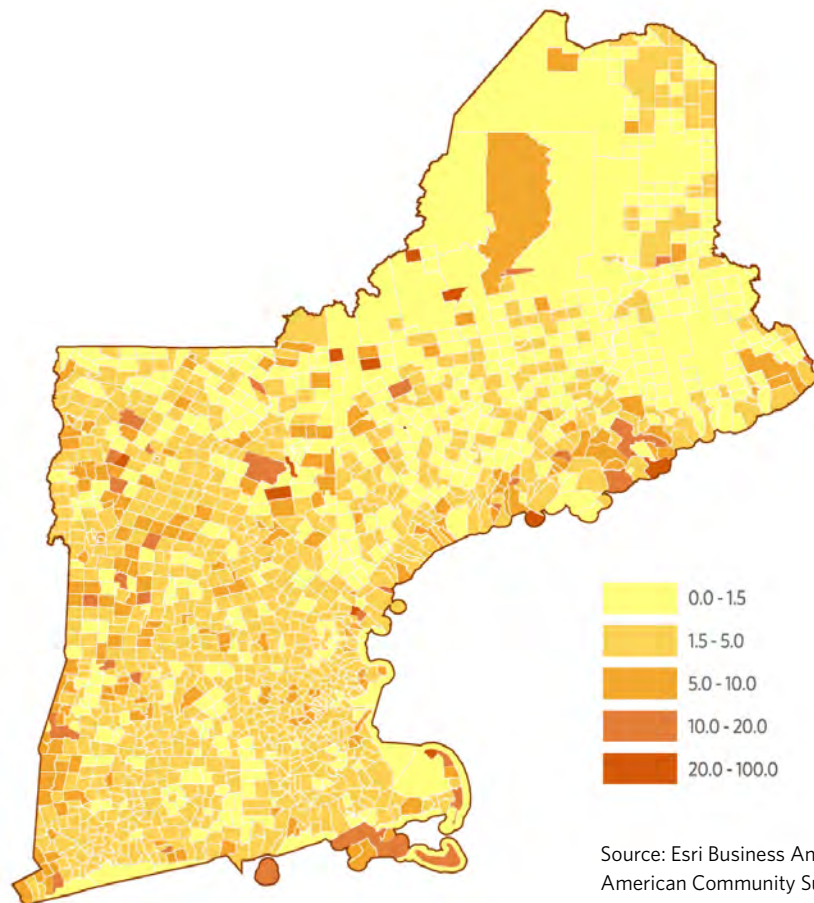


*Colored bars denote the top three types of creative enterprises in the community.

Source: Esri Business Analyst and Infogroup

Note: This chart for each state can be found on page 193 of the Appendix

FIGURE 7 | Creative Enterprises per 1,000 Residents



Source: Esri Business Analyst, Infogroup
American Community Survey, 2011-2015 Estimates

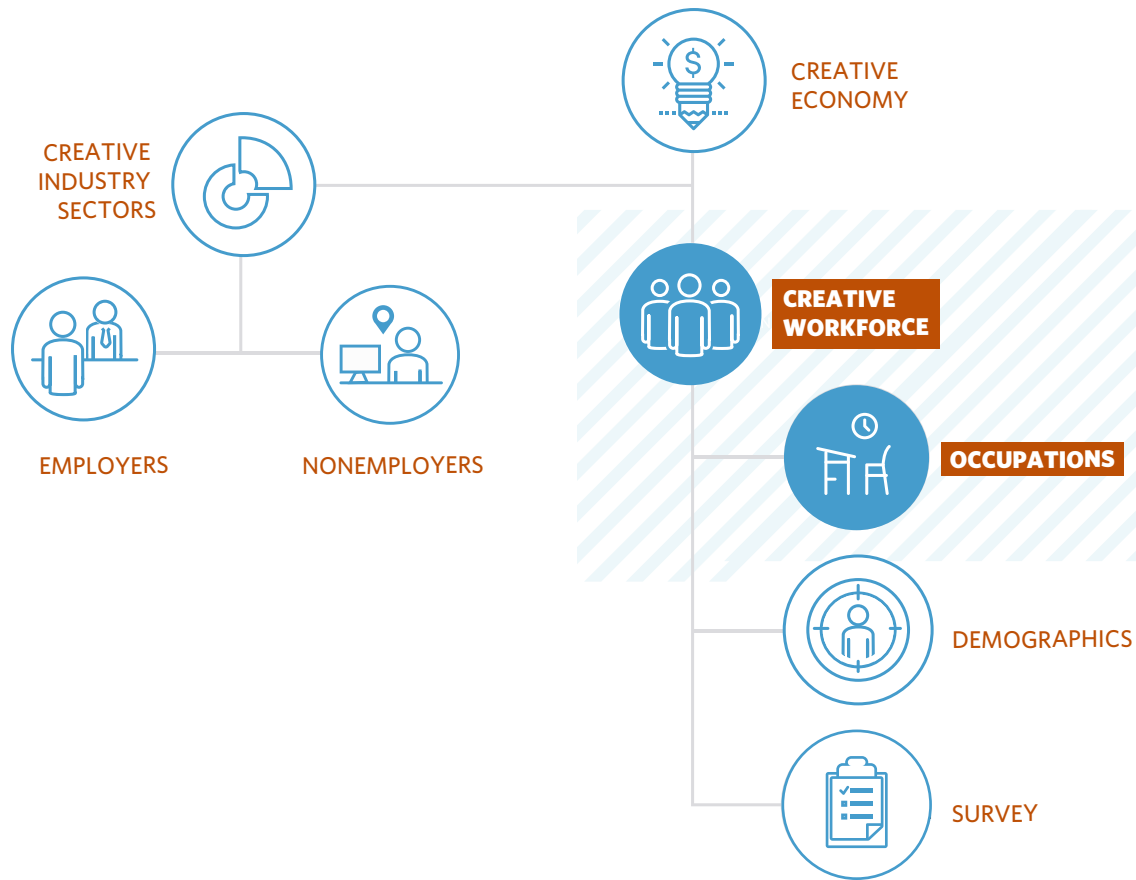
TABLE 5 | Top 30 New England Cities by Number of Creative Enterprises Per Capita, 2016

Rank	City	Creative Enterprise Establishments	Resident Population, Avg. 2011-2015	Creative Enterprise Establishments per 1,000 Residents
1	Portsmouth, NH	251	21,426	11.7
2	Rutland, VT	116	20,115	11.5
3	Westport, CT	278	27,343	10.2
4	Newport, RI	207	24,459	8.5
5	Barre, VT	70	16,775	8.1
6	Newburyport, MA	143	17,776	8.0
7	Burlington, MA	194	25,467	7.6
8	Portland, ME	496	66,490	7.5
9	Cambridge, MA	778	107,916	7.2
10	Concord, MA	131	19,271	6.8
11	Wilton, CT	125	18,643	6.7
12	Northampton, MA	189	28,602	6.6
13	Greenwich, CT	381	62,434	6.1
14	New Canaan, CT	118	20,219	5.8
15	Stonington, CT	106	18,492	5.7
16	Woburn, MA	222	39,104	5.7
17	Barnstable, MA	249	44,591	5.6
18	Needham, MA	161	29,853	5.4
19	Ridgefield, CT	135	25,137	5.4
20	Burlington, VT	227	42,570	5.3
21	Natick, MA	185	34,892	5.3
22	Newton, MA	460	87,675	5.2
23	Waltham, MA	324	62,438	5.2
24	Brookfield, CT	87	16,904	5.1
25	Norwalk, CT	451	87,701	5.1
26	Wellesley, MA	145	28,832	5.0
27	Salem, NH	144	28,853	5.0
28	Marblehead, MA	101	20,270	5.0
29	Sudbury, MA	91	18,397	4.9
30	Hingham, MA	112	22,733	4.9

Source: Esri Business Analyst, Infogroup, American Community Survey 2011-2015 Estimates

Note: This analysis includes only cities with resident populations over 15,000.

CREATIVE OCCUPATIONS IN NEW ENGLAND'S BUSINESSES

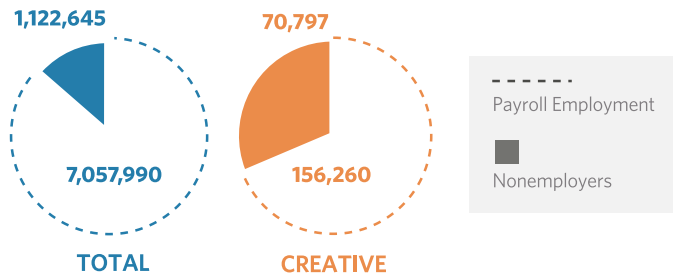


GRAPHIC 2A

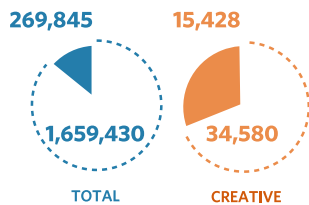
New England Creative Payroll Occupations (2015) and Creative Nonemployers (2014)

NEW ENGLAND

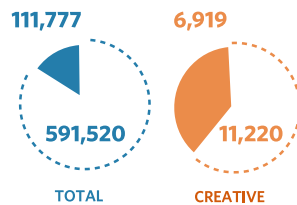
OCCUPATIONS



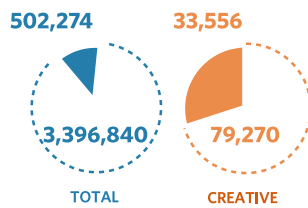
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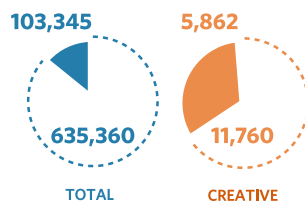
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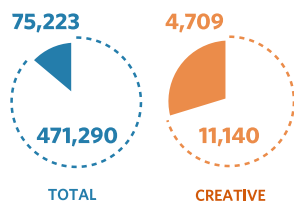
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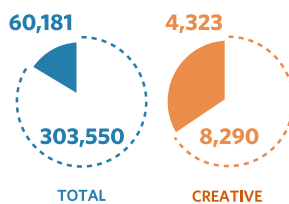
NEW HAMPSHIRE



RHODE ISLAND

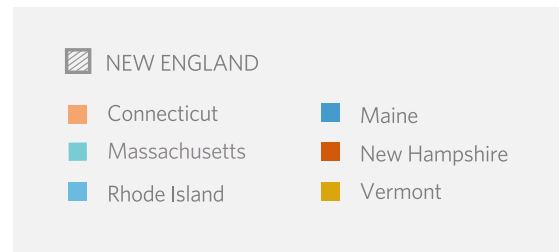
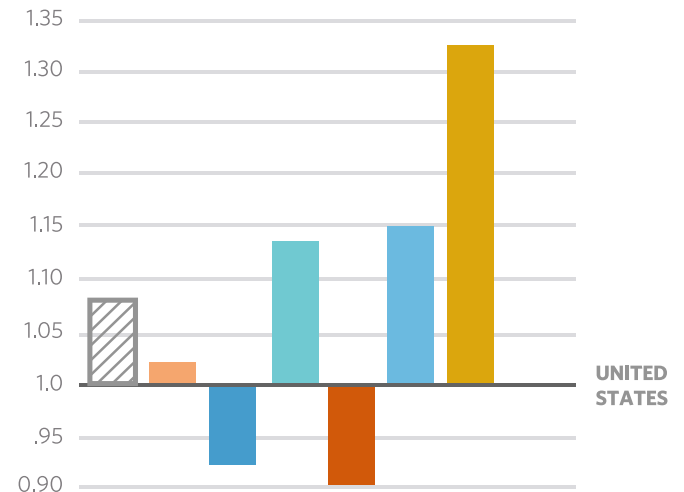


VERMONT



GRAPHIC 2B

Occupational Location Quotients by State and Region



Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES); U.S. Census Bureau, Nonemployer Statistics

This section shifts from an examination of creative work by place of work to creative work by type of work. This analysis includes any workers who are in the core creative occupations, i.e. perform work that is categorically creative as defined in *The Creative Economy: A New Definition* from 2007.¹⁰ The primary focus of this section is on payroll employment partly because non-employers (self-employed workers) have already been addressed in detail but also because payroll employment represents the ongoing business needs of New England's creative economy.¹¹

There are 156,260 creative payroll jobs in New England comprising 2.2 percent of all occupations in the region. These jobs are supplemented by an additional 70,797 self-employed creative workers. With 12,890 jobs, the most prevalent creative payroll occupation in New England is public relations specialist, while the largest artistic occupation is that of designer, with over 11,000 workers. With a 20 percent higher prevalence of artists in its employment base, New England has an especially high concentration of artists compared to the U.S. Census data also indicates that creative workers have higher educational attainment, earn higher incomes than the overall workforce, and are much more likely to be self-employed. As a result, **payroll occupations alone under-represent the true number of workers engaged in creative work.** The industries employing the most creative workers are concentrated in the educational sector.

Payroll jobs are the jobs that regional businesses have deemed necessary enough to their bottom line to undertake the time and expense of formally hiring a permanent employee. Even though a business may have an ongoing need for freelancers and contractors, it may only need an individual freelancer for a short amount of time. Therefore, individual creatives—who are essentially self-employed freelancers and can be brought on in an ad hoc fashion—do not represent ongoing and sustained business needs of an enterprise. However, self-employed creatives are still engaged in creative work and their prominence is important to note. The previous summary table shows that nearly a third of creative work in New England and the U.S. is being done by self-employed creatives. As a single cohort, nonemployers (self-employed) are by far the largest group of creative worker. To reiterate data from the previous section, there are nearly 70,800 creative nonemployers, of which almost 47,000 are independent artists, writers, and performers. This group alone is nearly four times the size of the largest creative payroll occupation.

Of the six New England states, Vermont has the highest share of workers in creative occupations, at 2.7 percent. It is followed by Rhode Island, Massachusetts, and Connecticut. Maine and New Hampshire, at 1.9 percent, are the only New England states to have a lower share of workers in creative occupations than the U.S. as a whole. These shares correspond with

¹⁰ As defined by DeNatale, Doug, and Gregory H. Wassall. *The Creative Economy: A New Definition*. New England Foundation for the Arts. 2007. pp.22-23. See Appendices for table of occupational codes defining the creative workforce.

¹¹ Nonemployers are measured as establishments, i.e. businesses, not as individuals. As a result, they are categorized by industry sector not by occupation. So while it is safe to assume that a self-employed individual in a creative industry also has a creative occupation, the data does not allow them to be sorted by occupational codes.

TABLE 6 | Top Ten Creative Workforce Occupations in New England and the United States Ranked by Payroll Employment, 2015

New England		United States	
Occupation	Employment	Occupation	Employment
Public Relations Specialists	12,890	Public Relations Specialists	218,910
Librarians	10,310	Graphic Designers	204,850
Graphic Designers	9,870	Advertising Sales Agents	149,770
Art, Drama, and Music Teachers, Postsecondary	7,700	Librarians	131,550
Library Technicians	7,540	Producers and Directors	104,650
Advertising Sales Agents	6,550	Merchandise Displayers and Window Trimmers	100,540
Library Assistants, Clerical	6,140	Library Assistants, Clerical	100,090
Public Relations and Fundraising Managers	6,080	Art, Drama, and Music Teachers, Postsecondary	98,310
Architects, Except Landscape and Naval	6,050	Editors	96,690
Editors	5,970	Architectural and Civil Drafters	95,280
Creative Economy Total	156,260	Creative Economy Total	2,926,080
All Occupations	7,057,990	All Occupations	137,896,660
Creative Economy Share of All Occupations	2.2%	Creative Economy Share of All Occupations	2.0%



Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

location quotients (LQ), which are a measure of the prevalence of creative employment compared to the nation. The LQs of New England states vary from a high of 1.33 in Vermont and low of 0.90 in New Hampshire, meaning that creative occupations are 33 percent more prevalent in Vermont and 10 percent less prevalent in New Hampshire than in the nation’s employment base. Overall, creative occupations are eight percent more

concentrated in New England (LQ of 1.08) than the U.S. The composition of the creative workforce within New England also varies from that of the U.S. While public relations specialists are the most prominent creative payroll occupation in both New England and the U.S., librarians; postsecondary art, drama, and music teachers; library technicians; public relations and fundraising

TABLE 7 | Top Ten Payroll Creative Workforce Occupations By Location Quotient In New England, 2015

Occupation	2015
Public Relations and Fundraising Managers	1.97
Area, Ethnic, and Cultural Studies Teachers, Postsecondary	1.82
Archivists	1.75
Curators	1.71
History Teachers, Postsecondary	1.63
Architecture Teachers, Postsecondary	1.60
Library Technicians	1.56
Librarians	1.53
Art, Drama, and Music Teachers, Postsecondary	1.53
English Language and Literature Teachers, Postsecondary	1.34

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

managers; and architects (except landscape and naval) are all more prominent occupations in New England than in the U.S. as a whole. On the other hand, graphic designers, advertising sales agents, producers and directors, merchandise displayers and window trimmers, clerical library assistants, editors, and architectural and civil drafters are all less prominent in New England.

The concentration of post-secondary education and cultural preservation in New England’s creative economic base is especially noticeable in the payroll occupation location quotients where nine of the top ten are directly tied to these efforts. The remaining one (public relations and fundraising managers) plays a key role in all nonprofit organizations, which make up a significant portion of education and cultural preservation establishments.

Using the Creatives Count survey, we found that on average each creative worker has about three jobs in any year, split nearly equally between self-employment and outside/payroll employment. As would be expected in this survey, the considerable portion of self-employment is in the arts and entertainment occupations, followed by educational occupations. These two sectors combined comprise 89 percent of the total. The pattern, though not the concentration, is repeated in payroll employment. Here the top two are only 64 percent of the total. The data also refutes a common stereotype of artists making ends meet by working retail or food service jobs. Sales and food preparation occupations together are only five percent of total responses. In addition to holding multiple jobs, 72 percent of respondents also said that they had unpaid or volunteer work in the past year.

TABLE 8 | Top Ten Payroll Employment Occupations, 2016

Occupation	Share
Art and Design Workers	19%
Entertainers and Performers, Sports and Related Workers	11%
Other Teachers and Instructors	8%
Postsecondary Teachers	8%
Media and Communication Workers	7%
Preschool, Primary, Secondary, and Special Education School Teachers	6%
Other Education, Training, and Library Occupations	6%
Other Office and Administrative Support Workers	5%
Other Management Occupations	3%
Secretaries and Administrative Assistants	2%

Source: Creatives Count Survey

TABLE 9 | Top Ten Self-Employed Occupations, 2016

Occupation	Share
Art and Design Workers	44%
Entertainers and Performers, Sports and Related Workers	21%
Media and Communication Workers	8%
Other Teachers and Instructors	7%
Other Education, Training, and Library Occupations	5%
Preschool, Primary, Secondary, and Special Education School Teachers	3%
Postsecondary Teachers	2%
Other Office and Administrative Support Workers	1%
Architects, Surveyors, and Cartographers	1%
Counselors, Social Workers, and Other Community and Social Service Specialists	1%

Source: Creatives Count Survey

Artists are a subset of all creative occupations and are at the center of many of the public and private efforts to cultivate the creative economy.¹² Part of the reason that there are few artists in the payroll data is that many are self-employed and are therefore missing from the OES, the source of this study's occupation data. The ACS PUMS, a product of the U.S. Census Bureau, surveys individuals and because it allows respondents to self-identify their occupations, it captures workers of all employment types. However, it limits each respondent to only a single job and because of this, the ACS PUMS only counts workers whose primary occupation is creative while missing those

who do creative work for less than 50 percent of their work hours. Nevertheless, it provides a better count of a workforce cohort like artists whose employment patterns are mixed between payroll and self-employment.

Designers are the biggest artistic occupation in every New England state, the region itself, and the U.S., in many cases by a large margin. The second largest occupations in all areas is either writers or architects with the sole exception of Rhode Island, where visual artists are second. This is perhaps a result of the prominence of the Rhode Island School and Design within an otherwise small state.

TABLE 10 | Top Five Artist Occupations for New England and its States, 2014

CONNECTICUT		MAINE		MASSACHUSETTS		NEW HAMPSHIRE	
Designers	11,127	Designers	3,176	Designers	22,871	Designers	3,332
Architects	3,539	Writers	1,270	Architects	7,729	Writers	1,242
Writers	3,156	Visual Artists	1,000	Writers	6,982	Visual Artists	1,095
Musicians	2,916	Photographers	852	Visual Artists	5,015	Musicians	669
Producers & Directors	2,728	Musicians	569	Musicians	4,571	Architects	631

RHODE ISLAND		VERMONT		NEW ENGLAND		UNITED STATES	
Designers	3,663	Designers	1,996	Designers	46,165	Designers	534,227
Visual Artists	825	Architects	898	Writers	14,288	Architects	137,948
Writers	740	Visual Artists	745	Architects	13,148	Writers	118,098
Photographers	613	Musicians	612	Visual Artists	11,037	Visual Artists	109,376
Architects	491	Photographers	395	Musicians	9,752	Producers & Directors	109,200

Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

¹² Artistic Occupations represent a subset of the entire creative workforce occupations, which include architects, designers, visual artists, photographers, writers, actors, producers and directors, dancers, musicians, announcers, and all other entertainers (see Creative Workforce Occupations SOC code table for details).

In most cases, the New England states and the region show a higher concentration of artistic occupations than the U.S. Showing location quotients over one in most cells, Table 11 shows how the relative prevalence of artistic occupations compares among the states. Overall, New England has a 20 percent greater concentration of artists than the U.S. The highest concentration in the region is among musicians, who are 97 percent higher than the nation. The lowest concentration is among producers and directors with a concentration 16 percent lower than the nation.

Creative workers differ from the overall workforce in their pattern of work. While the ACS PUMS limits

survey respondents to a single job for industry and occupation information, it asks for the hours worked and income earned from all jobs. As a result, this information does not undercount the effort and income of individuals with more than one job, such as many artists. According to the ACS PUMS, the share of workers that work over 50 hours per week is relatively equal among the three occupational groupings examined here. In each case, roughly 16 to 17 percent of all workers, creative workers, and artists work over 50 hours per week. It is on the lower end where the creative occupations differ. Workers in these occupations are more likely than the regional average to work fewer than 30 hours per week even though the Creatives Count survey sug-

TABLE 11 | Artist Occupation Location Quotients for New England and its States, 2014

Creative Occupations	CT	ME	MA	NH	RI	VT	New England
Architects	1.29	0.46	1.50	0.61	0.62	0.64	1.18
Designers	1.05	0.84	1.15	0.83	1.20	1.06	1.07
Visual Artists	1.09	1.29	1.23	1.33	1.32	1.92	1.25
Photographers	1.28	1.59	1.45	0.90	1.41	1.47	1.37
Writers	1.35	1.52	1.59	1.40	1.09	2.15	1.49
Actors	1.48	0.66	1.10	2.59	2.10	0.63	1.34
Producers & Directors	1.26	0.42	0.83	0.43	0.65	0.67	0.84
Dancers	0.93	0.60	1.50	*U	1.09	*U	1.05
Musicians	2.41	1.32	2.01	1.46	1.19	2.83	1.97
Announcers	1.51	0.91	0.94	1.87	1.98	1.23	1.25
Entertainers, All Others	0.30	0.31	2.31	1.99	1.97	2.82	1.61
All Artists	1.22	0.93	1.29	0.95	1.13	1.29	1.20

*Undisclosed

Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

gests that many are likely to hold more than one job. Interestingly, the lower number of hours worked does not manifest in lower incomes, suggesting that the average hourly earnings of creative workers is higher than the average workforce, which is in agreement with the income and educational attainment findings that follow.

Contrary to the stereotype, the incomes of artists and creative workers are not below average. In fact, the ACE PUMS shows that they have higher incomes. The median income of all occupations in New England is between \$30,000 and \$40,000, whereas the median for creative workers is higher—between \$40,000 and \$50,000. Overall, the creative occupations show higher levels of income than workers in general, even though they work fewer hours, which suggests higher hourly earnings. Along with higher personal incomes,

creative workers have higher median household incomes than the overall workforce. Median household income for all occupations is between \$80,000 and \$90,000 whereas the median for creative workers is in the \$90,000 to \$100,000 range. The median for artist is even higher and somewhere in the \$100,000 to \$150,000 range. This increase comes even though the personal incomes of artists are not meaningfully different from creative workers as group. These numbers compare favorably with national values. U.S. median personal income in 2015 was \$30,240, while median household income is \$56,516.¹³

The findings from the Creatives Count survey contradict those of the ACS PUMS suggesting that the personal and household incomes of creative workers are in fact similar to the overall population rather than higher. It is likely that this difference is due to the nature of

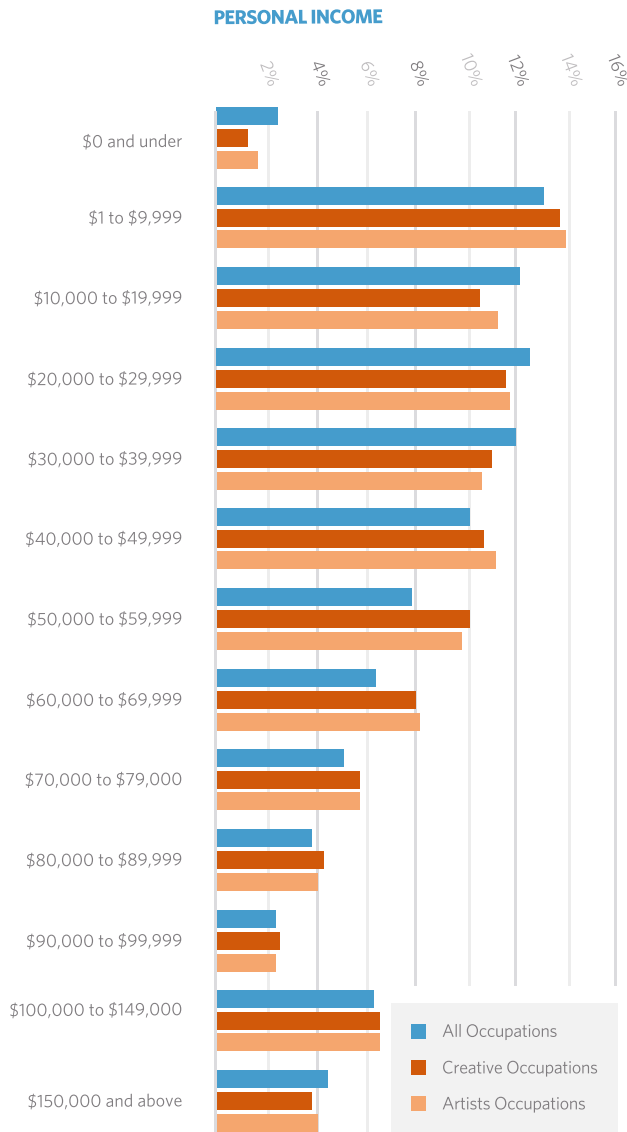
TABLE 12 | Creative Workforce By Weekly Hours Worked, 2014

Workforce Category	Group	CT	ME	MA	NH	RI	VT	NE
All Occupations	Less than 30	18%	18%	19%	17%	19%	19%	18%
	30 -50	64%	66%	64%	65%	67%	64%	62%
	Over 50	18%	17%	17%	18%	14%	17%	16%
Creative Occupations	Less than 30	26%	26%	24%	29%	25%	27%	24%
	30 - 50	55%	56%	61%	58%	64%	58%	58%
	Over 50	19%	19%	16%	14%	11%	14%	16%
Artist Occupations	Less than 30	26%	29%	23%	30%	25%	25%	24%
	30-50	53%	52%	60%	54%	62%	59%	56%
	Over 50	21%	19%	17%	15%	12%	17%	17%

Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

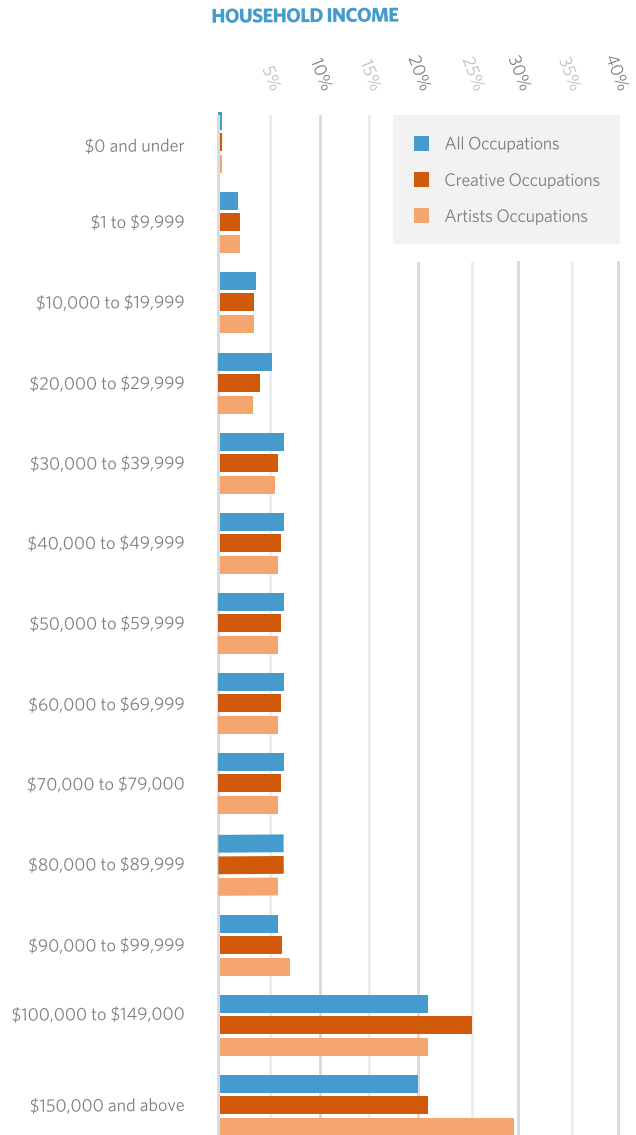
¹³ Source: Federal Reserve Bank of St. Louis. Personal Income (<https://fred.stlouisfed.org/series/MEPAINUSA672N>) and household income (<https://fred.stlouisfed.org/series/MEHOINUSA672N>)

FIGURE 8 | Creative Workforce By Personal Income, 2014



Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

FIGURE 9 | Creative Workforce By Household Income, 2014



Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

the respondents to the survey, who, by design, include many casual or part-time creative workers in contrast to the ACS PUMS, which only captures those who do creative work as their primary occupation. Because of this difference, it is probable that a survey respondent is closer to the average worker's income than those who do creative work full time, despite having considerably higher educational attainment than average (discussed in Figure 20, page 82).

INDUSTRIES EMPLOYING CREATIVE WORKERS

The types of businesses that use workers in creative occupations are not limited to those industry sectors that are part of the creative economy. Many different sectors, regardless of the nature of the goods and services they produce, rely on occupations like designers, advertising and public relations staff, or writers and editors. In fact, some of the largest employers of creative workers are sectors outside the creative economy.

In New England and the U.S., higher education is the biggest employer of creative workers. Taken together, the education and local government sectors play a significant role in employing creative workers. Creative employment in New England is less "top heavy" than it is in the U.S. The top 10 industries employing creative workers in New England account for 33 percent of creative economy jobs, while the nation's top ten are

58 percent of the total, indicating a greater dispersal of creative workers among New England's economy. As a reminder, the creative nonemployers—i.e. self-employed individuals—number nearly 70,800 in New England and 1.3 million in the U.S., making them larger than any of the payroll employment occupations.

Data from Creatives Count reinforces the importance of the education sector in employing creative workers. While the survey results differ in many other places from the OES data, the prominence of education is clear in both datasets.

To reiterate, the OES only counts payroll employees, which, by definition, excludes the self-employed. This exclusion does not just disproportionately impact the artistic occupations as shown in the preceding tables but rather all creative occupations. According to the ACS PUMS, a quarter of all creative workers and a third of artists are self-employed, whereas only 10 percent of the overall workforce is self-employed. This overrepresentation in self-employment is offset by a lower share in all other employer types. A smaller percentage of creative workers are employed by for-profit companies, nonprofit entities, and the government than workers in non-creative occupations.

The one-third share of self-employment among artists is corroborated by the Creatives Count survey. The

TABLE 13 | Top Ten Industries That Employ Creative Workers In New England and United States, 2015

New England		United States	
Industry	Employment	Industry	Employment
<i>Nonemployer (Self-employed) creatives in Any Sector</i>	70,797	<i>Nonemployer (Self-employed) creatives in Any Sector</i>	1,258,642
Colleges, Universities, and Professional Schools*	25,200	Colleges, Universities, and Professional Schools*	309,200
Local Government (OES Designation)*	11,130	Architectural, Engineering, and Related Services	189,530
Architectural, Engineering, and Related Services	10,470	Advertising, Public Relation, and Related Services	186,510
Newspaper, Periodical, Book, and Directory Publishers	9,150	Local Government (OES Designation)*	178,590
Advertising, Public Relations, and Related Services	6,510	Motion Picture and Video Industries	166,030
Elementary and Secondary Schools*	6,220	Newspaper, Periodical, Book, and Directory Publishers	159,360
Radio and Television Broadcasting	5,630	Radio and Television Broadcasting	150,100
Printing and Related Support Activities	2,820	Elementary and Secondary Schools*	109,220
Other Information Services	2,700	Junior Colleges*	93,790
Cable and Other Subscription Programming	2,370	Printing and Related Support Activities	66,450
Creative Economy Total	260,530	Creative Economy Total	2,751,830

Sectors with “*” are outside of the definition of core creative enterprises.

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

Note: Due to differences in data collection methods, totals for occupational data by industry do not match with totals in other OES data.

TABLE 14 | Creatives Count Survey - Top Ten Industries Employing Creative Workers, 2016

Industry	Share
Educational Services	52%
Arts, Entertainment, and Recreation	19%
Professional, Scientific, and Technical Services	7%
Retail Trade	3%
Health Care and Social Assistance	3%
Other Services (except Government)	3%
Administrative and Support Services	3%
Information (including publishing of all media and communications)	2%
Accommodation and Food Services	2%
Manufacturing	2%

Source: Creatives Count Survey



Waterfall Arts

Community arts center with the mission of creating community in harmony with nature through the transformative power of the arts providing studio space, exhibits, classes, workshops, open clay and print studios, performance space, and supporting arts and cultural events in the greater Belfast area.

Institution/Business Type:

Arts Centers

Professional Disciplines:

Multi-Disciplinary

Media - General

Dance - General

Music - General, Dance/DJ

Theater - General, Devised / Artist Led

Visual/Crafts - General, Ceramics, Clay, Experimental, Glass, Illustration / Drawing, Installation, Mixed Media, Painting, Photography, Printmaking

Populations Served:

Adults

Families

General Public

School Groups

Teens

Activities and Services:

Artist Market

Arts Instruction / Lessons

Performance / Concert / Reading / Assembly

Exhibitions

Film Showings

Public Art Projects (In Free, Public Spaces)

Residency - Community

Workshops / Demonstrations / Master Class / Presentation

I am a Creative Communities Exchange Presenter



Learn more about Waterfall Arts on CreativeGround

Professional experience

Awards

Media gallery



survey respondents, who are mainly artists, say that roughly one-third of their income comes from self-employed activities while nearly half comes from outside employment (i.e. payroll employment or wage and salary work where one receives a W-2). The remainder is mainly “all other income” which includes pensions, social security, investments, and the like.

TABLE 15 | Share Of Income By Source, 2016

Source of Income	Mean
Self Employment	32%
Outside employment	47%
Grants or contributions	2%
All other income	19%
Total	100%

Source: Creatives Count Survey



Zili Misik by Zachary Sar

FIGURE 10 | Creative Workforce By Employer Type, 2014



Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

The Change of the Creative Economy over Time

A broad look at New England creative enterprise employment shows that creative economy establishments provided more than 238,500 payroll jobs in 2015 with annual wage and salary payments to employees of more than \$14.9 billion. Even with declines in payroll overall, creative employment is still a higher proportion of the New England employment base than that of the nation.

Since 2007, the region and nation saw a decline in creative enterprise payroll employment while overall

payroll employment grew. As a result of these changes, creative enterprise employment has declined as a percentage of total covered employment - from 4.3 percent of total regional employment in 2007 to 3.4 percent in 2015. During this same time, both creative and total nonemployers have grown, suggesting a small but economy-wide increase in the proportion of self-employed workers. Taken together, total payroll employment and self-employment in the creative economy is down by 15 percent in New England and 12 percent in the U.S.

TABLE 16 | Creative Enterprise Employment Change from 2007 Summary, Nonemployers to 2014 and Payroll Employment to 2015¹⁴

Employment	New England		United States	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Payroll Employment	238,504	-19.2	4,578,121	-16.8%
Total Payroll Employment, All Industries	7,100,579	2.4%	139,491,699	3.0%
Creative Economy % of Total Payroll Employment	3.4%	-0.2%	3.3%	-0.2%
Creative Economy Nonemployers (self-employed)	70,797	3.5%	1,258,642	12%
Total Nonemployers (self-employed)	1,122,645	3.4%	23,836,937	9.8%
Creative Economy % of Nonemployers (self-employed)	6.3%	0%	5.3%	0.05%
Creative Payroll and Nonemployers (self-employed)	309,301	-15%	5,836,763	-12%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and Nonemployer Statistics, U.S. Census Bureau

¹⁴ Nonemployer data is for 2014, the most recently available year

CHANGE IN CREATIVE ENTERPRISE PAYROLL EMPLOYMENT SINCE 2007

This section delves deeper into changes in the creative economy from its pre-recession peak to today. Comparisons of these pre- and post-recessionary numbers show that the effects of the recession on payroll employment in creative enterprises in New England were severe when compared to growth and recovery patterns in the broader economy. Furthermore, as the long-term trends show, the Great Recession is the point where creative economy employment trends decoupled from the broader economy.

As in the creative economy nationally, creative employment in the region declined during the recent recession and has still not recovered to pre-recession employment levels. Since 2007, creative enterprises in New England shed 19.2 percent of the jobs on their payrolls or nearly 56,600 jobs in the industry between 2007 and 2015. Creative enterprise payroll employment losses in the U.S. of 16.8 percent was only slightly better than the regional decline¹⁵. In contrast, over the same period, total New England payroll employment in all sectors grew modestly by 2.4 percent or 164,000 jobs while national payroll employment grew by 3.0 percent.

The decline in the number of creative enterprises with paid employees in New England was moderate compared to employment losses—firm counts declined by 10.3 percent between 2007 and 2015 (nearly 2,601 firms). Employment falling faster than firm counts caused average firm size to decrease slightly over the period. Contrary to the creative economy, in the regional economy as a whole, total establishments with paid employees grew by more than 6.8 percent. The change in nonemployer establishments can be found in Graphic 3, page 65.

In spite of the employment declines experienced since 2007, the New England region still has a slightly higher concentration of creative enterprise employment than the nation as a whole. A look at location quotients (LQ) provides one way to assess the significance of employment in creative enterprises in New England. The LQ describes the relative prevalence of employment in an area compared to the nation with values greater than one indicating higher prevalence while values less than one shows lower prevalence. The 2007 creative economy study observed slower growth in creative enterprise employment between 1997 and 2002 and subsequent declines in 2002 location quotients. Due to employment shifts in the creative sectors and the broader state economies between 2007 and 2015, New England's location quotients for creative

¹⁵ These 2007 numbers were developed for this study using the QCEW data and differ from the numbers discussed in *The Creative Economy: A New Definition* study from 2007 that were from the Economic Census.

TABLE 17 | Creative Payroll Employment in New England, Its States, and the U.S., 2007 and 2015

2015	CT	ME	MA	NH	RI	VT	New England	United States
Creative Enterprise Employment	59,543	15,149	115,882	21,109	17,692	9,130	238,504	4,578,121
Total Employment, All Industries	1,662,825	595,889	3,428,020	636,806	469,981	307,058	7,100,579	139,491,699
Creative Enterprise % of Total Employment	3.6%	2.5%	3.4%	3.3%	3.8%	3.0%	3.4%	3.3%

2007	CT	ME	MA	NH	RI	VT	New England	United States
Creative Enterprise Employment	73,381	19,648	146,846	22,915	20,973	11,337	295,098	5,500,791
Total Employment, All Industries	1,686,043	602,321	3,234,357	630,204	480,132	303,448	6,936,505	135,366,106
Creative Enterprise % of Total Employment	4.4%	3.3%	4.5%	3.6%	4.4%	3.7%	4.3%	4.1%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

economy employment decreased in a few individual states (Maine, Massachusetts, and Vermont) and in the region as a whole. While New England's creative payroll employment declined between 2007 and 2015, so too did the industry nationally. By 2015, New England retained a slightly higher share of creative employment than the national share. In 2015, the location quotient for the industry in New England was 1.023,

meaning that creative employment was 2.3 percent more concentrated in New England than nationally, down from 4.7 percent in 2007.

Knowing that creative sectors are spread across diverse industries emphasizes that the creative economy is not homogenous and its components are not subject to uniform economic and technological changes.

TABLE 18 | Creative Payroll Employment Location Quotient in New England, Its States, and the U.S., 2007 and 2015

LQ	CT	ME	MA	NH	RI	VT	New England	United States
2015	1.091	0.775	1.03	1.01	1.147	0.906	1.023	1
2007	1.071	0.803	1.117	0.895	1.075	0.919	1.047	1

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).



GrubStreet, Incorporated

GrubStreet is one of the nation's leading creative writing centers. Since 1997, we've been driven by one mission: to be an innovative, rigorous, and welcoming community for writers who together create their best work, find audience, and elevate the literary arts for all.

We have two vital roles. We support writers at every stage of their development by offering writing classes, fellowships, employment, and networking opportunities, and by promoting the work of local authors. Equally important, we enrich the lives of Boston-area residents by introducing them to an inclusive community of fellow readers and writers through author-hosted book clubs, informal discussions, movie screenings and more.

Institution/Business Type:

Arts Centers

Professional Disciplines:

Literature - General, Non-Fiction, Poetry, Publishing, Spoken Word

Theater - Playwriting

Visual/Crafts - Cartooning / Graphic Novel

Populations Served:

Adults

Elders

General Public

People with Disabilities

Teens

Youth-At-Risk

Activities and Services:

Product Development Services

Writing Services

Workshops / Demonstrations / Master Class / Presentation



Learn more about GrubStreet on CreativeGround

Professional experience

Awards

Media gallery



INDUSTRIES THAT COMPRISE THE CREATIVE ECONOMY

The creative economy is not a single industry as defined by the federal government, rather it is comprised of many different sectors from across many different industries. Table 19 shows the industries where employment in the creative sector is drawn from. For example, in 2015, 15 percent of creative payroll employment (36,530 jobs) was in the manufacturing industry in sectors like printing, and pottery and glass manufacturing, while 42 percent (101,118 jobs) was in information in sectors like newspaper, book and internet publishing.

The individual employment declines within an environment of overall employment gains is not unique to the creative sector. For context on the changes in the creative economy, it is illustrative to examine the changes that have occurred in other industries. Figure 10 shows the change in employment in the creative sectors compared to all other industries after any creative sectors embedded within them are removed. For example, the theater and dance companies within the arts, enter-

tainment, and recreation industry have been removed while the gyms, ski resorts, and casinos remain.

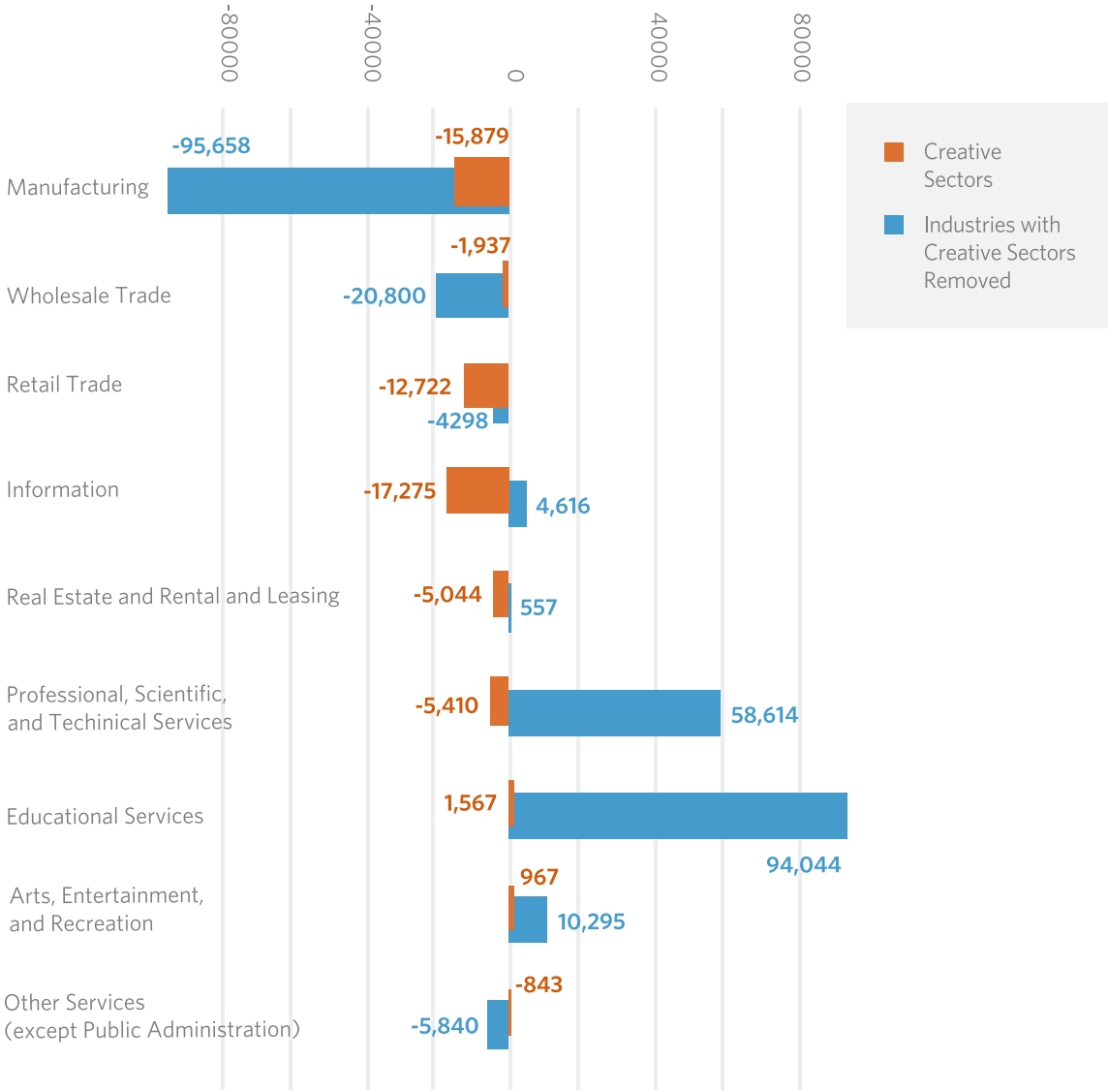
The key industries of construction, wholesale trade, finance and insurance, and manufacturing have all seen significant losses in payroll jobs since 2007. During that time the creative economy sectors lost 19 percent of their payroll jobs, similar in scale to the losses in the manufacturing sector of 14 percent. Mining lost nearly 27 percent of its jobs, the greatest share of all industries but it has few employees so any losses are magnified in percentage terms. Its cumulative payroll employment losses are only 1,064, or roughly two percent of the job losses in the creative sector. Even with widespread employment losses among certain sectors, the region added 164,000 jobs from 2007 through 2015, though they were concentrated in sectors outside of the creative economy: healthcare, education, professional services, and accommodation and food services. Massachusetts was responsible for most of the regional employment gains.

TABLE 19 | Creative Economy Employment within Two-Digit Industry Sectors, 2007 and 2015

Creative Employment within 2 Digit NAICS Industries in New England		Employment	
2 Digit Industry	Description	2007	2015
31-33	Manufacturing	52,427	36,530
42	Wholesale Trade	7,465	5,528
44-45	Retail Trade	47,384	34,662
51	Information	118,393	101,118
53	Real Estate and Rental and Leasing	5,257	213
54	Professional, Scientific, and Technical Services	38,104	32,694
61	Educational Services	5,667	7,234
71	Arts, Entertainment, and Recreation	19,298	20,265
81	Other Services (except Public Administration)	1,104	261
Total Creative Employment		295,098	238,504

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP)

FIGURE 11 | Absolute Change in the Payroll Employment of Creative Sectors Compared to Other Industries with Embedded Creative Sectors Removed, 2007-2015¹⁶



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP)

¹⁶ All six-digit NAICS industries that are part of the creative economy have been removed from their corresponding two-digit sector so there is no overlap among each sector shown in the chart and the creative industries. For example, arts, entertainment, and recreation includes only those industries that are not part of the creative economy such as golf courses, gyms, and casinos.

TABLE 20 | Absolute Change in the Payroll Employment of Industries Without Creative Sectors, 2007-2015¹⁷

Creative Economy Employment	Absolute Change			
	2007	2015	Absolute Change	% Change
Accommodation and Food Services	543,899	610,888	66,989	12.30%
Administrative and Support Services	349,428	370,098	20,670	5.90%
Agriculture, Forestry, Fishing and Hunting	22,253	23,862	1,609	7.20%
Construction	323,598	298,234	-25,364	-7.80
Finance and Insurance	394,634	361,092	-33,542	-8.50%
Health Care and Social Assistance	1,051,076	1,239,557	188,481	17.90%
Management of Companies and Enterprises	111,845	130,602	18,757	16.80%
Mining, Quarry, and Oil and Gas Extration	3,967	2,903	-1,064	-26.80
Public Administration	287,911	286,140	-1,771	-0.60%
Transportation and Warehousing	205,187	215,235	10,048	4.90%
Unclassified	865	1,274	409	47.30%
Utilities	31,903	30,134	-1,769	-5.50%
Total Employment, all industries	3,326,566	3,570,019	243,453	6.80%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP)

CHANGE IN CREATIVE ENTERPRISE EMPLOYMENT BY INDUSTRY GROUP, 2007 - 2015¹⁸

Payroll employment growth occurred in only three creative industry groups in New England since 2007: motion picture and teleproduction; visual arts, music, and other performing arts; and culture and preservation. These three groups are important contributors towards intellectual property production in the region. At the national level, only culture and preservation, motion picture and teleproduction, and marketing grew. The change data shows that New England's biggest creative industry groups as measured by 2007 employment all shrank in both the region and nation-

ally. Figure 12, page 66, clearly shows that nearly all the industry groups lie very close to the diagonal line showing equal percentage change in New England and U.S. The line reveals that the manufacturing and retail and wholesale industry groups in New England fared worse than their U.S. counterparts while the region did better in music, media, visual and performing arts, and motion picture and teleproduction.

Disaggregated into their constituent industry sectors, in New England the growth in the motion picture and teleproduction industry group was driven by growth in its constituent industry sectors of motion picture and video production; teleproduction and other

¹⁷ See previous note.

¹⁸ A table showing the detail of industry sectors within industry groups is available in the appendix.

postproduction services; and other motion picture and video industries. In visual arts, music and other performing arts the region saw employment growth among independent artists, writers and performers; at fine arts schools; in dance companies; and in other performing arts companies. Lastly, within the industry group of culture and preservation, employment grew at museums, historical sites, and at zoos and botanical gardens.

Employment losses were proportionally highest in areas of the creative economy focused on the production and distribution of creative goods. Losses in both of these groups are related to disruptive global trends impacting the location of goods production and the distribution and sales of cultural goods. For example, part of the employment change is related to a long-term trend of manufacturing industry decline in New England and nationally, but exacerbated by changes in

the media and format of books, photography, and music. At the industry sector level, the region saw losses in audio and video equipment manufacturing (-3,685), photography-related manufacturing (-1,282), and other types of arts materials manufacturing. Job shifts in goods distribution have been driven by technological changes in media, enabled by the growth of online retail and other forms of commerce and distribution systems. These factors have transformed commercial and wholesale distribution strategies that decreased the presence of regional retail and wholesale box store businesses. As a consequence, the region saw heavy employment losses in radio, television, and electronics retail stores (-6,314); bookstores (-3,475); book and newspaper wholesalers (-2,256); jewelry stores (-1,524); fabric stores (-911); and photo finishing stores (-843).



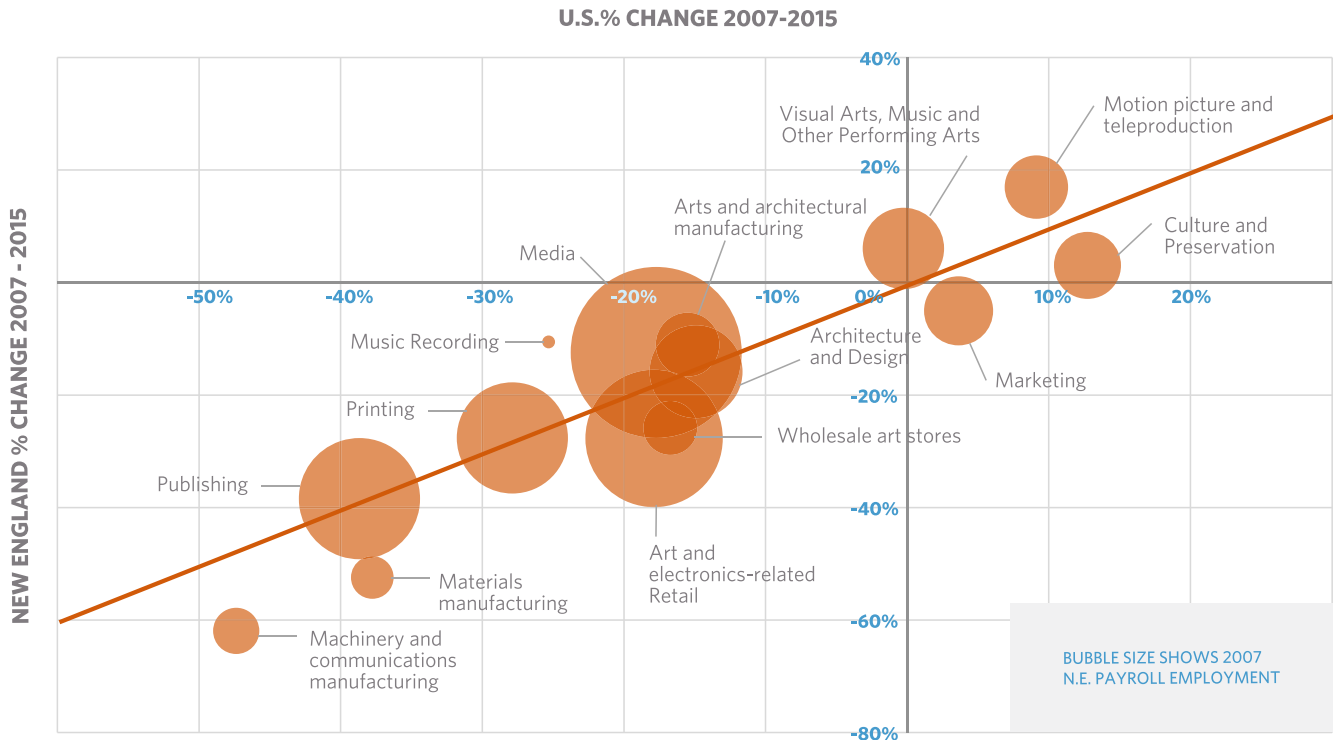
Dorrance Dance by Morah Geist

GRAPHIC 3 | Change in Creative Employment by Industry Group - Payroll and Nonemployer 2007 and 2015



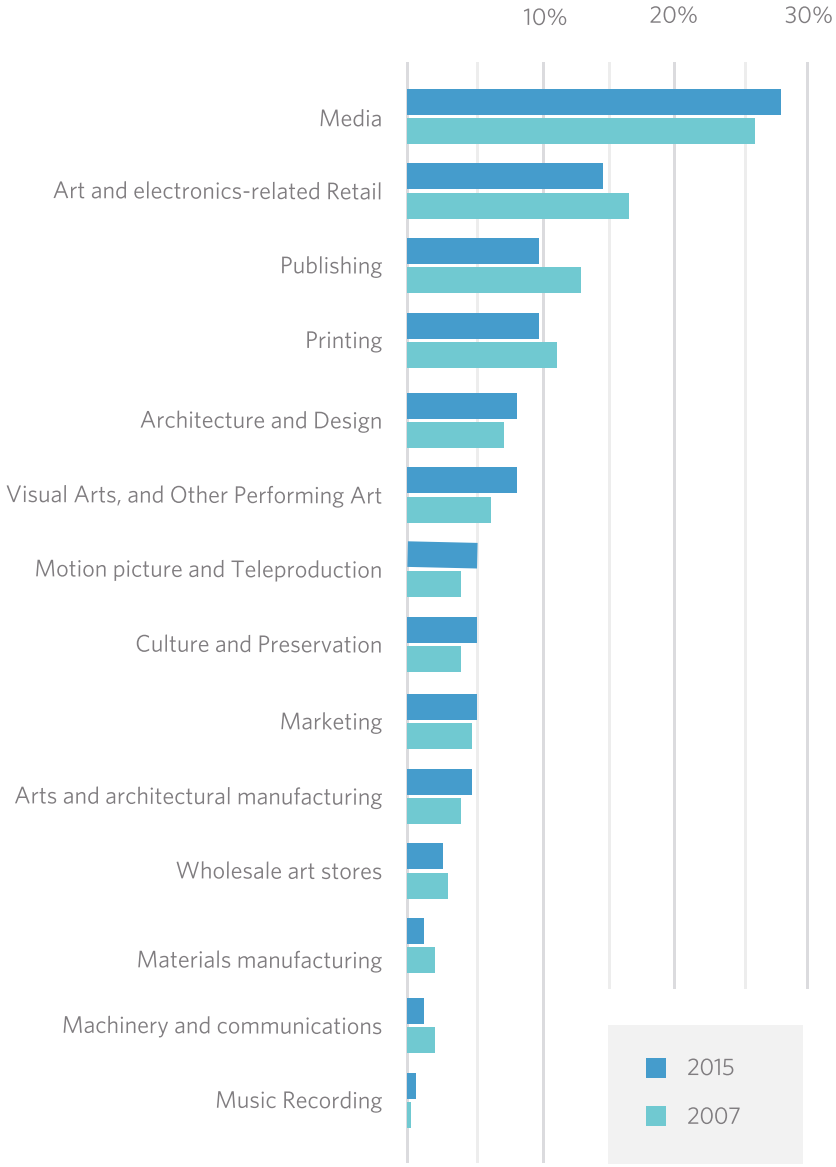
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).
 Source: U.S. Census Bureau, Nonemployer Statistics

FIGURE 12 | Change in Creative Payroll Employment by Industry Group in New England and the U.S., 2007 and 2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

FIGURE 13 | Share of Total Creative Payroll Employment by Industry Group in New England, 2007 and 2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Technology development and the growth of the internet continues to transform formats and distribution strategies for art, music, movies, books, magazines, news, advertising, and media products. However, it is interesting to note that payroll employment related to the production and distribution of arts, culture, and design-related products and services (i.e. those focused on intellectual property production and distribution) has been relatively more stable in New England than in the other two groups. The losses that did occur have been driven by industries being transformed by technological change. For example, producers of printed media have experienced employment declines as media distribution becomes electronic. The region saw job losses in newspaper publishers (-9,601), periodical publishers (-3,285), and book publishers (-1,474). Businesses involved with older modes of film and television distribution and film products have declined. For example, cable and other program distribution (-9,352), video tape and disk rental (-5,045), and even portrait photography studios (-1,158) have all seen payroll employment reductions. Design and media services that are now reliant on electronic tools and technologies have also experienced losses: employment in architecture and design services has declined by 3,537 since 2007. In the face of this technology-driven change, three areas of culture and arts-based intellectual property production have grown since 2007: motion picture and teleproduction grew 16.7 percent (1,719 jobs); visual arts, music and other performing arts grew 5.8 percent (988 jobs); and culture and preservation organizations stayed relatively stable, growing by 2.8 percent (320 jobs).

The importance of IP production and distribution is further highlighted when one considers the largest employers in the creative industry sectors in New England. Since 2007, libraries and archives, internet publishing and broadcasting, museums and fine arts schools have all gained in importance as top employers in the regional creative economy.

The difficulty of tracking technology-driven shifts in economic activity and jobs from one sector to another has likely exacerbated the losses documented in this report. Many of the sectors that are gaining are not coded by the federal government in such a way as to allow their inclusion in a study of the creative economy, especially one using our definitions. Specifically, the existing classification codes, which are the basis of nearly all data collection, are not yet granular enough in key areas to track the losses in one creative sector and the emergence of another. For example, the audio and video streaming services that are fast becoming the prevalent method of music and video consumption are classified as part of the “Data Processing, Hosting, and Related Services” industry sector. The same classification also includes cloud computing providers, web hosting, and data storage, among other things. The inclusion of all these other activities causes the combined sector to be far removed from the “categorically creative” definition required for inclusion into the core creative economy. In other words, the activities of audio and video streaming firms are not discernable from the business types within the same group and therefore cannot be reliably measured. The arts community may wish to provide feedback to the U.S. Census Bureau, which manages the classification system,

TABLE 21 | Top Ten Creative Industry Sectors by Employment in New England in 2007 and 2015

2007		2015		
Top 10 Industries	Employment	Top 10 Industries	Employment	% Change
Cable and Other Program Distributions	36,687	Cable and Other Program Distributions	27,335	-25.5%
Radio, Television, and Other Electronics Stores	24,862	Radio, Television, and Other Electronics Stores	18,548	-25.4%
Commercial Lithographic Printing	24,257	Commercial Lithographic Printing	16,376	-32.5%
Newspaper Publishers	21,333	Libraries and Archives	12,274	-2.6%
Architectural Services	13,292	Newspaper Publishers	11,732	-45.0%
Libraries and Archives	12,601	Architectural Services	11,296	-15.0%
Advertising Agencies	9,312	Internet Publishing and Broadcasting	10,919	80.7%
Periodical Publishers	9,075	Advertising Agencies	7,555	-18.9%
Book Stores	8,808	Museums	7,397	7.4%
Jewelry Stores	7,991	Fine Arts Schools	7,234	27.7%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Note: U.S. information can be found in the Appendix.

when it solicits ideas for revisions every five years.

From 2007 to 2014 (the most recent year of data availability for nonemployers), the number of creative nonemployer establishments grew, indicating a greater number of individuals with at least \$1,000 of self-employed income. However, even with this overall growth, there is considerable diversity of outcomes. Much like in payroll employment, self-employed individuals working in the production and distribution of creative goods and services saw their numbers decline. Net growth is driven by increases in the number of independent artists, writers, performers, and those providing photographic services.

Another area of change is the growing prevalence of self-employed workers generally. The nonemployer sectors that grew very likely indicate the most promising areas for regional artists to establish freelance businesses. In the case of photographic services businesses, nonemployer growth since 2007 may be related to payroll employment losses in commercial photography and photography studio businesses and the ability of freelance arrangements to fill in the gaps, correlating with an earlier finding that payroll employment and self-employment are inversely related. The growth of independent artists, writers and performers, a subset of all creative nonemployers, also illustrates the increasing prevalence of self-employment or freelance work for core creative workers. While slightly

more than 820 payroll employers in this area exist in New England, these businesses offer only about 1,800 payroll jobs in the region. In contrast, nearly 47,000 nonemployer businesses earned more than \$900m in annual receipts for arts-related work. When considering the self-employed businesses, it is important to note that while most of them are independent contractors or freelancers, the jobs are not necessarily full time. Our survey results suggest that self-employment is an important supplement to wage and salary income and not necessarily a one-to-one substitute.

GROWING OCCUPATIONS IN NEW ENGLAND, 2007 - 2015

A look at growing creative workforce occupations in New England since 2007 confirms that, for the most part, growing occupations are concentrated in a few broad segments. Much like the industry group itself, occupations related to motion picture and teleproduction have grown strongly since 2007 with double-digit percentage growth across the board. This industry group's growth has also helped the artist occupations of actors, producers, and directors. Writers and musicians are among the other artist occupations to see growth. Finally, arts-related postsecondary educators have also followed their industry's trend by showing growth. In summary, growing occupations especially include occupations related to

» **Motion picture and broadcast production**

- Audio and video equipment technicians
- Set and exhibit designers
- Film and video editors
- Multi-media artists and animators
- Audio-visual and multimedia collections specialists
- Broadcast technicians
- Camera operators for television, video, and motion pictures
- Sound engineering technicians
- Media and communication equipment workers

» **Arts-related postsecondary educators**

- Architecture teachers
- Art, drama and music teachers
- Literature teachers
- Foreign language literature teachers
- Ethnic and cultural studies teachers
- Communications teachers

» **Artist Occupations**

- Writers and authors
- Actors
- Producers and directors
- Musicians
 - Music directors and composers
 - Musicians and singers
 - Musical instrument repairers and tuners

TABLE 22 | Creative Occupations with Growth in New England, 2007-2015

SOC Code	Growth in Creative Workforce Occupations	New England			
		2007	2015	Absolute Change	Percent Change
00-0000	All Occupations	6,909,680	7,057,990	148,301	2.1%
27-2012	Producers and Directors	2,670	5,240	2,570	96.3%
11-2031	Public Relations and Fundraising Managers	3,810	6,080	2,270	59.6%
27-1026	Merchandise Displayers and Window Trimmers	2,240	4,470	2,230	99.6%
25-1121	Art, Drama, and Music Teachers, Postsecondary	5,880	7,700	1,820	31.0%
27-2011	Actors	310	1,500	1,190	383.9%
25-1123	English Language and Literature Teachers, Postsecondary	4,080	5,210	1,130	27.7%
27-4011	Audio and Video Equipment Technicians	2,410	3,440	1,030	42.7%
27-2041	Music Directors and Composers	310	1,310	1,000	322.6%
2501124	Foreign Language and Literature Teachers, Postsecondary	1,390	1,840	450	32.4%
25-1031	Architecture Teachers, Postsecondary	170	600	430	252.9%
27-3043	Writers and Authors	2,040	2,430	390	19.1%
27-1027	Set and Exhibit Designers	*	310	310	-
27-4032	Film and Video Editors	480	790	310	64.6%
27-1014	Multimedia Artists and Animators	1,350	1,650	300	22.2%
25-9011	Audio-Visual and Multimedia Collections Specialists	390	670	280	71.8%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	640	860	220	34.4%
27-4012	Broadcast Technicians	1,400	1,600	200	14.3%
25-1122	Communications Teachers, Postsecondary	1,190	1,380	190	16.0%
27-4031	Camera Operators, Television, Video, and Motion Picture	990	1,170	180	18.2%
27-4014	Sound Engineering Technicians	440	590	150	34.1%
27-4099	Media and Communication Equipment Workers, All Other	580	680	100	17.2%
27-3012	Public Address System and Other Announcers	180	260	80	44.4%
27-2042	Musicians and Singers	1,320	1,390	70	5.3%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	1,100	1,170	70	6.4%
25-4012	Curators	1,000	1,040	40	4.0%
17-1011	Architects, Except Landscape and Naval	6,020	6,050	30	0.5%
25-4011	Archivists	460	490	30	6.5%
49-9062	Musical Instrument Repairers and Tuners	180	210	30	16.7%
25-1082	Library Science Teachers, Postsecondary	90	100	10	11.1%
19-3091	Anthropologists and Archeologists	30	30	0	0.0%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES). *Suppressed, data unavailable

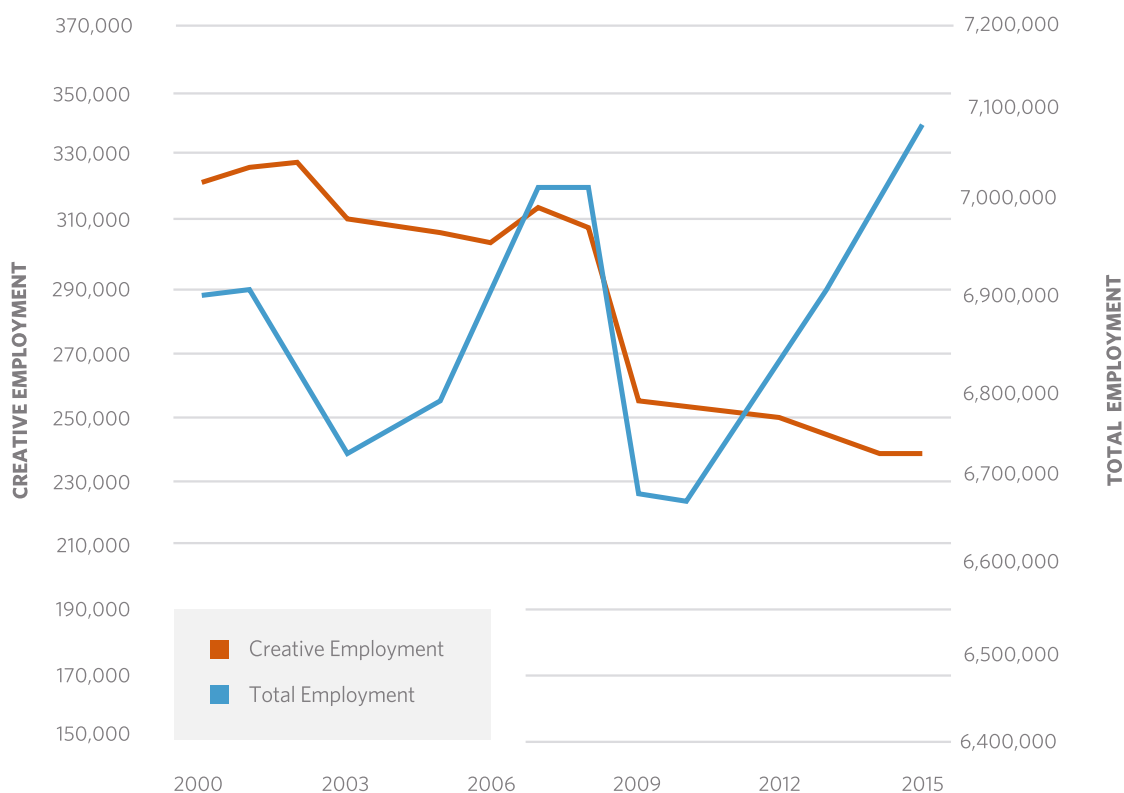
LONG-TERM TRENDS IN THE CREATIVE ECONOMY, 2000 THROUGH 2015

Many factors have come into play to reshape the creative economy in the 2000s: technology development has increased productivity but reduced employees; new technologies have transformed product formats and revolutionized distribution and sales methods; globalization and the growth of markets outside of New England have driven relocation of firms within the U.S. and globally; online sales platforms have transformed

consumer purchasing patterns and impacted the viability of retail box stores.

In the meantime, two recessions have impacted consumer discretionary income and spending patterns. Expanding online sales platforms coupled with changing spending can prove a double-edged sword for artists. The expanded reach online allows them to partially decouple their earnings from the local market while simultaneously making it more difficult to get noticed among other choices. In other words, expanded online

FIGURE 14 | New England Creative Enterprise Payroll Employment Compared to Overall Payroll Employment, 2000-2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

FIGURE 15 | United States Creative Enterprise Payroll Employment Compared to Overall Payroll Employment, 2000-2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

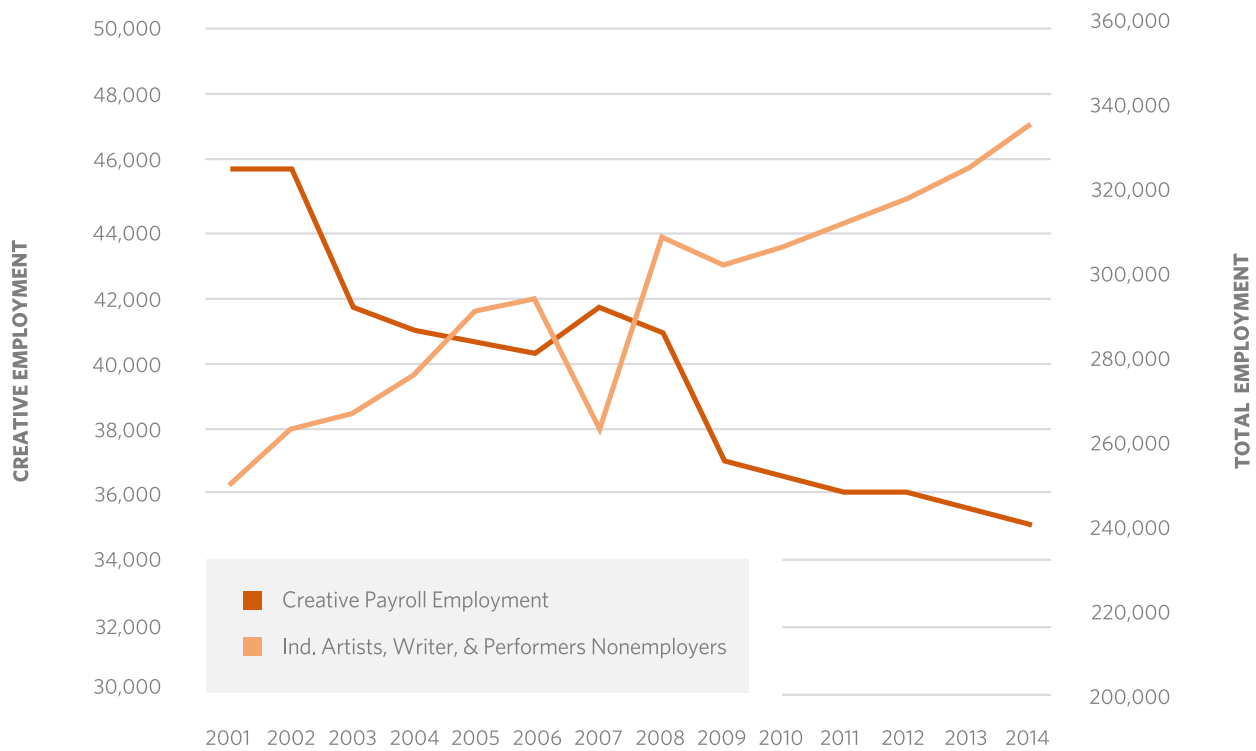
sales platforms increase the size of the pie of revenues from art sales while also increasing competition for each slice. These factors and others have served to shape the business climate for creative enterprise businesses since the early 2000s.

In contrast to growth trends for creative enterprise establishments providing payroll jobs, numbers of non-employer establishments in the New England creative economy have increased over time, growing by nearly 17,364 businesses or 32.5 percent since 2001. Overall,

this rate of growth is higher than the rate of growth of all self-employed establishments in the regional economy (19.9 percent) but slower than the national rate of self-employed establishment growth in the creative economy (56.0 percent) over the same time period. The nonemployer sector that grew most significantly in New England was independent artists, writers and performers, which added more than 10,667 enterprises since 2001 (29.4 percent).

As the sector where the most self-employed artists are

FIGURE 16 | Change in Creative Employment Compared to Independent Artists, Writers, and Performer Nonemployers, 2001-2014



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau, Nonemployer Statistics. Independent Artists are defined as NAICS code 71151

found, the status of independent artists, writers, and performers is of special concern to artist advocates and other users of this report. The following charts show the change over time of self-employed artists in this sector throughout New England and the U.S. Figure 17, page 76, shows the change in independent artists, writers, and performers compared to creative payroll employment. While the absolute numbers are far apart—there are seven times as many payroll jobs as self-employed establishments—their patterns of change relative to one another is informative. Over the period from 2001 to 2014, the change in independent artists, writers, and performers was generally the inverse of creative employment. When one went down the other went up¹⁹. This pattern suggests that artists are using self-employment as a countercyclical balance to declines in payroll employment.

The Creatives Count survey suggests that many artists are in search of and are having trouble finding business and legal advice, which indicates that for many self-employment may be new or unfamiliar. More generally, workforce data indicates that one-third of creative workers are self-employed. These findings tie together with the inverse relationship between self-employment and payroll employment to suggest that creative workers—or the nature of creative work itself—may be more amenable to self-employment while also suggesting a preference for payroll employment if it is available. An unresolved but important question is whether the strength of employment preference or the strategy for stabilizing income in times of job losses is the stronger force in determining the choice between artists pursuing self-employment over payroll employment.

¹⁹ For the statistically-inclined, their coefficient of correlation is -0.92.



Mystic Knotwork

Nautical knots and weaves. Matt and Jill Beaudoin are continuing a family tradition of knot tying started by his grandfather Alton back in the 1930s. In 1957, Alton founded Beaudoin's Rope Locker and enlisted his 7-year-old grandson to help in 1978. By 1996, Matt had taken over most of the responsibility and with his grandfather's passing, Matt took the business and started to build it.

Institution/Business Type:

Artists (Individual)

Professional Disciplines:

Design - Graphic

Visual/Crafts - General, Decorative Arts, Fiber, Textile Weaving

Populations Served:

Businesses

Families

People with Disabilities

Teens

Activities and Services:

Art Sales

Artist Market

Exhibitions

Manufacturing / Fabrication

Marketing Services

Workshops / Demonstrations / Master Class / Presentation



Learn more about Mystic Knotwork on CreativeGround

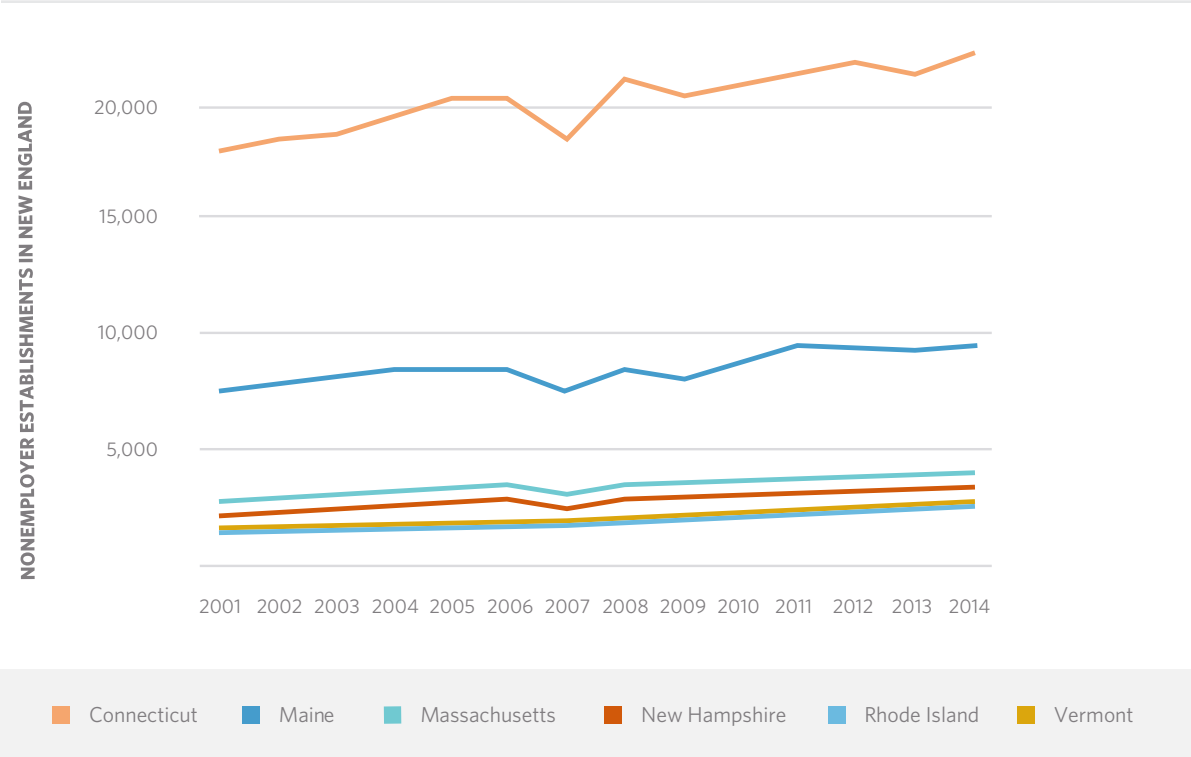
Professional experience

Awards

Media gallery

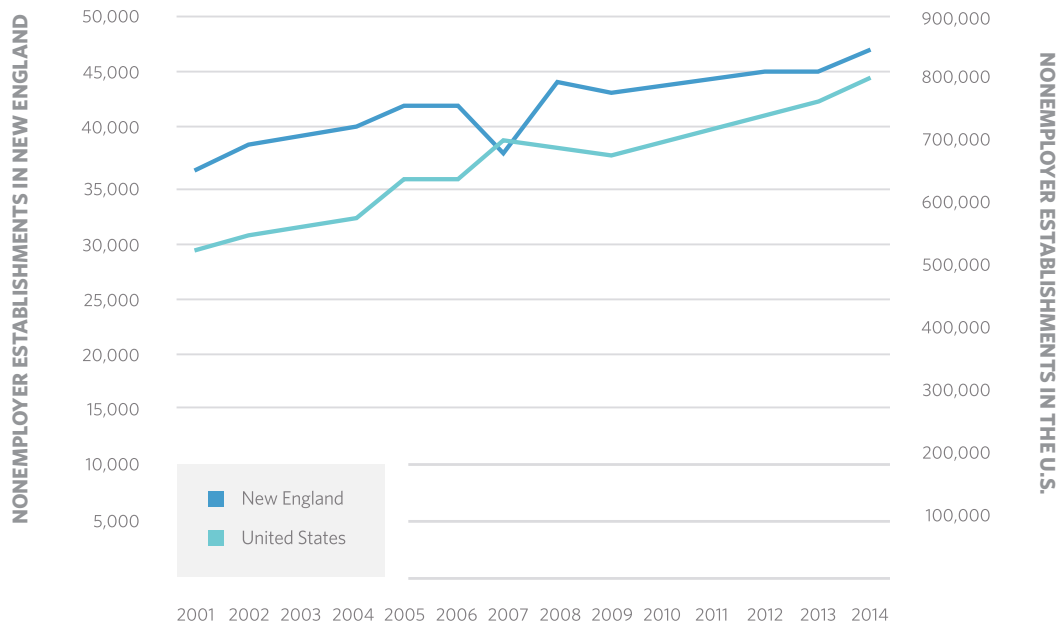


FIGURE 17 | Independent Artists, Writers and Performers Nonemployer Establishments in the New England States, 2001-2014



Source: U.S. Census Bureau, Nonemployer Statistics. Independent Artists are defined as NAICS code 71151.

FIGURE 18 | Independent Artists, Writers and Performers Nonemployer Establishments in New England and the United States, 2001-2014

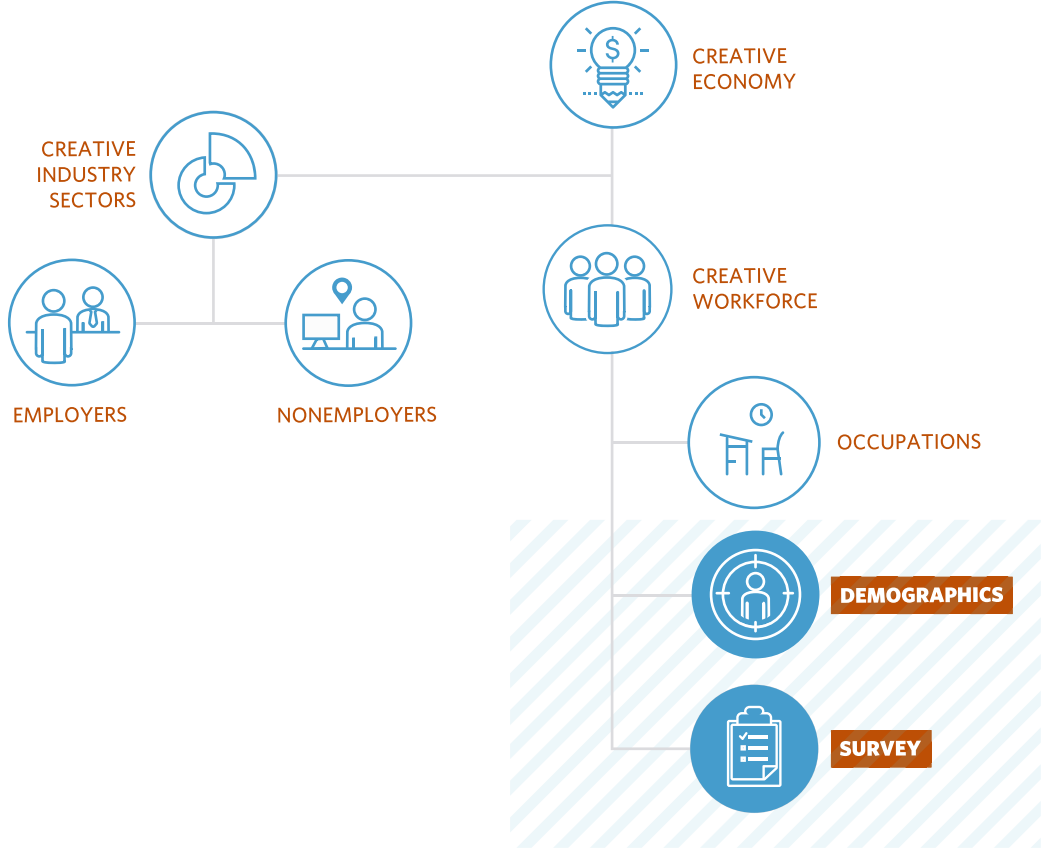


Source: U.S. Census Bureau, Nonemployer Statistics. Independent Artists are defined as NAICS code 71151.

Pineapple Diaries; Photo by Paloma Valenzuela



Creative Workforce Characteristics



Creative workers are characterized by college completion rates 1.5 times higher than the overall workforce. The extra schooling also manifests in other demographic measures. On average, creative workers are older, less diverse, and higher income than average, all of which can be at least partly explained by the average demographic characteristics of those who have completed higher education. Creative workers are also 2.5 times more likely to be self-employed. The survey suggests that creative workers recycle over a quarter of their earnings back into their creative work. Their unique work patterns also create an unmet need for business advisory services. Among the details there is considerable diversity in the unmet needs of creative workers depending on their place of residence and discipline. Accordingly, those who wish to serve this population would be advised to first choose the location or discipline they wish to address.

DEMOGRAPHIC CHARACTERISTICS

In contrast to the previous sections, which focused on the firms and jobs of the creative economy, this and the following section examine the characteristics of the people who are engaged in creative work. This section is built upon data from the public use microdata sample (PUMS) of the American Community Survey (ACS), which is a product of the U.S. Census Bureau, and the Creatives Count online survey of New England's creative workers administered for this study.

The ACS is conducted yearly and replaces the decennial census long form, resulting in what is now the most detailed source of demographic and socioeconomic information available²⁰. Because it is a survey of individuals, the ACS includes anyone who claims to be a creative worker, regardless of employment type or status. However, it does not count those who do creative work for less than 50 percent of their work hours. Additionally, like all federal data sources, the ACS is required to maintain the privacy of the respondents, which can lead to suppression of some data. For these reasons and others, we decided to create the Creatives Count survey to supplement the ACS data. Creatives Count was open to anyone who did creative work, no matter for how little time or money, and allowed for the collection and cross-tabulation of information across individuals.

Consistent with the findings of the 2007 NEFA creative economy study, creative workers are on average older than the overall workforce. In New England and most states, the share of the workforce under 30 and over 55 is similar at roughly one-quarter in each group. However, the creative occupations as a whole and the artist subset both reflect older workers²¹. The previous study speculated that this pattern is most likely due to the educational requirements of creative work, which result in later entrance into the workforce, and the low levels of physical exertion required, which allows older workers to continue longer in their fields.

²⁰ Further details on the use of the ACS data can be found in the methodology.

²¹ Artistic occupations represent a subset of the entire creative workforce occupations, which include architects, designers, visual artists, photographers, writers, actors, producers and directors, dancers, musicians, announcers, and all other entertainers (see Creative Workforce Occupations SOC code table for details).

TABLE 23 | Creative Workforce by Age, 2014

Workforce Category	Group	CT	ME	MA	NH	RI	VT	NE
All Occupations	Under 30	23%	22%	25%	23%	26%	23%	24%
	55 and over	23%	25%	22%	24%	22%	26%	23%
Creative Occupations	Under 30	19%	14%	23%	18%	23%	18%	21%
	55 and over	28%	32%	25%	30%	24%	32%	27%
Artist Occupations	Under 30	19%	9%	22%	18%	22%	14%	20%
	55 and over	26%	31%	24%	28%	24%	32%	26%

Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

TABLE 24 | Creative Workforce by Race, 2014

Workforce Category	Group	CT	ME	MA	NH	RI	VT	NE
All Occupations	White	72%	95%	77%	93%	78%	95%	80%
	Black/African American	9%	1%	6%	1%	5%	1%	6%
	Asian	4%	1%	6%	2%	3%	1%	4%
	Hispanic	13%	1%	9%	3%	12%	2%	8%
	Other	2%	2%	2%	1%	3%	2%	2%
Creative Occupations	White	85%	95%	85%	92%	80%	95%	86%
	Black/African American	5%	0%	3%	0%	3%	2%	3%
	Asian	3%	2%	4%	2%	3%	0%	3%
	Hispanic	6%	1%	5%	4%	12%	2%	6%
	Other	2%	2%	2%	2%	3%	1%	2%
Artist Occupations	White	84%	95%	86%	92%	86%	96%	87%
	Black/African American	5%	0%	3%	0%	3%	2%	3%
	Asian	3%	2%	4%	1%	2%	1%	3%
	Hispanic	6%	1%	5%	4%	5%	1%	5%
	Other	2%	2%	2%	2%	4%	1%	2%

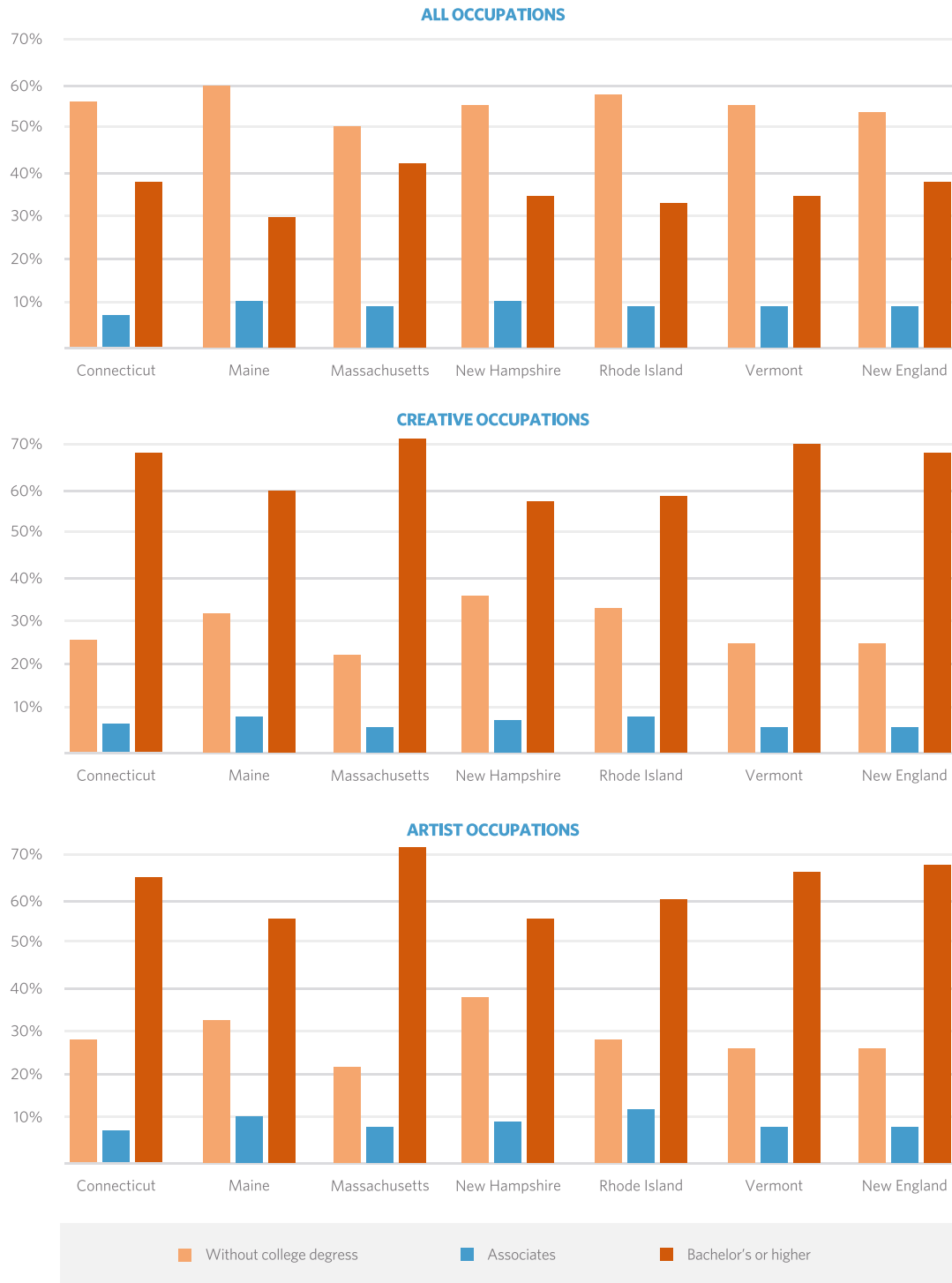
Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

New England is less racially diverse than the nation at large. Within New England, the creative occupations are less diverse than the average and become even less so within the artistic occupations. The share of non-white workers starts from 20 percent for the overall workforce and falls to 13 percent for artists. This pattern does not hold for Maine, New Hampshire, and Vermont, which retain equal racial diversity among occupations, perhaps because they start with very low non-white shares of the overall workforce.

Nationally, 42 percent of adults have an associate's degree or higher, which is lower than the New England total of 46 percent. Even with a higher base, creative workers, whether overall or only the subset of artists, show considerably higher educational attainment than the total workforce. Both groups show 74 percent of the workforce with a college degree of some kind. With some fluctuation, the overall pattern is consistent across the six New England states. The survey results from Creatives Count, which are not limited to only those for whom creative work is a primary occupation,

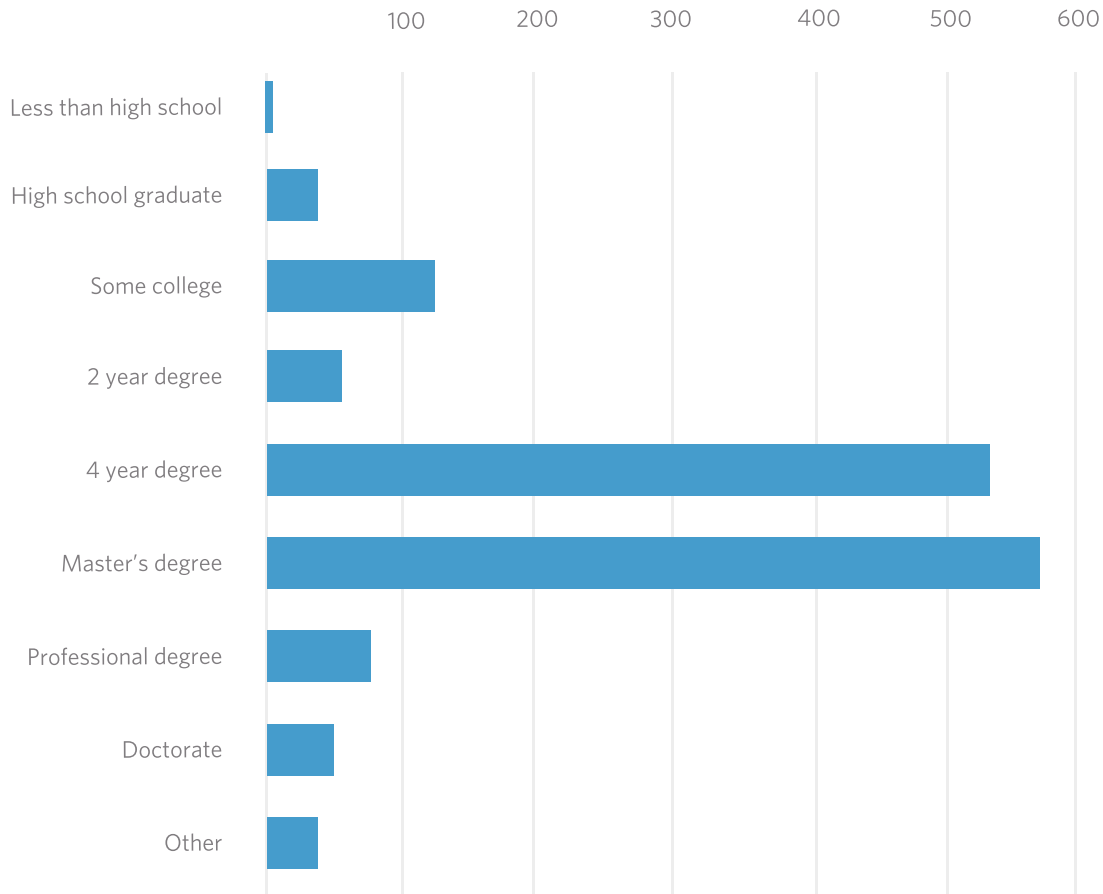
showed even higher levels of educational attainment. Ninety percent of respondents have completed some level of college (two-year degree and higher). The tally of college completion includes those who marked "other" because an examination of respondents' explanations indicate that the considerable majority of them clearly note completion of higher education including MFAs, CAGS, multiple degrees, or incomplete graduate work (which implies complete undergraduate studies).

FIGURE 20 | Creative Workforce by Educational Attainment, 2014



Source: U.S. Census Bureau, ACS PUMS 5 Yr. Estimates 2010-2014

FIGURE 21 | Creatives Count Educational Attainment, 2016



CREATIVES COUNT SURVEY: WORKER RESOURCES AND NEEDS²²

The UMDI team, with help from NEFA and the New England state arts agencies, created the Creatives Count online survey to address gaps in the BLS and Census data on independent artists and creative workers. These gaps arise from the different universes that each source measures. Data from the BLS only captures employees of businesses covered by unemployment insurance and therefore excludes self-employed

workers and those who do not report income from their creative work. From the Census, the nonemployer data only captures self-employed creative workers who report business income on their tax return. The American Community Survey (ACS), which is the source of the PUMS, only allows for each respondent to have one occupation, which is determined by the work that the respondents spend the most time doing. Though it does not take income into account when determining occupation, the ACS results would still be weighted more toward those workers whose predominate form

²² Results from the survey have already been presented elsewhere in the report where they are applicable to the discussion, e.g. above under educational attainment and with the discussion of occupational employment.

of work is creative rather than those who primarily do non-creative with creative work as a supplementary activity. Collectively, these limits of above data sources would tend to exclude creative workers who spend less than 50 percent of their time on creative work and/or earn little income from it. Furthermore, none of the data sources capture the variety of activities undertaken by an individual or allow creative workers to express their opinions on the state of the creative economy.

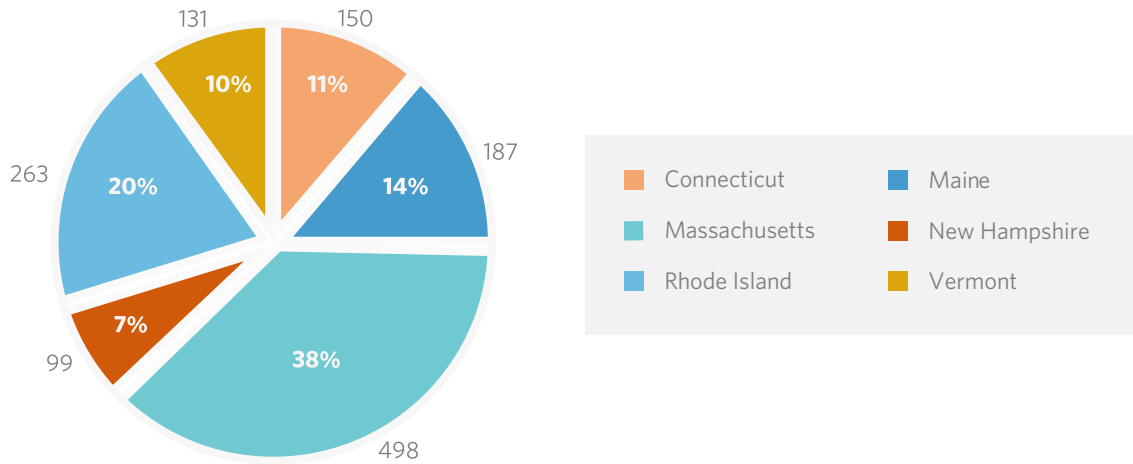
As a result of all these unmet data needs, the team developed specific targets for additional information from the survey. On the employment side, they included data on the activities and income of those workers who do creative work outside of formal business structures or only occasionally. Similarly, the team wished to better understand the variety of work undertaken and the nature of these workers' expenditures. Regarding the individuals themselves, the survey also captured various socioeconomic data like educational attainment, personal and household income, and demographic traits. Where these findings were relevant, they were discussed in other sections of this report.

The survey is also designed to provide a benchmark for future study and a forum for New England's creative workers to express their resource needs and opinions about the strengths and challenges of New England as a place for creative work. It is NEFA's intention to reintroduce the survey periodically to track its unique

data over time, such as the individual career, spending, and employment choices made by creative workers. This tracking would allow stakeholders and artist advocates to measure the impacts of their initiatives. The Creatives Count survey also serves to supplement the breadth and depth of information in CreativeGround, which has been the primary method for tracking artists and creative workers in New England since 2005. The survey provided additional data for research purposes, and respondents gained the opportunity to create or update a public profile on CreativeGround.

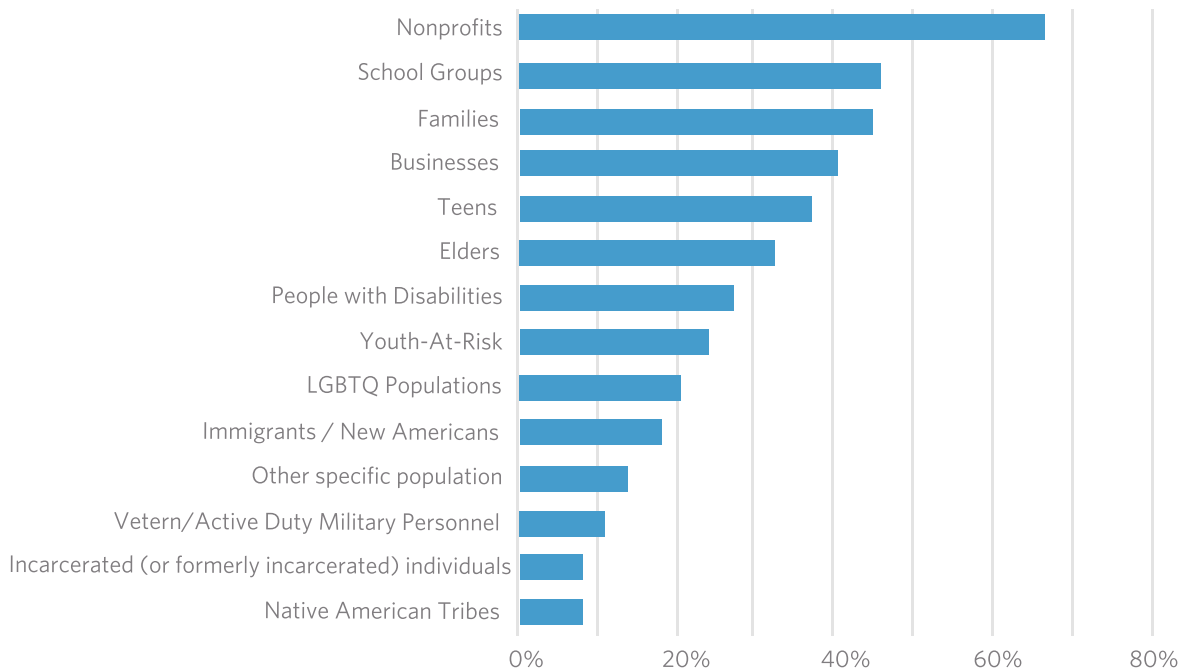
Over 1,200 individuals completed the survey while another roughly 1,700 began but did not complete it, a completion rate of 42 percent, which we believe to be very good for such a long survey. As a result, there are enough respondents to fully analyze each question while certain others, especially those early in the survey, will have more respondents than others. We do not expect the varied response counts to materially impact the results as periodic evaluation of the results during the survey period showed that the overall pattern of responses has remained fairly stable from the 500 respondent level onward. Furthermore, because of the large sample size and consistency of the response patterns over increasing levels of respondent participation, we feel that the survey results are informative and descriptive of the population of concern. This section concludes with comments on areas of possible oversampling and their impacts on the survey results.

FIGURE 22 | Place of Residence of Survey Respondents, 2016



Source: Creatives Count Survey

FIGURE 23 | Groups Served by Survey Respondents, 2016



Source: Creatives Count Survey

Overall 1,328 respondents provided their place of residence, shown by state in Figure 22, page 85. The largest share of responses came from Massachusetts, Rhode Island, and Maine, respectively. When compared with the data from the ACS PUMS analysis, we find that Massachusetts, though it comprises the largest share of responses, and Connecticut, are actually underrepresented in the survey by 11 and 13 percent, respectively. On the other hand, Rhode Island is especially overrepresented with 12 percent more responses than its share of the PUMS data would imply. These deviations, which in large part can be attributed to the outreach efforts by the respective state arts agencies, should not impact our basic findings as most are presented for New England as a whole.

Aside from the general public, artists and creative workers in New England often work with or target specific audiences for their work. While the survey did not ask what the artists hoped to achieve with the work, their choice of specific groups suggests a desire to expand the reach of creative work and provide benefits to at-risk populations. Figure 23, page 85, details the choices made by respondents. This question was multi-select so the percentages represent the share of respondents who selected each option and therefore the categories will not sum to 100 percent.

While conducting outreach prior to drafting the survey, the team heard many comments about the need to better understand the space requirements of creative

TABLE 25 | Location of Primary Workspace of Survey Respondents by State, 2016

	At Employer's Premises	Home	Away from Home	Want but Do Not Have Separate Space
CONNECTICUT	23%	53%	12%	12%
MAINE	15%	56%	16%	13%
MASSACHUSETTS	16%	52%	16%	17%
NEW HAMPSHIRE	19%	53%	13%	15%
RHODE ISLAND	20%	49%	18%	13%
VERMONT	14%	52%	23%	11%
Total	17%	52%	16%	14%

Source: Creatives Count Survey

TABLE 26 | Ownership Type of Primary Workspace of Survey Respondents by State, 2016

	Own	Rent	Do Not Require Separate Space
CONNECTICUT	55%	33%	12%
MAINE	60%	32%	7%
MASSACHUSETTS	43%	49%	8%
NEW HAMPSHIRE	54%	35%	11%
RHODE ISLAND	48%	43%	9%
VERMONT	63%	31%	6%
NEW ENGLAND	51%	41%	9%

Source: Creatives Count Survey

workers. Depending on their discipline, the space needs of creative workers differs considerably. Some may require only a computer while others need specialized studio space. According to the survey results, roughly half of the respondents have their primary work space in their homes while only 14 percent want but do not have a separate space. When asked about the ownership type of their space, roughly half of respondents answered that they own their space.

The states show little difference from the regional average in the location of the respondents' primary workspace but do differ some in ownership types. Table 25 shows that most states are within a few percentage points of the regional average of location. Conversely, Table 26 shows that the states vary noticeably among

each other in ownership types. On average, 51 percent of creative workers in New England own their work space though that share climbs to over 60 percent in Maine and Vermont and falls to 43 percent in Massachusetts despite the fact that these three states have similar distributions of location types. In other words, a difference in home versus away from home does not appear to explain the difference in own versus rent. One possible explanation is that the differences in housing prices are impacting the ability of workers to afford ownership.

There is also considerable variance among location and ownership type when evaluating workspace by creative discipline. While the New England average for working at an employer's premises is 17 percent, 42 percent of

dancers said that this is their primary work location. At the other extreme, only 7 percent of literary and visual artists claim the same. Similar highs and lows are also found for those who work at home or away from home. Interestingly, there does not appear to be much difference between the disciplines regarding unmet space needs even though their space requirements differ greatly. For example, dancers, musicians, and actors all report similar rates of unmet need while requiring different types of performance and rehearsal spaces.

The survey also suggests that individual disciplines vary meaningfully from the regional average in terms of workspace ownership types. Table 28 shows that unlike with location where the disciplines show some uniformity across one dimension, ownership type is diverse among all attributes measured. The percent of respondents who own their workspace ranges from 10 to 59 percent while renters range from 18 to 87 percent. There is a subset of creative workers who do not require a separate work space. They range from a low of 3 percent of dancers to a high of 36 percent of those

TABLE 27 | Location of Primary Workspace of Survey Respondents by Discipline, 2016

Discipline	At Employer's Premises	Home	Away from Home	Want but Do Not Have Separate Space
Dance	42%	24%	19%	15%
Design	30%	45%	16%	9%
Humanities	29%	46%	14%	11%
Literature	7%	70%	6%	16%
Media	19%	58%	11%	12%
Multi-Disciplinary	19%	46%	17%	19%
Music	18%	58%	11%	13%
Other	22%	54%	9%	15%
Theater	31%	37%	16%	16%
Visual/Crafts	7%	59%	21%	13%
NEW ENGLAND	17%	52%	17%	14%

Source: Creatives Count Survey

in the humanities meaning that 97 percent of dancers require a separate work space while only 64 percent of those in the humanities require the same. These large ranges are not the result of one or two outliers but are reflective of a wide distribution of responses.

In order to capture information about the financial circumstances of creative workers, the survey asks a number of questions on expenditures and income. On average, respondents used 28 percent of their income to obtain the space, equipment, and materials required

for their creative work. This amount is approximately the same as the share of rent or mortgage and constitutes a significant and ongoing investment of resources in the pursuit of creative endeavors both in terms of total spending and in the opportunity cost of other foregone consumption. By allocating over a quarter of their total spending towards their creative work, the respondents are revealing the high value they place on it and recirculating thousands of dollars back into local economies. The relatively low savings rate in Table 29 suggest the possibility of occasional financial hardship.

TABLE 28 | Ownership Type of Primary Workspace of Survey Respondents by Discipline, 2016

Discipline	Own	Rent	Do Not Require Separate Space
Dance	10%	87%	3%
Design	35%	55%	11%
Humanities	45%	18%	36%
Literature	56%	19%	25%
Media	37%	53%	10%
Multi-Disciplinary	56%	37%	7%
Music	51%	37%	12%
Other	59%	16%	24%
Theater	40%	37%	23%
Visual/Crafts	58%	37%	4%
NEW ENGLAND	52%	40%	9%

Source: Creatives Count Survey

TABLE 29 | Expenditure Categories of Survey Respondents by Share of Total, 2016

Expenditure Type	Share of Total
Rent or Mortgage	27%
Studio Separate from your home	4%
Equipment for creative work	10%
Materials for creative work	14%
Student loan payments	4%
All other expenses (e.g. food, transportation, utilities, and discretionary spending)	35%
Savings	6%

Source: Creatives Count Survey

The survey results yield an average of 3.75 months where respondents had “trouble making ends meet” in the preceding year, although there is considerable variability in that number as responses range from zero to 12 months.

One goal of this study is to provide more information about the resource requirements and unmet needs of creative workers so that they can be better served by advocates and other stakeholders. The survey asks respondents to choose up to five items from a list of 26 options, including an “other.” The same list is used both for selecting the resources that are “important factors for advancing [a] creative career” and iden-

tifying “unmet needs.” The same choice leads both lists: “Earned income from your creative skills (include teaching, sales of your art, etc.)” This choice on both lists implies that it is highly important for a career (as one would assume) and that it is a substantial unmet need.

Among the top five resources of importance are two that would apply to any field: the need for income from one’s work and the need for a market to sell the work. However, collaboration with others appears to be of particular importance in creative work. The remaining two choices among the top five resources for career advancement are affordable healthcare and affordable



Christine Mix

Christine Mix is a published Children's Illustrator/Author, PAL Member of SCBWI, member of CBIG-NYC. She is also a Teaching Artist for cartoon and illustration, drawing, painting, art residencies and library programs. Currently listed on the Vermont Arts Council Teaching Artist Roster 2017 and the Vermont Department of Libraries Summer Grant Performer list for the Summer Reading Program 2017, Build a better World!

Provided courtesy of the artist

Institution/Business Type:

Artists (Individual)

Professional Disciplines:

Design - Graphic, Interior
Literature - Fiction, Publishing
Media - Digital
Visual/Crafts - General, Cartooning / Graphic Novel, Decorative Arts, Painting

Populations Served:

Adults
Businesses
Elders
Families
General Public
Immigrant Populations
Nonprofits
People with Disabilities
School Groups
Teens
Youth-At-Risk

Activities and Services:

Creation of a Work of Art (Including Commissions)
Design Services
Exhibitions
Portfolio Review
Residency - Community, In School, Production / Development, Other
Theater Technical Production
Writing Services
Workshops / Demonstrations / Master Class / Presentation

I am on the Vermont Education Roster

I am a Teaching Artist



Learn more about Christine Mix on CreativeGround

Professional experience
Awards
Media gallery



housing, which to some extent also reflect unique patterns of work of creative workers. In a case where 50 percent of creative workers use their home as their primary work space and many are self-employed, the need for affordable housing and health care is similar to the needs of small business owners for affordable office space and employee benefits.

While the preceding resources are important for advancing a creative career, they do not necessarily represent unmet needs. The top five unmet needs fall into two categories: sources of income and business needs. Income and payment for creative work com-

prise the income side while retirement plans, affordable studio space, and business advice comprise the business side. It is important to note that the distribution of responses to unmet needs is very flat, meaning that no particular response seems especially popular. No response has a double-digit share of the total with a low of 1 percent and a high of 8 percent. On one hand this means there are no overarching unmet needs among the creative community as a whole while on the other hand there are no obvious targets for investment to help alleviate the most need.

Across the states, there is general consensus among

TABLE 30 | Survey Respondents' Top 5 Resources of Importance for Career Advancement - Rank by State Including Ties, 2016

Resources (sorted by overall rank)	CT	ME	MA	NH	RI	VT
Earned income from your creative skills (include teaching, sales of your art, etc.)	1	1	1	1	1	1
Affordable healthcare	4	3	2	3	2	3
Collaboration with other creatives/artists	2	2	3	3	3	2
Distribution for your work (art markets and online)	3	3			5	4
Affordable housing			5		5	
Payments for gigs, grants and donations to support my work			4	5		
Being able to afford materials	5	5			4	
Equipment to make your work (include software, computer, printers, tools)				2		5

Source: Creatives Count Survey

respondents about the resources that are important to their career success. This is likely because the factors impacting successful creative careers are not vastly different among the states. On the other hand, resources for success are highly variable among the disciplines, though there are some pockets of agreement. Four of the five most important resources overall appear in the top ten of all disciplines, suggesting that while their order of importance may vary, certain resources are demanded by all. On the other end of the spectrum, some resources are only in the top ten most

important of one or few disciplines.

Unmet needs by state show more variability than resources of importance, reflecting the diversity of costs of living, urbanization, and state-level resources available to creative workers. For example, affordable studio or rehearsal space is the number one unmet need in Massachusetts while it does not make the top ten in New Hampshire and Vermont. Again, the picture by discipline is yet more varied. In this case, 25 of 26 available options appeared in the top ten unmet needs

TABLE 31 | Survey Respondents' Top 5 Resources of Importance for Career Advancement – Rank by Discipline Including Ties, 2016

Resources (sorted by overall rank)	Dance	Design	Humanities	Literature	Media	Multi-Disciplinary	Music	Other	Theater	Visual/Crafts
Earned income from your creative skills (include teaching, sales of your art, etc.)	1	1	1	1	1	2	2	1	2	1
Affordable healthcare		3		2	2	3	3	1	4	4
Collaboration with other creatives/artists	1	2	2	4	3	1	4		3	
Distribution for your work (art markets and online)								3		2
Affordable housing		5	4	3	4	5	5		5	
Payments for gigs, grants and donations to support my work	3		4	5	4	4	1		1	
Being able to afford materials								4		3
Affordable studio or rehearsal space	4									5
Equipment to make your work (include software, computer, printers, tools)		4								
Performance or exhibition space for your work	5									
Retirement or savings plan								4		
Creative residences	5									
Professional networks and associations, including unions/guilds			3							

Source: Creatives Count Survey

TABLE 32 | Survey Respondents' Top 5 Unmet Needs – Rank by State Including Ties, 2016

Needs (sorted by overall rank)	CT	ME	MA	NH	RI	VT
Earned income from your creative skills (include teaching, sales of your art, etc.)	2	1	2	2	1	2
Retirement or savings plan		2		1	2	1
Payments for gigs, grants and donations to support my work			2	2	3	
Affordable studio or rehearsal space	3		1			
Distribution for your work (art markets and online)	1	3		5		4
Business and legal advice (tax preparation, contracts, etc.)	5		5	5	4	2
Recognition for your work (press, awards, etc.)	3					
Performance or exhibition space for your work			4			
Loans or investment capital		5			4	5
Affordable healthcare		4		4		

Source: Creatives Count Survey

of at least one discipline. The diversity of choices among the disciplines results in the flat distribution of the overall results discussed previously. These breakdowns by state and discipline can help stakeholders break through the flat distribution of overall unmet needs to find investment targets of importance to them.

As a region with many colleges and universities and population centers with varying growth trends, New England can expect extensive in and out migration. The survey asked the respondents in how many different cities they had lived in the previous five years excluding their current place of residence. On average it was slightly less than one meaning that most have been living in the same city or town for over five years. The last states of residence prior to moving to New England are most commonly New York, California, Pennsylvania, and Florida. These four states accounted for half of all migration among 37 places chosen by the respondents.

A hope of any region that attracts college students is that it will retain the human capital it has created for the benefit of the local economy. Of the respondents who completed college in New England, 41 percent remained in the state where they completed their degree. If the net is cast a little wider, retention improves. Nearly 60 percent of respondents who completed college in New England remained in New England. While this survey excludes those who do not currently live in New England and is therefore susceptible to over-representing retention, there is evidence that the retention rate found in the survey is similar to the actual rate²³. A study from 2013 by the Boston Fed found that the retention rate of the class of 2008 one year after graduation was 63.6 percent, putting New England at the lowest of all major regions in the country. It is likely that this low retention rate is driven at least in part by New England attracting the highest share of students not native to region, who are then likely inclined to return to their home regions upon graduation.

²³ <https://www.bostonfed.org/-/media/Documents/Workingpapers/PDF/economic/neppc/briefs/2013/briefs132.pdf>

TABLE 33 | Survey Respondents' Top 5 Unmet Needs - Rank by Discipline Including Ties, 2016

Needs (sorted by overall rank)	Dance	Design	Humanities	Literature	Media	Multi-Disciplinary	Music	Other	Theater	Visual/Crafts
Earned income from your creative skills (include teaching, sales of your art, etc.)	3		2	1		3	4	3	5	1
Retirement or savings plan		4		1	1	1	2	1	1	4
Payments for gigs, grants and donations to support my work	1		1	3		3	1	3	5	
Available studio or rehearsal space		3	2		5	3			3	5
Business and legal advice (tax preparation, contracts, etc.)		1		3		3			2	5
Distribution for your work (art markets and online)										2
Recognition for your work (press, awards, etc.)							5	2		3
Performance or exhibition space for your work	2					2		5		
Loans or investment capital		2			2					
Creative residences	5		2				3			
Affordable healthcare	4	4		3	2				4	
Relief of student loan debt	1				4		5			
Professional networks and associations, including unions/guilds							5			
Website or design services			2							

Source: Creatives Count Survey

TABLE 34 | Residence after College of Survey Respondents Graduating in New England, 2016

Residence after college	Count
Respondents who stayed in state	554
Share of total	41%
Respondents who stayed in NE	772
Share of total	57%
Total respondents	1,361

Source: Creatives Count Survey

TABLE 35 | State of Current Residence and State of College Graduation of Survey Respondents, 2016

	State of Residence						
	CT	ME	MA	NH	RI	VT	Total
STATE OF COLLEGE Connecticut	55	8	10	0	9	5	87
Maine	0	54	5	3	3	1	66
Massachusetts	12	20	284	19	35	13	383
New Hampshire	1	7	2	24	3	4	41
Rhode Island	6	4	14	2	101	4	131
Vermont	4	8	10	4	2	36	64
Total	78	101	325	52	153	63	772

Source: Creatives Count Survey



Castle in the Clouds

Castle in the Clouds is a grand mountain top estate built by Thomas and Olive Plant in 1914. They chose the Ossipee Mountains for their home because of its incredible beauty and view of Lake Winnepesaukee. The Estate opened to the public in 1959 and became a popular tourist attraction. In 2006, Castle in the Clouds became a nonprofit organization focusing on the preservation and restoration of the house and grounds.

Zac Wolf
Photography

Institution/Business Type:

Museums - Other

Professional Disciplines:

Humanities - General, Cultural
Heritage, History

Populations Served:

Adults
Elders
Families
General Public
School Groups
Teens

Activities and Services:

Exhibitions
Preservation / Conservation
Residency - Community
Venue Rental
Wedding / Parties / Private Gatherings
Workshops / Demonstrations / Master
Class / Presentation

Venue Available for Rent/Use



Learn more about Castle in the Clouds on CreativeGround

Professional experience
Awards
Media gallery



Methodology

Data for Employment and Establishments

The last report on New England's creative economy used a synthesized blend of employment data from the U.S. Economic Census, County Business Patterns, the Decennial U.S. Population Census, the Bureau of Labor Statistic's Current Population Survey, and data from the Internal Revenue Service in order to estimate the magnitude of employment and firm counts in the creative economy. In this report, we take a somewhat different approach which should provide the most current view of New England's creative sector available. The data sources that were used to establish counts of Creative Economy firms and employment in this report are:

- » Quarterly Census of Employment and Wages (QCEW) Covered Employment, Bureau of Labor Statistics (BLS)
- » Annual Extract of Tax-Exempt Organization Financial Data, Internal Revenue Service (IRS)
- » Exempt Organizations Business Master File, IRS
- » County Business Patterns (CBP), Census Bureau

- » Nonemployer Statistics (NES), Census Bureau
- » Occupational Employment Statistics (OES), BLS
- » ESRI Business Analyst/Infogroup business lists.

Data for Creative Enterprise Employees and Establishments

Quarterly Census of Employment and Wages (QCEW) program, U.S. Bureau of Labor Statistics

QCEW data are widely used by federal statistical agencies and other public and private establishments as a basis for their statistical and research publications. The data series provides employment and wage data by NAICS industry from all employers required to participate in the unemployment insurance program. It does not include sole proprietorships with no paid employees or self-employed people. QCEW data on employment and compensation are often suppressed if the number of establishments in an area are low enough that information about individual firms could be inferred from the data. In these cases, we use the most recent vintage of County Business Patterns.

County Business Patterns (CBP), U.S. Bureau of the Census

County Business Patterns (CBP) is an annual series that provides subnational economic data by industry. It is useful for our purposes because it provides numeric ranges for suppressed data. These ranges are used in this study to fill in data gaps in industry-level establishment and employment counts that would otherwise remain uncounted.

The CBP series includes the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. This data is useful for studying the economic activity of small areas; analyzing economic changes over time; and as a benchmark for other statistical series, surveys, and databases between economic censuses. CBP statistics provide the only annual source of complete and consistent county-level data for U.S., Puerto Rico, and Island Areas business establishments with industry detail.

Employment data collected through the QCEW program differ from employment data published in the Census Bureau's County Business Patterns (CBP) in the following major ways:

QCEW data are published each quarter, with a six-month lag. CBP data are published annually, with approximately an 18-month lag. So while 2015 QCEW data is available, the most recent County Business Patterns data is for 2014.

QCEW data and CBP data are classified under different industry classification systems. QCEW data before 2001 were tabulated based on the 1987 SIC system; data from 2001-2006 are tabulated based on the NAICS 2002, data from 2007 to 2010 are tabulated based on the NAICS 2007, and data from 2011 forward are tabulated based on the NAICS 2012. Data prior to 2001 are available on the Data Files web page.

CBP data for 1974 to 1987 are tabulated based on the 1972 SIC system; data from 1988-1997 are tabulated based on the 1987 SIC system; data from 1998-2002 are tabulated based on the 1997 NAICS; data from 2003-2007 are tabulated based on the 2002 NAICS; data from 2008-2011 are tabulated based on the 2007 NAICS; and data from 2012 forward are tabulated based on the 2012 NAICS.

Employment data are suppressed in County Business Patterns as in QCEW, but in the County Business

Patterns series, suppressed employment numbers are replaced with a range of possible numbers, rather than simply a blank cell. In cases where employment numbers were not given in QCEW, we use the midpoint of the range given in CBP for the corresponding NAICS code.

Data for Nonprofit Organizations

Annual Extract of Tax-Exempt Organization

Financial Data

This source provides selected information from the tax returns of entities that file Forms 990, 990-EZ, and 990-PF. The data is available by employer identification number (EIN), which is unique to each filer, and also includes much of the information entered on the respective tax forms such as revenues, expenses and employment. Crucially, the extract does not include the state of the filer or its National Taxonomy of Exempt Entities (NTEE) code. These absences prevent the file from being used to place an entity within a specific place or activity.

Exempt Organizations Business Master File

These files contain cumulative summary data on all registered tax-exempt organizations in the country. Like the annual extract, the EO BMF provides data by EIN and includes revenues for each filer. It also provides crucial classification information that the annual extracts lack such as the NTEE code and state for the

each EIN. Overall the annual extract is a richer source of data while the EO BMF contains more organizations.

Count and Employment Estimates

To produce an estimate of the number and employment of creative nonprofits in New England, we used both the annual extract and the EO BMF. Because both data sources list entities by EIN, the number can be used as a unique identifier to find the same entity in both datasets. First, we filtered the national EO BMF to only include entities in the six New England states and with an NTEE code within those that the 2007 study defined as part of the core creative economy. They are mainly from the “A” group, which is the arts, culture, and humanities category. Next, we used the EIN to find the filtered entities from the EO BMF in the annual extracts. This step resulted in obtaining the tax filings of New England-based creative nonprofits. The annual extract contained 95 percent of the revenue-earning nonprofits in the EO BMF.

The information from the three tax forms provided by the annual extract differs. All three forms provide EIN and revenues while only the 990 provides employment. The entities that filed a 990 were about half of the total records with stated revenues, meaning that the annual extract did not provide employment counts for half of all nonprofits. Without having reported employment for all entities, we used the data available

to produce an estimate. Typically, employment is a function of revenues so we used a ratio of revenues to employment of the 990 filers to obtain a ratio that could be applied to overall revenues. While the 990 filers were half of all entities, they comprised 87 percent of the reported revenues so we felt that this derived ratio would be representative of the whole. The average revenue per employee thus found was \$49,299.55.

This ratio was then applied to 2015 revenues reported in the EO BMF. Overall, creative nonprofits in New England reported \$2,704,195,303 of revenue in 2015, which, after applying the revenue to employment ratio, results in an estimate of 54,852 jobs.

Data for Sole Proprietorships and Self-Employed Workers

Nonemployer Data Series, U.S. Bureau of the Census

Not all creative enterprises have paid employees. In order to capture the firms that do not, and thus would not be covered by QCEW, we used the Nonemployer Statistics data from the U.S. Census Bureau. Nonemployer Statistics cover businesses who have no paid employees, but which are subject to federal income tax. From the Census:

The majority of all business establishments in the United States are nonemployers, yet these firms average less than 4 percent of all sales and receipts

nationally. Due to their small economic impact, these firms are excluded from most other Census Bureau business statistics (the primary exception being the Survey of Business Owners). The Nonemployer Statistics series is the primary resource available to study the scope and activities of nonemployers at a detailed geographic level. For complementary statistics on the firms that do have paid employees, refer to the County Business Patterns. Additional sources of data [from the Census] on small businesses include the Economic Census, and the Statistics of U.S. Businesses.

The data consist of the number of businesses and total receipts by industry. Most nonemployers are self-employed individuals operating unincorporated businesses (known as sole proprietorships), which may or may not be the owner's principal source of income. However, some other types of organization are included.

The following Legal Forms of Organization are included in Nonemployer Statistics:

Corporations and other corporate legal forms of organization: An incorporated business that is granted a charter recognizing it as a separate legal entity having its own privileges and liabilities distinct from those of its members.

Partnership: An unincorporated business where two or

more persons join to carry on a trade or business with each having a shared financial interest in the business.

Sole proprietorship: Also referred to as an “individual proprietorship,” an unincorporated business with a sole owner. Also included in this category are self-employed persons.

S-Corporations: A form of corporation where the entity does not pay any federal income taxes. The corporation’s income or losses are divided among and passed to its shareholders. The shareholders must then report the income or loss on their own individual income tax returns.

Nonemployer Statistics count the number of nonemployer establishments and the total receipts for those establishments by NAICS code. It does not include the number of people working at these establishments, which in most cases would only be a single person (the owner). In all cases, firms counted in the nonemployer statistics will have no paid employees.

Data for Occupations

Occupational Employment Statistics, Bureau of Labor Statistics

Occupational employment, wages, and data on occupations by industry are available from the BLS in a series called the Occupational Employment Statistics (OES) program. Like the QCEW and CBP, this series excludes self-employed individuals, owners of unin-

corporated firms and workers in private households. Participating establishments provide occupational data to state governments on a rotational basis every three years so that estimates can be based on all establishments. The most recent data are from 2015.

Comparison of Data Source Choices on Employment Data Counts

Our analysis of the creative economy is based upon the industry sectors and occupations that are part of the core creative economy as first defined in NEFA’s *The Creative Economy: A New Definition* (2007). Since that report was published, there have been two major revisions to the NAICS definitions in 2007 and 2012. The creative economy industries from 2007 were cross-walked to their 2012 analogs using concordance tables produced by the U.S. Census Bureau, and we tracked these industries with their new codes.

Yet despite measuring the same industries over time, one major challenge to our analysis was the trade-off between collecting more recent data from the QCEW and CBP and retaining the Economic Census, which is the primary data source from the 2007 report. One major benefit of the QCEW is that the most current year of data is 2015 while the latest data in the Economic Census are from 2012. However, the change in sources ultimately affects the comparability of our results to those of the 2007 report. Even though they purportedly measure the same thing, because their methodologies differ, the QCEW and the Economic

TABLE 36 | Creative Employment Table from Page 6 of *The Creative Economy: A New Definition*

2002	CT	ME	MA	NH	RI	VT	New England	United States
Creative Economy Employment	68,827	16,643	132,011	21,654	25,453	10,131	274,719	4,587,826
Creative Economy % of Total Employment	4.13%	2.75%	4.06%	3.50%	5.32%	3.38%	3.97%	3.52%
Creative Economy Location Quotient	1.173	0.780	1.155	0.995	1.510	0.960	1.128	1.000

Source: *The Creative Economy: A New Definition* (2007), page 6

TABLE 37 | Recreation of the Creative Employment Table from Page 6 of *Creative Economy: A New Definition* Using This Study's Data Sources

2002	CT	ME	MA	NH	RI	VT	New England	United States
Creative Economy Employment	79,040	19,459	163,433	24,440	26,033	12,055	324,459	5,942,920
Creative Economy % of Total Employment	4.79%	3.29%	5.10%	4.05%	5.56%	4.08%	4.77%	4.63%
Creative Economy Location Quotient	1.035	0.710	1.101	0.874	1.199	0.880	1.028	1.000

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau, County Business Patterns (CBP)

Census produce different numbers for the same industries measured at the same time.

As can be seen in the two tables above, if the table from page six of *The Creative Economy* is recreated using the data sources used in this study we find higher employment levels – and share of total jobs – for the creative economy. The location quotients are slightly

smaller than what was reported in the 2007 report, although the concentrations by state are relatively similar. Both analyses agree that Connecticut, Massachusetts and Rhode Island had higher concentrations of creative jobs than the nation in 2002 while creative jobs were less concentrated in the remaining New England states. The higher starting point of this report’s data do not impact any of our conclusions and com-

parisons because they are internally consistent and do not use the prior report's data as starting values for the computation of changes.

Data for Geographical Distribution of Establishments ***Esri Business Analyst Data from Infogroup***

In order to gain some insight into the geographical distribution of creative enterprises in spite of suppression within the public data sources, we performed an analysis of a list of New England businesses provided by Esri Business Analyst, an extension of its ArcGIS tool. Business Analyst data is collected from a number of different sources with their geocoded business lists coming from Infogroup, a private-sector provider of business and marketing data. Infogroup does not have a comprehensive list of establishments through tax records in the way that federal government data sources do. Instead, it collects data by examining information on business events such as new business filings, utility connections, and annual reports, and verifying these findings with phone calls and emails. While their findings may not be perfect, they do provide interesting data on the relative density of creative enterprises in New England communities.

Data on Individuals ***American Community Survey***

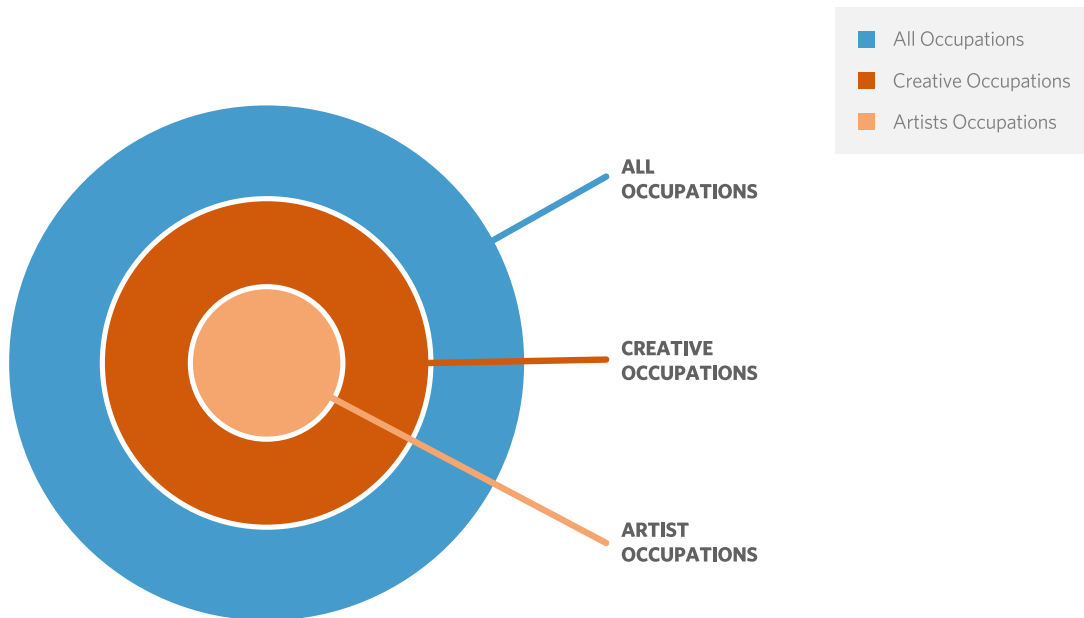
The demographic and socioeconomic data was sourced from the American Community Survey Public Use Microdata Sample (ACS PUMS), which is a large data set collected in the national ACS survey and made publicly available by the U.S. Census Bureau. The

ACS PUMS is a survey sample of demographic and socioeconomic microdata on people and households by region, state, or PUMA (Census-defined areas with 100,000 or more residents). Microdata are large data sets structured on a case basis to enable customized analysis of multiple demographic and socioeconomic factors together. This allows data users to answer questions about people who fall into multiple categories, for example, females between 35 and 45 who are in the labor force, or people who are in creative occupations and have a college degree. Because the data are a sample, all results are estimates.

The ACS PUMS data are made available in five-year and one-year sets, which are a five percent sample and a one percent sample, respectively. While one-year sets allow single-year comparisons and come out sooner, this analysis utilizes the most recent five-year data available (2010-2014). This is because five-year sets pool data across the 60 months of the given period, creating better coverage and therefore better precision of the estimates. Because five-year data sets have five times as many cases, there is larger sample size within each cell. In other words, the pooled data yields higher totals within defined subtypes after cross-tabulation, which in effect also allows more reliable results from complex and multi-variable inquiries.

Federal law requires responses to the Census Bureau to remain completely confidential and non-identifiable. There are no names or addresses in the files. To additionally protect the confidentiality of the information

FIGURE 24 | Relationship of Occupational Groupings of Demographic Analysis



collected, the Census Bureau swaps parts of the data across individual lines and groups very low and very high values in categorical variables (“top coding”). This ensures information about individuals and households cannot be used to identify any specific person, while preserving utility of the data for analysis.

The data pulled from the ACS PUMS was based on the occupation of the respondent and further divided into three groups: all occupations, creative occupations, and artistic occupations. The ungrouped occupational counts were used as a second source of workforce data

to supplement that from the OES due to the different data universe the ACS PUMS covers. The three groupings were used to further pool individual observations to again improve sample sizes and precision. The three groups are subsets of each other as shown in Figure 24. Each occupational grouping was then further divided into the demographic and socioeconomic variables of interest to this study such as educational attainment, level of income, or employment status.

A key limitation of the ACS and a main driver for the creation of the survey is that the ACS only allows a

respondent to have one occupation. In the case of a respondent having multiple jobs, the ACS assigns the one where the respondent spent the most time in the week prior to taking the survey. As a result, the data in the ACS are biased toward those whose main career pursuit is in a creative occupation as these respondents are the most likely to cite a creative occupation as the place where they spend the most time.

Creatives Count Survey

The survey script was written by the UMDI team and reviewed and modified using feedback from NEFA, the New England state arts agency (SAA) directors, and other stakeholders convened by NEFA. The main goals that guided the creation of the survey were to gather information on creative workers who are absent from the federal data and to explore aspects of the creative economy that do not exist in other data sources. There was also an early decision that we could only go out with a survey once so it needed to be inclusive of all the team's goals. It was helpful to know that the target population would tolerate a long survey if it was clear that the results would be used to help the creative community.

The survey was programmed into the Qualtrics online survey platform and managed by UMDI. It included

skip and display logics and “loop and merge” sections as needed to streamline the survey while still presenting the most applicable information to the respondents. The survey went live on September 19, 2016 and, on the advice of the SAAs, remained open for two months ending on November 20, 2016 (the Friday before Thanksgiving). During the open period respondents could stop and return to the survey with their progress being saved with a browser cookie.

The survey was accessed with an anonymous link meaning that everyone used an identical web link to navigate to the survey. Choosing to use this distribution method meant that the respondents could remain anonymous, the research team would not need to generate and manage multiple versions of the link for our partners, and respondents could easily share the link with others who may wish to participate in the survey. The link was mainly distributed via channels controlled by NEFA including its website, newsletter, social media posts, and email blasts. Further valuable distribution and marketing was done by the SAAs and other regional partners and via earned marketing in regional and industry publications and blogs.

Upon the end of the survey period (11/20/16), all remaining in-progress responses were closed and added

Cedric Douglas' Up Walls; photo by Adam Glanzman, Northeastern University 2016

to the completed responses. Their inclusion resulted in the response count differing for many of the questions. Throughout the survey period, the research team provided NEFA with periodic updates on response counts and a sampling of data from key questions. After the 500 completed response threshold was passed, the pattern of responses stabilized. Because total completes surpassed 1,200, we did not do any weighting or other adjustments to the data to account for the addition of the incompletes except for removing blanks from any analysis based on more than one question. For example, when looking at income by age, we only used those responses that included answers for both the income question and the age question.

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Lessons Learned and Advice for Future Researchers

In a research project of this size and scope, the research team inevitably makes dozens of methodological choices and confronts unanticipated problems. Especially because this study builds upon the work of previous researchers, the team would like to provide a recounting of key choices and issues encountered in this project. It is our hope that these comments will help streamline the work of others.

Data

This study differs from the study it immediately follows (*The Creative Economy: A New Definition*, hereafter simply *Creative Economy*) by changing the main data sources used for analysis. While this choice complicates a trend analysis with the preceding study (which we have resolved by showing data from previous years using this study's sources), it creates a more flexible and robust platform going forward. *Creative Economy* relied on a mix of data from the U.S. Census Bureau, the Federal Reserve Bank of Boston, and the U.S. Bureau of Labor Statistics (BLS) for estimates of employment, establishments, and occupations. It also used the public use microdata sample (PUMS) from the 2000 decennial census as its basis for workforce estimates.

The Economic Census, while wide-ranging and useful, is only conducted every five years (those years ending in 2 and 7) with the data becoming fully available two years later (years ending in 4 and 9). Therefore, if using this source, this study would have to rely on data from 2012 as the basis for its analysis, which is five years old and measuring a period only shortly after the height of the Great Recession. Continuing with this data source would preserve these large gaps between newly updated data for future iterations of this research. In and of itself this is not a problem if NEFA or similar agencies could precisely time their research efforts to coincide with the data releases. However, the unpredictability of funding to support these projects necessitates a data source that is updated more frequently.

The data from the BLS, which was also used by *Creative Economy*, provides precisely this kind of data. The team used two products from the BLS: the Quarterly Census of Employment and Wages (QCEW) and the Occupational Employment Statistics (OES).¹ As the name implies, the QCEW is updated quarterly and provides a complete census of payroll employment and wages by industry sector (i.e. NAICS code). The OES is updated annually and uses a survey methodology to provide an estimate of jobs and wages by occupation (i.e. SOC code). Together these two sources provide annually updated estimates for payroll jobs by industry and occupation for every state in the nation.

There are two weaknesses in the BLS data. First, it only includes “covered employment,” which are all jobs that are part of the unemployment insurance program. This definition covers most workers in the private and public sectors though it excludes self-employed and contract workers who are a large component of the creative economy. This gap is addressed in this study by combining the QCEW data with estimates from the Census’ Nonemployer Statistics, which are updated annually and provide data on businesses “that have no paid employees and are subject to federal income tax. The data consist of

¹ BLS homepage: <https://www.bls.gov/home.htm>

the number of businesses and total receipts by industry. Most nonemployers are self-employed individuals operating unincorporated businesses (known as sole proprietorships).”²

The second weakness of the BLS data is common to all data sources made available by the federal government. Agencies that collect and distribute this data, like the Census and BLS, are prohibited from presenting information in a way that can be used to ascertain the identity of individual firms. As a result, industries with few employees and/or few employers have their information suppressed leaving gaps in the data, which is done using methods to render precise un-suppression impossible. To combat data suppression, the team used data from the County Business Patterns (CBP), also a Census product.³ While the same privacy limits exist in the CBP, it does not leave holes in the data but instead presents a range estimate. For example, rather than suppressing the fact that Industry A has 12 jobs, it will say that it has one to 19 jobs. For the suppressed industries, we used the midpoint of the CBP employment estimate. Because this was only necessary for small, non-zero sectors, doing so only added 200 to 300 jobs to the New England total (less than one percent).

Another change that is common to all industry-based (i.e. NAICS-based) data collection is the evolving composition of the creative economy as a result of technological changes. As is mentioned elsewhere in this report, some of the losses wrought by technological change in creative sectors, e.g. newspaper publishing, is being offset by firms providing similar products but are categorized under a different NAICS code, e.g. internet publishing. In some cases, the industry sector that is gaining as a result of market shifts would not meet the definition of a core creative economy sector either because the creative aspect it is not a large enough part of the business — like music and movies are to Apple, Google, and Amazon — or because there are too many non-creative firms in the same sector — like Spotify being combined with web hosting and cloud computing firms in one industry sector. Unless researchers have some custom way of teasing out the creative activities from a sector that is largely non-creative, these activities will continue to be uncounted. Researchers and members of the arts and creative communities may wish to engage with the U.S. Census Bureau to provide comment on its periodic update of the industry classification system or review the BEA’s recent expansion of its national creative economy satellite accounts to state levels.

For workforce data, this study continued to use PUMS. However, it is no longer a product of the decennial census. For decades, the decennial census used two questionnaires: the short form and the long form. Most households received the short form, which asked basic demographic questions, while the remaining households received the long form, which added more socio-economic questions such as inquiries on employment, income, education, housing, and so on. From the decennial census of 2010 onward, the Census Bureau will only use the short form and the long form will be replaced by the American Community Survey (ACS). Because of this change, *Creative Economy* is the last report of this series that could use the decennial census PUMS to say anything about the workforce. This study and all coming after it will rely on the ACS and its PUMS to delve into the details of workforce, employment, income, and many other characteristics outside of the purvey of this study. This change provides an advantage to researchers because the data collection has now shifted from decennial to annual updates.

² Nonemployer Statistics: <http://www.census.gov/econ/nonemployer/>

³ County Business Patterns: <http://www.census.gov/programs-surveys/cbp.html>

Direct Survey

This project began with a series of kick-off meetings to gain input and guidance from stakeholders. Nowhere was this feedback more important than in crafting the Creatives Count survey. The NEFA staff were able to summarize the regional issues and topics of interest, while conversations with state arts agency directors ensured that we included questions that addressed their needs and provided comparability to federal data sources for the purpose of corroboration between the data. These conversations helped us prioritize the demands on the survey to ensure it provided the most useful information balanced with the highest possible completion rate.

The first issue we grappled with was what length and level of complexity was acceptable for this survey. The entire team was sensitive to “survey fatigue” among the target population, which led to a key conclusion that we could not go back to the well with additional questions. Everything that we hoped to learn needed to be done in one round, which increased pressure on the length and complexity of the survey. Testing showed that the survey typically took 30 to 40 minutes to complete, creating a heavy investment of time and effort on behalf of the respondent.

To combat the detrimental effect of the length of the survey on completion rates, the team used a few complementary strategies. The first was to leverage two parallel sentiments among the creative community: (1) these surveys rarely come back to benefit them and (2) a willingness to contribute time to help the creative community. At the intersection of these two ideas is a space where creative workers will be generous with their time and respond to a long survey if it is clear that the results will be used to benefit the larger creative community. Thankfully, it has been NEFA’s intention from the beginning to use the information from this study to highlight the contributions of and advocate for creative workers. Therefore, the team devoted considerable time in crafting an introduction that clearly outlined how the survey will be used.

Even a well-crafted survey will fail if it does not find the appropriate audience. The survey was distributed through multiple channels including the mailing lists of NEFA and the state arts agencies, social media, newsletters, and earned media. Other regional partners convened for this purpose by NEFA also advertised through their channels. The collection of profiles on CreativeGround also provided a valuable source of known artists and creative workers with established ties to the region. Overall, despite the length of the survey, 42 percent of those who began the survey completed it, with nearly a quarter of those who dropped out doing so at the introduction. If counting only those who continued beyond the introduction, the completion rate is 48 percent. Respondents who completed the survey were entered into a drawing for two cash cards per state, and CreativeGround profiles were updated or created for those who requested that added benefit.

Another strategy to increase completion rates was to focus on simplifying the questions to reduce response burden. Questions requiring typing were minimized so that respondents could do as much as possible through point and click (or touch and tap in the case of mobile users). All questions were evaluated to ensure they were mobile-friendly. To the extent possible, we avoided any questions that would require the respondent to search for any information that could not be recalled from memory, such as information from tax returns, W-2s, or 1099 forms. These strategies also had the welcome side effect of creating cleaner and more consistent data for the research team to analyze.

For researchers who are seeking a target number for completions for their survey, it is also worth noting that the pattern of responses for our survey stabilized around the 500 completions level. The additional detail provided by the 1,255 total completions allowed for more crosstabs and other in-depth analysis but it did not change the overall nature of our results.

Even with the above efforts, there are areas where the survey could be improved. One of the first questions that respondents see asks for the “primary discipline” of their creative work. It is followed by a question that allows for the selection of multiple additional disciplines. We think that completion rates would have improved if the order of the two questions were reversed and reworded to ask for all disciplines and then a primary focus. The speculation is that most creative workers are involved in many disciplines and thinking that they could choose only one created the mistaken assumption that the survey was only meant for those who focus only on one discipline or have only one employer or job. The survey results suggest that only 6 percent of creative workers participate in only one discipline.

We received feedback from multiple respondents that the question exploring their expenses could be refined. The survey asked for the share of income that went to the following categories:

- Rent or mortgage
- Studio space separate from your home
- Equipment for creative work
- Materials for creative work
- Student loan payments
- All other expenses (e.g. food, transportation, utilities, and discretionary spending)
- Savings.

A common request was to include a question asking about the expense of creative workers hiring each other. For example, spending by a writer to hire an editor or a musician to hire other musicians to help on a record. We anticipated that there would be this kind of intra-community hiring happening and included “private individuals” among the client types available for the self-employment questions. Using this approach we expected to capture this hiring from the income side (i.e. “who paid you to do this work?”) rather than from the expenditure side (i.e. “who did you pay to do this work?”). The feedback we received indicates that the respondents would have preferred the expenditure approach compared to the income approach that we used.

The most complex and burdensome segment of the survey were the questions focusing on employment. Because these questions lay at the center of the purpose of the survey, we decided that the complexity was worth the trade off in response burden. For self-employed work, the question asked respondents to consider all instances of the same type of work collectively, e.g. if a musician performed in five concerts, he or she should only enter concert performances once. The questions then continued to ask for the type of work, venue, client, duration, and place. For wage and salary employment (W-2 employment), we asked for each job individually and continued with similar questions to self-employment.

Respondents would repeat these loops for every job they wished to enter. While this formulation gave us detailed information on the employment of creative workers, it came with costs. Namely, it is likely that respondents entered fewer jobs than they actually had in the year in question. As mentioned in the

survey results, respondents had, on average, 1.5 self-employed and 1.5 wage and salary jobs in 2015, or three per respondent. The conventional wisdom among the stakeholders is that this number is too low.

We believe that the assumed low job count is due to the high response burden of the employment loops. Each loop contains six questions, which means that the average respondent answered 18 questions exploring their employment. A simple solution would be to reduce the question count for each loop to simplify the information sought from the respondents. Doing so would require decisions regarding what information is needed and what is not. Another option is to simplify the questions themselves. Our survey sought detailed occupation and industry data that many others may not need or the number of options for venue or project type could be narrowed.

New Research

There are several ways that NEFA's current work could be extended to address remaining challenges in identifying data on creative enterprises and employees, measuring their impacts on local communities and understanding their connections with the broader economy and placemaking.

The continued growth of digitization in government means that over time, municipalities will increasingly have access to important indicators of local health, wellbeing, housing, economic vitality, and other important variables of interest to policy makers and the public alike. For example, over the last 15 years, the Boston Indicators Project⁴ has been developing measures of 10 civic sectors that now include 150 detailed indicators and 350 affiliated measures. Since one of the long-standing questions among arts funders is how investment in these sectors contributes to the overall health and livability of communities, it seems useful to connect these efforts to the growing collection of digital measures of local health and wellbeing that are being developed by local governments, nonprofits and researchers.

Another way to deepen NEFA's work would be to look more closely at the finances of local arts organizations to identify the project and organizational factors that contribute to their financial health. This work could be conducted using data from the National Center for Charitable Statistics, and would represent a useful continuation of earlier work done by NEFA. This seems particularly timely given the declines in some sectors identified in the preceding chapters.

One of the perennial challenges of creative economy research is the limitation of state and federal statistics on creative workers and enterprises. Although these limitations are much less problematic than they were in the early years of NEFA's work, they remain salient in emerging and fast growing sectors that span traditional economic sectors. For example, the video game sector has been growing in the region since the last NEFA report in 2007. However, because of continuing limitations with existing state and federal data, we are unable to measure employment and establishment count for this sub-sector separate from its current classification under software publishers. Working with industry groups like Mass Digi⁵, NEFA could conduct focused research on this sector to understand its development over the last 10 years. In addition, since sectors like digital games and film and television production seem to be growing, future work might compare trends in these two sectors, one of which has been the subject of significant regional investment, to identify any impacts governmental support may have. Because of

⁴ <http://www.bostonindicators.org/indicators>

⁵ <http://www.massdigi.org/>

the similarity in these two sectors in terms of technology and labor, the differences in their growth patterns and needs may prove illustrative.

Indeed, the idea of comparative research in general may provide a useful direction for future work. Not only could similar sectors like film and video games be compared but researchers could also look at how regional and local variations in funding and support lead to different developmental paths, strengths, and challenges.

Finally, we see enormous opportunity to leverage NEFA's long history of research work on the regional creative economy to scale up and develop a regional data center tracking important measures of this sector over time. In our previous work with state arts funders like the Massachusetts Cultural Council, we noted that over the ten years of its Adam's Art Program alone, there were dozens of project level evaluations completed, each of which generated useful data and methods. Unfortunately, even at the state agency level, the data from these project-level evaluations remain hard to access digitally and share. If these project and organizational evaluation data were aggregated, anonymized, and provided to the broader community of researchers and practitioners, it could increase both the feasibility and impact of future program evaluation and research. Indeed, because New England has led the nation in measuring the creative economy, and because of its commitment to data aggregation and experience developing CreativeGround⁶, NEFA seems an ideal organization to lead the development of a regional data center for creative economy assessment and evaluation.

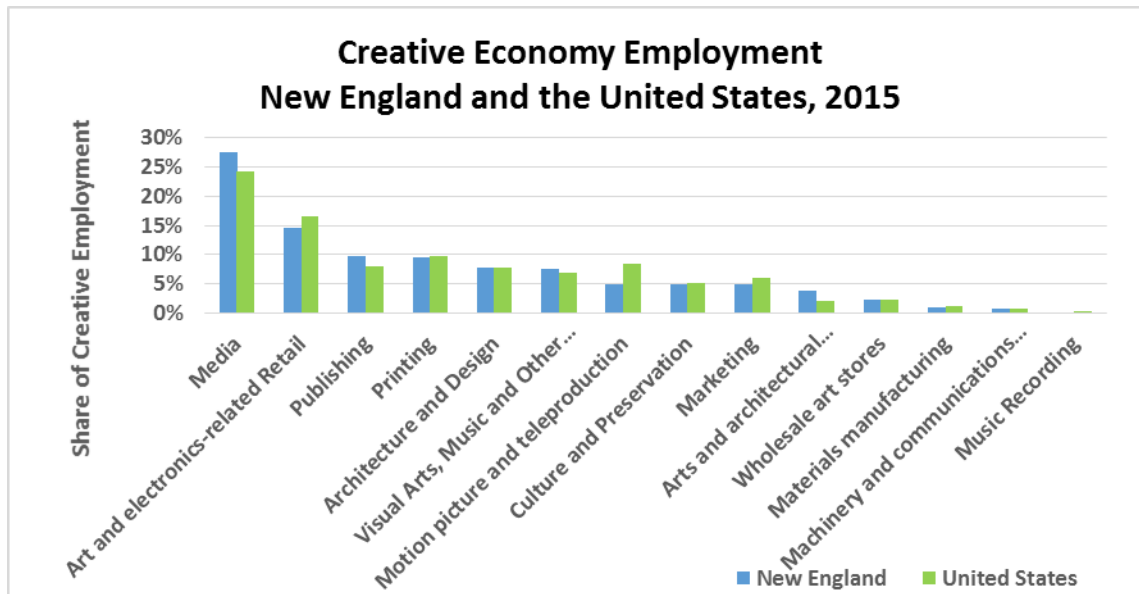
⁶ <https://www.creativeground.org/>

Appendix A – Creative Economy Profile Detail, New England and the United States, 2007-2015

Creative Economy Employment in New England and the United States, 2007-2015

Creative Economy Employment	New England				United States			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	22,239	18,702	-3,537	-15.9%	415,481	352,977	-62,504	-15.0%
Art and electronics-related Retail	48,488	34,923	-13,565	-28.0%	929,022	763,166	-165,856	-17.9%
Arts and architectural manufacturing	10,455	9,297	-1,159	-11.1%	114,946	97,066	-17,880	-15.6%
Culture and Preservation	11,520	11,840	320	2.8%	212,217	239,189	26,972	12.7%
Machinery and communications manufacturing	5,490	2,078	-3,412	-62.2%	74,582	39,246	-35,336	-47.4%
Marketing	12,276	11,631	-646	-5.3%	262,534	272,066	9,532	3.6%
Materials manufacturing	4,664	2,204	-2,460	-52.7%	88,184	54,827	-33,357	-37.8%
Media	75,153	65,761	-9,392	-12.5%	1,354,926	1,113,263	-241,663	-17.8%
Motion picture and teleproduction	10,295	12,014	1,719	16.7%	356,002	388,568	32,566	9.1%
Music Recording	424	379	-45	-10.6%	21,664	16,153	-5,511	-25.4%
Printing	31,819	22,952	-8,868	-27.9%	625,694	451,227	-174,467	-27.9%
Publishing	37,779	23,177	-14,602	-38.7%	600,269	368,073	-232,196	-38.7%
Visual Arts, Music and Other Performing Arts	17,034	18,022	988	5.8%	314,460	313,427	-1,033	-0.3%
Wholesale art stores	7,465	5,528	-1,937	-25.9%	130,810	108,873	-21,937	-16.8%
Grand Total	295,098	238,504	-56,595	-19.2%	5,500,791	4,578,121	-922,670	-16.8%
Total, All Industries	6,936,505	7,100,579	164,074	2.4%	135,366,106	139,491,699	4,125,593	3.0%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Top 10 Creative Economy Industries by Employment in New England, 2007-2015

New England				
2007		2015		
Top 10 Industries	Employment	Top 10 Industries	Employment	% Change from 2007
Cable and Other Program Distribution	36,687	Cable and Other Program Distribution	27,335	-25.5%
Radio, Television, and Other Electronics Stores	24,862	Radio, Television, and Other Electronics Stores	18,548	-25.4%
Commercial Lithographic Printing	24,257	Commercial Lithographic Printing	16,376	-32.5%
Newspaper Publishers	21,333	Libraries and Archives	12,274	-2.6%
Architectural Services	13,292	Newspaper Publishers	11,732	-45.0%
Libraries and Archives	12,601	Architectural Services	11,296	-15.0%
Advertising Agencies	9,312	Internet Publishing and Broadcasting	10,919	80.7%
Periodical Publishers	9,075	Advertising Agencies	7,555	-18.9%
Book Stores	8,808	Museums	7,397	7.4%
Jewelry Stores	7,991	Fine Arts Schools	7,234	27.7%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Top 10 Creative Economy Industries by Employment in the United States, 2007-2015

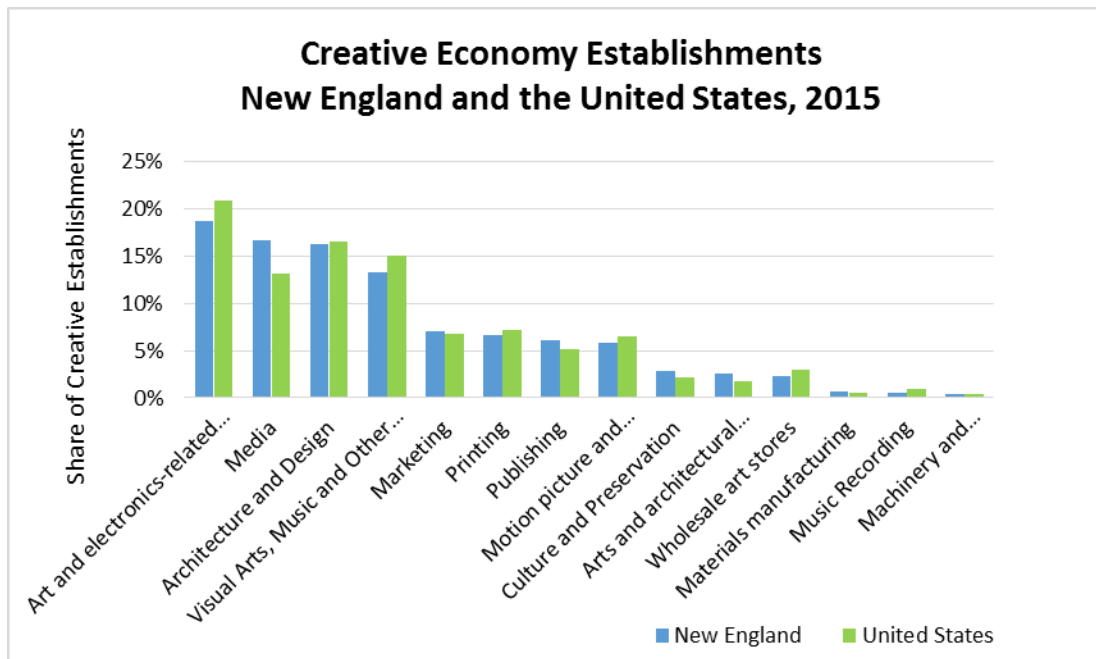
United States				
2007		2015		
Top 10 Industries	Employment	Top 10 Industries	Employment	% Change from 2007
Cable and Other Program Distribution	658,503	Cable and Other Program Distribution	587,792	-10.7%
Radio, Television, and Other Electronics Stores	505,062	Radio, Television, and Other Electronics Stores	458,251	-9.3%
Commercial Lithographic Printing	477,120	Commercial Lithographic Printing	331,662	-30.5%
Newspaper Publishers	348,325	Motion Picture and Video Production	227,549	17.3%
Architectural Services	216,183	Advertising Agencies	194,590	5.5%
Motion Picture and Video Production	194,065	Newspaper Publishers	190,426	-45.3%
Advertising Agencies	184,394	Internet Publishing and Broadcasting	186,125	159.3%
Libraries and Archives	168,079	Architectural Services	177,071	-18.1%
Jewelry Stores	150,097	Motion Picture Theaters (except Drive-Ins)	133,519	1.3%
Periodical Publishers	144,470	Television Broadcasting	130,888	3.5%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

Creative Economy Establishments in New England and the United States, 2007-2015

Creative Economy Establishments	New England				United States			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	3,937	3,700	-237	-6.0%	72,474	66,876	-5,598	-7.7%
Art and electronics-related Retail	5,820	4,236	-1,584	-27.2%	104,333	84,006	-20,327	-19.5%
Arts and architectural manufacturing	705	597	-108	-15.3%	7,604	7,056	-548	-7.2%
Culture and Preservation	598	644	46	7.7%	7,551	8,660	1,109	14.7%
Machinery and communications manufacturing	90	80	-10	-11.1%	2,230	1,815	-415	-18.6%
Marketing	1,535	1,588	53	3.5%	27,116	27,262	146	0.5%
Materials manufacturing	175	158	-17	-9.7%	3,065	2,128	-937	-30.6%
Media	4,067	3,772	-295	-7.3%	65,440	53,091	-12,349	-18.9%
Motion picture and teleproduction	1,025	1,313	288	28.1%	22,991	26,325	3,334	14.5%
Music Recording	133	130	-3	-2.3%	3,872	3,558	-314	-8.1%
Printing	2,011	1,495	-516	-25.7%	36,015	29,115	-6,900	-19.2%
Publishing	1,635	1,369	-266	-16.3%	23,922	20,520	-3,402	-14.2%
Visual Arts, Music and Other Performing Arts	2,934	3,016	82	2.8%	59,434	60,550	1,116	1.9%
Wholesale art stores	560	526	-34	-6.1%	12,682	11,909	-773	-6.1%
Grand Total	25,225	22,624	-2,601	-10.3%	448,729	402,871	-45,858	-10.2%
Total, All Industries	482,970	515,940	32,970	6.8%	8,971,897	9,522,775	550,878	6.1%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Creative Economy Employment, Major Sector Detail, New England and the United States, 2007-2015

Creative Economy Employment	New England				United States			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	22,239	18,702	-3,537	-15.9%	415,481	352,977	-62,504	-15.0%
Architectural Services	13,292	11,296	-1,996	-15.0%	216,183	177,071	-39,112	-18.1%
Landscape Architectural Services	1,905	1,642	-263	-13.8%	44,546	34,297	-10,249	-23.0%
Drafting Services	444	314	-130	-29.3%	11,051	8,241	-2,810	-25.4%
Interior Design Services	2,040	1,411	-629	-30.8%	43,815	38,934	-4,881	-11.1%
Industrial Design Services	703	689	-14	-2.0%	13,328	16,979	3,651	27.4%
Graphic Design Services	3,484	2,638	-846	-24.3%	73,179	62,558	-10,621	-14.5%
Other Specialized Design Services	371	712	341	91.9%	13,379	14,897	1,518	11.3%
Art and electronics-related Retail	48,488	34,923	-13,565	-28.0%	929,022	763,166	-165,856	-17.9%
Radio, Television, and Other Electronics Stores	24,862	18,548	-6,314	-25.4%	505,062	458,251	-46,811	-9.3%
Jewelry Stores	7,991	6,467	-1,524	-19.1%	150,097	121,372	-28,725	-19.1%
Sewing, Needlework, and Piece Goods Stores	2,912	2,002	-911	-31.3%	50,199	42,731	-7,468	-14.9%
Musical Instrument and Supplies Stores	1,737	1,518	-219	-12.6%	34,113	31,147	-2,966	-8.7%
Book Stores	8,808	5,334	-3,475	-39.4%	142,432	82,062	-60,370	-42.4%
Art Dealers	1,074	794	-280	-26.1%	23,320	17,172	-6,148	-26.4%
Photofinishing Laboratories (except One-Hour)	844	209	-635	-75.3%	20,198	9,664	-10,534	-52.2%
One-Hour Photofinishing	261	53	-208	-79.8%	3,601	767	-2,834	-78.7%
Arts and architectural manufacturing	10,455	9,297	-1,159	-11.1%	114,946	97,066	-17,880	-15.6%
Ornamental and Architectural Metal Work Manufacturing	2,019	1,913	-106	-5.3%	42,020	38,706	-3,314	-7.9%
Custom Architectural Woodwork and Millwork Manufacturing	1,905	1,602	-303	-15.9%	20,124	18,972	-1,152	-5.7%
Jewelry (except Costume) Manufacturing	5,616	5,116	-500	-8.9%	40,049	28,516	-11,533	-28.8%
Musical Instrument Manufacturing	915	666	-250	-27.3%	12,753	10,872	-1,881	-14.7%
Culture and Preservation	11,520	11,840	320	2.8%	212,217	239,189	26,972	12.7%
Museums	6,890	7,397	507	7.4%	87,426	100,672	13,246	15.2%

Historical Sites	1,312	1,344	32	2.4%	14,564	17,008	2,444	16.8%
Zoos and Botanical Gardens	1,312	1,452	140	10.7%	32,998	41,089	8,091	24.5%
Nature Parks and Other Similar Institutions	2,007	1,647	-360	-17.9%	77,229	80,420	3,191	4.1%
Machinery and communications manufacturing	5,490	2,078	-3,412	-62.2%	74,582	39,246	-35,336	-47.4%
Printing Machinery and Equipment Manufacturing	1,076	1,174	98	9.1%	12,819	7,448	-5,371	-41.9%
Audio and Video Equipment Manufacturing	4,384	699	-3,685	-84.1%	29,408	19,965	-9,443	-32.1%
Prerecorded Compact Disc (except Software), Tape, and Record Reproducing	30	205	175	583.3%	32,355	11,833	-20,522	-63.4%
Marketing	12,276	11,631	-646	-5.3%	262,534	272,066	9,532	3.6%
Advertising Agencies	9,312	7,555	-1,757	-18.9%	184,394	194,590	10,196	5.5%
Media Buying Agencies	432	549	117	27.0%	10,001	15,663	5,662	56.6%
Media Representatives	1,254	925	-329	-26.2%	31,958	25,126	-6,832	-21.4%
Display Advertising	1,279	2,602	1,324	103.5%	36,181	36,687	506	1.4%
Materials manufacturing	4,664	2,204	-2,460	-52.7%	88,184	54,827	-33,357	-37.8%
Photographic Film, Paper, Plate, and Chemical Manufacturing	1,611	329	-1,282	-79.6%	25,084	12,540	-12,544	-50.0%
Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	569	687	118	20.7%	21,454	15,550	-5,904	-27.5%
Other Pressed and Blown Glass and Glassware Manufacturing	1,440	914	-526	-36.5%	21,616	14,951	-6,665	-30.8%
Lead Pencil and Art Good Manufacturing	1,044	274	-770	-73.8%	20,030	11,786	-8,244	-41.2%
Media	75,153	65,761	-9,392	-12.5%	1,354,926	1,113,263	-241,663	-17.8%
Radio Networks	714	602	-112	-15.6%	24,853	18,271	-6,582	-26.5%
Radio Stations	4,129	3,514	-615	-14.9%	85,376	69,411	-15,965	-18.7%
Television Broadcasting	5,124	5,078	-46	-0.9%	126,425	130,888	4,463	3.5%
Cable and Other Subscription Programming	4,054	5,566	1,513	37.3%	91,137	61,687	-29,450	-32.3%

Cable and Other Program Distribution	36,687	27,335	-9,352	-25.5%	658,503	587,792	-70,711	-10.7%
News Syndicates	545	261	-284	-52.2%	12,361	12,055	-306	-2.5%
Libraries and Archives	12,601	12,274	-327	-2.6%	168,079	32,992	-135,087	-80.4%
Internet Publishing and Broadcasting	6,043	10,919	4,876	80.7%	71,784	186,125	114,341	159.3%
Video Tape and Disc Rental	5,257	213	-5,045	-96.0%	116,408	14,042	-102,366	-87.9%
Motion picture and teleproduction	10,295	12,014	1,719	16.7%	356,002	388,568	32,566	9.1%
Motion Picture and Video Production	3,571	5,842	2,271	63.6%	194,065	227,549	33,484	17.3%
Motion Picture and Video Distribution	123	103	-20	-16.3%	7,511	7,304	-207	-2.8%
Motion Picture Theaters (except Drive-Ins)	6,258	5,526	-732	-11.7%	131,791	133,519	1,728	1.3%
Drive-In Motion Picture Theaters	86	55	-31	-36.0%	2,755	1,955	-800	-29.0%
Teleproduction and Other Postproduction Services	230	403	174	75.6%	15,538	15,160	-378	-2.4%
Other Motion Picture and Video Industries	28	85	57	-	4,342	3,081	-1,261	-29.0%
Music Recording	424	379	-45	-10.6%	21,664	16,153	-5,511	-25.4%
Record Production	41	39	-2	-3.7%	2,367	1,997	-370	-15.6%
Integrated Record Production/Distribution	48	42	-6	-	3,467	3,373	-94	-2.7%
Music Publishers	47	42	-5	-9.7%	4,332	3,916	-416	-9.6%
Sound Recording Studios	192	203	12	6.0%	8,157	4,645	-3,512	-43.1%
Other Sound Recording Industries	98	53	-45	-46.2%	3,341	2,222	-1,119	-33.5%
Printing	31,819	22,952	-8,868	-27.9%	625,694	451,227	-174,467	-27.9%
Commercial Lithographic Printing	24,257	16,376	-7,881	-32.5%	477,120	331,662	-145,458	-30.5%
Commercial Screen Printing	3,273	3,831	558	17.0%	68,901	71,945	3,044	4.4%
Books Printing	1,386	1,159	-228	-16.4%	32,003	21,242	-10,761	-33.6%
Tradebinding and Related Work	2,903	1,586	-1,317	-45.4%	47,670	26,378	-21,292	-44.7%
Publishing	37,779	23,177	-14,602	-38.7%	600,269	368,073	-232,196	-38.7%
Newspaper Publishers	21,333	11,732	-9,601	-45.0%	348,325	190,426	-157,899	-45.3%
Periodical Publishers	9,075	5,790	-3,285	-36.2%	144,470	98,999	-45,471	-31.5%
Book Publishers	6,005	4,531	-1,474	-24.5%	80,436	63,107	-17,329	-21.5%

Greeting Card Publishers	508	492	-16	-3.1%	11,402	4,874	-6,528	-57.3%
All Other Publishers	858	632	-226	-26.3%	15,636	10,667	-4,969	-31.8%
Visual Arts, Music and Other Performing Arts	17,034	18,022	988	5.8%	314,460	313,427	-1,033	-0.3%
Photography Studios, Portrait	3,144	1,986	-1,158	-36.8%	71,446	46,149	-25,297	-35.4%
Commercial Photography	445	376	-69	-15.5%	10,977	9,606	-1,371	-12.5%
Fine Arts Schools	5,667	7,234	1,567	27.7%	65,626	86,792	21,166	32.3%
Theater Companies and Dinner Theaters	3,627	3,843	216	6.0%	62,713	65,430	2,717	4.3%
Dance Companies	465	589	124	26.7%	8,945	11,078	2,133	23.8%
Musical Groups and Artists	2,001	1,858	-144	-7.2%	39,492	35,128	-4,364	-11.1%
Other Performing Arts Companies	304	336	32	10.5%	5,963	7,130	1,167	19.6%
Independent Artists, Writers, and Performers	1,382	1,801	419	30.3%	49,298	52,114	2,816	5.7%
Wholesale art stores	7,465	5,528	-1,937	-25.9%	130,810	108,873	-21,937	-16.8%
Photographic Equipment and Supplies Merchant Wholesalers	363	373	10	2.8%	15,201	14,904	-297	-2.0%
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	2,168	2,789	622	28.7%	44,579	43,103	-1,476	-3.3%
Printing and Writing Paper Merchant Wholesalers	1,091	778	-313	-28.7%	15,311	10,963	-4,348	-28.4%
Book, Periodical, and Newspaper Merchant Wholesalers	3,844	1,588	-2,256	-58.7%	55,719	39,903	-15,816	-28.4%
Grand Total	295,098	238,504	-56,595	-19.2%	5,500,791	4,578,121	-922,670	-16.8%
Total Employment	6,936,505	7,100,579	164,074	2.4%	135,366,106	139,491,699	4,125,593	3.0%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Creative Economy Employment by Major Groups, New England and the United States, 2007-2015

Creative Economy Employment	New England				United States			
	2007	2015	Absolute Change	% Change	2007	2015	Absolute Change	% Change
Group 1 Cultural Goods Production	52,427	36,530	-15,898	-30.3%	903,406	642,366	-261,040	-28.9%
Group 2 Cultural Goods Distribution	55,953	40,451	-15,502	-27.7%	1,059,832	872,039	-187,793	-17.7%
Group 3 Intellectual Property Production & Distribution	186,718	161,523	-25,195	-13.5%	3,537,553	3,063,716	-473,837	-13.4%
Grand Total	295,098	238,504	-56,595	-19.2%	5,500,791	4,578,121	-922,670	-16.8%
Total Employment	6,936,505	7,100,579	164,074	2.4%	135,366,106	139,491,699	4,125,593	3.0%

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	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Group 1 Cultural Goods Production	52,427	36,530	-15,898	-30.3%	903,406	642,366	-261,040	-28.9%
Commercial Lithographic Printing	24,257	16,376	-7,881	-32.5%	477,120	331,662	-145,458	-30.5%
Commercial Screen Printing	3,273	3,831	558	17.0%	68,901	71,945	3,044	4.4%
Books Printing	1,386	1,159	-228	-16.4%	32,003	21,242	-10,761	-33.6%
Tradebinding and Related Work	2,903	1,586	-1,317	-45.4%	47,670	26,378	-21,292	-44.7%
Photographic Film, Paper, Plate, and Chemical Manufacturing	1,611	329	-1,282	-79.6%	25,084	12,540	-12,544	-50.0%
Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	569	687	118	20.7%	21,454	15,550	-5,904	-27.5%
Other Pressed and Blown Glass and Glassware Manufacturing	1,440	914	-526	-36.5%	21,616	14,951	-6,665	-30.8%
Ornamental and Architectural Metal Work Manufacturing	2,019	1,913	-106	-5.3%	42,020	38,706	-3,314	-7.9%
Printing Machinery and Equipment Manufacturing	1,076	1,174	98	9.1%	12,819	7,448	-5,371	-41.9%
Audio and Video Equipment Manufacturing	4,384	699	-3,685	-84.1%	29,408	19,965	-9,443	-32.1%
Prerecorded Compact Disc (except Software), Tape, and Record Reproducing	30	205	175	583.3%	32,355	11,833	-20,522	-63.4%
Custom Architectural Woodwork and Millwork	1,905	1,602	-303	-15.9%	20,124	18,972	-1,152	-5.7%

Manufacturing									
Jewelry (except Costume) Manufacturing	5,616	5,116	-500	-8.9%	40,049	28,516	-11,533	-28.8%	
Lead Pencil and Art Good Manufacturing	1,044	274	-770	-73.8%	20,030	11,786	-8,244	-41.2%	
Musical Instrument Manufacturing	915	666	-250	-27.3%	12,753	10,872	-1,881	-14.7%	
Group 2 Cultural Goods Distribution	55,953	40,451	-15,502	-27.7%	1,059,832	872,039	-187,793	-17.7%	
Photographic Equipment and Supplies Merchant Wholesalers	363	373	10	2.8%	15,201	14,904	-297	-2.0%	
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	2,168	2,789	622	28.7%	44,579	43,103	-1,476	-3.3%	
Printing and Writing Paper Merchant Wholesalers	1,091	778	-313	-28.7%	15,311	10,963	-4,348	-28.4%	
Book, Periodical, and Newspaper Merchant Wholesalers	3,844	1,588	-2,256	-58.7%	55,719	39,903	-15,816	-28.4%	
Radio, Television, and Other Electronics Stores	24,862	18,548	-6,314	-25.4%	505,062	458,251	-46,811	-9.3%	
Jewelry Stores	7,991	6,467	-1,524	-19.1%	150,097	121,372	-28,725	-19.1%	
Sewing, Needlework, and Piece Goods Stores	2,912	2,002	-911	-31.3%	50,199	42,731	-7,468	-14.9%	
Musical Instrument and Supplies Stores	1,737	1,518	-219	-12.6%	34,113	31,147	-2,966	-8.7%	
Book Stores	8,808	5,334	-3,475	-39.4%	142,432	82,062	-60,370	-42.4%	
Art Dealers	1,074	794	-280	-26.1%	23,320	17,172	-6,148	-26.4%	
Photofinishing Laboratories (except One-Hour)	844	209	-635	-75.3%	20,198	9,664	-10,534	-52.2%	
One-Hour Photofinishing	261	53	-208	-79.8%	3,601	767	-2,834	-78.7%	

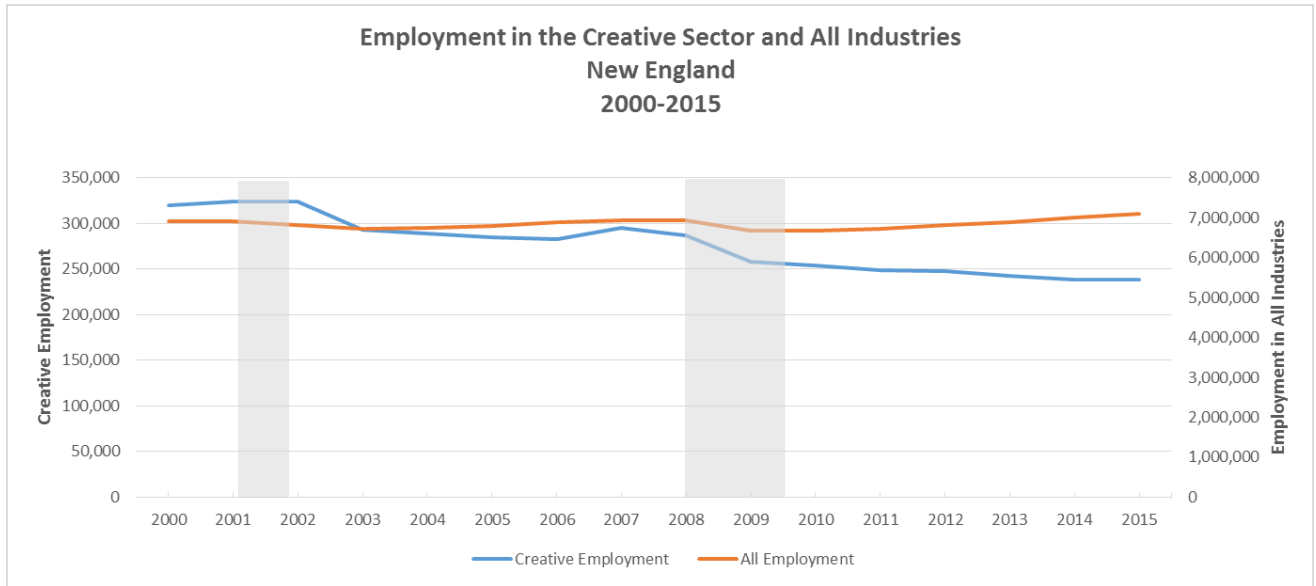
Group 3 Intellectual Property Production & Distribution	186,718	161,523	-25,195	-13.5%	3,537,553	3,063,716	-473,837	-13.4%
Museums*	6,890	7,397	507	7.4%	87,426	100,672	13,246	15.2%
Newspaper Publishers	21,333	11,732	-9,601	-45.0%	348,325	190,426	-157,899	-45.3%
Periodical Publishers	9,075	5,790	-3,285	-36.2%	144,470	98,999	-45,471	-31.5%
Book Publishers	6,005	4,531	-1,474	-24.5%	80,436	63,107	-17,329	-21.5%
Greeting Card Publishers	508	492	-16	-3.1%	11,402	4,874	-6,528	-57.3%
All Other Publishers	858	632	-226	-26.3%	15,636	10,667	-4,969	-31.8%
Motion Picture and Video Production	3,571	5,842	2,271	63.6%	194,065	227,549	33,484	17.3%
Motion Picture and Video Distribution	123	103	-20	-16.3%	7,511	7,304	-207	-2.8%
Motion Picture Theaters (except Drive-Ins)	6,258	5,526	-732	-11.7%	131,791	133,519	1,728	1.3%
Drive-In Motion Picture Theaters	86	55	-31	-36.0%	2,755	1,955	-800	-29.0%
Teleproduction and Other Postproduction Services	230	403	174	75.6%	15,538	15,160	-378	-2.4%
Other Motion Picture and Video Industries	28	85	57	-	4,342	3,081	-1,261	-29.0%
Record Production	41	39	-2	-3.7%	2,367	1,997	-370	-15.6%
Integrated Record Production/Distr ibution	48	42	-6	-	3,467	3,373	-94	-2.7%
Music Publishers	47	42	-5	-9.7%	4,332	3,916	-416	-9.6%
Sound Recording Studios	192	203	12	6.0%	8,157	4,645	-3,512	-43.1%
Other Sound Recording Industries	98	53	-45	-46.2%	3,341	2,222	-1,119	-33.5%
Radio Networks	714	602	-112	-15.6%	24,853	18,271	-6,582	-26.5%
Radio Stations	4,129	3,514	-615	-14.9%	85,376	69,411	-15,965	-18.7%
Television Broadcasting	5,124	5,078	-46	-0.9%	126,425	130,888	4,463	3.5%
Cable and Other Subscription	4,054	5,566	1,513	37.3%	91,137	61,687	-29,450	-32.3%

Programming									
Cable and Other Program Distribution	36,687	27,335	-9,352	-25.5%	658,503	587,792	-70,711	-10.7%	
News Syndicates	545	261	-284	-52.2%	12,361	12,055	-306	-2.5%	
Libraries and Archives	12,601	12,274	-327	-2.6%	168,079	32,992	-135,087	-80.4%	
Internet Publishing and Broadcasting	6,043	10,919	4,876	80.7%	71,784	186,125	114,341	159.3%	
Video Tape and Disc Rental	5,257	213	-5,045	-96.0%	116,408	14,042	-102,366	-87.9%	
Architectural Services	13,292	11,296	-1,996	-15.0%	216,183	177,071	-39,112	-18.1%	
Landscape Architectural Services	1,905	1,642	-263	-13.8%	44,546	34,297	-10,249	-23.0%	
Drafting Services	444	314	-130	-	11,051	8,241	-2,810	-25.4%	
Interior Design Services	2,040	1,411	-629	-30.8%	43,815	38,934	-4,881	-11.1%	
Industrial Design Services	703	689	-14	-	13,328	16,979	3,651	27.4%	
Graphic Design Services	3,484	2,638	-846	-24.3%	73,179	62,558	-10,621	-14.5%	
Other Specialized Design Services	371	712	341	91.9%	13,379	14,897	1,518	11.3%	
Advertising Agencies	9,312	7,555	-1,757	-18.9%	184,394	194,590	10,196	5.5%	
Media Buying Agencies	432	549	117	27.0%	10,001	15,663	5,662	56.6%	
Media Representatives	1,254	925	-329	-26.2%	31,958	25,126	-6,832	-21.4%	
Display Advertising	1,279	2,602	1,324	103.5%	36,181	36,687	506	1.4%	
Photography Studios, Portrait	3,144	1,986	-1,158	-36.8%	71,446	46,149	-25,297	-35.4%	
Commercial Photography	445	376	-69	-15.5%	10,977	9,606	-1,371	-12.5%	
Fine Arts Schools	5,667	7,234	1,567	27.7%	65,626	86,792	21,166	32.3%	
Theater Companies and Dinner Theaters	3,627	3,843	216	6.0%	62,713	65,430	2,717	4.3%	
Dance Companies	465	589	124	26.7%	8,945	11,078	2,133	23.8%	
Musical Groups and Artists	2,001	1,858	-144	-7.2%	39,492	35,128	-4,364	-11.1%	
Other Performing Arts Companies	304	336	32	10.5%	5,963	7,130	1,167	19.6%	
Independent Artists, Writers,	1,382	1,801	419	30.3%	49,298	52,114	2,816	5.7%	

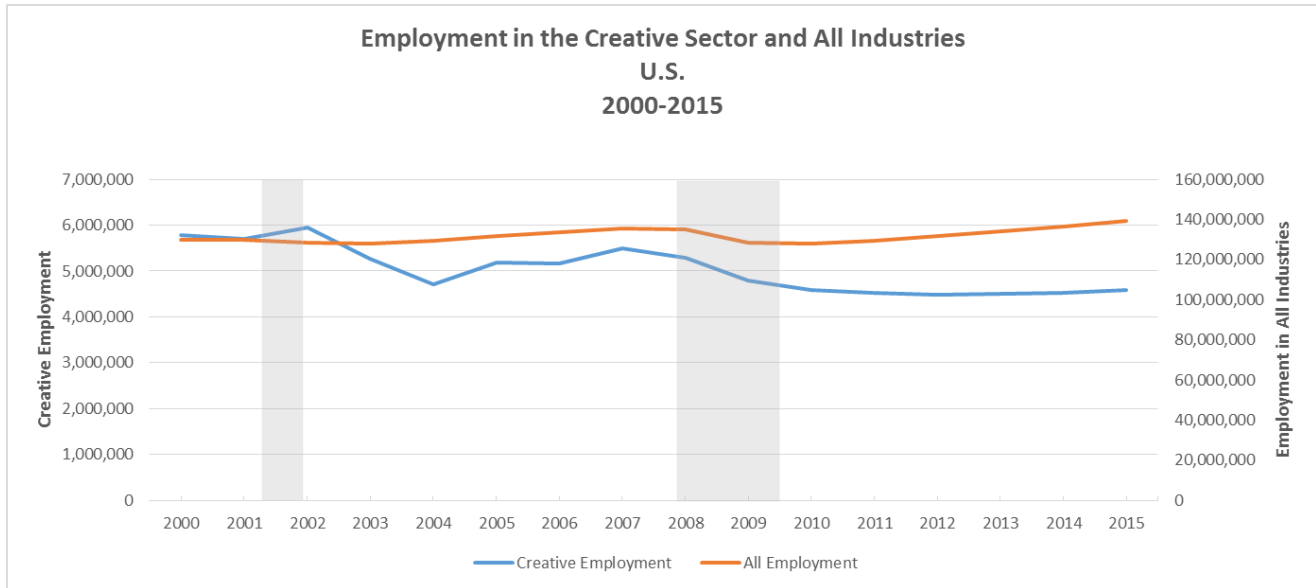
and Performers									
Historical Sites	1,312	1,344	32	2.4%	14,564	17,008	2,444	16.8%	
Zoos and Botanical Gardens	1,312	1,452	140	10.7%	32,998	41,089	8,091	24.5%	
Nature Parks and Other Similar Institutions	2,007	1,647	-360	-17.9%	77,229	80,420	3,191	4.1%	
Grand Total	295,098	238,504	-56,595	-19.2%	5,500,791	4,578,121	-922,670	-16.8%	
Total Employment	6,936,505	7,100,579	164,074	2.4%	135,366,106	139,491,699	4,125,593	3.0%	

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW). *Note: In this study we shifted the categorization of Museums from Group 2 Cultural Goods Distribution to Group 3 Intellectual Property Production & Distribution.

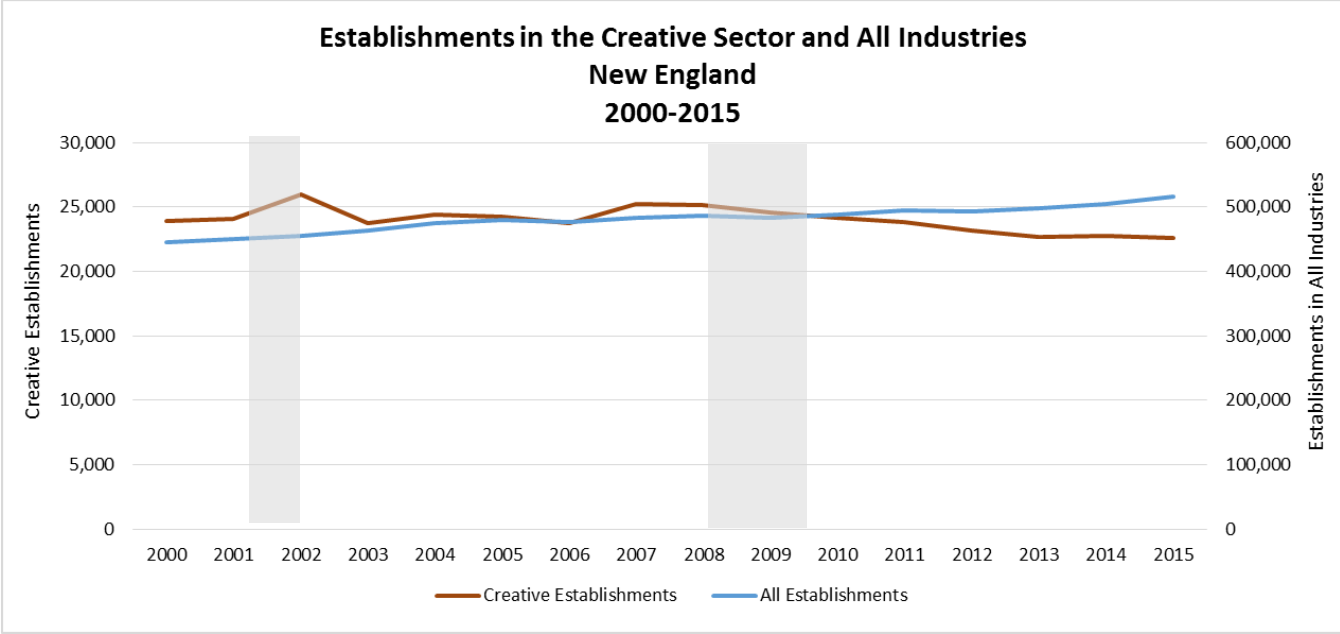
Time Series of Creative Employment and Establishments in New England, 2000-2015



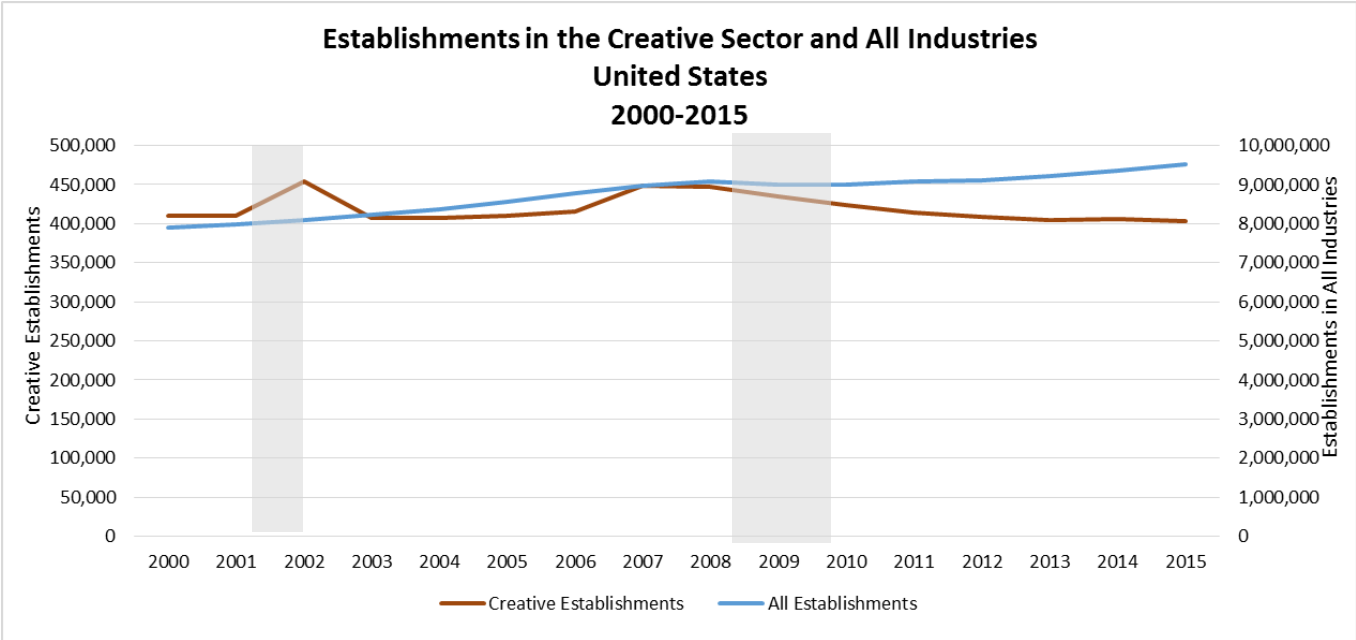
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP). Shaded areas indicate periods of recession.



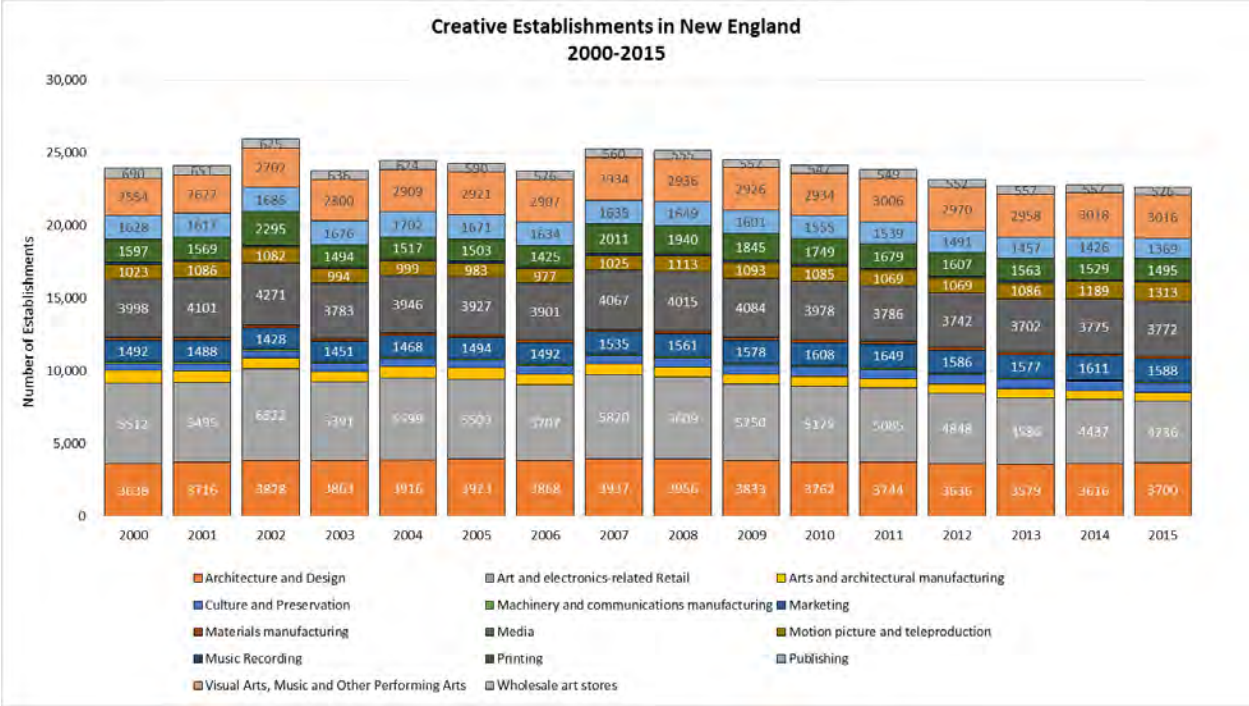
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP). Shaded areas indicate periods of recession.



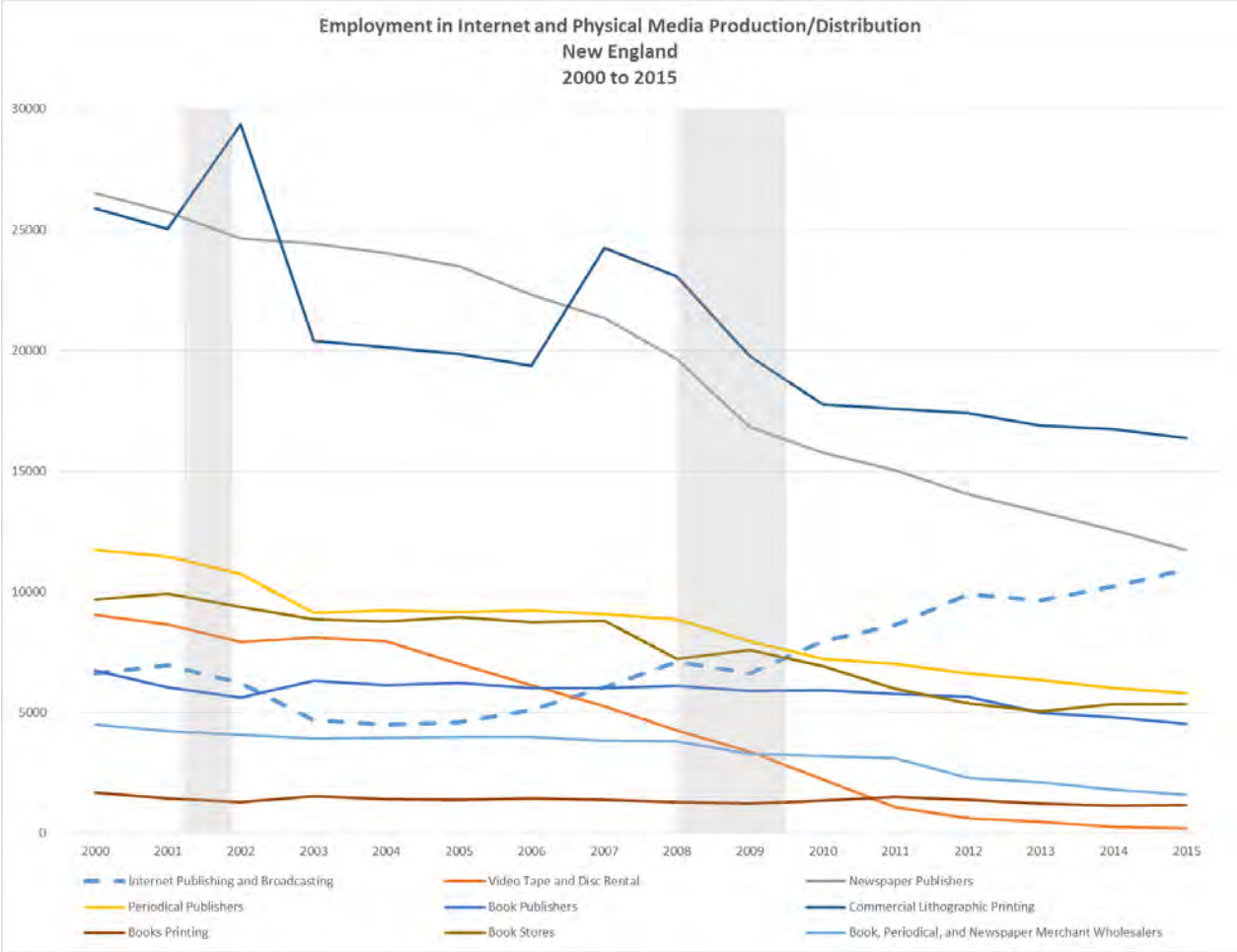
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP). Shaded areas indicate periods of recession.



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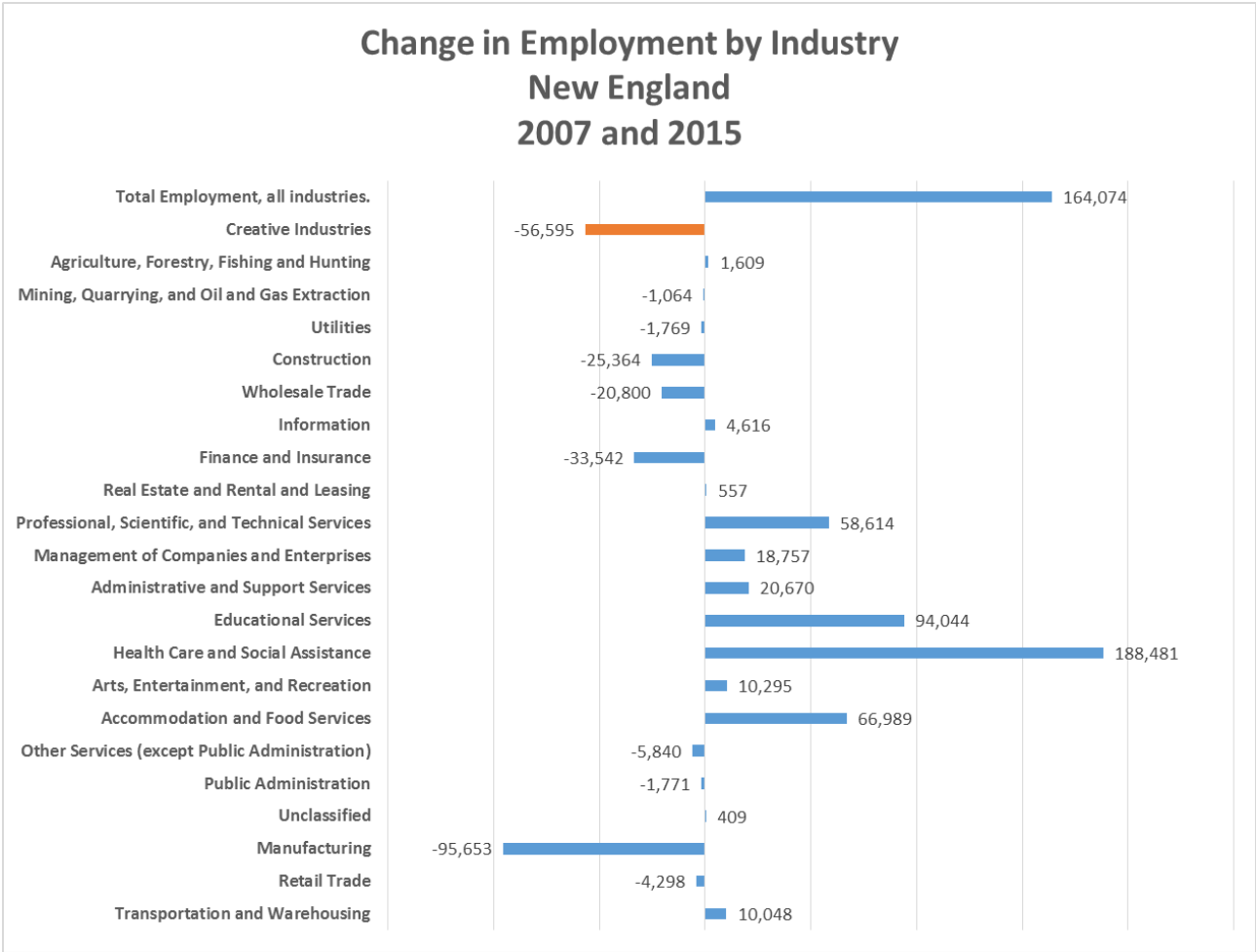


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP)



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP). Shaded areas indicate periods of recession.

Comparison of Change in Employment of Creative Industries and Other 2-digit NAICS, 2007 and 2015



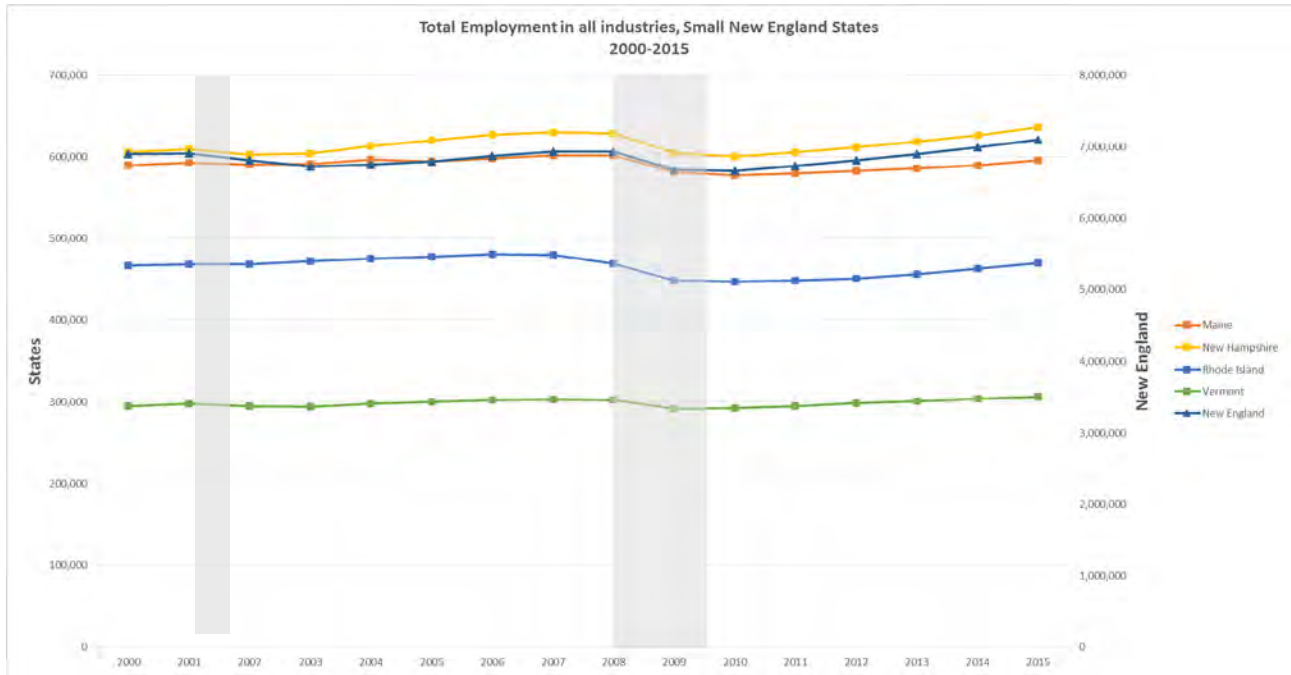
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP)

Creative Economy Employment	New England			
	2007	2015	Absolute Change	% Change
Transportation and Warehousing	205,187	215,235	10,048	4.9%
Retail Trade	771,883	767,585	-4,298	-0.6%
Manufacturing	662,362	566,709.50	-95,653	-14.4%
Unclassified	865	1,274	409	47.3%
Public Administration	287,911	286,140	-1,771	-0.6%
Other Services (except Public Administration)	247,770	241,930	-5,840	-2.4%
Accommodation and Food Services	543,899	610,888	66,989	12.3%
Arts, Entertainment, and Recreation	113,607	123,902	10,295	9.1%
Health Care and Social Assistance	1,051,076	1,239,557	188,481	17.9%
Educational Services	619,968	714,012	94,044	15.2%
Administrative and Support Services	349,428	370,098	20,670	5.9%
Management of Companies and Enterprises	111,845	130,602	18,757	16.8%
Professional, Scientific, and Technical Services	432,661	491,275	58,614	13.5%
Real Estate and Rental and Leasing	85,790	86,347	557	0.6%
Finance and Insurance	394,634	361,092	-33,542	-8.5%
Information	57,647	62,263	4,616	8.0%
Wholesale Trade	275,535	254,735	-20,800	-7.5%
Construction	323,598	298,234	-25,364	-7.8%
Utilities	31,903	30,134	-1,769	-5.5%
Mining, Quarrying, and Oil and Gas Extraction	3,967	2,903	-1,064	-26.8%
Agriculture, Forestry, Fishing and Hunting	22,253	23,862	1,609	7.2%
Creative Industries	295,098	238,504	-56,595	-19.2%
Total Employment, all industries.	6,936,505	7,100,579	164,074	2.4%

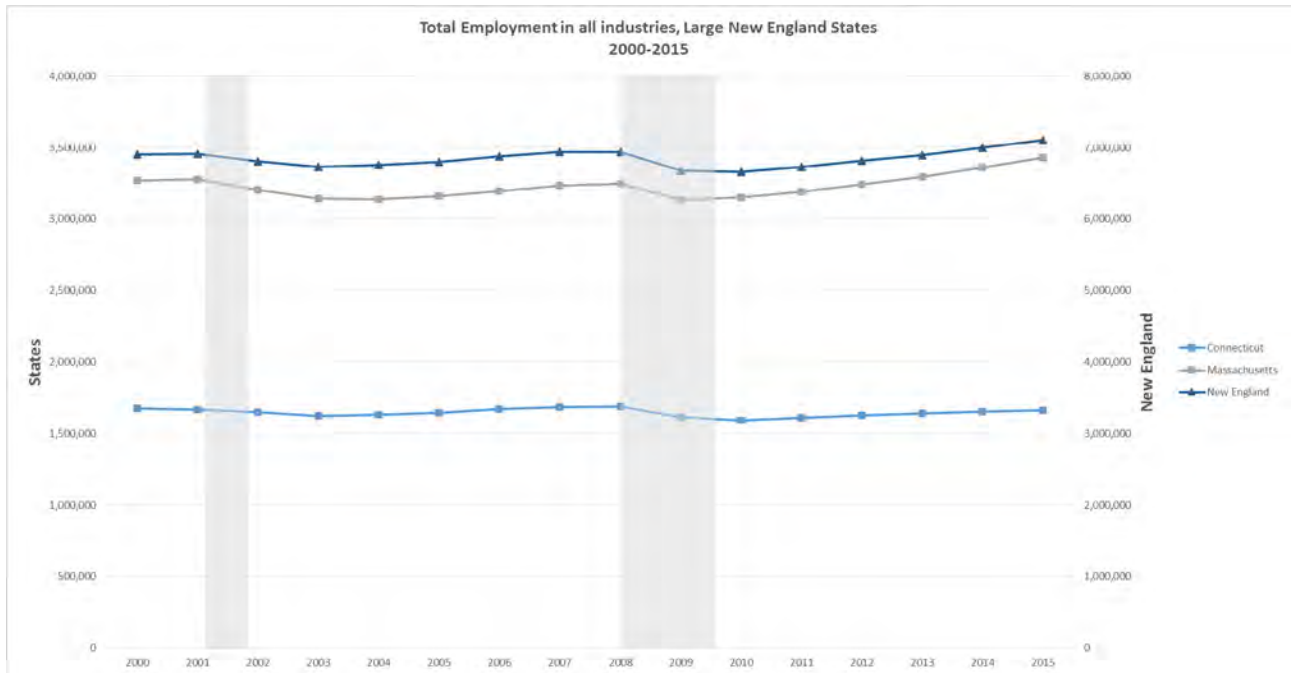
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW) and U.S. Census Bureau County Business Patterns (CBP)

*Note: Total Employment is from QCEW, and does not include additional CBP data. Total employment may differ from sum of listed industries

Total Employment in All Industries, New England, 2000-2015



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW). Shaded areas indicate periods of recession.



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW). Shaded areas indicate periods of recession.

Creative Workforce Occupations

Creative Workforce Employment by Occupational group in New England, 2007-2015

Growth in Creative Workforce Occupations	New England				United States			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Management occupations	6,140	8,030	1,890	30.8%	83,510	89,720	6,210	7.4%
Architecture and engineering occupations	12,990	11,550	-1,440	-11.1%	240,180	208,820	-31,360	-13.1%
Life, physical and social science occupations	120	90	-30	-25.0%	8,850	9,990	1,140	12.9%
Education, training and library occupations	38,200	40,730	2,530	6.6%	522,040	548,350	26,310	5.0%
Arts, design entertainment, sports and media occupations	76,110	75,170	-940	-1.2%	1,534,770	1,538,590	3,820	0.2%
Personal care and service occupations	490	310	-180	-36.7%	15,410	11,740	-3,670	-23.8%
Sales and related occupations	7,130	6,550	-580	-8.1%	161,440	149,770	-11,670	-7.2%
Office and administrative support occupations	9,930	7,050	-2,880	-29.0%	141,620	113,330	-28,290	-20.0%
Installation, maintenance and repair occupations	1,590	1,380	-210	-13.2%	47,450	38,160	-9,290	-19.6%
Production occupations	9,990	5,400	-4,590	-45.9%	199,900	117,610	-82,290	-41.2%
Total, Creative Economy	319,240	304,490	-14,750	-4.6%	5,826,830	5,562,440	-264,390	-4.5%
All Occupations	6,909,680	7,057,990	148,310	2.1%	134,354,250	137,896,660	3,542,410	2.6%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

Growing Creative Workforce Occupations in New England 2007-2015

SOC Code	Growth in Creative Workforce Occupations	New England			
		2007	2015	Absolute Change	Percent Change
27-2012	*Producers and Directors	2,670	5,240	2,570	96.3%
11-2031	Public Relations and Fundraising Managers	3,810	6,080	2,270	59.6%
27-1026	*Merchandise Displayers and Window Trimmers	2,240	4,470	2,230	99.6%
25-1121	Art, Drama, and Music Teachers, Postsecondary	5,880	7,700	1,820	31.0%
27-2011	*Actors	310	1,500	1,190	383.9%
25-1123	English Language and Literature Teachers, Postsecondary	4,080	5,210	1,130	27.7%
27-4011	Audio and Video Equipment Technicians	2,410	3,440	1,030	42.7%
27-2041	Music Directors and Composers	310	1,310	1,000	322.6%
25-1124	Foreign Language and Literature Teachers, Postsecondary	1,390	1,840	450	32.4%
25-1031	Architecture Teachers, Postsecondary	170	600	430	252.9%
27-3043	*Writers and Authors	2,040	2,430	390	19.1%
27-1027	*Set and Exhibit Designers	0	310	310	-
27-4032	Film and Video Editors	480	790	310	64.6%
27-1014	*Multimedia Artists and Animators	1,350	1,650	300	22.2%
25-9011	Audio-Visual and Multimedia Collections Specialists	390	670	280	71.8%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	640	860	220	34.4%
27-4012	Broadcast Technicians	1,400	1,600	200	14.3%
25-1122	Communications Teachers, Postsecondary	1,190	1,380	190	16.0%
27-4031	Camera Operators, Television, Video, and Motion Picture	990	1,170	180	18.2%
27-4014	Sound Engineering Technicians	440	590	150	34.1%
27-4099	Media and Communication Equipment Workers, All Other	580	680	100	17.2%
27-3012	*Public Address System and Other Announcers	180	260	80	44.4%
27-2042	*Musicians and Singers	1,320	1,390	70	5.3%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	1,100	1,170	70	6.4%
25-4012	Curators	1,000	1,040	40	4.0%
17-1011	*Architects, Except Landscape and Naval	6,020	6,050	30	0.5%
25-4011	Archivists	460	490	30	6.5%
49-9063	Musical Instrument Repairers and Tuners	180	210	30	16.7%
25-1082	Library Science Teachers, Postsecondary	90	100	10	11.1%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

*Indicates artistic occupations

Growing Creative Workforce Occupations in the United States 2007-2015

SOC Code	Growth in Creative Workforce Occupations	United States			
		2007	2015	Absolute Change	Percent Change
27-2012	*Producers and Directors	72,390	104,650	32,260	44.6%
27-1026	*Merchandise Displayers and Window Trimmers	68,660	100,540	31,880	46.4%
25-1121	Art, Drama, and Music Teachers, Postsecondary	73,890	98,310	24,420	33.0%
27-4011	Audio and Video Equipment Technicians	40,360	62,460	22,100	54.8%
25-1123	English Language and Literature Teachers, Postsecondary	60,910	75,730	14,820	24.3%
11-2031	Public Relations and Fundraising Managers	47,210	60,380	13,170	27.9%
27-2041	Music Directors and Composers	9,110	21,540	12,430	136.4%
27-4032	Film and Video Editors	17,410	27,660	10,250	58.9%
27-2011	*Actors	44,860	50,570	5,710	12.7%
25-1122	Communications Teachers, Postsecondary	23,690	29,050	5,360	22.6%
25-1124	Foreign Language and Literature Teachers, Postsecondary	25,100	30,120	5,020	20.0%
27-1024	*Graphic Designers	201,080	204,850	3,770	1.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	6,530	10,170	3,640	55.7%
27-1027	*Set and Exhibit Designers	8,620	11,930	3,310	38.4%
27-3042	Technical Writers	46,740	49,770	3,030	6.5%
25-1125	History Teachers, Postsecondary	20,760	23,680	2,920	14.1%
27-1022	*Fashion Designers	16,460	19,040	2,580	15.7%
27-1011	*Art Directors	32,290	34,690	2,400	7.4%
49-9063	Musical Instrument Repairers and Tuners	5,410	7,730	2,320	42.9%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	7,280	9,240	1,960	26.9%
25-4012	Curators	10,120	11,870	1,750	17.3%
27-1013	*Fine Artists, Including Painters, Sculptors, and Illustrators	10,500	12,240	1,740	16.6%
19-3091	Anthropologists and Archeologists	5,250	6,980	1,730	33.0%
39-3092	Costume Attendants	4,570	6,120	1,550	33.9%
25-1031	Architecture Teachers, Postsecondary	6,070	7,340	1,270	20.9%
25-1082	Library Science Teachers, Postsecondary	4,080	4,910	830	20.3%
25-4013	Museum Technicians and Conservators	9,950	10,750	800	8.0%
27-1014	*Multimedia Artists and Animators	29,440	30,240	800	2.7%
25-1061	Anthropology and Archeology Teachers, Postsecondary	5,290	6,000	710	13.4%
27-4031	Camera Operators, Television, Video, and Motion Picture	19,990	20,060	70	0.4%
25-4011	Archivists	5,420	5,460	40	0.7%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

*Indicates artistic occupations

Top Ten Creative Workforce Occupations in New England and the United States, 2015

New England		United States	
Occupation	Employment	Occupation	Employment
Public Relations Specialists	12,890	Public Relations Specialists	218,910
Librarians	10,310	*Graphic Designers	204,850
*Graphic Designers	9,870	Advertising Sales Agents	149,770
Art, Drama, and Music Teachers, Postsecondary	7,700	Librarians	131,550
Library Technicians	7,540	*Producers and Directors	104,650
Advertising Sales Agents	6,550	Merchandise Displayers and Window Trimmers	100,540
Library Assistants, Clerical	6,140	Library Assistants, Clerical	100,090
Public Relations and Fundraising Managers	6,080	Art, Drama, and Music Teachers, Postsecondary	98,310
*Architects, Except Landscape and Naval	6,050	Editors	96,690
Editors	5,970	Architectural and Civil Drafters	95,280
Creative Economy Total	156,260	Creative Economy Total	2,826,080
All Occupations	7,057,990	All Occupations	137,896,660
Creative Economy Share of All Occupations	2.2%	Creative Economy Share of All Occupations	2.0%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

*Indicates artistic occupations

Top Ten Industries for Creative Workforce Occupations in New England the United States, 2015

New England		United States	
Industry	Employment	Industry	Employment
Educational Services	38,060	Colleges, Universities, and Professional Schools	309,200
Professional, Scientific, and Technical Services	27,800	Architectural, Engineering, and Related Services	189,530
Colleges, Universities, and Professional Schools	25,200	Advertising, Public Relations, and Related Services	186,510
Federal, State, and Local Government (excluding state and local schools and hospitals)	12,490	Local Government (OES Designation)	178,590
Local Government (OES Designation)	11,130	Motion Picture and Video Industries	166,030
Architectural, Engineering, and Related Services	10,470	Newspaper, Periodical, Book, and Directory Publishers	159,360
Publishing Industries (except Internet)	10,400	Radio and Television Broadcasting	150,100
Newspaper, Periodical, Book, and Directory Publishers	9,150	Elementary and Secondary Schools	109,220
Broadcasting (except Internet)	8,930	Junior Colleges	93,790
Advertising, Public Relations, and Related Services	6,510	Printing and Related Support Activities	66,450
Creative Economy Total	260,530	Creative Economy Total	2,751,830

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

Top Ten Industries for Creative Workforce Occupations in New England the United States, 2015

2015	CT	ME	MA	NH	RI	VT	New England	United States
Creative Economy Occupations	34,580	11,220	79,270	11,760	11,140	8,290	156,260	2,826,080
Creative Economy % of All Occupations	2.1%	1.9%	2.3%	1.9%	2.4%	2.7%	2.2%	2.0%
Creative Economy Location Quotient	1.017	0.926	1.139	0.903	1.153	1.333	1.080	1.000
Artistic Occupations	12,370	3,370	23,440	3,360	3,130	2,000	47,670	1,022,110
Artistic Occupations % of All Occupations	0.7%	0.6%	0.7%	0.5%	0.7%	0.7%	0.7%	0.7%
Artistic Occupations Location Quotient	1.006	0.769	0.931	0.713	0.896	0.889	0.911	1.000
Total Employment, All Occupations	1,659,430	591,520	3,396,840	635,360	471,290	303,550	7,057,990	137,896,660

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

*Note: Artistic occupations represent a subset of the entire creative workforce occupations (see SOC code table), which include architects, designers, visual artists, photographers, writers, actors, producers & directors, dancers, musicians, announcers, and all other entertainers.

Creative Economy Nonemployers

Nonemployer Establishments and Receipts in New England and the United States, 2007-2015

Industry	New England					United States				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	180	149	-31	-17.2%	\$5,047	3,203	3,082	-121	-3.8%	\$118,442
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	1,176	1,130	-46	-3.9%	\$99,526	22,990	25,959	2,969	12.9%	\$1,904,540
Book, Periodical, and Newspaper Merchant	863	694	-169	-19.6%	\$19,010	15,418	11,096	-4,322	-28.0%	\$353,426
Electronics and Appliance Stores	1,502	963	-539	-35.9%	\$59,666	37,949	27,040	-10,909	-28.7%	\$1,342,768
Jewelry Stores	2,468	1,946	-522	-21.2%	\$84,935	43,604	45,646	2,042	4.7%	\$1,551,323
Sewing, Needlework, and Piece Goods Stores	780	777	-3	-0.4%	\$21,004	16,198	18,006	1,808	11.2%	\$404,667
Musical Instrument and Supplies Stores	360	419	59	16.4%	\$23,222	6,289	6,901	612	9.7%	\$315,814
Book Stores and News Dealers	1,294	948	-346	-26.7%	\$30,758	24,547	16,252	-8,295	-33.8%	\$531,877
Art Dealers	1,282	1,182	-100	-7.8%	\$79,687	18,499	17,686	-813	-4.4%	\$957,570
Video Tape and Disc Rental	145	36	-109	-75.2%	\$1,390	3,901	1,771	-2,130	-54.6%	\$63,050
Architectural Services	3,432	3,528	96	2.8%	\$213,480	47,044	49,120	2,076	4.4%	\$2,843,389
Landscape Architectural Services	2,372	2,306	-66	-2.8%	\$107,190	34,765	39,431	4,666	13.4%	\$1,417,095
Drafting Services	1,223	976	-247	-20.2%	\$26,208	26,075	21,627	-4,448	-17.1%	\$594,589
Photographic Services	6,248	8,091	1,843	29.5%	\$207,476	110,946	160,296	49,350	44.5%	\$3,631,760
Independent Artists, Writers, and Performers	44,364	46,974	2,610	5.9%	\$915,299	698,856	798,730	99,874	14.3%	\$17,780,937
Photofinishing	708	678	-30	-4.2%	\$16,343	13,758	15,999	2,241	16.3%	\$327,938
Nonemployers, Creative Economy Total	68,397	70,797	2,400	3.5%	\$1,910,241	1,124,042	1,258,642	134,600	12.0%	\$34,139,185
Nonemployers, All Industries Total	1,086,184	1,122,645	36,461	3.4%	\$59,212,071	21,708,021	23,836,937	2,128,916	9.8%	\$1,115,921,379

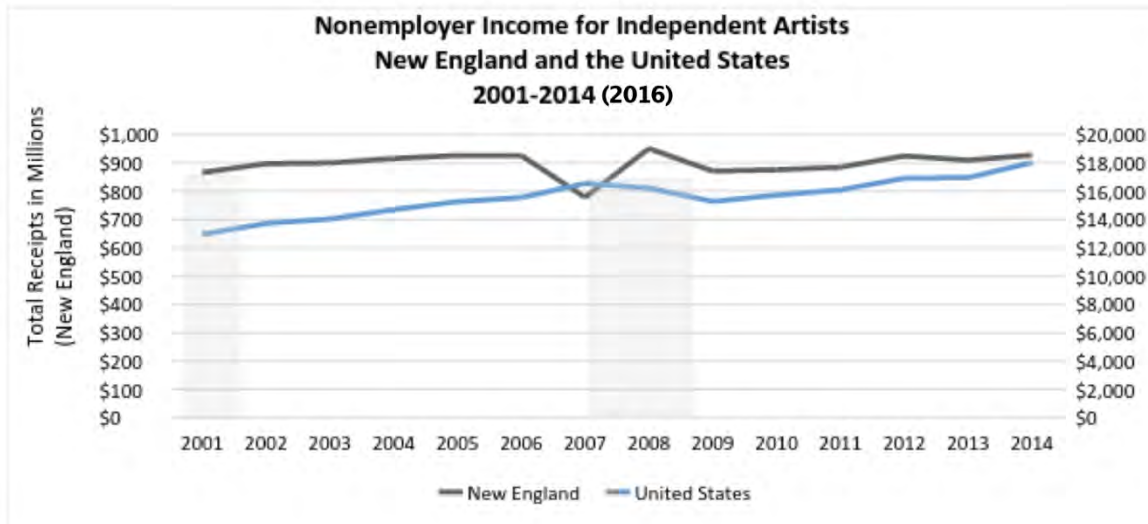
Source: U.S. Census Bureau, Nonemployer Statistics.

Time Series of Self-employed Independent Artists in New England and the United States, 2001-2014



Source: U.S. Census Bureau, Nonemployer Statistics.

*Note: Shaded areas indicate periods of recession.



Source: U.S. Census Bureau, Nonemployer Statistics.

*Note: Shaded areas indicate periods of recession.

Creative Economy Data Summary for New England and the United States

2014/2015	New England	United States
Creative Enterprise Covered Employment	238,504	4,578,121
Creative Enterprise Nonemployers	70,797	1,258,642
Total Creative Enterprise Employment	309,301	5,836,763
Total Covered Employment	7,100,579	139,491,699
Total Nonemployers	1,122,645	23,836,937
Total Employment, All Industries	8,223,224	163,328,636
Share of Creative Enterprise Employment	3.8%	3.6%

Source: U.S. Bureau of Labor Statistics, QCEW; U.S. Census Bureau, Nonemployer Statistics and County Business Patterns (for suppressed values)

Appendix B – Creative Economy in the New England States

Creative Economy Summary by New England State, 2007-2015

Employment	CT		New England	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Employment	59,543	-18.9%	238,504	-19.2%
Total Employment, All Industries	1,662,825	-1.4%	7,100,579	2.4%
Creative Economy % of Total Employment	3.6%	-0.18	3.4%	-0.21
Creative Economy Location Quotient	1.091	1.9%	1.02	-0.02

Employment	ME		New England	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Employment	15,149	-22.9%	238,504	-19.2%
Total Employment, All Industries	595,889	-1.1%	7,100,579	2.4%
Creative Economy % of Total Employment	2.5%	-0.22	3.4%	-0.21
Creative Economy Location Quotient	0.775	-3.5%	1.02	-0.02

Employment	MA		New England	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Employment	115,882	-21.1%	238,504	-19.2%
Total Employment, All Industries	3,428,020	6.0%	7,100,579	2.4%
Creative Economy % of Total Employment	3.4%	-0.26	3.4%	-0.21
Creative Economy Location Quotient	1.030	-7.8%	1.02	-0.02

Employment	NH		New England	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Employment	21,109	-7.9%	238,504	-19.2%
Total Employment, All Industries	636,806	1.0%	7,100,579	2.4%
Creative Economy % of Total Employment	3.3%	-0.09	3.4%	-0.21
Creative Economy Location Quotient	1.010	12.9%	1.02	-0.02

Employment	RI		New England	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Employment	17,692	-15.6%	238,504	-19.2%
Total Employment, All Industries	469,981	-2.1%	7,100,579	2.4%
Creative Economy % of Total Employment	3.8%	-0.14	3.4%	-0.21
Creative Economy Location Quotient	1.147	6.7%	1.02	-0.02

Employment	VT		New England	
	2015	Change from 2007 (%)	2015	Change from 2007 (%)
Creative Economy Employment	9,130	-19.5%	238,504	-19.2%
Total Employment, All Industries	307,058	1.2%	7,100,579	2.4%
Creative Economy % of Total Employment	3.0%	-0.20	3.4%	-0.21
Creative Economy Location Quotient	0.906	-1.5%	1.02	-0.02

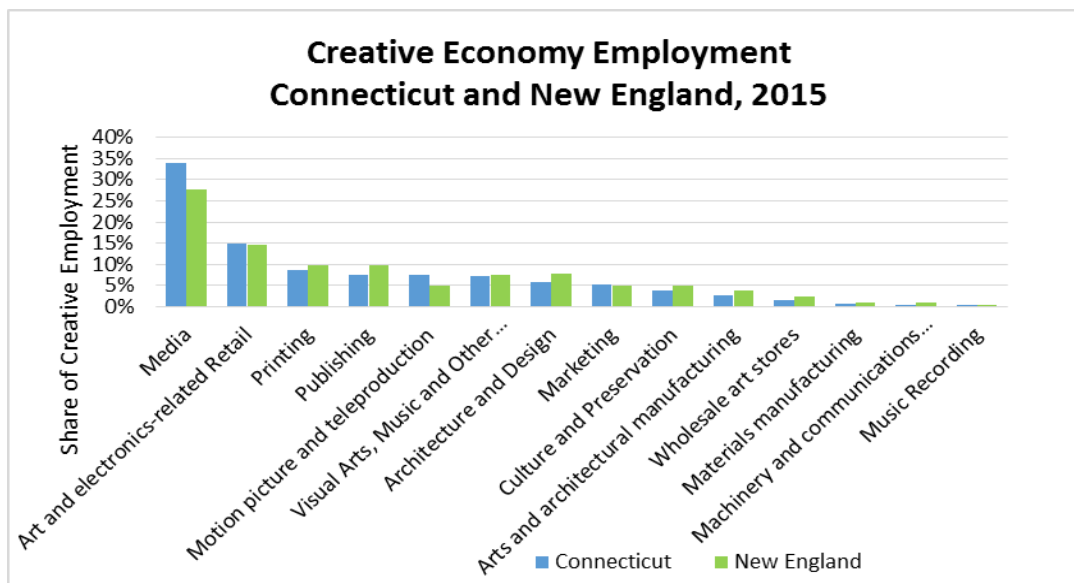
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Employment by Major Sector, New England States, 2007-2015

Employment by Major Sector, Connecticut and New England, 2007-2015

Creative Economy Employment	CT				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	4,525	3,464	-1,061	-23.4%	22,239	18,702	-3,537	-15.9%
Art and electronics-related Retail	11,893	8,932	-2,961	-24.9%	48,488	34,923	-13,565	-28.0%
Arts and architectural manufacturing	1,518	1,632	114	7.5%	10,455	9,297	-1,159	-11.1%
Culture and Preservation	2,428	2,199	-229	-9.4%	11,520	11,840	320	2.8%
Machinery and communications manufacturing	523	267	-257	-49.0%	5,490	2,078	-3,412	-62.2%
Marketing	3,451	3,146	-305	-8.8%	12,276	11,631	-646	-5.3%
Materials manufacturing	1,419	449	-970	-68.4%	4,664	2,204	-2,460	-52.7%
Media	22,267	20,142	-2,125	-9.5%	75,153	65,761	-9,392	-12.5%
Motion picture and teleproduction	3,234	4,419	1,186	36.7%	10,295	12,014	1,719	16.7%
Music Recording	75	76	1	1.3%	424	379	-45	-10.6%
Printing	7,650	5,183	-2,467	-32.3%	31,819	22,952	-8,868	-27.9%
Publishing	8,707	4,468	-4,239	-48.7%	37,779	23,177	-14,602	-38.7%
Visual Arts, Music and Other Performing Arts	4,397	4,209	-188	-4.3%	17,034	18,022	988	5.8%
Wholesale art stores	1,296	958	-338	-26.1%	7,465	5,528	-1,937	-25.9%
Grand Total	73,381	59,543	-13,839	-18.9%	295,098	238,504	-56,595	-19.2%
Total, All Industries	1,686,043	1,662,825	-23,218	-1.4%	6,936,505	7,100,579	164,074	2.4%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

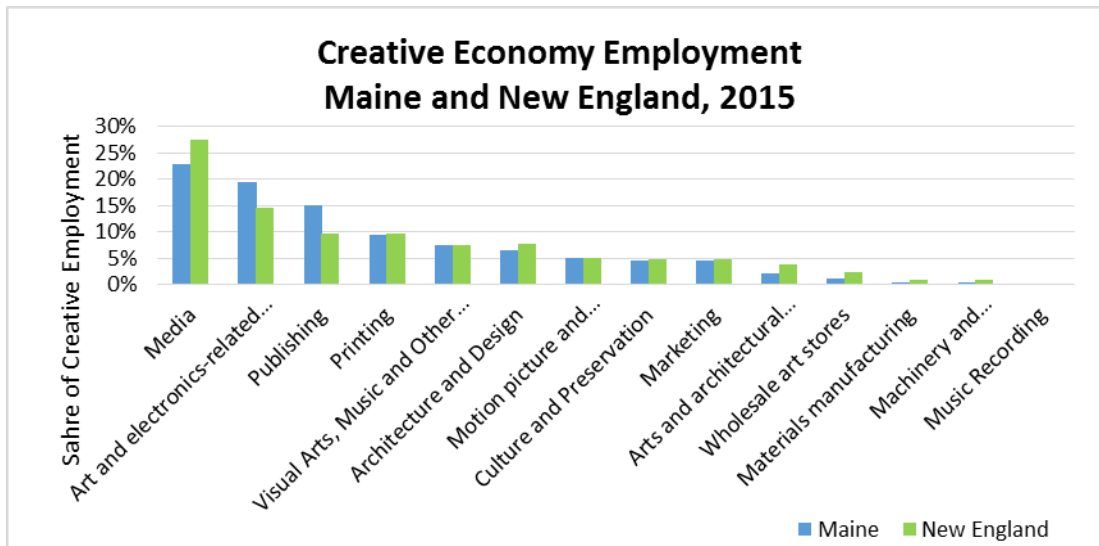


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Employment by Major Sector, Maine and New England, 2007-2015

Creative Economy Employment	ME				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	1,189	982	-207	-17.4%	22,239	18,702	-3,537	-15.9%
Art and electronics-related Retail	3,627	2,945	-683	-18.8%	48,488	34,923	-13,565	-28.0%
Arts and architectural manufacturing	433	336	-97	-22.4%	10,455	9,297	-1,159	-11.1%
Culture and Preservation	604	714	110	18.2%	11,520	11,840	320	2.8%
Machinery and communications manufacturing	81	69	-12	-14.3%	5,490	2,078	-3,412	-62.2%
Marketing	517	711	194	37.6%	12,276	11,631	-646	-5.3%
Materials manufacturing	19	79	60	-	4,664	2,204	-2,460	-52.7%
Media	4,654	3,452	-1,202	-25.8%	75,153	65,761	-9,392	-12.5%
Motion picture and teleproduction	1,182	759	-424	-35.8%	10,295	12,014	1,719	16.7%
Music Recording	35	33	-2	-4.3%	424	379	-45	-10.6%
Printing	2,345	1,432	-913	-38.9%	31,819	22,952	-8,868	-27.9%
Publishing	3,598	2,300	-1,298	-36.1%	37,779	23,177	-14,602	-38.7%
Visual Arts, Music and Other Performing Arts	1,066	1,141	76	7.1%	17,034	18,022	988	5.8%
Wholesale art stores	301	198	-103	-34.2%	7,465	5,528	-1,937	-25.9%
Grand Total	19,648	15,149	-4,499	-22.9%	295,098	238,504	-56,595	-19.2%
Total, All Industries	602,321	595,889	-6,432	-1.1%	6,936,505	7,100,579	164,074	2.4%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

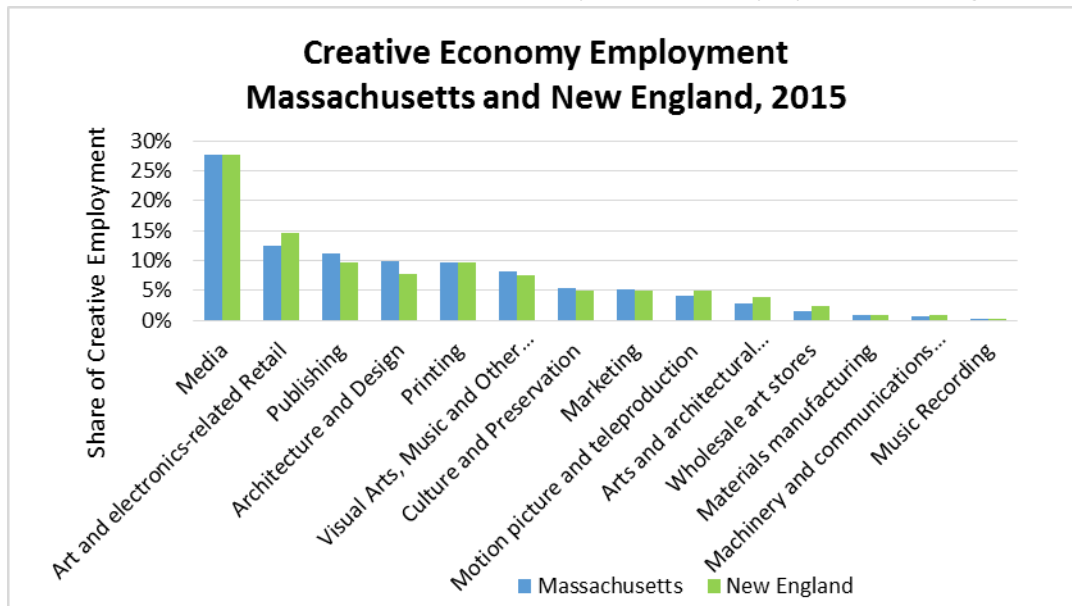


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Employment by Major Sector, Massachusetts and New England, 2007-2015

Creative Economy Employment	MA				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	13,050	11,508	-1,542	-11.8%	22,239	18,702	-3,537	-15.9%
Art and electronics-related Retail	22,795	14,556	-8,239	-36.1%	48,488	34,923	-13,565	-28.0%
Arts and architectural manufacturing	4,357	3,300	-1,057	-24.3%	10,455	9,297	-1,159	-11.1%
Culture and Preservation	5,858	6,294	436	7.4%	11,520	11,840	320	2.8%
Machinery and communications manufacturing	4,419	826	-3,593	-81.3%	5,490	2,078	-3,412	-62.2%
Marketing	6,524	5,891	-633	-9.7%	12,276	11,631	-646	-5.3%
Materials manufacturing	1,867	989	-879	-47.1%	4,664	2,204	-2,460	-52.7%
Media	36,307	32,055	-4,252	-11.7%	75,153	65,761	-9,392	-12.5%
Motion picture and teleproduction	4,227	4,870	643	15.2%	10,295	12,014	1,719	16.7%
Music Recording	241	189	-52	-21.4%	424	379	-45	-10.6%
Printing	15,875	11,132	-4,743	-29.9%	31,819	22,952	-8,868	-27.9%
Publishing	19,309	12,960	-6,349	-32.9%	37,779	23,177	-14,602	-38.7%
Visual Arts, Music and Other Performing Arts	8,095	9,422	1,327	16.4%	17,034	18,022	988	5.8%
Wholesale art stores	3,922	1,891	-2,031	-51.8%	7,465	5,528	-1,937	-25.9%
Grand Total	146,846	115,882	-30,964	-21.1%	295,098	238,504	-56,595	-19.2%
Total, All Industries	3,234,357	3,428,020	193,663	6.0%	6,936,505	7,100,579	164,074	2.4%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

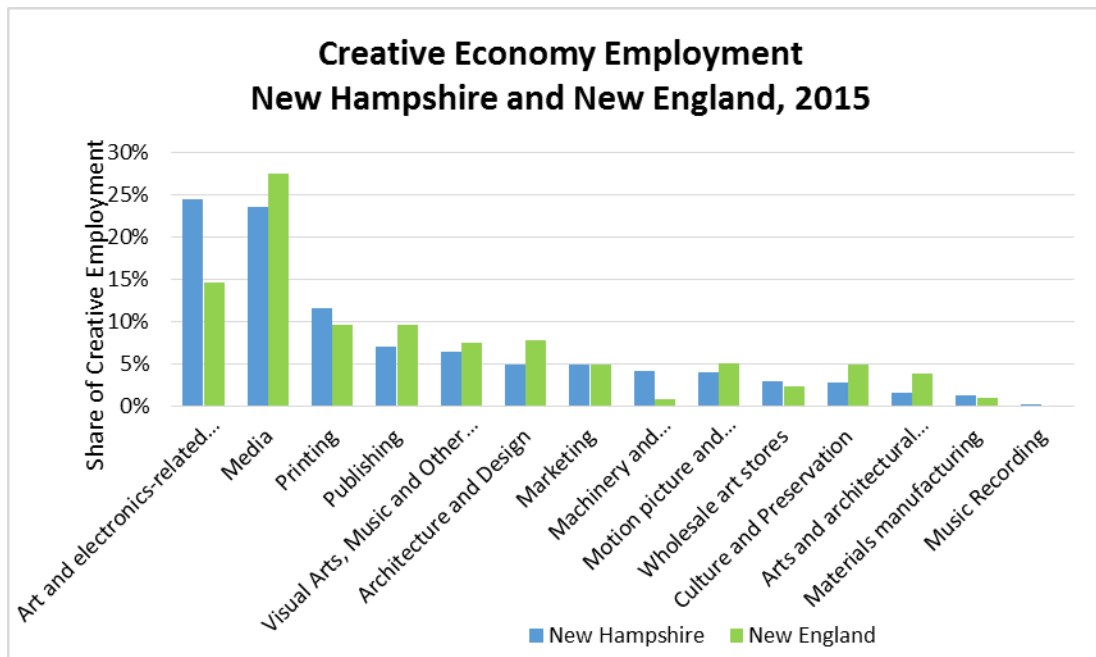


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Employment by Major Sector, New Hampshire and New England, 2007-2015

Creative Economy Employment	NH				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	1,192	1,040	-152	-12.8%	22,239	18,702	-3,537	-15.9%
Art and electronics-related Retail	6,032	5,191	-841	-13.9%	48,488	34,923	-13,565	-28.0%
Arts and architectural manufacturing	256	331	76	29.5%	10,455	9,297	-1,159	-11.1%
Culture and Preservation	552	590	38	6.9%	11,520	11,840	320	2.8%
Machinery and communications manufacturing	320	869	549	-	5,490	2,078	-3,412	-62.2%
Marketing	830	1,034	204	24.6%	12,276	11,631	-646	-5.3%
Materials manufacturing	680	287	-393	-57.8%	4,664	2,204	-2,460	-52.7%
Media	4,535	4,976	441	9.7%	75,153	65,761	-9,392	-12.5%
Motion picture and teleproduction	873	840	-33	-3.8%	10,295	12,014	1,719	16.7%
Music Recording	19	35	16	-	424	379	-45	-10.6%
Printing	3,078	2,441	-637	-20.7%	31,819	22,952	-8,868	-27.9%
Publishing	2,561	1,489	-1,073	-41.9%	37,779	23,177	-14,602	-38.7%
Visual Arts, Music and Other Performing Arts	1,461	1,355	-107	-7.3%	17,034	18,022	988	5.8%
Wholesale art stores	527	633	106	20.1%	7,465	5,528	-1,937	-25.9%
Grand Total	22,915	21,109	-1,806	-7.9%	295,098	238,504	-56,595	-19.2%
Total, All Industries	630,204	636,806	6,602	1.0%	6,936,505	7,100,579	164,074	2.4%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

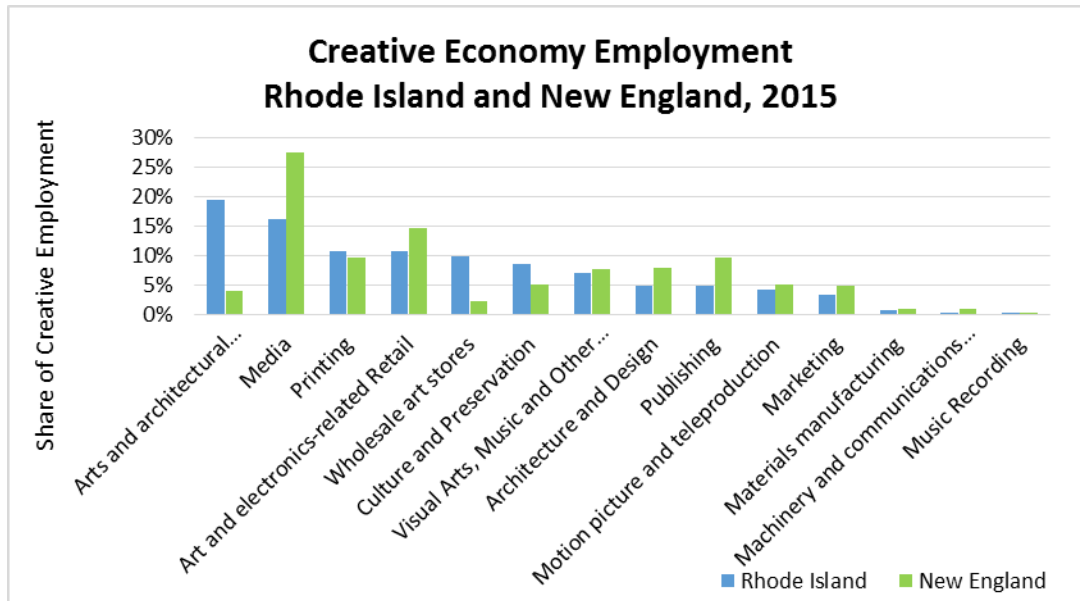


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Employment by Major Sector, Rhode Island and New England, 2007-2015

Creative Economy Employment	RI				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	1,295	866	-429	-33.1%	22,239	18,702	-3,537	-15.9%
Art and electronics-related Retail	2,293	1,892	-402	-17.5%	48,488	34,923	-13,565	-28.0%
Arts and architectural manufacturing	3,682	3,435	-247	-6.7%	10,455	9,297	-1,159	-11.1%
Culture and Preservation	1,561	1,490	-71	-4.5%	11,520	11,840	320	2.8%
Machinery and communications manufacturing	79	19	-60	-75.8%	5,490	2,078	-3,412	-62.2%
Marketing	541	569	29	5.3%	12,276	11,631	-646	-5.3%
Materials manufacturing	497	119	-378	-76.0%	4,664	2,204	-2,460	-52.7%
Media	4,436	2,841	-1,595	-36.0%	75,153	65,761	-9,392	-12.5%
Motion picture and teleproduction	390	740	350	89.6%	10,295	12,014	1,719	16.7%
Music Recording	27	17	-11	-38.9%	424	379	-45	-10.6%
Printing	1,689	1,900	211	12.5%	31,819	22,952	-8,868	-27.9%
Publishing	1,839	851	-988	-53.7%	37,779	23,177	-14,602	-38.7%
Visual Arts, Music and Other Performing Arts	1,365	1,221	-145	-10.6%	17,034	18,022	988	5.8%
Wholesale art stores	1,283	1,736	454	35.4%	7,465	5,528	-1,937	-25.9%
Grand Total	20,973	17,692	-3,281	-15.6%	295,098	238,504	-56,595	-19.2%
Total, All Industries	480,132	469,981	-10,151	-2.1%	6,936,505	7,100,579	164,074	2.4%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

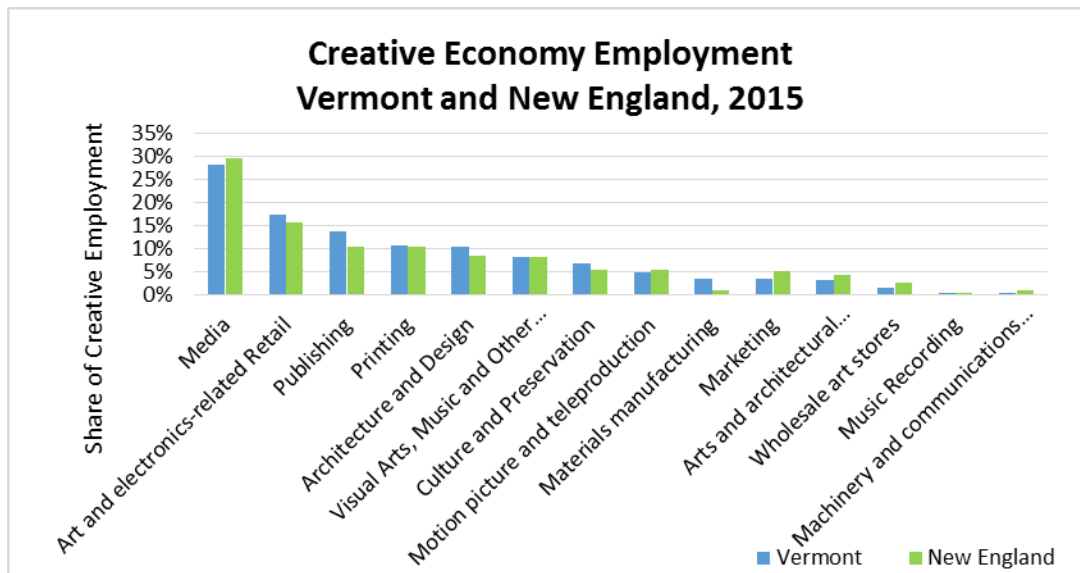


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Employment by Major Sector, Vermont and New England, 2007-2015

Creative Economy Employment	VT				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	988	842	-147	-14.8%	22,239	18,702	-3,537	-15.9%
Art and electronics-related Retail	1,848	1,408	-440	-23.8%	48,488	34,923	-13,565	-28.0%
Arts and architectural manufacturing	210	263	53	25.2%	10,455	9,297	-1,159	-11.1%
Culture and Preservation	518	553	36	6.9%	11,520	11,840	320	2.8%
Machinery and communications manufacturing	69	29	-40	-58.4%	5,490	2,078	-3,412	-62.2%
Marketing	414	280	-134	-32.4%	12,276	11,631	-646	-5.3%
Materials manufacturing	183	282	99	54.2%	4,664	2,204	-2,460	-52.7%
Media	2,955	2,296	-659	-22.3%	75,153	65,761	-9,392	-12.5%
Motion picture and teleproduction	390	388	-3	-0.6%	10,295	12,014	1,719	16.7%
Music Recording	28	30	2	7.1%	424	379	-45	-10.6%
Printing	1,184	865	-319	-27.0%	31,819	22,952	-8,868	-27.9%
Publishing	1,766	1,110	-656	-37.1%	37,779	23,177	-14,602	-38.7%
Visual Arts, Music and Other Performing Arts	651	675	24	3.7%	17,034	18,022	988	5.8%
Wholesale art stores	137	112	-25	-17.9%	7,465	5,528	-1,937	-25.9%
Grand Total	11,337	9,130	-2,207	-19.5%	295,098	238,504	-56,595	-19.2%
Total, All Industries	303,448	307,058	3,610	1.2%	6,936,505	7,100,579	164,074	2.4%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).



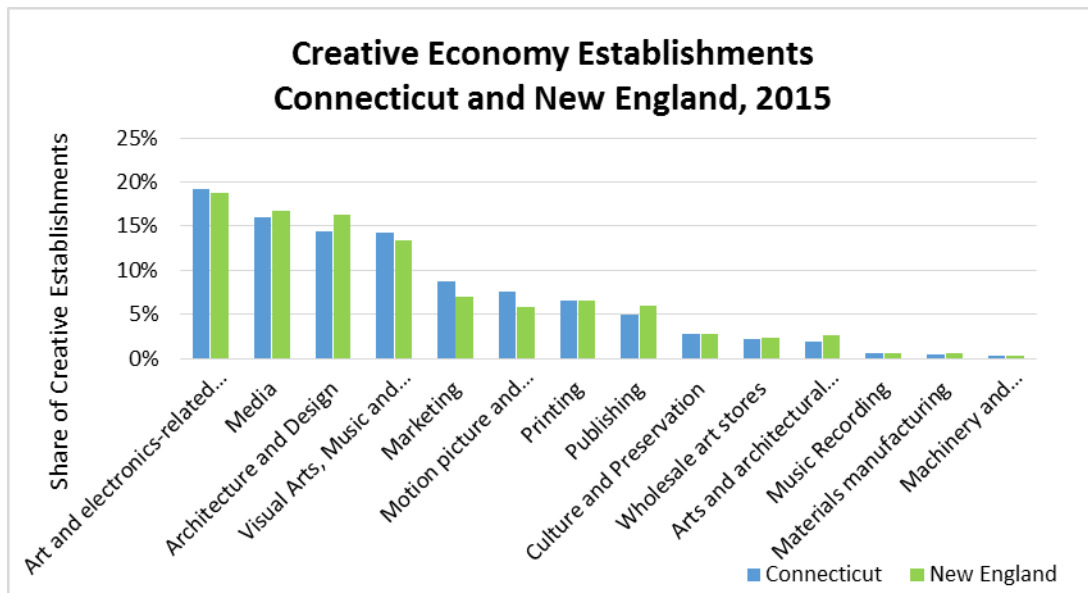
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Establishments by Major Sector, New England States, 2007-2015

Establishments by Major Sector, Connecticut and New England, 2007-2015

Creative Economy Establishments	CT				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	933	761	-172	-18.4%	3,937	3,700	-237	-6.0%
Art and electronics-related Retail	1,420	1,018	-402	-28.3%	5,820	4,236	-1,584	-27.2%
Arts and architectural manufacturing	86	101	15	17.4%	705	597	-108	-15.3%
Culture and Preservation	148	150	2	1.4%	598	644	46	7.7%
Machinery and communications manufacturing	31	18	-13	-41.9%	90	80	-10	-11.1%
Marketing	467	462	-5	-1.1%	1,535	1,588	53	3.5%
Materials manufacturing	32	23	-9	-28.1%	175	158	-17	-9.7%
Media	954	845	-109	-11.4%	4,067	3,772	-295	-7.3%
Motion picture and teleproduction	291	404	113	38.8%	1,025	1,313	288	28.1%
Music Recording	47	35	-12	-25.5%	133	130	-3	-2.3%
Printing	460	349	-111	-24.1%	2,011	1,495	-516	-25.7%
Publishing	359	265	-94	-26.2%	1,635	1,369	-266	-16.3%
Visual Arts, Music and Other Performing Arts	763	754	-9	-1.2%	2,934	3,016	82	2.8%
Wholesale art stores	135	115	-20	-14.8%	560	526	-34	-6.1%
Grand Total	6,126	5,300	-826	-13.5%	25,225	22,624	-2,601	-10.3%
Total, All Industries	112,322	115,612	3,290	2.9%	482,970	515,940	32,970	6.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

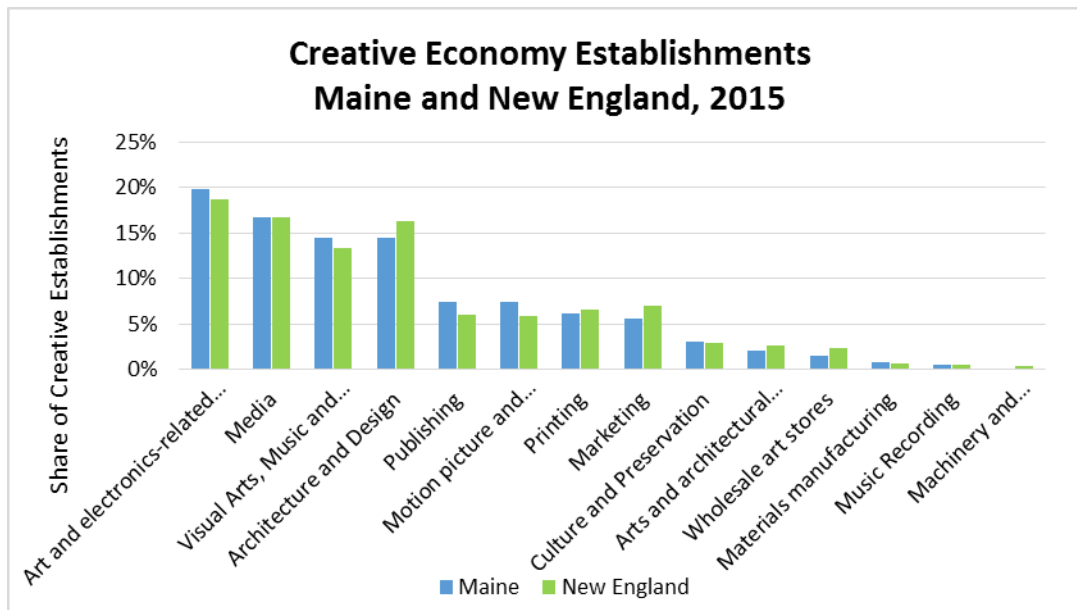


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Establishments by Major Sector, Maine and New England, 2007-2015

Creative Economy Establishments	ME				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	309	315	6	1.9%	3,937	3,700	-237	-6.0%
Art and electronics-related Retail	544	432	-112	-20.6%	5,820	4,236	-1,584	-27.2%
Arts and architectural manufacturing	40	44	4	10.0%	705	597	-108	-15.3%
Culture and Preservation	53	65	12	22.6%	598	644	46	7.7%
Machinery and communications manufacturing	6	2	-4	-66.7%	90	80	-10	-11.1%
Marketing	95	122	27	28.4%	1,535	1,588	53	3.5%
Materials manufacturing	5	17	12	240.0%	175	158	-17	-9.7%
Media	459	364	-95	-20.7%	4,067	3,772	-295	-7.3%
Motion picture and teleproduction	106	161	55	51.9%	1,025	1,313	288	28.1%
Music Recording	10	10	0	0.0%	133	130	-3	-2.3%
Printing	179	134	-45	-25.1%	2,011	1,495	-516	-25.7%
Publishing	182	163	-19	-10.4%	1,635	1,369	-266	-16.3%
Visual Arts, Music and Other Performing Arts	282	316	34	12.1%	2,934	3,016	82	2.8%
Wholesale art stores	30	34	4	13.3%	560	526	-34	-6.1%
Grand Total	2,300	2,179	-121	-5.3%	25,225	22,624	-2,601	-10.3%
Total, All Industries	50,306	50,769	463	0.9%	482,970	515,940	32,970	6.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

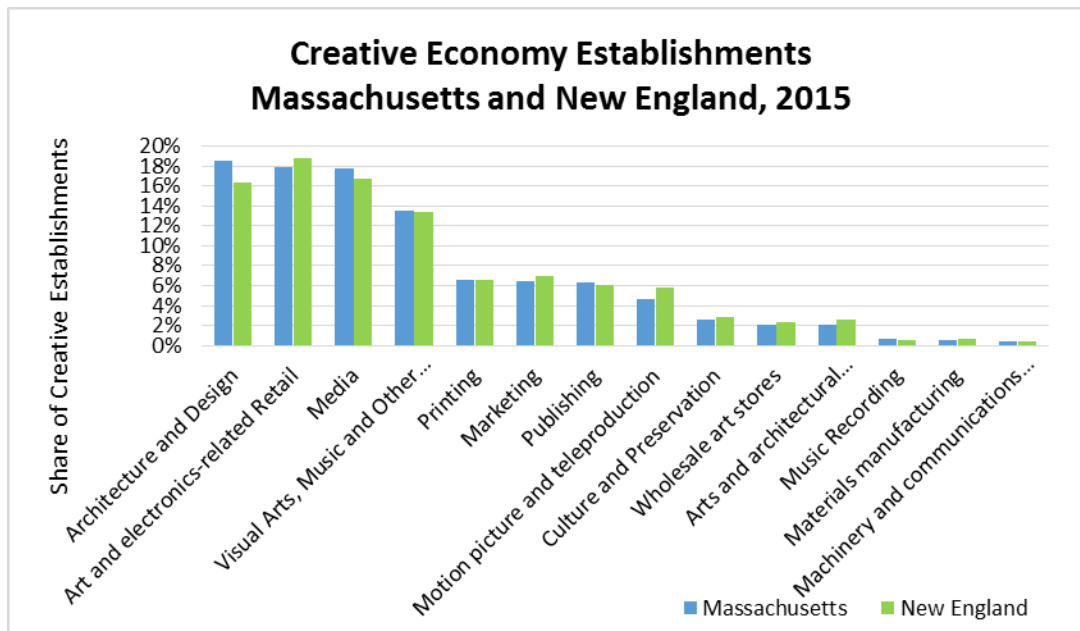


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Establishments by Major Sector, Massachusetts and New England, 2007-2015

Creative Economy Establishments	MA				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	1,873	1,840	-33	-1.8%	3,937	3,700	-237	-6.0%
Art and electronics-related Retail	2,551	1,783	-768	-30.1%	5,820	4,236	-1,584	-27.2%
Arts and architectural manufacturing	208	205	-3	-1.4%	705	597	-108	-15.3%
Culture and Preservation	225	252	27	12.0%	598	644	46	7.7%
Machinery and communications manufacturing	36	40	4	11.1%	90	80	-10	-11.1%
Marketing	616	636	20	3.2%	1,535	1,588	53	3.5%
Materials manufacturing	86	59	-27	-31.4%	175	158	-17	-9.7%
Media	1,790	1,767	-23	-1.3%	4,067	3,772	-295	-7.3%
Motion picture and teleproduction	420	468	48	11.4%	1,025	1,313	288	28.1%
Music Recording	55	61	6	10.9%	133	130	-3	-2.3%
Printing	889	657	-232	-26.1%	2,011	1,495	-516	-25.7%
Publishing	694	625	-69	-9.9%	1,635	1,369	-266	-16.3%
Visual Arts, Music and Other Performing Arts	1,233	1,338	105	8.5%	2,934	3,016	82	2.8%
Wholesale art stores	221	212	-9	-4.1%	560	526	-34	-6.1%
Grand Total	10,897	9,943	-954	-8.8%	25,225	22,624	-2,601	-10.3%
Total, All Industries	210,441	237,928	27,487	13.1%	482,970	515,940	32,970	6.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

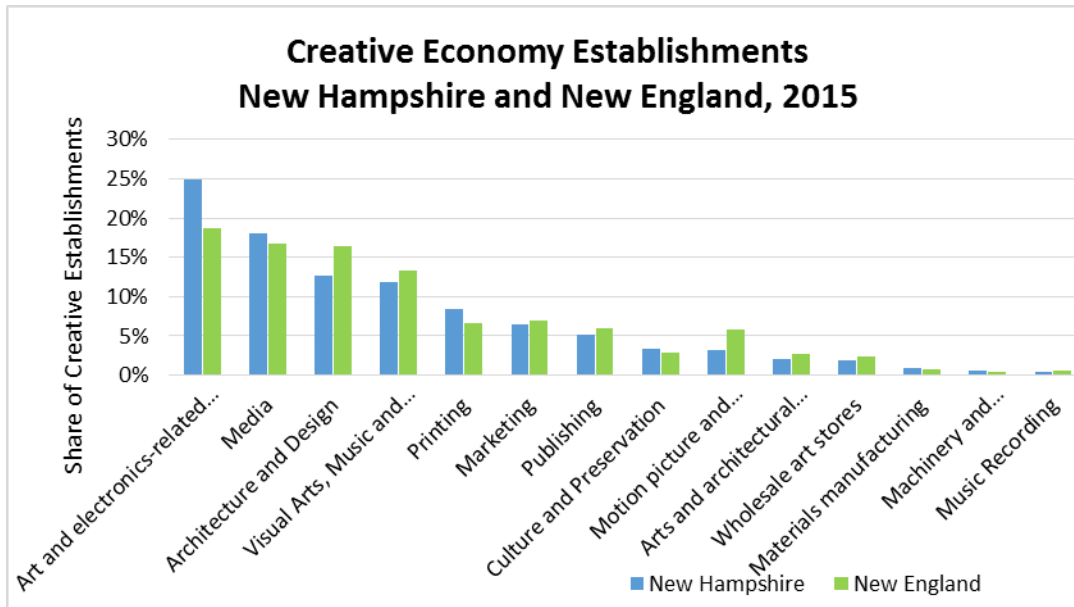


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Establishments by Major Sector, New Hampshire and New England, 2007-2015

Creative Economy Establishments	NH				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	248	252	4	1.6%	3,937	3,700	-237	-6.0%
Art and electronics-related Retail	637	492	-145	-22.8%	5,820	4,236	-1,584	-27.2%
Arts and architectural manufacturing	32	41	9	28.1%	705	597	-108	-15.3%
Culture and Preservation	70	68	-2	-2.9%	598	644	46	7.7%
Machinery and communications manufacturing	5	12	7	140.0%	90	80	-10	-11.1%
Marketing	161	127	-34	-21.1%	1,535	1,588	53	3.5%
Materials manufacturing	22	19	-3	-13.6%	175	158	-17	-9.7%
Media	358	358	0	0.0%	4,067	3,772	-295	-7.3%
Motion picture and teleproduction	70	63	-7	-10.0%	1,025	1,313	288	28.1%
Music Recording	4	7	3	75.0%	133	130	-3	-2.3%
Printing	232	166	-66	-28.4%	2,011	1,495	-516	-25.7%
Publishing	155	103	-52	-33.5%	1,635	1,369	-266	-16.3%
Visual Arts, Music and Other Performing Arts	266	235	-31	-11.7%	2,934	3,016	82	2.8%
Wholesale art stores	35	37	2	5.7%	560	526	-34	-6.1%
Grand Total	2,295	1,980	-315	-13.7%	25,225	22,624	-2,601	-10.3%
Total, All Industries	48,927	50,660	1,733	3.5%	482,970	515,940	32,970	6.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

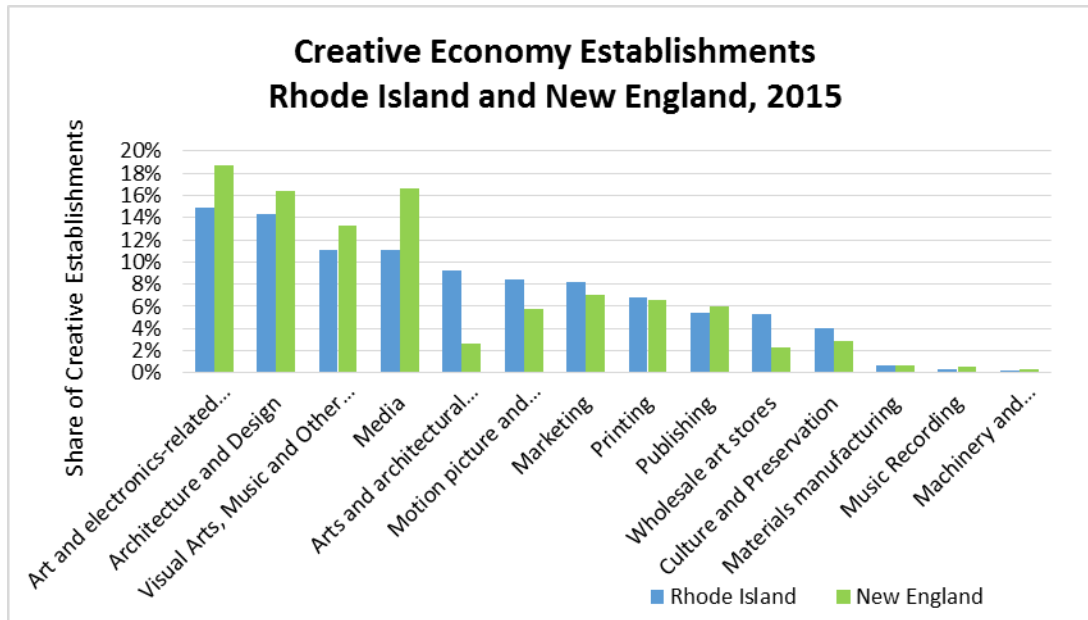


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Establishments by Major Sector, Rhode Island and New England, 2007-2015

Creative Economy Establishments	RI				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	297	270	-27	-9.1%	3,937	3,700	-237	-6.0%
Art and electronics-related Retail	367	281	-86	-23.4%	5,820	4,236	-1,584	-27.2%
Arts and architectural manufacturing	302	173	-129	-42.7%	705	597	-108	-15.3%
Culture and Preservation	72	75	3	4.2%	598	644	46	7.7%
Machinery and communications manufacturing	6	4	-2	-33.3%	90	80	-10	-11.1%
Marketing	121	154	33	27.3%	1,535	1,588	53	3.5%
Materials manufacturing	13	12	-1	-7.7%	175	158	-17	-9.7%
Media	248	208	-40	-16.1%	4,067	3,772	-295	-7.3%
Motion picture and teleproduction	71	159	88	123.9%	1,025	1,313	288	28.1%
Music Recording	9	7	-2	-22.2%	133	130	-3	-2.3%
Printing	166	128	-38	-22.9%	2,011	1,495	-516	-25.7%
Publishing	110	102	-8	-7.3%	1,635	1,369	-266	-16.3%
Visual Arts, Music and Other Performing Arts	229	209	-20	-8.7%	2,934	3,016	82	2.8%
Wholesale art stores	106	99	-7	-6.6%	560	526	-34	-6.1%
Grand Total	2,117	1,881	-236	-11.1%	25,225	22,624	-2,601	-10.3%
Total, All Industries	36,141	36,347	206	0.6%	482,970	515,940	32,970	6.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

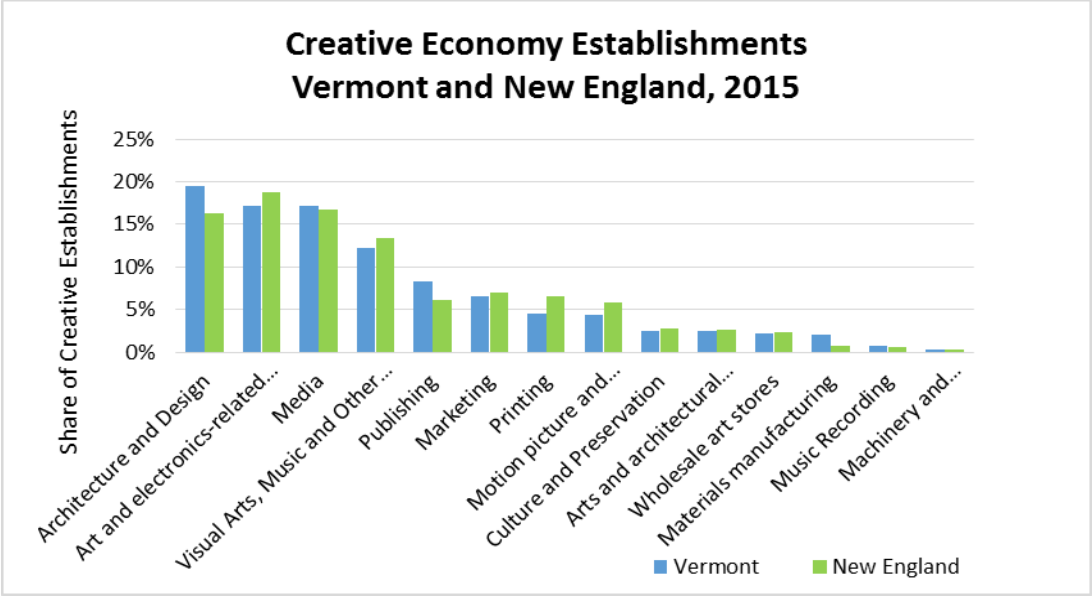


Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Establishments by Major Sector, Vermont and New England, 2007-2015

Creative Economy Establishments	VT				New England			
	2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
Architecture and Design	277	262	-15	-5.4%	3,937	3,700	-237	-6.0%
Art and electronics-related Retail	301	230	-71	-23.6%	5,820	4,236	-1,584	-27.2%
Arts and architectural manufacturing	37	33	-4	-10.8%	705	597	-108	-15.3%
Culture and Preservation	30	34	4	13.3%	598	644	46	7.7%
Machinery and communications manufacturing	6	4	-2	-33.3%	90	80	-10	-11.1%
Marketing	75	87	12	16.0%	1,535	1,588	53	3.5%
Materials manufacturing	17	28	11	64.7%	175	158	-17	-9.7%
Media	258	230	-28	-10.9%	4,067	3,772	-295	-7.3%
Motion picture and teleproduction	67	58	-9	-13.4%	1,025	1,313	288	28.1%
Music Recording	8	10	2	25.0%	133	130	-3	-2.3%
Printing	85	61	-24	-28.2%	2,011	1,495	-516	-25.7%
Publishing	135	111	-24	-17.8%	1,635	1,369	-266	-16.3%
Visual Arts, Music and Other Performing Arts	161	164	3	1.9%	2,934	3,016	82	2.8%
Wholesale art stores	33	29	-4	-12.1%	560	526	-34	-6.1%
Grand Total	1,490	1,341	-149	-10.0%	25,225	22,624	-2,601	-10.3%
Total, All Industries	24,833	24,624	-209	-0.8%	482,970	515,940	32,970	6.8%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW).

Creative Workforce Occupations

Creative Workforce Employment by New England State, 2007-2015

SOC Code	Growth in Creative Workforce Occupations	New England				United States			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
	Management occupations	6,140	8,030	1,890	30.8%	83,510	89,720	6,210	7.4%
11-2011	Advertising and Promotions Managers	2,330	1,950	-380	-16.3%	36,300	29,340	-6,960	-19.2%
11-2031	Public Relations and Fundraising Managers	3,810	6,080	2,270	59.6%	47,210	60,380	13,170	27.9%
	Architecture and engineering occupations	12,990	11,550	-1,440	-11.1%	240,180	208,820	-31,360	-13.1%
17-1011*	Architects, Except Landscape and Naval	6,020	6,050	30	0.5%	106,830	93,720	-13,110	-12.3%
17-1012*	Landscape Architects	1,420	970	-450	-31.7%	21,890	19,820	-2,070	-9.5%
17-3011	Architectural and Civil Drafters	5,550	4,530	-1,020	-18.4%	111,460	95,280	-16,180	-14.5%
	Life, physical and social science occupations	120	90	-30	-25.0%	8,850	9,990	1,140	12.9%
19-3091	Anthropologists and Archeologists	30	30	0	0.0%	5,250	6,980	1,730	33.0%
19-3093	Historians	90	60	-30	-33.3%	3,600	3,010	-590	-16.4%
	Education, training and library occupations	38,200	40,730	2,530	6.6%	522,040	548,350	26,310	5.0%
25-1031	Architecture Teachers, Postsecondary	170	600	430	252.9%	6,070	7,340	1,270	20.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	530	320	-210	-39.6%	5,290	6,000	710	13.4%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	640	860	220	34.4%	7,280	9,240	1,960	26.9%
25-1082	Library Science Teachers, Postsecondary	90	100	10	11.1%	4,080	4,910	830	20.3%
25-1121	Art, Drama, and Music Teachers, Postsecondary	5,880	7,700	1,820	31.0%	73,890	98,310	24,420	33.0%
25-1122	Communications Teachers, Postsecondary	1,190	1,380	190	16.0%	23,690	29,050	5,360	22.6%

25-1123	English Language and Literature Teachers, Postsecondary	4,080	5,210	1,130	27.7%	60,910	75,730	14,820	24.3%
25-1124	Foreign Language and Literature Teachers, Postsecondary	1,390	1,840	450	32.4%	25,100	30,120	5,020	20.0%
25-1125	History Teachers, Postsecondary	2,180	1,980	-200	-9.2%	20,760	23,680	2,920	14.1%
25-4011	Archivists	460	490	30	6.5%	5,420	5,460	40	0.7%
25-4012	Curators	1,000	1,040	40	4.0%	10,120	11,870	1,750	17.3%
25-4013	Museum Technicians and Conservators	810	690	-120	-14.8%	9,950	10,750	800	8.0%
25-4021	Librarians	10,730	10,310	-420	-3.9%	148,800	131,550	-17,250	-11.6%
25-4031	Library Technicians	8,660	7,540	-1,120	-12.9%	114,150	94,170	-19,980	-17.5%
25-9011	Audio-Visual and Multimedia Collections Specialists	390	670	280	71.8%	6,530	10,170	3,640	55.7%
	Arts, design entertainment, sports and media occupations	76,110	75,170	-940	-1.2%	1,534,770	1,538,590	3,820	0.2%
27-1011*	Art Directors	2,070	1,680	-390	-18.8%	32,290	34,690	2,400	7.4%
27-1012*	Craft Artists	310	170	-140	-45.2%	5,390	5,270	-120	-2.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	440	300	-140	-31.8%	10,500	12,240	1,740	16.6%
27-1014*	Multimedia Artists and Animators	1,350	1,650	300	22.2%	29,440	30,240	800	2.7%
27-1019*	Artists and Related Workers, All Other	540	200	-340	-63.0%	7,910	7,700	-210	-2.7%
27-1021*	Commercial and Industrial Designers	2,250	1,830	-420	-18.7%	34,800	31,330	-3,470	-10.0%
27-1022*	Fashion Designers	550	470	-80	-14.5%	16,460	19,040	2,580	15.7%
27-1023*	Floral Designers	3,730	2,050	-1,680	-45.0%	59,530	44,350	-15,180	-25.5%
27-1024*	Graphic Designers	11,000	9,870	-1,130	-10.3%	201,080	204,850	3,770	1.9%
27-1025*	Interior Designers	2,790	2,590	-200	-7.2%	52,620	51,050	-1,570	-3.0%
27-1026*	Merchandise Displayers and Window Trimmers	2,240	4,470	2,230	99.6%	68,660	100,540	31,880	46.4%
27-1027*	Set and Exhibit Designers	0	310	310	-	8,620	11,930	3,310	38.4%
27-1029*	Designers, All Other	480	190	-290	-60.4%	11,890	6,590	-5,300	-44.6%
27-2011*	Actors	310	1,500	1,190	383.9%	44,860	50,570	5,710	12.7%
27-2012*	Producers and Directors	2,670	5,240	2,570	96.3%	72,390	104,650	32,260	44.6%
27-2031*	Dancers	50	40	-10	-20.0%	12,530	10,030	-2,500	-20.0%

27-2032	Choreographers	650	270	-380	-58.5%	15,250	5,130	-10,120	-66.4%
27-2041	Music Directors and Composers	310	1,310	1,000	322.6%	9,110	21,540	12,430	136.4%
27-2042*	Musicians and Singers	1,320	1,390	70	5.3%	47,520	37,090	-10,430	-21.9%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	290	280	-10	-3.4%	32,040	14,570	-17,470	-54.5%
27-3011*	Radio and Television Announcers	1,710	1,310	-400	-23.4%	39,500	30,390	-9,110	-23.1%
27-3012*	Public Address System and Other Announcers	180	260	80	44.4%	8,490	8,000	-490	-5.8%
27-3021	Broadcast News Analysts	190	150	-40	-21.1%	6,550	4,730	-1,820	-27.8%
27-3022	Reporters and Correspondents	2,590	2,150	-440	-17.0%	51,620	41,050	-10,570	-20.5%
27-3031	Public Relations Specialists	15,170	12,890	-2,280	-15.0%	225,880	218,910	-6,970	-3.1%
27-3041	Editors	6,660	5,970	-690	-10.4%	105,920	96,690	-9,230	-8.7%
27-3042	Technical Writers	3,880	3,420	-460	-11.9%	46,740	49,770	3,030	6.5%
27-3043*	Writers and Authors	2,040	2,430	390	19.1%	44,310	43,380	-930	-2.1%
27-3099	Media and Communication Workers, All Other	650	90	-560	-86.2%	24,420	22,240	-2,180	-8.9%
27-4011	Audio and Video Equipment Technicians	2,410	3,440	1,030	42.7%	40,360	62,460	22,100	54.8%
27-4012	Broadcast Technicians	1,400	1,600	200	14.3%	34,250	28,270	-5,980	-17.5%
27-4014	Sound Engineering Technicians	440	590	150	34.1%	15,490	13,840	-1,650	-10.7%
27-4021*	Photographers	3,390	2,420	-970	-28.6%	62,370	50,070	-12,300	-19.7%
27-4031	Camera Operators, Television, Video, and Motion Picture	990	1,170	180	18.2%	19,990	20,060	70	0.4%
27-4032	Film and Video Editors	480	790	310	64.6%	17,410	27,660	10,250	58.9%
27-4099	Media and Communication Equipment Workers, All Other	580	680	100	17.2%	18,580	17,670	-910	-4.9%
	Personal care and service occupations	490	310	-180	-36.7%	15,410	11,740	-3,670	-23.8%
39-3021	Motion Picture Projectionists	410	240	-170	-41.5%	10,840	5,620	-5,220	-48.2%
39-3092	Costume Attendants	80	70	-10	-12.5%	4,570	6,120	1,550	33.9%
	Sales and related occupations	7,130	6,550	-580	-8.1%	161,440	149,770	-11,670	-7.2%

41-3011	Advertising Sales Agents	7,130	6,550	-580	-8.1%	161,440	149,770	-11,670	-7.2%
	Office and administrative support occupations	9,930	7,050	-2,880	-29.0%	141,620	113,330	-28,290	-20.0%
43-4121	Library Assistants, Clerical	6,950	6,140	-810	-11.7%	112,300	100,090	-12,210	-10.9%
43-9031	Desktop Publishers	2,980	910	-2,070	-69.5%	29,320	13,240	-16,080	-54.8%
	Installation, maintenance and repair occupations	1,590	1,380	-210	-13.2%	47,450	38,160	-9,290	-19.6%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	1,100	1,170	70	6.4%	38,170	26,890	-11,280	-29.6%
49-9061	Camera and Photographic Equipment Repairers	310	0	-310	-100.0%	3,870	3,540	-330	-8.5%
49-9063	Musical Instrument Repairers and Tuners	180	210	30	16.7%	5,410	7,730	2,320	42.9%
	Production occupations	9,990	5,400	-4,590	-45.9%	199,900	117,610	-82,290	-41.2%
51-5113	Print Binding and Finishing Workers	3,730	2,090	-1,640	-44.0%	69,220	52,380	-16,840	-24.3%
51-9071	Jewelers and Precious Stone and Metal Workers	2,070	1,530	-540	-26.1%	27,160	25,270	-1,890	-7.0%
51-9123	Painting, Coating, and Decorating Workers	900	400	-500	-55.6%	31,740	16,020	-15,720	-49.5%
51-9151	Photographic Process Workers and Processing Machine Operators	3,290	1,380	-1,910	-58.1%	71,780	23,940	-47,840	-66.6%
0	Total, Creative Economy	319,240	304,490	-14,750	-4.6%	5,826,830	5,562,440	-264,390	-4.5%
00-0000	All Occupations	6,909,680	7,057,990	148,310	2.1%	134,354,250	137,896,660	3,542,410	2.6%

*Indicates artistic occupations

SOC Code	Growth in Creative Workforce Occupations	Connecticut				New England			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
11-2011	Advertising and Promotions Managers	730	290	-440	-60.3%	2,330	1,950	-380	-16.3%
11-2031	Public Relations and Fundraising Managers	1,050	920	-130	-12.4%	3,810	6,080	2,270	59.6%
17-1011*	Architects, Except Landscape and Naval	1,090	1,330	240	22.0%	6,020	6,050	30	0.5%
17-1012*	Landscape Architects	500	230	-270	-54.0%	1,420	970	-450	-31.7%
17-3011	Architectural and Civil Drafters	1,150	790	-360	-31.3%	5,550	4,530	-1,020	-18.4%
19-3091	Anthropologists and Archeologists	0	0	0	-	30	30	0	0.0%
19-3093	Historians	0	0	0	-	90	60	-30	-33.3%
25-1031	Architecture Teachers, Postsecondary	0	0	0	-	170	600	430	252.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	190	120	-70	-36.8%	530	320	-210	-39.6%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	60	530	470	783.3%	640	860	220	34.4%
25-1082	Library Science Teachers, Postsecondary	0	0	0	-	90	100	10	11.1%
25-1121	Art, Drama, and Music Teachers, Postsecondary	930	1,090	160	17.2%	5,880	7,700	1,820	31.0%
25-1122	Communications Teachers, Postsecondary	260	390	130	50.0%	1,190	1,380	190	16.0%
25-1123	English Language and Literature Teachers, Postsecondary	560	830	270	48.2%	4,080	5,210	1,130	27.7%
25-1124	Foreign Language and Literature Teachers, Postsecondary	0	280	280	-	1,390	1,840	450	32.4%
25-1125	History Teachers, Postsecondary	850	320	-530	-62.4%	2,180	1,980	-200	-9.2%
25-4011	Archivists	90	110	20	22.2%	460	490	30	6.5%
25-4012	Curators	160	180	20	12.5%	1,000	1,040	40	4.0%
25-4013	Museum Technicians and Conservators	170	240	70	41.2%	810	690	-120	-14.8%
25-4021	Librarians	2,490	2,370	-120	-4.8%	10,730	10,310	-420	-3.9%
25-4031	Library Technicians	1,990	1,690	-300	-15.1%	8,660	7,540	-1,120	-12.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	110	230	120	109.1%	390	670	280	71.8%
27-1011*	Art Directors	470	610	140	29.8%	2,070	1,680	-390	-18.8%
27-1012*	Craft Artists	0	0	0	-	310	170	-140	-45.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	70	90	20	28.6%	440	300	-140	-31.8%
27-1014*	Multimedia Artists and Animators	380	610	230	60.5%	1,350	1,650	300	22.2%
27-1019*	Artists and Related Workers, All Other	180	70	-110	-61.1%	540	200	-340	-63.0%

27-1021*	Commercial and Industrial Designers	460	300	-160	-34.8%	2,250	1,830	-420	-18.7%
27-1022*	Fashion Designers	180	0	-180	-100.0%	550	470	-80	-14.5%
27-1023*	Floral Designers	770	480	-290	-37.7%	3,730	2,050	-1,680	-45.0%
27-1024*	Graphic Designers	2,680	2,190	-490	-18.3%	11,000	9,870	-1,130	-10.3%
27-1025*	Interior Designers	470	620	150	31.9%	2,790	2,590	-200	-7.2%
27-1026*	Merchandise Displayers and Window Trimmers	440	900	460	104.5%	2,240	4,470	2,230	99.6%
27-1027*	Set and Exhibit Designers	0	180	180	-	0	310	310	-
27-1029*	Designers, All Other	120	60	-60	-50.0%	480	190	-290	-60.4%
27-2011*	Actors	270	580	310	114.8%	310	1,500	1,190	383.9%
27-2012*	Producers and Directors	0	2,040	2,040	-	2,670	5,240	2,570	96.3%
27-2031*	Dancers	50	0	-50	-100.0%	50	40	-10	-20.0%
27-2032	Choreographers	650	200	-450	-69.2%	650	270	-380	-58.5%
27-2041	Music Directors and Composers	60	430	370	616.7%	310	1,310	1,000	322.6%
27-2042*	Musicians and Singers	330	350	20	6.1%	1,320	1,390	70	5.3%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	100	200	100	100.0%	290	280	-10	-3.4%
27-3011*	Radio and Television Announcers	540	320	-220	-40.7%	1,710	1,310	-400	-23.4%
27-3012*	Public Address System and Other Announcers	110	30	-80	-72.7%	180	260	80	44.4%
27-3021	Broadcast News Analysts	0	0	0	-	190	150	-40	-21.1%
27-3022	Reporters and Correspondents	550	320	-230	-41.8%	2,590	2,150	-440	-17.0%
27-3031	Public Relations Specialists	2,780	1,440	-1,340	-48.2%	15,170	12,890	-2,280	-15.0%
27-3041	Editors	1,300	1,050	-250	-19.2%	6,660	5,970	-690	-10.4%
27-3042	Technical Writers	690	620	-70	-10.1%	3,880	3,420	-460	-11.9%
27-3043*	Writers and Authors	490	590	100	20.4%	2,040	2,430	390	19.1%
27-3099	Media and Communication Workers, All Other	210	0	-210	-100.0%	650	90	-560	-86.2%
27-4011	Audio and Video Equipment Technicians	680	1,060	380	55.9%	2,410	3,440	1,030	42.7%
27-4012	Broadcast Technicians	360	500	140	38.9%	1,400	1,600	200	14.3%
27-4014	Sound Engineering Technicians	260	330	70	26.9%	440	590	150	34.1%
27-4021*	Photographers	960	590	-370	-38.5%	3,390	2,420	-970	-28.6%
27-4031	Camera Operators, Television, Video, and Motion Picture	430	390	-40	-9.3%	990	1,170	180	18.2%
27-4032	Film and Video Editors	170	320	150	88.2%	480	790	310	64.6%
27-4099	Media and Communication Equipment Workers, All Other	160	310	150	93.8%	580	680	100	17.2%
39-3021	Motion Picture Projectionists	50	0	-50	-100.0%	410	240	-170	-41.5%

39-3092	Costume Attendants	0	40	40	-	80	70	-10	-12.5%
41-3011	Advertising Sales Agents	1,610	1,660	50	3.1%	7,130	6,550	-580	-8.1%
43-4121	Library Assistants, Clerical	1,480	1,570	90	6.1%	6,950	6,140	-810	-11.7%
43-9031	Desktop Publishers	330	80	-250	-75.8%	2,980	910	-2,070	-69.5%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	300	470	170	56.7%	1,100	1,170	70	6.4%
49-9061	Camera and Photographic Equipment Repairers	60	0	-60	-100.0%	310	0	-310	-100.0%
49-9063	Musical Instrument Repairers and Tuners	60	40	-20	-33.3%	180	210	30	16.7%
51-5113	Print Binding and Finishing Workers**	820	560	-260	-31.7%	3,730	2,090	-1,640	-44.0%
51-9071	Jewelers and Precious Stone and Metal Workers	150	0	-150	-100.0%	2,070	1,530	-540	-26.1%
51-9123	Painting, Coating, and Decorating Workers	230	140	-90	-39.1%	900	400	-500	-55.6%
51-9151	Photographic Process Workers and Processing Machine Operators	890	300	-590	-66.3%	3,290	1,380	-1,910	-58.1%
0	Total, Creative Economy	35,730	34,580	-1,150	-3.2%	162,690	156,260	-6,430	-4.0%
00-0000	All Occupations	1,682,220	1,659,430	-22,790	-1.4%	6,909,680	7,057,990	148,310	2.1%

*Indicates artistic occupations

SOC Code	Growth in Creative Workforce Occupations	Maine				New England			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
11-2011	Advertising and Promotions Managers	280	150	-130	-46.4%	2,330	1,950	-380	-16.3%
11-2031	Public Relations and Fundraising Managers	290	470	180	62.1%	3,810	6,080	2,270	59.6%
17-1011*	Architects, Except Landscape and Naval	370	230	-140	-37.8%	6,020	6,050	30	0.5%
17-1012*	Landscape Architects	60	0	-60	-100.0%	1,420	970	-450	-31.7%
17-3011	Architectural and Civil Drafters	680	520	-160	-23.5%	5,550	4,530	-1,020	-18.4%
19-3091	Anthropologists and Archeologists	0	0	0	-	30	30	0	0.0%
19-3093	Historians	0	0	0	-	90	60	-30	-33.3%
25-1031	Architecture Teachers, Postsecondary	0	0	0	-	170	600	430	252.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	50	0	-50	-100.0%	530	320	-210	-39.6%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	0	0	0	-	640	860	220	34.4%
25-1082	Library Science Teachers, Postsecondary	0	0	0	-	90	100	10	11.1%
25-1121	Art, Drama, and Music Teachers, Postsecondary	250	230	-20	-8.0%	5,880	7,700	1,820	31.0%
25-1122	Communications Teachers, Postsecondary	80	70	-10	-12.5%	1,190	1,380	190	16.0%
25-1123	English Language and Literature Teachers, Postsecondary	280	470	190	67.9%	4,080	5,210	1,130	27.7%
25-1124	Foreign Language and Literature Teachers, Postsecondary	110	80	-30	-27.3%	1,390	1,840	450	32.4%
25-1125	History Teachers, Postsecondary	130	130	0	0.0%	2,180	1,980	-200	-9.2%
25-4011	Archivists	30	0	-30	-100.0%	460	490	30	6.5%
25-4012	Curators	90	90	0	0.0%	1,000	1,040	40	4.0%
25-4013	Museum Technicians and Conservators	60	70	10	16.7%	810	690	-120	-14.8%
25-4021	Librarians	910	780	-130	-14.3%	10,730	10,310	-420	-3.9%
25-4031	Library Technicians	1200	880	-320	-26.7%	8,660	7,540	-1,120	-12.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	0	0	0	-	390	670	280	71.8%
27-1011*	Art Directors	90	80	-10	-11.1%	2,070	1,680	-390	-18.8%
27-1012*	Craft Artists	60	40	-20	-33.3%	310	170	-140	-45.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	0	0	0	-	440	300	-140	-31.8%
27-1014*	Multimedia Artists and Animators	70	0	-70	-100.0%	1,350	1,650	300	22.2%
27-1019*	Artists and Related Workers, All Other	0	0	0	-	540	200	-340	-63.0%

27-1021*	Commercial and Industrial Designers	140	150	10	7.1%	2,250	1,830	-420	-18.7%
27-1022*	Fashion Designers	60	70	10	16.7%	550	470	-80	-14.5%
27-1023*	Floral Designers	320	220	-100	-31.3%	3,730	2,050	-1,680	-45.0%
27-1024*	Graphic Designers	700	760	60	8.6%	11,000	9,870	-1,130	-10.3%
27-1025*	Interior Designers	120	100	-20	-16.7%	2,790	2,590	-200	-7.2%
27-1026*	Merchandise Displayers and Window Trimmers	0	1,010	1,010	-	2,240	4,470	2,230	99.6%
27-1027*	Set and Exhibit Designers	0	0	0	-	0	310	310	-
27-1029*	Designers, All Other	50	0	-50	-100.0%	480	190	-290	-60.4%
27-2011*	Actors	40	0	-40	-100.0%	310	1,500	1,190	383.9%
27-2012*	Producers and Directors	210	230	20	9.5%	2,670	5,240	2,570	96.3%
27-2031*	Dancers	0	0	0	-	50	40	-10	-20.0%
27-2032	Choreographers	0	0	0	-	650	270	-380	-58.5%
27-2041	Music Directors and Composers	0	0	0	-	310	1,310	1,000	322.6%
27-2042*	Musicians and Singers	0	40	40	-	1,320	1,390	70	5.3%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	0	0	0	-	290	280	-10	-3.4%
27-3011*	Radio and Television Announcers	150	140	-10	-6.7%	1,710	1,310	-400	-23.4%
27-3012*	Public Address System and Other Announcers	0	0	0	-	180	260	80	44.4%
27-3021	Broadcast News Analysts	0	0	0	-	190	150	-40	-21.1%
27-3022	Reporters and Correspondents	340	240	-100	-29.4%	2,590	2,150	-440	-17.0%
27-3031	Public Relations Specialists	950	1,160	210	22.1%	15,170	12,890	-2,280	-15.0%
27-3041	Editors	450	440	-10	-2.2%	6,660	5,970	-690	-10.4%
27-3042	Technical Writers	50	100	50	100.0%	3,880	3,420	-460	-11.9%
27-3043*	Writers and Authors	220	150	-70	-31.8%	2,040	2,430	390	19.1%
27-3099	Media and Communication Workers, All Other	0	0	0	-	650	90	-560	-86.2%
27-4011	Audio and Video Equipment Technicians	110	90	-20	-18.2%	2,410	3,440	1,030	42.7%
27-4012	Broadcast Technicians	180	120	-60	-33.3%	1,400	1,600	200	14.3%
27-4014	Sound Engineering Technicians	0	0	0	-	440	590	150	34.1%
27-4021*	Photographers	240	150	-90	-37.5%	3,390	2,420	-970	-28.6%
27-4031	Camera Operators, Television, Video, and Motion Picture	80	140	60	75.0%	990	1,170	180	18.2%
27-4032	Film and Video Editors	80	60	-20	-25.0%	480	790	310	64.6%
27-4099	Media and Communication Equipment Workers, All Other	30	30	0	0.0%	580	680	100	17.2%
39-3021	Motion Picture Projectionists	70	40	-30	-42.9%	410	240	-170	-41.5%
39-3092	Costume Attendants	0	0	0	-	80	70	-10	-12.5%
41-3011	Advertising Sales Agents	680	630	-50	-7.4%	7,130	6,550	-580	-8.1%

43-4121	Library Assistants, Clerical	510	260	-250	-49.0%	6,950	6,140	-810	-11.7%
43-9031	Desktop Publishers	130	150	20	15.4%	2,980	910	-2,070	-69.5%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	0	80	80	-	1,100	1,170	70	6.4%
49-9061	Camera and Photographic Equipment Repairers	0	0	0	-	310	0	-310	-100.0%
49-9063	Musical Instrument Repairers and Tuners	0	0	0	-	180	210	30	16.7%
51-5113	Print Binding and Finishing Workers	350	150	-200	-57.1%	3,730	2,090	-1,640	-44.0%
51-9071	Jewelers and Precious Stone and Metal Workers	220	120	-100	-45.5%	2,070	1,530	-540	-26.1%
51-9123	Painting, Coating, and Decorating Workers	0	100	100	-	900	400	-500	-55.6%
51-9151	Photographic Process Workers and Processing Machine Operators	300	0	-300	-100.0%	3,290	1,380	-1,910	-58.1%
0	Total, Creative Economy	11,870	11,220	-650	-5.5%	162,690	156,260	-6,430	-4.0%
00-0000	All Occupations	600,020	591,520	-8,500	-1.4%	6,909,680	7,057,990	148,310	2.1%

*Indicates artistic occupations

SOC Code	Growth in Creative Workforce Occupations	Massachusetts				New England			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
11-2011	Advertising and Promotions Managers	1,010	1,160	150	14.9%	2,330	1,950	-380	-16.3%
11-2031	Public Relations and Fundraising Managers	1,830	3,840	2,010	109.8%	3,810	6,080	2,270	59.6%
17-1011*	Architects, Except Landscape and Naval	3,680	3,690	10	0.3%	6,020	6,050	30	0.5%
17-1012*	Landscape Architects	760	640	-120	-15.8%	1,420	970	-450	-31.7%
17-3011	Architectural and Civil Drafters	2,740	2,360	-380	-13.9%	5,550	4,530	-1,020	-18.4%
19-3091	Anthropologists and Archeologists	0	30	30	-	30	30	0	0.0%
19-3093	Historians	90	60	-30	-33.3%	90	60	-30	-33.3%
25-1031	Architecture Teachers, Postsecondary	170	470	300	176.5%	170	600	430	252.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	200	200	0	0.0%	530	320	-210	-39.6%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	540	330	-210	-38.9%	640	860	220	34.4%
25-1082	Library Science Teachers, Postsecondary	90	100	10	11.1%	90	100	10	11.1%
25-1121	Art, Drama, and Music Teachers, Postsecondary	3,620	4,790	1,170	32.3%	5,880	7,700	1,820	31.0%
25-1122	Communications Teachers, Postsecondary	570	620	50	8.8%	1,190	1,380	190	16.0%
25-1123	English Language and Literature Teachers, Postsecondary	2,200	2,730	530	24.1%	4,080	5,210	1,130	27.7%
25-1124	Foreign Language and Literature Teachers, Postsecondary	930	1,000	70	7.5%	1,390	1,840	450	32.4%
25-1125	History Teachers, Postsecondary	820	960	140	17.1%	2,180	1,980	-200	-9.2%
25-4011	Archivists	270	270	0	0.0%	460	490	30	6.5%
25-4012	Curators	610	530	-80	-13.1%	1,000	1,040	40	4.0%
25-4013	Museum Technicians and Conservators	460	290	-170	-37.0%	810	690	-120	-14.8%
25-4021	Librarians	4,990	4,770	-220	-4.4%	10,730	10,310	-420	-3.9%
25-4031	Library Technicians	3,650	3,430	-220	-6.0%	8,660	7,540	-1,120	-12.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	240	350	110	45.8%	390	670	280	71.8%
27-1011*	Art Directors	1,280	780	-500	-39.1%	2,070	1,680	-390	-18.8%
27-1012*	Craft Artists	250	90	-160	-64.0%	310	170	-140	-45.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	300	210	-90	-30.0%	440	300	-140	-31.8%
27-1014*	Multimedia Artists and Animators	840	950	110	13.1%	1,350	1,650	300	22.2%
27-1019*	Artists and Related Workers, All Other	330	130	-200	-60.6%	540	200	-340	-63.0%
27-1021*	Commercial and Industrial	870	780	-90	-10.3%	2,250	1,830	-420	-18.7%

	Designers								
27-1022*	Fashion Designers	310	310	0	0.0%	550	470	-80	-14.5%
27-1023*	Floral Designers	1,780	840	-940	-52.8%	3,730	2,050	-1,680	-45.0%
27-1024*	Graphic Designers	5,320	4,890	-430	-8.1%	11,000	9,870	-1,130	-10.3%
27-1025*	Interior Designers	1,810	1,440	-370	-20.4%	2,790	2,590	-200	-7.2%
27-1026*	Merchandise Displayers and Window Trimmers	1,080	1,560	480	44.4%	2,240	4,470	2,230	99.6%
27-1027*	Set and Exhibit Designers	0	130	130	-	0	310	310	#DIV/0!
27-1029*	Designers, All Other	190	90	-100	-52.6%	480	190	-290	-60.4%
27-2011*	Actors	0	920	920	-	310	1,500	1,190	383.9%
27-2012*	Producers and Directors	1,720	2,230	510	29.7%	2,670	5,240	2,570	96.3%
27-2031*	Dancers	0	0	0	-	50	40	-10	-20.0%
27-2032	Choreographers	0	0	0	-	650	270	-380	-58.5%
27-2041	Music Directors and Composers	160	570	410	256.3%	310	1,310	1,000	322.6%
27-2042*	Musicians and Singers	740	650	-90	-12.2%	1,320	1,390	70	5.3%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	0	0	0	-	290	280	-10	-3.4%
27-3011*	Radio and Television Announcers	730	500	-230	-31.5%	1,710	1,310	-400	-23.4%
27-3012*	Public Address System and Other Announcers	70	230	160	228.6%	180	260	80	44.4%
27-3021	Broadcast News Analysts	190	120	-70	-36.8%	190	150	-40	-21.1%
27-3022	Reporters and Correspondents	1,220	1,070	-150	-12.3%	2,590	2,150	-440	-17.0%
27-3031	Public Relations Specialists	8,460	7,190	-1,270	-15.0%	15,170	12,890	-2,280	-15.0%
27-3041	Editors	3,940	3,510	-430	-10.9%	6,660	5,970	-690	-10.4%
27-3042	Technical Writers	2,520	2,230	-290	-11.5%	3,880	3,420	-460	-11.9%
27-3043*	Writers and Authors	860	1,180	320	37.2%	2,040	2,430	390	19.1%
27-3099	Media and Communication Workers, All Other	300	90	-210	-70.0%	650	90	-560	-86.2%
27-4011	Audio and Video Equipment Technicians	1,450	1,940	490	33.8%	2,410	3,440	1,030	42.7%
27-4012	Broadcast Technicians	630	730	100	15.9%	1,400	1,600	200	14.3%
27-4014	Sound Engineering Technicians	180	260	80	44.4%	440	590	150	34.1%
27-4021*	Photographers	1,590	1,200	-390	-24.5%	3,390	2,420	-970	-28.6%
27-4031	Camera Operators, Television, Video, and Motion Picture	370	520	150	40.5%	990	1,170	180	18.2%
27-4032	Film and Video Editors	230	370	140	60.9%	480	790	310	64.6%
27-4099	Media and Communication Equipment Workers, All Other	270	120	-150	-55.6%	580	680	100	17.2%
39-3021	Motion Picture Projectionists	160	200	40	25.0%	410	240	-170	-41.5%
39-3092	Costume Attendants	80	30	-50	-62.5%	80	70	-10	-12.5%

41-3011	Advertising Sales Agents	3,400	2,900	-500	-14.7%	7,130	6,550	-580	-8.1%
43-4121	Library Assistants, Clerical	3,060	2,740	-320	-10.5%	6,950	6,140	-810	-11.7%
43-9031	Desktop Publishers	2,130	550	-1,580	-74.2%	2,980	910	-2,070	-69.5%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	510	240	-270	-52.9%	1,100	1,170	70	6.4%
49-9061	Camera and Photographic Equipment Repairers	250	0	-250	-100.0%	310	0	-310	-100.0%
49-9063	Musical Instrument Repairers and Tuners	120	170	50	41.7%	180	210	30	16.7%
51-5113	Print Binding and Finishing Workers	2,180	920	-1,260	-57.8%	3,730	2,090	-1,640	-44.0%
51-9071	Jewelers and Precious Stone and Metal Workers	910	410	-500	-54.9%	2,070	1,530	-540	-26.1%
51-9123	Painting, Coating, and Decorating Workers	570	0	-570	-100.0%	900	400	-500	-55.6%
51-9151	Photographic Process Workers and Processing Machine Operators	1,470	660	-810	-55.1%	3,290	1,380	-1,910	-58.1%
0	Total, Creative Economy	84,300	79,270	-5,030	-6.0%	162,690	156,260	-6,430	-4.0%
00-0000	All Occupations	3,207,840	3,396,840	189,000	5.9%	6,909,680	7,057,990	148,310	2.1%

*Indicates artistic occupations

SOC Code	Growth in Creative Workforce Occupations	New Hampshire				New England			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
11-2011	Advertising and Promotions Managers	130	150	20	15.4%	2,330	1,950	-380	-16.3%
11-2031	Public Relations and Fundraising Managers	210	400	190	90.5%	3,810	6,080	2,270	59.6%
17-1011*	Architects, Except Landscape and Naval	330	270	-60	-18.2%	6,020	6,050	30	0.5%
17-1012*	Landscape Architects	0	0	0	-	1,420	970	-450	-31.7%
17-3011	Architectural and Civil Drafters	400	440	40	10.0%	5,550	4,530	-1,020	-18.4%
19-3091	Anthropologists and Archeologists	0	0	0	-	30	30	0	0.0%
19-3093	Historians	0	0	0	-	90	60	-30	-33.3%
25-1031	Architecture Teachers, Postsecondary	0	0	0	-	170	600	430	252.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	40	0	-40	-100.0%	530	320	-210	-39.6%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	0	0	0	-	640	860	220	34.4%
25-1082	Library Science Teachers, Postsecondary	0	0	0	-	90	100	10	11.1%
25-1121	Art, Drama, and Music Teachers, Postsecondary	290	570	280	96.6%	5,880	7,700	1,820	31.0%
25-1122	Communications Teachers, Postsecondary	60	80	20	33.3%	1,190	1,380	190	16.0%
25-1123	English Language and Literature Teachers, Postsecondary	310	340	30	9.7%	4,080	5,210	1,130	27.7%
25-1124	Foreign Language and Literature Teachers, Postsecondary	110	0	-110	-100.0%	1,390	1,840	450	32.4%
25-1125	History Teachers, Postsecondary	80	120	40	50.0%	2,180	1,980	-200	-9.2%
25-4011	Archivists	0	0	0	-	460	490	30	6.5%
25-4012	Curators	40	130	90	225.0%	1,000	1,040	40	4.0%
25-4013	Museum Technicians and Conservators	0	0	0	-	810	690	-120	-14.8%
25-4021	Librarians	1,050	950	-100	-9.5%	10,730	10,310	-420	-3.9%
25-4031	Library Technicians	840	620	-220	-26.2%	8,660	7,540	-1,120	-12.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	0	40	40	-	390	670	280	71.8%
27-1011*	Art Directors	70	90	20	28.6%	2,070	1,680	-390	-18.8%
27-1012*	Craft Artists	0	40	40	-	310	170	-140	-45.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	0	0	0	-	440	300	-140	-31.8%
27-1014*	Multimedia Artists and Animators	0	60	60	-	1,350	1,650	300	22.2%
27-1019*	Artists and Related Workers, All Other	30	0	-30	-100.0%	540	200	-340	-63.0%
27-1021*	Commercial and Industrial	110	150	40	36.4%	2,250	1,830	-420	-18.7%

	Designers								
27-1022*	Fashion Designers	0	90	90	-	550	470	-80	-14.5%
27-1023*	Floral Designers	420	220	-200	-47.6%	3,730	2,050	-1,680	-45.0%
27-1024*	Graphic Designers	880	870	-10	-1.1%	11,000	9,870	-1,130	-10.3%
27-1025*	Interior Designers	220	150	-70	-31.8%	2,790	2,590	-200	-7.2%
27-1026*	Merchandise Displayers and Window Trimmers	200	550	350	175.0%	2,240	4,470	2,230	99.6%
27-1027*	Set and Exhibit Designers	0	0	0	-	0	310	310	#DIV/0!
27-1029*	Designers, All Other	50	40	-10	-20.0%	480	190	-290	-60.4%
27-2011*	Actors	0	0	0	-	310	1,500	1,190	383.9%
27-2012*	Producers and Directors	210	200	-10	-4.8%	2,670	5,240	2,570	96.3%
27-2031*	Dancers	0	0	0	-	50	40	-10	-20.0%
27-2032	Choreographers	0	0	0	-	650	270	-380	-58.5%
27-2041	Music Directors and Composers	0	80	80	-	310	1,310	1,000	322.6%
27-2042*	Musicians and Singers	0	0	0	-	1,320	1,390	70	5.3%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	0	80	80	-	290	280	-10	-3.4%
27-3011*	Radio and Television Announcers	130	90	-40	-30.8%	1,710	1,310	-400	-23.4%
27-3012*	Public Address System and Other Announcers	0	0	0	-	180	260	80	44.4%
27-3021	Broadcast News Analysts	0	0	0	-	190	150	-40	-21.1%
27-3022	Reporters and Correspondents	210	270	60	28.6%	2,590	2,150	-440	-17.0%
27-3031	Public Relations Specialists	820	1,000	180	22.0%	15,170	12,890	-2,280	-15.0%
27-3041	Editors	440	480	40	9.1%	6,660	5,970	-690	-10.4%
27-3042	Technical Writers	190	220	30	15.8%	3,880	3,420	-460	-11.9%
27-3043*	Writers and Authors	140	300	160	114.3%	2,040	2,430	390	19.1%
27-3099	Media and Communication Workers, All Other	90	0	-90	-100.0%	650	90	-560	-86.2%
27-4011	Audio and Video Equipment Technicians	40	110	70	175.0%	2,410	3,440	1,030	42.7%
27-4012	Broadcast Technicians	150	110	-40	-26.7%	1,400	1,600	200	14.3%
27-4014	Sound Engineering Technicians	0	0	0	-	440	590	150	34.1%
27-4021*	Photographers	250	160	-90	-36.0%	3,390	2,420	-970	-28.6%
27-4031	Camera Operators, Television, Video, and Motion Picture	70	0	-70	-100.0%	990	1,170	180	18.2%
27-4032	Film and Video Editors	0	40	40	-	480	790	310	64.6%
27-4099	Media and Communication Equipment Workers, All Other	90	120	30	33.3%	580	680	100	17.2%
39-3021	Motion Picture Projectionists	60	0	-60	-100.0%	410	240	-170	-41.5%
39-3092	Costume Attendants	0	0	0	-	80	70	-10	-12.5%
41-3011	Advertising Sales Agents	550	550	0	0.0%	7,130	6,550	-580	-8.1%
43-4121	Library Assistants, Clerical	840	840	0	0.0%	6,950	6,140	-810	-11.7%

43-9031	Desktop Publishers	230	60	-170	-73.9%	2,980	910	-2,070	-69.5%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers	220	240	20	9.1%	1,100	1,170	70	6.4%
49-9061	Camera and Photographic Equipment Repairers	0	0	0	-	310	0	-310	-100.0%
49-9063	Musical Instrument Repairers and Tuners	0	0	0	-	180	210	30	16.7%
51-5113	Print Binding and Finishing Workers**	140	170	30	21.4%	3,730	2,090	-1,640	-44.0%
51-9071	Jewelers and Precious Stone and Metal Workers	80	110	30	37.5%	2,070	1,530	-540	-26.1%
51-9123	Painting, Coating, and Decorating Workers	0	0	0	-	900	400	-500	-55.6%
51-9151	Photographic Process Workers and Processing Machine Operators**	290	160	-130	-44.8%	3,290	1,380	-1,910	-58.1%
0	Total, Creative Economy	11,110	11,760	650	5.9%	162,690	156,260	-6,430	-4.0%
00-0000	All Occupations	632,590	635,360	2,770	0.4%	6,909,680	7,057,990	148,310	2.1%

*Indicates artistic occupations

SOC Code	Growth in Creative Workforce Occupations	Rhode Island				New England			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
11-2011	Advertising and Promotions Managers	140	170	30	21.4%	2,330	1,950	-380	-16.3%
11-2031	Public Relations and Fundraising Managers	310	240	-70	-22.6%	3,810	6,080	2,270	59.6%
17-1011*	Architects, Except Landscape and Naval	300	350	50	16.7%	6,020	6,050	30	0.5%
17-1012*	Landscape Architects	0	100	100	-	1,420	970	-450	-31.7%
17-3011	Architectural and Civil Drafters	330	220	-110	-33.3%	5,550	4,530	-1,020	-18.4%
19-3091	Anthropologists and Archeologists	0	0	0	-	30	30	0	0.0%
19-3093	Historians	0	0	0	-	90	60	-30	-33.3%
25-1031	Architecture Teachers, Postsecondary	0	130	130	-	170	600	430	252.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	50	0	-50	-100.0%	530	320	-210	-39.6%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	0	0	0	-	640	860	220	34.4%
25-1082	Library Science Teachers, Postsecondary	0	0	0	-	90	100	10	11.1%
25-1121	Art, Drama, and Music Teachers, Postsecondary	520	630	110	21.2%	5,880	7,700	1,820	31.0%
25-1122	Communications Teachers, Postsecondary	120	110	-10	-8.3%	1,190	1,380	190	16.0%
25-1123	English Language and Literature Teachers, Postsecondary	430	350	-80	-18.6%	4,080	5,210	1,130	27.7%
25-1124	Foreign Language and Literature Teachers, Postsecondary	170	160	-10	-5.9%	1,390	1,840	450	32.4%
25-1125	History Teachers, Postsecondary	210	200	-10	-4.8%	2,180	1,980	-200	-9.2%
25-4011	Archivists	30	70	40	133.3%	460	490	30	6.5%
25-4012	Curators	70	60	-10	-14.3%	1,000	1,040	40	4.0%
25-4013	Museum Technicians and Conservators	70	50	-20	-28.6%	810	690	-120	-14.8%
25-4021	Librarians	670	740	70	10.4%	10,730	10,310	-420	-3.9%
25-4031	Library Technicians	620	380	-240	-38.7%	8,660	7,540	-1,120	-12.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	0	0	0	-	390	670	280	71.8%
27-1011*	Art Directors	80	50	-30	-37.5%	2,070	1,680	-390	-18.8%
27-1012*	Craft Artists	0	0	0	-	310	170	-140	-45.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	40	0	-40	-100.0%	440	300	-140	-31.8%
27-1014*	Multimedia Artists and Animators	60	30	-30	-50.0%	1,350	1,650	300	22.2%
27-1019*	Artists and Related Workers, All Other	0	0	0	-	540	200	-340	-63.0%
27-1021*	Commercial and Industrial Designers	520	270	-250	-48.1%	2,250	1,830	-420	-18.7%

27-1022*	Fashion Designers	0	0	0	-	550	470	-80	-14.5%
27-1023*	Floral Designers	260	160	-100	-38.5%	3,730	2,050	-1,680	-45.0%
27-1024*	Graphic Designers	720	650	-70	-9.7%	11,000	9,870	-1,130	-10.3%
27-1025*	Interior Designers	0	190	190	-	2,790	2,590	-200	-7.2%
27-1026*	Merchandise Displayers and Window Trimmers	360	280	-80	-22.2%	2,240	4,470	2,230	99.6%
27-1027*	Set and Exhibit Designers	0	0	0	-	0	310	310	#DIV/0!
27-1029*	Designers, All Other	70	0	-70	-100.0%	480	190	-290	-60.4%
27-2011*	Actors	0	0	0	-	310	1,500	1,190	383.9%
27-2012*	Producers and Directors	260	250	-10	-3.8%	2,670	5,240	2,570	96.3%
27-2031*	Dancers	0	40	40	-	50	40	-10	-20.0%
27-2032	Choreographers	0	0	0	-	650	270	-380	-58.5%
27-2041	Music Directors and Composers	90	160	70	77.8%	310	1,310	1,000	322.6%
27-2042*	Musicians and Singers	250	350	100	40.0%	1,320	1,390	70	5.3%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	190	0	-190	-100.0%	290	280	-10	-3.4%
27-3011*	Radio and Television Announcers	0	90	90	-	1,710	1,310	-400	-23.4%
27-3012*	Public Address System and Other Announcers	0	0	0	-	180	260	80	44.4%
27-3021	Broadcast News Analysts	0	30	30	-	190	150	-40	-21.1%
27-3022	Reporters and Correspondents	140	130	-10	-7.1%	2,590	2,150	-440	-17.0%
27-3031	Public Relations Specialists	1,050	1,260	210	20.0%	15,170	12,890	-2,280	-15.0%
27-3041	Editors	230	230	0	0.0%	6,660	5,970	-690	-10.4%
27-3042	Technical Writers	220	150	-70	-31.8%	3,880	3,420	-460	-11.9%
27-3043*	Writers and Authors	130	100	-30	-23.1%	2,040	2,430	390	19.1%
27-3099	Media and Communication Workers, All Other	50	0	-50	-100.0%	650	90	-560	-86.2%
27-4011	Audio and Video Equipment Technicians	50	160	110	220.0%	2,410	3,440	1,030	42.7%
27-4012	Broadcast Technicians	0	90	90	-	1,400	1,600	200	14.3%
27-4014	Sound Engineering Technicians	0	0	0	-	440	590	150	34.1%
27-4021*	Photographers	270	220	-50	-18.5%	3,390	2,420	-970	-28.6%
27-4031	Camera Operators, Television, Video, and Motion Picture	40	0	-40	-100.0%	990	1,170	180	18.2%
27-4032	Film and Video Editors	0	0	0	-	480	790	310	64.6%
27-4099	Media and Communication Equipment Workers, All Other	30	100	70	233.3%	580	680	100	17.2%
39-3021	Motion Picture Projectionists	40	0	-40	-100.0%	410	240	-170	-41.5%
39-3092	Costume Attendants	0	0	0	-	80	70	-10	-12.5%
41-3011	Advertising Sales Agents	420	540	120	28.6%	7,130	6,550	-580	-8.1%
43-4121	Library Assistants, Clerical	400	430	30	7.5%	6,950	6,140	-810	-11.7%
43-9031	Desktop Publishers	0	0	0	-	2,980	910	-2,070	-69.5%

49-2097	Electronic Home Entertainment Equipment Installers and Repairers	0	0	0	-	1,100	1,170	70	6.4%
49-9061	Camera and Photographic Equipment Repairers	0	0	0	-	310	0	-310	-100.0%
49-9063	Musical Instrument Repairers and Tuners	0	0	0	-	180	210	30	16.7%
51-5113	Print Binding and Finishing Workers**	110	160	50	45.5%	3,730	2,090	-1,640	-44.0%
51-9071	Jewelers and Precious Stone and Metal Workers	660	720	60	9.1%	2,070	1,530	-540	-26.1%
51-9123	Painting, Coating, and Decorating Workers	100	80	-20	-20.0%	900	400	-500	-55.6%
51-9151	Photographic Process Workers and Processing Machine Operators**	240	260	20	8.3%	3,290	1,380	-1,910	-58.1%
0	Total, Creative Economy	11,120	11,140	20	0.2%	162,690	156,260	-6,430	-4.0%
00-0000	All Occupations	485,870	635,360	149,490	30.8%	6,909,680	7,057,990	148,310	2.1%

*Indicates artistic occupations

SOC Code	Growth in Creative Workforce Occupations	Vermont				New England			
		2007	2015	Absolute Change	Percent Change	2007	2015	Absolute Change	Percent Change
11-2011	Advertising and Promotions Managers	40	30	-10	-25.0%	2,330	1,950	-380	-16.3%
11-2031	Public Relations and Fundraising Managers	120	210	90	75.0%	3,810	6,080	2,270	59.6%
17-1011*	Architects, Except Landscape and Naval	250	180	-70	-28.0%	6,020	6,050	30	0.5%
17-1012*	Landscape Architects	100	0	-100	-100.0%	1,420	970	-450	-31.7%
17-3011	Architectural and Civil Drafters	250	200	-50	-20.0%	5,550	4,530	-1,020	-18.4%
19-3091	Anthropologists and Archeologists	30	0	-30	-100.0%	30	30	0	0.0%
19-3093	Historians	0	0	0	-	90	60	-30	-33.3%
25-1031	Architecture Teachers, Postsecondary	0	0	0	-	170	600	430	252.9%
25-1061	Anthropology and Archeology Teachers, Postsecondary	0	0	0	-	530	320	-210	-39.6%
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	40	0	-40	-100.0%	640	860	220	34.4%
25-1082	Library Science Teachers, Postsecondary	0	0	0	#DIV/0!	90	100	10	11.1%
25-1121	Art, Drama, and Music Teachers, Postsecondary	270	390	120	44.4%	5,880	7,700	1,820	31.0%
25-1122	Communications Teachers, Postsecondary	100	110	10	10.0%	1,190	1,380	190	16.0%
25-1123	English Language and Literature Teachers, Postsecondary	300	490	190	63.3%	4,080	5,210	1,130	27.7%
25-1124	Foreign Language and Literature Teachers, Postsecondary	70	320	250	357.1%	1,390	1,840	450	32.4%
25-1125	History Teachers, Postsecondary	90	250	160	177.8%	2,180	1,980	-200	-9.2%
25-4011	Archivists	40	40	0	0.0%	460	490	30	6.5%
25-4012	Curators	30	50	20	66.7%	1,000	1,040	40	4.0%
25-4013	Museum Technicians and Conservators	50	40	-10	-20.0%	810	690	-120	-14.8%
25-4021	Librarians	620	700	80	12.9%	10,730	10,310	-420	-3.9%
25-4031	Library Technicians	360	540	180	50.0%	8,660	7,540	-1,120	-12.9%
25-9011	Audio-Visual and Multimedia Collections Specialists	40	50	10	25.0%	390	670	280	71.8%
27-1011*	Art Directors	80	70	-10	-12.5%	2,070	1,680	-390	-18.8%
27-1012*	Craft Artists	0	0	0	-	310	170	-140	-45.2%
27-1013*	Fine Artists, Including Painters, Sculptors, and Illustrators	30	0	-30	-100.0%	440	300	-140	-31.8%
27-1014*	Multimedia Artists and Animators	0	0	0	-	1,350	1,650	300	22.2%
27-1019*	Artists and Related Workers, All Other	0	0	0	-	540	200	-340	-63.0%
27-1021*	Commercial and Industrial Designers	150	180	30	20.0%	2,250	1,830	-420	-18.7%

27-1022*	Fashion Designers	0	0	0	-	550	470	-80	-14.5%
27-1023*	Floral Designers	180	130	-50	-27.8%	3,730	2,050	-1,680	-45.0%
27-1024*	Graphic Designers	700	510	-190	-27.1%	11,000	9,870	-1,130	-10.3%
27-1025*	Interior Designers	170	90	-80	-47.1%	2,790	2,590	-200	-7.2%
27-1026*	Merchandise Displayers and Window Trimmers	160	170	10	6.3%	2,240	4,470	2,230	99.6%
27-1027*	Set and Exhibit Designers	0	0	0	-	0	310	310	#DIV/0!
27-1029*	Designers, All Other	0	0	0	-	480	190	-290	-60.4%
27-2011*	Actors	0	0	0	-	310	1,500	1,190	383.9%
27-2012*	Producers and Directors	270	290	20	7.4%	2,670	5,240	2,570	96.3%
27-2031*	Dancers	0	0	0	-	50	40	-10	-20.0%
27-2032	Choreographers	0	70	70	-	650	270	-380	-58.5%
27-2041	Music Directors and Composers	0	70	70	-	310	1,310	1,000	322.6%
27-2042*	Musicians and Singers	0	0	0	-	1,320	1,390	70	5.3%
27-2099*	Entertainers and Performers, Sports and Related Workers, All Other	0	0	0	-	290	280	-10	-3.4%
27-3011*	Radio and Television Announcers	160	170	10	6.3%	1,710	1,310	-400	-23.4%
27-3012*	Public Address System and Other Announcers	0	0	0	-	180	260	80	44.4%
27-3021	Broadcast News Analysts	0	0	0	-	190	150	-40	-21.1%
27-3022	Reporters and Correspondents	130	120	-10	-7.7%	2,590	2,150	-440	-17.0%
27-3031	Public Relations Specialists	1,110	840	-270	-24.3%	15,170	12,890	-2,280	-15.0%
27-3041	Editors	300	260	-40	-13.3%	6,660	5,970	-690	-10.4%
27-3042	Technical Writers	210	100	-110	-52.4%	3,880	3,420	-460	-11.9%
27-3043*	Writers and Authors	200	110	-90	-45.0%	2,040	2,430	390	19.1%
27-3099	Media and Communication Workers, All Other	0	0	0	-	650	90	-560	-86.2%
27-4011	Audio and Video Equipment Technicians	80	80	0	0.0%	2,410	3,440	1,030	42.7%
27-4012	Broadcast Technicians	80	50	-30	-37.5%	1,400	1,600	200	14.3%
27-4014	Sound Engineering Technicians	0	0	0	-	440	590	150	34.1%
27-4021*	Photographers	80	100	20	25.0%	3,390	2,420	-970	-28.6%
27-4031	Camera Operators, Television, Video, and Motion Picture	0	120	120	-	990	1,170	180	18.2%
27-4032	Film and Video Editors	0	0	0	-	480	790	310	64.6%
27-4099	Media and Communication Equipment Workers, All Other	0	0	0	-	580	680	100	17.2%
39-3021	Motion Picture Projectionists	30	0	-30	-100.0%	410	240	-170	-41.5%
39-3092	Costume Attendants	0	0	0	-	80	70	-10	-12.5%
41-3011	Advertising Sales Agents	470	270	-200	-42.6%	7,130	6,550	-580	-8.1%
43-4121	Library Assistants, Clerical	660	300	-360	-54.5%	6,950	6,140	-810	-11.7%
43-9031	Desktop Publishers	160	70	-90	-56.3%	2,980	910	-2,070	-69.5%

49-2097	Electronic Home Entertainment Equipment Installers and Repairers	70	140	70	100.0%	1,100	1,170	70	6.4%
49-9061	Camera and Photographic Equipment Repairers	0	0	0	-	310	0	-310	-100.0%
49-9063	Musical Instrument Repairers and Tuners	0	0	0	-	180	210	30	16.7%
51-5113	Print Binding and Finishing Workers**	130	130	0	0.0%	3,730	2,090	-1,640	-44.0%
51-9071	Jewelers and Precious Stone and Metal Workers	50	170	120	240.0%	2,070	1,530	-540	-26.1%
51-9123	Painting, Coating, and Decorating Workers	0	80	80	-	900	400	-500	-55.6%
51-9151	Photographic Process Workers and Processing Machine Operators**	100	0	-100	-100.0%	3,290	1,380	-1,910	-58.1%
0	Total, Creative Economy	8,560	8,290	-270	-3.2%	162,690	156,260	-6,430	-4.0%
00-0000	All Occupations	301,140	303,550	2,410	0.8%	6,909,680	7,057,990	148,310	2.1%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

*Indicates artistic occupations

Top Ten Creative Workforce Occupations by New England State, 2015

CT	
Occupation	Employment
Librarians	2,370
Graphic Designers	2,190
Producers and Directors	2,040
Library Technicians	1,690
Advertising Sales Agents	1,660
Library Assistants, Clerical	1,570
Public Relations Specialists	1,440
Architects, Except Landscape and Naval	1,330
Art, Drama, and Music Teachers, Postsecondary	1,090
Audio and Video Equipment Technicians	1,060
Creative Economy Total	34,580
All Occupations	1,659,430
Creative Economy Share of All Occupations	2.1%

ME	
Occupation	Employment
Public Relations Specialists	1,160
Merchandise Displayers and Window Trimmers	1,010
Library Technicians	880
Librarians	780
Graphic Designers	760
Advertising Sales Agents	630
Architectural and Civil Drafters	520
English Language and Literature Teachers, Postsecondary	470
Public Relations and Fundraising Managers	470
Editors	440
Creative Economy Total	11,220
All Occupations	591,520
Creative Economy Share of All Occupations	1.9%

MA	
Occupation	Employment
Public Relations Specialists	7,190
Graphic Designers	4,890
Art, Drama, and Music Teachers, Postsecondary	4,790
Librarians	4,770
Public Relations and Fundraising Managers	3,840
Architects, Except Landscape and Naval	3,690
Editors	3,510
Library Technicians	3,430
Advertising Sales Agents	2,900
Library Assistants, Clerical	2,740
Creative Economy Total	79,270
All Occupations	3,396,840
Creative Economy Share of All Occupations	2.3%

NH	
Occupation	Employment
Public Relations Specialists	1,000
Librarians	950
Graphic Designers	870
Library Assistants, Clerical	840
Library Technicians	620
Art, Drama, and Music Teachers, Postsecondary	570
Advertising Sales Agents	550
Merchandise Displayers and Window Trimmers	550
Editors	480
Architectural and Civil Drafters	440
Creative Economy Total	11,760
All Occupations	635,360
Creative Economy Share of All Occupations	1.9%

RI	
Occupation	Employment
Public Relations Specialists	1,260
Librarians	740
Jewelers and Precious Stone and Metal Workers	720
Graphic Designers	650
Art, Drama, and Music Teachers, Postsecondary	630
Advertising Sales Agents	540
Library Assistants, Clerical	430
Library Technicians	380
Architects, Except Landscape and Naval	350
Musicians and Singers	350
Creative Economy Total	11,140
All Occupations	471,290
Creative Economy Share of All Occupations	2.4%

VT	
Occupation	Employment
Public Relations Specialists	840
Librarians	700
Library Technicians	540
Graphic Designers	510
English Language and Literature Teachers, Postsecondary	490
Art, Drama, and Music Teachers, Postsecondary	390
Foreign Language and Literature Teachers, Postsecondary	320
Library Assistants, Clerical	300
Producers and Directors	290
Advertising Sales Agents	270
Creative Economy Total	8,290
All Occupations	303,550
Creative Economy Share of All Occupations	2.7%

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

Top Ten Industries for Creative Workforce Occupations by New England State, 2015

CT	
Industry	Employment
Educational Services	7,100
Professional, Scientific, and Technical Services	5,590
Colleges, Universities, and Professional Schools	4,430
Broadcasting (except Internet)	3,490
Federal, State, and Local Government (excluding state and local schools and hospitals)	2,950
Local Government (OES Designation)	2,720
Architectural, Engineering, and Related Services	1,980
Publishing Industries (except Internet)	1,850
Newspaper, Periodical, Book, and Directory Publishers	1,810
Cable and Other Subscription Programming	1,690
Creative Economy Total	55,560

ME	
Industry	Employment
Educational Services	2,180
Professional, Scientific, and Technical Services	1,490
Colleges, Universities, and Professional Schools	1,160
Newspaper, Periodical, Book, and Directory Publishers	1,030
Publishing Industries (except Internet)	1,030
Elementary and Secondary Schools	700
Newspaper Publishers	690
Broadcasting (except Internet)	680
Radio and Television Broadcasting	680
Federal, State, and Local Government (excluding state and local schools and hospitals)	650
Creative Economy Total	16,020

MA	
Industry	Employment
Educational Services	20,990
Professional, Scientific, and Technical Services	17,060
Colleges, Universities, and Professional Schools	14,430
Architectural, Engineering, and Related Services	6,630
Federal, State, and Local Government (excluding state and local schools and hospitals)	6,120
Publishing Industries (except Internet)	5,730
Local Government (OES Designation)	5,370
Newspaper, Periodical, Book, and Directory Publishers	4,600
Advertising, Public Relations, and Related Services	4,090
Broadcasting (except Internet)	3,650
Creative Economy Total	143,210

NH	
Industry	Employment
Educational Services	2,730
Colleges, Universities, and Professional Schools	1,750
Professional, Scientific, and Technical Services	1,530
Federal, State, and Local Government (excluding state and local schools and hospitals)	1,440
Local Government (OES Designation)	1,310
Publishing Industries (except Internet)	930
Newspaper, Periodical, Book, and Directory Publishers	900
Elementary and Secondary Schools	620
Newspaper Publishers	550
Architectural, Engineering, and Related Services	450
Creative Economy Total	16,530

RI	
Industry	Employment
Educational Services	2,460
Colleges, Universities, and Professional Schools	1,760
Professional, Scientific, and Technical Services	1,340
Miscellaneous Manufacturing	790
Other Miscellaneous Manufacturing	790
Religious, Grantmaking, Civic, Professional, and Similar Organizations	710
Federal, State, and Local Government (excluding state and local schools and hospitals)	670
Jewelry and Silverware Manufacturing	670
Local Government (OES Designation)	580
Architectural, Engineering, and Related Services	520
Creative Economy Total	16,500

VT	
Industry	Employment
Educational Services	2600
Colleges, Universities, and Professional Schools	1670
Professional, Scientific, and Technical Services	790
Federal, State, and Local Government (excluding state and local schools and hospitals)	660
Local Government (OES Designation)	590
Publishing Industries (except Internet)	520
Broadcasting (except Internet)	490
Newspaper, Periodical, Book, and Directory Publishers	470
Elementary and Secondary Schools	430
Radio and Television Broadcasting	430
Creative Economy Total	12,710

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (OES).

Creative Economy Nonemployers

Creative Economy Nonemployer Establishments by New England State, 2007-2015

Industry	CT					New England				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	19	24	5	26.3%	\$1,036	180	149	-31	-17.2%	\$5,047
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	285	263	-22	-7.7%	\$23,609	1,176	1,130	-46	-3.9%	\$99,526
Book, Periodical, and Newspaper Merchant	192	149	-43	-22.4%	\$4,325	863	694	-169	-19.6%	\$19,010
Electronics and Appliance Stores	407	235	-172	-42.3%	\$12,533	1,502	963	-539	-35.9%	\$59,666
Jewelry Stores	636	529	-107	-16.8%	\$19,079	2,468	1,946	-522	-21.2%	\$84,935
Sewing, Needlework, and Piece Goods Stores	158	150	-8	-5.1%	\$5,107	780	777	-3	-0.4%	\$21,004
Musical Instrument and Supplies Stores	105	112	7	6.7%	\$7,545	360	419	59	16.4%	\$23,222
Book Stores and News Dealers	275	200	-75	-27.3%	\$6,776	1,294	948	-346	-26.7%	\$30,758
Art Dealers	317	251	-66	-20.8%	\$28,940	1,282	1,182	-100	-7.8%	\$79,687
Video Tape and Disc Rental	21	7	-14	-66.7%	\$108	145	36	-109	-75.2%	\$1,390
Architectural Services	902	869	-33	-3.7%	\$61,514	3,432	3,528	96	2.8%	\$213,480
Landscape Architectural Services	580	567	-13	-2.2%	\$30,562	2,372	2,306	-66	-2.8%	\$107,190
Drafting Services	288	247	-41	-14.2%	\$7,438	1,223	976	-247	-20.2%	\$26,208
Photographic Services	1,426	1,783	357	25.0%	\$52,797	6,248	8,091	1,843	29.5%	\$207,476
Independent Artists, Writers, and Performers	9,526	9,869	343	3.6%	\$232,283	44,364	46,974	2,610	5.9%	\$915,299
Photofinishing	173	173	0	0.0%	\$5,380	708	678	-30	-4.2%	\$16,343
Nonemployers, Creative Economy Total	15,310	15,428	118	0.8%	\$499,032	68,397	70,797	2,400	3.5%	\$1,910,241
Nonemployers, All Industries Total	260,305	269,845	9,540	3.7%	\$15,819,574	1,086,184	1,122,645	36,461	3.4%	\$59,212,071

Industry	MA					New England				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	73	73	0	0.0%	\$2,831	180	149	-31	-17.2%	\$5,047
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	479	471	-8	-1.7%	\$45,101	1,176	1,130	-46	-3.9%	\$99,526
Book, Periodical, and Newspaper Merchant	348	309	-39	-11.2%	\$9,129	863	694	-169	-19.6%	\$19,010
Electronics and Appliance Stores	627	416	-211	-33.7%	\$24,682	1,502	963	-539	-35.9%	\$59,666
Jewelry Stores	1,088	829	-259	-23.8%	\$41,682	2,468	1,946	-522	-21.2%	\$84,935
Sewing, Needlework, and Piece Goods Stores	289	276	-13	-4.5%	\$7,795	780	777	-3	-0.4%	\$21,004
Musical Instrument and Supplies Stores	138	183	45	32.6%	\$8,306	360	419	59	16.4%	\$23,222
Book Stores and News Dealers	540	423	-117	-21.7%	\$13,447	1,294	948	-346	-26.7%	\$30,758
Art Dealers	518	514	-4	-0.8%	\$31,634	1,282	1,182	-100	-7.8%	\$79,687
Video Tape and Disc Rental	71	26	-45	-63.4%	\$1,069	145	36	-109	-75.2%	\$1,390
Architectural Services	1,674	1,822	148	8.8%	\$111,063	3,432	3,528	96	2.8%	\$213,480
Landscape Architectural Services	1,069	1,054	-15	-1.4%	\$49,954	2,372	2,306	-66	-2.8%	\$107,190
Drafting Services	472	391	-81	-17.2%	\$10,100	1,223	976	-247	-20.2%	\$26,208
Photographic Services	2,870	3,697	827	28.8%	\$100,081	6,248	8,091	1,843	29.5%	\$207,476
Independent Artists, Writers, and Performers	21,412	22,773	1,361	6.4%	\$438,627	44,364	46,974	2,610	5.9%	\$915,299
Photofinishing	338	299	-39	-11.5%	\$6,741	708	678	-30	-4.2%	\$16,343
Nonemployers, Creative Economy Total	32,006	33,556	1,550	4.8%	\$902,242	68,397	70,797	2,400	3.5%	\$1,910,241
Nonemployers, All Industries Total	465,019	502,274	37,255	8.0%	\$26,790,769	1,086,184	1,122,645	36,461	3.4%	\$59,212,071

Industry	ME					New England				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	30	19	-11	-36.7%	\$245	180	149	-31	-17.2%	\$5,047
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	99	96	-3	-3.0%	\$3,702	1,176	1,130	-46	-3.9%	\$99,526
Book, Periodical, and Newspaper Merchant	107	77	-30	-28.0%	\$1,503	863	694	-169	-19.6%	\$19,010
Electronics and Appliance Stores	131	75	-56	-42.7%	\$3,591	1,502	963	-539	-35.9%	\$59,666
Jewelry Stores	172	159	-13	-7.6%	\$4,216	2,468	1,946	-522	-21.2%	\$84,935
Sewing, Needlework, and Piece Goods Stores	131	142	11	8.4%	\$2,967	780	777	-3	-0.4%	\$21,004
Musical Instrument and Supplies Stores	33	36	3	9.1%	\$2,384	360	419	59	16.4%	\$23,222
Book Stores and News Dealers	157	120	-37	-23.6%	\$3,937	1,294	948	-346	-26.7%	\$30,758
Art Dealers	187	173	-14	-7.5%	\$5,481	1,282	1,182	-100	-7.8%	\$79,687
Video Tape and Disc Rental	17	0	-17	-100.0%	\$0	145	36	-109	-75.2%	\$1,390
Architectural Services	224	232	8	3.6%	\$8,529	3,432	3,528	96	2.8%	\$213,480
Landscape Architectural Services	245	246	1	0.4%	\$8,912	2,372	2,306	-66	-2.8%	\$107,190
Drafting Services	151	125	-26	-17.2%	\$3,005	1,223	976	-247	-20.2%	\$26,208
Photographic Services	571	801	230	40.3%	\$15,879	6,248	8,091	1,843	29.5%	\$207,476
Independent Artists, Writers, and Performers	4,225	4,538	313	7.4%	\$73,329	44,364	46,974	2,610	5.9%	\$915,299
Photofinishing	67	80	13	19.4%	\$1,171	708	678	-30	-4.2%	\$16,343
Nonemployers, Creative Economy Total	6,547	6,919	372	5.7%	\$138,851	68,397	70,797	2,400	3.5%	\$1,910,241
Nonemployers, All Industries Total	118,500	111,777	-6,723	-5.7%	\$4,921,631	1,086,184	1,122,645	36,461	3.4%	\$59,212,071

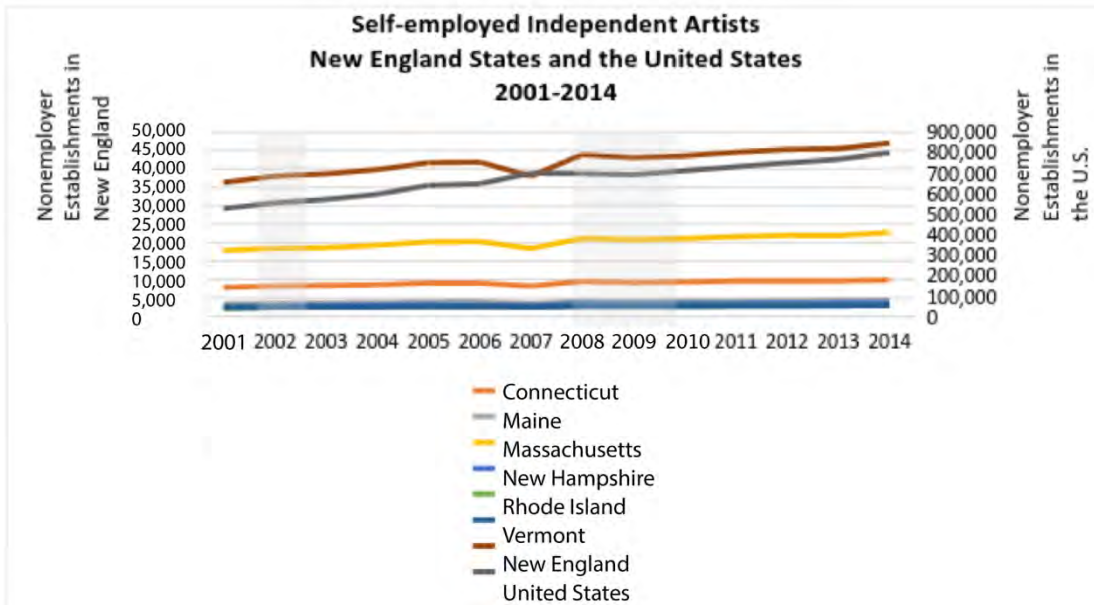
Industry	NH					New England				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	21	15	-6	-28.6%	\$373	180	149	-31	-17.2%	\$5,047
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	123	115	-8	-6.5%	\$13,826	1,176	1,130	-46	-3.9%	\$99,526
Book, Periodical, and Newspaper Merchant	101	82	-19	-18.8%	\$2,432	863	694	-169	-19.6%	\$19,010
Electronics and Appliance Stores	169	113	-56	-33.1%	\$11,232	1,502	963	-539	-35.9%	\$59,666
Jewelry Stores	202	161	-41	-20.3%	\$8,785	2,468	1,946	-522	-21.2%	\$84,935
Sewing, Needlework, and Piece Goods Stores	109	109	0	0.0%	\$2,772	780	777	-3	-0.4%	\$21,004
Musical Instrument and Supplies Stores	36	30	-6	-16.7%	\$909	360	419	59	16.4%	\$23,222
Book Stores and News Dealers	153	95	-58	-37.9%	\$3,046	1,294	948	-346	-26.7%	\$30,758
Art Dealers	93	89	-4	-4.3%	\$7,338	1,282	1,182	-100	-7.8%	\$79,687
Video Tape and Disc Rental	17	3	-14	-82.4%	\$213	145	36	-109	-75.2%	\$1,390
Architectural Services	216	202	-14	-6.5%	\$11,387	3,432	3,528	96	2.8%	\$213,480
Landscape Architectural Services	215	184	-31	-14.4%	\$8,392	2,372	2,306	-66	-2.8%	\$107,190
Drafting Services	167	88	-79	-47.3%	\$3,046	1,223	976	-247	-20.2%	\$26,208
Photographic Services	617	796	179	29.0%	\$17,669	6,248	8,091	1,843	29.5%	\$207,476
Independent Artists, Writers, and Performers	3,512	3,724	212	6.0%	\$69,349	44,364	46,974	2,610	5.9%	\$915,299
Photofinishing	56	56	0	0.0%	\$1,222	708	678	-30	-4.2%	\$16,343
Nonemployers, Creative Economy Total	5,807	5,862	55	0.9%	\$161,991	68,397	70,797	2,400	3.5%	\$1,910,241
Nonemployers, All Industries Total	108,506	103,345	-5,161	-4.8%	\$5,762,192	1,086,184	1,122,645	36,461	3.4%	\$59,212,071

Industry	RI					New England				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	18	0	-18	-100.0%	\$0	180	149	-31	-17.2%	\$5,047
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	152	129	-23	-15.1%	\$11,780	1,176	1,130	-46	-3.9%	\$99,526
Book, Periodical, and Newspaper Merchant	78	43	-35	-44.9%	\$842	863	694	-169	-19.6%	\$19,010
Electronics and Appliance Stores	111	83	-28	-25.2%	\$4,279	1,502	963	-539	-35.9%	\$59,666
Jewelry Stores	278	197	-81	-29.1%	\$7,908	2,468	1,946	-522	-21.2%	\$84,935
Sewing, Needlework, and Piece Goods Stores	29	31	2	6.9%	\$995	780	777	-3	-0.4%	\$21,004
Musical Instrument and Supplies Stores	23	31	8	34.8%	\$3,066	360	419	59	16.4%	\$23,222
Book Stores and News Dealers	103	64	-39	-37.9%	\$2,038	1,294	948	-346	-26.7%	\$30,758
Art Dealers	83	76	-7	-8.4%	\$3,253	1,282	1,182	-100	-7.8%	\$79,687
Video Tape and Disc Rental	10	0	-10	-100.0%	\$0	145	36	-109	-75.2%	\$1,390
Architectural Services	220	214	-6	-2.7%	\$12,075	3,432	3,528	96	2.8%	\$213,480
Landscape Architectural Services	129	133	4	3.1%	\$5,192	2,372	2,306	-66	-2.8%	\$107,190
Drafting Services	79	65	-14	-17.7%	\$1,544	1,223	976	-247	-20.2%	\$26,208
Photographic Services	417	548	131	31.4%	\$12,643	6,248	8,091	1,843	29.5%	\$207,476
Independent Artists, Writers, and Performers	2,871	3,060	189	6.6%	\$49,944	44,364	46,974	2,610	5.9%	\$915,299
Photofinishing	39	35	-4	-10.3%	\$826	708	678	-30	-4.2%	\$16,343
Nonemployers, Creative Economy Total	4,640	4,709	69	1.5%	\$116,385	68,397	70,797	2,400	3.5%	\$1,910,241
Nonemployers, All Industries Total	72,389	75,223	2,834	3.9%	\$3,381,886	1,086,184	1,122,645	36,461	3.4%	\$59,212,071

Industry	VT					New England				
	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)	2007 Establishments	2014 Establishments	Absolute Change	Percent Change	2014 Receipts (in \$1,000s)
Glass and Glass Product Manufacturing	19	18	-1	-5.3%	\$562	180	149	-31	-17.2%	\$5,047
Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	38	56	18	47.4%	\$1,508	1,176	1,130	-46	-3.9%	\$99,526
Book, Periodical, and Newspaper Merchant	37	34	-3	-8.1%	\$779	863	694	-169	-19.6%	\$19,010
Electronics and Appliance Stores	57	41	-16	-28.1%	\$3,349	1,502	963	-539	-35.9%	\$59,666
Jewelry Stores	92	71	-21	-22.8%	\$3,265	2,468	1,946	-522	-21.2%	\$84,935
Sewing, Needlework, and Piece Goods Stores	64	69	5	7.8%	\$1,368	780	777	-3	-0.4%	\$21,004
Musical Instrument and Supplies Stores	25	27	2	8.0%	\$1,012	360	419	59	16.4%	\$23,222
Book Stores and News Dealers	66	46	-20	-30.3%	\$1,514	1,294	948	-346	-26.7%	\$30,758
Art Dealers	84	79	-5	-6.0%	\$3,041	1,282	1,182	-100	-7.8%	\$79,687
Video Tape and Disc Rental	9	0	-9	-100.0%	\$0	145	36	-109	-75.2%	\$1,390
Architectural Services	196	189	-7	-3.6%	\$8,912	3,432	3,528	96	2.8%	\$213,480
Landscape Architectural Services	134	122	-12	-9.0%	\$4,178	2,372	2,306	-66	-2.8%	\$107,190
Drafting Services	66	60	-6	-9.1%	\$1,075	1,223	976	-247	-20.2%	\$26,208
Photographic Services	347	466	119	34.3%	\$8,407	6,248	8,091	1,843	29.5%	\$207,476
Independent Artists, Writers, and Performers	2,818	3,010	192	6.8%	\$51,767	44,364	46,974	2,610	5.9%	\$915,299
Photofinishing	35	35	0	0.0%	\$1,003	708	678	-30	-4.2%	\$16,343
Nonemployers, Creative Economy Total	4,087	4,323	236	5.8%	\$91,740	68,397	70,797	2,400	3.5%	\$1,910,241
Nonemployers, All Industries Total	61,465	60,181	-1,284	-2.1%	\$2,536,019	1,086,184	1,122,645	36,461	3.4%	\$59,212,071

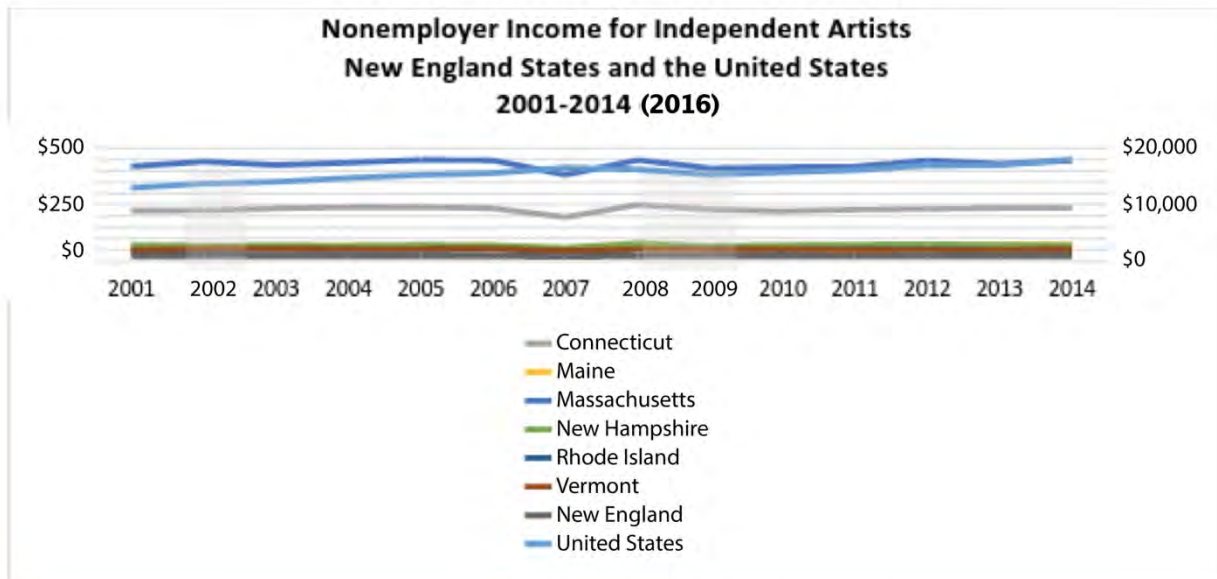
Source: U.S. Census Bureau, Nonemployer Statistics.

Time Series of Self-employed Independent Artists in the New England States, 2001-2014



Source: U.S. Census Bureau, Nonemployer Statistics.

*Note: Shaded areas indicate periods of recession.



Source: U.S. Census Bureau, Nonemployer Statistics.

*Note: Shaded areas indicate periods of recession.

Employment Data Summary

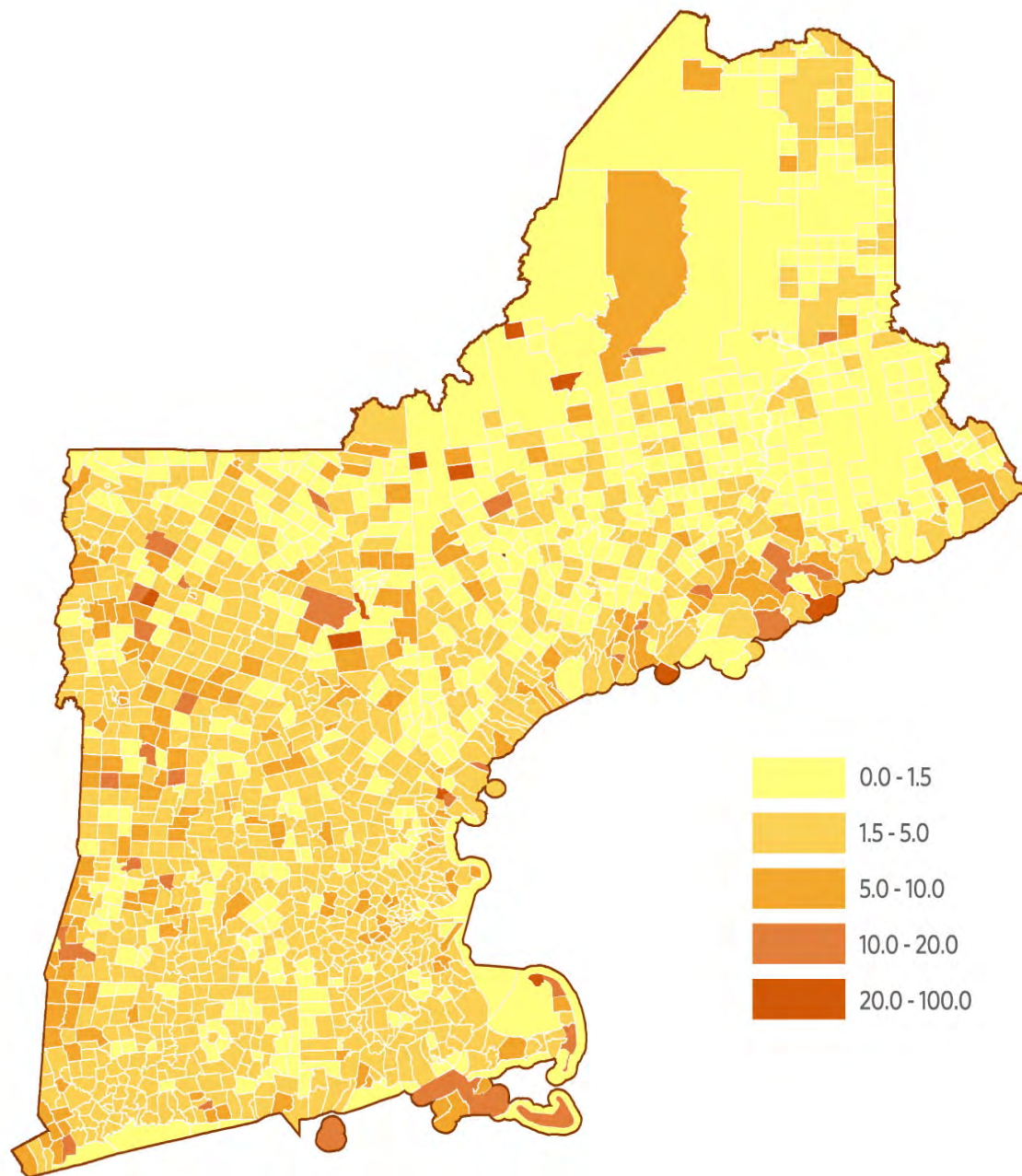
Creative Economy Data Summary for the New England States

2014/2015	CT	ME	MA	NH	RI	VT
Creative Enterprise Covered Employment	59,543	15,149	115,882	21,109	17,692	9,130
Creative Enterprise Nonemployers	15,428	6,919	33,556	5,862	4,709	4,323
Total Creative Enterprise Employment	74,971	22,068	149,438	26,971	22,401	13,453
Total Covered Employment	1,662,825	595,889	3,428,020	636,806	469,981	307,058
Total Nonemployers	269,845	111,777	502,274	103,345	75,223	60,181
Total Employment, All Industries	1,932,670	707,666	3,930,294	740,151	545,204	367,239
Share of Creative Enterprise Employment	3.9%	3.1%	3.8%	3.6%	4.1%	3.7%

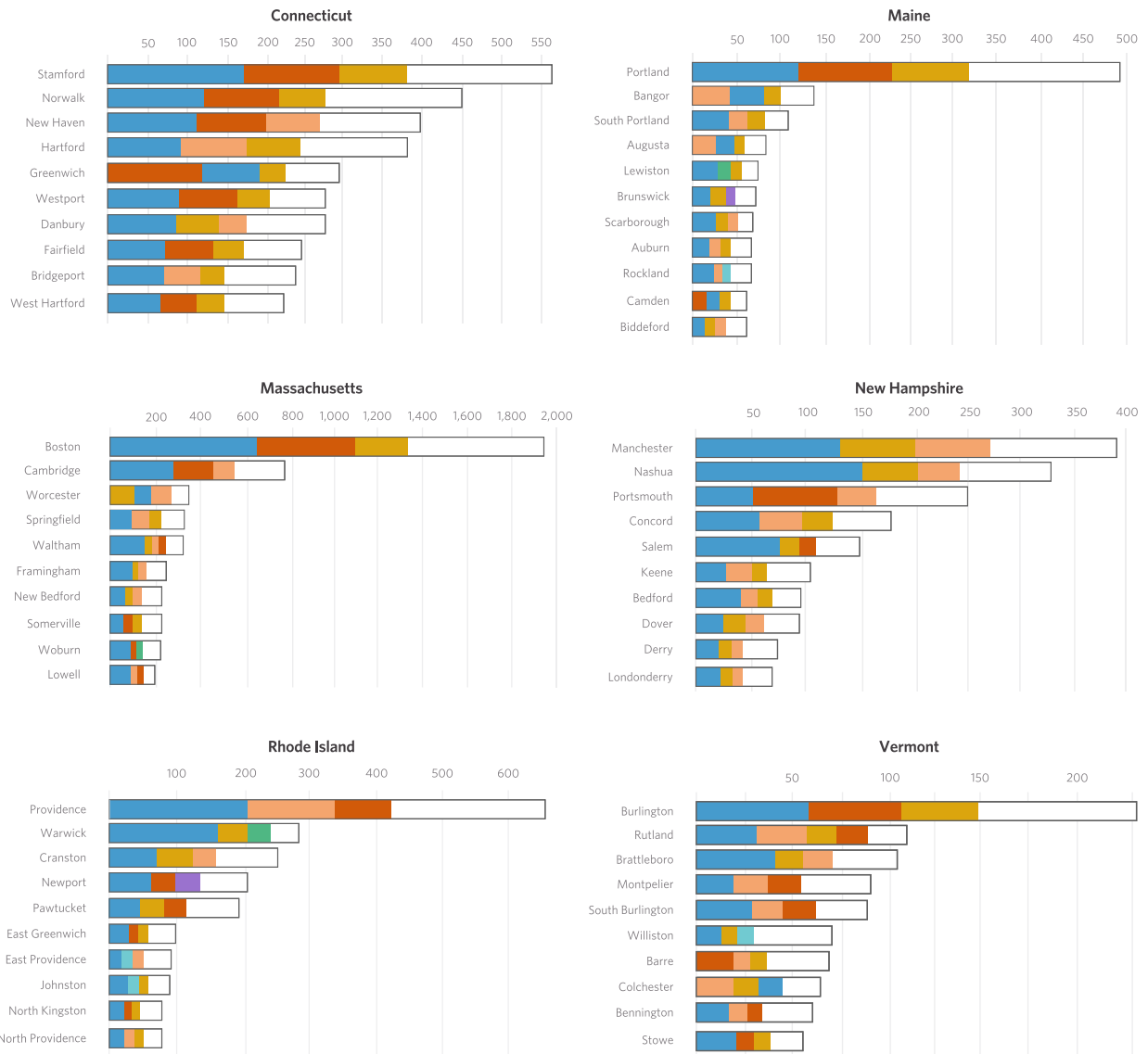
Source: U.S. Bureau of Labor Statistics, QCEW; U.S. Census Bureau, Nonemployer Statistics and County Business Patterns (for suppressed values)

Appendix C – Geographic Analysis of Creative Economy Enterprises, 2014

New England Creative Enterprises by City, 2014



Top 10 Communities By Number Of Creative Enterprises



*Colored bars denote the top three types of creative enterprises in the community.

Appendix D – Methodology: Creative Enterprises, Industry Codes

NEFA CORE Industries by Creative Category

NAICS 2012 Code	NEFA Core Industry and NAICS Description
Architecture and Design	
541310	Architectural Services
541320	Landscape Architectural Services
541340	Drafting Services
541410	Interior Design Services
541420	Industrial Design Services
541430	Graphic Design Services
541490	Other Specialized Design Services
Art and electronics-related Retail	
443142	Radio, Television, and Other Electronics Stores
448310	Jewelry Stores
451130	Sewing, Needlework, and Piece Goods Stores
451140	Musical Instrument and Supplies Stores
451211	Book Stores
453920	Art Dealers
812921	Photofinishing Laboratories (except One-Hour)
812922	One-Hour Photofinishing
Arts and architectural manufacturing	
332323	Ornamental and Architectural Metal Work Manufacturing
337212	Custom Architectural Woodwork and Millwork Manufacturing
339910	Jewelry (except Costume) Manufacturing
339992	Musical Instrument Manufacturing
Culture and Preservation	
712110	Museums
712120	Historical Sites
712130	Zoos and Botanical Gardens
712190	Nature Parks and Other Similar Institutions
Machinery and communications manufacturing	
333244	Printing Machinery and Equipment Manufacturing
334310	Audio and Video Equipment Manufacturing
334614	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing
Marketing	
541810	Advertising Agencies
541830	Media Buying Agencies
541840	Media Representatives
541850	Display Advertising

Materials manufacturing	
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing
327110	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
327212	Other Pressed and Blown Glass and Glassware Manufacturing
339940	Lead Pencil and Art Good Manufacturing
Media	
515111	Radio Networks
515112	Radio Stations
515120	Television Broadcasting
515210	Cable and Other Subscription Programming
517110	Cable and Other Program Distribution
519110	News Syndicates
519120	Libraries and Archives
519130	Internet Publishing and Broadcasting
532230	Video Tape and Disc Rental
Motion picture and teleproduction	
512110	Motion Picture and Video Production
512120	Motion Picture and Video Distribution
512131	Motion Picture Theaters (except Drive-Ins)
512132	Drive-In Motion Picture Theaters
512191	Teleproduction and Other Postproduction Services
512199	Other Motion Picture and Video Industries
Music Recording	
512210	Record Production
512220	Integrated Record Production/Distribution
512230	Music Publishers
512240	Sound Recording Studios
512290	Other Sound Recording Industries
Printing	
323111	Commercial Lithographic Printing
323113	Commercial Screen Printing
323117	Books Printing
323120	Tradebinding and Related Work
Publishing	
511110	Newspaper Publishers
511120	Periodical Publishers
511130	Book Publishers
511191	Greeting Card Publishers
511199	All Other Publishers

Visual Arts, Music and Other Performing Arts	
541921	Photography Studios, Portrait
541922	Commercial Photography
611610	Fine Arts Schools
711110	Theater Companies and Dinner Theaters
711120	Dance Companies
711130	Musical Groups and Artists
711190	Other Performing Arts Companies
711510	Independent Artists, Writers, and Performers
Wholesale art stores	
423410	Photographic Equipment and Supplies Merchant Wholesalers
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
424110	Printing and Writing Paper Merchant Wholesalers
424920	Book, Periodical, and Newspaper Merchant Wholesalers

NEFA Core Industries by 2-Digit NAICS Supersector

2 Digit NAICS	NEFA Core Industry and NAICS Description	
31-33	Manufacturing	
	323111	Commercial Lithographic Printing
	323113	Commercial Screen Printing
	323117	Books Printing
	323120	Tradebinding and Related Work
	325992	Photographic Film, Paper, Plate, and Chemical Manufacturing
	327110	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
	327212	Other Pressed and Blown Glass and Glassware Manufacturing
	332323	Ornamental and Architectural Metal Work Manufacturing
	333244	Printing Machinery and Equipment Manufacturing
	334310	Audio and Video Equipment Manufacturing
	334614	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing
	337212	Custom Architectural Woodwork and Millwork Manufacturing
	339910	Jewelry (except Costume) Manufacturing
	339940	Lead Pencil and Art Good Manufacturing
	339992	Musical Instrument Manufacturing
42	Wholesale Trade	
	423410	Photographic Equipment and Supplies Merchant Wholesalers
	423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
	424110	Printing and Writing Paper Merchant Wholesalers
	424920	Book, Periodical, and Newspaper Merchant Wholesalers
44-45	Retail Trade	
	443142	Radio, Television, and Other Electronics Stores
	448310	Jewelry Stores
	451130	Sewing, Needlework, and Piece Goods Stores
	451140	Musical Instrument and Supplies Stores
	451211	Book Stores
	453920	Art Dealers
51	Information	
	511110	Newspaper Publishers
	511120	Periodical Publishers
	511130	Book Publishers
	511191	Greeting Card Publishers
	511199	All Other Publishers
	512110	Motion Picture and Video Production
	512120	Motion Picture and Video Distribution

	512131	Motion Picture Theaters (except Drive-Ins)
	512132	Drive-In Motion Picture Theaters
	512191	Teleproduction and Other Postproduction Services
	512199	Other Motion Picture and Video Industries
	512210	Record Production
	512220	Integrated Record Production/Distribution
	512230	Music Publishers
	512240	Sound Recording Studios
	512290	Other Sound Recording Industries
	515111	Radio Networks
	515112	Radio Stations
	515120	Television Broadcasting
	515210	Cable and Other Subscription Programming
	517110	Cable and Other Program Distribution
	519110	News Syndicates
	519120	Libraries and Archives
	519130	Internet Publishing and Broadcasting
53	Real Estate and Rental and Leasing	
	532230	Video Tape and Disc Rental
54	Professional, Scientific, and Technical Services	
	541310	Architectural Services
	541320	Landscape Architectural Services
	541340	Drafting Services
	541410	Interior Design Services
	541420	Industrial Design Services
	541430	Graphic Design Services
	541490	Other Specialized Design Services
	541810	Advertising Agencies
	541830	Media Buying Agencies
	541840	Media Representatives
	541850	Display Advertising
	541921	Photography Studios, Portrait
	541922	Commercial Photography
61	Educational Services	
	611610	Fine Arts Schools
71	Arts, Entertainment, and Recreation	
	711110	Theater Companies and Dinner Theaters
	711120	Dance Companies
	711130	Musical Groups and Artists
	711190	Other Performing Arts Companies

	711510	Independent Artists, Writers, and Performers
	712110	Museums
	712120	Historical Sites
	712130	Zoos and Botanical Gardens
	712190	Nature Parks and Other Similar Institutions
81	Other Services (except Public Administration)	
	812921	Photofinishing Laboratories (except One-Hour)
	812922	One-Hour Photofinishing

CORE National Taxonomy of Exempt Entities (NTEE) Codes

NTEE	Description
A01	Alliances & Advocacy
A02	Management & Technical Assistance
A03	Professional Societies & Associations
A05	Research Institutes & Public Policy Analysis
A11	Single Organization Support
A12	Fund Raising & Fund Distribution
A19	Support N.E.C.
A20	Arts & Culture
A23	Cultural & Ethnic Awareness
A25	Arts Education
A26	Arts Councils & Agencies
A30	Media & Communications
A31	Film & Video
A32	Television
A33	Printing & Publishing
A34	Radio
A40	Visual Arts
A50	Museums
A51	Art Museums
A52	Children's Museums
A54	History Museums
A56	Natural History & Natural Science Museums
A57	Science & Technology Museums
A60	Performing Arts
A61	Performing Arts Centers
A62	Dance
A63	Ballet
A65	Theater
A68	Music
A69	Symphony Orchestras
A6A	Opera
A6B	Singing & Choral Groups
A6C	Bands & Ensembles
A6E	Performing Arts Schools
A70	Humanities
A80	Historical Societies & Related Historical Activities
A84	Commemorative Events
A90	Arts Services

A99	Arts, Culture & Humanities N.E.C.
B70	Libraries
C41	Botanical Gardens & Arboreta
D32	Bird Sanctuaries
D34	Wildlife Sanctuaries
D50	Zoos & Aquariums
N52	Fairs
Q21	International Cultural Exchange
V31	Black Studies
V32	Women's Studies
V33	Ethnic Studies
V35	International Studies
X80	Religious Media & Communications
X81	Religious Film & Video
X82	Religious Television
X83	Religious Printing & Publishing
X84	Religious Radio

Creative Economy Industry Definition based on industry codes (NAICS): Crosswalk Tables

Code definitions translate original 2007 NEFA definitions from 2007 NAICS to 2012 NAICS codes.

NEFA CORE Industries

2017 report based on NEFA CORE industries listed below.

2007 NAICS	2012 NAICS	Industry
Group 1 Cultural Goods Production		
323110	323111	Commercial Lithographic Printing
323111	323111	Commercial Gravure Printing
323112	323111	Commercial Flexographic Printing
323113	323113	Commercial Screen Printing
323115	323111	Digital Printing
323117	323117	Books Printing
323119	323111	Other Commercial Printing
323121	323120	Tradebinding and Related Work
323122	323120	Prepress Services
325992	325992	Photographic Film, Paper, Plate, and Chemical Manufacturing
327112	327110	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
327212	327212	Other Pressed and Blown Glass and Glassware Manufacturing
332323	332323	Ornamental and Architectural Metal Work Manufacturing
333293	333244	Printing Machinery and Equipment Manufacturing
334310	334310	Audio and Video Equipment Manufacturing
334612	334614	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing
337212	337212	Custom Architectural Woodwork and Millwork Manufacturing
339911	339910	Jewelry (except Costume) Manufacturing
339912	339910	Silverware and Hollowware Manufacturing
339913	339910	Jewelers' Material and Lapidary Work Manufacturing
339914	339910	Costume Jewelry and Novelty Manufacturing
339942	339940	Lead Pencil and Art Good Manufacturing
339992	339992	Musical Instrument Manufacturing
Group 2 Cultural Goods Distribution		
423410	423410	Photographic Equipment and Supplies Merchant Wholesalers
423940	423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
424110	424110	Printing and Writing Paper Merchant Wholesalers
424920	424920	Book, Periodical, and Newspaper Merchant Wholesalers
443112	443142	Radio, Television, and Other Electronics Stores
443130	443142	Camera and Photographic Supplies Stores

448310	448310	Jewelry Stores
451130	451130	Sewing, Needlework, and Piece Goods Stores
451140	451140	Musical Instrument and Supplies Stores
451211	451211	Book Stores
451220	443142	Prerecorded Tape, Compact Disc, and Record Stores
453920	453920	Art Dealers
812921	812921	Photofinishing Laboratories (except One-Hour)
812922	812922	One-Hour Photofinishing
Group 3 Intellectual Property Production & Distribution		
511110	511110	Newspaper Publishers
511120	511120	Periodical Publishers
511130	511130	Book Publishers
511191	511191	Greeting Card Publishers
511199	511199	All Other Publishers
512110	512110	Motion Picture and Video Production
512120	512120	Motion Picture and Video Distribution
512131	512131	Motion Picture Theaters (except Drive-Ins)
512132	512132	Drive-In Motion Picture Theaters
512191	512191	Teleproduction and Other Postproduction Services
512199	512199	Other Motion Picture and Video Industries
512210	512210	Record Production
512220	512220	Integrated Record Production/Distribution
512230	512230	Music Publishers
512240	512240	Sound Recording Studios
512290	512290	Other Sound Recording Industries
515111	515111	Radio Networks
515112	515112	Radio Stations
515120	515120	Television Broadcasting
515210	515210	Cable and Other Subscription Programming
516110	519130	Internet Publishing and Broadcasting
517510	517110	Cable and Other Program Distribution
519110	519110	News Syndicates
519120	519120	Libraries and Archives
532230	532230	Video Tape and Disc Rental
541310	541310	Architectural Services
541320	541320	Landscape Architectural Services
541340	541340	Drafting Services
541410	541410	Interior Design Services
541420	541420	Industrial Design Services
541430	541430	Graphic Design Services

541490	541490	Other Specialized Design Services
541810	541810	Advertising Agencies
541830	541830	Media Buying Agencies
541840	541840	Media Representatives
541850	541850	Display Advertising
541921	541921	Photography Studios, Portrait
541922	541922	Commercial Photography
611610	611610	Fine Arts Schools
711110	711110	Theater Companies and Dinner Theaters
711120	711120	Dance Companies
711130	711130	Musical Groups and Artists
711190	711190	Other Performing Arts Companies
711510	711510	Independent Artists, Writers, and Performers
712120	712120	Historical Sites
712130	712130	Zoos and Botanical Gardens
712190	712190	Nature Parks and Other Similar Institutions
712110	712110	Museums*

*Note: Museums were moved from Group 2 to Group 3.

Peripheral Industries

2007 NAICS	2012 NAICS	Industry
Group 1 Cultural Goods Production		
323114	323111	Quick Printing
325910	325910	Printing Ink Manufacturing
327215	327215	Glass Product Manufacturing Made of Purchased Glass
327420	327420	Gypsum Product Manufacturing
327991	327991	Cut Stone and Stone Product Manufacturing
327999	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
333315	333316	Photographic and Photocopying Equipment Manufacturing
334220	334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
334613	334613	Magnetic and Optical Recording Media Manufacturing
336612	336612	Boat Building
Group 2 Cultural Goods Distribution		
423620	423620	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers
423920	423920	Toy and Hobby Goods and Supplies Merchant Wholesalers
424990	424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers
451120	451120	Hobby, Toy, and Game Stores
451212	451212	News Dealers and Newsstands
453220	453220	Gift, Novelty, and Souvenir Stores
453998	453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
Group 3 Intellectual Property Production & Distribution		
511210	511210	Software Publishers
532220	532220	Formal Wear and Costume Rental
532299	532299	All Other Consumer Goods Rental
541820	541820	Public Relations Agencies
541860	541860	Direct Mail Advertising
541890	541890	Other Services Related to Advertising
611519	611519	Other Technical and Trade Schools
711310	711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
711320	711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
711410	711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures

Appendix E – Methodology: Creative and Artistic Occupations, Occupational Codes

Crosswalk Tables

NEFA CORE Occupations

SOC 2000	SOC 2010	Census	Occupation
11-2011	11-2011	0040	Advertising and Promotions Managers
11-2031	11-2031	0060	Public Relations Managers
17-1011	17-1011	1300	*Architects, Except Landscape and Naval
17-1012	17-1012	1300	*Landscape Architects
17-3011	17-3011	[Part of 1540]	Architectural and Civil Drafters
19-3091	19-3091	[Part of 1860]	Anthropologists and Archeologists
19-3093	19-3093	[Part of 1860]	Historians
25-1031	25-1031	[Part of 2200]	Architecture Teachers, Postsecondary
25-1061	25-1061	[Part of 2200]	Anthropology and Archeology Teachers, Postsecondary
25-1062	25-1062	[Part of 2200]	Area, Ethnic, and Cultural Studies Teachers, Postsecondary
25-1082	25-1082	[Part of 2200]	Library Science Teachers, Postsecondary
25-1121	25-1121	[Part of 2200]	Art, Drama, and Music Teachers, Postsecondary
25-1122	25-1122	[Part of 2200]	Communications Teachers, Postsecondary
25-1123	25-1123	[Part of 2200]	English Language and Literature Teachers, Postsecondary
25-1124	25-1124	[Part of 2200]	Foreign Language and Literature Teachers, Postsecondary
25-1125	25-1125	[Part of 2200]	History Teachers, Postsecondary
25-4011	25-4011	2400	Archivists
25-4012	25-4012	2400	Curators
25-4013	25-4013	2400	Museum Technicians and Conservators
25-4021	25-4021	2430	Librarians
25-4031	25-4031	2440	Library Technicians
25-9011	25-9011	[Part of 2550]	Audio-Visual Collections Specialists
27-1011	27-1011	2600	*Art Directors
27-1012	27-1012	2600	*Craft Artists
27-1013	27-1013	2600	*Fine Artists, Including Painters, Sculptors, and Illustrators
27-1014	27-1014	2600	*Multi-Media Artists and Animators
27-1019	27-1019	2600	*Artists and Related Workers, All Other
27-1021	27-1021	2630	*Commercial and Industrial Designers
27-1022	27-1022	2630	*Fashion Designers

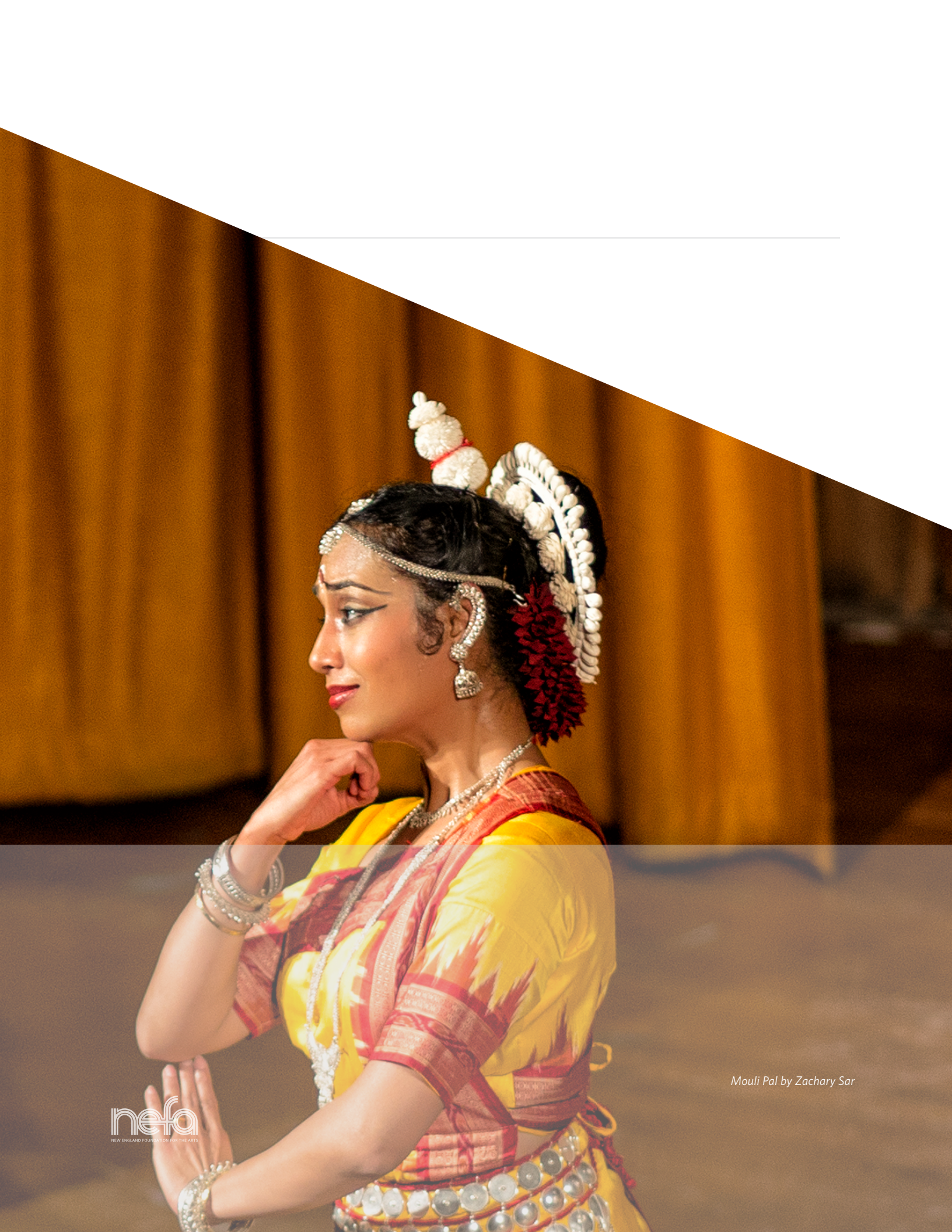
27-1023	27-1023	2630	*Floral Designers
27-1024	27-1024	2630	*Graphic Designers
27-1025	27-1025	2630	*Interior Designers
27-1026	27-1026	2630	*Merchandise Displayers and Window Trimmers
27-1027	27-1027	2630	*Set and Exhibit Designers
27-1029	27-1029	2630	*Designers, All Other
27-2011	27-2011	2700	*Actors
27-2012	27-2012	2710	*Producers and Directors
27-2031	27-2031	2740	*Dancers
27-2032	27-2032	2740	Choreographers
27-2041	27-2041	2750	Music Directors and Composers
27-2042	27-2042	2750	*Musicians and Singers
27-2099	27-2099	2760	*Entertainers, Performers, Sports and Related Workers, All Other
27-3011	27-3011	2800	*Radio and Television Announcers
27-3012	27-3012	2800	*Public Address System and Other Announcers
27-3021	27-3021	2810	Broadcast News Analysts
27-3022	27-3022	2810	Reporters and Correspondents
27-3031	27-3031	2820	Public Relations Specialists
27-3041	27-3041	2830	Editors
27-3042	27-3042	2840	Technical Writers
27-3043	27-3043	2850	*Writers and Authors
27-3099	27-3099	2860	Media and Communication Workers, All Other
27-4011	27-4011	2900	Audio and Video Equipment Technicians
27-4012	27-4012	2900	Broadcast Technicians
27-4013	27-4013	2900	Radio Operators
27-4014	27-4014	2900	Sound Engineering Technicians
27-4021	27-4021	2910	*Photographers
27-4031	27-4031	2920	Camera Operators, Television, Video, and Motion Picture
27-4032	27-4032	2920	Film and Video Editors
27-4099	27-4099	2960	Media and Communication Equipment Workers, All Other
39-3021	39-3021	4410	Motion Picture Projectionists
39-3092	39-3092	[Part of 4430]	Costume Attendants
39-5091	39-5091	[Part of 4520]	Makeup Artists, Theatrical and Performance
41-3011	41-3011	4800	Advertising Sales Agents
43-4121	43-4121	5320	Library Assistants, Clerical
43-9031	43-9031	5830	Desktop Publishers

49-2097	49-2097	7120	Electronic Home Entertainment Equipment Installers and Repairers
49-9061	49-9061	[Part of 7430]	Camera and Photographic Equipment Repairers
49-9063	49-9063	[Part of 7430]	Musical Instrument Repairers and Tuners
49-9064	49-9064	[Part of 7430]	Watch Repairers
51-5011	51-5113	8230	Bindery workers
51-5012	51-5113	8230	Bookbinders
51-9071	51-9071	8750	Jewelers and Precious Stone and Metal Workers
51-9123	51-9123	[Part of 8810]	Painting, Coating, and Decorating Workers
51-9131	51-9151	8830	Photographic Process Workers
51-9132	51-9151	8830	Photographic Processing Machine Operators

Peripheral Occupations

SOC 2000	SOC 2010	Census	Occupation
13-1011	13-1011	0500	Agents and Business Managers of Artists, Performers, and Athletes
29-1125	29-1125	3210	Recreational Therapists
35-1011	35-1011	4000	Chefs and Head Cooks
35-2013	35-2013	[Part of 4020]	Private Household Cooks
35-2014	35-2014	[Part of 4020]	Cooks, Restaurant
39-3031	39-3031	4420	Ushers, Lobby Attendants, and Ticket Takers
39-6021	39-7011	4540	Tour Guides and Escorts
39-6022	39-7012	4540	Travel Guides
39-9032	39-9032	[Part of 4620]	Recreation Workers
51-3011	51-3011	7800	Bakers
51-4061	51-4061	8060	Model Makers, Metal and Plastic
51-4062	51-4062	8060	Patternmakers, Metal and Plastic
51-5021	51-5112	8240	Job Printers
51-5022	51-5111	8250	Prepress Technicians and Workers
51-5023	51-5112	8260	Printing Machine Operators
51-6050	51-6052	8350	Tailors, Dressmakers, and Custom Sewers
51-6051	51-6051	8350	Sewers, Hand
51-6092	51-6092	8440	Fabric and Apparel Patternmakers
51-7011	51-7011	8500	Cabinetmakers and Bench Carpenters
51-7021	51-7021	8510	Furniture Finishers
51-7031	51-7031	8520	Model Makers, Wood
51-7032	51-7032	8520	Patternmakers, Wood
51-7099	51-7099	8550	Woodworkers, All Other
51-9195	51-9195	8920	Molders, Shapers, and Casters, Except Metal and Plastic

*Indicates artistic occupations



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