



CREATIVEMANY

CREATIVEstate[®]

2016 Creative Industries Report

MICHIGAN

Foundations for a Creative Economic Policy for Michigan



Reynolds Metals
Regional Sales Office,
Southfield, designed by
Minoru Yamasaki.

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the Library of Congress.

“A recent poll of fifteen hundred CEOs identified creativity as the number-one ‘leadership competency’ of the future.”

— Clayton Christensen

“Coming together is a beginning; keeping together is progress; working together is success.”

— Henry Ford



Concept sketch of
Ford's 2017 GT supercar.
Production is expected
to start in 2016.

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DAVID MCCALL

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Runaway Press takes up shop at the Michigan House in Austin 2015.

Photo Credit: Shutter Sam

A Letter to Our Community

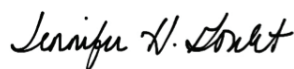
Michigan's creative industries are a powerful force across our state contributing to the vibrancy of our communities, growth and prosperity of our economy, and in the education of Michigan's youth as the leaders and innovators for our future.

Creative Many Michigan is the statewide organization developing creative people, creative places and the creative economy for a competitive Michigan through research, advocacy, professional practice, funding and communications. Since 2012, our Creative State Michigan reports have affirmed the economic and social contributions of the nonprofit arts and cultural sector and its role in cultivating community vibrancy, talent and business attraction, tourism and educational opportunities. In 2014, our research lens expanded with a broader focus on Michigan's creative industries, for profit and nonprofit, setting a new framework to strategically position the arts, creativity and design for competitive advantage.

This 2016 Creative State Michigan Creative Industries Report deepens our understanding of the critical role of the creative industries in Michigan's economy and the vitality of its communities, and the opportunities and challenges facing these industries today and for the future. Creative Many desires that this report define a new foundation for the strategic priorities, policies and investments that are essential in positioning the creative industries for economic growth opportunities in Michigan.

Creative Many deeply appreciates the generous support of its funding partners including the U.S. Economic Development Administration, The Kresge Foundation, Masco Corporation Foundation, Charles Stewart Mott Foundation, Ford Foundation, Michigan Economic Development Corporation, Detroit Creative Corridor Center and Prima Civitas. We thank them for their steady commitment to the importance of this research and the integral role of the arts, creativity and design in Michigan and its communities. Creative Many also acknowledges the contributions of our research consultant partner, KerrSmith Design, in the design and development of this study, and challenging us to explore and envision greater possibilities for the leading role of the arts, creativity and design in Michigan's future.

Best regards,



Jennifer H. Goulet,
President and CEO
Creative Many Michigan



Cézanne J. Charles
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Sarah Gonzales Triplett
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Introduction

Introduction

The 2016 Creative State report explored and analyzed the extent, composition and contributions of Michigan's creative industries.

Left: The Grand Rapids Art Museum in West Michigan hosts a variety of childrens' programming events.

"Colored Pencils Cup Children Art Class Grand Rapids Art Museum" by Steven Depolo is licensed under CC BY 2.0

Creative Many Michigan was awarded grant funds from the U.S. Economic Development Administration through its Local Technical Assistance program to conduct a second phase of comprehensive research, analysis and reporting on the extent, composition and contributions of Michigan's creative industries – statewide and in key regions including Detroit, Grand Rapids, Ann Arbor, and Flint – and providing a solid foundation for the development of economic strategies cultivating growth opportunities for creative jobs and businesses. This effort is designed as an expansion of Creative Many's Creative State MI research initiative, launched in 2012 with a series of annual reports on the economic and social contributions of Michigan's nonprofit arts and cultural sector.

Creative Many is dedicated to making the case that the creative sector is an essential ingredient to Michigan's reinvention; contributing jobs and economic benefits, creating vibrant communities to attract and retain business and talent, supporting statewide cultural tourism aims and transforming the lives of people of all ages.

With an aim of cultivating growth opportunities for Michigan's creative economy – for profit and nonprofit – Creative Many embarked on its first phase of research in 2013, in partnership with the Detroit Creative Corridor Center, to comprehensively define and measure the influence of the creative industries to Michigan's economy. Creative Many's first Creative Industries Report, released in January 2014, provides a baseline snapshot of Michigan's creative industries.

The focus of this research initiative was to develop comprehensive research and data analysis, benchmark Michigan against state and regional competitors in the U.S., engage state and regional creative industry leaders and stakeholders in evaluating the findings, discuss needs and opportunities for cultivating sector growth and highlight case study models. With this report, Creative Many seeks to position the research findings and recommendations as a framework for the development of state and regional economic development priorities, strategies and investments to strengthen and grow jobs and businesses across Michigan's creative industries.

How to Read This Report

The 2016 Creative State report is presented in eight chapters.

- Chapter 1:** **Introduction** Introducing the reader to the layout of this report, by pointing out areas of particular interest for specific types of readers and providing an executive summary of the document.
- Chapter 2:** **Research Approach** The Research Approach chapter provides a description of the study, the study's rationale, research questions and an overview of the methodology using both quantitative and qualitative methods.
- Chapter 3:** **Quantitative Research** This chapter delves deeply into the quantitative research, providing a more detailed description of methods. It presents an overview of creative industries in Michigan while also highlighting each of the 12 creative industries that are the focus of investigation for this report. Chapter 3 also portrays regional perspectives, illustrated with case studies, for Detroit, Grand Rapids, Ann Arbor and Flint.
- Chapter 4:** **Sector Focus** Three sector overviews that incorporate multiple interconnected industries were examined, including: Automotive Design, Product Design and Film and Media.
- Chapter 5:** **Qualitative Research** Here, the qualitative research completed for this study is demonstrated. The first section outlines and illuminates the methods used for engagements, including Thought Leader Interviews, Regional Workshops and the Creative Economy Policy Summit. In addition to depicting the foresight methods used, the second section of this chapter presents the foresight analysis conducted in support of this study. It includes a description of foresight, why it formed part of this research and five key challenges that provide context for employment in Michigan, and for the creative industries in particular.
- Chapter 6:** **Recommendations** Derived from the research, this chapter offers a set of recommendations to strengthen and grow jobs and businesses across Michigan's creative industries.
- Chapter 7:** **Conclusion** The conclusion summarizes the contents of the 2016 Creative State research and restates report findings and insights.
- Chapter 8:** **Appendices** The Appendix features supplementary material including a complete list of references to documents reviewed and sources cited, a list of industry (NAICS) and occupation (SOC) codes that form the basis of this research, benchmarking data, the list of interviewees and the Creative Economy Policy summit program.

Who Should Read This Report

While we think that readers will find useful material in each chapter of this report, we recognize that there are times when a targeted approach is necessary. In light of this, we have outlined sections that may be of particular interest to different types of readers.

Creative and Cultural Workers

Professionals and leaders working in the for profit and nonprofit creative sector including arts and cultural leaders, artists, designers, technologists, and other creative practitioners will be particularly interested in the State Overview as well as the industry and regional profiles in **Chapter 3**. Workers will also want to review the foresight analysis in **Chapter 5** as it provides context for employment conditions over the next five to ten years.

Creative Industries

Leaders of creative industry enterprises may wish to see how their industry fares in the state as a whole and in specific regions (**Chapter 3**). The foresight analysis in **Chapter 5** will help them in future human resources planning.

Policymakers

The range of government policy makers, employees, and public policy advocacy and lobbying organizations should review the Recommendations in **Chapter 6** and Conclusion in **Chapter 7** as these will be pertinent to policy making.

Funders and Investors

Foundations, philanthropists, venture capitalists, and finance specialists will also be drawn to the Recommendations and Conclusion in **Chapters 6** and **7**, respectively.

Community and Economic Developers

Economic and community developers, business and talent accelerator leadership, and workforce and urban development practitioners and leaders will find that **Chapter 3** provides them with details about the design and creative industries in the state (including the four key regions). This group will also be interested in **Chapters 6** and **7**.

Other Researchers

Creative economy researchers and other arts-related researchers will be particularly interested in understanding the methods used in this mixed-methods study. **Chapters 2, 3** and **5** outline the methodology of this study and provide detailed descriptions of each method. These will help to underscore how this study connects to other creative industries and creative economy research both in the U.S. and internationally. They will also outline how this research differs by providing a broad context within which to consider employment for creative workers today and into the future.

Glossary

Several technical or uncommon terms have been used throughout this research study. In order to support a common understanding of the use of these terms, the following glossary has been provided.

Contingent Workers

Workers in alternative work arrangements such as independent contractors, on-call workers, temporary agency workers and workers provided by contract firms.

Creative Economy

The combination of the creative industries (including creative occupations and non-creative occupations) and the creative occupations that are found in non-creative industries in for profit and non-profit establishments.

Creative Industries

Representing a broader range of industries than the cultural industries (see definition below), they may often include advertising, architecture, design, culture and heritage and literary arts and publishing.

Creative Industry Clusters

For the purposes of this research, creative industries have been grouped into clusters of affinity. For example, industries related to architecture such as architectural services and landscape architectural services have been grouped together in one cluster.

Creative Occupation

Not simply an occupation within the creative industries, it involves the use of creative skills applied to problem solving, combined with processes defined by collaborative relationships that create or deliver some kind of output.

Creative Placemaking

Where partners from creative, public, private, nonprofit, and community sectors strategically shape the physical and social character of a neighborhood, town, city or region around arts, cultural activities and creative experiences.

Cultural Industries

Those industries that are involved in the production of cultural goods, services and experiences. Often recognized as including the arts (visual or performing arts), publishing (newspaper, book and magazine), music recording and publishing, radio, television and filmmaking.

Environmental Scan

A process that focuses on trends with a view to developing a better understanding of the nature and pace of change in the current environment. Environmental scans may seek to understand the near future, things that may happen over the next few months or years.

Foresight

The study of the possible future conditions that may affect an organization's operations. The insights gained from this work can be used to detect adverse conditions, inform policy development, shape strategies and explore new products, services and markets.

Horizon Scanning

A process for understanding emerging issues that are not yet well understood so that we may understand changes that may have a future impact, years or decades down the road. Horizon scans draw from a wide variety of sources and across multiple domains. Typical frameworks include a combination of domains such as society, science, economy, ecology, environment, politics, policy, culture and values.

Internet of Things (IoT)

The network of objects, devices, vehicles and buildings, etc. that are embedded with software and sensors. Their connection to the internet enables them to collect and exchange data based on their ability to sense their internal states and their interactions with the external environment.

Location Quotient (LQ)

The U.S. Bureau of Labor Statistics defines location quotients as ratios that allow an area's distribution of employment by industry to be

compared to a reference or base area's distribution. For this study, the reference area is the U.S. and the reference or base industry includes all industries in the economy.

Metropolitan Statistical Area (MSA)

Geographic entities used by federal statistical agencies in collecting, tabulating and publishing federal statistics.

STEEP

Referring to domains of enquiry in environmental and horizon scanning activities. STEEP represents: Society (S); Technology (T); Economy (E); Ecology (E); Policy (P) and Values (V).

STEM

The acronym for the academic disciplines of Science, Technology, Engineering and Math.

Three Horizons Method

Pioneered by UK foresighters Bill Sharpe and Anthony Hodgson, this method enables participants to develop a deeper understanding of short (Horizon 1), medium (Horizon 2) and long term (Horizon 3) potential future conditions. The notion of "life-cycles" - initiation, growth, peak performance, decline and even death - can be viewed as waves of change where dominant forms are eventually overtaken and displaced.



2016 Creative Industries Report

Executive Summary

Creative Many Michigan was awarded grant funds from the U.S. Economic Development Administration through its Local Technical Assistance program to conduct a second phase of comprehensive research, analysis and reporting on the extent, composition and contributions of Michigan's creative industries. The purpose is to provide a solid foundation for the development of economic strategies that cultivate growth opportunities for creative jobs and businesses - statewide and in key regions including Detroit, Grand Rapids, Ann Arbor and Flint.

This research project is designed as an expansion of Creative Many's Creative State MI research initiative, launched in 2012. Four research questions were identified for the 2016 Creative State Michigan project. They were:

- 1. Are the creative industries in Michigan thriving and innovative?**
- 2. How are Michigan's creative industries and occupations distributed and supported?**
- 3. How do creative industry stakeholders envision their future?**
- 4. What external pressures will impact the future of the creative economy?**

Ideal readers for this report are creative and cultural workers, creative industries leadership, policy makers, funders and investors, community and economic developers and other creative economy researchers.

Overview of Methods & Approach to the Research

This research was designed as a mixed methods study. Existing policy and academic research, as well as creative economy studies conducted across the U.S. and internationally informed the design of this project. The quantitative research consisted of collecting and analyzing employment and wage data from the years 2011-2014 for industries and occupations pertaining to 12 creative industry clusters. Primary datasets were retrieved from the U.S. Bureau of Labor Statistics and the U.S. Census Bureau. Interviews with 31 Michigan thought leaders and four participatory regional workshops in Detroit, Grand Rapids, Ann Arbor and Flint using a "Three Horizons" framework to build common understanding of a desired future were employed. A broad scan of relevant publications and other information sources contributed to the capture and sensemaking of "weak signals" of the future, in order to provide early hints of important changes likely to have impact on Michigan's creative economy.

+8.53%

Creative industry wages have increased 8.53 percent in Michigan between 2011 and 2014.

Overview of Quantitative Research Findings

In 2014, Michigan employed 88,761 people in 10,706 establishments in the creative industries and their wages totaled \$4,970,713,432. Employment in creative industries has grown 1.49% between 2011 and 2014 compared to 6.1% for all industries in Michigan. Creative industry employment as a percentage of all employment has declined to 2.17% since 2011. Design now represents the largest creative industry sector in the state in terms of employees and wages. Representing the second largest sector in terms of employment, Literary, Publishing and Print has shown the greatest decline in employment with 2,923 fewer employees and a 15.8% decline. Although there has been some decrease since 2011, the Film, Audiovisual and Broadcasting cluster employs the third largest group of workers. Wage increases in creative industries in the state have been lower than in all Michigan industries by percentage, however, average per person income has grown to \$56,001.10 compared to \$48,486.62 for all industries. There was a slight decline in creative industry wages as a percentage of overall wages in the state. The number of establishments has declined or only slightly increased in most industries studied. Literary, Publishing and Print had the largest total reduction with 122 fewer establishments in 2014 than 2011, a 6.8% decline. Only one cluster showed a large increase in establishments in the time period. Creative Technology counted a 23.7% increase.

Industry Clusters

Advertising
 Architecture
 Art Schools, Artists & Agents
 Creative Technology
 Culture & Heritage
 Design
 Fashion, Garment & Textile
 Film, AV & Broadcasting
 Literary, Publishing & Print
 Music
 Performing Arts
 Visual Arts & Craft

Twelve Creative Industry Clusters

Average per employee wages in **Advertising** are the second highest for all creative industries in the state and have shown a steep increase, especially since 2012. There has been a decline in the number of establishments since 2013, but a strong percentage growth in industry employment and in most creative occupations.

Employment and establishments have stabilized within the **Architecture** cluster and wages have grown overall. Architectural services is the largest segment and showed an increase of over 200 employees. Occupations have shown varied growth. There are more architects but 16.4% fewer drafters.

Art Schools, Artists and Agents. Within this cluster, Art Schools have shown continuous year over year increases in employment while Agents and Managers have decreased. Independent Artists, Writers and Performers have recovered 72% of the jobs lost since 2012. Wages have steadily increased overall but somewhat fewer establishments are present. All the occupations represented in this cluster showed increases in employment. Postsecondary art, drama and music teachers showed the most marked increase, more than doubling in total numbers.

82%

Of Creative Technology workers are employed in the Software Publishing industry.

Overall, the **Creative Technology** industry cluster experienced the greatest percentage growth in employees and wages compared to other creative industries in the state. Although the sector is not the highest wage generator in total, it represents the highest per person average wage. Software publishing employs 82% of workers in this cluster.

Within the **Culture and Heritage** cluster, overall employment in museum industries has rebounded, while the number of employees in libraries and archives have steadily declined. Wages have stabilized and there is an increase in the number of establishments in the cluster. In terms of occupations, the number of both curators and library technicians have also increased. There are fewer librarians overall.

Employment and wages in **Design** industries have increased substantially. The aggregated eight industry codes related to various types of furniture manufacturing represent 43% of employment in this cluster and just over 52% of wages. There has been a decline in number of establishments overall. Michigan continues to be the largest employer of commercial and industrial designers in the country, registering a 22% increase in these workers, and has the top location quotient position for this occupation nationally.

The 14 codes representing various textile and knitting mills represent over 95% of employment in the **Fashion, Garment and Textile** industry cluster. However, because there is suppression of data due to the small number of establishments reporting information, it is impossible to determine accurately the role of apparel and footwear manufacturing in overall employment or wages from this perspective. In term of occupations, no data was available for analysis.

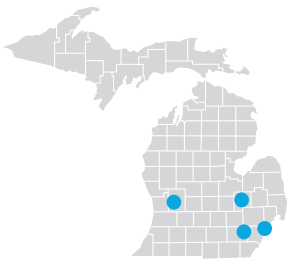
Despite changes in funding and recent losses, the **Film, Audiovisual and Broadcasting** cluster remains an important contributor to Michigan's creative economy. Overall, it adds the second biggest sum of total wages and employs the third largest group of workers. Occupations in the cluster include various technicians, educators, creators and performers pointing to a diversified industry. The largest increase was in postsecondary communications teachers with 400 additional people employed.

Literary, Publishing and Print is the only industry cluster to show decline in all measures of contribution, both in industry reporting as well as creative occupations. The decline has leveled off and the sector remains a major generator of wages in the state. Commercial printing is by far the largest employer segment in this industry cluster representing 45% of employees and 44% of wages.

There is a very large percentage change in employment and wages in the **Music** cluster, but the actual numbers are smaller than in other clusters and that impact was varied throughout the industries represented. While employment more than doubled in radio stations, it declined 27% in musical instrument and supplies stores during the study period. Employee and wage data for some record production and manufacturing industries were suppressed in 2011, 2012 and 2013 but were present in 2014. Both occupation groups identified in the cluster grew.

As seen through the lens of percentage change over time, employment and numbers of operating establishments have been relatively stable since 2011 in the **Performing Arts**. However average annual wages remain low overall and have not significantly increased on a per worker basis in the same timeframe. Nonemployer establishments for Performing Arts represent the second highest increase between 2011 and 2013 in this report.

The **Visual Arts and Craft** cluster has seen a decline in number of employees and establishments as well as wages overall. However, unlike most other sectors in this study, nonemployer establishments represent the largest portion of employment in the sector by a factor of more than ten compared to other establishments. In the industry data, codes related to photography were the hardest hit in terms of employment.



Regional Profiles

Detroit

Despite notable improvements and dedicated investment from foundations and private ventures, Detroit still lags other American cities of equivalent size in terms of the overall financial and employment impact of creative industries. In an era when population decline continues and average household income remains low, still more time and input is needed to build the vigorous diverse economy needed. Industry clusters with the highest levels of employment include Advertising; Design; Film, Audiovisual and Broadcasting; and Literary, Publishing and Print.

Grand Rapids

Grand Rapids has seen an increase in diversity of employment in creative industries, but the Design industries dominate. Design makes up the largest portion of the creative industry clusters in Grand Rapids, accounting for 53% of employees and nearly 63% of wages and has grown since 2011. However there are increases in other sectors such as Creative Technology; Literary, Publishing and Print; and Visual Arts and Craft. The furniture industry remains influential in attracting high caliber design practitioners and functions as a focal point for related business growth.

500K

With over 500,000 jobs, Michigan's Automotive Industry represents 22% of the total automotive workforce in the United States.¹

Ann Arbor

The Creative Technology sector continues to make a substantial impact in Ann Arbor accounting for 57% of the region's creative economy wages. Although there has been very little change overall in creative industry employment in this region, there has been over 12% increase in wages. Creative Technology also represents the largest sector for employment (34% of all creative industries employment), followed by Literary, Publishing and Print and Design.

Flint

Despite hardships, creative industries are thriving and determined to grow in Flint. The city saw the largest positive change in employment (26%) and wages (55%) in creative industries in this report. The Advertising sector saw a dramatic decline of over 70% of employees, but both Visual Arts and Craft industries and Design increased in the study period, although several design industry codes had too few establishments to report employment data.

Sector Focus Reports

Three sector overviews that incorporate multiple interconnected industries were examined. Each was chosen for its economic and social impact on the state.

The **automotive** industry continues to play a pivotal role in the economy of Michigan and has a significant, and reciprocal, relationship to the health of the state's creative industries and occupations. The incorporation of emergent technologies including data collection and use, the exploration of new materials and the impact on public infrastructure are all advancing the sector. Because of their scale, these innovations will have long-term and far-reaching impacts on both the state and the world as a whole. The automotive industry also links strongly to Design, Advertising and Art Schools.

A wide range of businesses that have been built on design are expanding their capacity and influence in the state. An historic concentration of contract furniture manufacturing in Michigan has created a deep pool of well-trained, highly skilled workers and collective pride in the modern design movement. Michigan benefits from a relatively robust and resilient sector ecosystem for **product design** and development. In several cities, high caliber postsecondary educational offerings in many design disciplines are appealing to local and out-of-state students. Connections between industry and academia are increasing, providing more opportunities for students to learn trade appropriate skills on the job through co-op placement or internships. Both start-ups and large corporations are employing designers as key members of their strategic management teams, ensuring customer satisfaction.

1. Michigan Economic Development Corporation. (2014). *State of Michigan Automotive Strategic Plan*. p.4.

It is harder than ever to draw clear boundaries around the industries in the **film and media** sphere. Creative activities range from film, television and digital media production, television and radio broadcasting, to interactive entertainment software development and publishing. These sectors are also intricately interconnected with the information communications technology, advertising, design and visual arts sectors, as well as omnichannel retail. While postsecondary education in support of the computer and video game development industry is strong in Michigan, there isn't a comparable education system for the film and television production industry. The film and media ecosystem has undergone significant changes over the past ten years, including the elimination of the state tax incentive.

Qualitative Research

In order to place the quantitative research findings in context and gain a more nuanced perspective of Michigan's creative industries, qualitative research was also undertaken over the course of the study period. This took the form of broad engagement and foresight exploration. The engagement methods included interviews with thought leaders, a series of regional workshops and a Summit dedicated to advancing discussion of creative economy research, as well as future oriented analysis.

Thought Leader Interviews

Interviews with key creative industries stakeholders across Michigan were conducted between May and September 2015. Almost every participant identified the re-establishment of equal access to high quality arts education as a fundamental requirement for developing a resilient, innovative workforce and building a thriving creative economy in Michigan. Many interviewees acknowledged the globally competitive environment that exists for talent in the current economy. Part of attracting and retaining highly skilled workers and financial investment to Michigan is recognition of the role of art, culture and design in creating desirable places to live. Longer-term support of meaningful multi-year projects with deep partnerships is necessary. Representatives from several different industries expressed frustration that Michigan does not maintain the complete creative ecosystems required to truly scale their impact in many areas. Intentional diversity is required to build a thriving and innovative community. Regional polarization was identified as a potential hindrance to building a strong and competitive sector.



Workshops were held in Detroit, Grand Rapids, Ann Arbor and Flint using the Three Horizons framework.

Photo Credit: Sarah Nesbitt

Regional Workshops

Structured workshops were held in June 2015 with members of the arts, culture, design and creative communities, as well as other community leaders in Ann Arbor, Detroit, Flint and Grand Rapids. These events provided the opportunity to convene a series of discussions about the present state and future of Michigan's creative economy. Key findings that emerged:

Education is Paramount. Echoing the individual interviews, participants expressed strong feeling about the need for broad access to art and design education to promote the creative thinking skills that are critical to the state's innovation ambitions.

Changing the Narrative. Currently available data does not accurately describe the shifting boundaries of occupations and industries or take into account the massive impact of technology in all sectors. The economic and social impact of freelance and contractual work were identified as difficult to accurately measure.

Political Climate. A frustration with the polarized political environment was voiced throughout all the sessions.

Scale and Focus. Tensions existed between market-based and non-commercial expressions of creativity. In some cases, this manifested as a comparison between the small scale, craft-based endeavors that have seen some success in Michigan versus the larger, creative entities that have deep roots in the state.

Change is Needed. There was recognition of the need for changing business models for the arts and the impact of new technologies on audience participation and development, creative practices and dissemination of output.

Regional Differences. In contrast to the themes that surfaced across the workshops, there were regional differences. In Flint, participants acutely felt that the national narrative about the city as one of violence impeded work being done on the ground to make change happen. In Ann Arbor, the conversation tilted more towards art and culture rather than design. In Grand Rapids, a diverse creative community was represented and participants were encouraged by the increasing recognition of the role of creative professions in the growth and health of the city. In Detroit, participants articulated frustration that long standing issues, such as racial tensions, economic inequality and inadequate infrastructure remain insufficiently addressed, while expressing a mixture of both pride and reservation about recent improvements.

Creative Economy Policy Summit

On September 23, 2015 Creative Many Michigan convened a statewide summit related to creative economy policy issues that was attended by 116 participants representing a diverse set of interests. The Summit provided a way to distribute information part way through the research process and encourage dialogue with creative economy stakeholders from local, regional and national communities. The event included expert presentations and panel discussions, as well as audience participation and input. The overall aims of the Summit were to generate visibility for and interest in the Creative State Michigan Creative Industries research, engage audiences and networks in framing and embracing a creative economy agenda for Michigan, and strengthen partnerships with key influencers.

Anticipating the Future

For this study, workshops helped to establish directional topics of concern within the community, a horizon scan was completed to assess uncertainties of change, followed by pattern finding to establish important potential shifts in the macro environment that may impact the future, and exploration of the implications of those potential changes.

Five Contextual Challenge Shifts were identified through detailed analysis of a broad horizon scan to assess uncertainties of the changing external landscape related to creative industries.

The Nature of Work is Changing. Stable, full-time employment is no longer the only viable model for work. Many people seek flexibility within the workplace to meet their personal needs, with some managing several activities with multiple employers on a freelance basis. Employers are exploring new models, both to reduce costs and improve efficiency.

Automation and Digitization. Digital information and computational power have led to automation in many work spheres, including “white collar” domains such as law, accounting, financial advising and education. While the core competencies of art, culture and design practitioners are more difficult to mechanize, skilled craft techniques are increasingly subject to automation and digitization.

Seeking Meaningful Work. Many workers, especially younger ones, believe that a company's mission is as important as its fiscal mandate. Companies that once defined themselves as employers of choice based primarily on their bottom line accomplishments will need to demonstrate social and environmental value to attract top candidates.

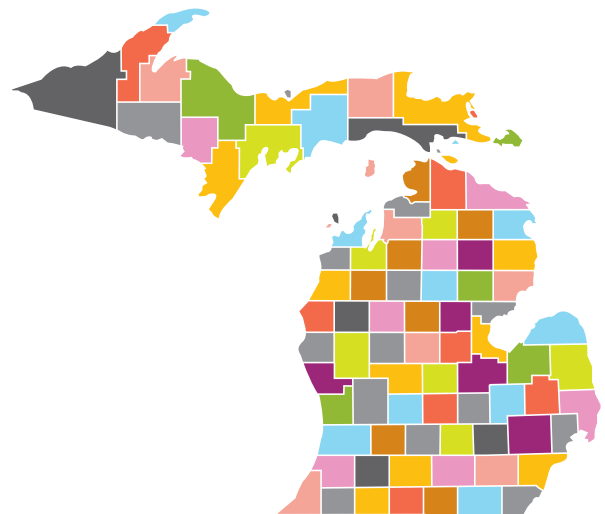
Diversity and Inclusion. These key drivers of innovation and prosperity also support thriving creative economies. Michigan has an increasingly diverse population overall and future projections predict a more multi-racial, multi-ethnic state.

Transferable Competencies. Future-ready work skills such as sensemaking, experimentation, and adaptive thinking mirror many of the inherent competencies of those in the creative occupations, including both practical techniques and creative abilities.

Recommendations

Based on the analysis and interpretive assessment of these inputs, this report aims to establish the value and significance of the creative economy of Michigan both now and into the future. The following key recommendations are intended to bolster Creative Many's mission to develop the creative economy for a competitive Michigan.

1. **Acknowledge the foundational importance of art, culture, design and creativity in creating the preconditions for prosperity, resilience and social cohesion in Michigan.**
2. **Build a healthy and vibrant art, culture, design and creative ecosystem throughout Michigan.**
3. **Deploy art, culture, design and creativity in re-imagining the future of Michigan.**





2

Research Approach

Review of Documentation

Left: Inside the studio of Kresge Artist Fellow, Lynne Avadenka.

Photo: Sarah Nesbitt, University of Michigan Institute for the Humanities

Method

In order to ensure that this research study was aligned with leading models, methodologies and practices, several research studies from the U.S., Canada, The Americas, Europe and the UK were examined. While this provided a solid comparison of the key concepts of creative industries and creative economy research, it also enabled an exploration of new models for possible application in Michigan in the future.

In general, the research studies reviewed fell into two main categories: academic and policy-based studies that provided historical context to the evolution of creative economy research; and place-based studies that focused on the creative vitality or contribution of creative industries in cities, sub-national regions, countries, and multi-national regions.

Economy, Industries and Occupations

The concepts of creative economy, cultural industries, creative industries and creative occupations have evolved over the last two decades and are by no means definitively applied. However, several key reports were particularly helpful in supporting this research. The National Creativity Network's "America's Creative Economy" (2013) and Ann Markusen's "Defining the Creative Economy: Industry and Occupational Approaches" (2008), provided analyses of key concepts and how they have been used in recent U.S. and international studies. They highlighted that "creative economy", a term often used interchangeably with "creative industries", is defined in varying ways across the United States and around the world. Most definitions address in some way five distinct criteria: creativity, intellectual property, symbolic meaning, use value, and methods of production with different definitions emphasizing one or more of these criteria and minimizing in some manner the importance of one or more other criteria. Discussions of creative economy are often concerned with both the creative industries (creative workers and non-creative workers) and creative workers that are found in other industries.

Similarly, varying definitions exist across countries and between public policy and academic settings for "cultural industries". However, cultural industries are often described as those industries that are involved in the production of cultural goods, services and experiences. These may include for profit, nonprofit and public organizations and enterprises.¹ Often, cultural industries are recognized as including the arts (visual and performing arts), publishing (newspaper, book and magazine), music recording and publishing, radio, television and filmmaking.

There is no consensus on a definitive list of the industries that comprise the creative industries. This category varies across regions and the specific

1. Throsby, D. (2007). *Modelling the Creative/Cultural Industries*, Edinburgh, Scotland.

industries included in a study tend to represent the industries of particular interest to that jurisdiction. Reflecting a broader range of industries than the cultural industries, “creative industries” can also include industries such as advertising, architecture, creative technology, digital media, and fashion.

There is also debate about what constitutes a creative occupation. Much revolves around the use of creative skills applied to problem solving, combined with processes defined by collaborative relationships that create or deliver some kind of output.² Not simply an occupation that exists within the creative industries, creative occupations can be found across a wide range of non-creative industries.

Impact and Importance of Creative Industries

Interest in measuring creative industries and the creative economy has blossomed over the last ten to 15 years as cities, regions and nations have sought to understand the scale of their creative sectors.³ These research efforts have been viewed as opportunities to quantify and demonstrate how creative economies can have an impact on the broader economy and society. Research sponsors have many different objectives depending on their mandate. Some seek to encourage economic investment in creative industry clusters. Others seek to enable greater coordination of resources and services to support growth in various creative industries. Still others wish to influence the well-being of neighborhoods, cities and regions. Some intend to accomplish all of the above.

No two studies mapped the creative sector or assessed its impact in the same way. Where some studies focused solely on either creative industries or occupations, others examined both. Each examined the industries and/or occupations that were relevant to their specific contexts and needs. Industries and occupations were labeled and clustered in different ways. A number of studies explored benchmarking. Some compared multiple areas within their states or cities. Others contrasted activities in their cities or regions against other cities and regions in the country. Several factors were the subject of comparison, including: wages, employment levels, job growth, location quotients and more.

Two other alternative studies also contributed significantly to the unfolding of this research, “A Dynamic Mapping of UK’s Creative Industries”⁴ and “Four Models of the Creative Industries”.⁵ Both reports introduce different ways of thinking about the creative industries and their impact on economies. The

2. Bakhshi, H., Freeman, A. & Higgs, P. (2013). *A Dynamic Mapping of the UK’s Creative Industries*. London.

3. O’Connor, J. (2010). *The cultural and creative industries: a literature review 2nd Edition*.

4. Bakhshi, H., Freeman, A., & Higgs, P. (2013). *A Dynamic Mapping of the UK’s Creative Industries*. London.

5. Potts, J., & Cunningham, S. (2008). Four Models of the Creative Industries. *International Journal of Cultural Policy*, 14(3), 233–247. doi:10.1080/10286630802281780

study by Bakhshi et al. reframed traditional discussions of creative industries by focusing on the idea of an industry's creative intensity being the proportion of total employment within an industry that is engaged in creative occupations. The Potts and Cunningham document proposed four models for understanding the relationship between the creative industries and the rest of the economy: a public good model based on a market failure argument where the philanthropic or government sector steps in to provide some form of subsidy; a competition model where the creative industries are 'just another industry' that can be incentivized through traditional economic development and free market policies; a growth model which views the creative industries as a driver in the aggregate economy; and an innovation model in which the creative industries originate and coordinate change in the knowledge base of the whole economy.

Implications for Michigan

This 2016 Creative Industries study significantly expands upon the 2014 report and is more comprehensive and inclusive than comparable peer studies. Despite collecting and processing similar data, it is difficult to benchmark directly against other study findings, especially since the scale of inquiry varies so greatly with cities, regions, states, nations and multinational regions all reporting. Additionally, the groupings of industries represented in the various studies are not homogenous and, at least in part, represent the local reality of existing economic concentration and emerging conditions in each place. As mentioned, the scope of each study also varies in terms of which metrics are included.

There is value in better understanding how creative activity is distributed throughout all creative occupations, especially as more jurisdictions explore the economic impact of production, amplification and dissemination of creative work.

The review of the alternative documents underscored that the traditional approaches to measuring the impact of creative industries on overall economies using employment and wage data is incomplete. If creative industries are to be seen as a driver of growth, or the underpinning of innovation then more and different measures are required, such as looking beyond operational economic indicators and towards structural system impacts that measure how creative industries make change in other sectors.⁶

For a full list of the documents reviewed, see Appendix 1 on page 140.

6. Potts, J. & Cunningham, S. (2008). Four models of the creative industries. *International Journal of Cultural Policy*, 14(3).

Research Questions

The 2016 Creative State Michigan Creative Industries Report seeks to explore and assess the following research questions:

- 1. Are the creative industries in Michigan thriving and innovative?**
- 2. How are Michigan's creative industries and occupations distributed and supported?**
- 3. How do creative industry stakeholders envision their future?**
- 4. What external pressures will impact the future of the creative economy?**

Overview of Methods

In order to gain a broad perspective of the creative industries in Michigan, this research was designed as a mixed methods study. It made use of multiple methods commonly used in quantitative and qualitative research.

The quantitative research consisted of collecting and analyzing employment and wage data from the years 2011- 2014 for industries and occupations pertaining to 12 creative industry clusters. Primary datasets were retrieved from the U.S. Bureau of Labor Statistics and the U.S. Census Bureau. They included: the Quarterly Census of Employment and Wages (QCEW), Occupational Employment Statistics (OES) and Nonemployer Statistics (NES).

Trend analysis was conducted for each creative industry cluster in each of the datasets providing an overview of employment and wage information from the perspective of industries, sole proprietor establishments and occupations. This analysis also provided information on percentage change between the first and last years of data examined. Location quotient data identified of the concentration of employment in each cluster as compared to the whole of the United States.

Interviews with Michigan thought leaders and participatory workshops throughout the state using a “Three Horizons” framework to build common understanding of a desired future were employed. An extensive review of national and international research studies was undertaken as well as a review of emerging theory regarding creative economy policy.

A broad scan of relevant publications and other information sources contributed to the capture and sensemaking of “weak signals” of the future, in order to provide early hints of important changes likely to have impact on Michigan’s creative economy.

Local, regional and state leaders participated in the Creative Economy Policy Summit in September 2015 in Detroit. This event, organized by Creative Many Michigan, included keynote presentations, panel discussions and networking opportunities for the 116 attendees to share research and experience.

3

Quantitative Research

Michigan by the Numbers

A review of Michigan's creative economy across industries and occupations, regions and sectors.

Abbreviations

BLS - U.S. Bureau of Labor Statistics

QCEW- Quarterly Census of Employment and Wages

OES - Occupational Employment Statistics

MSA - Metropolitan Statistical Area

NES - Nonemployer Statistics

NAICS - North American Industry Classification System

SOC - Standard Occupational Classification

EMSI - Economic Modeling Specialists International

Data Collection

This research study was designed to build upon the data and analysis conducted by Creative Many Michigan for its 2014 Creative State MI Creative Industries Report released in January 2014. The 2014 study reported on 2011 employment and wage data for Michigan's creative industries. For the present research study, data for the year 2011 was expanded and new datasets for the years 2012, 2013 and 2014 were compiled by Data Driven Detroit in November and December 2015 for analysis and comparison by the research team. These datasets were supplemented by creative occupation data provided by Economic Modeling Specialists International (EMSI). Additional statistical information was collected by the research team throughout the research period.

The primary datasets retrieved were the U.S. Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) and Occupational Employment Statistics (OES) programs, in addition to the U.S. Census Bureau's Nonemployer Statistics (NES) program. The QCEW program provides data classified using the North American Industry Classification System (NAICS) down to a county level based on a 6-digit code. The OES program provides data estimates classified using the Standard Occupational Classification (SOC) program. This data provides an understanding of creative work taking place outside of traditional employer reporting sources such as the QCEW program. OES data files provided access to information on national, state, metropolitan and nonmetropolitan areas. Of primary concern to this research were the datasets pertaining to Metropolitan Statistical Areas in Michigan and select regions of the United States. The NES data provided by U.S. Census Bureau is derived from income tax returns submitted by sole proprietor establishments. NES data is also classified using NAICS codes but only to a 4-digit level.

The 2014 Creative State MI Creative Industries examined QCEW data for 67 separate creative industries, based on 6-digit NAICS codes. This research study expanded both the number of creative industry clusters, industries and occupations examined. It reflects employment and wage data (NAICS) as well as occupational data (SOC) for a total of 12 industry clusters. This includes 101 creative industries based on 6-digit NAICS codes (QCEW data), 43 industries based on 4-digit NAICS codes (NES data), and 48 occupations based on SOC codes (OES data).

See Appendix 3 on page 144 for more details on creative industries and occupations reported on in this report.

Industry Clusters

- Advertising
- Architecture
- Art Schools, Artists & Agents
- Creative Technology
- Culture & Heritage
- Design
- Fashion, Garment & Textile
- Film, AV & Broadcasting
- Literary, Publishing & Print
- Music
- Performing Arts
- Visual Arts & Craft

Analysis

Pivot tables were created for each of the three main datasets (QCEW, OES and NES) that enabled an analysis of the number of establishments, employees, occupations and wages pertaining to each of the 12 creative clusters for the years 2011-2014.

QCEW data provided details on the annual average number of establishments, annual average level of employment, total annual wages, and location quotients for each industry over the study period. NES data complemented industry data by providing information related to freelance or sole proprietor establishments, for example, the number of establishments and their annual sales. OES data provided details on estimated total employment, mean annual wages and location quotients for creative occupations.

Analysis tables were created for each dataset that further organized information on all industries and occupations in the state of Michigan, as well as the Metropolitan Statistical Areas of Detroit, Ann Arbor, Grand Rapids and Flint. Analysis tables were created for each creative industry cluster based on state level data for each industry or occupation in that cluster.

Reporting

Each of the creative industry clusters is comprised of various sized groupings of related creative industries. The research also included a re-examination of the 2011 industry data collected for the 2014 Creative State MI Creative Industries research report. Differences between totals reported in the 2014 research and this study are due to the inclusion of additional industries for several clusters.

Reporting in this section reflects change over time and current percentages of all workers in designated creative industries and creative workers in all industries. Included in the sectoral overviews are descriptions of influential trends; examples of activity particular to Michigan related to these changes are drawn from multiple sources, both qualitative and quantitative.

For each creative industry cluster, tables compare establishment, employment and wages information in 2011 and 2014, while trend graphs provide an overview for each year of the reference period. Total cluster wages have been presented as a percentage of all creative industries wages. The location quotients compare the distribution of employment in that cluster with that combination of occupations in the U.S. Percentage change information provides insights into how a cluster’s employment level has changed over time.

Gaps remain in the data. For example, important emerging creative occupations, especially in the digital and information technology realm, do not have well defined employment codes that accurately describe those activities. As stated elsewhere in this report, fundamental shifts in employment away from full-time equivalent positions towards multiple fractional and differentiated work activities may mean that some workers are not accurately accounted for in the overall statistics.

A Note on Visualization

All industry clusters include trend graphs with varying Y-axis values. Without rationalization of the Y-axis, trends might appear exaggerated. In order to enable a direct comparison, the range of each graph’s highest and lowest value was limited as following:

- Establishments: 300 places
- Employment: 3,000 people
- Wages: \$200 million

State Overview of Industry Data

Creative Industry Clusters

- Advertising
- Architecture
- Art Schools, Artists & Agents
- Creative Technology
- Culture & Heritage
- Design
- Fashion, Garment & Textile
- Film, AV & Broadcasting
- Literary, Publishing & Print
- Music
- Performing Arts
- Visual Arts and Craft

Source: U.S. Bureau of Labor Statistics, QCEW program. For full list of codes used, see Appendix 3 on page 144.

Data Suppression: some data values are suppressed because of confidentiality or data quality.

Employment

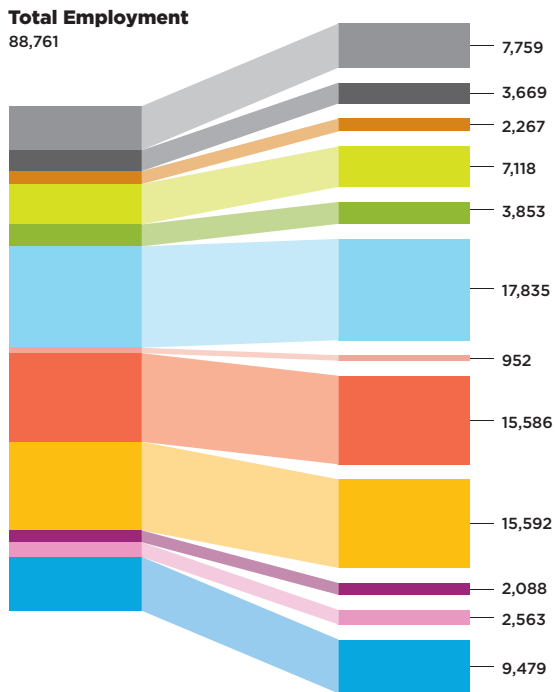
Overall, the state of Michigan has seen an increase in employment in all industries between 2011 and 2014. During that same time period, however, employment in creative industries has experienced much less growth in the state. Creative industry employment as a percentage of all employment has declined since 2011.

Design now represents the largest creative industry sector in the state in terms of total employees and has shown continuous and significant increases over the study period. Although there has been some decrease since 2011, the Film, Audiovisual and Broadcasting cluster employs the second largest group of workers. Literary, Publishing and Print has shown the greatest decline in employment with 2,923 fewer employees and a 15.8% decline.

The available data investigated here does not provide information as to the underlying causes of the disparity of these changes in employment. Key questions outside the scope of this study that might be answered through further research include the following:

Does employment growth in Michigan overall represent a rebalancing of the distribution of employment in all industries in response to previous declines in employment during the recession?

Has there been significant reduction in economic and policy support for creative industries between 2011 and 2014?



Creative Industries Employment in Michigan, Distribution in 2014

Creative Industries in Michigan Employment

Percentage change, 2011 to 2014

+1.49%

Total employment in Michigan, creative industries in 2014

88,761

All Industries in Michigan Employment

Percentage change, 2011 to 2014

+6.10%

Total employment in Michigan, all industries in 2014

4,090,009

Creative Industries Employment as Percentage of Total

2.17%

Michigan creative industries employment as percentage of Michigan total employment

2.96%

U.S. creative industries employment as percentage of U.S. total employment

Creative Industry Clusters

- Advertising
- Architecture
- Art Schools, Artists & Agents
- Creative Technology
- Culture & Heritage
- Design
- Fashion, Garment & Textile
- Film, AV & Broadcasting
- Literary, Publishing & Print
- Music
- Performing Arts
- Visual Arts and Craft

Source: U.S. Bureau of Labor Statistics, QCEW program. For full list of codes used, see Appendix 3 on page 144.

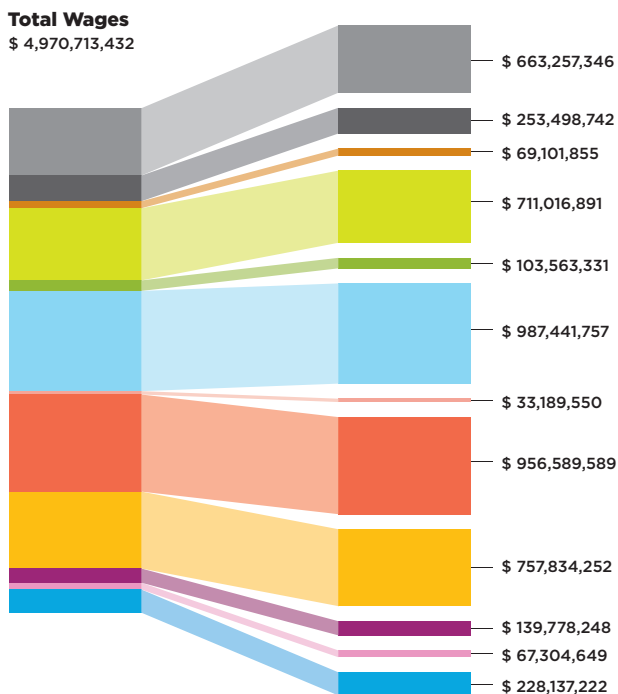
Data Suppression: some data values are suppressed because of confidentiality or data quality.

Wages

Michigan has seen wage increases just below the national average in the study timeframe. Although wage increases in creative industries in the state have been lower than in all state industries by percentage, average per person income has grown to \$56,001.10 compared to \$48,486.62 for all industries. There was a slight decline in creative industry wages as a percentage of overall wages in the state.

Mirroring the employment picture, the Design industry cluster represents the greatest contribution of total wages in this study, followed by Film, Audiovisual and Broadcasting, and then Literary, Publishing and Print. However, Creative Technology and Advertising, each with less than half the employees of the previous clusters, rank a close fourth and fifth respectively in terms of wages. Both sectors represent highly paid practitioners and show continuous total wage increases over the study period. There is wide variation in the distribution of wages in the different industry clusters, with average per person wages in the Visual Arts and Craft amounting to slightly less than 25% of those in Creative Technology.

More detailed industry specific wage snapshots are provided in the following section of this report.



Creative Industries Wages in Michigan, Distribution in 2014

Creative Industries in Michigan Wages

Percentage change, 2011 to 2014

+8.53%

Total wages in Michigan, creative industries in 2014

\$4.97 B

All Industries in Michigan Wages

Percentage change, 2011 to 2014

+12.25%

Total wages in Michigan, all industries in 2014

\$198.31 B

Creative Industries Wages as Percentage of Total

2.51%

Michigan creative industries wages as percentage of Michigan total wages

4.28%

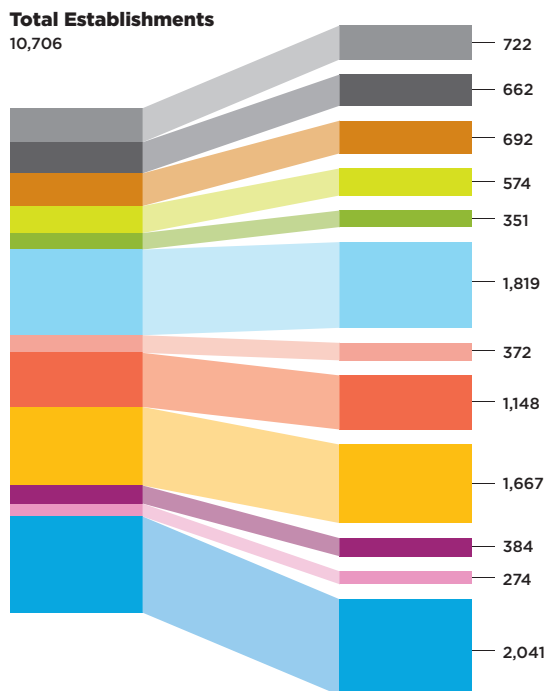
U.S. creative industries wages as percentage of U.S. total wages

Establishments

There has been a decrease in the number of establishments in all industries in Michigan and a bigger decline in the creative industries. This gap is the largest measured in the state overview data. This report uses updated data from a greater number of industry codes than the 2014 Creative State Michigan report, and therefore 2011 values differ from the previous report.

There has been a decline or a relatively small increase in the number of establishments in most industries studied. Literary, Publishing and Print had the largest total reduction with 122 fewer establishments in 2014 than 2011, a 6.8% decline. Only two clusters showed large increases in the time period. There are 110 more establishments in Creative Technology, representing a 19.2% change and the Visual Arts and Craft cluster increased by 284 establishments, representing a 12% change. Without more comprehensive and specific information regarding individual business configurations it is impossible to articulate how this concentration of establishments has altered the employment landscape. There is certainly some compression of workplaces, but it is unclear if this relates to consolidation in a few larger enterprises or whether there is system-wide growth of smaller companies and attrition of some players.

Anecdotal information provided through thought leader interviews suggests there are more large employers and few mid-sized and small operations, but this suggestion should be validated through more thorough investigation. In particular, more detailed measurement of the relative proportion of start-up efforts, to scaled up operations, to mature businesses should be explored.



Creative Industries Establishments in Michigan, Distribution in 2014

Creative Industries in Michigan Establishments

Percentage change, 2011 to 2014

-3.44%

Total establishments in Michigan, creative industries in 2014

10,706

All Industries in Michigan Establishments

Percentage change, 2011 to 2014

-2.88%

Total establishments in Michigan, all industries in 2014

236,461

Creative Industries Establishments as Percentage of Total

4.53%

Michigan creative industries establishments as percentage of Michigan total establishments

5.00%

U.S. creative industries establishments as percentage of U.S. total establishments

1. Advertising

Advertising Industry Percentage Changes from 2011-2014

Establishments

-5.0%

Employment

+8.46%

Wages

+18.3%

Nonemployer
Establishments
(2011-2013)

+1.87%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Strong employment increases in a rapidly changing industry.

Average per employee wages in this industry cluster are the second highest for all creative industries in the state and have shown a steep increase, especially since 2012. There has been a decline in the number of establishments since 2013, but a strong percentage growth in industry employment.

Most creative occupations in this sector also saw healthy growth. Employees in this sector work for creative agencies as well as internally within corporations in marketing management roles, positions that saw the largest increase over the study period. Roughly a third of all Advertising and Promotions Managers work for Advertising Agencies.¹ This was the only occupation to show a decline in this cluster.

The advertising industry remains an important employer and significant wage contributor to Michigan overall and exists within a symbiotic economic ecosystem. The furniture, automobile, healthcare and entertainment industries all depend on effective and innovative advertising activity and are large purchasers of services, as is the government of Michigan whose Pure Michigan campaign continues to target tourism to the state.

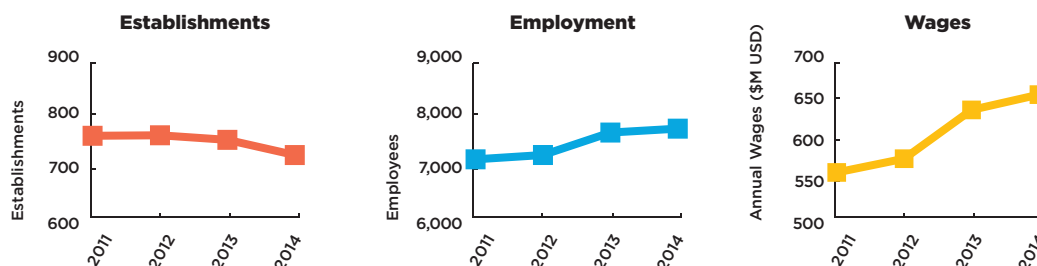
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	760	7,154	\$560,900,780	3,690
2012	761	7,239	\$578,978,427	3,817
2013	752	7,682	\$643,143,085	3,759
2014	722	7,759	\$663,257,346	N/A

Industries Studied

- Advertising Agencies
- Public Relations Agencies
- Media Buying Agencies
- Media Representatives

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Advertising Industry Highlights

Advertising wages as percentage of total MI creative industries

13.3%

Advertising employment as percentage of total MI employment

0.19%

2014 industry location quotient compared to U.S.

0.82

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Continuous disruption in channel delivery of news and entertainment away from print and television media and towards mobile digital platforms² as well as the upsurge of event brand sponsorship has profoundly challenged the advertising industry around the world. After recovery from the challenges of the recession, ad agencies have rebounded and although employment has slowed somewhat, it remains higher overall than in 2011.³ Companies unable to make the transition have suffered while many nimble new market entrants have prospered.

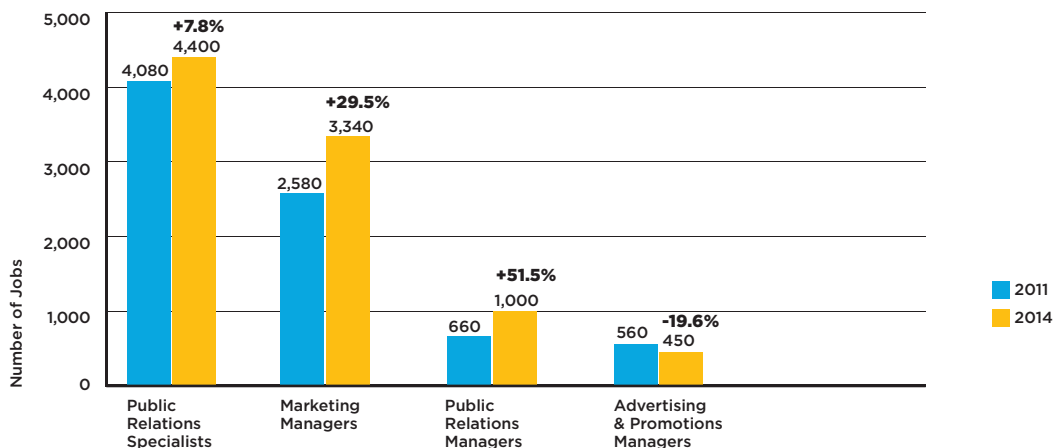
Companies embracing new technologies in particular are rapidly transitioning beyond the novelty of online engagement and are placing more emphasis on the effectiveness of high quality digital storytelling. Staffing in internet-based media has nearly doubled since 2009. Digital advertising is benefiting from greater diversification of social media proliferation across multiple platforms. According to research from eMarketer, “in 2015, advertisers are expected to spend \$23.68 billion on social media campaigns, a 33.5% increase from 2015... by 2017, social media ad spending should reach \$35.98 billion, or 16 percent of all digital ad spending.”⁴ In addition to visual literacy and consumer insight, digital proficiency is now a critical skillset differentiating successful organizations in this sector.

1. Edmonds, R., Guskin, E., Rosenstiel, T. and Mitchell, A. (2012). *Newspapers: By the Numbers*. [online] State of the Media. Available at: <http://www.stateofthemedi.org/2012/newspapers-building-digital-revenues-proves-painfully-slow/newspapers-by-the-numbers/>
2. Edmonds, R., Guskin, E., Rosenstiel, T. and Mitchell, A. (2012). *Newspapers: By the Numbers*. [online] State of the Media. Available at: <http://www.stateofthemedi.org/2012/newspapers-building-digital-revenues-proves-painfully-slow/newspapers-by-the-numbers/>
3. U.S. Bureau of Labor Statistics, (2015). *Advertising, Promotions, and Marketing Managers. Occupational Outlook Handbook*. Available at: <http://www.bls.gov/ooh/management/advertising-promotions-and-marketing-managers.htm> [Accessed February 9, 2016].
4. Chang, A., 2015. *The future of digital ads: Native and social set to spike*. CNBC. Available at: <http://www.cnbc.com/2015/11/24/the-future-of-digital-ads-native-and-social-set-to-spike.html>.

Occupations Studied

- Advertising and Promotions Managers
- Marketing Managers
- Public Relations Managers
- Public Relations Specialists

Creative Occupations in Advertising by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

2. Architecture

Architecture Industry Percentage Changes from 2011-2014

Establishments
-1.93%

Employment
+8.33%

Wages
+14.3%

Nonemployer
Establishments
(2011-2013)
-5.30%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Wage and employment growth reflects reinvestment in the state.

After an increase in 2013, employment has stabilized within this cluster as have the number of establishments. Wages have grown overall for the industries included. Architectural services is the largest segment overall and showed an increase of over 200 employees. Occupations have shown varied growth. There are more architects but 16.4% fewer drafters, possibly due to the increased efficiency of technical software that allows fewer people to produce more.¹

With improved economic conditions in Michigan, there has been an increased appetite to undertake a broad range of new architectural construction projects. In Detroit’s reinvigorated core, development of the Red Wings arena and sports complex project encompassing 45 blocks of development will employ local practitioners. Midtown Detroit is incorporating new and repurposed buildings into a vibrant mixed-use corridor while major investment has been undertaken by multiple developers to create parks, residences and commercial spaces along the riverfront. The recently completed Grand Rapids Art Museum was the first building of its kind worldwide to receive LEED certification for the entire facility.² As a result of an open competition, the U.S. Department of State selected the University of Michigan’s Taubman College to organize the U.S. pavilion at the prestigious 2016 Venice Architectural Biennale. Exhibition co-curators Cynthia Davidson and Monica Ponce de Leon will focus on architectural projects that address the pressing issues of 21st century cities presented under the theme “Architectural Imagination”.

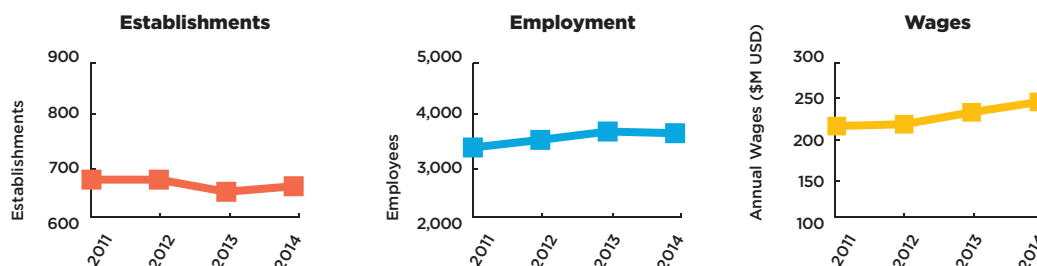
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	675	3,387	\$221,807,500	7,419
2012	675	3,537	\$224,164,630	7,257
2013	651	3,702	\$239,884,481	7,026
2014	662	3,669	\$253,498,742	N/A

Industries Studied

- Ornamental and Architectural Metal Work Manufacturing
- Custom Architectural Woodwork and Millwork Manufacturing
- Architectural Services
- Landscape Architectural Services

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Architecture Industry Highlights

Architecture wages as percentage of total MI creative industries

5.10%

Architecture employment as percentage of total MI employment

0.09%

2014 industry location quotient compared to U.S.

0.50

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Occupations Studied

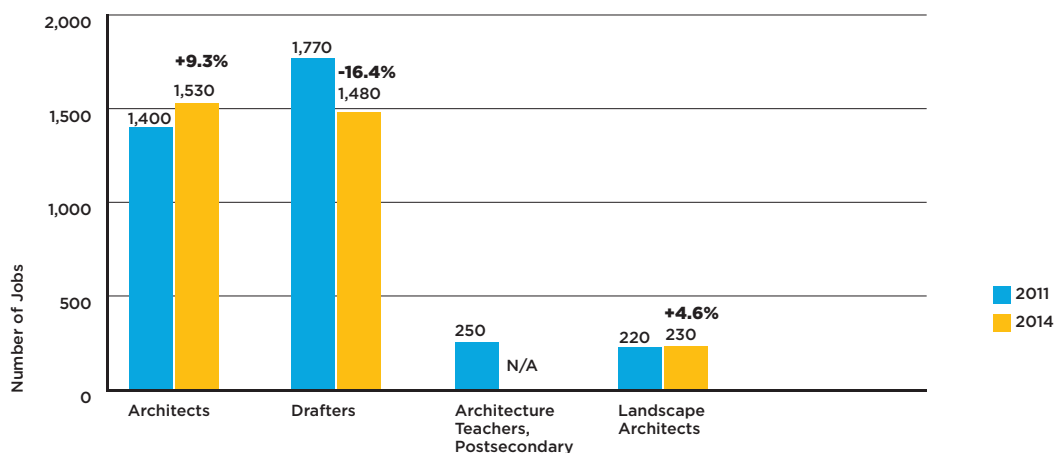
- Architects, Except Landscape and Naval
- Landscape Architects
- Architectural and Civil Drafters
- Architecture Teachers, Postsecondary

Landscape architecture and urban design play a fundamental role in a state that is working hard to revitalize its cities. The effective incorporation of infrastructure and green and blue design into public spaces, as well as private development, can help to create safe, livable and environmentally responsible destinations. Land use studies, transportation planning, traffic control, water resource management, park development and planning the urban canopy are all critical components of high functioning urban places. This dovetails with increasing pressures for climate-change mitigation in cities as they cope with weather-related impacts and emissions control regulations. Landscape designers should see continued growth in demand for their services.

The University of Michigan's Taubman College architectural program offers a graduate degree concentration in conservation, developing capacity for preservation of culturally important places.³ Significant modern buildings by acclaimed architects Eero Saarinen, Mies van der Rohe, and Minoru Yamaskai among others are being restored and maintained across the state through the efforts of dedicated owners and committed supporters. Michigan Modern, a project of the Michigan State Historic Preservation Office, is specifically building on increasing interest in the importance of Michigan's role in the rise of mid-century modern architectural design. The organization has nominated eight buildings for the National Register of Historic Places and is developing National Historic Landmark nominations for three other developments, in addition to their ongoing efforts to designate and protect Michigan's architectural resources in communities statewide. Efforts to preserve diverse architectural heritage alongside new development add to placemaking efforts and serve to create desirable cities. In this sense, the impact of architecture is greater than the statistical employment measures outlined in this report.

1. U.S. Bureau of Labor Statistics, (2015). *Drafters: Occupational Outlook Handbook*. [online] Available at: <http://www.bls.gov/ooh/architecture-and-engineering/drafters.htm>
2. Lambert, Edwards & Associates, (2016). *Grand Rapids Art Museum to Open New Facility in October 2007*. [online] Available at: http://www.artmuseumgr.org/uploads/assets/GRAM_opening_release_FINAL.pdf
3. A. Alfred Taubman College of Architecture and Urban Planning, (n.d). *Master of Science in Architecture concentration in Conservation. Taubman College - Architecture*. Available at: <https://taubmancollege.umich.edu/architecture/degrees/master-science/conservation> [Accessed February 9, 2016].

Creative Occupations in Architecture by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

3. Art Schools, Artists & Agents

Art Schools, Artists & Agents Industry Percentage Changes from 2011-2014

Establishments
-4.68%

Employment
+0.71%

Wages
+12.1%

Nonemployer Establishments (2011-2013)
+1.38%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Modest growth in wages and stabilized employment.

This grouping remains the third smallest within the report in terms of total workers. Within this cluster, Art Schools have shown continuous year over year increases in employment while Agents and Managers have decreased. Independent Artists, Writers and Performers have bounced back from a large decline in employment in 2012 recovering 72% of the jobs lost. Wages have steadily increased overall but somewhat fewer establishments are present. All the occupations represented in this cluster showed increases in employment. Postsecondary Art, Drama and Music teachers showed the most marked increase, more than doubling in total numbers.

From the broad spectrum of Michiganders consulted for this study, there was a consensus that education at all levels is fundamental for the development of a thriving, resilient economy. Many believe that enriched learning builds self-esteem, contributes to a sense of purpose and preparedness for work, and develops critical thinking for an engaged citizenry. In addition to employable skills in art and design, students develop increased visual literacy, heritage appreciation and creative problem solving techniques with broad exposure to the arts from an early age and throughout their lifetime.

Michigan boasts some of the most important postsecondary institutions for art and design education in the country. Cranbrook Academy of Art continues to have a notable influence in art, craft, architecture and design. Its studio-based graduate studies programs provide opportunities for a select 150 students a year to develop their practice. The College for Creative Studies in Detroit has

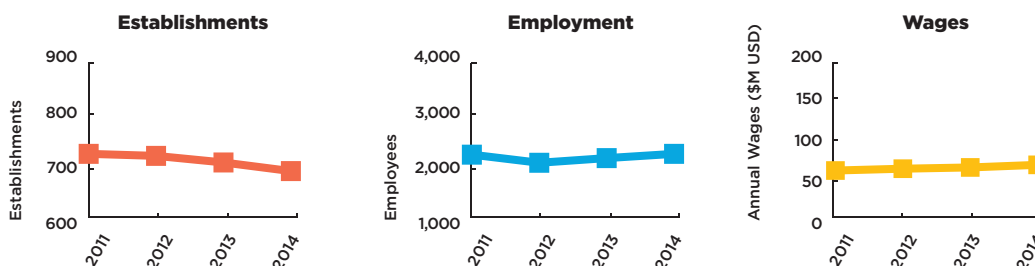
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	726	2,251	\$61,638,633	22,266
2012	722	2,091	\$64,028,145	22,910
2013	709	2,183	\$65,689,301	22,574
2014	692	2,267	\$69,101,855	N/A

Industries Studied

- Fine Arts Schools
- Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
- Independent Artists, Writers, and Performers

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Art Schools, Artists & Agents Industry Highlights

Art Schools, Artists & Agents wages as percentage of total MI creative industries

1.39%

Art Schools, Artists & Agents employment as percentage of total MI employment

0.06%

2014 industry location quotient compared to U.S.

0.48

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

grown its enrollment and is highly ranked nationally, especially in Industrial Design, with high achievement in transportation and product design. Kendall College of Art and Design welcomed new president Leslie Bellavance in 2015 and reconfirmed its interest in building strong relationships with the community and industry, especially in research and development.¹ Within the University of Michigan, the Penny W. Stamps School of Art & Design has differentiated itself by “focusing on creative practice as an engine for cultural change and innovation.”² The University of Michigan School of Music, Theater and Dance offers degrees from the undergraduate to doctoral level. Together, these and other smaller programs are helping to equip a new generation of creative practitioners.

Many independent artists, writers and performers are self-employed, which may account for the large portion of nonemployer establishments within this sector. As practitioners, they contribute significantly to the rich cultural texture of Michigan.

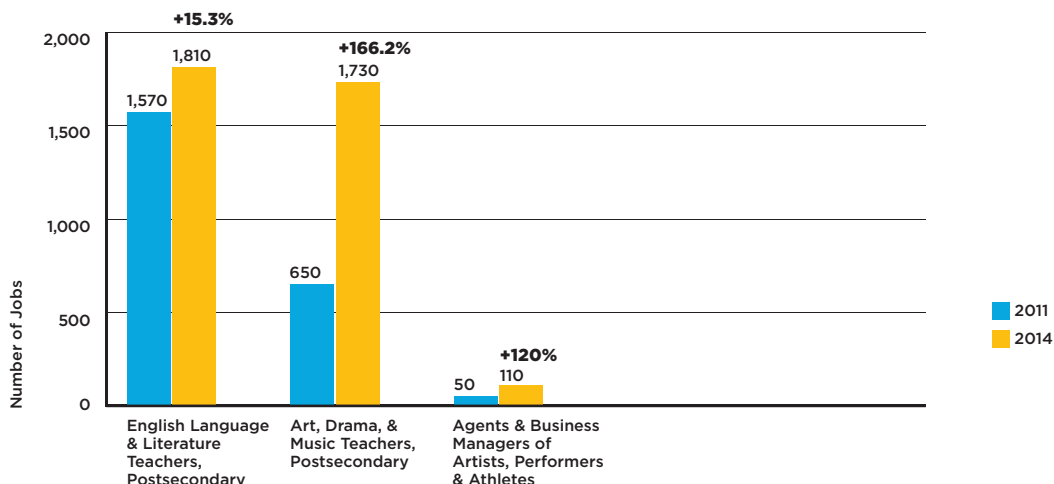
Today’s digital connectivity has expanded potential markets, but has also made the operating environment for small businesses run by independent artists more complex. Many require assistance with the operational skills required to be financially successful and turn to Agents and Business Managers as a strategic approach to developing promotional networks as well as to represent their interests. While the actual number of Agents and Business Managers is small, this category increased 120% between 2011 and 2014.

1. Kendall College of Art and Design of Ferris State University, (2015). *KCAD Welcomes New President Leslie Bellavance* | Kendall College of Art and Design of Ferris State University. [online] KCAD. Available at: <http://www.kcad.edu/news/kcad-welcomes-new-president-lelie-bellavance/>
2. Penny W. Stamps School of Art & Design, University of Michigan, (n.d). *About STAMPS*. Available at: http://stamps.umich.edu/#_ [Accessed February 9, 2016].

Occupations Studied

- Agents and Business Managers of Artists, Performers, and Athletes
- Art, Drama, and Music Teachers, Postsecondary
- English Language and Literature Teachers, Postsecondary

Creative Occupations in Art Schools, Artists & Agents by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

4. Creative Technology

Creative Technology Industry Percentage Changes from 2011-2014

Establishments
+23.7%

Employment
+19.8%

Wages
+19.4%

Nonemployer
Establishments
(2011-2013)
+1.35%

Source: Nonemployer
Statistics drawn from
the U.S. Census Bureau.
Establishments, Employment
and Wages drawn from
the U.S. Bureau of Labor
Statistics, QCEW data.

Accelerating increases in an expanding industry.

Overall, this industry cluster experienced the greatest percentage growth in employees and wages compared to other creative industries in the state. Although the sector is not the highest wage generator in total, it represents the highest per person average wage. Compared to the U.S. overall, there are fewer workers per capita employed in creative technology in Michigan. Software publishing employs 82% of workers in this cluster while the number of software publishing establishments has remained steady. In terms of occupations, the number of software and app developers in Michigan increased while computer programmers decreased. This is consistent with the U.S. Bureau of Labor Statistics projections that suggest ease of outsourcing to other low-wage locations will continue to impact computer programmers.¹

Over the last two decades, software has become essential to many aspects of the lives and businesses of Americans. Increased reliance on information technology, combined with increased business and consumer demand for computers, mobile devices and video games, and falling prices for computers and related hardware, have led to a growing industry. Apps, and the smartphones and tablets that drive them, have become the key tools for everyday access to, and publishing of, information and entertainment, placing increasing importance on the people who create them.

The Software Publishing industry is comprised of companies that are dedicated to the development and publishing of broadly used software in support of operating systems and productivity, business analytics and enterprise,

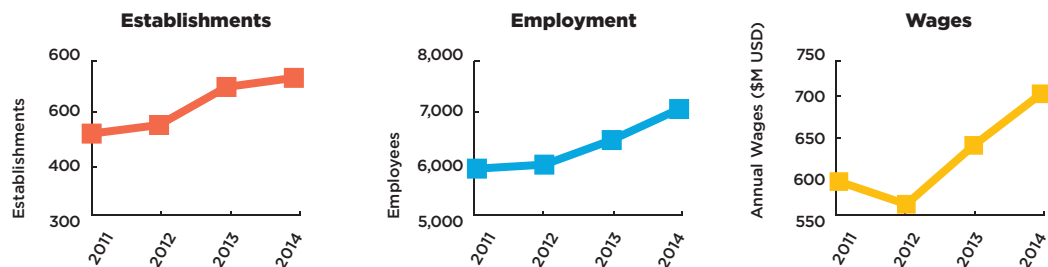
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	464	5,942	\$595,561,225	1,850
2012	481	6,021	\$565,720,908	1,853
2013	556	6,506	\$643,184,468	1,875
2014	574	7,118	\$711,016,891	N/A

Industries Studied

- Software Publishers
- Internet Publishing and Broadcasting and Web Search Portals

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Creative Technology Industry Highlights

Creative Technology wages as percentage of total MI creative industries

14.3%

Creative Technology employment as percentage of total MI employment

0.17%

2014 industry location quotient compared to U.S.

0.56

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

security, database, storage and backup. This sector is also engaged in the development and publishing of software and apps for design, editing, rendering and video games, all of which are fundamental to the creative and design sector. Sector growth can be seen in Michigan.

The Internet Publishing and Broadcasting and Web Search Portals industry is composed of organizations and individuals that publish, broadcast or aggregate content online as well as companies that operate websites that allow people to search and find content. This includes online video sharing and broadcasting, internet-based audio, news sites, social networking, blogs and more. According to the U.S. Department of Commerce, the overall growth in this industry nationally has in part been impacted by improved internet penetration rates and increased usage of internet dependent software.² In Michigan, there has been a steady increase in the number of establishments and employees between 2011 and 2014.

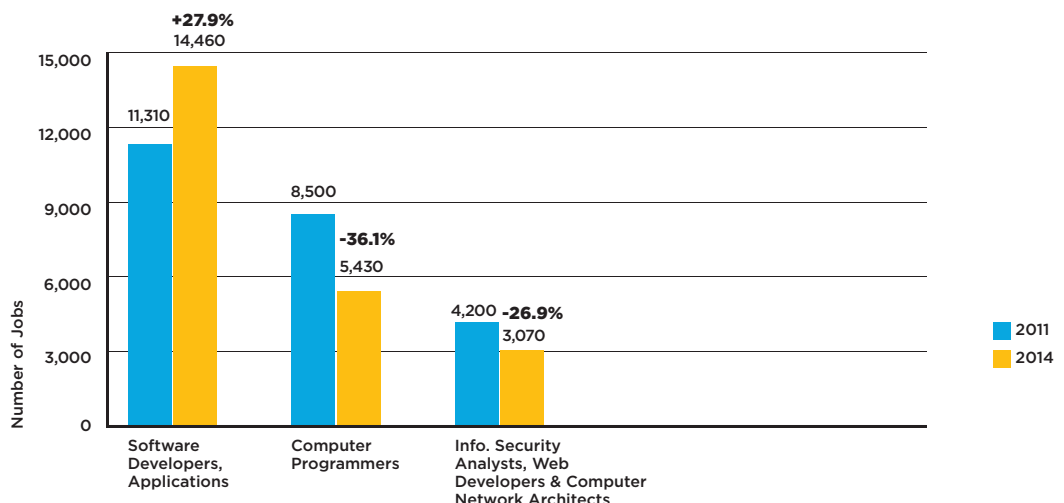
This is the first time that Creative Many's Creative State Michigan research has reported on the Creative Technology industry sector. The overall technology sector represents more than just intellectual property generation; many consider work in this cluster as an essential creative activity. Practitioners, companies involved in the development of software, apps, and internet publishing, and many policy makers around the world are emphasizing the role of creative technology as an important driver of innovation.³

1. Hogan, B. (2015). *Occupational employment projections to 2024 : Monthly Labor Review: U.S. Bureau of Labor Statistics*. [online] Bureau of Labor Statistics. Available at: <http://www.bls.gov/opus/mlr/2015/article/occupational-employment-projections-to-2024.htm>
2. U.S. Department of Commerce, Bureau of the Census. U.S. Department of Labor, Bureau of Labor Statistics. (2009) Current Population Survey: Computer and Internet Use in the United States. Inter-university Consortium for Political and Social Research [distributor]; Ann Arbor, MI.
3. Bakhshi, H., Davies, J., Freeman, A. and Higgs, P. (2015). *The Geography of the UK's Creative and High Tech Economies*. [online] London: Nesta, pp.1-101. Available at: https://www.nesta.org.uk/sites/default/files/geography_uks_creative_high-tech_economiesv20151.pdf

Occupations Studied

- Computer Programmers
- Software Developers, Applications
- Information Security Analysts, Web Developers, and Computer Network Architects

Creative Occupations in Creative Technology by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

5. Culture & Heritage

**Culture & Heritage
Industry Percentage
Changes from 2011-2014**

Establishments
+4.15%

Employment
-3.07%

Wages
-1.21%

Nonemployer
Establishments
(2011-2013)
0%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Small but significant changes, and a downward trend for libraries.

After a significant drop in 2012, overall employment in museum industries has rebounded, while the number of employees in libraries and archives have steadily declined. Wages also decreased in 2012, but have stabilized in recent years and there is an increase in the number of establishments in the cluster overall. In terms of occupations, although the actual number is small, a dramatic 183% increase in the percentage of curators is evident and the number of library technicians has also increased. There are fewer librarians overall.

Michigan is a state rich with cultural institutions and significant heritage sites that creative practitioners, students and academics can learn from and be inspired by, while promoting participation of local residents and visitors alike. Museums, art galleries, and historic collections acquire artifacts and works of art in order to preserve, make sense of, and protect them for today's communities and for future generations. Libraries and archives are hubs of information sharing of all kinds. Conservation of historic and cultural places sustains our understanding of how lives were lived in times past by providing contextual references.

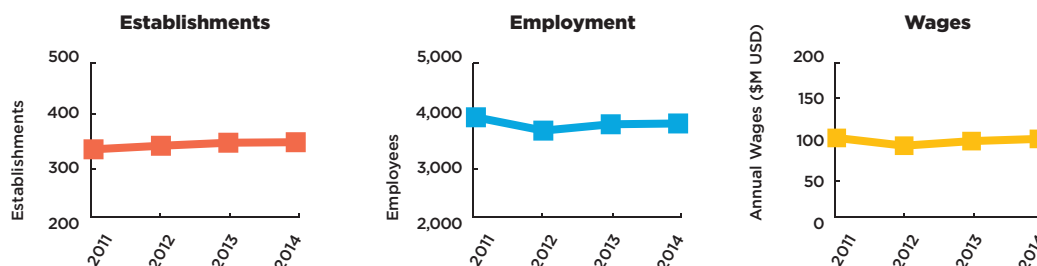
The role of librarians and curators within these institutions has changed in an era of expanding information and interdisciplinary activity. The traditional curatorial role of researching, collecting and interpreting heritage and artistic materials is evolving toward more inclusive and collaborative audience engagement. "The evolving role of the curator also includes considering the

Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	337	3,975	\$104,826,921	85
2012	344	3,712	\$94,609,775	67
2013	350	3,837	\$100,674,702	85
2014	351	3,853	\$103,563,331	N/A

- Industries Studied**
- Libraries and Archives
 - Museums
 - Historical Sites

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Culture & Heritage Industry Highlights

Culture & Heritage wages as percentage of total MI creative industries

2.08%

Culture & Heritage employment as percentage of total MI employment

0.09%

2014 industry location quotient compared to U.S.

0.98

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

civic role of cultural institutions in their communities. Some are considering how to become more engaged with the needs and interests of the neighborhoods and cities that surround their building. This is another way that cultural institutions are working to stay relevant.”¹ The number of curators employed in Michigan has nearly tripled over the research period and their salaries have increased.

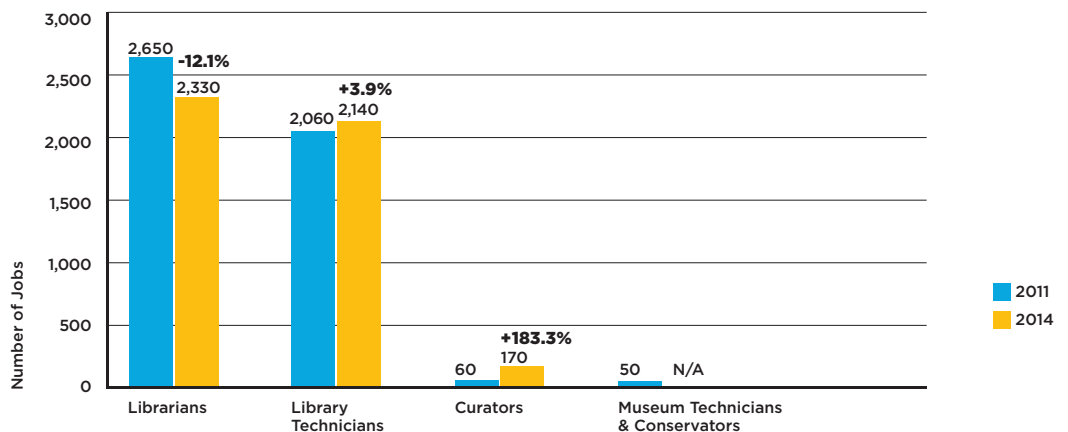
“The management of information has long been regarded as the domain of librarians and libraries. Librarians and information professionals are trained to be experts in information searching, selecting, acquiring, organizing, preserving, repackaging, disseminating, and serving.”² Librarians and library technicians are involved in knowledge management in broader domains than in previous times. For example, the importance of information in building strategic business competitiveness has led to increased opportunities related to technology, government policy, higher education and research.³ Digital technology has transformed functional roles in libraries and positioned librarians as key facilitators of shared information. Emerging career trends emphasize the need to navigate digital content and technical applications. Many librarian positions are merging with information technology or their skills are being sought in user experience design or business analysis, particularly in corporate settings.⁴ Despite this critical role, the number of librarians has decreased in Michigan, perhaps as a result of budget constraints, both in government and educational settings.⁵

1. Roos-Brown, E. (2013). *Academic to Entertainer: The Changing Role of the Curator*. Artcore Journal, [online] 2(1). Available at: <http://artcorejournal.net/2013/07/21/academic-to-entertainer-the-changing-role-of-the-curator-by-erinn-roos-brown/>
2. Lee, H. (2005). *Knowledge Management and the Role of Libraries*. Washington: Asian Division, Library of Congress
3. Lee, H. (2005). *Knowledge Management and the Role of Libraries*.
4. San Jose State University, (2015). *Emerging Career Trends for Information Professionals*. [PDF] San Jose: San Jose State University, pp.1-36. Available at: http://ischool.sjsu.edu/sites/default/files/content_pdf/career_trends.pdf
5. U.S. Bureau of Labor Statistics, (2015). *Librarians: Occupational Outlook Handbook*. [online] United States Bureau of Labor Statistics. Available at: <http://www.bls.gov/ooh/education-training-and-library/librarians.htm>

Occupations Studied

- Curators
- Museum Technicians and Conservators
- Librarians
- Library Technicians

Creative Occupations in Culture & Heritage by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

6. Design

Design Industry Percentage Changes from 2011-2014

Establishments

-1.99%

Employment

+14.8%

Wages

+18.9%

Nonemployer
Establishments
(2011-2013)

+1.26%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Highest levels of employment and wages in this study.

Employment and wages in design industries have increased substantially. The aggregated eight industry codes related to various types of furniture manufacturing represent 43% of employment in this cluster and just over 52% of wages. There has been a decline in number of establishments overall, primarily in interior and graphic design services industries, and in wood cabinet and countertop manufacturing.

Michigan continues to be the largest employer of commercial and industrial designers in the country, registering a 22% increase in these workers, and has the top location quotient position for this occupation nationally. The economically critical automotive industry relies on industrial designers to help provide competitive advantage, to ensure consumer needs are met and to work with engineers to imagine the transportation systems of the future.¹

Graphic designers are evolving their practice and weaving their skills into many different industries. The digital revolution has boosted the need for skilled two-dimensional image and text-based workers. Graphic designers are critical to the creation of controls and displays for products, to the development of great digital user experience, and to the usability of wayfinding, signage, packaging, publishing and information processing. Their numbers are growing in most regions despite the drop in establishments.

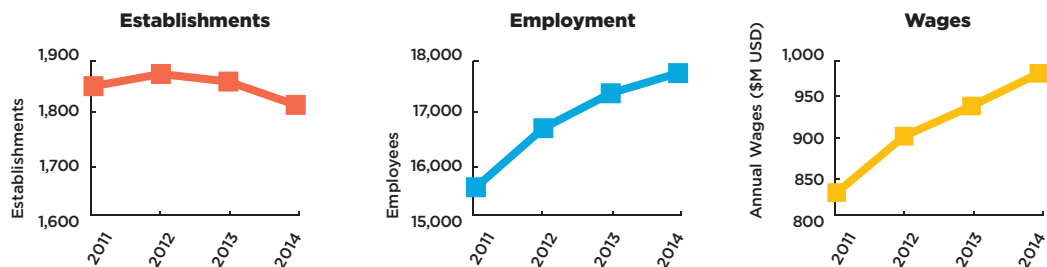
Industries Studied

- Wood Kitchen Cabinet and Countertop Manufacturing
- Upholstered Household Furniture Manufacturing
- Nonupholstered Wood Household Furniture Manufacturing
- Metal Household Furniture Manufacturing
- Household Furniture (except Wood and Metal) Manufacturing
- Institutional Furniture Manufacturing
- Wood Office Furniture Manufacturing
- Office Furniture (except Wood) Manufacturing
- Doll, Toy, and Game Manufacturing
- Furniture Merchant Wholesalers
- Home Furnishing Merchant Wholesalers
- Toy and Hobby Goods and Supplies Merchant Wholesalers
- Hobby, Toy, and Game Stores
- Drafting Services
- Interior Design Services
- Industrial Design Services
- Graphic Design Services
- Other Specialized Design Services

Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	1,856	15,538	\$830,561,574	12,889
2012	1,880	16,748	\$904,777,553	13,172
2013	1,865	17,437	\$944,425,080	13,051
2014	1,819	17,835	\$987,441,757	N/A

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Design Industry Highlights

Design wages as percentage of total MI creative industries

19.87%

Design employment as percentage of total MI employment

0.44%

2014 industry location quotient compared to U.S.

0.81

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Interior designers working in commercial settings have always been linked to the furniture industry in the state. Their knowledge of emerging workplace shifts and ability to contribute to new product concept development is critical to pre-eminent office furniture manufacturers such as Steelcase, Haworth and Herman Miller. Many employers are also recognizing the value of creating desirable interiors as part of their employee retention efforts. Detroit-based dPop has built a successful business by inventively activating work environments such as their iconic transformation of a 129-year-old bank vault under Chrysler House, in one of Detroit's oldest skyscrapers. In the hospitality realm, the multi-disciplinary designers at et al. collaborative marry functional interior spaces to architecture. At the Selden Standard restaurant in Detroit, they created spaces that are effective for employees while capturing the imagination of customers.

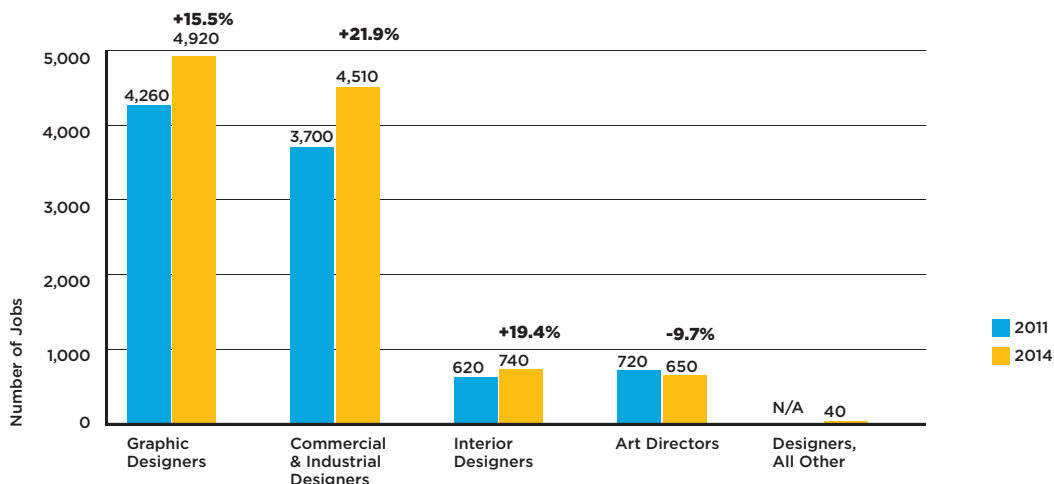
Other manufacturers and product design companies are also benefiting from the transferable training and experience that comes with this intense concentration of knowledge workers. Toy makers are an example of a sector that benefits from this supply chain competency. The Toy Industry Association of Michigan reported this year that toy and game manufacturers, wholesalers, distributors and retailers accounted for an estimated 9,850 full-time equivalent jobs in the state, with many employed by small businesses.² The local presence of design and innovation in the sector gives a helpful boost.

1. Michigan Automotive Office (2014). *What Happens When Auto Meets Acceleration: State of Michigan Automotive Strategic Plan*. [PDF] PureMichigan. Available at: <http://www.michiganbusiness.org/cm/files/Auto-Strategic-Plan.pdf>
2. Dunham, J. (2015). *Economic Impact of the Toy Industry: 2015 Summary Report*. [PDF] Toy Industry Association, Inc. Available at: https://www.toyassociation.org/app_themes/tia/pdfs/economicimpact/unitedstates.pdf

Occupations Studied

- Art Directors
- Commercial and Industrial Designers
- Graphic Designers
- Interior Designers
- Set and Exhibit Designers
- Designers, All Other

Top Creative Occupations in Design by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

7. Fashion, Garment & Textile

Fashion, Garment & Textile Industry Percentage Changes from 2011-2014

Establishments

+3.05%

Employment

+9.05%

Wages

+16.5%

Nonemployer Establishments (2011-2013)

+52%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Industries Studied

- Fiber, Yarn, and Thread Mills
- Broadwoven Fabric Mills
- Narrow Fabric Mills and Schiffl Machine Embroidery
- Nonwoven Fabric Mills
- Knit Fabric Mills
- Textile and Fabric Finishing Mills
- Fabric Coating Mills
- Carpet and Rug Mills
- Curtain and Linen Mills
- Textile Bag and Canvas Mills
- Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills
- All Other Miscellaneous Textile Product Mills
- Hosiery and Sock Mills
- Other Apparel Knitting Mills
- Cut and Sew Apparel Contractors
- Men's and Boys' Cut and Sew Apparel Manufacturing
- Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing
- Other Cut and Sew Apparel Manufacturing
- Apparel Accessories and Other Apparel Manufacturing
- Leather and Hide Tanning and Finishing
- Footwear Manufacturing
- All Other Leather Good and Allied Product Manufacturing

A small but growing industry with more research needed.

The 14 codes representing various textile and knitting mills represent over 95% of employment in this industry cluster when viewed through available U.S. Bureau of Labor Statistics information. However, because there is suppression of data due to the small number of establishments reporting information, it is impossible to determine accurately the role of apparel and footwear manufacturing in overall employment or wages from this perspective. For example, large-scale clothing and footwear manufacturers are headquartered across the state, many with large local employment commitments.

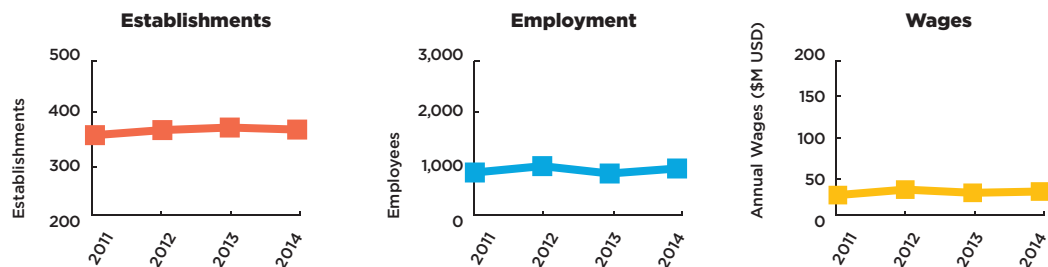
In terms of occupations, no data was available for analysis due to suppression of wage and employment data in the Occupational Employment Statistics dataset provided by the U.S. Bureau of Labor Statistics. For full discussion of suppression and limitations of the data see Appendix 2 on page 142. While occupational data is suppressed, workers in this sector have transferable skills and competencies, such as upholstery, leather working, and detailed fine finishing that makes them employable in the automotive and furniture industries in addition to the production of garments and textiles.

Commercial textiles such as panel fabric, upholstery, wall coverings, cubical curtains and hospital textiles are all manufactured in Michigan. Specialized fabric mills, such as True Textiles headquartered in Grand Rapids, are North American leaders. As a vertically integrated company, True Textiles produces both custom and open line technical fabrics to high environmental and durability standards.¹

Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	361	873	\$28,493,058	25
2012	371	999	\$35,719,487	27
2013	376	853	\$31,489,064	38
2014	372	952	\$33,189,550	N/A

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Fashion, Garment & Textile Industry Highlights

Fashion, Garment & Textile wages as percentage of total MI creative industries

0.67%

Fashion, Garment & Textile employment as percentage of total MI employment

0.02%

2014 industry location quotient compared to U.S.

0.16

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Occupations Studied

- Models
- Tailors, Dressmakers, and Custom Sewers
- Sewers, Hand
- Fabric and Apparel Patternmakers
- Fashion Designers

Developing a skilled workforce in this sector is buttressed by educational opportunities for those who wish to advance their abilities, both creatively and pragmatically. Cranbrook Art Academy provides an interdisciplinary and experimental approach to textile arts and 3D design while the College for Creative Studies provides sponsored project studios and access to industry experts in fashion accessory design. Although overall employment in this industry cluster remains low, there is hope that attraction of business through promotion of a skilled labor pool and attractive incentives will draw increased investment.²

In an effort to create diversified employment opportunities and support emerging fashion designers, the Detroit Garment Group (DGG) has established fashion incubators, a fashion conference and workshops to build business competency for start-ups and growing enterprises. The Detroit Garment District is being established in partnership between DGG and Midtown Detroit Inc. and will provide a cross fertilizing location to bolster innovation and talent development. In downtown Lansing, The Runway fashion incubator helps fashion designers grow their skills using 3D and 2D software to translate concepts into patterns for production.

In Rockford, Michigan, Wolverine has been handcrafting and supplying high-quality leather work footwear since 1921.³ After a challenging year in retail recently, the company has announced it will refocus its efforts on product innovation and deep consumer insight to remain competitive moving forward. Established in the nearby state of Wisconsin, Stormy Kromer Mercantile was close to ceasing production when manufacturing was turned over to Jacquart Fabric Products in Ironwood, Michigan.⁴ Today, the iconic winter cap is widely available and the company has extended their line to include apparel and accessories for men, women and children. On a smaller scale, the jeans handmade from high quality materials at Detroit Denim have a dedicated following and the principled company continues to thrive. Given the presence of established iconic brands and the economic development work to accelerate new enterprises this will be an important sector for ongoing research.

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1. True Textiles, Inc., (2016). *What We Make*. [online] True Textiles. Available at: <http://www.truetextiles.com/page/957/true-textiles-products> [Accessed 8 Mar. 2016].
 2. Prima Civitas, (2014). *Prima Civitas and Makers Coalition Piecing Together the Rebirth of the Cut And Sew Industry In MI*. [online] Available at: <http://www.lansingchamber.org/news/203979/Prima-Civitas-and-Makers-Coalition-Piecing-Together-the-Rebirth-of-the-Cut-And-Sew-Industry-In-MI.htm>
 3. Wolverine, (2016). *About Us - Our Story*. [online] Available at: <http://www.wolverine.com/US/en/about-us-our-story/> [Accessed 29 Feb. 2016].
 4. Stormy Kromer, (2016). *Our Story*. [online] Available at: <http://www.stormykromer.com/content/our-story.asp> [Accessed 29 Feb. 2016].

8. Film, Audiovisual & Broadcasting

Film, Audiovisual & Broadcasting Industry Percentage Changes from 2011-2014

Establishments
+0.35%
Employment
-0.49%

Wages
-1.63%

Nonemployer Establishments (2011-2013)
+11.0%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Fluctuating numbers for employees and wages reflect the volatile nature of this industry.

Despite changes in funding and recent losses, this sector remains an important contributor to Michigan’s creative economy. Overall, it adds the second largest sum of total wages and employs the third largest group of workers. It is common practice in the film industry to form a new establishment for each production. These companies tend to engage a majority of workers on a contract basis.

Occupations in the cluster include various technicians, educators, creators and performers pointing to a diversified industry. The largest increase was in postsecondary communications teachers with 400 additional people employed, a 211% expansion. This study measures employment prior to the potential implications of the cancellation of film industry tax incentives.

The film and broadcasting industries are primarily dedicated to the production and dissemination of audiovisual content. Operating and business models have been challenged in the face of recent disruptions such as the digitization of content and the proliferation of online delivery platforms that have resulted in greater viewing choice for audiences. Millennial viewers pose the greatest challenge for television broadcasters and movie theater operators as they increasingly prefer to access their favorite content via the internet and mobile devices.¹ Efforts of the Michigan Film and Digital Media Office to expand support across media channels should be productive for talent and businesses. The motion picture theater industry has not been immune to competition from online streaming platforms. In response, many movie theaters have focused

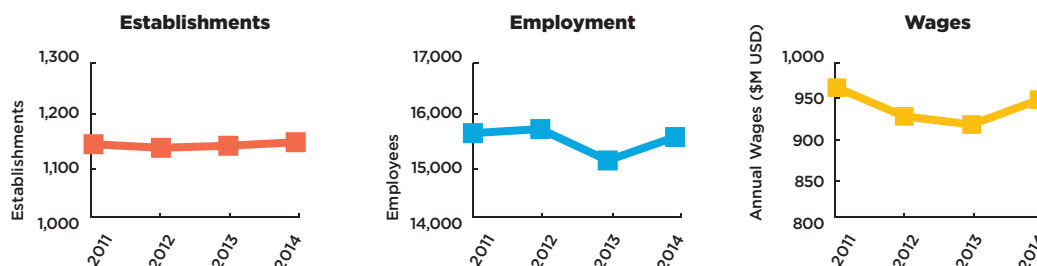
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	1,144	15,663	\$972,397,423	1,053
2012	1,137	15,743	\$934,720,628	1,187
2013	1,141	15,123	\$923,872,911	1,169
2014	1,148	15,586	\$956,589,589	N/A

Industries Studied

- Motion Picture and Video Production & Manufacturing
- Motion Picture and Video Distribution, Dissemination & Support Services
- Motion Picture Theaters (except Drive-Ins)
- Drive-In Motion Picture Theaters
- TeleProduction & Manufacturing and Other Postproduction & Manufacturing Services
- Other Motion Picture and Video Industries
- Television Broadcasting
- Cable and Other Subscription Programming
- Wired Telecommunications Carriers
- News Syndicates

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Film, Audiovisual & Broadcasting Industry Highlights

Film, Audiovisual & Broadcasting wages as percentage of total MI creative industries

19.2%

Film, Audiovisual & Broadcasting employment as percentage of total MI employment

0.38%

2014 industry location quotient compared to U.S.

0.28

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

efforts in improving customer experiences by increasing the number of digital and 3D screens, installing more comfortable seating and programming alternative content. For example, in south Lansing, Celebration Cinema “is tearing out about 4,000 existing seats at its 20-screen theater on Edgewood Boulevard and replacing them with about 1,600 automatically reclining seats.”² Despite decreasing establishments in Michigan, the overall number of movie theater employees has remained relatively stable.

Advertising is the major source of revenue for television broadcasting in the U.S. In recent years, there has been greater competition for these dollars. Online media producers continue to put pressure on television broadcasters as viewers shift to online media platforms. As a result of declining advertising revenue, the television market is undergoing structural changes. Served by a large number of stations that are affiliated with all the major U.S. networks, employment within Michigan’s television market has remained stable with a modest increase in employees. The state’s broad range of postsecondary and graduate programs in Broadcasting, Cinema Arts, Communication and Media Studies has supported a significant increase in the number of postsecondary Communications teachers in the state.

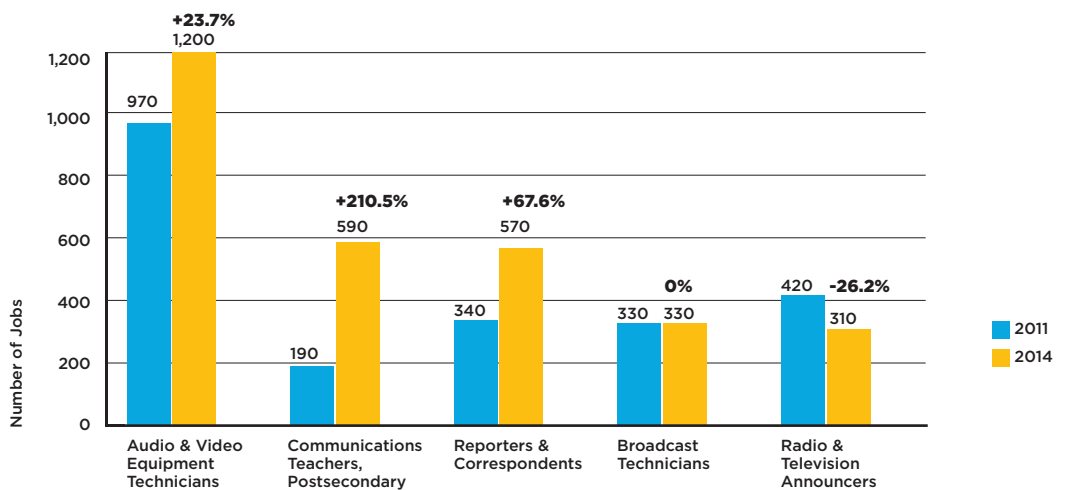
Wired Telecommunications Carriers have been subject to significant competition from Wireless Carriers, and to a lesser extent from cable providers. As demand for voice services have fallen, carriers have shifted their focus to providing high-speed internet. In Michigan, such service adoption is on the rise. The decrease in overall wired carrier establishments is balanced by relatively stable employment levels in this industry.

1. Verizon Digital Media Services, (2014). *Millennials and Entertainment*. [online] pp.1-50. Available at: https://www.verizondigitalmedia.com/content/verizonstudy_digital_millennial.pdf [Accessed 11 Oct. 2015].
2. Behnan, C. (2014). *Lansing theater hopes fewer seats means more business*. Lansing State Journal. [online] Available at: <http://www.lansingstatejournal.com/story/news/local/2014/10/28/celebration-theater-recliner-seating/18057429/> [Accessed 11 Oct. 2015].

Occupations Studied

- Communications Teachers, Postsecondary
- Audio-Visual Collections Specialists
- Multi-Media Artists and Animators
- Radio and Television Announcers
- Reporters and Correspondents
- Media and Communication Workers, All Other
- Audio and Video Equipment Technicians
- Broadcast Technicians
- Sound Engineering Technicians
- Camera Operators, Television, Video, and Motion Picture
- Film and Video Editors
- Media and Communication Equipment Workers, All Other

Top Creative Occupations in Film, Audiovisual & Broadcasting by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

9. Literary, Publishing & Print

Literary, Publishing & Print Industry Percentage Changes from 2011-2014

Establishments
-6.82%

Employment
-15.79%

Wages
-8.59%

Nonemployer Establishments (2011-2013)
-10.3%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Largest decline in Michigan's creative industries.

This is the only industry cluster to show decline in all measures of contribution, both in industry reporting as well as in the identified creative occupations. Total amount reductions in industry employment and wages were the steepest in the study. While much has been written about the dramatic decline of the publishing industry, there are rays of hope amid the change. Michigan has certainly seen fewer numbers of employees at book stores, newspapers and commercial printers, but the decline has leveled off and the sector remains a major generator of wages in the state. Commercial printing is by far the largest employer segment in this industry cluster representing 45% of employees and 44% of wages, and is therefore more influential in terms of impact on the economy. Several business segments remain sensitive to changes in technology and investment.

Mobile consumption of literary content as well as news and information provide opportunities for innovation, such as subscription-based distribution through cross-media bundled offerings. For example, the service provider Playster now offers subscribers access to books along with film and music direct to any digital device. The production of textbooks and instructional manuals is also moving towards interactive digital media with an emphasis on features such as diagrams and practice quizzes that function through cloud-based programs.¹ More local print-on-demand capacity, such as the proliferation of the Espresso Book Machine which enables the rapid and extremely low cost production of high quality bound books,² is also changing the landscape. These emergent technologies suggest that books need never go out-of-print and publishers need not commit to extensive print runs.

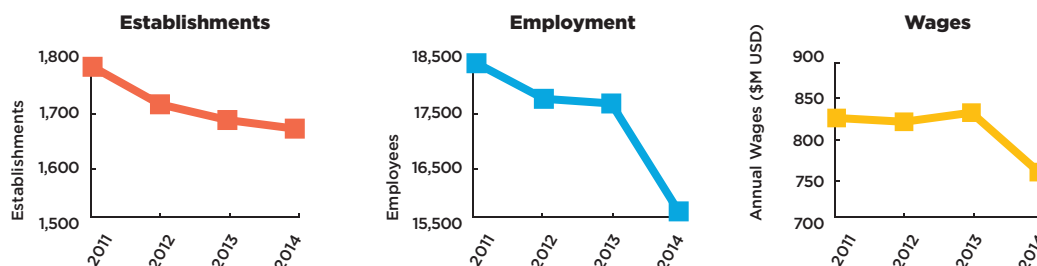
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	1,789	18,515	\$829,025,470	3,295
2012	1,715	17,813	\$824,042,109	3,044
2013	1,684	17,721	\$836,052,629	2,955
2014	1,667	15,592	\$757,834,252	N/A

Industries Studied

- Commercial Printing (except Screen and Books)
- Commercial Screen Printing
- Books Printing
- Book, Periodical, and Newspaper Merchant Wholesalers
- Book Stores
- News Dealers and Newsstands
- Newspaper Publishers
- Periodical Publishers
- Book Publishers
- Greeting Card Publishers
- All Other Publishers

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Literary, Publishing & Print Industry Highlights

Literary, Publishing & Print wages as percentage of total MI creative industries

15.3%

Literary, Publishing & Print employment as percentage of total MI employment

0.38%

2014 industry location quotient compared to U.S.

0.45

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Occupations Studied

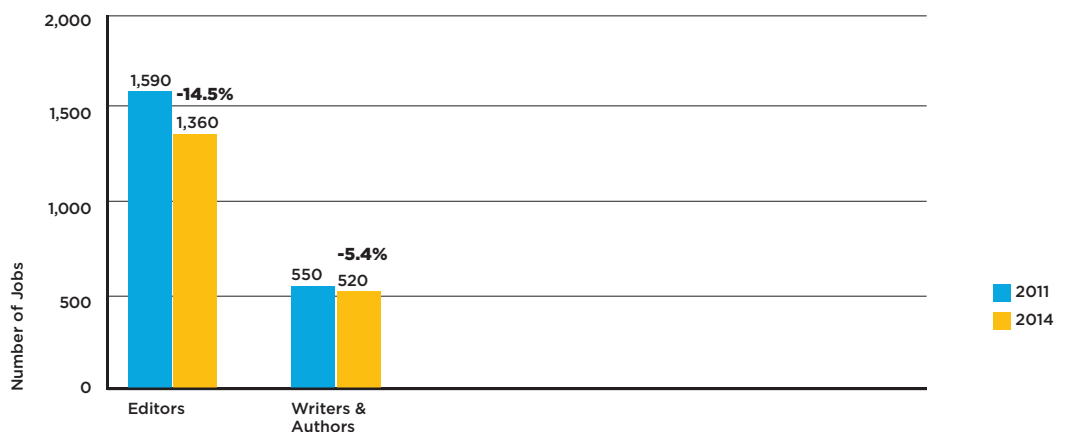
- Editors
- Writers and Authors

Although readership of print editions for newspapers remains strong, revenue generation models have been difficult to sustain in a digital world. Content is still important to consumers, however, delivery platforms and credible information sources have been completely transformed over the past five years. Previously fringe publications such as Vice now represent a first choice in multi-channel information for many audiences,³ whereas established organizations have seen erosion of their classified ad revenue, with some in precarious circumstances. Layoffs throughout media companies, particularly in the newsroom for editors and writers, are tied to efforts to consolidate business as digital formats are explored.⁴

Alongside this transformational change is the continuing success of independent and university presses that are able to publish both niche and first-time writers with a more patient distribution approach aimed at a smaller audience. Many authors who are able to build a following through social media are self-publishing at a greater rate, making access to diverse local stories more possible. The small Ann Arbor based Dzanc Books provides an example of responsive diversification in its activities, publishing both innovative fiction and a monthly on-line journal, running a writers-in-residence program and convening an annual short-story competition. At the same time, technology enabled publishing has allowed for more diffusion geographically and provides smaller municipalities such as Traverse City to develop active markets, including drawing audiences to book festivals and events throughout the year.

1. Council of Australian University Librarians, (2012). *Briefing paper on eTextbooks and third party eLearning products and their implications for Australian university libraries*. [online] CAUL, pp.1-69. Available at: <http://www.caul.edu.au/content/upload/files/learning-teaching/eTextbook2012report.pdf> [Accessed 12 Dec. 2015].
2. Xerox. (2010). *Espresso Book Machine®, A Xerox® Solution*. [PDF] Xerox Corporation. Available at: http://www.ondemandbooks.com/images/4112_EBM%20brochure_091410_LR.PDF [Accessed 21 Jan. 2016].
3. Beer, J. (2015). *Vice And CNN Are In A Battle Royale For the Future Of the News*. *Fast Company*. [online] Available at: <http://www.fastcompany.com/3048629/vice-vs-cnn-the-battle-royale-for-the-future-of-the-news>
4. Lecompte, C. (2015). *Automation in the Newsroom*. *Nieman Reports*. [online] Available at: <http://niemanreports.org/articles/automation-in-the-newsroom/>

Creative Occupations in Literary, Publishing & Print by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

10. Music

Music Industry Percentage Changes from 2011-2014

Establishments
-0.78%

Employment
+33.5%

Wages
+117.0%

Nonemployer
Establishments
(2011-2013)
+1.68%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Dramatic growth, but overall numbers remain low compared to other sectors.

There is a very large percentage change in employment and wages in this sector, but the actual numbers are smaller than in other clusters and that impact was varied throughout the industries represented. While employment more than doubled in radio stations, it declined 27% in musical instrument and supplies stores during the study period. (This information was compiled prior to 2016 employment losses at radio stations such as MLive.) Employee and wage data for some record production and manufacturing industries were suppressed in 2011, 2012 and 2013 but were present in 2014. Both occupation groups identified in the cluster grew. Music directors and composers nearly doubled and 32.5% more musicians and singers are present in the 2014 data.

Detroit has an iconic history and active present in music. Spectators from around the world are drawn to its festivals and performances. Detroit Techno is recognized as a distinct genre of electronic music with globally successful producers and artists recording on local labels.¹ Detroit's electronic dance music (EDM) festival, Movement Detroit, has survived multiple management shifts and continues to welcome over 100,000 paid visitors, many from Europe, to its annual Memorial Day event. Boosting the event, dedicated radio stations ensure airplay and DJs host regular dance parties in venues around the city. The annual alternative indie music festival Mo Pop is also growing, animating Detroit's riverfront in the summer. The annual Detroit Jazz Festival draws legendary musicians and large crowds to its free programming.

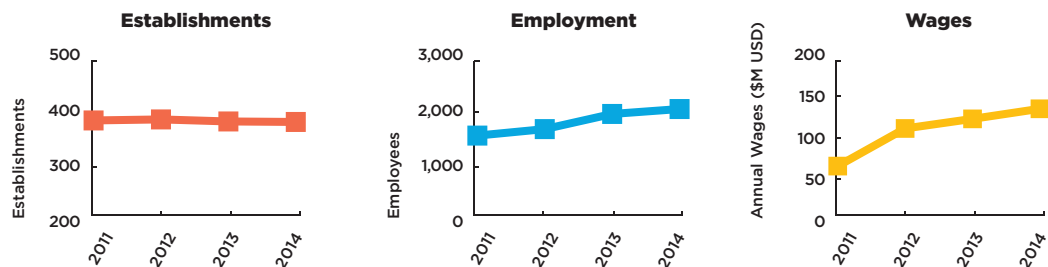
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	387	1,564	\$64,425,510	416
2012	389	1,692	\$113,902,995	421
2013	385	1,991	\$126,528,128	423
2014	384	2,088	\$139,778,248	N/A

Industries Studied

- Musical Instrument Manufacturing
- Musical Instrument and Supplies Stores
- Record Production & Manufacturing
- Integrated Record Production & Manufacturing/Distribution, Dissemination & Support Services
- Music Publishers
- Sound Recording Studios
- Other Sound Recording Industries
- Radio Networks
- Radio Stations
- Musical Groups and Artists

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Music Industry Highlights

Music wages as percentage of total MI creative industries

2.81%

Music employment as percentage of total MI employment

0.05%

2014 industry location quotient compared to U.S.

0.34

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Opera and symphonic music have performance venues and companies, both historic and contemporary, in the regions featured in this study as well as in smaller locations. Organizations such as Michigan Opera Theater, the Grand Rapids Symphony, and Ann Arbor's Symphony Orchestra present live concerts and recordings of their works. Community supported, many groups are using social media and webcasting as methods to connect to and build their audiences. Radio broadcasting also plays a critical role in sustaining interest in classical music. Well-funded competitions, such as the international chamber arts M-Prize initiative of the School of Music, Theater and Dance at the University of Michigan, promote student explorations of the genre.²

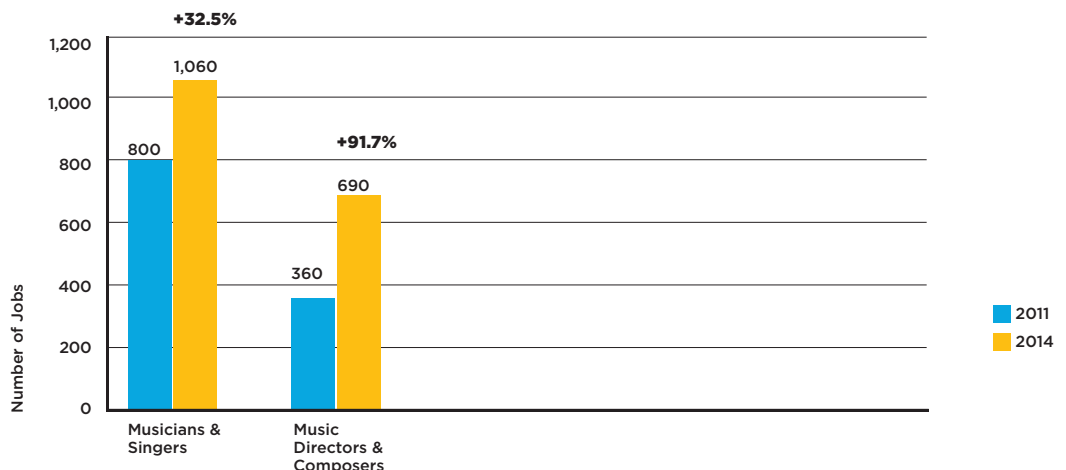
Much has changed in the production of musical instruments with the rise of low-cost internationally produced items pushing into the market and the growth of electronic alternatives to traditional pieces. However, small-scale high quality specialized instrument manufacturing is finding an audience as Michigan's maker culture meets musical legacy. Loyal aficionados of guitars admire the acoustic features of Heritage Guitars, made in Kalamazoo. Custom handmade historical instruments, such as harpsichords are produced in Keith Hill's Manchester workshop.³ And a quiet sub-culture of handmade and tailored guitar amps, such as Moonlight Amplifiers, combines tonal quality with craft sensibility.⁴ These examples all illustrate the importance of the music industry to Michigan's identity and economy.

1. Glasspiegel, W. (2016). *Get Familiar With Detroit Techno: 10 Essential Songs*. [Blog] NPR Music. Available at: <http://www.npr.org/2011/05/27/136655438/get-familiar-with-detroit-techno-10-essential-songs>
2. Regents of the University of Michigan, (2015). *M-PRIZE*. [online] M-PRIZE Chamber Arts Competition. Available at: <http://mprize.umich.edu/> [Accessed 29 Feb. 2016].
3. Keith Hill Harpsichords, (2016). *INTRODUCTION*. [online] Keith Hill - Instrument Maker. Available at: <http://keithhillharpsichords.com/> [Accessed 29 Feb. 2016].
4. Anest, A. (2014). *Moonlight Amplifiers - Handmade and Unique*. [Blog] thetubestore Inc.. Available at: <http://blog.thetubestore.com/moonlight-amplifiers-handmade-and-unique/> [Accessed 29 Feb. 2016].

Occupations Studied

- Music Directors and Composers
- Musicians and Singers

Creative Occupations in Music by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

11. Performing Arts

Performing Arts Industry Percentage Changes from 2011-2014

Establishments
+3.79%

Employment
+10.3%

Wages
+10.5%

Nonemployer Establishments (2011-2013)
+17.3%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

Improvements but low wages and employment overall.

As seen through the lens of percentage change over time, employment and numbers of operating establishments have been relatively stable in this cluster since 2011. However average annual wages remain low overall and have not significantly increased on a per worker basis in the same timeframe. Nonemployer establishments for performing arts represent the second highest increase between 2011 and 2013 in this report. The number of dance companies doubled in the study period but their presence in the state remains very low compared to other jurisdictions in the U.S., as is the case for the code representing other performing arts companies. Numbers for employees in dance companies were not available for 2011 and 2012 due to data suppression based on the small number of establishments.

Workers in the occupations included in this cluster, such as actors, performers, and producers and directors, also benefit from the health of other sectors such as advertising and film, and broadcast, where their services are sought. An increase in producers and directors as well as actors is evident but data for other occupations in this cluster are suppressed after 2011 and therefore unavailable for assessment at this time.

A broad range of performance, dance, and theater, from experimental, to classical, to popular entertainment is performed for, and enjoyed by, Michigan audiences around the state. Local participation of both performers and audiences is a critical part of building an inclusive and representative community in the arts that contributes to community placemaking. These

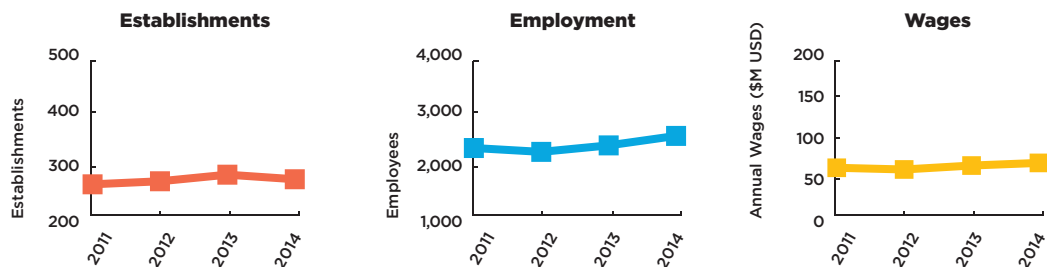
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	264	2,324	\$60,900,685	2,917
2012	270	2,248	\$58,679,203	3,092
2013	283	2,376	\$63,845,770	3,421
2014	274	2,536	\$67,304,649	N/A

Industries Studied

- Theater Companies and Dinner Theaters
- Dance Companies
- Other Performing Arts Companies
- Promoters of Performing Arts, Sports, and Similar Events with Facilities
- Promoters of Performing Arts, Sports, and Similar Events without Facilities

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Performing Arts Industry Highlights

Performing Arts wages as percentage of total MI creative industries

1.35%

Performing Arts employment as percentage of total MI employment

0.06%

2014 industry location quotient compared to U.S.

0.43

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

cultural presentations also contribute significantly to tourism across the state, drawing millions of people to events as part of their leisure travel experience. Using data from D.K. Shifflet & Associates, the Michigan Economic Development Corporation reported that the economic impact of leisure trips for Concerts, Theater and Dance activities was \$290.3 million dollars in 2013.¹

There is infrastructure available in Michigan to produce, promote and present dance and theater. High caliber performance venues in Michigan range from intimate theaters to large purpose built auditoriums and several of these are cross-utilized by the music and film sectors. Some examples include Orchestra Hall and the Fox Theater in Detroit, The Power Center for Performing Arts, State Theater and Michigan Theater in Ann Arbor, DeVos Performance Hall and Urban Institute for Contemporary Arts in Grand Rapids, and the Temple Theater in Saginaw. Anecdotal feedback from the artist constituencies that Creative Many works with in southeast Michigan and Grand Rapids indicate additional needs for small to mid-sized black box, flex performance and rehearsal spaces.

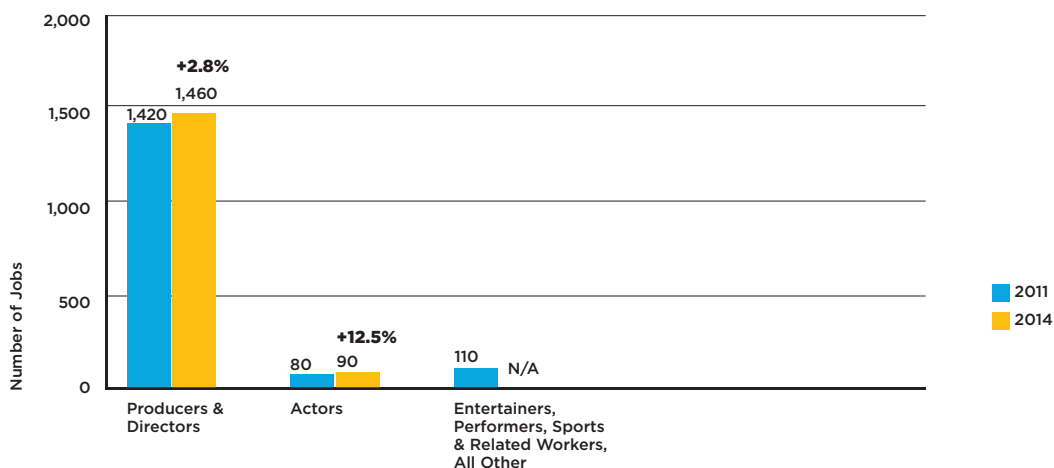
Digital consumption of information, including cultural activities, has challenged traditional models of creation, delivery and participation. The live audience landscape competes with internet based entertainment and the attention “pull” of ubiquitous mobile devices that now are able to stream content of all kinds. However, 2013 research conducted by MTM London suggests that in the current on-demand digital world, the appeal of live cultural experiences persists and digital dissemination may serve to build broader audiences for future productions.²

1. Michigan Economic Development Corporation, (2013). <http://www.michiganbusiness.org/cm/Files/MCACA/The-History-Arts-and-Cultural-Travel-Update.pdf>. 1st ed. [ebook] MEDC. Available at: <http://www.michiganbusiness.org/cm/Files/MCACA/The-History-Arts-and-Cultural-Travel-Update.pdf> [Accessed 29 Feb. 2016].
2. Arts Council England (n.d.). *Digital Culture: How arts and cultural organisations in England use technology*. [PDF] London: Nesta. Available at: http://artsdigitalrnd.org.uk/wp-content/uploads/2013/11/DigitalCulture_FullReport.pdf

Occupations Studied

- Actors
- Producers and Directors
- Entertainers, Performers, Sports and Related Workers, All Other

Creative Occupations in Performing Arts by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.

12. Visual Arts & Craft

Visual Arts & Craft Industry Percentage Changes from 2011-2014

Establishments
-12.2%

Employment
-7.71%

Wages
-8.61%

Nonemployer
Establishments
(2011-2013)
+1.90%

Source: Nonemployer Statistics drawn from the U.S. Census Bureau. Establishments, Employment and Wages drawn from the U.S. Bureau of Labor Statistics, QCEW data.

A downturn in establishments but more self-employed workers.

This industry cluster, which includes visual artists and craftspeople as well as merchants and art dealers, has seen a decline in number of employees and establishments as well as wages overall. However, unlike most other sectors in this study, nonemployer establishments (NES) represent the largest portion of employment in the Visual Arts and Craft sector in Michigan, by a factor of more than ten compared to other establishments, with a year-over-year increase in NES between 2011 and 2013 (2014 data was unavailable at the time of reporting). This may reflect the likelihood that many craft workers and visual artists run sole-proprietor operations but should be verified with further study. In the industry data, employment related to codes from the photographic industry was hardest hit. Photo studios, commercial photography, and photographic equipment and supplies all decreased in the reported time period. This decline mirrors the profile of these industries throughout the U.S., especially in the past two years.

Despite a slight increase in photographers registered in the occupation data, the U.S. Bureau of Labor Statistics employment outlook projects a slower than average growth in jobs related to photography into the future.¹ The remaining creative occupations represented within the sector have seen a drop in employment. Fewer jewelers and metal workers, and painting, coating and decorating workers are identified in the occupation data and a steep 82% drop in numbers of identified fine artists occurred. Occupational data for craft artists was suppressed for all years of the study.

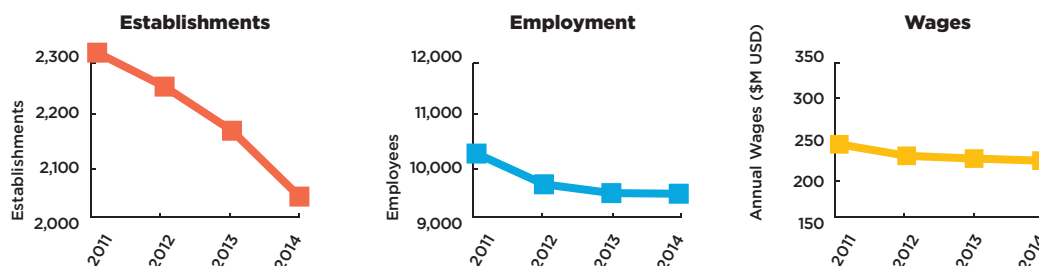
Profile of Industry in Michigan for 2011-2014

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	2,325	10,271	\$249,620,088	24,590
2012	2,258	9,665	\$234,473,875	25,051
2013	2,171	9,491	\$230,872,047	25,056
2014	2,041	9,479	\$228,137,222	N/A

Industries Studied

- Jewelry and Silverware Manufacturing
- Photographic Equipment and Supplies Merchant Wholesalers
- Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
- Jewelry Stores
- Sewing, Needlework, and Piece Goods Stores
- Gift, Novelty, and Souvenir Stores
- Art Dealers
- Photography Studios, Portrait
- Commercial Photography

Industry Trends for 2011-2014 (MI), Based on QCEW Data



Source: Nonemployer Statistics drawn from the U.S. Census Bureau. All QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used in this industry cluster see Appendix 3 on page 144.

Visual Arts & Craft Industry Highlights

Visual Arts & Craft wages as percentage of total MI creative industries

4.59%

Visual Arts & Craft employment as percentage of total MI employment

0.23%

2014 industry location quotient compared to U.S.

0.53

Source: All data drawn from the U.S. Bureau of Labor Statistics, QCEW Data.

Craft has deep roots in Michigan. Its long history recognizes the contribution of indigenous, settler and recent immigrant populations in the state. From traditional, to folk, to fine contemporary, Michigan's natural resources have played a key role in the evolution of the many types of craftwork produced.² Currently, craft artists with expertise in woodworking, ceramics, fiber arts and weaving, glasswork, jewelry making and other media frequent the large number of art and craft fairs that take place across the state almost every month of the year. Events range broadly from the alternative Detroit Urban Craft Fair to the long established Ann Arbor Art Fairs and East Lansing Art Fair where hundreds of craftspeople participate in direct sales with customers. These festivals represent important venues to showcase talent and to boost economic opportunity for craftspeople.

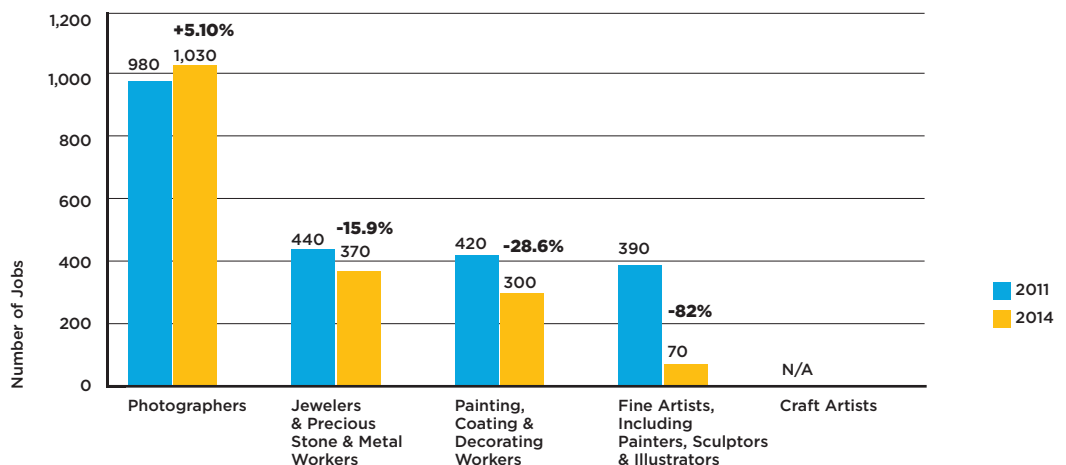
The largest increase in employment in this sector was art dealers, primarily in the Detroit region. Dealers represent an important component of the arts ecosystem, assisting artists, both emerging and established, to build audiences and access the market. As in so many other industries, the internet is changing business practice. Online galleries provide dealers with the ability to connect to potential clients without geographic restrictions. Art auction houses such as Christies and Sotheby's maintain Instagram accounts to promote the works on offer and complete transactions electronically. As in all locations, these types of activities represent both an opportunity and a challenge to Michigan art dealers as new market potential opens and greater competition from other jurisdictions arises.³

1. U.S. Bureau of Labor Statistics, (2015). *Photographers: Occupational Outlook Handbook*. [online] Available at: <http://www.bls.gov/ooh/media-and-communication/photographers.htm> [Accessed 2 Feb. 2016].
2. MacDowell, M. & Avery, J. (2006). *CraftWORKS! Michigan: A Report on traditional crafts and economic development in Michigan, East Lansing*. Available at: <http://www.craftworksmichigan.org/craftworksreport.pdf>
3. Hiscox Group, (2015). *The Hiscox Online Art Trade Report 2015*. [PDF] Hiscox Group. Available at: <http://www.hiscoxgroup.com/-/media/Files/H/Hiscox/reports/Hiscox%20Online%20Art%20Trade%20Report%202015.pdf>

Occupations Studied

- Craft Artists
- Fine Artists, Including Painters, Sculptors, and Illustrators
- Photographers
- Jewelers and Precious Stone and Metal Workers
- Painting, Coating, and Decorating Workers

Creative Occupations in Visual Arts & Craft by Employment (MI)



Source: All data drawn from the U.S. Bureau of Labor Statistics and OES. For a full list of codes used in this industry see Appendix 3 on page 144.



REGIONAL PROFILE

Detroit



Transformation

Entrepreneurs, designers and makers are setting up shop in Detroit and scaling up their businesses with the support of local accelerators.

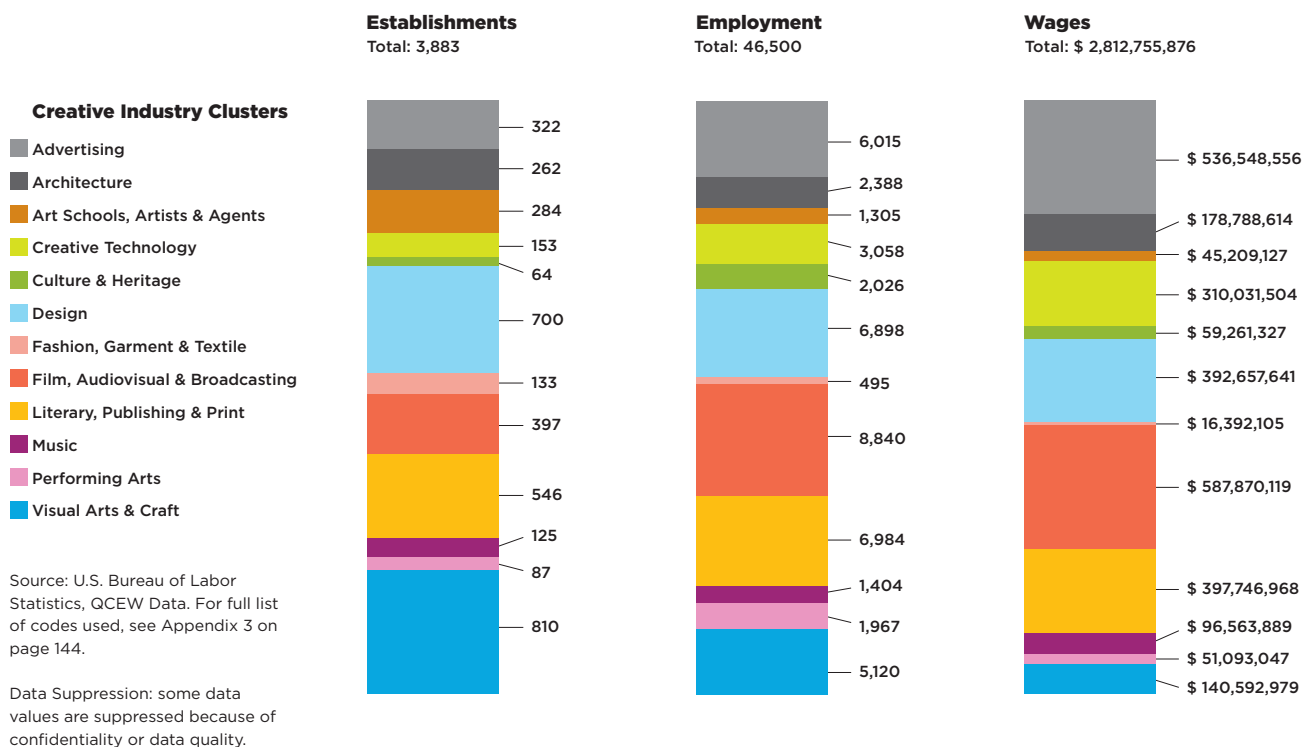
Left: Detroit dancer, Haleem Rasul, wears a Nick Cave soundsuit during one of Cave's Hear Here performance interventions in Downtown Detroit.

Photo Credit: Ash Arder

The resurgence of Detroit as a livable and vibrant creative city has been heralded around the world. In newspapers, books and documentaries, the remarkable comeback of the city post-bankruptcy is a source of inspiration. However, the hard work on the ground of building up neighborhoods, establishing support networks and markets for creative workers, and ensuring that new development is equitable and sustainable is ongoing. Recent achievements such as the City of Design designation awarded by UNESCO, and led by the Detroit Creative Corridor Center, opens new opportunities to cultivate growth in Detroit's design industries. Despite notable improvements and dedicated investment from foundations and private ventures, Detroit still lags other American cities of equivalent size in terms of the overall financial and

Creative Industries in Detroit* Distribution in 2014

*Macomb, Oakland and Wayne Counties



Digital Apps & Opportunity

“Detroit Labs is not a typical venture investment with aspirations of world domination — it’s a service business. It makes mobile apps for other companies. But the app maker is perhaps the fastest-growing startup in Detroit proper, with more than 70 employees just four years after founding and customers including Domino’s Pizza and Chevy. Detroit Labs brings in people who have no background in programming to participate in a three-month coding boot camp, from which it has hired some 22 of its employees. ‘This is a mission-based company,’ says co-founder Nathan Hughes. ‘And our mission is to produce opportunities.’ ”

Gannes, L. (2015). *15 Startups Sparking Change in Detroit*. [online] Re/code. Available at: <http://recode.net/2015/02/12/15-startups-sparking-change-in-detroit/>

employment impact of creative industries. In an era when population decline continues and average household income remains low, still more time and input are required to build the vigorous diverse economy needed.

However, there are many hopeful signals of change. In a reversal of the exodus away from the city, art galleries and artist run centers are opening nearer to the core. Curators play an important role in this ecosystem. The multi-functional spaces such as those at the N’Namdi Center for Contemporary Art make room for performances, exhibitions, education and discourse, as well as housing a celebrated collection of African American art. The Museum of Contemporary Art Detroit also serves as an anchor in the cultural center, presenting “art at the forefront of contemporary culture”, while it builds rapport with youth and neighborhood communities. Extraordinary resources such as the Detroit Institute of Art have been secured for the whole community through diversified financial strategies. International artists have shown increasing interest in relocating to Detroit, in part because of the availability of affordable space. There is no doubt that the Detroit brand is in massive ascendance.

A long history of design is written into the DNA of the city. More commercial and industrial designers are employed in the Detroit area than in any other location in the U.S. They are now among the highest paid for their profession in the country.¹ The automotive industry, including car and component part manufacturers, remains a significant employer in this sector and places design at the center of its competitive advantage. Product, apparel and furniture design have also expanded, in some cases with smaller entrepreneurial designer-maker businesses achieving wide appreciation of their “made in Michigan” sensibility.

Profile of Creative Industry Detroit* for 2011-2014

***Macomb, Oakland and Wayne Counties**

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	4,173	46,412	\$2,630,307,215	11,666
2012	4,079	45,872	\$2,673,623,815	11,937
2013	3,998	47,249	\$2,820,609,647	11,803
2014	3,883	46,500	\$2,812,755,876	N/A

Source: U.S. Bureau of Labor Statistics, QCEW program. For full list of codes used, see Appendix 3 on page 144.

Creative Industry Detroit* Change from 2011-2014

***Macomb, Oakland and Wayne Counties**

	Establishments	Employment	Wages	Nonemployer Establishments
Change	-6.95%	+0.19%	+6.94%	+1.17% (2011-2013)

Detroit & the Creative City Network

“Most recently, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) designated Detroit as a ‘city of design’ as part of its Creative Cities Network, an initiative of 69 cities ‘to promote cooperation with and among cities that have identified creativity as a strategic factor for sustainable urban development.’ Detroit was the first U.S. city to obtain such a designation, joining the likes of locales like Singapore and Budapest.”

DeVito, L. (2015). *2015 was a pivotal year in Detroit’s art scene.* [online] Detroit Metro Times. Available at: <http://www.metrotimes.com/detroit/2015-was-a-pivotal-year-in-detroits-art-scene/Content?oid=2387939>

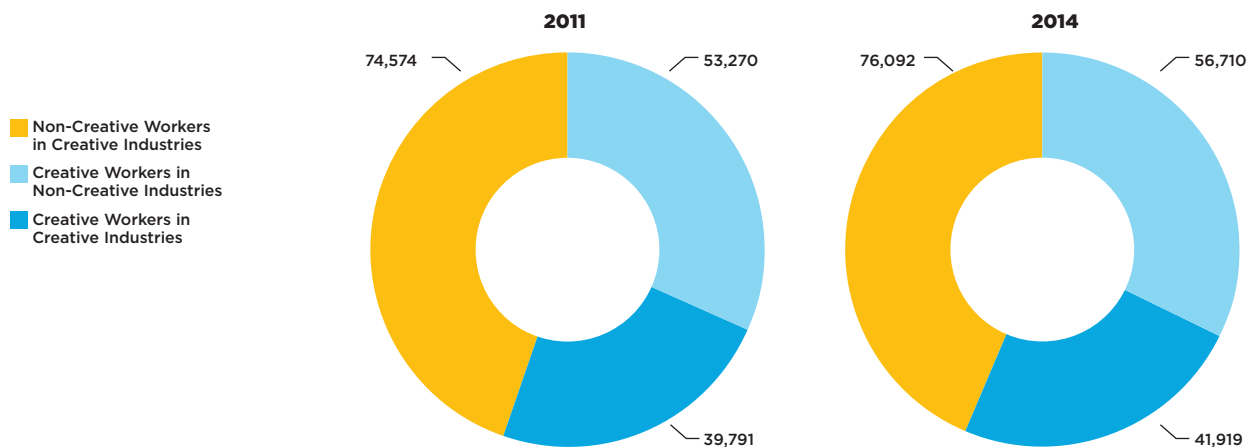
Business incubators and accelerators are flourishing here. More than 100 tech start-ups have received funding and are beginning to scale-up their operations. Smartzone innovation hubs such as TechTown are supported by the Michigan Economic Development Corporation and are contributing jobs to the local community since their introduction. Occupations related to digital development and technology are among the most reported in Detroit’s creative industries. Software developers, computer programmers and graphic designers all contribute their talents to the creation and promotion of digital outputs. Short to medium-term prospects for healthy growth in this sector are good as automotive companies expand their technological reach through connected vehicles and technology reliant companies such as Quicken Loans increase demand for skilled workers. The installation of superfast internet service through Rocket Fiber may promote even more growth.

Detroit’s creative industries represent 56.59% of the total creative industry wages in the state and 52.39% of the employment. Wages have increased \$182,448,661 since 2011 despite an increase of only 88 workers. Most employees work in the Film, Audiovisual and Broadcasting, followed by Literary, Publishing and Print and Design sectors. Although there are fewer employees, the Advertising industry represents disproportionately high wages overall and Creative Technology contributes the highest wages per employee.

1. U.S. Bureau of Labor Statistics, (2015). *Occupational Employment Statistics: Commercial and Industrial Designers.* [online] Available at: <http://www.bls.gov/oes/current/oes271021.htm#st> [Accessed 2 Feb. 2016].

Creative Employment Breakdown for Detroit*

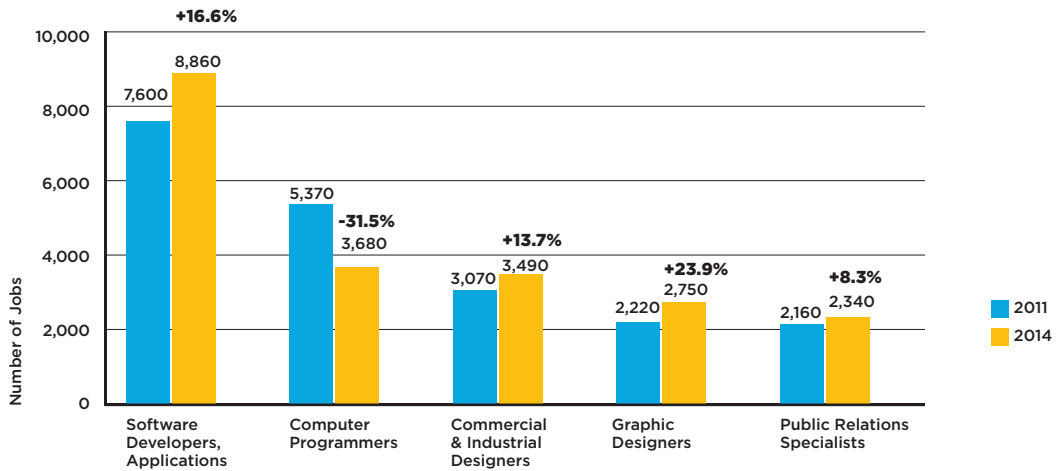
***Detroit-Warren-Dearborn MSA**



Source: Economic Modeling Specialists Incorporated, 2015.

Top Creative Occupations in Detroit* by Employment

*Detroit-Livonia-Dearborn & Warren-Troy-Farmington Hills MSAs



Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program. Included codes: 15-1132: Software Developers, Applications, 15-1131: Computer Programmers, 27-1021: Commercial and Industrial Designers, 27-1024: Graphic Designers, 27-3031: Public Relations Specialists.

Percentage change in total regional creative industries wages, 2011-2014

+6.49%

2014 regional creative industries location quotient compared to U.S.

0.70

Top Paid Creative Occupations in Detroit* for 2014

*Detroit-Livonia-Dearborn & Warren-Troy-Farmington Hills MSAs

Job Title	Average Wages
Marketing Managers	\$134,482
Advertising and Promotions Managers	\$127,350
Public Relations Managers	\$103,986
Software Developers, Applications	\$85,347
Info. Security Analysts, Web Developers, and Computer Network Architects	\$83,757

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program. For full list of codes used, see Appendix 3 on page 144.

Occupations in Advertising remain the most highly compensated in Detroit's creative economy. Despite disruptive change due to technology and economic challenges on the client side, many agencies have rebounded and Marketing Managers, Advertising and Promotions Managers, and Public Relations Managers occupations sit among the top five average wages in this study.

O.N.E. Mile's Mothership is a mobile DJ booth inspired by Detroit's funk music legacy.

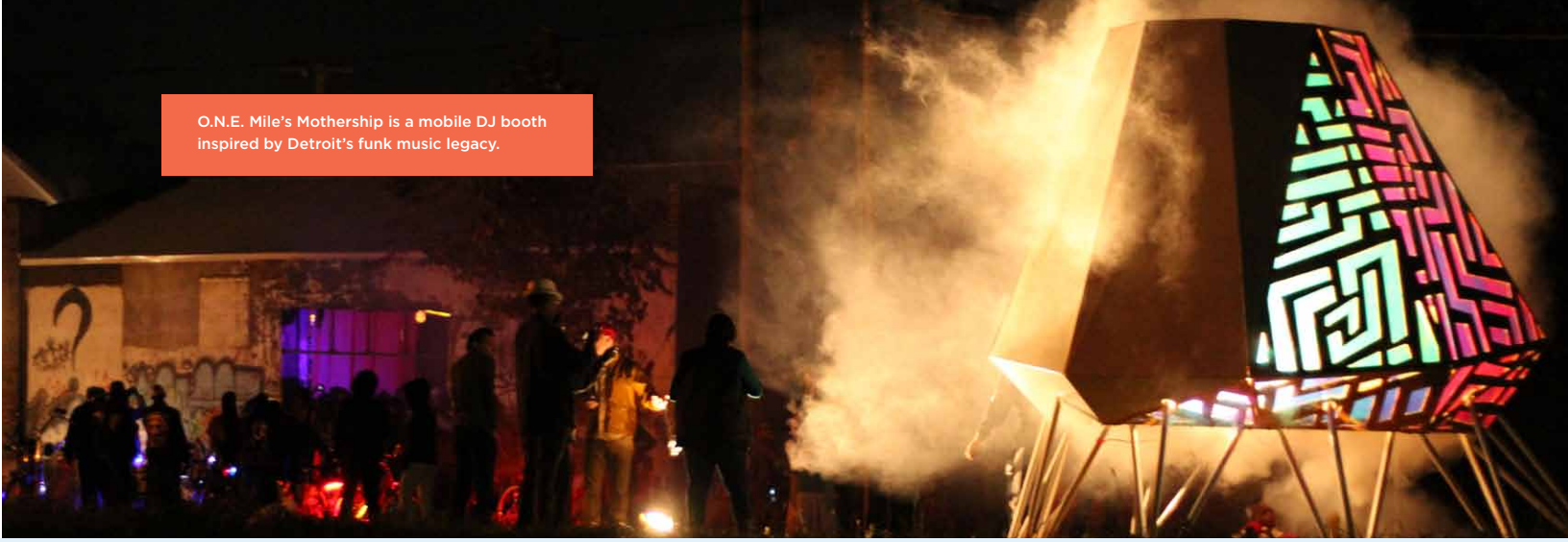


Photo Credit: Bryce Detroit

CASE STUDY: DETROIT & WAYNE COUNTY

The O.N.E Mile Project

O.N.E. Mile honors the cultural legacy of the North End by catalyzing opportunities for the creativity of the Oakland Avenue neighborhood.

Detroit is home to the big automakers such as Ford and General Motors and was the launching pad for Motown greats such as Aretha Franklin, Smokey Robinson and Diana Ross. The city's North End neighborhood has experienced the full impact of the rise and fall of both the music and the auto industries. Oakland Avenue is the heart of the North End neighborhood and music is its major legacy. It is out of this rich, cultural history that the O.N.E. Mile Project was created.

In early 2014, Bryce Detroit and Halima Cassells, members of the Oakland Avenue Artist Coalition, were introduced to designers Anya Sirota and Jean-Louis Farges, co-founders of the Metropolitan Observatory of Digital Culture and Representation (MODCaR). Brought together by their shared desire to revitalize and re-imagine Oakland Avenue and the North End, they decided to collaborate on a project. The O.N.E. Mile Project is the fruit of that joint effort.

Funded by ArtPlace America, The Knight Foundation (Knight Arts Challenge), the University of Michigan's A. Alfred Taubman College of Architecture and Urban Planning, and Creative Many Michigan, the Project is a multi-disciplinary collaboration that brings together a network of artists, community activists, architects and performers to reactivate and re-imagine a one-mile stretch of Oakland Avenue. Created as a way to support the cultural producers of the neighborhood, the Project acts as a catalyst for the community's creative economy ideas and supports the programming that is already taking place in the neighborhood.

While the Oakland Avenue neighborhood may be steeped in a musical history, the Project is not just a musical endeavor. It also encompasses visual art, design, events, gardens and a magazine. O.N.E. Mile organizers and their community collaborators make use of both existing and temporary

spaces and transform them into sites for social and cultural activity. The Project hosts events, exhibits, workshops, and performances and creates public spaces and experimental environments. Cultural information is also disseminated through their online zine. O.N.E. Mile's organizers and collaborators make use of every tool at their disposal for creating and sharing narratives from and about the neighborhood.

For Bryce Detroit, one of O.N.E. Mile's leaders, the Project is about reminding the community that Detroit was more than just the strained automotive industry. He believes that the neighborhood's creative energy persists giving the community the ability to re-imagine its future. ■



REGIONAL PROFILE

Grand Rapids



Diversification

Grand Rapids has seen an increase in diversity of employment in creative industries, but Design dominates.

Left: Time-based piece Higher Ground by Kate Gilmore was selected as the \$200,000 Juried Grand Prize Winner at ArtPrize 2015 in Grand Rapids.

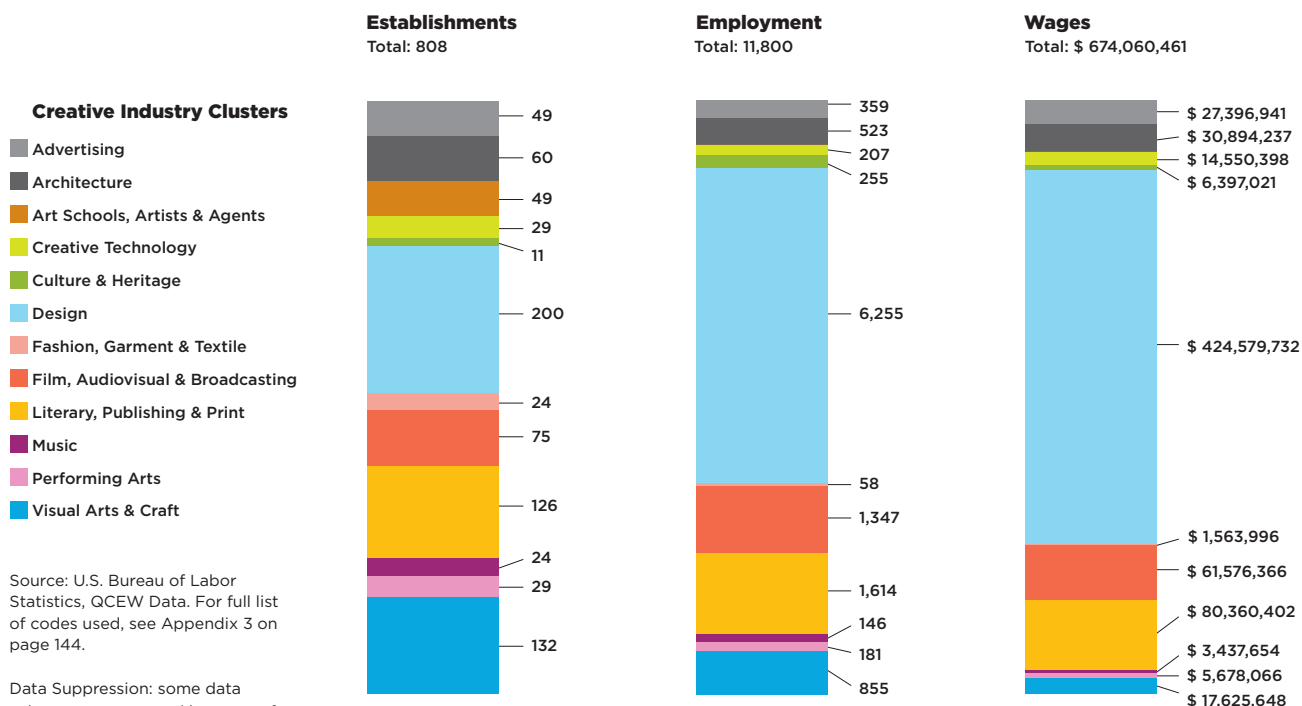
Photo Credit: Katy Batdorff Photography

Design makes up the largest portion of the creative industry clusters in Grand Rapids, accounting for 53% of employees and nearly 63% of wages and has grown since 2011. However there are increases in other sectors such as Creative Technology; Literary, Publishing and Print; and Visual Arts and Craft.

The furniture industry remains influential in attracting high caliber design practitioners and functions as a focal point for related business growth. Globally recognized manufacturers such as Hayworth, Herman Miller and Steelcase support a full spectrum of industrial, graphic and interior designers along with digital technologists, textile specialists and material engineers. However, the contract business furniture industry is experiencing fundamental shifts as the very nature of work is changing. Connected mobile workers, shared corporate

Creative Industries in Grand Rapids* Distribution in 2014

*Kent County



Source: U.S. Bureau of Labor Statistics, QCEW Data. For full list of codes used, see Appendix 3 on page 144.

Data Suppression: some data values are suppressed because of confidentiality or data quality.

Award-Winning Healthcare Design

NeoVent, designed by two Western Michigan University students, Stephen John and Joseph Barnett, has been chosen as the U.S. National Winner of the 2015 James Dyson Award.

“The NeoVent enables health care workers around the world to deliver safe, low cost, low energy and easy to use Noninvasive Positive Pressure Ventilation to treat premature infants in respiratory distress.”

James Dyson Foundation, (2015). *NeoVent Wins 2015 US Round of James Dyson Award - James Dyson Foundation*. [online] Available at: <http://www.jamesdysonfoundation.com/news/neovent-wins-2015-us-james-dyson-award/> [Accessed 16 Nov. 2015].

office spaces, and technology based employment all translate into distinctly different requirements for workplace infrastructure. Many companies are adapting through diversification and expansion into new markets, including adding software based services to their offerings. Dri-Design, an architectural wall panel manufacturer in Holland, has translated competencies developed in product development at Herman Miller and has attracted international investment to Michigan.

Designers in West Michigan are applying their skills to medical devices. Integrated resource initiatives that promote research and development as well as the infrastructure necessary to translate innovation into trials and ultimately manufactured products are rapidly expanding. MiDevice is a consortium run by The Right Place that seeks to build collaborative opportunities and to grow the sector overall. Fueled by partnerships between university researchers, human-centered design integrators and manufacturers who are able to finance and implement solutions, this sector is poised to grow and deliver much needed improvements in health and well-being.

The 700-member strong, multi-disciplinary advocacy organization, Design West Michigan, is helping to bring greater understanding of the value of design to business and the community. Through case studies, public presentations, educational initiatives at every level from kindergarten to higher education, and by fostering interactions with industry, design is being woven into the economic framework of the region.

Art has also found a welcome home in Grand Rapids. The Grand Rapids Art Museum continues to present relevant and thought-provoking exhibitions, along with hosting a full calendar of lectures, events and performances in its urban gathering space adjacent to the Maya Lin designed Rosa Parks Circle. Since

Profile of Creative Industry in Grand Rapids* for 2011-2014

*Kent County

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	870	10,097	\$556,901,798	6,420
2012	861	11,787	\$647,622,101	6,703
2013	853	11,658	\$649,611,380	6,864
2014	808	11,800	\$674,060,461	N/A

Source: U.S. Bureau of Labor Statistics, QCEW program. For full list of codes used, see Appendix 3 on page 144.

Creative Industry in Grand Rapids* Change from 2011-2014

*Kent County

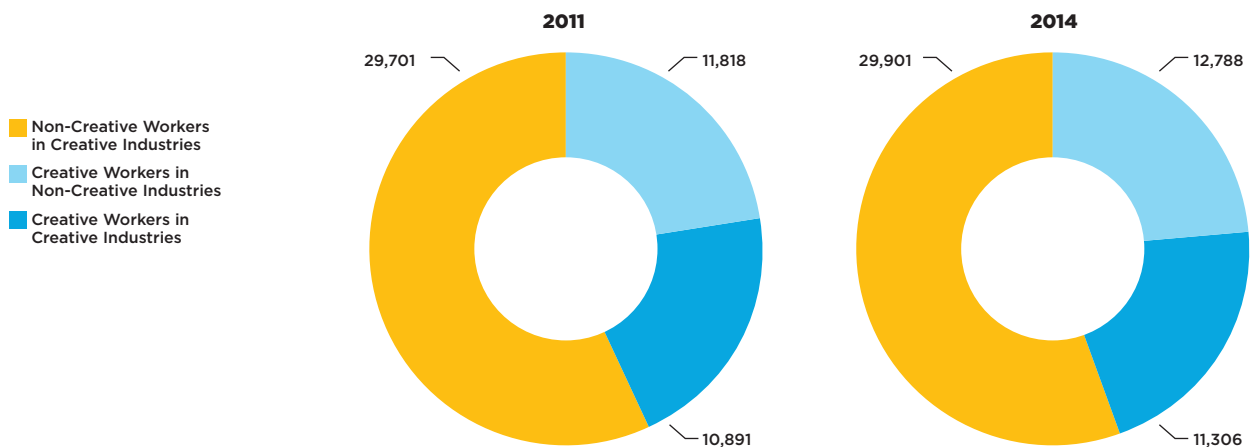
	Establishments	Employment	Wages	Nonemployer Establishments
Change	-7.13%	+16.87%	+21.04%	6.92% (2011-2013)

2009, ArtPrize, the “radically open international art competition” has grown, attracting over 1,500 entries and more than 441,000 visitors to the events, exhibitions and installations over its three-week run.¹ At the Frederik Meijer Gardens and Sculpture Park, the recent acquisition of a major site-specific work by Richard Serra reinforces its international acclaim. The Urban Institute for Contemporary Arts is building a community through its support of provocative, multi-dimensional contemporary art and hosting events, exhibitions and programs. These initiatives position Grand Rapids as a tourist destination, but also help to create a desirable community for young, highly skilled workers and the companies seeking to attract them.

Education of creative thinkers is important to the city’s innovation ecosystem. Kendall College of Art and Design prepares artists and designers for professional careers and has seen increased enrollment over the past five years. Its LEED gold certified building renewal project in the downtown core points to architectural revitalization in the city. Grand Valley State University has launched its Design Thinking Initiative to provide students across multiple disciplines with the opportunity to apply iterative, project based learning in the context of complex real world problems. By encouraging integration of creativity into a broader spectrum of disciplines and supporting the development of experimental projects, West Michigan is preparing the ground for more widespread innovation and economic growth.

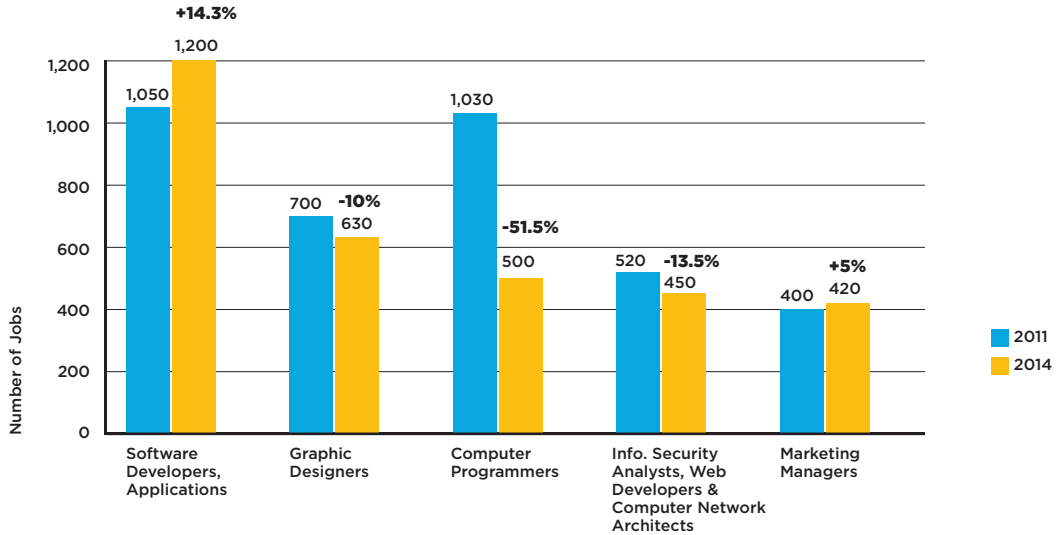
1. ArtPrize (2016). *Welcome to ArtPrize*. [online] ArtPrize. Available at: <http://www.artprize.org/about> [Accessed 20 Feb. 2016].

Creative Employment Breakdown for Grand Rapids MSA



Source: Economic Modeling Specialists Incorporated, 2015.

Top Creative Occupations in Grand Rapids MSA by Employment



Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program. Included codes: 15-1132: Software Developers, Applications, 27-1024: Graphic Designers, 15-1131: Computer Programmers, 15-1179: Information Security Analysts, Web Developers, and Computer Network Architects, 11-2021: Marketing Managers.

Percentage change in total regional creative industries wages, 2011-2014

+17.4%

2014 regional creative industries location quotient compared to U.S.

0.88

Top Paid Creative Occupations in Grand Rapids MSA for 2014

Job Title	Average Wages
Marketing Managers	\$93,470
Public Relations Managers	\$84,190
Art Directors	\$79,000
Software Developers, Applications	\$78,860
Architects, Except Landscape and Naval	\$73,810

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program. For full list of codes used, see Appendix 3 on page 144.

Creative businesses working in the digital realm are growing rapidly in Grand Rapids, creating a productive ecosystem of software developers, graphic designers, time-based media specialists and information strategists. Bringing new technology to a community steeped in design heritage suggests the potential for influential development in this expanding arena.



Photo Credit: ArtPrize

CASE STUDY: GRAND RAPIDS & KENT COUNTY

ArtPrize

The Grand Rapids-based, “radically open” international art competition draws crowds, arts funding and economic impact.

Announced as a bold new “social experiment” in 2009, Grand Rapids’ ArtPrize®, an independently organized international art competition and the nonprofit organization that coordinates the event, is the brainchild of Rick DeVos. Conceived as a disruption of the traditional top-down art contest, the event runs for 19 days and covers three square miles of downtown Grand Rapids. ArtPrize is a hugely successful event, receiving well over 1,500 artist entries this year. Over 160 venues participate annually. In 2013, ArtPrize demonstrated a significant contribution of \$22.2 million in economic activity and 253 jobs to Grand Rapids.¹ Since its launch, ArtPrize has attracted almost two million visitors to the city.

The competition invites any artist in the world to compete and anyone with property in downtown Grand Rapids to turn their space into a

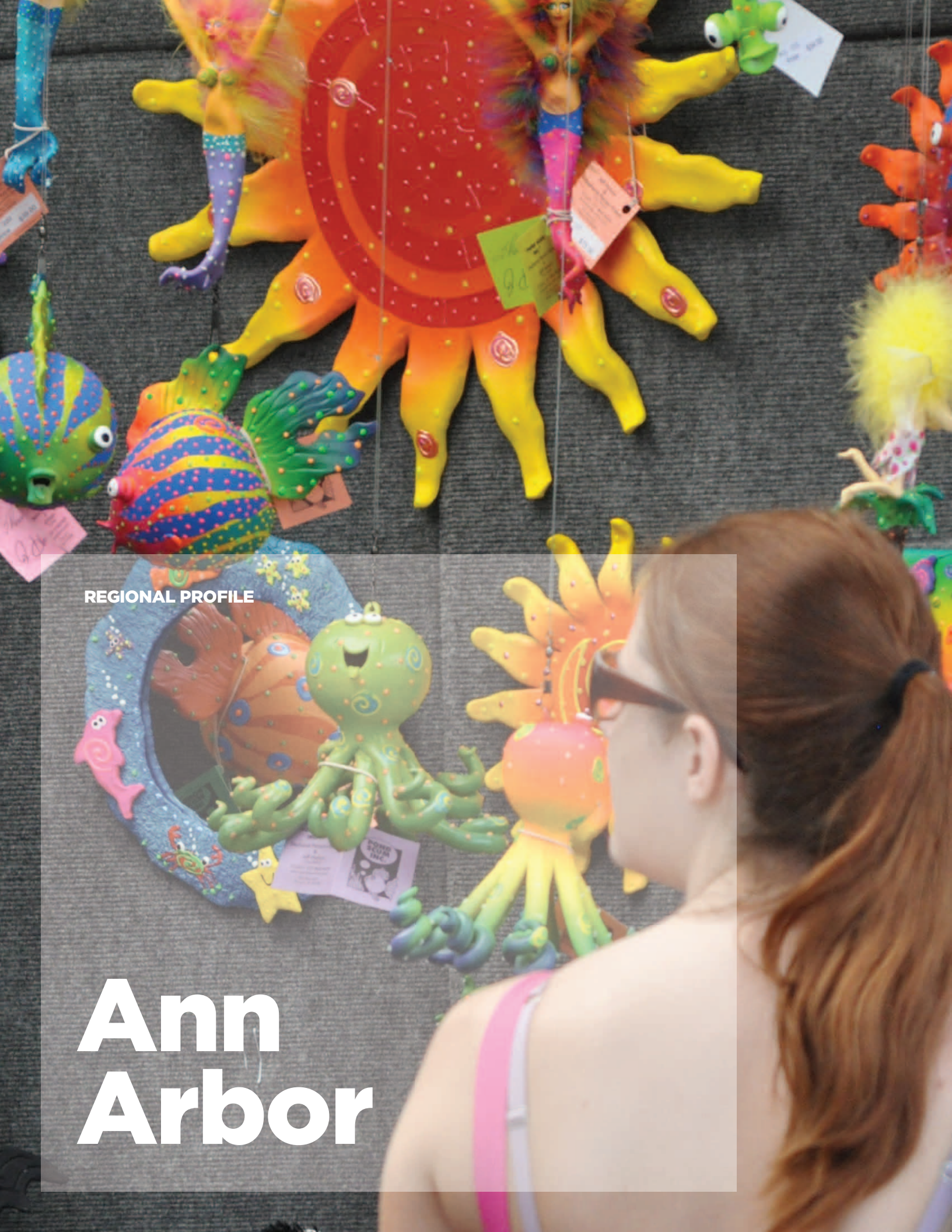
venue. Art projects can take the form of 2D, 3D and time-based work, as well as installations. In addition to juried cash prizes, any visitor can vote for their favorite artwork, bestowing a \$200,000 grand prize to the most popular work. Voting takes place via the internet over mobile devices; because digital technology works so quickly, audiences can track voting for the largest cash prize in the art world in real time. Almost three million votes have been placed since the event’s initiation.

ArtPrize is also deeply invested in arts education. Its Education Days program brings in over 13,000 students and educators from around the state. From early childhood education through high school, students of all ages and their teachers are invited to take full advantage of tours, programs, grants, and educational resources. Comprehensive and age-appropriate

self-guided program guides and lesson plans for educators are available through the ArtPrize website. With clear objectives and indications of which National Core Visual Arts Standards are met through attendance and participation, these tools allow students and their teachers to have an excellent experience before, during and after the event.

A secondary benefit of so much digital engagement of the public during ArtPrize is that reliable quantitative data has been generated and collected to determine numbers and profiles of visitors, involvement with artworks and animation of spaces. Beyond economics, the cumulative impact on the city of Grand Rapids has been enormous; attraction of innovative thinking from nearby and around the world positions the city for resilient growth. ■

1. Kaczmarczyk, J. (2016). ArtPrize 2013: \$22 million impact from 389,400 visits to Grand Rapids for fifth exhibition. [online] *MLive*. Available at: http://www.mlive.com/artprize/index.ssf/2014/02/artprize_2013_22_million_impact_from_389400_visits_to_grand_rapids_for_fifth_exhibition.html



REGIONAL PROFILE

Ann Arbor



Digitization

The creative technology sector continues to make a substantial impact in Ann Arbor accounting for 57% of the region’s creative economy wages.

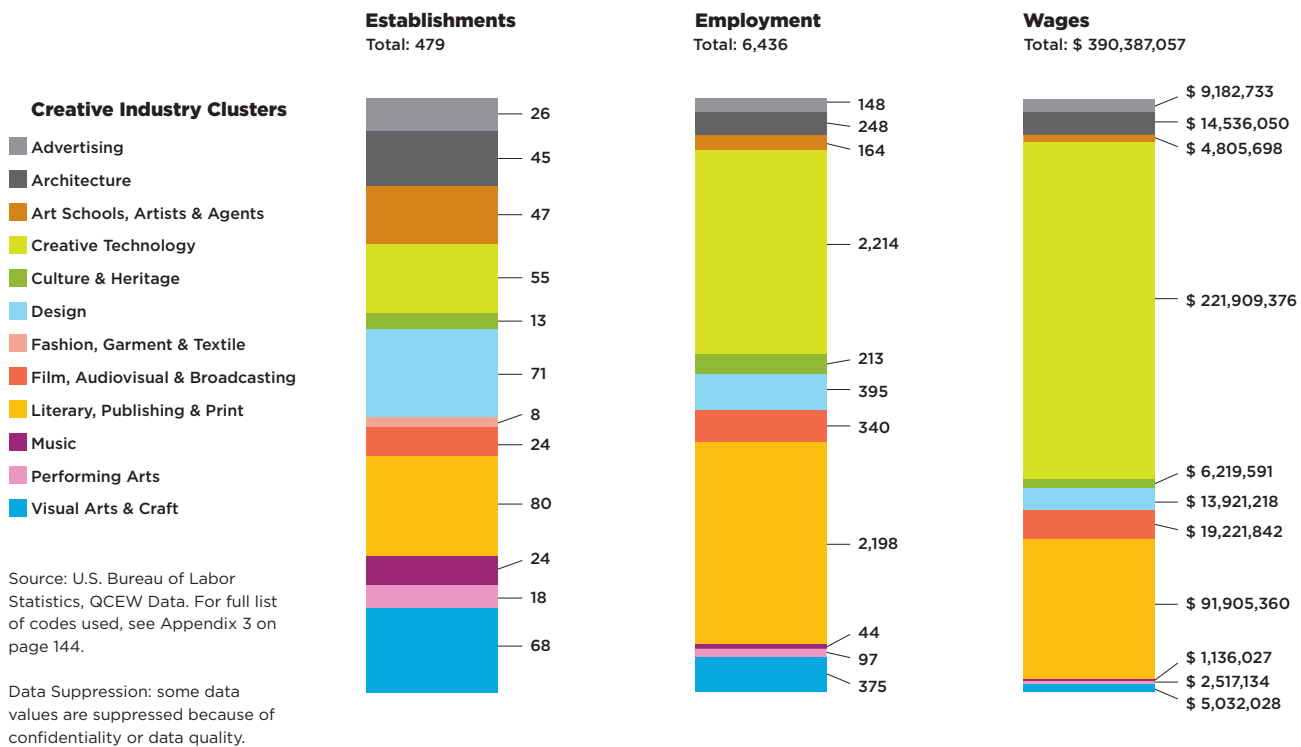
Left: The award-winning Ann Arbor Art Fair is the largest in the state.

Photo Credit: “Ann Arbor Art Fairs Photos 2010” by Michigan Municipal League is licensed by CC BY-ND 2.0

Although there has been very little change overall in creative industry employment in this region, there has been over 12% increase in wages. Creative Technology represents the largest sector for both employment and wages by a large portion, followed by Literary, Publishing and Print.

Intensely concentrated in Ann Arbor, the University of Michigan education and health system remains one of the largest employers statewide and its diverse art and design education programs are highly regarded. The University boasts award-winning faculty and is ranked among the top ten programs in architecture, theater and music nationwide. Emeritus professor George Shirley and the University Musical Society of the University of Michigan were awarded a 2014 National Medal of Arts in “recognition of their contributions

Creative Industries in Ann Arbor* Distribution in 2014 *Washtenaw County



Architectural Practice

With its links to architectural practice for over 150 years, the city has both historically intact and contemporary architecture present in the streetscape.

“Since 1999, approximately 45 property owners in Ann Arbor have rehabilitated their historic properties by applying State Historic Preservation Tax Credits, which are available to the owners of properties in locally designated districts.”

MI Place, (n.d.). *Historic Preservation | MI Place*. [online] Available at: <http://www.miplace.org/downtowns-neighborhoods/ann-arbor/historic-preservation> [Accessed 14 Dec. 2015].

to the excellence, growth, support and availability of the arts”.¹ The University continues to provide a critical support structure for a wide range of creative activities and intellectual property generating organizations.

Ann Arbor ranks fourth among U.S. cities for all print and digital book, magazine and newspaper sales per capita from Amazon.¹ However, as in other places, many book publishers here are struggling in the face of technology disruptions while some are adopting innovative approaches to remain relevant. Specialization has been a successful strategy for Spry Publishing which focuses on health and wellbeing, aiming their publications at both patients and healthcare practitioners. Literati Bookstore opened in 2013 with the aim of maintaining an authentic local experience and creating community through hosted interactive events such as poetry nights, book clubs, author readings, and panel discussions. It preserves the service of a downtown-located general bookstore in the wake of the closing of the national book chain Borders. There is also commitment to digital scholarship in the city; “...digitalculturebooks is an imprint of the University of Michigan Press dedicated to publishing innovative work in new media studies and digital humanities.”²

Ann Arbor, and communities in the region, have thriving arts and cultural attractions with visitors and locals alike attending a growing roster of seasonal festivals. For 39 years the Folk Festival has brought musical legends and emerging musicians to the stage in support of The Ark, a nonprofit home for folk, roots and ethnic music. The independent Ann Arbor Film Festival attracts over 3,000 film entries to its renowned programming of experimental and art-based cinema. The multi-arts Summer Festival features performing arts and outdoor entertainment including music, dance, comedy, film, circus and street arts and welcomes 80,000 people to the events. The cultural landscape is rounded out with well supported theater programs and art galleries.

Profile of Creative Industry in Ann Arbor* for 2011-2014

***Washtenaw County**

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	535	6,408	\$347,905,541	5,290
2012	506	6,479	\$356,808,168	5,428
2013	494	6,276	\$363,954,107	5,447
2014	479	6,436	\$390,387,057	N/A

Source: U.S. Bureau of Labor Statistics, QCEW program. For full list of codes used, see Appendix 3 on page 144.

Creative Industry in Ann Arbor* Change from 2011-2014

***Washtenaw County**

	Establishments	Employment	Wages	Nonemployer Establishments
Change	-10.47%	+0.44%	+12.21%	+2.97% (2011-2013)

Kids Learning Code

“It’s the new literacy. It’s the new media,” said Elliot Soloway, a computer science engineering professor at the University of Michigan in Ann Arbor. ‘Coding is about giving kids the new pencil and paper, it’s giving them the new typewriter, the new tool to say things that they couldn’t say before.’ ”

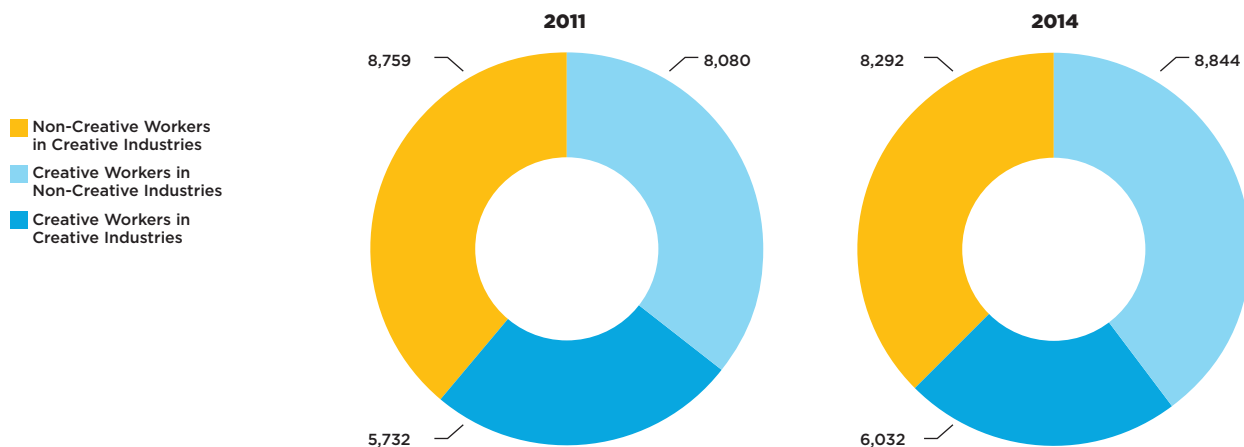
Glum, J. (2015). *Coding For Kids: Teaching Girls, Minorities To Program Important For A Diverse Tech Workforce*. International Business Times. [online] Available at: <http://www.ibtimes.com/coding-kids-teaching-girls-minorities-program-important-diverse-tech-workforce-1791902>

Tech-savvy creative experimentation is also flourishing in the expanding maker spaces and hack-a-thon events where a hands-on approach to tackling technical problems is encouraged. Using tools such as 3D printers, synthetic biology labs and coding software, lean start-up companies are also merging great ideas with grassroots entrepreneurial acumen. More than half of all venture capital firms operating in Michigan are located in Ann Arbor, providing necessary funding to help grow and scale these fledgling businesses and assisting in expanding Michigan’s economic diversity.³

By far the largest increase in employment in creative occupations in the city has been the growth of software and app developers. This reflects the corresponding increase in mobile device platforms as information technology companies expand their reach, the emerging internet of things connecting objects with technology, and a growing appetite for digital games. The strength of computer sciences, data sciences and electrical engineering at the University of Michigan supports the expansion of creative digital activity. More graphic designers are finding work in the city as well, many providing interaction design and user experience expertise alongside digital developers. A synergy of expertise will mean these two occupations will likely see continued growth in the near future as technology continues to be woven into healthcare, home monitoring systems and transportation.

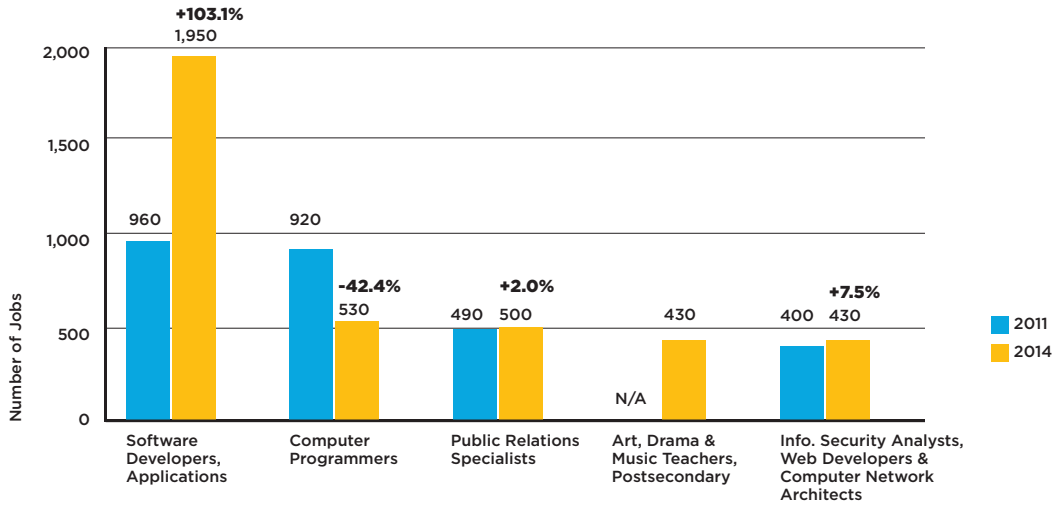
1. Business Wire, (2016). *Amazon.com Announces the Most Well-Read Cities in America*. [online] Available at: <http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1695968&highlight=>
2. Regents of the University of Michigan, (2012). *About*. [online] The University of Michigan Press. Available at: <https://www.press.umich.edu/about> [Accessed 25 Feb. 2016].
3. Michigan Venture Capital Association. (2015). *2015 Michigan Venture Capital Annual Research Report*. [PDF] Ann Arbor: Michigan Venture Capital Association, pp.1-53. Available at: <https://michiganvca.org/wp-content/uploads/2015/04/MVCA-2015-Research-Report.pdf>

Creative Employment Breakdown for Ann Arbor MSA



Source: Economic Modeling Specialists Incorporated, 2015.

Top Creative Occupations in Ann Arbor MSA by Employment



Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program.
 Included codes: 15-1132: Software Developers, Applications, 15-1131: Computer Programmers, 27-3031: Public Relations Specialists, 25-1121: Art, Drama, and Music Teachers, Postsecondary, 15-1179: Information Security Analysts, Web Developers, and Computer Network Architects.

Percentage change in total regional creative industries wages, 2011-2014

+10.9%

2014 regional creative industries location quotient compared to U.S.

0.94

Top Paid Creative Occupations in Ann Arbor MSA for 2014

Job Title	Average Wages
Public Relations Managers	\$124,370
Marketing Managers	\$116,550
Curators	\$109,800
Communications Teachers, Postsecondary	\$103,340
Art Directors	\$95,530

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program.
 For full list of codes used, see Appendix 3 on page 144.

Although there has been a large increase in the number of people employed in the information and communications technology sector in Ann Arbor, advertising jobs continue to command the highest salaries of creative occupations, with three of the top five average wages for Public Relations Managers, Marketing Managers and Art Directors.



A Maker Works member welding at Ann Arbor workshop facilities.

Photo Credit: Al McWaters

CASE STUDY: ANN ARBOR & WASHTENAW COUNTY

Maker Works

This member-based workshop provides access to tools and training, creating a safe space to nurture creative skills and experience.

Located in Ann Arbor, Maker Works is a 14,000 square foot member – based workshop space that provides tools and training to both makers and learners. It is a hub that brings together small businesses with good ideas, entrepreneurs who want to invest, and tradespeople, skilled workers, engineers, artists, electronics geeks and hobbyists who want to create things.

Maker Works is the brainchild of Dale Grover and Tom Root. They share values and a common ambition – to run a business and achieve social good. Grover’s background includes participation in the maker community and involvement in tech meet-ups and co-working. Root has been engaged in social entrepreneurship, running a community of food-related businesses under the Zingerman’s brand.

Together they realized the potential of a makerspace workshop to address critical issues in their community.

Companies in Southeast Michigan have made significant investment in training workers for manufacturing jobs that have declined in recent times. Grover and Root saw the opportunity to connect this skilled workforce with people who have the potential to start a business, to scale it and to eventually employ others. They also saw the potential to encourage the development of the makers of the future by supporting students who no longer have access to shop classes.

Providing access to tools and training in the areas of metal, circuits/ electronics, wood and craft/textiles enables the workshop to support life-long learning and the development of

future makers in the Ann Arbor area. Conceived as a prototyping facility, each domain is anchored by an expensive piece of equipment that is cost-prohibitive to most individuals.

Amer Abughaida is one member who has taken advantage of the facilities and community at Maker Works. Inspired by a classmate in Saudi Arabia who uses a wheelchair in an environment with lots of stairs, Abughaida has been developing a stair-climbing wheelchair.

Maker Works reflects a long history of making and manufacturing in Michigan by creating a safe space for nurturing creative skills and experience (spanning low to high tech) that will be important for the workforce of tomorrow. ■

A night scene of a light festival. In the foreground, a person in a dark jacket and shorts stands with their back to the camera, looking at a vast field of colorful lights. The lights are arranged in rows and include colors like blue, green, yellow, and purple. In the background, other people are visible walking through the lights, and some buildings are lit up in the distance under a dark sky.

REGIONAL PROFILE

Flint



Revitalization

Despite hardships, creative industries are thriving and determined to grow.

Left: *Spinning Circle/ Shooting Cloud* by *Raphaele Shirley* for "Free City 2013" organized by the Flint Public Art Project.

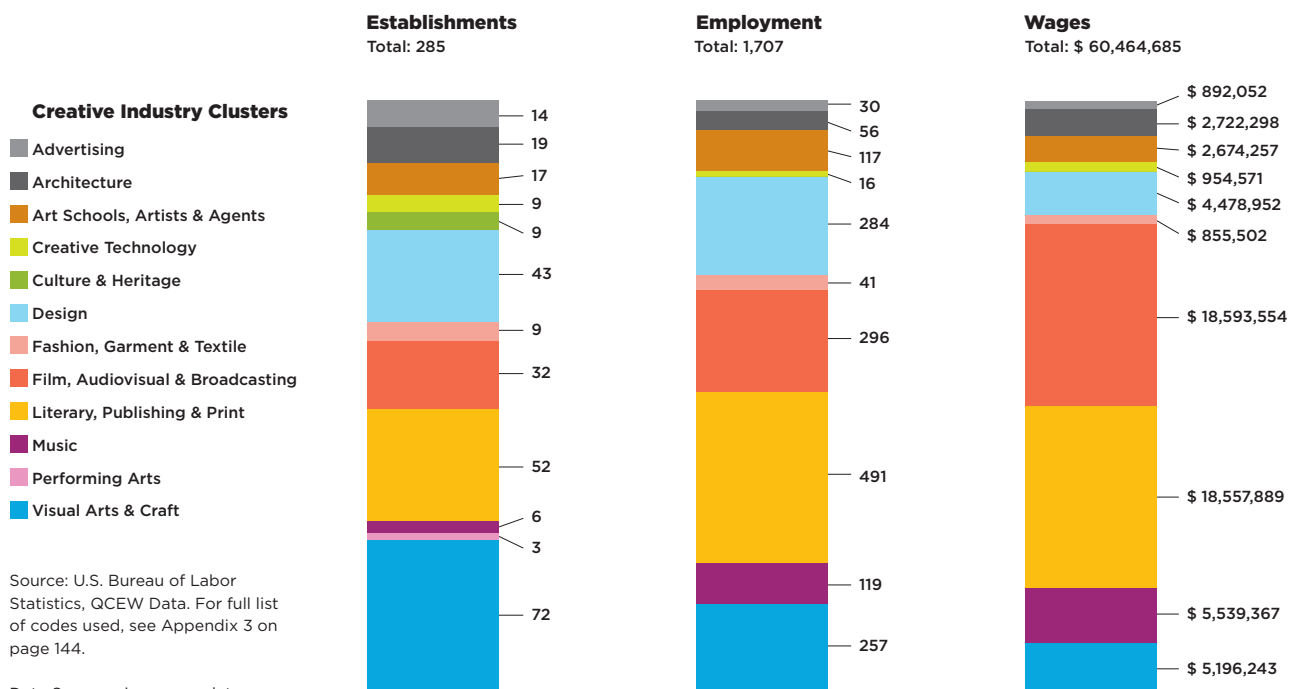
Photo Credit: *Raphaele Shirley*

Flint saw the largest positive change in employment (26%) and wages (55%) in creative industries in this report. The Advertising sector saw a dramatic decline of over 70% of employees, but both Visual Arts and Craft industries and Design increased in the study period, although several design industry codes had too few establishments to report employment data. Similarly, due to the small number of reporting enterprises, there was no data for wages or employment for Culture and Heritage in 2014.

Municipal leaders, together with a broad cross-section of Flint residents, have worked to build a vision of a re-invigorated and flourishing city. They have identified creative activity, engagement and education in Flint as critical tools in the promotion of civic involvement, urban transformation and placemaking. The

Creative Industries in Flint* Distribution in 2014

*Genesee County



Source: U.S. Bureau of Labor Statistics, QCEW Data. For full list of codes used, see Appendix 3 on page 144.

Data Suppression: some data values are suppressed because of confidentiality or data quality.

New Businesses

“Dean Yeotis said he plans to host a soft opening of Totem Books, 620 W. Court St., on Black Friday, Nov. 27 (2015)... The store also will offer music, art, coffee, food, films, lectures, book clubs and discussion groups, Yeotis said.

‘I opened my vinyl record store, Found Sound, in Ferndale in 2012 at a time when most independent record stores were closing. We are now an award winning and thriving establishment,’ Yeotis said. ‘I realize Flint is a unique market and the location may not be an obvious choice, however, in the words of the famed American author F. Scott Fitzgerald, sometimes ‘a man has to have brains enough to recognize the impossibility of a situation, yet heart enough to proceed anyway.’”

Adams, D. (2016). *Attorney opening new bookstore in former liquor store in Flint*. MLive. [online] Available at: http://www.mlive.com/news/flint/index.ssf/2015/11/totem_books_to_open_in_former.html

ambitious Master Plan for a Sustainable Flint adopted in 2013 specifically calls out art and culture as foundational elements in the return to social equity and economic regeneration. A core goal is that “arts and culture should be a part of everyone’s daily life and accessible to all.”¹

Part of bringing that goal to reality involves creating opportunities for wider community participation. With a remarkable heritage of cultural institutions providing homes for art, music and theater, Flint’s assets have not always been broadly utilized. Recent efforts to more fully activate the Flint Cultural Center campus demonstrate the intent to be inclusive and open. The Flint Institute of Arts provides free access to visitors on Saturdays through support from FirstMerit Bank in an effort to increase access for a broader population. In October, Flint Local 432, an all ages, alcohol-free performance space, celebrated 30 years of hosting music with a weekend-long series of music and culinary events. Now part of the nonprofit organization Red Ink Flint, the performance venue sits alongside maker spaces and youth programming facilities to provide productive opportunities to build skills and experiences.

Elimination of blight is a high priority. Despite a slowing rate of population decline, house vacancy through tax foreclosure or abandonment remains a complicated issue in Flint. The Flint Public Art Project, an ArtPlace America awardee, continues to organize “public events, workshops and temporary installations to inspire residents to re-imagine the city, (and) reclaim vacant and under-utilized buildings and lots.”² Working with city planning officials, and collaborating with both international and local artists, the team works to build a new narrative of Flint using art and design as tools of revitalization. Several recent projects have received widespread attention outside of Flint and are helping to establish improved and different perceptions of the city.

Profile of Creative Industry in Flint* for 2011-2014

*Genesee County

Year	Establishments	Employment	Wages	Nonemployer Establishments
2011	316	1,352	\$38,937,980	2,109
2012	303	1,339	\$40,475,795	2,136
2013	294	1,715	\$58,169,008	2,043
2014	285	1,707	\$60,464,685	N/A

Source: U.S. Bureau of Labor Statistics, QCEW program. For full list of codes used, see Appendix 3 on page 144.

Creative Industry in Flint* Change from 2011-2014

*Genesee County

	Establishments	Employment	Wages	Nonemployer Establishments
Change	-9.81%	+26.26%	+55.28%	-3.13% (2011-2013)

Imagine Flint

“Imagine a Flint where arts and culture are sewn into the fabric of every neighborhood, with homes, churches, schools, and community centers acting as artistic laboratories of creative innovation, community engagement, and civic pride.

Imagine Flint as a regional creative hub with a dynamic creative economy, where arts and culture are an integral piece in defining local quality of life and artists are the City’s innovative problem solvers and visionary thinkers.”

Beaverstock, J., Faulconbridge, J., Nativel, C. and Taylor, P. (2011). *The Globalization of Advertising: Agencies, Cities and Spaces of Creativity*. London: Routledge Studies in Human Geography.

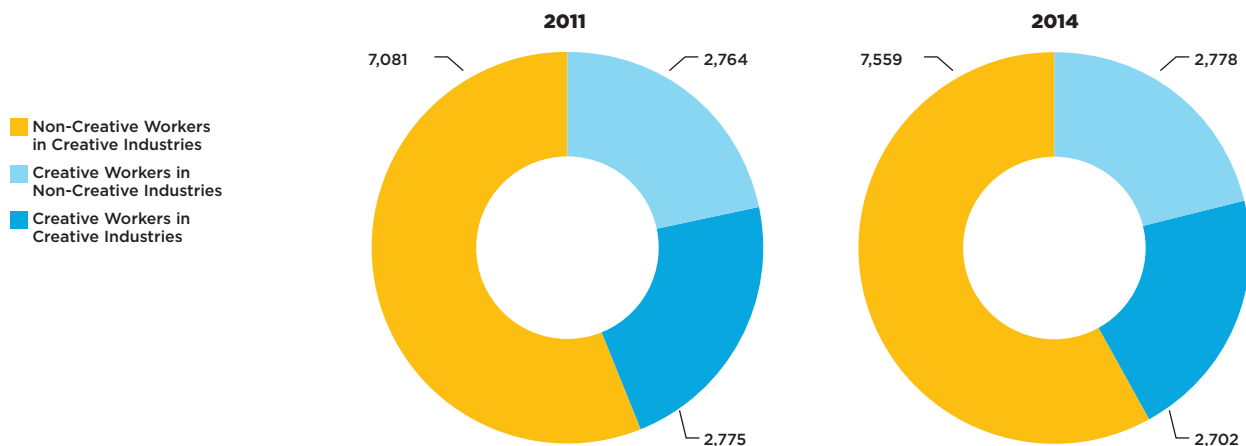
Efforts to transform and revitalize the downtown area have resulted in award winning urban planning and design initiatives. The Buckham Alley redevelopment project will create interconnected spaces that flow towards the Riverside Park and provide safe and attractive pedestrian spaces alongside the main street. This key component of economic redevelopment signals a reclamation of neglected spaces and confidence in the transformational value of architectural and urban design.

Emerging design driven businesses are also finding opportunities in Flint. In particular, fashion garments and accessories companies are emerging. The annual Vehicle City Fashion Week provides a platform for young designers to build fashion industry awareness and establish networks. Influenced by streetwear, GoodBoy Clothing was formed in 2014 to bring authentic and high quality fashion into wide circulation. The company has expanded to include local manufacturing of hats, bags and menswear building on auto industry sewing skills. ArticleOne Eyewear is creating nationally distributed high-style products while building its social mission and is headquartered in Flint.

A small but growing creative technology sector is emerging in Flint with employment in software development and graphic design occupations expanding. Named one of Michigan’s top 50 companies to watch in 2015, Spud Software has discovered a successful niche in custom designed enterprise solutions and currently employs 50 people.³ Interactive digital agencies are also expanding and require the skills of designers and creative thinkers to compete. These companies point to a belief in the future potential of the city.

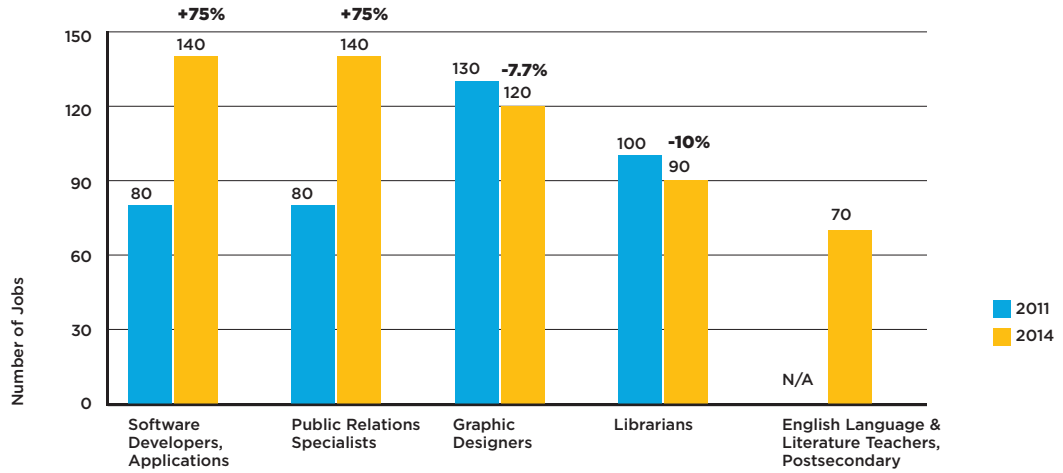
1. Imagine Flint, (2013). *Master Plan for a Sustainable Flint: Arts and Culture Plan*. [online] Flint, p.265. Available at: <https://www.arts.gov/exploring-our-town/sites/arts.gov/exploring-our-town/files/2014%20Arts%20%26%20Culture%20Plan%20Greater%20Flint%20Arts%20Council.pdf> [Accessed 14 Dec. 2016].
2. Flint Public Art Project, (n.d.). About FPAP. [online] Available at: <http://flintpublicartproject.com/about-fpap/> [Accessed 14 Nov. 2015].
3. Spud Software, (n.d.). *About Spud Software | From History To Their Values*. [online] Available at: <http://www.spudsoftware.com/about-spud.html> [Accessed 25 Oct. 2015].

Creative Employment Breakdown for Flint MSA



Source: Economic Modeling Specialists Incorporated, 2015.

Top Creative Occupations in Flint MSA by Employment



Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program. Included codes: 15-1132: Software Developers, Applications, 27-3031: Public Relations Specialists, 27-1024: Graphic Designers, 25-4021: Librarians, 25-1123: English Language and Literature Teachers, Postsecondary.

Percentage change in total regional creative industries wages, 2011-2014

+55.3%

2014 regional creative industries location quotient compared to U.S.

0.38

Top Paid Creative Occupations in Flint MSA for 2014

Job Title	Average Wages
Marketing Managers	\$108,060
Public Relations Managers	\$82,370
Software Developers, Applications	\$71,750
Computer Programmers	\$70,080
Public Relations Specialists	\$56,850

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics program. For full list of codes used, see Appendix 3 on page 144.

Flint has seen a significant increase in terms of employment and wages in the creative industries. However, the region’s average wage for creative occupations still remains low at \$57,581 compared to the state average of \$70,615. There has been a large increase in the number of Public Relations Specialists and Software Developers, yet the highest paid occupations fall far below the state average (for example Public Relations Managers in Flint make \$21,865 less than the state average for this occupation).



Tunde Olaniran released his latest album *Transgressor* in August 2015.

Photo Credit: Tim Jagielo

CASE STUDY: FLINT & GENESEE COUNTY

Tunde Olaniran

Flint-based artist and performer uses music to engage audiences viscerally, while seeking to engage on a political level.

Outreach Manager for Planned Parenthood with a Master's degree in public administration is not the typical background of a multi-talented artist and musician. But Tunde Olaniran isn't typical in any sense.

Olaniran's creative practice has no boundaries. Sometimes dubbed an experimental pop artist, and known for his high-energy and theatrical performances, he is not content to just sing or rap. He writes and produces his own lyrics and compositions, designs his and his dancers' costumes and choreographs his own shows. Adding to his multiple talents, Olaniran has written for the science fiction anthology, *Octavia's Brood*. Co-edited by Walidah Imarisha and adrienne maree brown, the anthology acknowledges the legacy of Octavia Butler, one of the first black female science fiction

writers to gain recognition in the field. Olaniran's recent albums and performances have gained national attention through profiles and reviews in the *New York Times*, *Rolling Stone* magazine, *Huffington Post*, *SPIN* magazine and on *National Public Radio* and *MTV*.

While his music engages audiences viscerally, he also seeks to engage on a political level. Living in Flint since the age of 12, Olaniran is committed to building a better city. He has seen the impact of compromised access to clean water first hand through his work with youth. Water is a theme that runs through his creative output, flowing from a desire to raise awareness of health issues in Flint and Detroit.

Inspired by a workshop in Detroit organized by adrienne maree brown, Olaniran teamed up with *Raise It*

Up! Youth Arts & Awareness' *Brave New Voices* poetry group to host a speculative fiction writing workshop at Flint Public Library. *Flint: A Sci-Fi Love Story* was born. During these workshops participants created and shared science-fiction prose, short stories and narratives about the future of the city. Recognizing the theme of loss that surfaced in the writing, Olaniran collaborated with other musicians in Flint to create a new song called "Everyone's Missing", which was featured at the workshop series' culminating concert.

Despite his active artistic practice and national recognition, Olaniran isn't giving up his day job yet. The financial supports that are necessary to initiate and nurture a thriving creative practice are still lacking in Flint. ■

An aerial photograph of a city grid, showing streets and buildings, with a dark orange semi-transparent overlay on the bottom half. The number '4' is prominently displayed in white on the overlay.

4

**Sector
Focus**

Broad Impacts. These narratives explore the economically important automotive, product design and film & media sectors.

Left: Aerial photo of Detroit, Michigan at night.

"Detroit at night" by Caribb is licensed under CC BY-NC-ND 2.0

At its core, a system can be understood as a set of interacting or interdependent component parts that work together to form a complex whole. In cases of complexity where boundaries are shifting and relationships are changing, an ecosystems perspective can be useful for understanding the role and impact of components within their system and well as on other systems.

The creative industries are component parts of the larger creative economy system or ecosystem. Other components include: creative workers, suppliers of materials, distribution channels, clients and customers, training institutions, government programs and more.

In the digital age, the boundaries between industries have become increasingly porous and prone to shifting. Many creative industries make use of the same tools, service similar clients and employ many of the same creative professionals. For example, graphic designers are regularly employed in the Advertising, Creative Technology, Design and Film, Audiovisual and Broadcasting clusters. This can make an understanding of the scale, scope and impact of creative industries on the broader economy difficult to communicate.

As an approach to demonstrating the ways in which the creative industries in Michigan are interconnected with other industries both inside and outside of the creative economy, an ecosystems perspective was applied to explore profiles of the Automotive, Product Design and Film and Media systems.



SECTOR FOCUS

Automotive Design

Fueled by Innovation. Michigan's automotive sector is evolving in the digital age.

Left: Ford modeler and designer works on a clay prototype of a Mustang.

Photo Credit: The Ford Motor Company.

4,840

Commercial and Industrial Designers employed in Michigan in 2014.

\$75K+

Annual mean wage for Commercial and Industrial Designers in Michigan for 2014.

U.S. Bureau of Labor Statistics. (2015). *Commercial and Industrial Designers*. [online] Available at: <http://www.bls.gov/oes/current/oes271021.htm#st> [Accessed 9 Mar. 2016].

The automotive industry continues to play a pivotal role in the overall economy of Michigan and has a significant, and reciprocal, relationship to the health of the State's creative industries and occupations. The incorporation of emergent technologies including data collection and use, the exploration of new materials and the impact on public infrastructure are all advancing the sector. Because of their scale, these innovations will have long-term and far reaching impacts on both the state and the world as a whole.

Context

As cities grow exponentially and concerns about air quality and climate change mount, transporting people in an efficient, reliable and low-impact manner is imperative. Cars are by no means the only vehicles that contribute to human mobility and the auto industry is increasingly exploring its role in this shifting ecosystem. Ford in particular is looking at how "Smart Mobility" can help to build a sustainable future for both the company and the planet. Experiments and challenges are underway globally to investigate linked services and activities such as improved car-swapping, data driven insurance rates and on-demand shared shuttle services. In England for example, "a fleet of Ford Focus electric vehicles and Ford Fiestas with EcoBoost powertrains is located across London. Users can register, get directions to the nearest service location, reserve a vehicle and pay - all through a mobile app."¹

Technically enhanced, autonomous and connected vehicles are currently being put through their paces at the University of Michigan's Mcity Test Environment, part of its multi-disciplinary Mobility Transformation Center. The designed and controlled 32-acre simulation space opened in July 2015 and allows researchers to rigorously assess safety, accessibility and efficiency before driverless vehicles are fully introduced to city streets. In addition to testing the cars, the center has the potential to explore the implications of technology-enhanced mobility on urban planning, policy making and legal issues. The social impact of self-driving cars in terms of inclusion cannot be exaggerated as previously excluded segments of the population, such as those with physical or mental disabilities, and the elderly will have access to self-determined mobility. Those who drive taxis, trucks and delivery vehicles should anticipate a disrupted future. Many businesses are also evolving to make use of the streams of information generated through operating in a data rich environment such as insurance, auto service and safety accessories companies.

1. The Ford Motor Company, (2015). *Mobility Experiment: City Driving On-Demand, London*. [online] Ford Media Centre. Available at: <https://media.ford.com/content/fordmedia/fna/us/en/news/2015/01/06/mobility-experiment-city-driving-on-demand-london.html> [Accessed 7 Nov. 2015].

**Automotive Industries
Employment as Percentage of
Total Michigan Employment**

Motor Vehicle Parts
Manufacturing Industry†

2.87%

Motor Vehicle
Manufacturing Industry*

1.12%

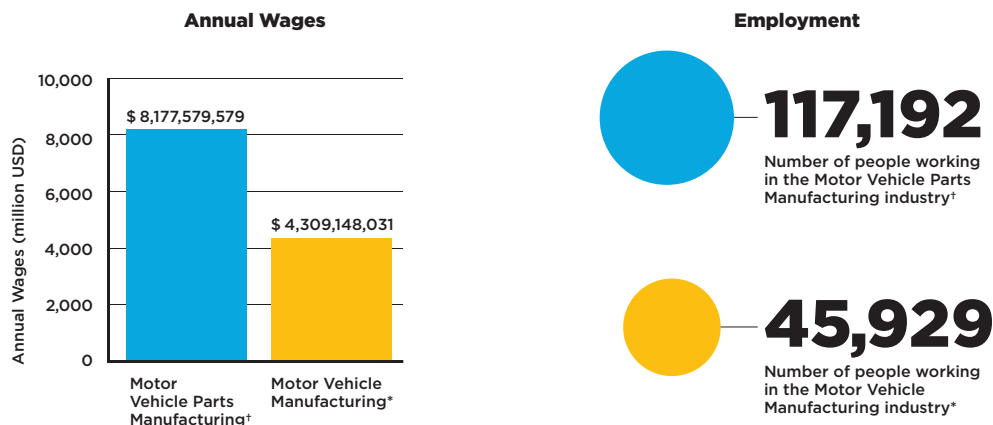
With dramatic fluctuations in fuel prices worldwide and regulatory demands for reductions in CO2 emissions, more vehicles will feature energy efficient benefits in the future. Electric and hybrid vehicles contribute to improved fuel consumption, but bigger batteries add weight to cars. A shift towards lightweight, high impact materials such as aluminum, engineered plastics and carbon fiber can significantly reduce overall vehicle weight but in some situations may be cost prohibitive. As research into cost effective and functionally effective materials advances, the benefits will flow into other areas of product development.

The auto industry continues to be a critical driver of platform level innovation that is integrated systemically into the entire value chain. Industries both directly (parts manufacturing, chemical suppliers, machinery companies, software developers) and indirectly (sports equipment developers, transport companies, waste management services) connected to the automotive industry will find opportunities and challenges as a result.

Creative Economy Implications

Fueled by innovation, Michigan remains the largest employer of industrial designers in the country, with a concentration in the Detroit area. But job descriptions are changing. Integrated design now plays a critical role in creating successful solutions to highly complex issues. Today, products are often linked to digital apps as part of an overall service model. Designers need to draw from competencies in two-dimensional, three-dimensional and time-based media and to work collaboratively with a wide range of other specialists. Automotive companies also employ surface modelers, software developers, digital sculptors, colorists, service designers and textile experts in addition to the expected transportation designers. The core creative problem solving and critical thinking skills that designers bring to the table are being applied to both the business issues of the sector and the larger systemic conditions that include cars. Increased multi-disciplinary collaboration will contribute to improved environmental, social and economic outcomes.

Impact of Automotive Vehicle and Parts Manufacturing on Michigan's Economy in 2014



Source: U.S. Bureau of Labor Statistics, North American Industry Classification System, 2014.
Included codes: NAICS 3363 Motor vehicle parts manufacturing†, NAICS 3361 Motor vehicle manufacturing.*

The global advertising industry has been significantly disrupted by digital technology along with a switch in entertainment consumption and viewing habits, especially of millennials. Those changes have forced agencies to reconsider their approaches to customer engagement, especially now that the typical purchasing pathway includes such extensive online research, peer-to-peer endorsement and location specific digital customization of messages. In 2015, the auto sector became the second largest spender on digital advertising after retail, with a large portion of those budgets applied to smartphone/mobile tactics.² The advertising sector in Michigan remains closely coupled to automotive; while there may be fewer big budget television ad productions in the future, creative marketing approaches will embrace emerging hyper-targeting made possible through data analytics.

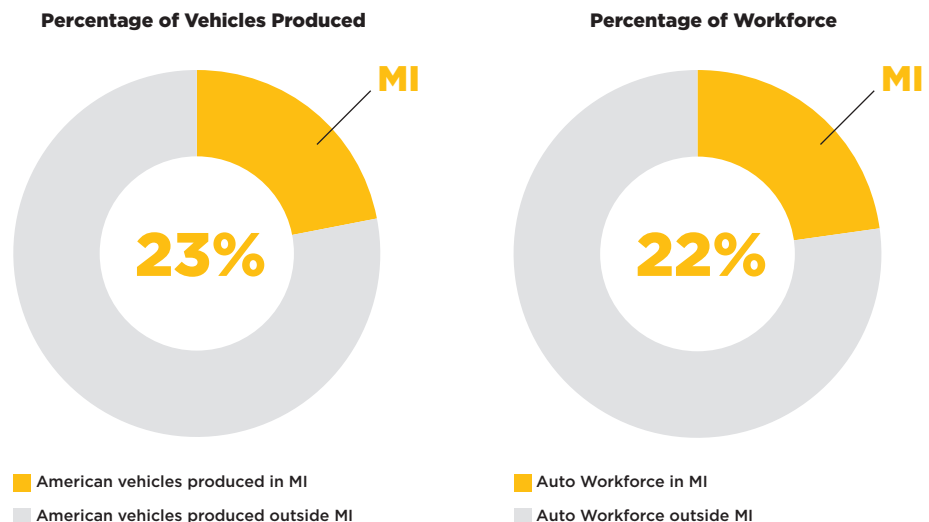
A critical recommendation of this report should consider increased support of digital media development and associated industries that are related to the automotive industry. Currently, rapid advancement of data driven businesses based on connected, information producing vehicles is flourishing outside of Michigan. For example, companies in Silicon Valley, India, Israel and Germany are deploying smartphone apps to improve driver safety, manage repairs, deliver in-car navigation and monitor engine efficiency.³ Although a competitive international innovation environment is healthy for the advancement of the sector as a whole, more robust activity close to the heart of the State's key industry would have enormous impact. ■

2. eMarketer, (2015). *US Digital Ad Spending Will Approach \$60 Billion This Year, with Retailers Leading the Way*. [online] Available at: <http://www.emarketer.com/Article/US-Digital-Ad-Spending-Will-Approach-60-Billion-This-Year-with-Retailers-Leading-Way/1012497> [Accessed 18 Nov. 2015].
3. CB Insights, (2015). *Unbundling the Automobile*. [image] Available at: <https://cbi-blog.s3.amazonaws.com/blog/wp-content/uploads/2015/06/Car-Unbundled2.png> [Accessed 5 Feb. 2016].

Michigan's Influence on the American Automotive Industry

Home to 61 of the top 100 North American Suppliers, Michigan produces 23% of American vehicles.¹

With over 500,000 jobs, Michigan's Automotive Industry represents 22% of the total automotive workforce in the United States.¹



1. Michigan Economic Development Corporation. (2014). *State of Michigan Automotive Strategic Plan*. p.4.



SECTOR FOCUS

Product Design

The Iconic Design State. Home to many international companies, MI is a hotbed of product design large and small.

Left: Mirra chair by Herman Miller.

Photo Credit: "New chair" by Jarkko Laine is licensed by CC BY 2.0

A wide range of businesses that have been built on design are expanding their capacity and influence in Michigan. Beyond automotive design, there is a mythic history of modern designers impacting manufacturing and changing people's lives, homes and workplaces in the process. In a given day you might sit in your Herman Miller Aeron chair while wearing your Merrell slip-ons, scribbling ideas with your Sharpie pen and sipping coffee from your Pewabic Pottery mug. Iconic design is part of the fabric of Michigan.

Context

An historic concentration of contract furniture manufacturing in Michigan has created a deep pool of well-trained, highly skilled workers and collective pride in the modern design movement. Increasingly, local industrial designers throughout the state are drawing on this maker heritage and bringing their user-centered competencies to their own ventures in product development. Ali Sandifer is a small scale design/build studio and workshop in Detroit focusing on carefully crafted fine wood furniture. Nationally recognized principles Abir Ali and Andre Sandifer returned to Michigan after working in Chicago and are expanding their handmade and custom business with well-considered production pieces. After launching with a Kickstarter campaign in 2014, Floyd Detroit has built a direct to consumer metal furniture manufacturing company. Founders Kyle Hoff and Alex O'Dell sell transportable products geared to apartment living to people in 30 countries from their operations in Detroit.

Michigan's position as an education hub for medicine, engineering, and computer science has symbiotically influenced product design. As life sciences research companies develop new treatments, medical device development that leverages all three disciplines is growing, especially in West Michigan. Companies such as Stryker lead the way in areas such as computerized and minimally invasive surgical navigation systems and tools. Product design excellence in this area can ensure high quality patient experiences, more effective uptake of treatments and improved health outcomes. As has been successfully demonstrated in German automotive hubs, several companies with prior car component design and manufacturing experience are investigating technical medical products as a diversification strategy.¹

1. Leonard, S. (2016). *Diversification Efforts Help Drive Michigan's Medical Device Industry* | Qmed. [online] UBM Canon. Available at: <http://www.qmed.com/mpmn/article/diversification-efforts-help-drive-michigan's-medical-device-industry> [Accessed 9 Dec. 2016].

In the highly competitive and price driven consumer product world, it takes disciplined thinking and focus to differentiate a business. Newell Rubbermaid confirmed the decision to be a “brand and innovation-led company” with the completion of its Kalamazoo Design Center in 2013, which consolidated all of its worldwide design activities into one building. For the manufacturer, whose product lines range from baby strollers to power tools, from stationary supplies to the eponymous home organizing containers, enhancing its design strength is an exercise in value creation and creating competitive advantage. Collaboration through cross-functional innovation labs enables designers working in different product areas to learn from each other and to create category defining solutions. “We made a strategic promise. To fulfill that promise, we’ve built the building, attracted the best talent, and brought them all together under one roof,” said Chuck Jones, Chief Design and Research and Development Officer at Newell Rubbermaid.²

Authenticity and impassioned storytelling draws customers to quality brands. After just four years in business, Shinola is creating big ripples worldwide with their promotion of “Michigan-made” style through their watch, bicycle, leather goods and stationery product lines.³ With full-page advertising in influential publications such as the New York Times, the company is generating interest that creates a halo effect for other fashion and product design companies. Building on the state’s industrial roots, Detroit Bikes is dedicated to manufacturing bikes from start to finish in their 50,000 square foot factory and are able to produce 100 bikes per day.⁴ Masco has been expanding its lines of products for home improvement and construction since 1929.⁵ From faucets to staple guns, the company provides high-quality, durable goods to markets at home and abroad. The 130-year-old shoe manufacturer, Wolverine Worldwide, has built on its heritage of work boots and apparel providing “comfort, durability, function and style” to create a lifestyle brand with global reach and innovative manufacturing initiative.⁶ And the legendary Detroit-based, family-run Carhartt workwear company has polished its image, building stand-alone retail operations, including its flagship store in its revitalized historic Cass Avenue building.⁷ Each of these companies employs Michiganders and is contributing to a renewed reputation for product integrity and state pride and identity.

Creative Economy Implications

Michigan benefits from a relatively robust and resilient sector ecosystem for product design and development. In several cities, high caliber postsecondary educational offerings in many design disciplines are appealing to local and out-of-state students. Connections between industry and academia are

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2. Newell Rubbermaid, (2016). *Fast Track to a New Design Organization*. [online] Available at: http://www.newellrubbermaid.com/globaldayofservice/article_FastTrackNewDesignOrg.html [Accessed 13 Sept. 2015].
 3. Shinola, (2016). *About Shinola*. [online] Available at: <http://www.shinola.com/our-story/about-shinola> [Accessed 13 Sept. 2015].
 4. Detroitbikes.com, (2016). *Detroit Bikes*. [online] Available at: <http://detroitbikes.com/> [Accessed 11 Oct. 2015].
 5. Masco Corporation, (2016). *About Masco* [online] Masco. Available at: <http://masco.com/about/> [Accessed 7 Mar. 2016].
 6. Wolverine, (2016). *About Us - Our Story* [online] Wolverine.com. Available at: <http://www.wolverine.com/US/en/about-us-our-story/> [Accessed 24 Oct. 2015].
 7. Carhartt, Inc. (2016). *Detroit Company Store*. [online] Carhartt.com. Available at: <https://www.carhartt.com/content/content-retail-detroit> [Accessed 18 Oct. 2015].

increasing, providing more opportunities for students to learn trade appropriate skills on the job through co-op placement or internships. Both start-ups and large corporations are employing designers as key members of their strategic management teams, ensuring customer satisfaction.

But gaps do exist. Medium-sized design consultancies are uncommon in the state and widespread procurement of design services by mid-sized companies and government is, anecdotally, sparse. Businesses often deploy design cosmetically at the end of their product development cycle rather than seeing it as integral to generating customer interest and ensuring production quality throughout the process. The recent announcement of an open design competition sponsored by the newly formed Michigan Design Council is part of an effort to elevate the discourse around the role of design in the economy and in everyday life. All Michigan residents are invited to “design a physical product solution that allows people to safely enjoy the benefits of Michigan’s diverse water resources”, first in what is hoped to be an annual event.⁸

Design, especially industrial design, has an outsized impact on employment and revenues in the state. In their report “The Impact of Industrial Design Effectiveness on Corporate Financial Performance” published in the peer-reviewed *Journal of Product Innovation Management*, researchers Julie Hertenstein, Marjorie Platt and Robert Veryzer used traditional financial measures and key performance indicators to assess the impact on companies of using industrial design.⁹

“This analysis reveals that firms rated as having ‘good’ design were stronger on all measures except growth rate measures. These results provide strong evidence that good industrial design is related to corporate financial performance and stock market performance even after considering expenditures on industrial design. Further, the patterns of financial performance over the seven-year horizon suggest that these effects are persistent.”¹⁰

Considering effective and appropriately funded design at all stages of product development can be an accelerator for business. Encouraging the use of strategic design services should be increasingly prioritized as an economic development approach.■

8. Michigan Design Council. (2016). *Competition Application*. [online] Available at: <http://michigandesigncouncil.org/competition-application.html> [Accessed 22 Jan. 2016].

9. Hertenstein, J., Platt, M. and Veryzer, R. (2005). The Impact of Industrial Design Effectiveness on Corporate Financial Performance*. *Journal of Product Innovation Management*, 22(1), pp.3-21.

10. Hertenstein, J., Platt, M. and Veryzer, R. (2005). The Impact of Industrial Design Effectiveness on Corporate Financial Performance*. *Journal of Product Innovation Management*, 22(1), p.3.



Herman Miller celebrates fifth anniversary of Tokyo store with “Alexander Girard: An Uncommon Vision” exhibition.

Photo Credit: Daici Ano

CASE STUDY: OFFICE FURNITURE

Herman Miller

A company evolving to help clients adapt to and manage change.

Herman Miller, the Zeeland-based office furniture manufacturing company, has been designing and making industry-leading, innovative furniture in Michigan for over a century. To survive for that long in a highly competitive and changing environment has required adaptation and forward thinking. In the past, the company evolved from making wooden furniture, to designing and making furniture systems, to manufacturing whole office solutions. Adaptability has also enabled the company to expand their current offering from products to consulting services in the area of facility change management. Because Herman Miller works closely with clients to plan, execute and evaluate facility change projects, their increased competency in managing change overall benefits clients who may be growing or reconfiguring in rapidly changing times.¹

Whether altering location, processes, technology or corporate culture, change succeeds or fails because of how it affects people. As experts in workplace design, Herman Miller has an intimate understanding of human beings, their physical requirements, their movements and their motivations. This core competency of human-centered problem solving was the gateway to helping their clients understand the human side of change management. The process starts with in-depth research about the client company, its workers and its aspirations. It continues beyond the establishment of new office environments that reflect client culture and supports the work they do and continues with advice to help clients foster a workplace that lives up to that character and those aspirations.

Manufacturing office furniture systems for a wide range of

environments and industries is still the most important part of Herman Miller's business, but the company's genius for deep understanding of client needs is what sets them apart. For example, in the past, people worked in offices because that was where important tools and information were concentrated. Today, digital communication eliminates much of the need to co-locate, yet people still want and need to work together. Being able to connect and communicate with your colleagues often means better outputs, improved outcomes and enhanced work culture. In response to transforming business situations such as this, Herman Miller developed a series of product portfolios known as Living Office.² Together, these workplace tools facilitate collaboration, discussion and co-creation, all skills at the heart of the contemporary office. ■

1. Herman Miller, Inc., (2012). *How Change Management Makes You Good at Change - Research Summaries*. [online] Herman Miller. Available at: <http://www.hermanmiller.com/research/research-summaries/how-change-management-makes-you-good-at-change.html> [Accessed 7 Mar. 2016].
2. Kristal, M. (2013). An Idea Whose Time Has Come. *Metropolis Magazine*. [online] Available at: <http://www.metropolismag.com/June-2013/An-Idea-Whose-Time-Has-Come/> [Accessed 7 Mar. 2016].



Brightly is a digital agency focused on delivering user centered experiences and powerful strategy.

Photo Credit: Brightly

CASE STUDY: STRATEGY & INTERACTION DESIGN STUDIO

Brightly

Grand Rapids-based digital agency Brightly attracts major national clients in West Michigan.

Based in Grand Rapids, Brightly is a digital agency and interaction design studio focused on delivering user centered experiences and strategy across a broad spectrum of industries. With a wide range of clients that span the furniture, consumer goods, heavy equipment, manufacturing, technology, and digital media industries, their reach is spreading beyond Michigan.

Before the economic downturn, major American corporations sought the known caliber of established design studios on the east and west coasts to handle their creative output. However, when budget constraints rendered many of those services much less attractive, design firms in the middle of the country grasped the opportunity to demonstrate that they could provide work of equal quality. Drawing on the experience and expertise of a multidisciplinary

team of designers, web developers, researchers and information architects Brightly has been able to attract major clients from across the nation.

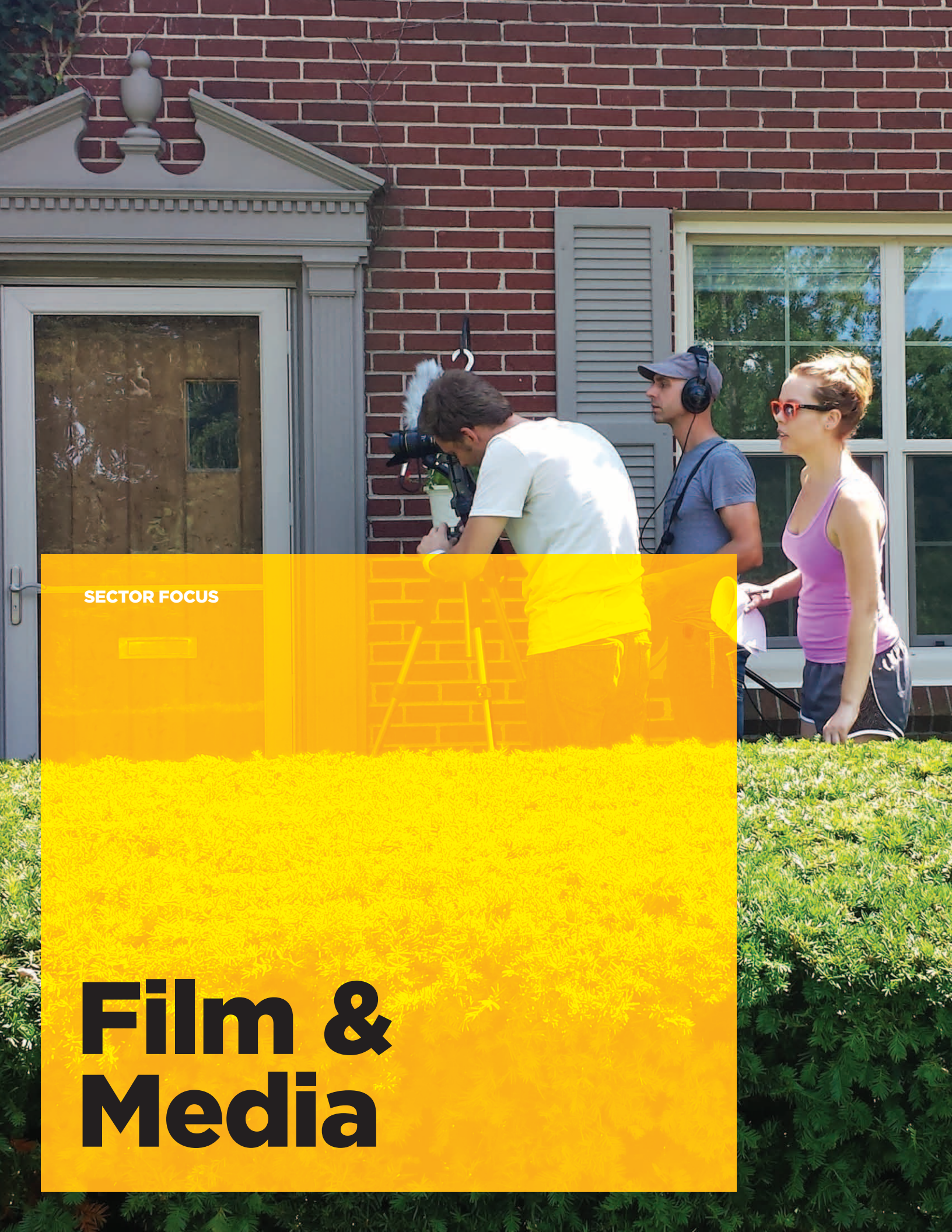
Brightly has completed stellar work for many well-known clients recently. Their work with Mitsubishi Caterpillar Forklift America brought together and redesigned multiple separate web and mobile sites under one domain for a consistent brand experience. Using interactive design, Brightly brought the digital magazine mobile application of Automation.com to life by featuring “dynamic content, custom animations, interactive graphics, and embedded videos.”¹

Failure:Lab brings entrepreneurs together to share their experiences and counteract the isolation and stigma associated with failing.

An endeavor that started out in Grand Rapids, Failure:Lab has been embraced in cities across the state and the nation, and even as far away as Sydney, Australia. Brightly’s work on redesigning the website enabled Failure:Lab to more effectively reach global audiences.

The established industrial and product design sector in Western Michigan has proven attractive to aspiring creative professionals. While Brightly is mainly focused on the digital space, the company also has a strong background in traditional design and fine art. Firms such as theirs have been able to take advantage of top creative industry professionals who are eager to immerse themselves in an arts and design friendly community, and are willing to relocate for the chance to be part of a growing venture. ■

1. Brightly, (2016). *Brightly: Digital Agency. UX Design. Enterprise Web, Software, and Mobile*. [online] team brightly. Available at: <http://teambrightly.com/#page-automation/automation-engage> [Accessed 28 Jan. 2016].



SECTOR FOCUS

Film & Media

Generating Content, Revenue and Buzz.

More support needed to bolster film and media in the Great Lakes State.

Left: Sean Duffy and his team filming in Detroit for the 48 Hour Film Project. Pictured here, left to right: Brady Harrigan, Matt Sisco, Jane McMillan and Greg Cassin.

Photo Credit: Sean Duffy

In an increasingly intertwined, transmedia world, it is harder than ever to draw clear boundaries around the industries in this economic sphere. Creative activities range from film, television and digital media production, television and radio broadcasting, to interactive entertainment software development and publishing. These sectors are also intricately interconnected with the information communications technology, advertising, design and visual arts sectors, as well as omnichannel retail.

Context

The film and media ecosystem has undergone significant changes over the past ten years. Today, digital platforms are significant providers of film and TV content, transforming the way screen-based stories are conceived and told, not just how they are made. On-demand culture is influencing running times and formats of storytelling, while accessible technology is enabling small scale creative authorship and production.¹ Digital animators hold occupations that crossover between film and game design, as do technical directors. It is not uncommon to see games based on movies² and movies based on games.³ Complicating matters further, many integrated media companies operate production studios, distribution arms, online media and broadcasting channels, as well as game development studios.⁴ While broadband internet has transformed global content distribution, it has opened the door to non-sanctioned file sharing. As a result, the film industry has had to redesign release windows and distribution strategies.⁵

The sector remains a lucrative economic generator. In 2015, global box office sales for the film industry exceeded \$38 billion,⁶ while the global games market is estimated to have generated \$91.5 billion in revenues.⁷ This does not account for ancillary revenue streams, such as television, digital platforms

1. Weiler, L. (2016). How storytelling has changed in the digital age. [online] *World Economic Forum*. Available at: <https://www.weforum.org/agenda/2015/01/how-storytelling-has-changed-in-the-digital-age/> [Accessed 25 Jan. 2016].
2. Ranker, (2016). *List of movie games* | *Video Games Based on Movies*. [online] Ranker. Available at: <http://www.ranker.com/list/list-of-movie-games-or-video-games-based-on-movies/video-game-info> [Accessed 23 Jan. 2016].
3. MSN.com, (2016). Top 30 movies based on video games. [online] *MSN*. Available at: <http://www.msn.com/en-us/movies/gallery/top-30-movies-based-on-video-games/ss-BBIWweeO>
4. Examples of vertically integrated media and entertainment companies include: Sony, Warner Bros, Twentieth Century Fox and the Walt Disney Company.
5. Granados, N. (2016). Changes To Hollywood Release Windows Are Coming Fast And Furious. [online] *Forbes.com*. Available at: <http://www.forbes.com/sites/nelsongranados/2015/04/08/changes-to-hollywood-release-windows-are-coming-fast-and-furious/#6a32c3f25e5f>
6. Tartaglione, N. (2016). *Global Box Office Hits Record \$38B+ In 2015: Rentrak*. [online] *Deadline*. Available at: <http://deadline.com/2016/01/global-box-office-record-38-billion-2015-1201675310/>
7. Newzoo, (2015). *US and China Take Half of \$113Bn Games Market in 2018*. [online] Available at: <http://www.newzoo.com/insights/us-and-china-take-half-of-113bn-games-market-in-2018/>

and merchandising, and console sales, all of which contribute increasingly significant proportions of total revenues.

Film can be a nomadic industry, with whole crews relocating regularly. Prolific and attractive centers tend to be located in places with well-developed film production infrastructure, including a variety of attractive locations, specialized equipment, post-production and effects facilities, and transportation systems.⁸ Production companies also locate where there is access to highly skilled crews, a deep pool of writers, actors and directors, a robust practical and theoretical film and television education system, and opportunities for public or private financing.

Cost of production is also a persistent concern. As very expensive and risky ventures, films are highly difficult to finance. State supported incentives are an important factor that can trigger additional funding sources. While financial incentives have played an important role for developing and sustaining film sectors across the U.S. and around the world, increasing competition between jurisdictions has led to rising payouts that have proven to be unsustainable for some funders.⁹ In July 2015, Michigan's Film and Digital Media Tax Incentive program was eliminated by legislative action, creating an uncertain environment for continued growth of Michigan's film and digital media industry and greatly diminishing its attractiveness to producers.¹⁰

The film industry in Michigan may be considered quite small in comparison to states such as New York and California. However, the state has a history of film production that goes back to the late 1940s. Production was sporadic until the mid-2000s and increased significantly after the Michigan Film and Digital Media Office offered its tax incentive program in 2008 to companies based in Michigan or elsewhere.¹¹ The majority of film production is based in Southeastern Michigan, or specifically in metropolitan Detroit where the largest concentration of crews is located. A sizable work force is also located in Grand Rapids and small pockets of crew can be found in Traverse City, Kalamazoo, Lansing, Saginaw, Flint and Manistee.¹²

Game development is typically located in places with healthy tech industries, highly educated workers, robust computer science programs, and a widely accessible and fast internet service.¹³ The game development industry in Michigan is a young one, but is developing quickly. Although Michigan does not yet rank within the top ten American centers for game development and publishing, that may change. Underscoring this growing industry is a strong supporting postsecondary education system. Michigan State University

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8. Picard, R.G. (2008). *Media Clusters: Local Agglomeration in an Industry Developing Networked Virtual Clusters*, Jönköping.
 9. Strauss, B. (2014). Hollywood's film competition fueled by tax incentives from other states, countries. [online] *Dailynews.com*. Available at: <http://www.dailynews.com/business/20140105/hollywoods-film-competition-fueled-by-tax-incentives-from-other-states-countries> [Accessed 16 Jan. 2016].
 10. Egan, P. (2015). Snyder signs bill ending incentives for film industry. [online] *Detroit Free Press*. Available at: <http://www.freep.com/story/news/local/2015/07/10/snyder-signs-bill-ending-film-credits/29969583/>
 11. Michiganfilmoffice.org, (n.d.). *Film | Made in Michigan | Michigan Film Office*. [online] Available at: <http://www.michiganfilmoffice.org/Made-in-Michigan/Film/Default.aspx> [Accessed 23 Dec. 2015].
 12. Michiganfilmoffice.org, (n.d.). *Film Office FAQs | About Us | Michigan Film Office*. [online] Available at: <http://www.michiganfilmoffice.org/The-Film-Office/FAQs/Default.aspx> [Accessed 15 Jan. 2016].
 13. Pilon, S. and Tremblay, D. (2013). *The Geography of Clusters: The Case of the Video Games Clusters in Montreal and in Los Angeles*. Urban Studies Research, 2013, pp.1-9.

is ranked as one of the top five game design schools in North America.¹⁴ Computer science and design programs that provide students with foundations in computer programming, game design, 3D animation and simulation exist at several other universities including Kettering University, Ferris State University, Davenport University and the College for Creative Studies.¹⁵

In the past, internet speeds and levels of connectivity have been lower in Michigan compared to other states. Based on 2013 data, key game production states such as California, New York, Oregon and Massachusetts all had over 89% penetration of high-speed broadband availability, while Michigan had 83%.¹⁶ In recent years, this has been changing as some internet providers have introduced fiber broadband to Michigan households and businesses to complement existing cable and DSL broadband services. Underserved areas persist, particularly in northern counties of the state.¹⁷

Creative Economy Implications

While postsecondary education in support of the computer and video game development industry is strong in Michigan, there isn't a comparable education system to serve the commercial film and television production industry. Unlike more developed jurisdictions, there is not a strong mix of programs dedicated to the theory and practice of commercial production. With a relatively small production industry, there are fewer opportunities for recent graduates to gain valuable experience. The size of the production sector currently does not lend itself to attracting film professionals from other jurisdictions.

Access to markets is fundamental to the vitality of any ecosystem. For both the film and game development industries this area is not fully developed in the state. Robust film centers are supported by mature film markets and distribution capabilities. While Michigan is home to numerous film festivals, these are primarily dedicated to presenting film to audiences rather than fostering film sales. Similarly, the state's gaming industry has yet to develop significant game publishing capacity.

Finally, availability of risk tolerant capital input is critical to building a thriving industry. Typically, film production companies will explore a variety of financing avenues that may include equity investments where investors own a stake in the film, pre-sales arrangements with distributors prior to production, gap financing or loans from a bank based on unsold territories of a film, tax incentives that subsidize spent costs for production, arrangements where producers, crew, cast and other may defer payment until the film generates money, or the highly competitive private equity investments.¹⁸ Because there is heavy competition for financing throughout the U.S. and Canada, production companies seek environments that offer access to multiple financing avenues. ■

14. TheArtCareerProject, (2013). *Michigan Video Game Design Schools*. [online] The Art Career Project. Available at: <http://www.theartcareerproject.com/video-game-design-schools-in-michigan/> [Accessed 25 Jan. 2016].

15. Lake House Media, LLC, (2015). The 21 Best Video Game Design Schools in Michigan | 2016. [online] *Game Designing*. Available at: <http://www.gamedesigning.org/schools/michigan/> [Accessed 23 Jan. 2016].

16. National Telecommunications & Information Administration, 2013. *U.S. Broadband Availability: June 2010 - June 2012*. Washington. Available at: https://www.ntia.doc.gov/files/ntia/publications/usbb_avail_report_05102013.pdf.

17. Connectmycommunity.org, (2015). *Rural Areas Getting on the Grid*. [online] Available at: <http://www.connectmycommunity.org/project-view/rural-areas-getting-on-the-grid/> [Accessed 15 Jan. 2016].

18. No Film School, (2014). *How to Fund Your Movie: A Guide to the Basics of Film Finance*. [online] Available at: <http://nofilmschool.com/2014/08/film-finance-101-equity-pre-sales-gap-tax-incentives-deferred-crowdfunding> [Accessed 25 Jan. 2016].



5

Qualitative Research

Human-Centered Perspectives

Gathering a nuanced understanding of Michigan's creative industries for today and the near future.

Left: Four workshops were held to gain community perspectives for the Creative Industries Report.

Photo Credit: Sarah Nesbitt

In order to place the quantitative research findings in context and gain a more nuanced perspective of Michigan's creative industries, qualitative research was also undertaken over the course of the study period. This took the form of broad engagement and foresight exploration. The engagement methods included interviews with thought leaders, a series of regional workshops and a Summit dedicated to advancing discussion of creative economy research, as well as future oriented analysis.

Thought Leader Interviews

A total of 31 semi-structured interviews with key stakeholders in creative industries across Michigan were conducted between May and September 2015. Stakeholders with work focused in Detroit made up 16 of the hour-long guided discussions. Interview subjects were purposely selected to represent a range of occupational, industry, regional and state expert perspectives on Michigan's creative economy. Creative Many Michigan identified prospective stakeholders and Helen Kerr of KerrSmith Design conducted the confidential interviews. No attributions to individual participants are included in this report. Representation from education, government, and various key industries such as auto and furniture manufacturing, creative practitioners and foundations were included. Findings from the interviews were examined and common themes, as well as divergent perspectives, were identified. These themes became inputs for the foresight research that followed.

Regional Workshops

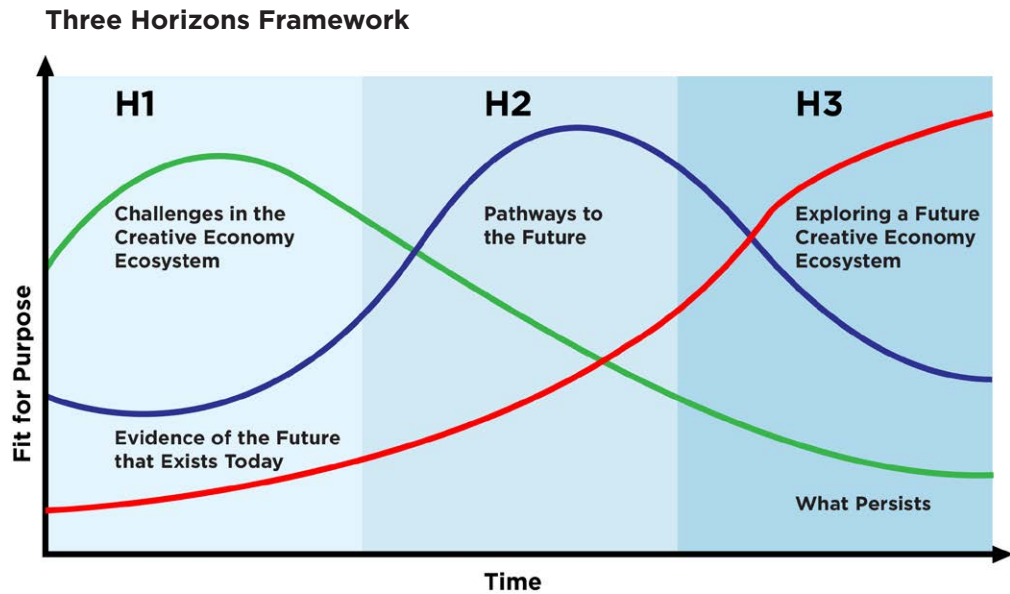
To bring community voices into the research project, workshops were held in June 2015 with members of the creative, arts, culture and design communities and other community stakeholders in four regions. Ann Arbor, Detroit and Grand Rapids were selected due to the intensity of creative industries as identified in the 2014 Creative State Michigan Creative Industries Report. Flint was included due to the priority placed on arts, culture and creative industries in the city's recently adopted Master Plan.

These regional workshops provided the opportunity to convene a series of discussions about the present state and future of Michigan's creative economy. The workshops were based on the Three Horizons futures method pioneered by UK foresight professionals Bill Sharpe and Anthony Hodgson.¹

1. Curry, A. & Hodgson, A. (2008). *Seeing in multiple horizons: Connecting futures to strategy*. *Journal of Futures Studies*, 13(1), pp.1-20.

Three Horizons framework adapted from Sharpe and Hodgson, retrieved via the International Futures Forum.

International Futures Forum. (2016). *Three Horizons*. [online] Internationalfuturesforum.com. Available at: <http://www.internationalfuturesforum.com/three-horizons> [Accessed 10 May 2015].



The Three Horizons method enables participants to develop a deeper understanding of the importance of short (Horizon 1), medium (Horizon 2) and long term (Horizon 3) potential future conditions. The foundation of this method is the recognition that “businesses, technologies, political policies and even whole civilizations exhibit life-cycles of initiation, growth, peak performance, decline and even death. These “cycles” can be viewed as waves of change in which a dominant form is eventually overtaken and displaced by another.”²

The Three Horizons method has been successfully used in a number of settings and social sector domains, including education and healthcare. As an effective tool for exploring change and transformation in the social sphere, it became an excellent platform for fostering a deep, sector-wide discussion about transformation in Michigan’s creative economy ecosystem today and into a future of 10 years from now.³

Participants were divided into small sub-groups and worked with facilitators from KerrSmith Design and Creative Many to proceed through a series of exploratory exercises that explored current challenges to the ecosystem of Michigan’s creative economy, aspirational futures for that ecosystem and possible innovations that could support it into the desired future. The Three Horizons method is highly visual and each sub-group contributed their ideas to a large sensemaking chart.

2. Sharpe, B. (2013). *Three Horizons: The Patterning of Hope.*, Axminster: Triarchy Press Ltd.
 3. Sharpe, B. (2013). *Three Horizons: The Patterning of Hope.*, Axminster: Triarchy Press Ltd.

Creative Economy Policy Summit

In order to distribute preliminary information from the research process and encourage dialogue with creative economy stakeholders from local, regional and national communities, Creative Many Michigan convened a statewide summit in September 2015 focused on creative economy policy issues. The event included expert presentations and panel discussions, as well as audience participation and input.

Anticipating the Future

Foresight is an anticipatory tool that also articulates a logical framework of mileposts between the present and the future. It provides insight to assist in informed decision-making in today's complex world. Bias toward the current situation and blindness to the unexpected can pose significant financial, social and structural risks. The researchers felt it critical in this research exploration that the capacity to perceive potentially pivotal changes impacting the creative economy in Michigan be amplified, enabling all stakeholders to overcome assumptions that the future will look much like the present. Insufficient study of possible, yet plausible, futures leaves open the possibility that true needs will not be met when dramatic changes occur. The compounding complexity of issues affecting the current economy and the changing value systems emerging suggest the need for perspective on well-rounded alternative views of what the future might hold. Importantly, these are interpretive findings intended to provoke discussion, and not to be viewed as definitive assertions.

Foresight practice is well established in both public and private sector strategic decision-making, and generally follows a recognizable methodology. For this study, workshops helped to establish directional topics of concern within the community, a horizon scan was completed to assess uncertainties of change, followed by pattern-finding to establish important potential shifts in the macro environment that may impact the future, and exploration of the implications of those potential changes.

In order for a shift in contextual challenge to be included in our summation, it had to fulfill three criteria:

- 1. Was it resonating at different scales (globally, nationally, locally, organizationally)? This confirmed that the issue identified was of importance to our primary research question.**
- 2. Did it resonate in different sectors? This demonstrated the scope of its impact.**
- 3. Did it transcend cultures/societies/demographics? This provided perspective on the amplitude of the challenge.**

Horizon Scan to Determine Shifting Contextual Challenges

In order to develop a deeper understanding of the factors that will shape Michigan's economy in the near future, a horizon scan was undertaken based on this study's fourth research question: What external pressures will impact the future of the creative economy?

The horizon scan served as a frame to recognize emerging evidence of critical shifts. This systematic and holistic information gathering approach includes a full spectrum of inputs both scholarly and populist for emerging issue analysis, from government policy papers, to respected academic research reviews, to analysis of fringe speculative fiction. Essentially, the intent is to look "over the horizon" to recognize weak vibrations that may portend change. Using pattern-finding techniques bolstered with an extensive and regularly updated library of multi-sector signals, relevant trends were organized into the macro categories that describe shifts in Society, Technology/Science, Ecology, Economy, Politics and Values. Signals were then expanded into clusters of concepts related to patterns of the emerging directional shifts observed. These directional currents have been described as a set of contextual challenge shifts that are likely to be important to the future of the creative industries in Michigan and to society at large.

Selected Confirming Signals of Change

While there are not facts about the future, there are indicators in the present of what might be. For each shift, a small selection from the library of supporting signals of change that were aggregated during the research process is included to provide perspective for the reader. These signals are presented in the form of direct quotations from a variety of sources rather than as synthesized information. It is imperative to the process that a measure of original information be made transparent to the reader to provoke critical thinking about the subject and to foster tolerance for ambiguity of outcome.

Opportunities and Challenges Arising

Interpretation and extrapolation for the purposes of discussion was undertaken for each of the shifts. Potential future changes that might provide opportunities for productive growth or alert stakeholders to potential social and economic risks are explored. This section is not exhaustive, but provides directional impacts.

Implications for Michigan's Creative Economy

How the preceding opportunities and challenges may unfold with respect to the creative economy was examined for each shift. These conclusions are not predictive. Rather, they offer plausible milestones of change that may serve as alerts to readers as they proceed with future oriented work.

Thought Leader Interviews

A total of 31 semi-structured interviews with key stakeholders in creative industries across Michigan were conducted between May and September 2015 including 16 of these hour-long guided discussions that were held with stakeholders whose work focuses on the city of Detroit.

Key Findings

All findings outlined in this section of the report are aggregated from the discussions with thought leaders in the creative economy of Michigan and represent participant opinions. They appear as an unranked collection of important issues related to the creative economy that interviewees believe are important to the future health of the economy and social fabric of the state. A commitment to confidentiality was assured to all participants during the sessions to enable open discussion of potentially sensitive issues.

Education

Education is Paramount

Almost every participant identified the re-establishment of equal access to high quality arts education as a fundamental requirement for developing a resilient, innovative workforce and building a thriving creative economy in Michigan. Exposure to creative means of expression through art, performance, and design is seen to be critical in helping young people to find both individual purpose and connection to community. Critical thinking skills and complex problem solving abilities are enhanced through creative practice, helping to develop engaged citizens. Participants identified that exposure to arts education is both formal and informal: cultural institutions, community programming and academic institutions all contribute to greater skills development and more robust appreciation of the arts, culture and design.

Placemaking

Placemaking Counts

Many interviewees acknowledged the globally competitive environment that exists for talent in the current economy. Part of attracting and retaining highly skilled workers and financial investment to Michigan is recognition of the role of art, culture and design in creating desirable places to live, work and play. Celebration of architectural uniqueness, support of cultural and historic sites, encouragement of both traditional and unconventional venues for performance and entertainment and incorporation of art and design into the public realm are all essential differentiating elements. Throughout the state, and in Detroit in particular, there are significant assets to be leveraged and social capital to be developed through community involvement.

Investment

Investment Requires Rethinking

Participants expressed that long-term and patient investment in art and design is required for deep roots to take hold. Many current grant structures favor short-term, small, project-based work with thinly spread funding distributed in small parcels across a large population. Longer-term support of meaningful multi-year projects with deep partnerships is necessary. Art markets in particular are not yet robust enough to provide living wages for many artists – most require supplemental jobs or funding to get by. This is also true for many creative entrepreneurs, especially those involved in pre-commercial start-up efforts. Many participants spoke of the need for arts and culture organizations to avoid “mission drift” in times of fiscal restraint; essentially taking care not to shift their activity to “fit the bill” in order to chase foundation money. Enlightened philanthropy plays a valued and critical role in the support of art and culture in Michigan, however, more investment from the private sector is desired. Several people identified that design excellence that goes beyond aesthetics to include human-centeredness and sustainability should be a benchmark for both companies and government when procurement and investment priorities and decisions are considered.

Ecosystems

Healthy Ecosystems are Needed

Representatives from several different industries expressed frustration that Michigan does not maintain the complete creative ecosystems required to truly scale their impact in many areas. An effective sector involves many components: a pipeline of appropriately educated talent with opportunities for early experience in their field; a full spectrum of practicing enterprises from risky start-up ventures, to medium-sized scaling companies, to larger, more stable, and perpetuating businesses; a constructive policy climate; a healthy supply chain of input providers and finally an audience or market that seeks the offering being presented. Whether in music, design, advertising or film, many people felt that there are gaps that need to be filled if robust change is to be initiated. In addition, more connection between creative sectors is important for growth of the creative economy overall. People hoped for increased awareness throughout the larger economy of how creative activity is of critical benefit to their own successes. In short, business and government do well when creative people are contributing productively.

Inclusiveness

Inclusiveness is Necessary

Intentional diversity is required for creative collisions to occur. Innovation requires new thinking and thrives when differences of all kinds are celebrated. Many interviewees expressed that Michigan and its major cities and regions are not well integrated. As new voices are brought into the conversation, it is important not to side-line those who have been central to sustaining creative energy through difficult times. For example, as the core of Detroit welcomes the attention and funding of civic improvements that have contributed to dramatic, positive change, some tenacious creative trailblazers remain wary of the changes. Creative practitioners of art, culture and design need to be part of the ongoing discussion as Detroit evolves. Creative people play a lead role in community changemaking throughout the state and many are at the forefront of civic engagement and are involved in issues of social justice and equity.

Differences

Regional Differences Persist

There is no single profile of the creative economy in Michigan and it is unlikely that a single plan for support and encouragement will be effective for every part of the state. Many interviewees noted regional polarization as a potential hindrance to building a strong and competitive sector at a time when many other territories are invested in the same undertaking. Industry concentrations and established educational institutions in different cities are large contributors to the varied character of creative work opportunities. Ann Arbor has a strong presence of diverse academic research and technology investment, along with a wide range of cultural programming. The most heavily populated urban southeast is recovering but is stressed with social and infrastructure issues that can overwhelm the creative community. In particular, the infrastructure crisis in Flint is a priority concern for residents. West Michigan is flourishing and diversifying its creative base, including beyond Grand Rapids into smaller cities such as Kalamazoo. Northern areas such as Traverse City have creative potential but do not contribute as loudly to the discourse.

Regional Workshops



Creative Many Michigan's Jennifer Goulet greets a crowd of participants at Flint's Sloan Museum.

Photo Credit: Sarah Nesbitt

Key Findings

Participant responses were aggregated and analyzed to find emergent themes. Any qualitative investigation must be tempered with an acknowledgement of the limitations of sample size, representativeness of overall population sampled and the bias of participants, which may be expressed as factual information rather than opinion.

As Before, Education is Paramount

As was articulated in the individual interviews, participants expressed strong feeling about the need for broad access to art and design education at all levels in the entire state. Generally, there was a sense that students are lacking the creative thinking skills that are cultivated through art and design education, which can then be applied throughout their lives and in all forms of employment. There was also a sense that earlier exposure to art, and specifically contemporary art, would help to build lifelong appreciation that would have larger implications for the creative community as a whole.

A Changing Narrative

Many participants felt that the narrative regarding the value of art, design and culture to Michigan is still underplayed and could be more boldly expressed. It was noted that the scope and impact of the creative economy is bigger than many politicians perceive and should be seen to be critical to the state's innovation ambitions. Explicitly, moving the conversation beyond the competitive need for STEM (science, technology, engineering, math) competency to include art and design was repeated. Indeed, the notion that creativity underpins all successful economic activity was introduced. A coherent and consistent message would be beneficial with a more universally understood explanation of the creative economy and its relevance to the general financial and social well-being of all Michiganders. Broader coverage of the sector and its contributions through media would be desirable and would help to build consensus.

Measure More

Many participants felt that quantitative measures of impact and scale are useful, but there is a question of whether the right indicators are being evaluated. Currently available data does not accurately describe the shifting boundaries of occupations and industries or take into account the massive impact of technology in all sectors. The economic and social impact of freelance and contractual work, often referred to as the "gig" economy, was identified as difficult to accurately measure at this time. This is a labor trend that cuts across all segments of the economy, but the creative sector is particularly sensitive to its effects.



Workshops were held in Detroit, Grand Rapids, Ann Arbor and Flint using the Three Horizons framework.

Photo Credit: Sarah Nesbitt

Political Climate

Synergies do exist amongst the private sector, the public sphere and practitioners. In particular, art and design were perceived to be connected to municipal placemaking decisions. However, a frustration with a polarized political environment was voiced throughout all the sessions. There was deep sadness expressed at the sense of a failing infrastructure in the state. Declining physical assets, insufficient public services including healthcare, education and transportation, food insecurity, and social inequity were identified repeatedly as issues impacting the health of the creative sector, as well as the economy as a whole. Partisanship was seen as impeding progress.

Scale and Focus

In each of the workshops, there was some discussion of the tensions between market-based and non-commercial expressions of creativity. In some cases, this manifested as a comparison between the small-scale, craft-based endeavors that have seen some success in Michigan versus the larger, creative entities that have deep roots in the state. Participants questioned whether Michigan can maintain its “creative edge” when scaling up to high employment in the arts. Further, they wondered if commercial success is inherently detrimental to front edge creative practice. The importance of diversification of the economy, and by extension the creative economy was expressed repeatedly. Many participants spoke of the need to depart from siloed art and design practices that are insulated from the broader economic conversation and its social implications.

Change is Needed

There was recognition of the need for changing business models for the arts and the impact of new technologies on audience participation and development, creative practices and dissemination of output. As in every sector, the rapid pace of change has been overwhelming for many, with highly disruptive ramifications. Emergent collaborative approaches, such as in the Michigan craft brewing industry, which has demonstrated supportive community business behavior, could be examples to explore further, or possibly adopt. Encouragement of entrepreneurship and learning from deep experience within the sector should be highlighted.



The Three Horizons workshops enabled participants to explore both challenges and opportunities for the creative industries in Michigan.

Photo Credit: Sarah Nesbitt

Regional Differences

In Flint, participants acutely felt that the national narrative about the city as one of violence impeded work being done on the ground to make change happen. There was excitement and determination about the recently endorsed Master Plan and efforts underway to act on the clear vision of the role of the arts. The severe economic and social challenges of the city were acknowledged but did not diminish the resolve of participants to push for improvements. It must be noted here that these workshops took place before reporting on the water crisis came to national prominence.

In Ann Arbor, the conversation tilted more towards art and culture rather than design. Concern about the commodification of the arts and the role of the market economy in their proliferation was expressed. Several participants expressed concern about complacency over the role of the arts and worried that attention was distracted in this prosperous community. More engagement of the creative community in discussions regarding growing infrastructure and government policy decision-making needs to be supported.

In Grand Rapids, a diverse creative community was represented. Participants were encouraged by the increasing recognition of the role of creative professions in the growth and health of the city. Design in particular was acknowledged to be a key factor in building value for companies. However there was a sense of innovation being “trapped” in large corporations rather than dispersed throughout all segments and scales of business. Regret over the loss of mentorship and apprenticeship opportunities and the implications for developing talent was expressed.

In Detroit, a sense of fatigue regarding consultation was at play. Participants articulated frustration that long standing issues, such as racial tensions, economic inequality and inadequate infrastructure remain insufficiently addressed, while expressing cautious pride in recent improvements. Tenacity was clearly evident. Detroiters have deep experience working with different types of funders, however there is a realization that the many actors in the creative community are not always coordinated in their actions. The regional economy remains highly undiversified and the role of art and design is still undervalued. The cost of gentrification to creative trailblazers and culture-bearers was particularly highlighted.

Creative Economy Policy Summit



Participants were invited to embrace a creative economy agenda for the state and its communities.

Photo Credit: Sarah Nesbitt

On September 23, 2015, Creative Many Michigan hosted its first Creative Economy Policy Summit, as part of the Detroit Design Festival Industry Days. The event took place at the GM Auditorium, in the A. Alfred Taubman Center for Design Education at the College for Creative Studies.

The Summit was a component of Creative Many's 2016 Creative Industries research initiative and provided an opportunity to share preliminary data and analysis on the nature and economic contributions of these industries in Michigan and in key regions including Detroit, Ann Arbor, Grand Rapids and Flint. The Summit took place after engaging community and industry leaders through stakeholder interviews and regional Three Horizons workshops intended to define challenges and opportunities in the cultivation of economic growth in jobs and businesses in the creative and design industries.



Industry leaders were invited to share their expertise on the growth opportunities for Michigan.

Photo Credit: Sarah Nesbitt

The overall aims of the Summit were to:

- Generate visibility and interest in the 2016 Creative Industries research initiative and upcoming report release;
- Engage audiences and networks in framing and embracing a creative economy agenda for Michigan, Detroit and other key regions/communities;
- Strengthen partnerships with key influencers and networks for advancing the creative economy agenda for Michigan, Detroit and other key regions/communities; and
- Celebrate the one-year anniversary of the launch of Creative Many Michigan and the affirmation of its commitment to developing creative people, creative places and the creative economy for a competitive Michigan.

3. Detroit Public Television livestreamed the event and videos are available for viewing on Creative Many's website. Creative Many, (2016). *Creative Economy Policy Summit: Growth Opportunities for Michigan*. [online] Available at: <http://www.creativemany.org/about/news/creative-economy-policy-summit-growth-opportunities-for-michigan/> [Accessed 17 Feb. 2016].



116 people attended the Creative Economy Policy Summit at the A. Alfred Taubman Center for Design Education at the College for Creative Studies.

Photo Credit: Sarah Nesbitt

The Summit welcomed 116 attendees (140 registered to attend) representing a diverse set of interests. They included local, regional, and state leaders from the following sectors: creative industries including arts and culture, economic development, entrepreneurship, government, business, education (Pre-K to 12 and higher education), legal, technology, tourism, philanthropy and media. The Summit enabled Creative Many to cultivate partnerships and networks that would serve to disseminate findings and recommendations of this study in regional planning efforts. The whole day's activities were livestreamed by Detroit Public Television and archived so that interested stakeholders who were unable to attend the event could benefit from the panels and discussions.

The Summit was generously supported by lead sponsor The Kresge Foundation and supporting sponsors The Knight Foundation Fund at the Community Foundation for Southeast Michigan and the New Economy Initiative. Supporting partners included: Detroit Design Festival, Detroit Creative Corridor Center, College for Creative Studies, Visualhero, DPTV, Issue Media Group, ModelD, Vitamin T, Aquent, Creative Voice and the Ann Arbor Arts Alliance.

For the Creative Economy Policy Summit program see Appendix 5 on page 152.



The NEIdeas \$10K Challenge provides grants for local entrepreneurs. In 2014, One Custom City received funding to purchase additional screen printing equipment to expand wholesale business.

CASE STUDY: SUPPORTING ENTREPRENEURS

New Economy Initiative

The NEI is building a system of support for entrepreneurs and small businesses across the Detroit region.

The creation of the New Economy Initiative (NEI), was sparked by the seismic economic shifts and unprecedented strain of unemployment in Southeast Michigan that reached dangerous proportions during the recession. Between the years of 2000 and 2010, the U.S. lost 2 million jobs, roughly 50% of which were based in Michigan, with the loss most acutely felt in Detroit and its surrounding areas. Over the same period of time, the state lost 367,000 well-paying manufacturing jobs and dropped 21 spots in per capita income, from 18th to 39th nationwide.¹

Launched in 2007 as a special program of the Community Foundation for Southeast Michigan on an initial contribution of \$100 million from ten key foundations, the NEI is one of the largest economic development initiatives of its kind. Its intent is to collaboratively stimulate diversified and inclusive economic activity to help build the businesses of tomorrow. It also marks a unique

collaboration between multiple foundations with deep interests in the Detroit region.

In order to re-establish a robust and diverse economic ecosystem in the Detroit region, the NEI has focused its initiatives on building a system of support for entrepreneurs, small businesses and innovators located in communities across the region, operating from grassroots to high growth. Changing the culture of innovation and entrepreneurship by collaborating with service providers, the NEI financially supports key organizations that are dedicated to helping businesses connect with each other, to grow and to thrive. Partnering with lending organizations to enable access to capital, the NEI supports competitions and challenges to foster new ideas and help existing ones come to market.

This ecosystemic approach means that, while its initiatives are not sector-based, particular attention

is paid to supporting underserved communities.

The NEI has had an important impact on the creative industries by supporting creative placemaking in the Detroit region. The Sugar Hill Arts District, in the heart of Midtown Detroit's creative arts community, received support for real estate development. The NEI was also an early investor in the redevelopment of the historic Argonaut Building. Formerly the epicenter of automotive design, the renamed A. Alfred Taubman Center for Design Education is now home to the College for Creative Studies and Shinola's watch factory and headquarters.

In late 2015, the NEI was able to recapitalize with an injection of an additional \$33.25 million. This financial vote of confidence will continue to build momentum in support of innovation and business expansion in Detroit. ■

1. Michigan Turnaround Plan, (2015). *The Facts About Michigan*. [online] Available at: <http://www.michiganturnaroundplan.com/get-the-facts> [Accessed 6 Dec. 2015].

Contextual Challenge Shift

Changing Nature of Work

Businesses are looking for the efficiencies of a just-in-time contingent workforce and the reduced cost of benefits incurred for full-time, long-term employees.

Characteristics of the Shift

The U.S. Bureau of Labor Statistics acknowledges that stable, full-time engagement with one employer over an extended period is no longer the norm in the current economy. Employees seek flexibility within the workplace to meet their family and personal needs and many manage several activities with multiple employers on a freelance basis. Many people choose to work remotely utilizing a suite of mobile tools, benefiting from reduced costs of transportation and extended childcare, but miss the social networks and support gained from co-located work. Not every worker is in this situation by choice. The term ALICE was coined in a New Jersey United Way study to identify Asset Limited, Income Constrained, Employed workers who struggle to make ends meet due to high living costs and low wages.

Businesses are looking for the efficiencies of a just-in-time contingent workforce and the reduced cost of benefits incurred for full-time, long-term employees. The advantages of a fluid workforce allow companies to adapt to changing economic disruptions. However, continuous turnover of staff can have cost implications and an unstable workforce can affect consistent strategy. In particular, information technology companies, where temporary project-based teams are common, are contending with these implications.

Selected Confirming Signals of Change

- “The nature of work is changing in significant ways for many Americans, whether through the use of labor brokers, third party management or independent contractors, the broader “fissuring” of employment and the work-place, the increasing prevalence of the “gig economy,” or the growth of other non-standard work arrangements. As a result of these trends, the traditional relationship between employer and employee is changing significantly for many.”¹
- By 2017, contingent workers, including independent contractors, statement-of-work-based labor and freelancers, will account for nearly 45% of the world’s total workforce.²
- In October 2015, the ride sharing service Uber counted 327,000 active drivers on its platform.⁴ In the same period, Ford had approximately 187,000 employees worldwide, Spectrum Health had 23,800 and Steelcase had 11,000.

45%

Of workers in 2017 will be employed on a contingent basis worldwide.³

1. U.S. Government Accountability Office. (2015). *Contingent Workforce: Size, Characteristics, Earnings, and Benefits*, Washington.

2. Dwyer, C. (2015). *The State of Contingent Workforce Management: The 2014-2015 Guidebook for Managing Non-Traditional Talent*, Acton.

3. Dwyer, C. (2015). *The State of Contingent Workforce Management: The 2014-2015 Guidebook for Managing Non-Traditional Talent*, Acton.

4. Carson, B. (2015). Why there’s a good chance your Uber driver is new. *Business Insider*. [online] Available at: <http://www.businessinsider.com/uber-doubles-its-drivers-in-2015-2015-10> [Accessed 1 Nov. 2015].

2 yrs

Average time
Millennials spend
with an employer.⁸

- According to the Detroit Free Press, 36% of the state's job gains from 2009 through 2013 were due to temporary staffing and self-employment.⁵
- Wayne State University employs 49% part-time adjunct faculty, University of Michigan - Dearborn employs 42% and Ferris State University 39%.⁶
- A study conducted by PayScale Inc. and Millennial Branding found that U.S. millennials, or those between the ages of 18 and 30, switch jobs every two years on average. By comparison, members of "Generation X" typically spend about five years with each employer, and baby boomers spend about seven, according to the report. The study focuses on millennials, or Generation Y, and among its findings are that millennials are most highly concentrated within companies with fewer than 100 employees (47%), followed by companies with between 100 and 1,500 employees (30%). It also purports that millennials are more averse to large companies, and value the freedom that smaller employers with less stringent rules can offer. "This report confirms that Gen Y is an entrepreneurial group, highly versed in social media, and prefers freedom and flexibility over big corporate policies," said Dan Schawbel, founder of Millennial Branding in a news release.⁷
- "ALICE households are working households; they hold jobs and provide services that are vital to the Michigan economy in positions like retail salespeople, team assemblers, truck drivers, and nursing assistants. The core of the problem is that these jobs do not pay enough to afford the basics of housing, childcare, food, health care, and transportation. The growth of low-skilled jobs is projected to outpace that of medium- and high-skilled jobs into the next decade. At the same time, the cost of basic household necessities continues to rise."⁹
- Etsy, the online marketplace for creative entrepreneurs is now a publicly traded company, gross sales of \$1.93 billion at the end of 2014 and 54 million registered user/members, currently accepts sellers to scale their business through small scale ethical manufacturing.¹⁰

5. Bomey, N. (2014). Temp jobs flood Michigan as economy recovers. *Detroit Free Press*. [online] Available at: <http://www.freep.com/story/money/business/michigan/2014/12/28/michigan-temporary-jobs-economy-unemployment/20941729/> [Accessed 1 Nov. 2015].

6. MLive Media Group, (2015). Part-time college professors, a full-time problem? *MLive*. [online] Available at: http://www.mlive.com/news/grand-rapids/index.ssf/2015/03/adjunct_slideshow.html#0 [Accessed 23 Nov. 2015].

7. Renaud, J. (2012). Study finds that millennials change jobs every two years. *Albuquerque Business First*. [online] Available at: <http://www.bizjournals.com/albuquerque/news/2012/08/30/study-finds-that-millennials-change.html> [Accessed 8 Dec. 2015].

8. Renaud, J. (2012). Study finds that millennials change jobs every two years. *Albuquerque Business First*. [online] Available at: <http://www.bizjournals.com/albuquerque/news/2012/08/30/study-finds-that-millennials-change.html> [Accessed 8 Dec. 2015].

9. United Ways of Michigan, (2014). Alice (Asset Limited, Income Constrained, Employed). Study of Financial Hardship. [online] pp.1-241. Available at: http://www.charemunitedway.org/sites/charemunitedway.org/files/14UW%20ALICE%20Report_MI_Hires.pdf [Accessed 12 Dec. 2015].

10. United States Securities and Exchange Commission, (2015). *Form S-1 - Etsy, Inc.* [online] Available at: <https://www.sec.gov/Archives/edgar/data/1370637/000119312515077045/d806992ds1.htm> [Accessed 13 Dec. 2015].

Opportunities Arising

- Elastic workforces benefit companies trying to remain flexible and keep fixed cost structures to a minimum. In an expanding economy with high demand for technical knowledge work, reliance on freelance or independent workers has increased.
- Flexibility for skilled and in-demand workers to manage work/life balance holds great appeal for many, especially those whose lives are in transition.
- Multiple part-time jobs may serve as a hedge against employment insecurity.

Challenges Arising

- Contingent workers face a lack of defined benefits, paid vacation and pensions. These workers represent a potential for greater reliance on public assistance than traditional full-time and part-time employees.¹
- Those with few alternate options (involuntary alternate employment) experience lower pay. Compared to standard full-time workers, core contingent workers in the U.S. are more likely to be younger, Hispanic, have no high school degree, and have low family income according to the U.S. Department of Labor.² These contingent workers are also more likely than standard workers to experience job instability, and to be less satisfied with their benefits and employment arrangements.

Implications for Michigan's Creative Economy

Many creative workers have long experience juggling a series of part-time jobs and an established freelance job framework gives creatives an advantage in a new economic landscape. Can artists and designers lead the way forward? What can we learn from best practices and what can we understand as cautionary tales? How can we better measure work and its impact when fewer people count a single place of employment as their source of income?

New ways to measure the workforce are required to account for this fundamental shift away from full-time equivalent jobs as a primary frame of reference for economic activity. There are implications for both organizations and the public sector. The transfer of proprietary company knowledge over time and competition for key skilled workers is an increasing risk. Societal responsibility for under-insured workers, especially those in precarious employment, is not clearly defined and may have long-term consequences. ■

1. United States Department of Labor, (n.d.). *Contingent Workers*. [online] Available at: http://www.dol.gov/_sec/media/reports/dunlop/section5.htm [Accessed 1 Dec. 2015].

2. United States Department of Labor, (n.d.). *Contingent Workers*. [online] Available at: http://www.dol.gov/_sec/media/reports/dunlop/section5.htm [Accessed 1 Dec. 2015].

Contextual Challenge Shift

Automation & Digitization

Characteristics of the Shift

We live in a highly computational world, where mathematical ability is prized and is woven into much of what we do every day. There is growth in well-paid jobs that require advanced technical skills. The nature of design in particular has changed, requiring higher levels of digital competency in concept development, design resolution and implementation to participate in the advancement of robotics, automation and digital development, especially in the mobile realm. “The Internet of Things,” where physical objects embedded with sensors and software are digitally connected to enable data collection, represents both great opportunity for innovators and potential benefit to consumers.

When we consider automation in the workplace, we often point to the benefits of safety (such as automated hospital pharmaceutical dispensing) or the reduction of demanding physical labor (such as robotic assembly lines) or the convenience of on-demand services (such as automated banking). What we routinely under-acknowledge is that repeatable cognitive “white collar” work is also undergoing rapid automation. Law, accounting, financial advising and education have all seen a relentless expansion of computerized functions replacing humans. Data analytics are known to be as useful in healthcare and traffic control. Now, user experience design for websites has been automated to reconfigure based on user data gathering. Artificial intelligence and natural language processing are no longer science fiction, but rather reliable and fully integrated components of many technology based offerings.

Art, culture and design practice have long been considered to be resistant to mechanization. Indeed, the ability to deploy imagination, to creatively tackle complex problems and understand the human dimension of a situation, are core competencies of artists and designers. However, especially for skilled craft techniques, automation and digitization are increasingly infiltrating the world of creative activity.

According to Hod Lipson, Director of the Creative Machines Lab at Cornell University’s Sibley School of Mechanical and Aerospace Engineering, “For a long time the common understanding was that technology was destroying jobs but also creating new and better ones... Now the evidence is that technology is destroying jobs and indeed creating new and better ones but also fewer ones. It is something we as technologists need to start thinking about.”³

3. Rotman, D. (2015). Who Will Own the Robots?. *MIT Technology Review*. [online] Available at: <https://www.technologyreview.com/s/538401/who-will-own-the-robots/> [Accessed 29 Nov. 2015].

\$10 M

Fori Automation, Inc. is launching a ten million dollar project to expand their Shelby Township automation equipment plant.⁴

Selected Confirming Signals of Change

- Automotive sector: “Michigan is the unrivaled epicenter for R&D activity, testing prototyping and manufacturing for all aspects of connected vehicles and intelligent transportation systems.”² – These are seen as growth industries in Michigan.
- “One company that’s expanding is Fori Automation, Inc., of Shelby Township, which since 1984 designs and builds automation, assembly, testing and welding equipment for the automotive and aerospace industries. The Michigan Strategic Fund approved a \$250,000 performance-based grant Wednesday to help the company consolidate its existing two facilities into a larger facility in the township. The almost-\$10 million project will create an estimated 52 jobs.”³
- Autonomous vehicles: “It would be useful for future occupational surveys to ask specific questions about driving as a work activity and vehicles as tools and technology. This information would be useful to understand how occupations may change at this new frontier of workplace automation. More broadly, it is possible that other forms of automation will render autonomous vehicles irrelevant. For example, widespread adoption of e-learning and telecommuting might drastically reduce the need to transport large groups of children to school on a regular basis. The school bus driver may lose out to e-learning rather than to the self-driving bus.”⁵
- “...this analysis cannot account for new occupations that may emerge—for example, in the building, management, and maintenance of autonomous vehicle systems. But it also suggests some ways in which a wide variety of jobs might be transformed with the adoption of autonomous vehicles: demand for certain transportation and delivery work may be drastically reduced with the advent of fully autonomous vehicles. Jobs that involve skilled or manual labor performed at multiple or remote worksites may no longer involve driving as a significant work activity, thus expanding the labor supply. These effects may be particularly strong in rural states with extractive economies. Finally, some skilled workers may find that their autonomous vehicle includes occupation-specific technology to enable them to maximize productivity while in transit. Other workers may find that they must develop additional complementary skills to remain competitive once driving becomes a less marketable skill.”⁶

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2. Michigan Economic Development Corporation, (2015). Growing Industries In Michigan | MichiganBusiness. [online] *Michigan Business*. Available at: <http://www.michiganbusiness.org/grow/industries/#information-technology> [Accessed 22 Nov. 2015].
 3. Gallagher, J. (2015). Michigan jobless rate drops to 6.3% in December. *Detroit Free Press*. [online] Available at: <http://www.freep.com/story/money/business/michigan/2015/01/21/michigan-unemployment-rate/22115667/> [Accessed 23 Nov. 2015].
 4. Gallagher, J. (2015). Michigan jobless rate drops to 6.3% in December. *Detroit Free Press*. [online] Available at: <http://www.freep.com/story/money/business/michigan/2015/01/21/michigan-unemployment-rate/22115667/> [Accessed 23 Nov. 2015].
 5. Miller, J. (2015). Autonomous Vehicles Implications for Employment Demand. *Fall Bridge Issue on Engineering, Technology, and the Future of Work*. [online] Washington: National Academy of Engineering. Available at: <https://www.nae.edu/Publications/Bridge/142833/145158.aspx> [Accessed 15 Dec. 2015].
 6. Miller, J. (2015). Autonomous Vehicles Implications for Employment Demand. *Fall Bridge Issue on Engineering, Technology, and the Future of Work*. [online] Washington: National Academy of Engineering. Available at: <https://www.nae.edu/Publications/Bridge/142833/145158.aspx> [Accessed 15 Dec. 2015].

- Examples of automated creativity: Grid is an automated online development tool that uses artificial intelligence to build custom and adaptive websites without human manipulation. Magisto is a downloadable app that auto edits video, choosing the “best” angles and clips to create storylines using algorithms instead of human eyes. Quill is a natural language generation platform that automatically transforms data into narratives “indistinguishable from what a human would write.”⁷
- “Quantitative data is increasingly becoming a key ingredient in usability and user-experience work. With this change comes the need for UX professionals to become familiar with the language and tools and determine which metrics and features are useful in UX practice.”⁸
- Spending on internet based advertising increased over 18% in each of the past two years while both newspapers and magazines saw continued decline in ad revenue, despite a significant change increasing time spent using online media everyday.⁹

Opportunities Arising

- Decreased reliance on geographic co-location may mean that residents outside of Michigan’s largest cities could participate in an expanding technology-based economy.
- Southeast Michigan remains competitive as one of the nation’s leading high-tech hubs, and job creation in the region is trending upward for the coming years, according to Automation Alley’s recently released Technology Industry Report.¹⁰ When benchmarked against 14 other technology hubs across the U.S., Automation Alley’s metro Detroit region ranked:
 - **1st** nationally in the number of advanced automotive industry jobs and businesses
 - **1st** nationally in the number of engineering technology degrees earned
 - **1st** in the Midwest in the concentration of tech-focused jobs
 - **1st** nationally in the number of architectural and engineering jobs
 - **3rd** nationally in the percentage of total employment in the technology industry

#1

Metro Detroit Region ranks 1st in the national number of advanced auto industry jobs and businesses.¹¹

7. Narrative Science, Inc., (2015). *Advanced Natural Language Generation Software*. [online] Available at: <https://www.narrativescience.com/> [Accessed 28 Nov. 2015].

8. Cardello, J. (2013). *Three Uses for Analytics in User-Experience Practice*. Nielsen Norman Group. [online] Available at: <https://www.nngroup.com/articles/analytics-user-experience/> [Accessed 26 Nov. 2015].

9. Ad Age, (2014). *Advertising Age Annual 2015 - Marketing Fact Pack*. [online] Available at: <http://adage.com/trend-reports/report.php?id=96> [Accessed 25 Nov. 2015].

10. Automation Alley, (2015). *2015 Technology Industry Report*. [online] Detroit. Available at: <https://www.automationalley.com/News/TechnologyIndustryReport.aspx> [Accessed 26 Oct. 2015].

11. Automation Alley, (2015). *2015 Technology Industry Report*. [online] Detroit. Available at: <https://www.automationalley.com/News/TechnologyIndustryReport.aspx> [Accessed 26 Oct. 2015].

Challenges Arising

- Competition is increasing from other rapidly advancing technology-based jurisdictions, both inside and outside the U.S.
- “Could the rapid advances in automation and digital technology provoke social upheaval by eliminating the livelihoods of many people, even as they produce great wealth for others?....More and more computer-guided automation is creeping into everything from manufacturing to decision making,” says Cornell University’s Hod Lipson. “In the last two years alone,” he says, “the development of so-called deep learning has triggered a revolution in artificial intelligence, and 3-D printing has begun to change industrial production processes.”¹²
- Technology changes faster than policy and infrastructure can keep up.

Implications for Michigan’s Creative Economy

We now have smart homes, smart phones, smart cars, smart buildings and smart cities. Because of these developments digital media is a growing sector and related technological activities will become increasingly important in most states’ economies. Sufficient education, from pre-kindergarten all the way to advanced university research, is required in order to build a prepared and resilient workforce, including in the creative industries in Michigan. Attention must also be paid to the corresponding infrastructure requirements of a robust digital sector, such as adequate speeds for broadband internet and equitable coverage.

Inherent in the digital revolution are implications for privacy protection and reliance on the electrical grid for all activities. Increasing complexity may unexpectedly reduce operational transparency for many activities. How might we balance the rights of citizens with society’s need for open access to data? ■

12. Rotman, D. (2015). Who Will Own the Robots?. *MIT Technology Review*. [online] Available at: <https://www.technologyreview.com/s/538401/who-will-own-the-robots/> [Accessed 29 Nov. 2015].

Contextual Challenge Shift

Seeking Meaningful Work

Characteristics of the Shift

A major social shift is underway as a new generation of “digital-native” workers enters the workforce bringing with them an expanded idea of the purpose of their job. Yes, they have an expectation of earning fair pay for the work they do, but in addition, many younger workers believe that a company’s mission is as important as its fiscal mandate. Beyond the primary benefit that accrues to the company, these workers want to know how society, the planet, the customer and they themselves all benefit as well. Companies that in the past defined themselves as employers of choice based primarily on their fiscal accomplishment will have less appeal for the very best and brightest minds. Defining shared purpose within the bounds of corporate activity will become increasingly important in attracting and retaining skilled knowledge workers who are able to work without geographic restrictions thanks to advanced mobile technology.

Much research has been undertaken into the measure and definition of meaningful work. Many studies point to issues of identity and the associated yearning for purpose as critical motivators. Creative self-expression has long been one element of making meaning; artists, designers and cultural workers may have an edge in terms of integrating purposeful content into their activities and output.

Signals of Change

- “... an orientation towards achievement, income maximisation and security has given way gradually over time to other priorities, such as self-expression, self-realisation, lifestyle, aesthetic considerations and fulfilment...The phenomenon of the knowledge economy, driven by technology and globalisation, does not make work more meaningful, but it does help create the conditions in which issues of meaning flourish: better educated workers using their brains in their work, more work revolving around relationships and social skills, and organisations taking on a much more ‘socialised’ as opposed to solely ‘economic’ perspective – to wit the vague and rather content-free commitments to corporate social responsibility.”¹
- “Although a case can be made that organizations may have an ethical or moral obligation to help workers experience Meaningful Work (MW)², a more tangible reason why MW matters is its consistent association with benefits to workers and organizations. People who say their work is meaningful and/or serves some greater social or communal good report better psychological adjustment, and

1. Overell, Stephen. (2008). *Inwardness: the rise of meaningful work*, The Work Foundation, London. pp. 47.

2. Michaelson, C. (2005). Meaningful Motivation for Work Motivation Theory. *Academy of Management Review*, 30(2), pp.235-238.

72%

Percentage of workers that do not have regular time for creative or strategic thinking.¹¹

simultaneously possess qualities that are desirable to organizations. People who feel their work is meaningful report greater well-being³ view their work as more central and important⁴, place higher value on work⁵, and report greater job satisfaction⁶. People who feel their work serves a higher purpose also report greater job satisfaction and work unit cohesion.”^{7 8}

- Employees who derive meaning from their work are more than three times as likely to stay with their organizations—the highest single impact of any other survey variable tested. By this account, meaning trumps items related to learning and growth, connection to a company’s mission, and even work-life balance. And the employees who have meaning don’t just stick around longer. They also report 1.7 times higher job satisfaction, and are 1.4 times more engaged at work.⁹
- A 2014 Gallup poll of over 19,000 workers worldwide found that 72% do not have regular time for creative or strategic thinking.¹⁰
- “Sir Cary Cooper, professor of organizational psychology and health at Lancaster University predicts that “in the next ten to 15 years, companies will be forced to radically change the way they manage employees, as talented staff flock to where their personal well-being is valued.”¹²
- “...many startups are flourishing as social purpose businesses, that is, companies that strive to achieve social and financial goals. It is widely acknowledged that a major key to success for these organizations is their ability to identify, recruit and retain top talent. Recruiting top talent to work toward solving these critical social challenges is imperative for our society, and the sustainability of impact organizations depends on it. But as demographics change, so must recruitment

3. Arnold, K., Turner, N., Barling, J., Kelloway, E. and McKee, M. (2007). Transformational leadership and psychological well-being: The mediating role of meaningful work. *Journal of Occupational Health Psychology*, 12(3), pp.193-203.

4. Harpaz, I. and Fu, X. (2002). The structure of the meaning of work: A relative stability amidst change. *Human Relations*, [online] 55(6), pp.639-667. Available at: [http://www.choixdecariere.com/pdf/6573/Harpaz_Xuanning\(2002\).pdf](http://www.choixdecariere.com/pdf/6573/Harpaz_Xuanning(2002).pdf) [Accessed 1 Dec. 2015].

5. Nord, W. R., Brief, A. P., Atieh, J. M., & Doherty, E. M. (1990). Studying meanings of work: The case of work values. In A. Brief & W. Nord (Eds.), *Meanings of occupational work: A collection of essays*. Lexington, MA: Lexington Book

6. Kamdron, T. (2005). Work Motivation and Job Satisfaction of Estonian Higher Officials. *International Journal of Public Administration*, 28(13-14), pp.1211-1240.

7. Sparks, J. and Schenk, J. (2001). Explaining the effects of transformational leadership: an investigation of the effects of higher-order motives in multilevel marketing organizations. *Journal of Organizational Behavior*, 22(8), pp.849-869.

8. Steger, M., Dik, B. and Duffy, R. (2012). Measuring Meaningful Work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment*, 20(3), pp.322-337.

9. Amortegui, J. (2014). Why Finding Meaning At Work Is More Important Than Feeling Happy. *Fast Company*. [online] Available at: <http://www.fastcompany.com/3032126/how-to-find-meaning-during-your-pursuit-of-happiness-at-work> [Accessed 26 Nov. 2015].

10. Harvard Business Review, and The Energy Project, (2014). *The Human Era @ Work: Findings from The Energy Project and Harvard Business Review 2014*. [online] Available at: http://documents.kenyon.edu/humanresources/Whitepaper_Human_Era_at_Work.pdf [Accessed 7 Feb. 2016].

11. Harvard Business Review, and The Energy Project, (2014). *The Human Era @ Work: Findings from The Energy Project and Harvard Business Review 2014*. [online] Available at: http://documents.kenyon.edu/humanresources/Whitepaper_Human_Era_at_Work.pdf [Accessed 7 Feb. 2016].

12. The Economist Intelligence Unit Limited, (2015). *Automated, creative and dispersed: The future of work in the 21st century*. [online] London: The Economist, pp.1-33. Available at: <http://www.economistinsights.com/technology-innovation/analysis/automated-creative-and-dispersed> [Accessed 13 Dec. 2015].

efforts. Beginning in 2015, Millennials will, for the first time, outnumber Baby Boomers in the workplace. This demographic shift is important because Millennials are particularly interested in causes and in making a difference with their careers.”¹³

Opportunities Arising

- Foundations in Michigan have led the way in describing what it means to participate in meaningful work. Their widely respected programs support social justice initiatives, contribute to the building of social and city infrastructure and promote art, culture and design at internationally recognized levels of achievement as well as at the community level.
- The State of Michigan is actively making efforts to attract and retain triple bottom line (to benefit people, planet, profits) companies and organizations.¹⁴

Challenges Arising

- Competition for scarce resources, including talent, is becoming fierce worldwide.
- Many companies are seeking to compensate employees with flexible work hours and attractive surroundings. However, what many millennials are seeking is more transparency, personal recognition and aligned social mission, which is not as easy for companies to cultivate authentically.¹⁵

Implications for Michigan’s Creative Economy

The desire for meaningful employment opportunities (mission as well as money) suggests intentional integration of creative competencies across the board would be beneficial. Employers wishing to compete must authentically establish their credibility in this arena, ensuring their clear purpose aligns with their operational and strategic behavior. ■

13. MaRS, Bmeaningful, (2015). *The Insider’s Guide to Finding Meaningful Work and Attracting Top Talent. The Impact Economy*. Toronto: MaRS Discovery District, pp.1-22. [Accessed 18 Dec. 2015]

14. Link, T. & Stough, B. (2015). *Attracting and Retaining Triple Bottom Line Enterprises: The Possibilities to Increase Community Wealth* [Accessed 13 Dec. 2015].

15. IBM, (2015). *Myths, Exaggerations and Uncomfortable Truths*. [online] New York: IBM Corporation, p.January. Available at: <http://public.dhe.ibm.com/common/ssi/ecm/gb/en/gbe03637usen/GBE03637USEN.PDF?>

Contextual Challenge Shift

Diversity and Inclusion

Characteristics of the Shift

Diversity and inclusion are key drivers of innovation and prosperity in a global economy. While tolerant behavior accepts differences, a higher goal is to insist that equitable access to all opportunities and resources is assured for all populations. Inclusive behavior proactively promotes and supports all members of a community, valuing each for their unique contribution. More kinds of people with multiple backgrounds and experiences equates to more flexibility and adaptability within the economy. In many other jurisdictions there is evidence that differences in age, race, orientation, ethnicity, education, ability, and class serve as drivers of innovation and prosperity.¹ Ecosystems with complex dynamics are more resilient to change and can withstand unexpected shocks or disruptions.

The spread of divisive racialized politics and social unrest throughout the U.S. have been broadly reported, especially in the wake of violent incidents involving African Americans and increased scrutiny of Muslim populations after recent terrorist attacks. In that environment of mistrust and often division, the makeup of American communities is changing. Michigan has an increasingly diverse population overall and future projections predict a more multi-racial, multi-ethnic state.

Signals of Change

- “For LaNesha DeBardelaben of Detroit, vice president of assessment and community engagement with the Charles H. Wright Museum of African American History, issues of historical cultural inequity are well-known. ‘At the center of the stories we tell and exhibit at the Wright Museum is oftentimes the struggle toward equity,’ she said. ‘The Wright Museum, therefore, saw the importance of engaging in the Detroit Equity Action Lab as a part of our mission in order to better position the museum as an informal educational institution that transforms and uplifts. Our shared past is a powerful tool to empowering communities today.’”²

5%

Of orchestras employ black and Hispanic musicians.³

1. Forbes. *Global Diversity and Inclusion: Fostering Innovation Through a Diverse Workforce* (n.d). [online] Forbes Insights. Available at: http://www.fitnyc.edu/images/content/cfmm_Innovation_Through_Diversity.pdf [Accessed 9 Dec. 2015].

2. Norris, K. (2014). *How diversity can help Michigan arts organizations*. [online] Michiganradio.org. Available at: <http://michiganradio.org/post/how-diversity-can-help-michigan-arts-organizations#stream/0> [Accessed 9 Dec. 2015].

3. Schmid, R. (2014). *MA 30 Profiles in Courage: Aaron Dworkin*. [online] Musicalamerica.com. Available at: <http://www.musicalamerica.com/news/newsstory.cfm?storyID=32947&categoryID=7> [Accessed 9 Dec. 2015].

28%

Percentage of small businesses that were founded by immigrants in the United States.⁷

“You can’t retreat to your suburban back yard here. We live on top of each other. But that’s a good thing; we learn how to get along.”⁹

- “A recipient of the MacArthur ‘genius’ grant and President Obama’s first nominee to the National Council on the Arts, Aaron Dworkin tirelessly labors to make the nation aware of the disparities that plague classical music institutions, arguing that diversity is not just a social imperative but fundamental to the art form’s long-term health. In a speech last fall, he challenged orchestras to devote five percent of their budget to inclusion initiatives, maintaining that while times may be tough, “any solution that brings about real change will require sacrifice.”⁴
- Michigan still lags other states in the provision of full equal employment housing and benefits rights to members of the LGBTQ+ community.⁵
- “Governor Snyder has called for the federal government to designate an additional 50,000 employment-based visas for skilled immigrants and entrepreneurs during the next five years. The visas would seek to attract highly skilled, entrepreneurial, legal immigrants who commit to living and working in Detroit, thereby contributing to its economic and population growth. Here’s another sign that impacts have a powerful impact on our economy. In 2011, 28% of small businesses were founded by immigrants, and seven out of ten of the most valuable brands in the world were created by U.S. immigrants or their children. Here in Michigan, the successful companies Dow, Meijer, and Masco were founded by immigrants, and over the last decade, immigrants created one-third of the high-tech businesses in our state, at a rate six times the rest of the population. In short, immigrants are proven job creators, and Michigan can benefit from their entrepreneurial spirit by welcoming them to Detroit.”⁶
- “About 14 percent of the Greater Lansing area’s population consists of racial or ethnic minorities, and the largest portion of that population is in Ingham County, with 24 percent racial and ethnic minorities. The diversity, however, does not stop there. Employers need to recognize that there is considerable and growing diversity within each of the racial and ethnic groups listed above; and despite what may appear to be similarities in appearance or the regions they came from, customs, language, and behavior may vary considerably within each of the groups... In an increasingly global and competitive marketplace, recognizing and accommodating these differences is more important for business in the Greater Lansing area than ever before.”⁸

4. Schmid, R. (2014). *MA 30 Profiles in Courage: Aaron Dworkin*. [online] Musicalamerica.com. Available at: <http://www.musicalamerica.com/news/newsstory.cfm?storyID=32947&categoryID=7> [Accessed 9 Dec. 2015].

5. Montemurri, P. and Tanner, K. (n.d.). *By 2060, a much more multiracial Michigan will emerge*. [online] Detroit Free Press. Available at: <http://www.freep.com/story/news/local/michigan/2014/10/24/michigan-diversity-index-racial-demographics/17671861/> [Accessed 25 Nov. 2015].

6. Government of Michigan, (n.d.). *Snyder - Fact Sheet: Encouraging Immigration in Michigan*. [online] Available at: http://www.michigan.gov/snyder/0,4668,7-277-61409_67367-320066--,00.html [Accessed 9 Nov. 2015].

7. Government of Michigan, (n.d.). *Snyder - Fact Sheet: Encouraging Immigration in Michigan*. [online] Available at: http://www.michigan.gov/snyder/0,4668,7-277-61409_67367-320066--,00.html [Accessed 9 Nov. 2015].

8. Rosen, L. (n.d.). *How Diverse is Your Workforce?* [online] Greater Lansing Business Monthly. Available at: <http://lansingbusinessnews.com/department-columns/34-mid-michigan-outlook/564-how-diverse-is-yourworkforce> [Accessed 7 Nov. 2015].

9. Allen, N. (2016). Refugee debate stokes tensions in Hamtramck, America’s Muslim capital. *The Telegraph*. [online] Available at: <http://www.telegraph.co.uk/news/worldnews/northamerica/usa/12022583/Refugee-debate-stokes-tensions-in-Hamtramck-Americas-Muslim-capital.html> [Accessed 3 Dec. 2015].

#BBUM

Being Black at the University of Michigan
#BBUM hashtag sparks dialogue about diversity at the university in 2013.¹¹

- “The overall face of the American demographic is changing and Hamtramck is just more visible because we are so condensed. You can’t retreat to your suburban back yard here. We live on top of each other. But that’s a good thing; we learn how to get along. It can get messy but that’s how democracy works, how a multicultural society works. A city doesn’t stand still like a museum to your grandparents. The world is changing around us and we have to adjust. It’s the great experiment, the American experiment writ small.”⁷
- “Stephen Ross, billionaire owner of the Miami Dolphins and huge donor to the University of Michigan, is launching a nationwide media campaign today to support his Ross Initiative in Sports for Equality (RISE), a multipronged effort to help kids combat racism and stop bullying.”⁸
- *Walking the Line of Blackness: A collection of stories from 16 policy students at the University of Michigan.* “The film features masters students from the University of Michigan Ford School of Public Policy. These 16 black students share their thoughts, experiences, and struggles of being black in America. This project was inspired by recent media coverage of unarmed Black and Brown bodies who were slain after interactions with the police.”⁹
- “University of Michigan President Mark Schlissel launched a campuswide conversation on diversity, calling for innovative and ambitious measures to address ‘the hardest problem and biggest challenge that we’re going to confront together.’ To realize its full potential, Schlissel said, U-M must find new ways to attract the students, faculty, and staff to ensure U-M truly looks ‘like the public we serve,’ and that the campus climate ‘allows diversity to flourish — in all of its forms.’ ”¹⁰

8. Walsh, T. (2015). U-M mega donor to tackle racism, bullying in sports. *Detroit Free Press*. [online] Available at: <http://www.freep.com/story/money/business/columnists/tom-walsh/2015/10/16/rise-against-racism/74009368/> [Accessed 17 Dec. 2015].

9. University of Michigan Ford School of Public Policy, (2015). *Walking the Line of Blackness*. [video] Available at: <https://www.youtube.com/watch?v=elvsJD-lvoY> [Accessed 15 Nov. 2015].

10. Iseler, J. (2015). Diversity is “major focus”. *Michigan Today*. [online] Available at: <http://michigantoday.umich.edu/diversity-is-major-focus/> [Accessed 2 Feb. 2016].

11. Byng, R. (2013). #BBUM Hashtag Sparks Dialogue About Diversity At The University Of Michigan. *Huffington Post*. [online] Available at: http://www.huffingtonpost.com/2013/11/20/bbum-university-of-michigan-black-students_n_4310790.html [Accessed 7 Dec. 2015].

Opportunities Arising

- Cultural appreciation and representation in the arts is often a pathway to increased understanding across differences. Tolerance and support of difference/newness allows for positive change. Diversity (of ideas, of people, of ways of life) is an advantage – art and design thrive in atmospheres of curiosity, experimentation and openness.

Challenges Arising

- Divisions within communities persists in informal ways. Cities in particular have seen tensions between have and have-not populations, especially in circumstances where the differences are exacerbated by physical segregation of race, age, wealth and access to infrastructure.
- Census data projects that Michigan is growing at a slower rate than other states and is expected to slip from 8th to 10th largest state in the union, despite a small increase in overall population. In particular, a sizeable reduction in the population of 24-50 year olds is evident; a concern as this represents prime working age. Young people continue to leave the state to seek employment after having completed their university studies.¹²

Implications for Michigan's Creative Economy

In other jurisdictions, thriving creative economies frequently point to diversity of populations as a foundational prerequisite for the promotion of innovation. Attracting and retaining young talent with future-ready skills requires placemaking, progressive urban conditions, and access to culture as well as good wages and housing. Corporations wishing to employ stellar candidates are incorporating policies that encourage broad acceptance of differences and fair treatment of all employees.■

12. Roelofs, T. (2016). *Young talent continues to flee Michigan*. [online] Bridge Michigan. Available at: <http://bridgemi.com/2016/01/migration-graphics/> [Accessed 16 Jan. 2016]

Contextual Challenge Shift

Transferable Competencies

Characteristics of the Shift

The pace of global change leaves many people anxious about how they will participate in the economy. Preparing for the jobs of the future through the pursuit of Science, Technology, Engineering and Math (STEM) is part of the answer. But to silo creative practice at the fringes is to waste powerful thinking and to overlook innovation potential. What if art in Michigan moved from being hung on hospital walls to contributing to diagnosis and curing in healthcare? How could design thinking ensure that renewable energy was more efficient? What contribution might cultural workers make to immigrant resettlement?

The passage of the Every Student Succeeds Act signed into federal law in December 2015 brings the arts back as a core academic subject with STEM. This long overdue reauthorization holds great promise for restoring arts education as central to the school day and ending the current patchwork waiver system.¹

Future-ready work skills mirror many of the inherent competencies of those in the creative occupations, including both practical techniques and creative abilities. Artists, designers and cultural workers have made inroads by being present at the decision-making table in areas such as city building and social justice. But a key hurdle to valuing diverse thinking is the barrier of “credentialism” that persists, protecting the boundaries of professions and excluding those with transformational input but lacking specialized status. Critical thinking and social engagement must be increasingly valued particularly within STEM as computerization advances into every aspect of our lives.

Selected Confirming Signals of Change

- “Accountancy firm Ernst and Young, one of the UK’s biggest graduate recruiters is to remove degree classification from the entry criteria for its hiring programmes, having found “no evidence” that success at university was correlated with achievement in professional qualifications.”²
- “Recognizing the value of arts education in the classroom, Boeing and the Centre of Creative Arts in St. Louis are supporting teachers who integrate arts into hands-on science, technology, engineering and mathematics (STEM) learning. The program coaches elementary school teachers to integrate arts and science education in their classrooms so students can develop habits of mind, through the creative process, that are essential for future scientists and engineers.”³

1. O. McClanahan, K. and Shingleton, E. (2015). *2015: what a year for the arts!* | *ARTS Blog*. [online] Blog. americansforthearts.org. Available at: <http://blog.americansforthearts.org/2015/12/23/2015-what-a-year-for-the-arts#sthash.niLB14IZ.dpuf> [Accessed 24 Jan. 2016].

2. Havergal, C. (2015). *Ernst and Young drops degree classification threshold for graduate recruitment*. [online] Times Higher Education (THE). [Accessed 3 Jan. 2016].

3. The Boeing Company, (2014). *2014 Corporate Citizenship Report*. [online] Boeing. Available at: http://www.boeing.com/resources/boeingdotcom/principles/community-engagement/pdf/reports/Boeing_2014_CitizenshipReport.pdf [Accessed 28 Nov. 2015].

-
- “A University of Illinois researcher, Ben Grosser, is designing a robot – actually a computer system – that will communicate with humans through jazz improvisation and provide insight into artificial intelligence and human computer interaction. The project – called MUSICA (Musical Improvising Collaborative Agent) – is part of the Defense Advanced Research Projects Agency’s new Communicating with Computers program, which aims to “enable symmetric communication between people and computers,” where computers are collaborators just like people are. The jazz robot is an unconventional approach to the problem.”⁴
 - “Education in the arts is more important than ever. In the global economy, creativity is essential. Today’s workers need more than just skills and knowledge to be productive and innovative participants in the workforce. Just look at the inventors of the iPhone and the developers of Google: they are innovative as well as intelligent. Through their combination of knowledge and creativity, they have transformed the way we communicate, socialize, and do business. Creative experiences are part of the daily work life of engineers, business managers, and hundreds of other professionals. To succeed today and in the future, America’s children will need to be inventive, resourceful, and imaginative. The best way to foster that creativity is through arts education.”⁵
 - “A team of engineers and an artist developed an array of small solar cells that can tilt within a larger panel, keeping their surfaces more perpendicular to the sun’s rays... Solar cell researchers think of tracking in terms of how much of a solar panel the sun can “see.” When the panel is at an angle, it looks smaller. By designing an array that tilts and spreads apart when the sun’s rays are coming in at lower angles, they raise the effective area that is soaking up sunlight. To explore patterns, the team of engineers worked with paper artist Matthew Salian, a lecturer in the U-M School of Art and Design. Shlian showed [principal investigators] Lamoureux and Shtein how to create them in paper using a plotter cutter. Lamoureux then made more precise patterns in Kapton, a space-grade plastic, using a carbon-dioxide laser.”⁶
 - “Before IAA (Integrated Arts Academy) became an arts-integrated magnet school, only 17 percent of its third-graders were proficient in math on the NECAP test, Vermont’s standardized test. After five years, 66 percent met and achieved the standards. The school still has high levels of poverty, although now that poverty is less concentrated, and there are still high numbers of English-language learners and non-English speaking families. Riley says referrals to the office are almost nonexistent during arts integration periods, and students and their families are more engaged with the school.”⁷

4. Heckel, J. (2015). Jazz-playing robot will provide insight into how computers communicate with humans. *Illinois News Bureau*. [online] Available at: <https://news.illinois.edu/blog/view/6367/262896> [Accessed 10 Dec. 2015].

5. Dwyer, M (2011). *Reinvesting in Arts Education: Winning America’s Future Through Creative Schools*

6. McAlpine, K. (2015). Inspired by art, lightweight solar cells track the sun. University of Michigan Regents: Michigan News. [online] Available at: <http://ns.umich.edu/new/multimedia/videos/23109-inspired-by-art-lightweight-solar-cells-track-the-sun> [Accessed 3 Jan. 2016].

- According to the 2012 Arts Education in Michigan baseline study, at least 108,000 students attend school each day without arts education, based on 20% response rate from school principals statewide.⁸

Opportunities Arising

- Fertile ground for new innovation is prepared in an atmosphere of multi- and trans-disciplinary collaboration.
- Creative competencies include transferable skills that are applicable in other domains (for example, criticism and curatorial practice is useful in a world awash in information). How might those skills be proactively incorporated into Michigan's identified economic priority sectors of agriculture, health, energy, manufacturing, and IT? These sectors have been classified as growth sectors by Michigan Economic Development Corporation.⁹
- Cross-disciplinary education is increasingly encouraged in university settings.

Challenges Arising

- More complex mechanisms are required for maintaining quality and rigor within a multi-dimensional and multi-professional condition. When teams made up of different practitioners with different professional standards are involved in providing solutions, a means for harmonizing their inputs and recognizing boundary overlaps is necessary. For example, artists are working with healthcare clinicians to provide cultural safety for aboriginal patients as they overcome communication barriers.¹⁰ Team based outcome evaluation could be beneficial.
- Arts and creative learning need to be integrated across curriculums in the school system at a time when budget constraints are present. The arts are critical to shaping talent beyond the professional pathways of the creative industries.

Implications


New understanding of non-traditional expertise is required. In many professional domains such as healthcare and education, siloed professional practice and credential granting is tightly controlled through member monitoring regulatory bodies. Merit based testing and certification is an approach to broadening participation. ■

7. Schwartz, K. (2015). How Integrating Arts Into Other Subjects Makes Learning Come Alive. *KQED News*. [online] Available at: <http://ww2.kqed.org/mindshift/2015/01/13/how-integrating-arts-into-other-subjects-makes-learning-come-alive/> [Accessed 14 Nov. 2015].

8. Michigan Youth Arts. (2012). *Arts Education in Michigan: Fostering Creativity and Innovation*, Royal Oak.

9. Michigan Economic Development Corporation, (n.d.). *Growing Industries In Michigan | MichiganBusiness*. [online] Available at: <http://www.michiganbusiness.org/grow/industries/#auto-intro> [Accessed 15 Jan. 2016].

10. Gerlach, A. (2012). *Steps in the Right Direction: Connecting & Collaborating in Early Intervention Therapy with Aboriginal Families & Communities in British Columbia*, [online] Available at: https://www.acc-society.bc.ca/files_2/documents/StepsintheRightDirection2007.pdf [Accessed 13 Jan. 2016].



Tinker. Hack. Invent. is a weekly hands-on celebration of American ingenuity at the Henry Ford Museum in Dearborn, Michigan.

Photo Credit: KMS Photography

CASE STUDY: EXPERIENCING INNOVATION

The Henry Ford

From the museum and factory tour, to TV and now online the Henry Ford continues to cultivate and inspire innovation.

American Innovation has been a driving force at The Henry Ford since its earliest beginnings over 80 years ago. Ford himself had a fascination with objects that represented American ingenuity and resourcefulness and collected many examples over his lifetime. He saw his collection as a way to inspire the next crop of innovators and opened it to the public in 1929. The first incarnation of The Henry Ford was a school. It was founded on the belief that the genius of the American people was not being addressed in textbooks from kindergarten to the 12th grade. Continuing the tradition of educating future innovators, the institution encompasses the Henry Ford Academy, an on-site public charter high school that nurtures 485 students a year.

From the foundations of education innovation, this internationally

recognized cultural institution has been built into a national historic landmark with five unique attractions: The Henry Ford Museum, the historic Greenfield Village, The Ford Rouge Factory Tour, The Henry Ford IMAX® Theatre and the Benson Ford Research Center.

The Henry Ford has made a special effort over the last eight years to move innovation to the forefront of the museum's story. In 2010, the content-rich educational initiative, OnInnovation.com was launched featuring oral histories of great innovators such as Steve Wozniak, Bill Gates and Elon Musk. Four years later, the institution's first-ever national television series "Innovation Nation" was introduced to the public. Hosted by news correspondent and humorist, Mo Rocca, the series profiles contemporary innovators and inventors and brings worldwide

recognition to its collections. The Emmy Award winning show is broadcast on U.S. Armed Forces bases around the world as well in Australia, New Zealand, Central Europe and Asia.

In 2016, The Henry Ford will launch its new website and digital experience initiative that will bring its collection to global audiences. While the institution has over 26 million 2D and 3D artifacts in its collection, only a small proportion is actually on display. The Henry Ford's multi-million dollar commitment to digitizing its collection will allow visitors onsite and online to interact with a vast storehouse of artifacts. Robust metadata about each item will foster deeper learning about its significance and its connection to other artifacts in the collection. ■

A large, bold, white number '6' is centered on a purple rectangular background. The background of the entire page is a photograph of a modern building with a complex, faceted glass facade, tinted with a purple hue. Silhouettes of people are visible in the foreground, and a construction worker in a hard hat is partially visible on the left edge.

6

**Next
Steps**

Recommendations

Left: Detroit lights up at Dlectricity with work by StereoNegative's A Tribute to Tony Smith.

Photo: Sarah Nesbitt,
Creative Many Michigan

This report is built on two streams of information to establish the value and significance of the creative economy of Michigan both now and into the future. Quantitative measures of the creative industries and occupations provide signposts that can be monitored over time and compared with other similar data. Qualitative inputs provide contextual enhancements that allow for deeper understanding of motivations and aspirations of stakeholders related to this subject, as well as an interpretive assessment of potential future challenges. Together, these elements suggest the following three imperatives be addressed.

1. Acknowledge the foundational importance of art, culture, design and creativity in creating the preconditions for prosperity, resilience and social cohesion in Michigan.

- Continue to measure the size and distribution of creative industries and occupations; expand research to monitor their larger economic and social impact and their interconnections with the wider economy.
- Convene and moderate cross-disciplinary discussions with community stakeholders to promote understanding, to seek input, and to build consensus regarding appropriate directions and priorities for policy and investment in the creative economy.
- Using the above input, define a creative economy agenda for Michigan, with strategies to actively engage Michigan's creative industries. Their role as strategic innovators and contributing forces across Michigan's economy, in the vibrancy of Michigan's communities and in the education of Michigan's children to be the leaders, innovators and creative talent for the future must be included.
- Collect, curate and disseminate case studies to clarify benefits to economic decision makers, policy makers, practitioners and the wider community.
- Share creative industries research and recommendations with community and economic development leaders in Michigan, including prosperity regions, and local, regional and statewide economic development agencies to integrate findings and opportunities in strategic development plans.

2. Build a healthy and vibrant art, culture, and design ecosystem throughout Michigan.

- Advocate for access to high quality, consistent, sequential and standards-based education in and through art, design, culture and creativity in schools at all levels pre-K to 12, and in partnership with Michigan's arts and cultural institutions.
- Advocate for the inclusion of creativity as a fundamental competency in undergraduate education and establish pathways to creative occupations.
- Support mid-sized organizations and businesses through policy and incentives to balance the creative ecosystem, and continue to support small or start-up groups.
- Advocate for broad, affordable and equitable access to creative technology.
- Help to articulate the balanced roles of commerce and creative practice through continued support of practitioners and communication to partners.
- Establish diversified investments, policies and strategies that re-position Michigan's film and digital media industries for competitive advantage in Michigan and the U.S.

3. Deploy art, culture, design and creativity in re-imagining the future of Michigan.

- Encourage creative placemaking and placekeeping as means to build dynamic thriving communities, to attract and retain talent, and to promote tourism.
- Encourage the engagement of artists, creatives and designers as leaders in community planning and development, and civic engagement to bring communities together to explore issues, resolve community challenges and imagine new futures.
- Envision new models of diversity and inclusion by engaging the creative sector in removing barriers to participation, and embrace discourse with a wider community.
- Use Michigan's authentic competencies in design to create competitive advantage by activating procurement of and investment in design services in both the public and private sector.
- Use creative engagement and storytelling techniques to frame new narratives about the nature of work, the opportunities for creative industries, and Michigan's place in a changing world.

Recommendations for Further Research

In addition to the continuation of annual updates and assessments of data regarding creative industries and occupations in Michigan, the following research territories are recommended.

1. Work together with other Creative Economy researchers to propose new classifications and measures to better measure Creative Industries and Creative Occupations.
2. Consider exploration of Nesta's Creative Cluster mapping for strategic application in Michigan.
3. Pursue additional research on ways that art and design competencies are being transferred to new areas of work in Michigan and elsewhere.
4. Pursue additional research to explore how the sector might want to express its role as a driver of growth and as a creator of innovation and knowledge, following on prior research conducted by Potts and Cunningham in "Four Models of the Creative Industries" (2008).
5. Pursue research to gain a deeper understanding of unemployment and underemployment in Michigan over all, and in the creative industries in particular, to contextualize whether the rate of employment gains is appropriate relative to peak employment levels.



7

Conclusion

Conclusion

Left: Michigan's bands recording at the Michigan House in Austin 2015, showcasing an array of emerging musicians and talent from the Mitten State.

Photo: Shutter Sam

Creative economy research around the world has made the case that economies with robust creative industries are outperforming their peers economically. Creative workers also participate in building livable, inclusive and equitable communities. Their future-ready skills are seen to be resilient to the challenges of a rapidly changing employment landscape. When creativity is integrated into all industries the potential for innovation grows.

Michigan's legacy of impactful art, culture and design provides a tremendous platform for building creative capacity that benefits the whole economy and all of society moving forward. Many of today's creative industries are thriving, some are undergoing transformation in the face of serious external pressures, and some require significant support as populations and economic priorities shift. This document details the specific conditions in various regions and for individual industry clusters and highlights three important sector ecosystems that will impact that future.

Growth in employment and wages in all industries in Michigan has outpaced the creative industries that are the focus of this study. All stakeholders, including policymakers, businesses, funders, educators, practitioners and citizens, need to embrace the potential impact of the creative economy and support its expansion. Creative Michigan will continue to contribute significantly to these objectives by executing its mission: to develop creative people, creative places and the creative economy for a competitive Michigan through research, advocacy, professional practice, funding and communications. A healthy and distributed creative economy builds opportunity for people, businesses and communities in all of Michigan.

Acknowledgements

This report is made possible by the generous contributions of time, ideas, perspectives and commitment aimed at positioning the arts, culture, creativity and design as essential forces in Michigan's economy, communities and the education of our children.

Creative Many Michigan values the commitment of our Board of Directors to the importance of research to affirm the contributing forces of Michigan's creative industries, inclusive of the rich array of artists, arts and cultural organizations, creative practitioners, makers and designers - Michigan's "Creative Many." We acknowledge and thank our Creative Many staff team for its vision, leadership, expertise and determination to position our Creative State Michigan research, and this 2016 report, for strategic impact and influence to advance opportunities for Michigan's creative industries.

Creative Many thanks the many community and industry leaders that shared time, expertise and perspectives as part of the Thought Leader Interviews, Regional Three Horizons Workshops and Creative Economy Policy Summit that were instrumental in engaging community voices in defining the opportunities and challenges facing Michigan's creative sector, in key regions and statewide.

Creative Many lends its deepest appreciation to KerrSmith Design of Toronto, Ontario, our consultant partners in the design and development of this research study who have contributed valuable expertise and new perspectives, challenging us throughout our work together to envision a bolder future for Michigan's creative industries. We are also grateful to Data Driven Detroit for their additional research support for this report.

And finally, we thank you - the reader - for your commitment to explore the information and opportunities presented in this report. We urge you to take part in sharing it with your community leaders and working with us to position Michigan's creative industries for strategic growth opportunities statewide.

Our Funding Partners

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8

Appendices

List of Appendices

Left: Michigan's "hard-earned" style affirms the power of design and creativity statewide.

Photo Credit: Shutter Sam

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- p. 155 **Appendix 6** Qualitative Research: List of Interviewees

Studies Reviewed

Bakhshi, H., Freeman, A. & Higgs, P. (2013). *A Dynamic Mapping of the UK's Creative Industries*, London.

Bakhshi, H., Hargreaves, I. & Mateos-Garcia, J. (2013). *A Manifesto For The Creative Economy*, London.

Bakhshi, H., McVittie, E. & Simmie, J. (2008). *Creating innovation. Do the creative industries support innovation in the wider economy?*, London.

Boston Redevelopment Authority (2004). *Boston's Creative Economy*, Boston.

City of Austin (2012). *The Economic Impact of the Creative Sector in Austin - 2012 UPDATE*, Austin.

City of Minneapolis (2013). *Minneapolis Creative Vitality Index Report 2013*, Minneapolis.

City of New Orleans (2013). *2013 New Orleans Cultural Economy Snapshot*, New Orleans.

City of San Antonio (2011). *San Antonio Creative Industry 2011 Report*, San Antonio.

City of Toronto (2011). *Creative Capital Gains: An Action Plan for Toronto*, Toronto.

Creative Alliance Milwaukee (2011). *Creative Industries. A New Economic Growth Opportunity for the Milwaukee 7 Region*, Milwaukee.

Creative Skillset, (2013). *Classifying and Measuring the Creative Industries*, London.

DeNatale, D. & Wassall, G.H. (2007). *The Creative Economy: A New Definition*.

Department of Culture, Media & Sport (UK), (2014). *Creative Industries : Focus on Employment.*, (June).

Foord, J. (2014). Strategies for Creative Industries: An International Review. *Creative Industries Journal*, 1(2).

Galloway, S. & Dunlop, S. (2007). A Critique of Definitions of the Cultural and Creative Industries in Public Policy. *International Journal of Cultural Policy*, 13(1).

Harris, C., Collins, M. & Cheek, D. (2013). *America's Creative Economy: A Study of Recent Conceptions, Definitions, and Approaches to Measurement across the USA*, Oklahoma City.

Inter-American Development Bank (2014). *The Economic Impact of the Creative Industries in the Americas*, Washington.

Kleinhenz, R.A. et al. (2015). *2014 Otis Report on the Creative Economy of the Los Angeles Region*, Los Angeles, California.

Markusen, A. et al. (2008). Defining the Creative Economy: Industry and Occupational Approaches. *Economic Development Quarterly*, 22(1).

Ministry of Tourism and Culture (2010). *Ontario's Entertainment & Creative Cluster*, Toronto.

Mississippi Arts Commission (2014). *Mississippi's Creative Economy Study: Realizing the Economic Potential of Creativity in Mississippi*, Jackson.

Nesta (2008). *Beyond the Creative Industries: Making Policy for the Creative Industries.*, (January).

Nesta (2013). *A Manifesto for the Creative Economy*.

North Carolina Department of Cultural Resources (2009). *Economic Contribution of the Creative Industry in North Carolina*, Raleigh.

Novak-Leonard, J. (2014). *Measuring Chicago's (Artistically) Creative Economy*,

O'Connor, J. (2010). *The cultural and creative industries : a literature review* 2nd Edition.

Potts, J. & Cunningham, S. (2008). Four models of the creative industries. *International Journal of Cultural Policy*, 14(3).

Pratt, A.C., Jeffcutt, P. & Beech, N., 2009. *Creativity, Innovation and the Cultural Economy*.

Pratt, A. & Jeffcutt, P. (2009). Creativity, Innovation and the Cultural Economy: Snake Oil for the 21st Century? In *Creativity, Innovation and the Cultural Economy*. London.

Restrepo, F.B. & Marquez, I.D. (2013). *The Orange Economy*, Washington.

Rosenfeld, S. (2008). *The State of Colorado's Creative Economy*, Carroboro.

Stolarick, K. & Musante, L. (2014). *Pittsburgh's Creative Clusters: What could Pittsburgh look like in 2020?*, Pittsburgh, Pennsylvania.

Taylor, D. et al. (2010). *Canada's Creative Corridor*, Peterborough.

Throsby, D. (2007). *Modelling the Creative/Cultural Industries*, Edinburgh.

Washington State Arts Commission (2013). *Creative Vitality in Washington State*, Olympia.

Warwick Commission, (2015). *Enriching Britain: Culture, Creativity and Growth.*, Coventry: The University of Warwick.

UNESCO, (2013). *UN Creative Economy Report 2013 Special Edition*, Paris.

Limitations of Data & Sources

Quantitative Research

In 2014, Creative Many released its first Creative State Michigan Creative Industries Report; prior reports since 2012 had focused solely on the nonprofit cultural sector. The 2014 report provided an overview of employment and wages for 67 creative industries in 10 creative industry clusters for 2011. This report draws on employment and wage data from 101 creative industry codes, 43 nonemployer codes, and 48 creative occupation codes. This report includes data from a significantly larger set of codes and has been updated to include updated 2011 data, revised since the 2014 report was released. This enables a comparison over the years 2011 to 2014.

QCEW Data

The QCEW source data for industries at the county level are reported by ownership, for example private or local/state/federal government ownership. Values have been aggregated across all ownership levels. Additionally, industry values for Michigan are manual summations across all counties for a particular industry. Because data may be suppressed for a particular type of owner, true values will always be greater than or equal to the industry values presented in this report.

QCEW values are suppressed to prevent disclosure of identifiable employer information, e.g. if there is only one employer for a particular industry. Data suppression is also applied when the data can be used to derive sensitive information about a particular employer. Geographies at higher geographic levels (e.g., state or national) will include data that may have been suppressed at the county or MSA level. Suppression applies to employment levels and annual wages; establishment numbers are fully disclosed at the county level. For more information, visit <http://www.bls.gov/cew/cewfaq.htm#Q12>.

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages; Data Driven Detroit. Created December, 2015.

OES Data

Although the OES survey methodology is designed to create detailed cross-sectional employment and wage estimates for the U.S., states, metropolitan and nonmetropolitan areas, across industry and by industry, it is less useful for comparisons of two or more points in time. Challenges in using OES data as a time series include changes in the occupational, industrial, and geographical classification systems, changes in the way data are collected, changes in the survey reference period, and changes in mean wage estimation methodology, as well as permanent features of the methodology.

It is to be noted that OES data is collected at regular points during a year, incorporating new information and discarding the old at six-month intervals. Given that this information represents a three-year moving average, only data from 2011 and 2014 have been reported on for occupations.

Suppression: OES data is suppressed either because of confidentiality or data quality. For more information, visit http://www.bls.gov/oes/oes_ques.htm#other.

Source: U.S. Bureau of Labor Statistics, Occupational Employer Statistics; Data Driven Detroit. Created December, 2015.

NES Data

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.

NES establishment and/or sales data values are suppressed either to prevent disclosing information regarding individual businesses or because the data does not meet publication standards. Establishment numbers are disclosed only if they come from three or more businesses, regardless of geographic level. If more than 40 percent of either receipts or firms in a published data cell are from firms with an imputed industry classification, both items are suppressed. Suppressed data are included in higher geographic levels, provided that the data is not suppressed at that level.

For more information, please visit <https://www.census.gov/econ/nonemployer/methodology.htm#withheld>.

Source: U.S. Census Bureau, Nonemployer Statistics; Data Driven Detroit. Created December, 2015.

Creative Industries Employees versus Creative Occupations

The number of workers captured by an industry sector NAICS code is not directly comparable to the number of workers in an occupation code. The employment level data provided by NAICS codes reflects all types of workers employed by establishments in that industry. This includes creative and non-creative workers. The SOC codes reflect employment and wage data for creative occupations, whether those occupations are situated within a creative industry or a non-creative industry.

Qualitative Research

Thought Leader Interviews and Regional Workshop Participants

The group of participants involved in qualitative research was not designed to be wholly representative of Michigan's creative economy stakeholder population. Rather, their contributions provided important perspectives for contextualizing the employment data. Similarly, there was no attempt to be completely geographically representative of the state. Participants were selected for multiple reasons that include their professional experience, discipline and proximity to the location of region workshops.

Quantitative Research: List of Codes

Advertising

NAICS (NES)

5418 Advertising, Public Relations, and Related Services

NAICS (QCEW)

541810 Advertising Agencies
541820 Public Relations Agencies
541830 Media Buying Agencies
541840 Media Representatives

SOC (OES)

11-2011 Advertising and Promotions Managers
11-2021 Marketing Managers
11-2031 Public Relations Managers
27-3031 Public Relations Specialists

Architecture

NAICS (NES)

5413 Architectural, Engineering, and Related Services

NAICS (QCEW)

332323 Ornamental and Architectural Metal Work Manufacturing
337212 Custom Architectural Woodwork and Millwork Manufacturing
541310 Architectural Services
541320 Landscape Architectural Services

SOC (OES)

17-1011 Architects, Except Landscape and Naval
17-1012 Landscape Architects
17-3011 Architectural and Civil Drafters
25-1031 Architecture Teachers, Postsecondary

Art Schools, Artists & Agents

NAICS (NES)

4539 Other Miscellaneous Store Retailers
7114 Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
7115 Independent Artists, Writers, and Performers

NAICS (QCEW)

611610 Fine Arts Schools
711410 Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
711510 Independent Artists, Writers, and Performers

Source: U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

SOC (OES)

13-1011 Agents and Business Managers of Artists, Performers, and Athletes
25-1121 Art, Drama, and Music Teachers, Postsecondary
25-1123 English Language and Literature Teachers, Postsecondary

Creative Technology**NAICS (NES)**

5191 Other Information Services

NAICS (QCEW)

511210 Software Publishers
519130 Internet Publishing and Broadcasting and Web Search Portals

SOC (OES)

15-1131 Computer Programmers
15-1132 Software Developers, Applications
15-1179 Information Security Analysts, Web Developers, and Computer Network Architects

Culture & Heritage**NAICS (NES)**

7121 Museums, Historical Sites, and Similar Institutions

NAICS (QCEW)

519120 Libraries and Archives
712110 Museums
712120 Historical Sites

SOC (OES)

25-4012 Curators
25-4013 Museum Technicians and Conservators
25-4021 Librarians
25-4031 Library Technicians

Design**NAICS (NES)**

3399 Other Miscellaneous Manufacturing
4232 Furniture and Home Furnishing Merchant Wholesalers
4234 Professional and Commercial Equipment and Supplies Merchant Wholesalers
4239 Miscellaneous Durable Goods Merchant Wholesalers
4511 Sporting Goods, Hobby, and Musical Instrument Stores
5414 Specialized Design Services

Source: U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

Quantitative Research: List of Codes cont'd

NAICS (QCEW)

337110	Wood Kitchen Cabinet and Countertop Manufacturing
337121	Upholstered Household Furniture Manufacturing
337122	Nonupholstered Wood Household Furniture Manufacturing
337124	Metal Household Furniture Manufacturing
337125	Household Furniture (except Wood and Metal) Manufacturing
337127	Institutional Furniture Manufacturing
337211	Wood Office Furniture Manufacturing
337214	Office Furniture (except Wood) Manufacturing
339930	Doll, Toy, and Game Manufacturing
423210	Furniture Merchant Wholesalers
423220	Home Furnishing Merchant Wholesalers
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers
451120	Hobby, Toy, and Game Stores
541340	Drafting Services
541410	Interior Design Services
541420	Industrial Design Services
541430	Graphic Design Services
541490	Other Specialized Design Services

SOC (OES)

27-1011	Art Directors
27-1021	Commercial and Industrial Designers
27-1024	Graphic Designers
27-1025	Interior Designers
27-1027	Set and Exhibit Designers
27-1029	Designers, All Other

Fashion, Garment & Textile

NAICS (NES)

3161	Leather and Hide Tanning and Finishing
3162	Footwear Manufacturing
3169	Other Leather and Allied Product Manufacturing

NAICS (QCEW)

313110	Fiber, Yarn, and Thread Mills
313210	Broadwoven Fabric Mills
313220	Narrow Fabric Mills and Schiffli Machine Embroidery
313230	Nonwoven Fabric Mills
313240	Knit Fabric Mills
313310	Textile and Fabric Finishing Mills
313320	Fabric Coating Mills
314110	Carpet and Rug Mills
314120	Curtain and Linen Mills
314910	Textile Bag and Canvas Mills
314994	Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills
314999	All Other Miscellaneous Textile Product Mills
315110	Hosiery and Sock Mills

Source: U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

315190 Other Apparel Knitting Mills
 315210 Cut and Sew Apparel Contractors
 315220 Men's and Boys' Cut and Sew Apparel Manufacturing
 315240 Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing
 315280 Other Cut and Sew Apparel Manufacturing
 315990 Apparel Accessories and Other Apparel Manufacturing
 316110 Leather and Hide Tanning and Finishing
 316210 Footwear Manufacturing
 316998 All Other Leather Good and Allied Product Manufacturing

SOC (OES)

41-9012 Models
 51-6050 Tailors, Dressmakers, and Custom Sewers
 51-6051 Sewers, Hand
 51-6092 Fabric and Apparel Patternmakers
 27-1022 Fashion Designers

Film, Audiovisual & Broadcasting

NAICS (NES)

5121 Motion Picture and Video Industries

NAICS (QCEW)

512110 Motion Picture and Video Production & Manufacturing
 512120 Motion Picture and Video Distribution, Dissemination & Support Services
 512131 Motion Picture Theaters (except Drive-Ins)
 512132 Drive-In Motion Picture Theaters
 512191 Teleproduction & Manufacturing and Other Postproduction & Manufacturing Services
 512199 Other Motion Picture and Video Industries
 515120 Television Broadcasting
 515210 Cable and Other Subscription Programming
 517110 Wired Telecommunications Carriers
 519110 News Syndicates

SOC (OES)

25-1122 Communications Teachers, Postsecondary
 25-9011 Audio-Visual Collections Specialists
 27-1014 Multi-Media Artists and Animators
 27-3011 Radio and Television Announcers
 27-3022 Reporters and Correspondents
 27-3099 Media and Communication Workers, All Other
 27-4011 Audio and Video Equipment Technicians
 27-4012 Broadcast Technicians
 27-4014 Sound Engineering Technicians
 27-4031 Camera Operators, Television, Video, and Motion Picture
 27-4032 Film and Video Editors
 27-4099 Media and Communication Equipment Workers, All Other

Source: U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

Quantitative Research: List of Codes cont'd

Literary, Publishing & Print

NAICS (NES)

3231	Printing and Related Support Activities
4249	Miscellaneous Nondurable Goods Merchant Wholesalers
4512	Book Stores and News Dealers

NAICS (QCEW)

323111	Commercial Printing (except Screen and Books)
323113	Commercial Screen Printing
323117	Books Printing
424920	Book, Periodical, and Newspaper Merchant Wholesalers
451211	Book Stores
451212	News Dealers and Newsstands
511110	Newspaper Publishers
511120	Periodical Publishers
511130	Book Publishers
511191	Greeting Card Publishers
511199	All Other Publishers

SOC (OES)

27-3041	Editors
27-3043	Writers and Authors

Music

NAICS (NES)

5122	Sound Recording Industries
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NAICS (QCEW)

339992	Musical Instrument Manufacturing
451140	Musical Instrument and Supplies Stores
512210	Record Production & Manufacturing
512220	Integrated Record Production & Manufacturing/Distribution, Dissemination & Support Services
512230	Music Publishers
512240	Sound Recording Studios
512290	Other Sound Recording Industries
515111	Radio Networks
515112	Radio Stations
711130	Musical Groups and Artists

SOC (OES)

27-2041	Music Directors and Composers
27-2042	Musicians and Singers

Source: U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

Performing Arts

NAICS (NES)

7111	Performing Arts Companies
7113	Promoters of Performing Arts, Sports, and Similar Events

NAICS (QCEW)

71110	Theater Companies and Dinner Theaters
71120	Dance Companies
71190	Other Performing Arts Companies
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities

SOC (OES)

27-2011	Actors
27-2012	Producers and Directors
27-2099	Entertainers, Performers, Sports and Related Workers, All Other

Visual Arts

NAICS (NES)

4483	Jewelry, Luggage, and Leather Goods Stores
4532	Office Supplies, Stationery, and Gift Stores
5419	Other Professional, Scientific, and Technical Services

NAICS (QCEW)

339910	Jewelry and Silverware Manufacturing
423410	Photographic Equipment and Supplies Merchant Wholesalers
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
448310	Jewelry Stores
451130	Sewing, Needlework, and Piece Goods Stores
453220	Gift, Novelty, and Souvenir Stores
453920	Art Dealers
541921	Photography Studios, Portrait
541922	Commercial Photography

SOC (OES)

27-1012	Craft Artists
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators
27-4021	Photographers
51-9071	Jewelers and Precious Stone and Metal Workers
51-9123	Painting, Coating, and Decorating Workers

Source: U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

Quantitative Research: Benchmarking

Creative Industries Ranked by State

Creative Industries Employees as Percentage of All Employees in the State

State	2014 Creative Industries Employees	2014 State Employees	Creative Industries Employees as Percentage of All Employees in the State
California	784,187	15,809,082	4.96%
Washington	135,717	3,043,562	4.46%
Massachusetts	137,389	3,360,035	4.09%
Minnesota	73,005	2,730,301	2.67%
Pennsylvania	134,969	5,644,443	2.39%
Texas	269,509	11,379,184	2.37%
Wisconsin	61,759	2,758,496	2.24%
Michigan	88,761	4,090,009	2.17%
Ohio	112,222	5,183,462	2.17%
Louisiana	29,154	1,923,745	1.52%

Creative Industries Wages as Percentage of All Wages in the State

State	2014 Creative Industries Wages	2014 State Total Wages	Creative Industries Wages as Percentage of All Wages in the State
Washington	\$16,211,526,925	\$167,444,529,426	9.68%
California	\$80,449,380,228	\$933,404,857,793	8.62%
Massachusetts	\$10,842,598,707	\$215,387,225,022	5.03%
Minnesota	\$4,331,106,836	\$140,889,422,423	3.07%
Wisconsin	\$3,318,315,686	\$120,902,369,229	2.74%
Texas	\$16,442,196,974	\$605,573,335,013	2.72%
Pennsylvania	\$7,454,731,962	\$285,425,202,246	2.61%
Michigan	\$4,970,713,432	\$198,310,706,147	2.51%
Ohio	\$5,726,068,453	\$238,441,262,372	2.40%
Louisiana	\$1,312,718,029	\$87,215,044,364	1.51%

Creative Industries Establishments as Percentage of All Establishments in the State

State	2014 Creative Industries Establishments	2014 State Total Establishments	Creative Industries Establishments as Percentage of All Establishments in the State
Minnesota	8,629	164,799	5.24%
Massachusetts	12,041	231,749	5.20%
California	67,698	1,372,950	4.93%
Ohio	13,488	288,995	4.67%
Michigan	10,706	236,461	4.53%
Pennsylvania	15,274	346,303	4.41%
Texas	27,029	623,544	4.33%
Washington	9,843	242,942	4.05%
Wisconsin	6,543	163,938	3.99%
Louisiana	4,944	124,300	3.98%

Source: QCEW data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used see Appendix 3 on page 144.

Creative Occupations Ranked by State

Percentage Change in Employment for Creative Occupations (2011-2014)

State	2011 Employment	2014 Employment	Percentage Change in Employment
Louisiana	18,030	23,660	31.23%
Washington	96,030	113,880	18.59%
California	449,040	494,860	10.20%
Pennsylvania	96,520	105,300	9.10%
Texas	197,380	210,220	6.51%
Massachusetts	109,410	115,130	5.23%
Michigan	62,990	65,260	3.60%
Minnesota	70,310	71,040	1.04%
Wisconsin	43,720	43,620	-0.23%
Ohio	77,080	76,860	-0.29%

Percentage Change in Wages for Creative Occupations (2011-2014)

State	2011 Average Annual Wages	2014 Average Annual Wages	Percentage Change in Wages
Washington	83,615.19	98,427.11	17.71%
Pennsylvania	67,376.77	73,640.77	9.30%
Michigan	65,187.60	70,614.57	8.33%
Massachusetts	82,635.07	88,801.09	7.46%
Louisiana	52,899.33	56,803.59	7.38%
California	88,717.93	95,022.89	7.11%
Wisconsin	63,664.33	67,886.99	6.63%
Minnesota	72,243.28	76,953.26	6.52%
Texas	71,547.73	76,031.35	6.27%
Ohio	66,072.68	69,925.25	5.83%

Based on the review of existing creative economy research within the United States, California, Louisiana, Massachusetts, Minnesota, Ohio, Pennsylvania, Texas, Washington and Wisconsin were identified as strategic comparative models for the 2016 Creative State Michigan Creative Industries research. Each of these states is home to an existing ecosystem of arts, culture, design and creative industries. In many cases, creative economy research has already been conducted in cities or regions within these states.

Source: OES data drawn from the U.S. Bureau of Labor Statistics. For a full list of codes used see Appendix 3 on page 144.

Qualitative Research: Creative Economic Policy Summit Program

Program Overview

The Summit brought together leading national, state and regional presenters in a series of facilitated conversations and exchange of ideas designed to build economic and social opportunity in and through the creative sector in Michigan. Highlights of the Summit sessions are provided below.

Strategic Growth Opportunities for Michigan's Creative Economy

Since 2012, Creative Many's Creative State MI research has affirmed the growing economic and social contributions of Michigan's creative economy – the arts, culture and creative industries. Phase 2 of this research, the new Creative Industries study, is intended to share the latest data/analysis and define leading opportunities to cultivate increased growth through these industries statewide. This session set the framework for Summit dialogue and shared advance highlights of this groundbreaking new research, considering external forces that influence creative sector growth and exploring the fundamental role of the creative economy in Michigan.

Jennifer H. Goulet, *President and CEO*, Creative Many Michigan introduced Helen Kerr, *President*, KerrSmith Design, who led the Phase 2 research.

Research + Policy for Growth

Why is research into the creative economy important? Does research contribute to better policymaking, advocacy and strategies for support and growth in the creative economy? This session invited national, international, regional and industry thought leaders to address these questions with an emphasis on turning research into actionable policies, practices and programs that stimulate growth.

Panelists

Sunil Iyengar, *Director*, Office of Research and Analysis, National Endowment for the Arts

Trinidad Zaldivar, *Chief*, Division of Cultural Affairs, Solidarity and Creativity, Inter-American Development Bank

Dennis Cheek, PhD, *Executive Director*, National Creativity Network

Cézanne Charles, *Director of Creative Industries*, Creative Many Michigan

Ellie Schneider, *Interim Executive Director*, Detroit Creative Corridor Study

Helen Kerr, *President*, KerrSmith Design, Moderator

Kenneth Krayner, *Executive Director*, Design West Michigan, Introduction

Remarks from the Governor's Office

Michael A. Finney, *Special Advisor for Economic Growth*, Governor's Office and Ara Topouzian, *President and CEO*, Troy Chamber of Commerce, presented their introductory comments.

The Power of Creativity in Place

How must we cultivate and invest in our creative assets as leaders engaging the diversity of community voices to influence economic growth, and where might the for profit, nonprofit and public sectors work more collaboratively? It is increasingly understood that the economy is only one of the factors at play in creating a vibrant, prosperous and inclusive community. In addition to understanding the economic development roles and contributions of the creative sector, it is also necessary to understand the other ways that artists, institutions, designers and creative businesses open new opportunities for communities to directly engage in defining their own futures, shape and connect to vibrant places and establish new possibilities for economic growth. This conversation between two leaders in national philanthropy explored how the creative ecosystem can and must be leveraged for greater influence and impact in the development of resilient, equitable and distinctive places.

Panelists

Katy Locker, *Program Director/Detroit*, John S. and James L. Knight Foundation, introduced Rip Rapson, *President and CEO*, The Kresge Foundation and Jamie Bennett, *Executive Director*, ArtPlace America.

Investing in the Creative Sector

This panel featured regional and national thought-leaders discussing investments, collaborations and partnerships in the creative sector that lead to positive social, civic and economic transformations. Specifically, the panel focused on new models for strategic investments and public/private partnerships and the importance of leveraging creative works to revitalize communities, expand access and opportunity and develop 21st century talent and skills.

Panelists

David Egner, *President and CEO*, New Economy Initiative
Helen Davis Johnson, *Program Officer*, The Kresge Foundation
Kristopher Larson, *Director*, Downtown Grand Rapids Inc.
Helen Leung, *Co-Executive Director*, LA-Más
Jennifer M. Acree, *Associate Program Officer*, C.S. Mott Foundation, Moderator
Debra Polich, *President and CEO*, The Arts Alliance and Artrain, Introduction

Qualitative Research: Creative Economic Policy Summit Program cont'd

Cultivating Creativity through Creative Education

Michigan's creative industries are sustaining and opening doors to economic growth across the state – through entrepreneurial start-ups, small business development, job creation, the industrial supply chain and competitive export opportunities. This continued growth is reliant on the ability to develop, retain and attract creative talent as the business sector places increasing value on creativity for a competitive advantage. This panel discussed the imperative of providing all students with a creative education to develop critical thinking, collaborative and creative skills in preparation for an ever-changing, diverse global economy.

Panelists

Curt Bailey, *President*, Sundberg Ferar

Brian Cloyd, *VP Global Corporation and Community Relations*, Steelcase

Cindy Todd, PhD, *Program Chair - Arts Education*, Kendall College of Art & Design

Patricia Wayne, *Program Director*, CREATE CA

Deborah Parizek, *Executive Director*, Henry Ford Learning Institute, Moderator

Sarah Gonzales Triplett, *Director of Public Policy*, Creative Many Michigan, Introduction

The Summit Planning Team included

George Jacobsen (Kresge Foundation)

Ken Kraye (Design West Michigan)

Ara Topouzian (Troy Chamber of Commerce)

Arnold Weinfeld (Prima Civitas)

and the Creative Many staff

Qualitative Research: List of Interviewees

1. Jeevak Badve, *Vice President, Strategic Growth*, Sundberg+Ferar (Walled Lake)
2. Toby Barlow, *Global Chief Creative Officer*, Team Detroit (Detroit)
3. Marsha Battle Philpot, Marsha Music (Detroit)
4. John Berry, *Director*, Design Thinking Initiative, Grand Valley State University (Grand Rapids)
5. Charles Boike, *Board Member*, Greater Flint Arts Council (Flint)
6. Elysia Borowy-Reeder, *Executive Director*, Museum of Contemporary Art Detroit (Detroit)
7. Jim Boyle, *Senior Program Officer*, New Economy Initiative (Detroit)
8. Andrew Bucholz, *Chair*, Michigan Council for the Arts and Cultural Affairs (Lansing)
9. Sooshin Choi, *Provost & Vice President for Academic Affairs*, College for Creative Studies (Detroit)
10. Matthew Clayson, *Executive Director*, Detroit Creative Corridor Center (Detroit)
11. JJ Curis, *Gallery Director*, Library Street Collective, Opportunity Detroit (Detroit)
12. Kenneth Fischer, *President*, University Musical Society, University of Michigan (Ann Arbor)
13. Ben Forta, *Senior Director, Education Initiatives*, Adobe (Oak Park)
14. Christian Gaines, *Executive Director*, Artprize, (Grand Rapids)
15. Rich Homberg, *President and CEO*, Detroit Public TV (Detroit)
16. Erik Howard, *Founder*, The Alley Project (Detroit)
17. Kevin T. Kerrigan, *Senior Vice President, Automotive Office*, Michigan Economic Development Corporation (Lansing)
18. Birgit Klohs, *President and CEO*, The Right Place (Grand Rapids)
19. Ken Kraye, *Executive Director*, Design West Michigan and *Adjunct Faculty*, Kendall College of Art and Design (Grand Rapids)
20. Jenny Lee, *Executive Director*, Allied Media Projects (Detroit)
21. Katy Locker, *Program Director/Detroit*, Knight Foundation (Detroit)
22. James Ludwig, *Vice President, Global Design and Product Engineering*, SteelCase Inc. (Grand Rapids)
23. Juanita Moore, *President and CEO*, Charles H. Wright Museum of African American History (Detroit)
24. George N'Namdi, *CEO*, N'Namdi Center for Contemporary Art (Detroit)
25. Gunalan Nadarajan, *Dean and Professor*, Penny W. Stamps School of Art and Design, University of Michigan (Ann Arbor)
26. Kevin Nixon, *Co-Founder*, Detroit Institute of Music Education (Detroit)
27. Melissa Price, *CEO*, dPOP, *Director of Facilities and Business Offices*, Quicken Loans (Detroit)
28. Rick Rogers, *President*, College for Creative Studies (Detroit)
29. Anya Sirota, *Co-Founder*, MODcar (Detroit)
30. Dayne Walling, *Former Flint Mayor*, (Flint)
31. Arnold Weinfeld, *CEO and Board Chair*, Prima Civitas Foundation (East Lansing)

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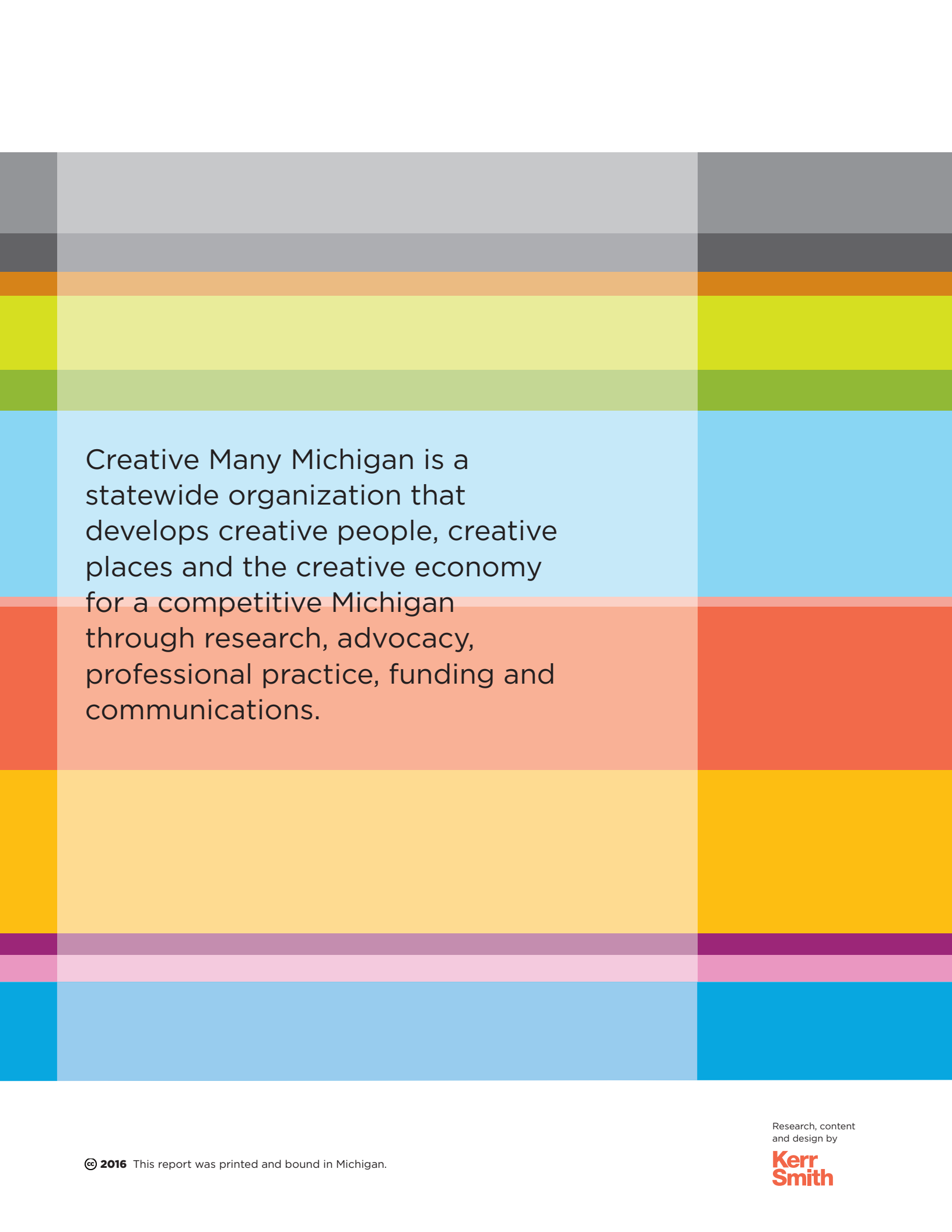
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Creative Many Michigan is a statewide organization that develops creative people, creative places and the creative economy for a competitive Michigan through research, advocacy, professional practice, funding and communications.