

Report to REI

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MAKER DETROIT 2.0

Wayne State University
Master of Urban Planning Program

STATE, REGIONAL AND LOCAL ECONOMIC DEVELOPMENT
[UP 6550 / ECO 6650 / PS 6440]
Winter Semester 2018



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Professor Robin Boyle

Detroit's Maker Economy 2.0

1. Introduction

What is the “maker economy”? For many commenting on national trends, this is a network of inventors, artisans and entrepreneurs dedicated to designing and making, and being committed to the places where they live. As the National League of Cities reported in their survey of the Maker Movement (2016), the “maker economy gained momentum from the increasing participation of all kinds of people in interconnected communities, defined by interests and skills online as well as *hyper-local* (emphasis added) efforts to convene those who share common goals”. It is also reported that the maker economy has been encouraged by and employs new technologies and systems that enable individuals or small businesses to design, make and merchandize products and services that hitherto were only available to larger business entities.

As noted by the research team led by Greg Schrock from Portland State University “(t)o many the maker movement represents a new paradigm for how people work, play and consume. To many other, it signifies an opportunity to rebuild our collective infrastructure for innovation, production, and broad-based economic prosperity in the wake of decades of public and private disinvestment from the U.S. manufacturing sector” (Schrock, 2016).

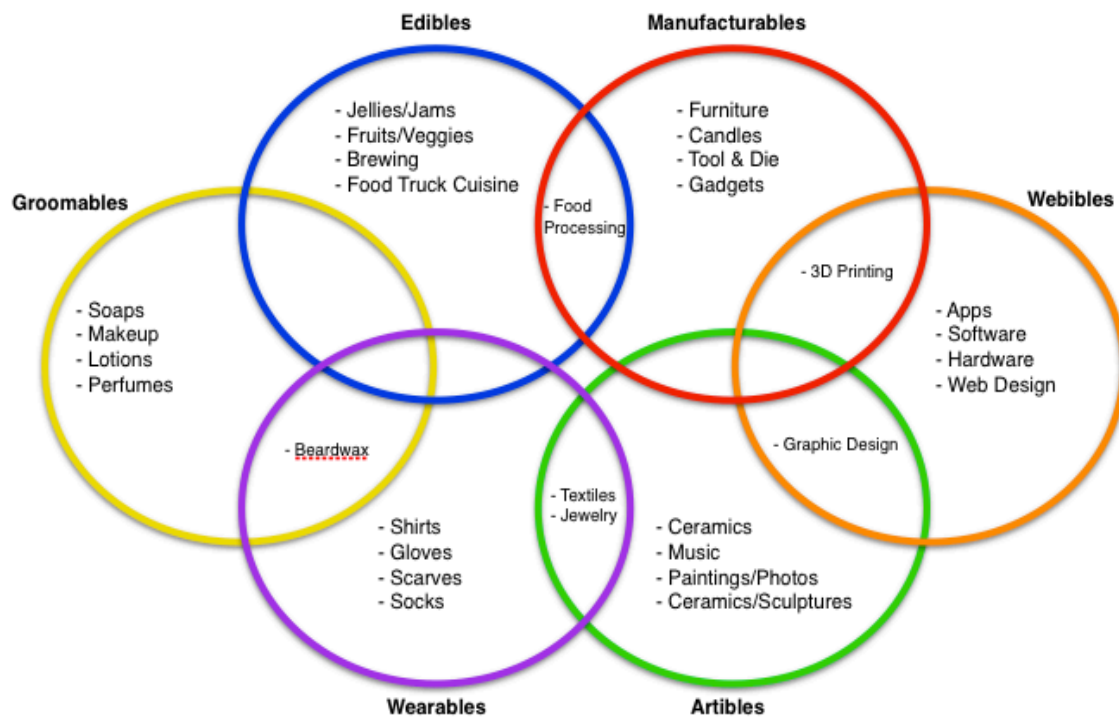
Since the USA began to exit the “great recession” – around 2010 – a combination of policy analysis, academic discourse and business development looked to a reawakening of interest in innovation and entrepreneurship that simultaneously saw the potential in a manufacturing renaissance. While gaining traction from Federal-level policy initiatives (such as the Advanced Manufacturing Partnership, the Nation of Makers Initiative and the Manufacturing Communities Partnership, 2014) a range of more localized programs began to emerge. These regional and urban initiatives were also supported by local

entrepreneurial and business groups as well as by organized labor, eager to support this emerging trend (see, for example, the Urban Manufacturing Alliance).

Scope of the Detroit's Maker Economy 2.0

The proposal as outlined below builds off a metropolitan-wide study of the emerging maker economy conducted in 2017 in UP 6550 – Introduction to Local Economic Development, an elective course in the WSU Master of Urban Planning program. This work, completed by 20 graduate students (under the guidance of Professor Robin Boyle) in the winter semester (Jan-April) 2017 addressed the following questions:

1. In the context of SE Michigan, and in particular Detroit, has a “maker economy” developed and, if so, does it have makers who are distinctive from the businesses often cited in the contemporary literature: Portland, OR. New York, Seattle, even Chicago?
2. Who are the “maker” enterprises: **Def.: commercial enterprises integrating design and production to [mainly] create physical objects for sale**; what sector are they in, what are their characteristics (product/service, age, funding, size, number of employees, +) and, critically, where are they located?
3. What support systems (“enablers”) exist to assist emerging or growing firms identified in the maker economy?
4. What services do they provide and how have these services changed as the maker economy has evolved? Is it working?
5. Looking at these “makers” what are the perceived gaps in the services/supports provided by the enabler/support organizations that have evolved over the recent past.



Outline for Winter Semester Study (January – April, 2018)

Working from the 2017 study, students enrolled in the course will, in small teams, take field research on the “Maker Economy” to a finer grain, with a distinct focus on specific businesses and neighborhoods in Detroit. The applied research **tasks** are as follows:

1. Identify and critically review the policy context in Detroit, and identify linkages (as they exist) between small-scale entrepreneurship, local economy development and neighborhood planning and management;
2. Construct a rigorous database of makers in Detroit using the 2017 study, lists of small businesses in receipt of grants and loans offered by supportive agencies in the city (including awards made to makers by the *New Economy Initiative – NEI*) and others, merging data sets collected by researchers in the maker ecosystem;
3. Design, test and apply an in-depth, in-person, survey instrument [covering: company information; product/service and productions methods; sales and marketing; the eco-system and support services; and future directions] to a

- representative sample of “makers” located in recognized neighborhoods in Detroit;
4. Specifically: (a) test the assertion that these “makers” constitute an important “role” in their neighborhood, and (b) test for evidence of spatial clustering, and why.
 5. Prepare a report of findings and make a presentation to makers, LED officials, neighborhood CDC’s, and the wide range of agencies that now constitute the maker ecosystem.

Class Composition

Hilary Edesess - MUP
Tim Emmerich - MUP
Tewonia Evans - Social Work
Dustin Feinberg - Social Work
Nick Fiore - MUP
Jessica Hinton - MUP
Jonathan Howard - Political Science
Alex Hubbard - MUP
Andrew Lucco - MUP
Diane Owen - MUP
Ashley Quinn - Social Work
Gina Raju - MPA
Nick Sivosky - MUP
Timarie Szwed - MUP

2. Student Report – (a) Database Development and Findings

Detroit is a city that is on the comeback. Some say that it has already made a comeback, but there is still work that needs to be done and businesses that need to open, especially in Detroit's neighborhoods. It is with a common understanding that large businesses are often what cities desire to attract, but small businesses are often forgotten. Small business and the makers- the people who are driving the changing economy; those who are constantly creating or designing a product or service to contribute to the local economy; those who are entrepreneurs; those who cannot afford the fancy storefronts; those who work in their basements or rented out spaces. Have we forgotten about those small business owners? Of course not. There are plenty of opportunities for makers in Detroit.

Detroit is a city in recovery. To aid in this recovery the city has opened its doors to big business such as the Dan Gilbert led Quicken Loans. New investment is a good thing; however, it will take more than just the input of large corporations to jolt the city's recovery. There is also a need for a sturdy foundation of small businesses to revitalize the city's economy. We have chosen to categorize a number of these small businesses in what we call the "maker economy."

Context and background

The purpose of this study is to find out the regional economic impact of small "maker" businesses. We wanted to explore the maker economy and familiarize ourselves with how it functions. We specifically sought to understand if the small businesses within Detroit are thriving, explore if there is potential for growth, and also sought to understand the "makers" themselves. To do this, we constructed a Qualtrics survey consisting of a series of 34 open- and closed-ended questions that asked questions related to hiring and employment practices, the "maker" community, funding and sales, for example. We also sought to explore why "makers" have chosen to practice in Detroit, and better understand "maker's" desire to "scale up" and what needs are or are not being adequately met. Most importantly, we wanted to know how "makers" identify themselves in the market. The survey also gathered demographic information such as education level, age, etc. We then distributed the document to over 200 local makers (71 respondents) in the Detroit, Highland Park and Hamtramck areas via email. With some diligence we were able to elicit a variety of responses.

Process

What is a Maker?

It was not an easy task to identify Detroit-based makers; there is no database of registered makers. Therefore, our first challenge was to define “makers”. Our chief criteria were that the "maker" *design and produce a product or service*. Makers can be defined as a commercial enterprise integrating design and production to mainly create physical objects for sale. Makers typically operate in sectors such as: design, fabrication and furniture, fashion and clothing, food processing, graphics and 3D printing, IT (both hardware and software), film and video, and music and instruments. As a class, we organized "makers" as those making the following items: groomables, edibles, manufacturables, wearables, artibles, and webibles. Groomables include products such as soaps, makeup, lotions and perfumes, and trending products such as beard wax or oil. Edibles include products such as jellies/jams, fruits/vegetables, brewing, and food truck cuisine. Manufacturables include: furniture, candles, tool and die, and gadgets. Wearables include: shirts, gloves, scarves, socks and denim products. Artibles are products that include: ceramics, music, paintings/photos, and ceramics/sculptures. Although we have defined what a "maker" is, we wanted to explore how "makers" identify themselves. Therefore, participants had the option of identifying themselves as either: a maker, artisan, entrepreneur, or "other."

What are the Geographic Parameters of the Detroit Maker?

It was our objective to determine the vitality of the Maker Economy in Detroit and to further identify geographic clusters of Makers within the city limits. We agreed to extend our study parameters to Makers also located within Hamtramck and Highland Park. We were particularly interested in measuring the economic activity in geographic clusters already well known: Eastern Market, Southwest Detroit, West Village, New Center, etc.

Methods for Finding and Identifying the Detroit Maker Sample Set

Our team collaborated to find makers by sharing information from established lists from the service provider resources, Maker-to-Maker referrals, and anecdotal knowledge of the business community and original research. Our primary sources of Makers came from applicants/awardees of Motor City Match, which is a program created by the City of Detroit and the Detroit Economic Development Corporation (DEGC) that awards

cash/design/mentoring prizes to new and expanding businesses in Detroit. Participants were also gathered from the New Economy Initiative (NEI) Ideas Small Business Challenge Grantees provides capital and mentoring awards for new and existing businesses located in Detroit, Highland Park and Hamtramck. Lastly, we gathered Makers who were previous applicants to Crain's Detroit Business' 2016 Food Summit Pitch Competition; this is where new and existing food makers and entrepreneurs competed in live pitch format to area venture capitalists and existing food brands. We also expanded our outreach to social media. Original research on the social media platform Instagram provided a treasure trove of Makers. We identified Instagram accounts of "influencers", active and successful Makers such as Detroit Denim and Beau Bien Foods; Co-creating and incubator Spaces such as Ponyride and The Platform; community organizations such as Detroit Creative Corridor and Creative Many; scrolling through their followers to identify new and emerging Makers not on our lists. We also found Makers by looking up hashtags that included #madeindetroit, #motorcitymatch, #urbanmanufacturingalliance, #allthingsdetroit, #ponyridedetroit.

It should also be noted that Facebook and Instagram were often the best source of updated email of company description, for purchase information, upcoming special events, factory, web or storefront locations, phone number and contact names; in many cases more up to date data than the Maker's own websites.

Questionnaire Development

Over the course of 4 weeks, our class collaborated to develop a survey comprised of 34 closed and open-ended questions. Once finalized, we uploaded the survey to the Qualtrics Research Services platform. Our mission was to identify makers by industry, age, education level and years of operation. We also wished to learn where and why they chose Detroit; did the city meet their needs in terms of access to space, talent, capital, and customers. We asked questions about their employees and if there were short terms plans to expand, relocate or to hire new employees. We were also curious to know how they promoted their business and where and how they sold product; to measure the vitality of sales and if those sales were enough to provide a living. Once armed with Maker contact names, email addresses and/or phone numbers, we divided into teams to call, email, and/or personally visit Makers to encourage them to complete our survey.

Findings

We received **76 completed** surveys over the course of 4-6 weeks. Here we share a summary of our findings:

1. The Detroit Maker community is well educated. Over 75% were college graduates, nearly 30% hold Master's Degrees.
2. The bulk of Detroit Makers are between the ages of 25 – 54 years old; Over 40% are between the ages of 25-34 which is considered the millennial generation. Almost half of the Detroit makers are millennials. Millennials make up more than half of those who are crafting their own products and are spending twice as much in order to do so. Millennials desire authenticity in the items that they are purchasing and are driving the growth of sites like Etsy.
3. Most Makers – 54% self-identify as “Entrepreneurs”; 16% as “Maker/Creator”; 13% “Artisans” and another 16% as “Other”. “Other” ran the gamut of “designer”, “fabricator”, and “engineer”.
4. More than half of Maker businesses have been in operation between 1-5 years but nearly 24% have been in business 10+ years.
5. Affordability and Market Opportunity were the main reasons for opening a business in Detroit. “Detroit Buzz” was also a factor. Access to capital, raw materials and enabler infrastructure were also identified. Here are some of the maker's thoughts on this:

“Detroit offers a lot of support for small business owners through different incubators, accelerators, and grant programs. There is a spirit of grit, resilience, and innovation here that made it feel possible for me to try something new.”

“We are both from Michigan, and many of the vendors we work with to manufacture our products are here as well. This city is important to us, and we've created this business to have a multiplying economic effect in terms of keeping the manufacturing here and hiring from here to.”

6. Most Makers started their businesses in and remain in Detroit (70.59%)
7. About half of Makers sell product online (51%); 34% of those sell online + classic retail space and 17% are online only. Another 40% checked the “Other” category; most of this group selling to wholesalers.
8. Nearly 42% sell product via their website, while just over 34% sell via their social media channels, almost 11% use e commerce platforms such as Etsy or Amazon.

9. Sales were nearly equally distributed between local (34%), statewide (just under 26%), and nationally at just over 24% and nearly 16% sell internationally.
10. Makers are equally distributed about where they create product 18% at home, 21% in private studio, 12% in a retail space, 12% in a co-working space and 18% in a factory. Warehouses and commercial kitchen were among the “other” production spaces noted. Where manufacturing or creation happens can tell us about the size and scope of the venture as small items are more likely to be made at home while larger ones need more space. In addition to that, a larger space may indicate a production of more than a single person.
11. Most Makers are happy with their current location; with just over 42% noting it as “ideal” and just fewer than 40% “moderately close to ideal”.
12. It was encouraging to learn that just over 72% plan to expand to a larger space.
13. We asked Makers if “money was no object, what would be the ideal location to create/manufacture your product”. Here are some of the responses:

“If money were no object, I’d love to have a large production space not too far from my house where I could employ people to cast some of my work from molds I made, while I still work in my garage studio making prototypes and hand-built things”

“A warehouse building with renewable energy on the roof of the building, geo-thermal heating and cooling and water capture.”

“I would have a refurbished 25,000-foot factory in Detroit. This would allow us to make 1,000 pairs of jeans per day and employ 75-90 Detroiters on a living wage.”

“Our space right now is in POST on the East Side and it’s great. However, if money were no object, we’d want a larger space with concrete floors that we could section off into assembly/making/prototyping/office/photo-shoot areas. We’d look for a space still in Detroit (perhaps New Center, Eastern Market, West Village, Corktown) with large windows and with restaurants/coffee shops to do work in nearby.”

14. Just over 31% generate 100% of their income from their business. Another 25% derive more than 75% of their income from their business.
15. Nearly 35% of Makers have another adult who works full time in their household while just over 28% are the only in their household employed.
16. A significant number of Makers started their businesses from personal savings (nearly 38%) while others were evenly distributed among small business loans, loans from family/friends, and personal loans. Just over 15% received grants or awards.

17. In 2017, just over 54% of Makers turned a profit while another 36% broke even. Just under 10% loss money.
18. Maker cite time (33%) and money (33%) as the biggest barriers to building their business.
19. Nearly half of Makers (48%) employ less than 5 people while another 27% have no employees. Another 24% employee between 5 – 15 employees. This tells us that their economic impact is quite low, the makers are the epitome of *small* businesses.
20. Just fewer than 21 % of Maker's employees reside in the City of Detroit while nearly 42% estimate that about half of their employees reside in Detroit. Personal connection to the city is important. Why they chose to begin their business here could lead to answering whether they will continue to do business here. Employee connection to the city is important to gauge economic impact as more working people means more taxes. Perhaps transportation is a question.
21. 30% of Maker are hiring right now and just over 36% intend to hire in the next 12 months.
22. Nearly 70% of Makers spend more than 40 hours per week on their business. Hours worked shows commitment to the venture. Commitment is integral to success and this shows how serious the maker is about their business.
23. Makers connect socially with other Makers often (just over 57%) while another 42% connect sometimes.
24. Makers gather most often in information social settings (34%) with another 31% connecting online. Just over 21% connect at events and meetings while another 12% connect in creator or co working spaces. Networking and potential collaboration is a key to success as well. It is useful to find out ways the city and its non-governmental agencies can facilitate more networking within the maker economy
25. Nearly half of all Makers sell product in brick and mortar retail spaces with 33% in traditional retail spaces and just over 14% in shared brick and mortar retail spaces. Just over 20% work to sell product at markets and fairs. Still another 30% sell via a variety of formats including to wholesalers, mobile trucks, trade shows, independent retail and museum shops, local and national retailers, and pop ups shops.
26. Most Maker employees work part time. Only 16% say that all their employees are full time. About 25% employees roughly half their employees full time.

Discussion

We learned the majority of our makers are educated individuals holding either a bachelor's or master's degree and are between the ages of 25-44. Our Makers operate both online and through brick and mortar retail and work at their business on a full-time basis (defined as 40 hours a week or more). The Makers define themselves as entrepreneurs predominantly, which denotes more of an air of business than artisan or "maker." Years in business are between 1 and 5, meaning many are relatively new to the market.

Most Makers chose the Detroit area due to personal connection. Results showed that most Makers already live in the area, where they create their products either at home or in private rented studio. This makes sense when we consider that the majority of the makers sell handmade crafts, but if given a choice they would stay in the area but expand to a larger brick and mortar space.

Due to the nature of their business most of our Makers do not offer full-time employment and are not hiring currently, but say they are looking to do so within the next year. The majority of our Makers have five employees or fewer. This data informs us that the makers' impact on local economies is minute at best. They are not providing jobs even though they are turning profits (also important for demographics).

Despite the profits most of our makers indicate that they make less than 25% of their household income from their business. This leads to the question of whether these makers are part-time, whether they cannot survive off profits alone, or are perhaps just successful hobbyists. Only 19% of the makers indicate that they work full-time on their business, most indicate that they live with at least one other person who works full-time.

Time and financing were the biggest identified hurdles to expansion. The Makers were likely to have started their business using their personal savings, which makes me wonder about the availability of small business loans and if it were difficult to attain them. Furthermore, on the subject of funding, we missed an opportunity to ask about crowd funding sources such as Kickstarter and Indiegogo.

We learned that most of our makers are turning a profit and sell their goods locally, stressing the importance of a strong local market for them. Selling goods wholesale is a recurring concept that appears in the data. Personal websites and social media are

avored ways of makers connecting with customers. Instagram, specifically, appears often. It seems to be an important platform for individuals who sell online.

Finally, we found that the makers view socializing with others and networking very positively. They prefer informal meetings and online connections, but still attend formal events in decent enough numbers.

Recommendations and Limitations

In this report we took a look at several important questions when it came to the maker economy, yet there were still more questions we could have asked. In this section, we will discuss some of the missed questions that might yield more information in subsequent surveys.

- *Demographics.* Detroit is a changing city, as we discussed earlier, it would be helpful to know if these makers are a product of that change. We should be able to find out the background of the makers, their race and gender specifically.
- *Transience.* It would be important for us to know if any makers have plans to leave Detroit soon. It is just as important to know who is leaving the city or who has moved away from the city, then perhaps we can find out why.
- *Debt and Funding Sources.* We did ask about funding, and it yielded useful information but we did not ask the makers how they felt about small business loans or any other funding types that might bring debt. Some of the makers might already be holding debt and that prevents hiring or other improvements from being made. We also should ask about crowd funding as the Internet seemed to play a substantial role in how makers advertise and meet customers.
- *Repetition:* Questions asked in Qualtrics may have been repetitive.
- *Qualtrics:* Some Makers believed that Qualtrics was not particularly user friendly and this limited our responses. Perhaps looking into a better, easier survey style would increase responses and thus data collected. Furthermore, some questions may have been shallow and did not get to the heart of our objective, which was to find out how the Maker economy works, and whether it has an economic impact. Though some questions hit the mark, others seemed to bog down respondents. There needs to be additional research to adequately answer this question.
- *Marketing and promotions:* This subject was touched upon, but there is more to be gleaned here. We could have asked if any of the makers had experience in this field or if they had been trained in marketing and promotions

- *Connection to services:* Although we gathered information from several service providers, we failed to ask the makers about usage or if they had knowledge of these providers and the opportunities they provide.
- *Very limited in scope.* We only had time to survey makers in three cities: Detroit, Highland Park and Hamtramck, but there are makers in other border cities as well, perhaps widening the net could have led to more responses. Some Makers were not sought after in this study such as those who produce and sell music, graphic designers, etc. We captured only a small percentage of Makers in the city of Detroit and did not have the capacity in this project alone to capture all categories of Makers.
- *Survey fatigue:* The length of the survey may have caused survey fatigue for some respondents who may have skipped questions or who did not finish the survey in its entirety.
- *Sample:* Our findings are not generalizable the wider population of Makers.
- *Literacy:* Future research regarding Makers should explore their literacy barriers in applying for capital.
- *Sustainability:* Future research should explore what funding is used to sustain Makers' businesses.

3. Student Report – (b) The Maker Experience

In order to uncover and analyze economic activity in Detroit, we conducted research and interviewed craftsmen and women working in Detroit, Hamtramck and Highland Park, Michigan. We classified these creators as “makers.” Maker is a general and broad term that applies to many different types of individuals or small companies who make products and sell them. In the city of Detroit, the number of “makers” who are creating and learning, and sometimes thriving off their craft, seems to be growing and expanding. Makers are often individuals or small business owners who create and distribute products. This boom in the visibility of makers and their success is part of a larger trend known as the Maker Movement. The Maker Movement is partly a result of technological advances that increase accessibility of different types of technologies for a greater number of people, and of changes in consumption.

Technological advances have occurred rapidly and in such a way that many different industries can operate in more cost-effective ways, facilitating more individuals to become makers. Open source design software and prototyping technologies are becoming more accessible and affordable—allowing a greater number of individuals to create and sell their products. Easily obtained and affordable web-based technology allows makers to create proto-types, refine their products and generate small batches. This is beneficial because makers often do not have the resources to run large scale trials of their products. Small batches allow makers to test a product without overspending prior to generating income from their maker business. A drastic decline in the cost of technology has also enabled more individuals to purchase and use technologies to develop and create products from their home, alleviating the cost of workspace. Low overhead means people who could not otherwise afford to start their own business can now design and distribute their products.

In addition to the home office, the maker movement has lead to a trend in shared work spaces. In The City of Detroit there has been an increase in makerspaces—or workspaces designed specifically for makers . These workspaces serve as a learning community for makers to develop their skills and business strategies with other makers, and they also provide makers with capital and resources.

There are low barriers to entry in Detroit, so starting a business here does not have to be as strenuous as starting a business in another major city. With a smaller talent pool,

makers will not have to deal with the extreme competition that puts so many out of business in major cities. The cost of living in Detroit and the Metro Detroit area as a whole is relatively low, as housing is comparatively inexpensive. The availability of space in Detroit makes co-working spaces easier to come by than in other major cities, and the cost to rent out a spot in one of them is not as high. The lower cost along with the fact that shared spaces tend to be less crowded and overwhelming allows makers to focus more on providing quality products.

These factors may also contribute to Detroit makers' capacities for innovation. More than coming up with new ideas, Detroit offers makers the possibility to bring them to fruition. According to the UNESCO Creative Corridor Report, "When one typically thinks about the 'innovation economy', the focus lies in the first part of the value chain: research, discovery, and ideation. Detroit's strengths lie in the next phases of the innovation process: the ability to prototype and commercialize ideas."

Drawing from "The Maker Movement and Urban Economic Development" in the *Journal of the American Planning Association*, we recognized that the broad group of makers can be broken down into three different categories: Micro Makers, Global Innovators and Emerging Place Based Manufacturers. Micro Makers contribute to the artistic and cultural vibrancy of the city, but they may not be selling at a large scale or have the capacity to earn a living wage from their maker activities alone. Global Innovators are makers whose work advances innovations to products, processes and materials. Emerging Place Based Manufacturers highlight the place that they are making their products through branding and through intentionally contributing to an overarching goal of employment growth by hiring local workers.

The majority of the makers interviewed and surveyed were micro-makers selling locally, statewide or nationally with few entering the international market. The costs associated with conducting international business are not accessible to most makers. One maker interviewed, Michael Neville of Michael Neville Design, has shown furniture in Milan, Italy but his work was sponsored by a Dutch furniture company. Many makers do sell nationally via the internet and are branching out into wholesale. Some makers—such as Nakee Butter, Ware Mgc and Reilly Craft Creamery are looking to move up from Micro-Makers to Emerging Place Based Manufacturers by selling at a broader scale.

In order to maximize the potential of the maker movement, it may be useful to differentiate between the three different types of makers and provide different support and capital resources to Micro-Makers, Global Innovators and Emerging Place Manufacturers. Micro-makers support cultural distinctiveness, Global Innovators

Promote innovation and Emerging Place Based Manufacturers promote employment creation. All three of these makers play a role in local economic growth and require support in different ways in order to fulfill their purposes or mission statements.

During the course of the interviews, the makers expressed why living in Detroit, as opposed to any other place, enables them to own and operate their business. For some it is a personal connection to Detroit while for others, including Michael Neville, it is a feeling that their business would not survive in another, more expensive city. "It's inexpensive to live here and to have a decent lifestyle and studio practice," says Neville. The cost of living in Detroit is relatively low when compared to other major cities. This low cost of living has potential to draw in more makers from the outside who want to maintain a higher quality of life and still be able to create and produce products they care about.

The culture in Detroit is different from major cities like New York or Los Angeles in the sense that it is more easy going. There isn't a big market or a lot of competition here and some makers believe that it is this specific culture that provides them the freedom to run their business as they want. According to Paul Karas from Ware Mfg., "Detroit allows you to wear whatever hat you want." The maker culture in Detroit is not as rigid or structured as in other areas. Aaron Blendowski from Real Ok Design echoes this statement, "There is an atmosphere here that allows for me to be able to do what I want to do." The general culture and ambiance of Detroit has a great impact on how makers feel about starting their businesses here.

In addition, the fact that population loss continues but has slowed in recent years makes Detroit an environment where makers can afford more control over their businesses than in other cities. "In a bigger city like Manhattan, a company like mine -I've looked into this- couldn't really exist. Here I can be the architect, the interior designer, the general contractor, all of that through a select few relationships," says Karas. This possibility of performing many roles is one of the benefits makers can experience working in a small company that is coming of age in Detroit rather than in a city that is already thriving.

Of the makers who started their business in Detroit because of their close personal relationship with the city, many did not even think of starting their business elsewhere. For some, this city where their roots are is their forever home. "I grew up in the city, I was born and raised here, I went to Detroit schools, I graduated from a school that just shut down," says Raeshawn from Pink Poodle Dress Lounge, who is a Detroit native. "It saddens me to see the direction that our city went in, and to see our youth.

And to be part of the comeback, and not only part of the comeback but to bring something back into the community and help the youth, is a great feeling for me. It's personal. it's very personal". This personal relationship is something other makers invested in Detroit have also described. They are not just working here because they feel their business can thrive here. They are here because they want the city to thrive with them, an approach which can be beneficial to the Maker Movement and to the city of Detroit.

For chocolate maker Alexandra Clark of Bon Bon Bon, who has scaled up from being a Micro Maker to Emerging Place Based Manufacture with a factory and boutique in Hamtramck, Detroit is part of her product's brand. "

John Koller from Beardbalm says, "Detroit is the reason I can do this. I care more about Detroit than I do my company." Cultivating this type of passion, an already embedded asset, could benefit to the city by inspiring and motivating other makers to approach their work in the same way.

Another benefit to some makers, such as Pierre Kamel of Petoskey and Pine, is being part of crafting an image for the city of Detroit. He and other makers have an active interest in how the city is perceived. Those with passion and ties to the city will especially want to be integral to creating the environment they want to experience. "It's not just that we want to create a business in Detroit to help the economy. It's also that we want to create an image that, you know, this area can also have a lot of nice crafts. We have beautifully designed products that come from here too, and it's not just industrial," says Kamel of the contrast between the maker movement and the auto industry so often associated with Detroit.

In the spotlight since its 2013 high profile bankruptcy, it's a good time to shape Detroit's image as it continues to receive a lot of press through its recovery process. According to Blendowski of Real Ok, "It's the hype that's here right now. There's a lot of eyes on this place." Karas says, "There's always work [here]. I haven't actually had to promote my business explicitly ever. A lot of the press Detroit gets has given me an amount of exposure I would not have been able to generate on my own. And us being pooled together [in Pony Ride co-working space] has made us an attraction to celebrities and wealthy donors who want to give money to startups."

Most often seen as a disadvantage, the limited skills in and around Detroit adds yet another benefit to the marketability of makers who want to live and start a business here. “There’s a lot of opportunity because there’s not much of a talent pool yet. Especially in the trades. I have less competition. It allows me to specialize more,” says Karas. from Pink Poodle would argue that there is talent, it just hasn’t been encouraged to thrive here over the years, “they have a lot of talent here. And it is leaving, but it’s also coming back. People need to get out and experience, but the city is coming back. It’s live, so you never know what will transpire.”

Many makers also discussed how important having a supportive network is, and how makers offer support to one another. “We love making our own product,” says Kamel, “And we love to support other people. When we go to craft shows we go around to other crafters and see how we can support their business and buy their products. We have to support the team.” According to Karas, “being around so many entrepreneurs, there’s always people to bounce ideas off of.” Jodi Lynn Burton of Jodi Lynn’s Emporium of Doodles likes when she can direct some of her consumer traffic towards her colleagues. “[The people I hire] to help run my booth are other illustrator friends of mine,” she says about who works her booth at craft fairs. From within their network, makers find talent and capital resources to expand their businesses and promote others while promoting themselves. Blendowsky from Real Ok says, “The network is the reason I am here. It’s so important I don’t really realize it. I wouldn’t do what I’m doing without this space to talk to people.”

A lot of the makers we interviewed either work in a co-working space or understand the importance of co-working spaces. The consensus between all the business owners we interviewed is that co-working spaces, such as Pony Ride, have provided great benefits to them and have helped in improving their business and their products. “People know me through Pony Ride and they know what I can do as far as design and they want me to do their retail spaces,” says Karas of Ware Mfg. According to Blendowski, “The idea of this [co-working space] is bigger than what we individually do.” Koller of Beardbalm who also works at Pony Ride finds that the owners’ institutional connections in the city makes it easier for the co-working space to exist, giving Koller the opportunity to create his product out of that space.

Michael Neville began his practice in the Detroit co-working space Talking Dolls where he had a residency after graduating. Neville moved his work space out of Talking Dolls when the direction of the co-working space took a different turn from Neville’s goals, but he remained in contact with artists/designers he met there. With one of them who

has now moved out of state, he has a maker business called Zero-Craft Corp, an online collaboration which crosses state lines.

Burton of Jodi Lynn's Emporium of Doodles says, "I've thought about renting out a storefront just to have a co-working space." Whether or not makers are currently working at a co-working space, many have passed through them and found them a beneficial step towards growth. For Blendowski, they provide a community, and for Koller they provide connections. Co-working spaces appear to be the backbone of a strong and supportive maker network.

One of the biggest questions facing individuals or small businesses who want to join Detroit's maker economy is what mechanisms in the city of Detroit are encouraging the Maker Movement grow and expand, and if the local government is taking enough steps to facilitate local makers.

Detroit is the first American city to be named UNESCO City Of Design in 2015. While the Detroit design economy, an important element of the maker economy, isn't very large, the UNESCO designation shows that it has a significant impact on the city's overall economy, encouraging the city and local non-profits to create a favorable environment for new ideas and new product design and creation. Powered by Design Core Detroit, a design business development non-profit, The Detroit City of Design released an Action Plan on April 12, 2018 to expand Detroit's design economy and to detail the impact it will have on the city's overall economy. The Action Plan states:

"Although Detroit's core design economy makes up only 1 percent of the industries and a little over 5 percent of all occupations, it provides talent, goods, and services for the entire design ecosystem, which represents over 20 percent of the region's economy. In 2016, demand for the products and services generated by design ecosystem, industries in the Detroit metro area reached \$51 billion....The vast majority of Detroit city and regional design firms employ one or two people, with engineering, architecture, and computer programming and design services leading the way. Of the 364 total design firms in the city of Detroit, 114 are single-person shops, while 1,945 of the region's 5,491 design firms are owned and operated by one person....They provide true middle-class income opportunities, but educational attainment requirements make many of the jobs difficult to reach for many Detroiters. For instance, jobs in core design occupations have median salaries of \$34 per hour in Detroit, which translates to \$71,500 yearly."

The Detroit Economic Growth Corporation (DEGC) exists to help stimulate the local economy, and part of this is assisting makers in creating job opportunities in the city.

Some of their work includes providing funding and/or mentorship to makers that need the assistance of business incubators. DEGC also has a program called Motor City Match which matches new businesses, including maker businesses, to vacant storefronts.

According to Andrew Lucco, _____ for Motor City Match, after beginning the program DEGC found that many makers know how to build their craft but lack education and guidance in building a profitable business to support a brick and mortar space. “They’re business models, as they stand right now, wouldn’t support a stand alone brick and mortar. Their fixed costs would be too high, and they don’t have realistic plans for scaling up to cover those costs,” says Lucco, “That is what Motor City Match is attempting to address - building capacity and helping people refine their business models.” Often, makers are more focussed on the quality of their product than on the business, causing them to lack skills to make the right decisions in areas such as staffing and purchasing and making it difficult for them to sustain their maker business or scale up.

Some of the advantages offered to makers can also be disadvantages. While co-working spaces have been valuable to makers, these shared work spaces often have limitations for certain types of makers, and often don’t have the space necessary for growing businesses. The limited amount of talent in Detroit can be a double edged sword as well. A smaller talent pool provides opportunity for people joining the workforce in things like skilled trades, but presents challenges for makers seeking talented assistance with projects or products since there are fewer skilled individuals. Scarcity of local specialized talent means the cost can be too burdensome for small makers to afford, and technology enables them to hire someone from outside the area for certain tasks at a more affordable rate.

Recommendations

From our research of sources, surveys and face-to-face interviews of makers, we’ve drawn recommendation for a strategic plan that will encourage makers to start or continue commercial activity in Detroit.

1. We would cultivate talent, especially targeting the talent already within the city of Detroit, by implementing design oriented youth education, whether it be in the Detroit Public School system, after-school programs or post graduation. We would suggest the introduction of tech based job skills programs in the schools as well that would provide training for students and an opportunity for them to work with makers and better prepare the future talent pool. Our survey found, not surprisingly that most makers who

are breaking even or making a profit use new technology and web based software to advertise and sell their products.

2. We would focus on investment; what investments are being made and by whom? We recommend a system for teaching financial literacy targeted towards helping makers better run and maintain their businesses. This could greatly benefit those who struggle with business decisions by building confidence and empowering them to make better financial choices.

3. We would like to see steps and initiatives put in place that help connect makers not just to each other, but to more resources that might provide funding. We found that over half of the makers we surveyed started their businesses with their own savings, meaning there is an untapped potential of makers without access to capital. Whether it be the DEGC or other business awards and funding, there needs to be more ways that the city of Detroit seeks out makers and encourages them to apply for grants to start up and support their business ventures. We would also like to encourage creative/design based lending practices that are tailored to the needs of creative startups and emerging design-based entrepreneurs, as well as the development of new tools and programs that support the prototyping, commercialization, and scaling of product-based businesses in Detroit. We also believe that maker spaces should be supported and promoted by finding more effective ways to inform consumers of their existence.

4. The establishment of a venture capital fund focused on small scale manufacturers would offer another resource for financial assistance. Though there are several grants which provide financial support, they are competitive and can be difficult to obtain.

5. We recommend considering policy changes related to zoning and building codes where they present a challenge to shared work spaces. Artisan zoning is an approach to land use and development that provides space for small-scale manufacturers that produce little to no vibration, noise, fumes, or other nuisances. Though their activities can be classified as “industrial”, they can fit within a wide variety of industrial, commercial, and even residential districts. When reviewing whether to create artisan zoning changes, elected officials act as the liaison between the planning department and the public. They can help ensure that businesses in the artisan zone know how to access support from local workforce development organizations to connect with job seekers, as well as provide information on how to bid on procurement opportunities. The Urban Manufacturing Alliance offers a detailed system of how to effectively apply artisan zoning:

“Officials need to ensure community organizations, anchor institutions, and the small producers themselves are part of the zoning process from start to finish. Advocates can often find allies in unlikely places: the local health department that wants to combat food deserts by allowing local food producers to set up shop in residential areas, neighborhood groups that want local jobs and to fill blighted buildings, police officers who want to reduce the number of vacant buildings that are associated with crime, and transit proponents who support local jobs in residential areas because it means less people need to drive into the city center.

“After new zoning ordinances have been established and new spaces are opened up to artisan manufacturers, legislators will be responsible for coordinating closely with enforcement agencies to ensure that new and sometimes experimental approaches to adopting new work spaces fall in line with safety and security codes. That includes setting up an annual schedule for site visitations. There may also be a need to set expectations in artisan zones around the varying schedules of their users, from garbage pickups to parking requirements.

“Lawmakers may want to consider long-term planning for the preservation of light manufacturing space in artisan zones. These zones may run the risk of falling victim to their own success as they draw in a mix of new production and residential uses. As residential development sets in, the economics of the production space may change, pricing out artisan producers. To guard against this, lawmakers should explore opportunities to support mission-driven industrial developers that provide an important source of affordable light-manufacturing space.”

6. Finally, all these recommendations can be more effective if there is an environment of constant communication between those involved in facilitating each step. Assistance to businesses can be more strategic by right sizing business support services to help businesses on their way to growth. The most useful services are often ones which help makers to coordinate overlapping often conflicting programs, rather than just pointing them in the direction of aid. A well connected network of services able to coordinate to assist specific needs can provide more immediate access to capital for growing businesses when they need it the most.

Taking a cue from shared work spaces, we also recommend the concept of shared workforces. This would provide labor to companies that require skilled labor but not enough to warrant a full-time staff member, and also provide more job possibilities. There are programs which are focused on preparing workers for employment in skilled

trades after graduation. A service to better link these preparatory programs to employers or shared workforces, focussing specifically on makers and small manufacturers would give the smaller businesses a head start against larger companies competing for workers.

We have observed that the Maker Movement has taken root in Detroit and there are many ways in which the city can encourage more makers to start businesses here and help existing businesses thrive. It feels as though Detroit is in the midst of its “comeback” and makers are an integral part of it, so it is important that the Detroit take steps to encourage the Maker culture.

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