

Small-Scale, Local Production in Prince George's County, MD

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About This Report

Through their work with the National Center for Smart Growth at the University of Maryland (UMD), the Prince George's County Planning Department commissioned this report from the university's Partnership for Action Learning in Sustainability (PALS). PALS works with local jurisdictions throughout Maryland to identify projects and problems that can be taught through university courses where students focus on developing innovative, research-based solutions. *Small-Scale Local Production* is the result of a graduate urban planning and studies seminar initiated with the intent to evaluate the manufacturing and maker ecosystem in Prince George's County.

Building upon insights gained from previous studies in Prince George's County, Washington, DC, Montgomery County, and Baltimore City, the course evolved to focus on zoning policy, programmatic support, and real estate analysis. This report centers small, production-based businesses as part of an inclusive economic development strategy for the County.

Acknowledgments

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Limitations of Study

The University of Maryland moved all courses to online instruction on March 13, 2020 to provide a safe learning environment during the COVID-19 pandemic, and, therefore, the student team conducted all work during the second half of the semester remotely. The University also implemented rigid research restrictions, which eliminated the possibility of fieldwork. Due to disruptions, and despite best efforts with phone and email interviews, the team was unable to coordinate interviews with many past and present production-based business owners in Prince George's County. The PALS team was also unable to visit sites of identified industrial real estate and incorporate field observations into recommendations for targeted growth. Along with these logistical difficulties, everyone is dealing with the mental health effects of social distancing and the challenges of working from home. The PALS team appreciates the flexibility, support, and understanding that the Prince George's County client team provided.

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Executive Summary

This study lays the foundation for Prince George’s County, Maryland to explore a more inclusive economic growth strategy that harnesses the potential of small-scale manufacturers and makers, and aligns with the County’s long-term goals for its impending zoning rewrite. Stated goals of the rewrite include concentrating jobs in activity centers, revitalizing neighborhoods, and improving walkability and connectivity around transit. In addition, an assumed goal includes building better opportunities for small businesses and their workforce to locate and grow in Prince George’s County. Through analysis of the industrial building supply and zoning code, research on best practices and case studies from other jurisdictions, and interviews with local businesses, leaders, and experts in their fields, students identified several challenges to small-scale manufacturing and maker businesses. These challenges pave the way for the recommendations that follow.

Challenges to an inclusive small-scale manufacturing landscape:

- **Small-scale manufacturing and maker businesses are diverse and not necessarily well understood by institutional supporters.** Research and interviews point to both the County’s and the University’s strong focus on high-tech manufacturing related to information technology, cybersecurity, robotics, and other industries with the highest return on investment. Yet, businesses operating at a smaller scale and in more creative industries—apparel designers, brewers, fabricators, food producers—have strong potential in the aggregate to enable the County to achieve its goals. Efforts to identify and assist these businesses may be further challenged by the diversity of industries represented, as well as the terms by which they prefer to identify: “artisan,” “designer,” “builder,” or “woodworker,” for example, instead of as a “manufacturer.”
- **Access to affordable, well-located real estate is elusive.** Businesses both in the County and the region desire street-level production space with retail that provides greater visibility and interaction with the community and customers. While there is affordable industrial real estate available in Prince George’s County, interviews and case studies found the ideal production and retail locations for small scale manufacturers are on commercial corridors and are at a cost premium. Moreover, new construction—especially near transit—is too expensive for small-scale manufacturers to afford.
- **Access to capital could be better facilitated by government partners.** Small-scale manufacturing businesses are often difficult to categorize. Whether they started their business in their home or identify as a maker or artisan rather than manufacturer, “they often do not fall neatly into the data collection categories that the government has used

to classify manufacturers for generations.”¹ Small production businesses often leverage creative funding sources like lines of credit through merchant and mobile payment company Square or similar, that get paid back through the use of their services.² But programs for government-backed loans could provide better support for these creative businesses that tend to fall through the cracks.³

- **Policy support through zoning and permits could be improved.** As demonstrated in interviews, several businesses preferred traditional commercial storefronts with flexible space. However, many manufacturing uses are not permitted in commercial zones throughout Prince George’s County, despite operating businesses that may be at the scale of and compatible with the fabric of a neighborhood. This challenge relates back to the accessibility and affordability of well-located real estate. The owner of Recast City said, “Do we want diverse business types and owners? Then we might have to provide some below-market-rate spaces.”⁴ Supportive zoning and permitting processes could help.
- **County programmatic supports could be strengthened for small-scale manufacturers and makers.** One business owner observed, “there has to be a wider knowledge that this is the place to go to find up and coming designers or do manufacturing—it’s not just about providing the space, but the whole branding behind it.”⁵ In particular, this business owner reached out to Employ PG for help navigating available space, resources, and regulations related to the expansion of her business to higher production rates and more skilled workers. Her request never materialized any resources, and she abandoned the effort.
- **Workforce development is a challenge both for businesses and for residents.** Research, case studies, and interviews all highlight the need for the County to support low-barrier jobs that require minimal formal education and offer on-the-job training. And these jobs should ideally be located near transit and in activity centers that attract and retain local workers. Yet, as one University stakeholder shared, resources for innovation are the most focused on attracting large companies and investors who can generate the most substantial return on investment—they are less focused on providing access to low-barrier jobs.⁶ As shared in the previous challenge statement, businesses have identified the need for skilled talent too.
- **Recent events underscore the essential need for local business networks and social capital.** Now, more than ever, local independent businesses are relying on their

¹ Mark Foggin. (2018). “State of Urban Manufacturing: Detroit City Snapshot.” Urban Manufacturing Alliance.

² Interview with Apparel and Textile Manufacturer #2. March 24, 2020.

³ Interview with Andy Cook. February 28, 2020.

⁴ Interview with Ilana Preuss. March 3, 2020.

⁵ Interview with Apparel and Textile Manufacturer #1. March 5, 2020.

⁶ Interview with Sammy Popat. February 18, 2020.

relationships with fellow entrepreneurs, their landlords, their government, and their loyal customers to help them reopen on the other side of the COVID-19 crisis. What is more, even though these local businesses are hurting financially, they are devoted to the communities where their owners and employees live and work. The more the County can support these connections, the more these businesses can continue to give back and shape their communities, contributing to *Plan 2035*'s goal of healthy, revitalized, creative neighborhoods for all Prince George's County residents.

Recommendations:

Ultimately, this study points to strong potential for Prince George's County to build on its assets in support of small-scale maker and manufacturing businesses. To accomplish this goal, the following recommendations will aid the County effort to produce a more equitable, inclusive economy—and simultaneously generate great and growing businesses.

- **Complete a comprehensive small-scale manufacturing market study.** Building on the findings in this report, undertake a comprehensive study to fully clarify the potential and challenges of the small-scale manufacturing and maker economy. The PALS team envisions this study in three parts: 1) Develop a business typology through surveys and interviews with small industrial businesses at all phases of the business lifecycle, 2) Conduct a comprehensive real estate inventory and analysis, examining industrial and commercial land uses that meet the target audience's needs, and 3) Define the full economic and social impact of small-scale manufacturing and maker businesses.
- **Establish a “Made in Prince George’s” business development program.** This effort will bridge producers (small-scale manufacturers and makers), consumers, and intermediaries (the Prince George's County Economic Development Corporation, among other community stakeholders). A place-based business development program could provide access to marketing and branding support, financing, workforce development resources, and technical skills. It could also keep a finger on the pulse of public policy efforts to ensure these businesses continue to grow and thrive in Prince George's County.
- **Promote the development of Arts and Entertainment Districts.** In Hyattsville, an Arts and Entertainment District designation from the Maryland Department of Commerce and State Arts Council has powered the transformation of the Gateway Arts District by promoting live-work space and creating tax credits that make leases attainable for makers and small manufacturers. The community is now known for its vibrant small business activity and a strong sense of place. Makers businesses in Hyattsville—like coffee roasters, brewers, and sewing studios—drive foot traffic and create personal connections among residents and business owners. The County should pursue this designation in other locations to promote new maker ecosystems.

- **Facilitate partnerships with developers who are committed to industrial redevelopment.**
Case studies demonstrate that mission-driven and nonprofit developers can make excellent partners when it comes to achieving mutually defined needs of rehabilitating industrial real estate, continuing to drive a local maker economy, and revitalizing neighborhoods with a high density of industrial buildings. Partnerships can enable affordable and long-term leases for manufacturing businesses, which are almost always the lowest-paying tenants. They can also help support new makerspaces or the rehabilitation of existing properties.
- **Ensure opportunities for maker businesses in zoning and land use.** Developing an “artisan manufacturing” use, permitting light-industrial uses in commercial zoning, and establishing a maker district or overlay zone are all tactics that jurisdictions throughout the country have taken to encourage small-scale manufacturers to stay and grow locally. Supportive zoning policies are complementary to the desires of the County to develop more walkable, vibrant neighborhoods.
- **Build a workforce pipeline to small-scale manufacturing and maker businesses.**
On-the-job training and certificate-based education programs are excellent ways to invest in a skilled, local workforce. Data demonstrate that low-barrier, high-skilled jobs, such as those involved with small-scale manufacturing, facilitate family-sustaining wages and stability for people with educational and language barriers. Further, case studies and interviews revealed that a skilled workforce is one barrier to scaling up for maker and manufacturing businesses in Prince George’s County.

Terminology

Inclusive Economic Growth

This is an economic system that works to undo racial, economic, and spatial inequality by building on the assets of existing residents. Instead of using traditional measures like job creation, average median income, or net growth in population, an inclusive economic growth strategy considers rates of employment, wages, poverty, and displacement. Such a strategy might focus on building up industries with low barriers to employment, higher employment density among underrepresented communities, or equitable investment in workforce training in job sectors that provide family-sustaining wages. Inclusive growth is generally understood to be an essential but often overlooked side of the economic development coin.

Low-Barrier Jobs

Those that require minimal formal education and/or English language fluency. Low-barrier jobs are often skills-based and frequently provide on-the-job training.

Production-Based Businesses

For the purposes of this report, a production business is a general term that includes businesses that represent both small-scale manufacturers—businesses with up to 20 employees in businesses types that align with traditional manufacturing categories—and maker businesses that focus on artisan production and often label themselves as “artisans,” “designers,” or subsector terms such as “brewer” and “furniture maker.”

Small-Scale Manufacturing

Generally defined as a manufacturing company with 20 or fewer employees. The Urban Manufacturing Alliance defines “medium-sized manufacturing” as fewer than 500 employees. The two sizes are often referred to together as “SMMs,” or “small- and medium-sized manufacturers.” Understanding the needs of small-scale manufacturing is essential in the context of this study because the footprint, needs, and impacts of these companies are often compatible with commercial corridors and main streets, retail businesses in densely populated or urbanizing areas—unlike larger-scale manufacturing operations. This term can be used to refer to businesses that incorporate the full range of traditional manufacturing industries: apparel, furniture, foodstuffs, machinery, and technology production—just to name a few.

Maker Economy

Skills-driven, production-based economy that includes both traditional manufacturing and maker pursuits. As noted in the definition for “production-based businesses,” some producers embrace the term “maker” while others eschew it in favor of generalized terms like “entrepreneur,” “artisan,” and “designer,” or subsector terms such as “brewer” and “furniture maker.” Nomenclature of these businesses matters both in terms of how decision- and policy-makers perceive the maker economy, and how makers might themselves pursue or access relevant capital, marketing, and production support.

Makerspace

A shared, collaborative workspace typically occupied by small businesses and startups geared toward craft production; they often act as incubators for smaller companies to grow. The spaces often center on shared equipment such as woodworking tools, CNC machines, 3-D printers, industrial sewing machines, and so on. Specialized makerspaces with different membership and operations structures might include commercial kitchens, jewelry and metalworking centers, or collective brewery operations. These spaces most often operate through paid memberships; many are nonprofits that receive supportive funding from philanthropic, university, or other institutional partners. Makerspaces can also function as valuable community space for those interested in acquiring new skills and room to explore or innovate.

High-Tech Makerspace

Similar to a craft production makerspace but with more emphasis on high-tech prototyping and product iteration. High-tech makerspaces, sometimes called hackerspaces or techspaces, might focus on robotics, mechanical engineering, computer engineering, biotechnology, or automotive innovation. Often, universities, governments, and corporations anchor these spaces as a strategy for driving local economic development and investment in innovation and new technologies. Before it filed for Chapter 17 bankruptcy in 2017, TechShop was an example of a global techspace franchise partnering with cities, governments, and companies like BMW to advance innovation.⁷

Coworking Space

A shared workspace typically occupied by small businesses, startups, and freelancers, and geared toward software or online production. Coworking spaces might provide shared equipment and facilities such as computers, printers, software, conferencing services, and meeting spaces. Others provide access to space and a creative environment, while members provide their own equipment.

Startup

A fledgling business enterprise, commonly understood to have strong growth potential. Popular lexicon tends to blend “startup” with the tech industry, but the term is not strictly tech-oriented. For this report, “startup” is used most often to connote a young, lean business that may be seeking to scale up.

Cottage Industry

A business or manufacturing operation carried out in one’s home. Small-batch food production is an example of a typical cottage industry with enabling legislation in Maryland. Apparel design and production is another common example. Cottage industry operations have minimal overhead costs, but as they grow, they often require space outside the home. For some cottage

⁷ Kalish, J. (April 13, 2014). “High-Tech Maker Spaces: Helping Little Startups Make It Big.” *NPR*. www.npr.org/sections/alltechconsidered/2014/04/30/306235442/high-tech-maker-spaces-helping-little-startups-make-it-big

businesses, graduation into a shared manufacturing or incubation space, such as a commercial kitchen hub, is an affordable and logical next step.

Live-Work Units

Low-cost space that combines workspace with living quarters; popular with startups and small entrepreneurs.

Main Street

Both a generic phrase denoting a neighborhood's primary retail street and a colloquial term referring more generally to local small businesses. The phrase has planning dimensions that increasingly indicate walkability, a strong sense of place, jobs for residents of the neighborhood, and civic engagement. In this report, main street does not refer to State-designated Maryland main streets or the National Main Street Center, but to the broader definition of a neighborhood's primary, walkable retail area.

Flex Space

Single-story space with a portion finished as office space and a portion retained as space for warehousing, repair, or production. Flex spaces can accommodate multiple types of tenants.

Modular/Butler Buildings

Manufactured buildings can often be fabricated and deployed more quickly and more affordably than the cost of renovating existing industrial buildings that might be in disrepair. For jurisdictions or towns seeking to support a growing need for industrial and entrepreneurial spaces—and where existing land and land uses could support such a building—modular or Butler buildings could provide affordable space for growing small businesses.

Class A Industrial Space

“In general, a class A building is an extremely desirable investment-grade property with the highest quality construction and workmanship, materials and systems, significant architectural features, the highest quality/expensive finish and trim, abundant amenities, first rate maintenance and management; usually occupied by prestigious tenants with above average rental rates and in an excellent location with exceptional accessibility.”⁸ Class A industrial space is not included in this analysis of growing small scale-manufacturing businesses. This class of industrial space has prohibitively high rents and is often a landmark building.

Class B Industrial Space

“In general, a class B building offers more utilitarian space without special attractions. It will typically have ordinary architectural design and structural features, with average interior finish, systems, and floor plans, adequate systems and overall condition. It will typically not have the abundant amenities and location that a class A building will have. This is generally considered to be more of a speculative investment. The maintenance, management and tenants are

⁸ “CoStar Glossary.” Accessed March 12, 2020. <https://www.costar.com/about/costar-glossary>.

average to good, although, Class B buildings are less appealing to tenants and may be deficient in a number of respects including floor plans, condition and facilities. They therefore attract a wide range of users with average rents.”⁹ Because of the flexibility and lower cost of Class B Industrial Space, these spaces are included in this analysis of small-scale manufacturers.

Class C Industrial Space

“In general, a class C building is a no-frills, older building that offers basic space. The property has below-average maintenance and management, a mixed or low tenant prestige, and inferior elevators and mechanical/electrical systems. As with Class B buildings, they lack prestige and must depend chiefly on lower price to attract tenants and investors.”¹⁰ Class C buildings are included in this analysis because of their low cost and potential for adaptation to other uses.

⁹ Ibid.

¹⁰ Ibid.

Introduction

Call to Action

On March 30, 2020, Maryland Governor Larry Hogan issued a stay-at-home order and declared the temporary closure of all nonessential businesses to curtail the transmission of COVID-19. The pandemic is dire. Although everyone feels its effects, its devastating impacts are hurting some communities more than others. Evidence mounts daily that this virus disproportionately kills black Americans—accentuating persistent inequality in wealth, health insurance coverage, environmental quality, and countless other aspects of society. And for essential workers whose jobs cannot be carried out remotely, the risk of infection increases drastically.

The mortal threat posed by the virus and the specter of financial turmoil must be addressed. As of the writing this report, there are no reliable estimates for how many small businesses in Maryland that have closed will reopen, but what is known is that people, families, businesses, neighborhoods, and whole communities are suffering. It is amid the weight of this pain that we set out now to provide a product that can help Prince George’s County chart its future. While much is still unknown, one theme that has become increasingly important in recent weeks is the value of local production, local distribution, and a skills-based workforce who can manufacture goods.

“There are arguments to be made for businesses selling in place and **creating foot traffic, filling vacant storefronts, creating an inclusive base of business-owners.** There are a lot of great reasons to pursue small-scale manufacturing ecosystems.”

—Ilana Preuss, Founder and CEO, Recast City

Across the country, manufacturing companies and their workers have, to the best of their abilities, converted their production to meet unprecedented—and lifesaving—demand.¹¹ Makers and manufacturers throughout the Washington and Baltimore

metropolitan regions have pivoted to 3-D print face shields for local frontline workers; apparel companies have shifted to sew masks, gowns, and head coverings for healthcare staff; and, distillers and soap companies have begun to produce hand sanitizer.¹² The pandemic has disrupted global supply chains and called attention to the need for essential products to be made here in the United States and regionally.

And if the expansion of higher-paying jobs was critical to address economic inequality before this pandemic, we now face a choice as a nation to make them a priority as we put people back to work. Small-scale manufacturing is one essential industry that could help our nation recover

¹¹ Flynn, M. (April 23, 2020). “They lived in a factory for 28 days to make millions of pounds of raw PPE materials to help fight coronavirus.” *Washington Post*.

¹² Ruiz, N. (March 22, 2020). “Baltimore makers unite to create face shields for medical workers during coronavirus pandemic.” *The Baltimore Sun*; Babcock, S. (April 15, 2020). “These 9 Baltimore Manufacturers Received Grant Funding to Make PPE.” *Tehnnical.ly*.

while also paying family-sustaining wages.¹³ It's time to rethink how our economy serves people's quality of life, and small-scale, local manufacturing has a critical role to play. Fortunately, Prince George's County and the DC-Maryland-Virginia region has a foundation of manufacturing businesses to foster and grow into the future.

Recent Economic Trends in Prince George's County

In January 2020, the Stephen S. Fuller Institute at George Mason University revealed that Prince George's County had overtaken Montgomery County as Maryland's top job creator. Long misunderstood as the region's "runner-up," Prince George's County's recent efforts to attract and grow new businesses, and to position itself as the most business-friendly jurisdiction in comparison to its metropolitan peers, have been highly successful.¹⁴ The Fuller Institute finds, for example, that despite having a population 14% smaller than that of Montgomery County, Prince George's County exceeded their job creation rate by 8.6% between 2013 and 2018.¹⁵ And yet, between 2013 and 2018, the County's two top-paying industries—Information and Public Administration—have declined in the overall number of jobs, while Manufacturing, Warehousing, and Construction have grown over the same period.¹⁶ As the County has become more affluent in recent years¹⁷—and as its share of jobs in trade industries has increased—there is renewed pressure to ensure that its recent job-creation success meets the needs of all residents.

Although there is room to grow high-skilled, high-paying jobs and harness the full potential of two research universities and the federal government,¹⁸ this study explores whether well-paying jobs for residents without a post-secondary education ought to feature more prominently in the County's economic development strategy. With the highest poverty rate among neighboring jurisdictions,¹⁹ Prince George's County must also focus on providing for low-barrier jobs with family-sustaining wages.

Specifically, Prince George's County's *Plan 2035* highlights that industrial jobs are "vital generators of higher-wage jobs with good benefits and upward mobility for residents with lower levels of formal education" and that this industry is "more likely to hire county residents."²⁰ Moreover, Prince George's County already has 30.5 percent of the region's rentable industrial space, and 32 percent of the county's employment base worked in industrial activities in 2013

¹³ Langdon, D., and Lehrman, R. (2012). The benefits of manufacturing jobs. U.S. Department of Commerce: Economics and Statistics Administration.

¹⁴ McCartney, R. (January 20, 2020). "Prince George's Overtakes Montgomery as Top Jobs Creator in Maryland Suburbs." *The Washington Post*.

¹⁵ Ibid.

¹⁶ U.S. Census Bureau, ACS 5-year estimates, 2013-2018.

¹⁷ Ibid; and McCartney, R. "Prince George's Overtakes Montgomery as Top Jobs Creator in Maryland Suburbs."

¹⁸ University of Maryland, College Park, and Bowie State University are based in Prince George's County. Jobs with the federal government accounts for 8.3% of Prince George's County employment. Maryland, Department of Commerce (2019). "Brief Economic Facts: Prince George's County, Maryland."

<https://commerce.maryland.gov/Documents/ResearchDocument/PrGeorgesBef.pdf>

¹⁹ Prince George's County Planning Department. 2014. *Plan 2035: Prince George's Approved General Plan*. Maryland-National Capital Park and Planning Commission

²⁰ Ibid.

(see Table 1).²¹ Building on this strong industrial potential, this study investigates the small-scale manufacturing industry in Prince George’s County, its role in the local economy, and the conditions necessary for this promising new industry to flourish and “[leverage] its potential as an economic engine” to promote a “diverse and healthy county economy.”²²

TABLE 1. Real Estate Data for Prince George’s County (2013)

Sector	Prince George's County		Washington Metro Region		County Share of Metro Region
	Rentable Building Area	Vacancy Rate	Rentable Building Area	Vacancy Rate	
Industrial	49,918,455	8.50%	163,589,021	9.90%	30.50%
Flex	9,761,516	18.30%	68,459,493	14.20%	14.30%
Retail	40,635,420	18.30%	287,835,511	5.10%	14.10%

Source: CoStar Realty (2013), via Prince George’s County Plan 2035.

Goal of Study

This study works to assess the successes and challenges of small-scale manufacturers and maker businesses in Prince George’s County, to determine what resources exist to help these businesses grow, and to identify what changes should be made to create a more robust and supportive ecosystem for these manufacturers, all goals to help drive an inclusive economy. Through analysis of industrial building supply and zoning code, research on best practices and case studies from other jurisdictions, and interviews with local businesses, leaders, and experts in their fields, this study makes recommendations to support small-scale manufacturing in Prince George’s County. The report includes the following sections:

- **Challenges for Small Scale Manufacturers:** to integrate stakeholder interview insights with defined challenges
- **Economic Development Considerations:** to outline existing and potential goals to drive a more robust and supportive small-scale manufacturing business
- **Existing Businesses and Real Estate:** to inventory what small-scale manufacturing businesses exist and characteristics of existing industrial real estate
- **Applicable Zones and Impact of Zoning Rewrite:** to examine how current and proposed zoning codes will promote or detract from the ability of small-scale manufacturing to grow in places that meet their needs
- **Conclusion and Recommendations:** to outline the next steps for the County to produce a more equitable, inclusive economy

²¹ Ibid.

²² Ibid.

Challenges for Small-Scale Manufacturers

Conducting interviews with small-scale manufacturers is essential to understanding the challenges faced by businesses and the opportunities for growth within Prince George’s County. While the PALS team prioritized interviewing businesses within Prince George’s County, the team also sought interviews with businesses in neighboring jurisdictions: Washington, DC; Baltimore City; and Fairfax County, Virginia, with the understanding that real estate costs are driving businesses to relocate in more affordable counties.²³ Additionally, the PALS team interviewed institutional stakeholders, including individuals with positions at the University of Maryland, Made in Baltimore, and local economic development consultants. The insights gleaned from even this limited number of interviews effectively frame the following challenges to small-scale manufacturing in Prince George’s County. Complete notes from each interview are summarized in Appendix 1.3 (pages 54-68).

Affordable and Accessible Space: Quality and Location of Real Estate

The PALS team heard from businesses both in the county and the region that they desire street-level production space with retail that provides greater visibility and interaction with the community and customers. These maker and manufacturing businesses are hiring local residents and want a unique community identity to shape their brands. One apparel designer and manager of a sewing makerspace, said, “I wish I had a street-level space with better visibility and accessibility.”²⁴ Another maker of leather bags mentioned that having street-front space in an arts district had helped grow her brand and reach new customers.²⁵ The executive director of Made in Baltimore echoed their sentiments when he discussed that many of the makers in his 200-business program are seeking to scale up into customer-facing commercial spaces.

And yet, while there is affordable industrial real estate available in Prince George’s County, the ideal production and retail locations on main streets come at a cost premium. Moreover, new construction—especially near transit—is too expensive for small-scale manufacturers. The owner of the economic development firm Recast City questioned, “Do we want diverse business types and owners? Then we might have to provide some below-market-rate spaces.” Facilitating access to affordable and accessible spaces for small production businesses is the foundation for more equitable economic development.

Businesses also often confront another barrier to finding the right real estate in Prince George’s County, even if industrial real estate exists at the right price point. Most warehousing space—the predominant industrial real estate in the County (see Inventory of Suitable Industrial Real Estate section of this report, pages 31-37)—will need retrofitting to meet the varied needs of different small manufacturing and maker businesses. Multiple businesses interviewed were

²³ Interview with Ilana Preuss. March 3, 2020.

²⁴ Interview with Apparel and Textile Manufacturer #1. March 5, 2020.

²⁵ Interview with Apparel and Textile Manufacturer #2. March 24, 2020.

located in retail or commercial space rather than industrial. Full understanding of the availability of visible, affordable, easily configurable space suitable for small-scale manufacturers will require further study.

Access to Capital

Interviews identified that maker and small manufacturing businesses have difficulty accessing traditional funding sources.²⁶ These businesses are often difficult to categorize. Many started their business in their home or define themselves as a maker or artisan rather than manufacturer. As such, they do not fit neatly into Bureau of Labor Statistics categories or meet requirements for certain tax credits and funding sources.²⁷ According to the director of Made in Baltimore, businesses receive Maryland State tax credits for every five jobs they create. Businesses that create fewer than five jobs are not eligible for these credits. The aggregate impact of these businesses, therefore, is not being leveraged. A leather bagmaker—one of three apparel and textile businesses the PALS team interviewed—also mentioned difficulty paying for skilled labor and covering production costs. She attributed her ability to stay in business in part to her “below-market retail space,” but shared her imminent plans [prior to COVID-19] to scale back production and move the business back to her home. Small production businesses leverage creative funding sources like lines of credit through merchant and mobile payment company Square, that get paid back through the use of their services.²⁸ But programs for government-backed loans could provide better support for these creative businesses that tend to fall through the cracks.²⁹

Policy Support: Zoning and Permitting

There are a variety of impacts related to policy that affect small-scale manufacturers. In particular, challenges have arisen across the region with permitting manufacturing and production uses in zones other than industrial. As demonstrated in interviews, some businesses preferred traditional commercial storefronts with flexible space. Still, many manufacturing uses are not permitted in commercial zones in Prince George’s County (see Applicable Zones and Impact of Zoning Rewrite section of this report, pages 38-42). The owner of Recast City stated that often—even when a given zone permits light-industrial manufacturing uses—permitting offices in the region are unaccustomed to approving permits for small manufacturers that do not fit neatly into existing protocols and systems.³⁰ Other maker businesses may be reluctant to register their businesses as LLCs, citing complicated paperwork as a significant barrier to growing their businesses.³¹

²⁶ Interview with Andy Cook. February 28, 2020.; Interview with Apparel and Textile Manufacturer #2. March 24, 2020.

²⁷ Interview with Ilana Preuss. March 3, 2020.

²⁸ Interview with Apparel and Textile Manufacturer #2. March 24, 2020.

²⁹ Interview with Andy Cook. February 28, 2020.

³⁰ Interview with Ilana Preuss. March 3, 2020.

³¹ Interview with Apparel and Textile Manufacturer #3. March 26, 2020

Programmatic Support: Technical Assistance, Branding and Marketing

Several interviews suggested that connection to County-led business development efforts need to become much more reliable, particularly when it comes to helping single-proprietor businesses grow. Design, production, and retail for two of the apparel and textile business interviewed are decentralized across multiple states.³² One business owner expressed the need for the local fashion design and apparel industry to experience greater visibility and institutional support: “There has to be a wider knowledge that this is the place to go to find up and coming designers or do manufacturing—it’s not just about providing the space, but the whole branding behind it.”³³ Tired of sending her apparel designs to New York to be produced, this business owner reached out to Employ PG for help finding the right space, accessing local resources, and navigating regulations to produce her designs locally. Local production would allow her to expand her business, increase her rate of production, and hire more skilled workers. Her request was never met, and she did not expand her business.

Still, this business owner was attracted to Prince George’s County specifically because of the energy behind the Gateway Arts District. She expressed that a “Made in Prince George’s” branding program could improve visibility and growth for the district’s businesses. Similarly, all three apparel and textile businesses interviewed had online platforms to reach customers and sell their products. More technical support for growing businesses and customer markets that are increasingly online would be extremely beneficial for makers and small-scale manufacturers—in general and especially post COVID-19.

Workforce Development

Research, case studies, and interviews all highlight the need for the County to support low-barrier jobs, ideally located near transit and in activity centers that attract and retain local workers. Staff at the University of Maryland’s Office of Community Engagement, when interviewed, lamented the disconnect between the University and what they called the “greater College Park community”—predominantly low-income immigrant and/or Latino residents.³⁴ The community members are skeptical of short-term investments and fleeting promises, they said, in part, because what they need is longer-term commitments to resources and job-training. Another University representative, leading the Campus Connector and Discovery District, agreed that “representation, quality of life, and community aspirations” are important, but acknowledged that Discovery District and University resources for innovation are focused on attracting large companies and investors that can generate the most substantial return on investment.³⁵ In other words, the County itself will need to steer toward more inclusive economic growth if it agrees that the need is there. As the owner of Recast City suggested, the County

³² Interview with Apparel and Textile Manufacturer #2. March 24, 2020.; Interview with Apparel and Textile Manufacturer #3. March 26, 2020

³³ Interview with Apparel and Textile Manufacturer #1. March 5, 2020.

³⁴ Interview with Gloria Aparicio-Blackwell and Jose Cadiz. March 4, 2020.

³⁵ Interview with Sammy Popat. February 18, 2020.

should be asking itself, “How do we take people from low-income jobs into something stable and wealth-creating and long term?”³⁶

Local Business Networks and Social Capital

The COVID-19 pandemic highlighted the value of local supply chains—whether through the creation of personal protective equipment for frontline and medical professionals, or through local food systems that improve access to healthy foods. Now, more than ever, local independent businesses rely on their relationships with fellow entrepreneurs, their landlords, their government, and their loyal customers to help them reopen on the other side of this crisis. What is more, even though these local businesses are hurting financially, they are devoted to the communities where their owners and employees live and work.

Even though many small production businesses in the region seek out networks of makers and manufacturers—as the apparel designer in Mount Rainier was attracted to the Gateway Arts District—not all small-scale manufacturers have these support networks. The executive director of Made in Baltimore stated that “what our members really valued more than anything was the opportunity to network with other members in the Made in Baltimore program.”³⁷ These local connections are vital for independent entrepreneurs working in non-traditional manufacturing that supports retail and community development. The more the County can support these connections, the more these businesses can continue to give back and shape their communities.

³⁶ Interview with Ilana Preuss. March 3, 2020.

³⁷ Interview with Andy Cook. Conducted by Ariel Bierbaum and Lou Thomas. April 17, 2020.

Economic Development Considerations

Small-scale manufacturing is an umbrella term referring to all types of small businesses that make tangible products, from apparel, furniture, and metalwork, to food and beverage production.³⁸ Firm size varies, but generally, up to 20 employees is considered “small scale;” 72% of all of Prince George’s County’s manufacturing businesses have fewer than 20 employees.³⁹ Businesses can be consumer-facing or part of a supply chain for other companies. Industry innovation makes small-scale manufacturing businesses challenging to categorize in federal databases and presents a more significant barrier to quantify the impact that these manufacturers have on the economy.⁴⁰ Importantly, some businesses that fall into the definition of small-scale manufacturers define themselves as makers, artisans, or designers. This diversity of terminology can make defining and offering targeted support for these businesses a challenge.⁴¹

According to 2018 ACS estimates for employment by industry, **72% of all of Prince George’s County’s manufacturing businesses have fewer than 20 employees.**

While these businesses face unique obstacles to evaluation and tracking, small-scale manufacturing can contribute significantly to regional economies. Similar to general industrial jobs discussed in *Plan 2035*, small-scale manufacturers create jobs that typically pay higher wages and offer greater career mobility than low-barrier jobs in other industries like retail and food service.⁴² When a robust network of makers and small-scale manufacturers exists, it inspires workforce training for the next generation and encourages consumers to look for locally made products.⁴³ Supporting small-scale manufacturers is also a critical component of a local economy—creating diverse and resilient jobs for residents that are likely to remain in the area and become part of larger, local supply chains with multiplier effects within the economy.⁴⁴ Furthermore, small-scale manufacturers can contribute to vibrant and walkable downtowns, districts, and neighborhoods.⁴⁵ Industrial land also stabilizes nearby property values within an affordable range.⁴⁶

The Urban Manufacturing Alliance asserts that “the real power of the maker movement for communities lies in the businesses’ potential to scale.”⁴⁷ Yet, a shortage of skilled workers and

³⁸ Smart Growth America (2017). “Made in Place: Small-Scale Manufacturing and Neighborhood Revitalization.”

³⁹ U.S. Census Bureau (2019). ACS 1-year estimates for employment by industry, 2018.

⁴⁰ Urban Manufacturing Alliance. 2019. State of Urban Manufacturing: National Report.

⁴¹ Ibid.

⁴² Government of the District of Columbia. 2014. Ward 5 Industrial Land Transformation Study.; Partners for Economic Solutions. 2013. Industrial Land Use: Montgomery County, Maryland. Montgomery County Planning Department.

⁴³ Maker City. 2017. Policy Brief: From Making to Manufacturing: A New Model for Economic Development in Cities and Towns.

⁴⁴ Recast City. 2016. Makers and Manufacturers in Fremont.

⁴⁵ Ibid.

⁴⁶ Government of the District of Columbia. 2014. Ward 5 Industrial Land Transformation Study.

⁴⁷ Ibid.

lack of access to capital are significant detriments to the growth of these businesses.⁴⁸ Small-scale manufacturers working to expand their markets—whether through online interaction with customers, branching into wholesaling, or uniting under a place-based branding program—face additional challenges when there is not a strong network of support.⁴⁹ Furthermore, existing industrial space in many communities looking to grow small-scale manufacturing may be too large or too expensive for small-scale manufacturers, and competing for commercial, office, and residential uses can cause industrial rents to rise.⁵⁰

Case Study: Brooklyn, NY

Overview: The Greenpoint Manufacturing and Design Center (GMDC) is a nonprofit commercial developer whose operating and capital structure enables them to offer long-term, affordable leases to industrial production businesses. Nonprofit, mission-driven developers can make excellent partners for constructing, rehabilitating, and leasing industrial real estate. Prince George’s County’s Economic Development Office could consider how partnerships with nonprofit developers would serve mutual goals for community development and economic growth.

Context: The GMDC “creates and sustains viable manufacturing sectors in urban neighborhoods through planning, developing, and managing real estate and offering other related services.” It also acquires and upgrades multitenant manufacturing buildings in targeted areas of New York City, while acting as an advocate for small manufacturing as an economic development driver and providing technical assistance to communities. GMDC’s properties are typically between 95,000 and 24,000 square feet, and house around 10 tenants each. Tenants tend to be grouped loosely by type. GMDC colocates cabinetry, furniture, and framing; sewing, leather works, and furnishings; fine art and ceramics; and modelmaking, special effects, and electronics.

Evidence: To support industrial development and retrofits, New York City established the Industrial Development Loan Fund in 2017 to provide “strategic debt capital,” i.e. subordinate loans that can be used as gap financing for small businesses. Developers like GMDC can use the loans to acquire property, land, or equipment, as well as to retrofit existing buildings to their needs. GMDC has used these funds to complete their work, which in turn allowed them to offer long-term leases and affordable rents to small business tenants.⁵¹ GMDC’s buildings are in the North Brooklyn Industrial Business Zone—part of a New York State Brownfield Opportunity Area—and the East Williamsburg Empire Zone.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Urban Manufacturing Alliance. 2019. State of Urban Manufacturing: National Report.; Partners for Economic Solutions. 2013. Industrial Land Use: Montgomery County, Maryland. Montgomery County Planning Department.

⁵¹ Nowab, J. “Why New Brownfield Designation Is Good for Brooklyn Industry.” *Real Estate Weekly*. rew-online.com/why-new-brownfield-designation-is-good-news-for-brooklyn-industry/; New York City Economic Development Corporation. <https://edc.nyc/program/nyc-industrial-developer-loan-fund>.

Case Study: Detroit, MI

Overview: A coalition of companies in Detroit are working to help design-related industries in textiles, fashion, and apparel manufacture their products in Detroit. Similarly, one apparel and fashion design business in Prince George's County expressed the desire to be able to manufacture their products in the County instead of in New York. A place-based strategy that

A place-based strategy that supports the entire life cycle of a manufacturing business—from design to production—could benefit Prince George's County businesses looking to expand.

supports the entire life cycle of a manufacturing business—from design to production—could benefit Prince George's County businesses looking to expand.

Ash & Erie, have encountered roadblocks, such as a lack of trained, skilled labor and finding a U.S. manufacturer who can produce smaller batches at reasonable prices. Together with other companies, they established the Sewing and Innovation Center—arguing that integrating every part of the production process will reduce costs for growing companies and give them access and control over the production of their products.

Context: Growing Detroit-based companies like watchmaker, Shinola, and men's clothier,

Evidence: To promote a skilled workforce, the Center is both an academy and factory, “train[ing] workers to sew, cut fabric, make patterns, and operate emerging technology to create products.”⁵² Part of the Center is also a U.S. Department of Labor-approved apprenticeship program and a pre-apprenticeship certification program taught at Henry Ford College. Partners like the Urban Manufacturing Alliance, the Detroit Creative Corridor Center, and the City of Detroit are working to build the knowledge base necessary to help these businesses scale-up. The specialized combination of design, art, and production that small-scale manufacturers practice makes typical categorization and data collection difficult.⁵³

⁵² Hayes Taylor, K. December 4, 2017. Can Detroit become a textile manufacturing hub? Industry professionals think so. Model D. <https://www.modeldmedia.com/features/textile-manu-hub-detroit-120417.aspx>

⁵³ Urban Manufacturing Alliance. 2018. The State of Urban Manufacturing: Detroit City Snapshot. <https://www.urbanmfg.org/wp-content/uploads/2018/02/City-Snapshot-Detroit-Final.pdf>

Case Study: Open Works Makerspace, Baltimore, MD

Overview: Open Works is a nonprofit makerspace—redeveloped from a shipping distribution center by a nonprofit realty corporation—in the Station North Arts District in Baltimore City. At 34,000 square feet with 32 full- and part-time staff and hundreds of monthly and daily members, Open Works’s mission is to “rebuild Baltimore’s manufacturing economy from the grassroots up—one maker at a time.”⁵⁴ Since its opening in 2016, the makerspace helped 55 businesses get started, including the 24 who currently operate fully out of the facility.⁵⁵ Notably, 56% of Open Works members intend to turn their activities into a business, and an additional 23% are considering doing so.⁵⁶ The makerspace brings incredible community and economic value to the neighborhood and to the City.

Context: Primary trades at Open Works include woodworking, sewing, design, laser cutting, 3D printing, digital fabrication, metalworking, and CNC routing, in addition to a full suite of graphics editing software, among other tools. The space provides access to tools and to workspaces for its members—many of whom are small business owners—and conducts regular education classes aimed at building skills of youth, seniors, and adults more broadly. In fact, while 61% of clientele are from within Baltimore City, 34% are from zip codes directly adjacent to Open Works,⁵⁷ suggesting strong potential as a hub for community engagement.

Evidence: With steady growth since its founding, Open Works generated \$1.18 million in 2017-2018 and was on track to increase its revenue a further 13% to \$1.37 million the following year.⁵⁸ Additionally, the makerspace annually generates \$9.5 million for the Maryland economy and \$5.5 million for the City’s economy.⁵⁹ In a further show of its community value, in the wake of COVID-19, Open Works tapped its network of resources and of makers to lead the design, fabrication, and distribution of 3D-printed face shields for frontline workers. As of April 14, 2020, the makerspace had assembled nearly 8,000 face shields for healthcare workers in Baltimore City as well as for volunteers distributing food, conducting outreach to the homeless, and providing elder care, among other essential services.⁶⁰

⁵⁴ openworksbmore.org

⁵⁵ Coppin State University Center of Strategic Ingepreneurship (2019). *Turning Maker Spaces Into Greater Places: 2019 Assessment of Open Works*.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Open Works Annual Report (2019).

https://www.openworksbmore.org/wp-content/uploads/2020/01/Annual-Report_2019-4.pdf

⁶⁰ *The Washington Post* (March 31, 2020). “3D Printing Face Shields for Hospitals in Need.”

www.washingtonpost.com/video/national/3-d-printing-face-shields-for-hospitals-in-need/2020/03/31/550e6159-4289-4dc5-83a4-f74fab400188_video.html; and We the Builders. www.wethebuilders.com.

Key Findings

1. Supporting local small-scale manufacturers is a critical component of a local economy—creating diverse and resilient jobs for local residents and encouraging consumers to look for locally made products.
2. The challenge to define and identify “makers” and “manufacturers,” as well as sector-specific identities such as “brewer,” will be essential to understanding their needs and their impact on the County’s economy.
3. Makerspaces can generate community and social infrastructure while making valuable contributions to local and state economies. They may fill a critical gap between hobbyists and startups, providing low-cost space for entrepreneurs to test out business ideas and production.
4. Mission-driven developers may make excellent partners when it comes to mutually defined needs of rehabilitating industrial real estate, continuing to drive a local maker economy, and revitalizing neighborhoods with a high density of industrial buildings.
5. On-the-job training and education build skilled talent for existing industries while also signaling to new companies that local workforce can meet their needs.

Inventory of Existing Businesses

The PALS began an inventory of existing maker, artisan production, and small-scale manufacturing businesses in the County. The inventory aimed to identify the most prevalent business typologies that fall under the umbrella of small-scale production and manufacturing, as well as the shared makerspaces in the County today. The inventory also aimed to allow the project team to examine the land use characteristics of areas where these businesses are located, particularly major employment and transportation centers. The project team was not able to identify production-based businesses that are operating out of the home, and restrictions on field work made it challenging to develop a more comprehensive inventory.

Business Inventory

The businesses captured in the following inventory (see Map 1) are either production- and manufacturing-based, or makerspaces that support production- and manufacturing-based businesses. The PALS team began by narrowing their search to the Gateway Arts District, the Route 1 corridor, and the Innovation District since there was already a known concentration of maker businesses. The County is also targeting further development in these areas through *Plan 2035*.

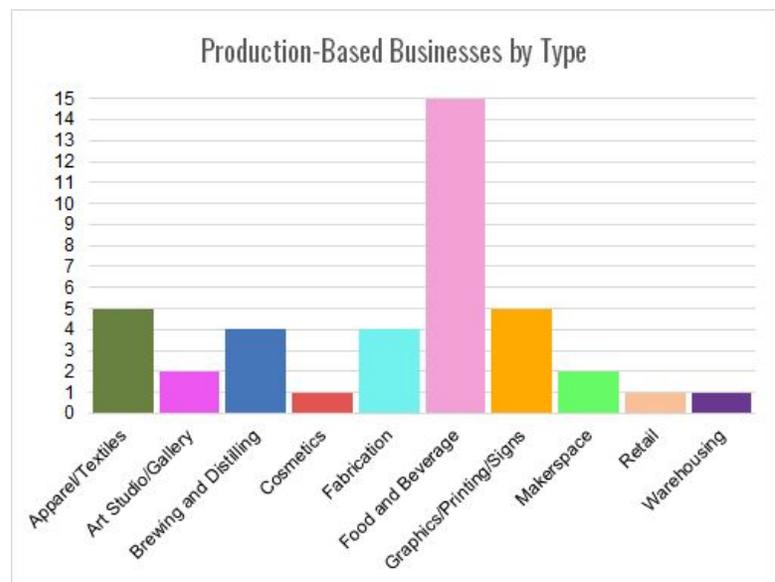


FIGURE 1. Business Inventory by Type. Source: Hyattsville Community Development Corporation Business Directory

Additional businesses were identified through the Maryland Department of Transportation registration of Minority-Female-Disabled owned businesses, as well as a list of businesses found in the Hyattsville Community Development Corporation Business Directory.⁶¹ Businesses were selected from a wide range of industries (cosmetics, food and beverage, furniture, textiles, technology, etc.) but were always focused on production. The inventory is not comprehensive and does not consider the zoning or land use of the property where the business is based.

Food and beverage business comprised the majority of inventoried businesses, but business typologies ranged from apparel/textiles to cosmetics and technology. Business subtypes were

⁶¹ Hyattsville Community Development Corporation. "HyCDC Business Directory." *Hyattsville Community Development Corporation* (blog), October 13, 2010. <https://hycdc.org/small-business/business-property-databases/map-of-businesses/>.

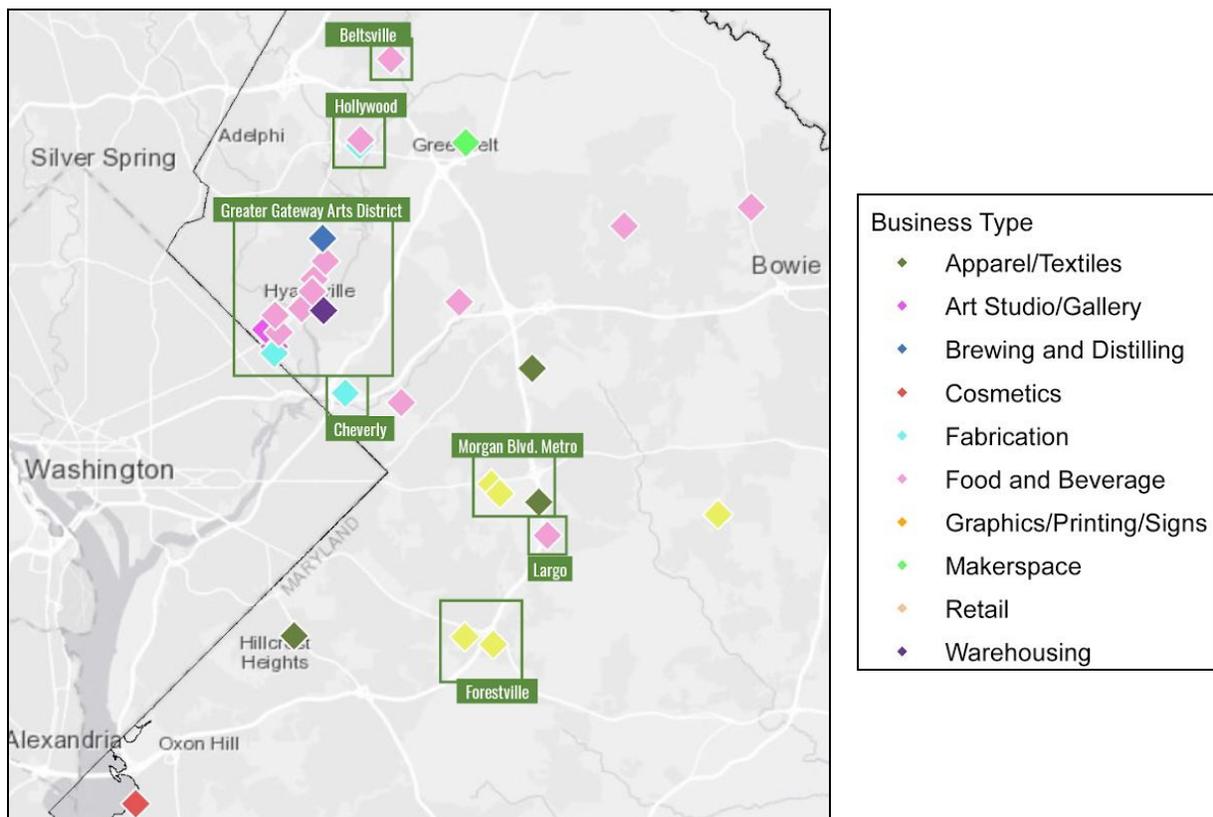
also identified. For example, within the food and beverage category, businesses included bakeries, coffee roasters, commercial kitchens, and canned food products.

Business Cluster Analysis

Based on the map files available, the PALS team analyzed the existing small manufacturing and maker businesses in the above inventory along dimensions of location and land use. They are located throughout the County, reaching as far south as Oxon Hill. Of the 40 businesses, 24 are clustered around Route 1, from the Washington, DC border to Beltsville. Moving out from the District line and away from Route 1, businesses are more dispersed and can be found in the Capitol Heights, District Heights, Temple Hills, and Upper Marlboro. Of the businesses inventoried, none are located in the southernmost parts of the County. Six are located at residential addresses, indicating that a small contingent produce goods in-home. Further study of nodes could result in a more granular, in-depth look at the conditions and character of the areas around these businesses.

To better understand the areas of the County where small-scale manufacturing and maker businesses exist, the PALS team created a 0.25-mile buffer around each business and grouped them based on geography. These groups refer to locations that include at least one industrial building in a commercially zoned area, and at least one inventoried business. These criteria create seven areas for examination: Beltsville, Hollywood, Greater Gateway Arts District, Cheverly, Morgan Boulevard, Metro, Largo, and Forestville.

MAP 1. Production-Based Businesses in Neighborhoods with Industrial and Commercial



Greater Gateway Arts District

The business inventory found 21 small-scale manufacturing and maker businesses in the Greater Gateway Arts District—defined for this study as a cluster of production-based businesses within and adjacent to the State-designated Arts & Entertainment District. Most are Food and Beverage, and Brewing and Distilling. This concentration may be partially due to the availability of multi-tenant spaces. Savor at Studio 3807 at 3809 Rhode Island Avenue is a shared commercial kitchen and food hall that houses numerous dining options and three businesses oriented toward production and distribution: Relish Market, Delectable Cakery, and Dutch Mill Catering. Three Little Birds Sewing Company and Tanglewood Works, an upcycling art studio, are both located in a multi-tenant building at 5132 Baltimore Avenue.

The Gateway Arts District is a state-designated Arts & Entertainment District and community development corporation focused on generating arts-oriented activity in the neighborhood.⁶² Thanks to incentives and funding opportunities that accompany this designation as well as strong marketing and placemaking, this area has successfully become a destination for arts and crafts enthusiasts, diners and drinkers, as well as for makers themselves.

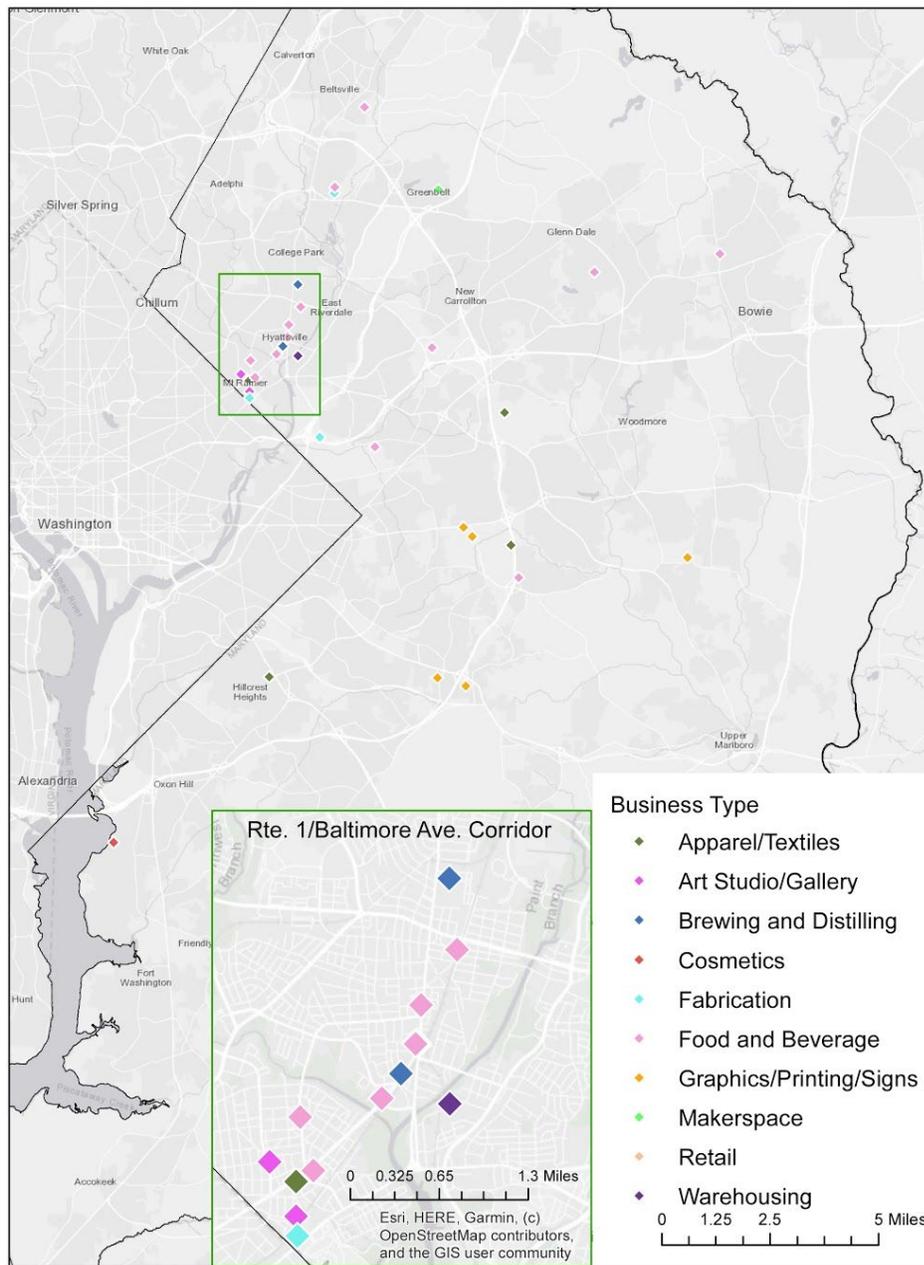
TABLE 2. Business Types in the Gateway Arts District

Greater Gateway Arts District		
Business Name	Business Type	Business Sub-Type
Sugar Vault Desserts	Food and Beverage	Bakery
Shortcake Bakery		Bakery
Vigilante Coffee		Coffee roaster
Southeastern Roastery		Coffee roaster
Relish Market		Juices and Health Foods
Delectable Cakery		Bakery
Savor at Studio 3807		Commercial kitchen incubator
Dutch Mill Catering		Catering
Sangfroid Distilling	Brewing and Distilling	
Streetcar 82 Brewing		
Maryland Meadworks		
Denizens Brewing Co		
Chase Custom Boots	Apparel/Textiles	Shoemaker
Sew Creative Lounge		Shared studio, Designer/ Retail
Otis Street Arts Project	Art Studio/Gallery	Shared studio

⁶² Gateway Arts District of Prince George’s County. “About The Gateway Arts District.” Accessed May 3, 2020. <http://mygatewayarts.org/visitors-corner/discover-the-arts/about-the-gateway-arts-district#.Xq8nqJkpDZs>.

Red Dirt Studio		Shared studio
Tanglewood Works	Fabrication	Upcycled art
Gruver Company Inc		Bookbinding
Pyramid Atlantic	Makerspace	
Three Little Birds Sewing Company	Retail	
Community Forklift	Warehousing	

MAP 2. Production-Based Businesses in Prince George's County.



Less-Concentrated Areas

Beyond the Gateway Arts District, small manufacturing and maker businesses within a 0.25-mile radius of industrial space are more dispersed, appearing in groups of three at the most. These businesses include food, beverage, and apparel/textiles as well as products that seem better suited to slightly larger production space: sign-printing, ironwork, and cabinetry.

A number are also listed at residential addresses. A residential business might indicate that production currently or previously happened in the home. Additional interviews will illuminate whether production still occurs in the home, or if the business address has not been transferred to the new production location. For example, the second apparel and textile manufacturer the PALS team interviewed cuts, sews, and finishes her products at a studio in Washington DC or at Sew Lab USA in Baltimore; however, the official business address is the owner's home in Fairfax County, Virginia.⁶³

TABLE 3. Business Inventory by Location

Business Name	Business Type	Business Sub-Type
Beltsville		
Mays Delicious Inc	Food and Beverage	Food Processing
Hollywood		
Nick's Custom Cabinets	Fabrication	Furniture
Capitol Kettle Corn	Food and Beverage	Snack producer
Cheverly		
Action Fabricators & Erectors, Inc.	Fabrication	Ornamental Iron Fabrication
Morgan Blvd. Metro		
The Embroidery Store	Apparel/Textiles	Fabric printing
Williams & Heintz Map Corporation	Graphics/Printing/Signs	Maps
Tristar Litho, LLC	Graphics/Printing/Signs	Printing press
Forestville		
V.H. Sign Company, Inc.	Graphics/Printing/Signs	
Westland Enterprises, Inc.	Graphics/Printing/Signs	Printing Press
Other areas		
Greenbelt MakerSpace	Makerspace	

⁶³ Interview with Apparel and Textile Manufacturer #2. March 24, 2020.

Lyon Bakery	Food and Beverage	Bakery
Klc Kischenna L. Coley Couture	Apparel/Textiles	Designer/ Retail
At Residential Addresses		
The Organic You, LLC.	Food and Beverage	Bakery
Keep Your Hair Headgear, Llc	Apparel/Textiles	Headwear
Pneuma Fashions LLC	Graphics/Printing/Signs	Embroidery/Screen Printing
Tastes Better Than Yours (Tbty), Llc	Food and Beverage	Canned products
Cotton's Gourmet Gifts & Creations, Llc	Food and Beverage	Bakery
Wink & Pout, LLC	Cosmetics	

Case Study: Nashville, TN

Overview: Nashville’s recently added artisan zone created a mix of suitable manufacturing space, retail space, and live-work opportunities for local creatives. The new zoning also founded a vibrant cultural district where national companies and their employees want to set down roots. Building on its success with the Gateway Arts District, Prince George’s County could expand and preserve available workspaces by designating special zoning that solidifies centralized maker districts and attracts new, innovative businesses.

Context: Manufacturing, Artisan zoning designates light manufacturing as “permitted with conditions” in a number of existing mixed-use, commercial, industrial, and downtown zoning districts. This new permitted use requires shielding residential uses from outdoor storage, limiting loading docks and service doors, and limiting workspaces to one per 1,500 square feet. Additional space is allowed in industrial zones or if a portion of the space is dedicated to the sale of products made onsite.⁶⁴ This zone also allows some live-work use within multi-family zones, so long as there are no hazardous materials.

Building on success with the **Gateway Arts District**, Prince George’s County could expand and preserve available workspaces by **designating special zoning that solidifies centralized maker districts** and attracts new, innovative businesses.

Evidence: The *Wedgewood-Houston Specific Plan* converted five acres of tow truck lot into a district for small-scale manufacturing and makers that includes live-work units.⁶⁵ The district is now considered Nashville’s artisan campus⁶⁶—attracting “artists, musicians, and entrepreneurs to open restaurants, distilleries, breweries, galleries, studios, and workshops.”⁶⁷ And because of this vibrant creative environment and its downtown location, it has attracted larger companies

⁶⁴ Nashville Zoning Ordinance No. BL2015-1121

⁶⁵ Urban Manufacturing Alliance. 2016. How to Retain Maker and Manufacturer Industries through Creative Zoning Tools: Lessons from Indianapolis, Somerville, and Nashville.

<https://www.urbanmfg.org/webinar/how-to-retain-maker-and-manufacturer-industries-through-creative-zoning-tools/>

⁶⁶ Urban Manufacturing Alliance. 2017. Artisan Zoning Policy Brief.

⁶⁷ Nashville Music City. 2020. Wedgewood-Houston.

like Apple Music’s Nashville office and Soho House Hotel—a testament to the benefit of centralized districts clustered around creative and community-oriented sectors.

Key Findings

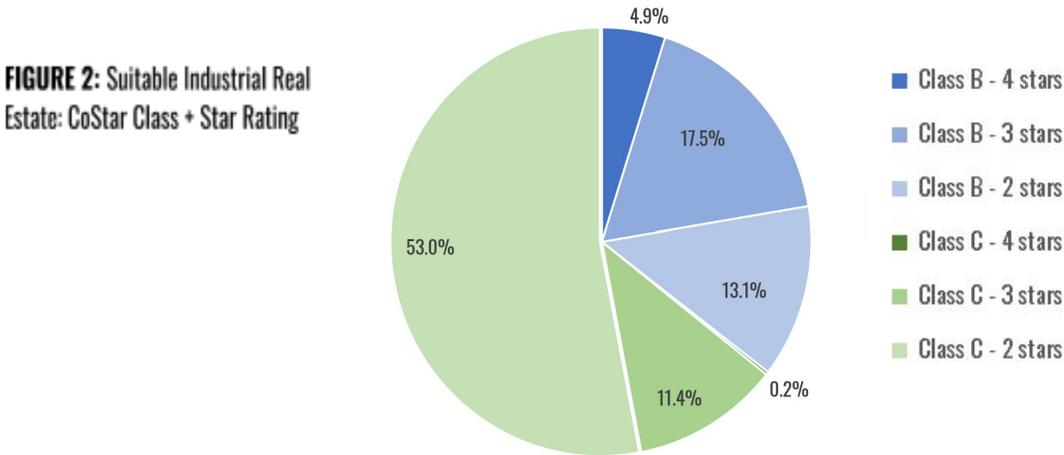
1. Twenty-one of the 40 inventoried small-scale manufacturing and maker businesses in the County are located in the Gateway Arts District. The majority are Food and Beverage, and Brewing and Distilling, and a number of businesses are located in multi-tenant spaces.
2. Thanks to incentives and funding opportunities that accompany the state Arts & Entertainment District designation as well as strong marketing and placemaking, the Gateway Arts District has successfully become a destination for makers.
3. As seen in Nashville, clustering small-scale manufacturers, makers, and related commercial and dining businesses in centralized, downtown districts has successfully developed creative and community-oriented sectors. It has also drawn national companies who want to attract employees with vibrant mixed-use, walkable office locations.

Inventory of Suitable Industrial Real Estate

The PALS team worked with CoStar data to better understand Prince George’s County’s stock of industrial real estate. Specifically, the team analyzed locations of real estate and the range, median, and average of rental rates and square footage. Adjunct faculty in the University of Maryland’s Real Estate Development program recommended the following approach to sort Prince George’s County’s industrial real estate portfolio:

1. Capture buildings in occupiable condition. A primary goal of this study is to provide insight into the market for businesses that are currently seeking industrial real estate. Data about demolished buildings, while available, does not serve this goal.
2. Capture Class B and Class C industrial real estate. These two classes are generally more affordable than Class A because they tend not to include new or landmark construction.
3. Capture buildings that are rated two, three, or four stars for quality. One-star ratings suggest that a building may need significant and costly renovations before it can be occupied.
4. Prioritize multi-tenant buildings because they are subdivided and most likely to provide variable square footage options to accommodate growing small businesses.

Sorting the data as outlined above allowed the PALS team to target 881 industrial buildings, with the majority located in five markets: Beltsville, Hyattsville, Capitol Heights, Upper Marlboro, and Landover (see Table 1). Industrial space that is affordable for small-scale manufacturing and makers falls in Classes B and C, typically, which indicate building quality both within and across markets, along dimensions of “competitive ability to attract similar types of tenants.”⁶⁸ Buildings are also assigned a star rating, one through five, which indicates building quality across national markets.



⁶⁸ CoStar Group (ND). “CoStar Building Rating System.” www.costar.com/docs/default-source/brs-lib/costar_buildingratingsystem-definition.pdf?sfvrsn=12a507a4_2

Across Prince George’s County, 312 buildings are Class B, while twice as many (569) are Class C. Of the 569 Class C spaces, 467 are rated two stars (see Table 4). Only 5% of Class B and Class C properties evaluated are rated four stars, indicating that very little affordable industrial space in the County is high-quality, move-in ready, and well-maintained. Among the 881 buildings analyzed, rent averaged between \$8.67-10.34 per square foot per year. A recent assessment of Baltimore City—by many indicators a competitor with Prince George’s County for industrial businesses—found that small-scale manufacturers in their initial growth phase need between 400 and 1,500 square feet of production space that leases for between \$3 and \$9 per square foot.⁶⁹ Of industrial real estate in Prince George’s County, only two buildings fall below 1,400 square feet.

TABLE 4. Breakdown of Suitable Industrial Real Estate in Prince George’s County

CoStar Class	Star Rating	# of buildings	Rent per sq. ft. per year		Rent per sq. ft. per year
			Avg. Low	Avg. High	By Class
Class B: 312 buildings	4 stars	43	\$8.19	\$9.59	Class B: \$9.15-10.78
	3 stars	154	\$9.16	\$10.82	
	2 stars	115	\$9.49	\$11.18	
Class C: 569 buildings	4 stars	2	\$6.57	\$8.02	Class C: \$8.41-10.10
	3 stars	100	\$7.68	\$9.11	
	2 stars	467	\$8.58	\$10.33	
Total		881	\$8.67	\$10.34	

Source: CoStar Group data.

Table 5 shows a narrowed inventory of 454 industrial properties near commercial zones—recognizing that makers and small-scale manufacturers are an asset to main streets and local commercial areas. Judging by the number of buildings, and the qualities of the secondary building types, each secondary type listed here has been assigned a low, medium, or high compatibility with small-scale manufacturing uses. Some, like warehousing, will require retrofitting and subdivision to become viable space, but are listed as highly compatible due to the broad availability and flexibility of the space.

⁶⁹ Smarter Growth America (2019). “Small-Scale Manufacturing and Place-Based Economic Development: Baltimore, Maryland.”

TABLE 5. Proposed Building Typology

CoStar Secondary Type	Buildings near commercial zones	Average Rentable Building Area (sq. ft.)	Rent per sq. ft.			Compatibility with Small Manufacturers/Makers
			Min.	Max.	Average	
Warehouse	346	35,609 sq. ft.	\$3.22	\$24.75	\$9.35	medium/high
Service	21	19,334 sq. ft.	\$6.97	\$21.20	\$10.99	medium
Manufacturing	14	45,636 sq. ft.	\$4.46	\$16.57	\$9.08	low
Research & Development	5	45,376 sq. ft.	\$6.03	\$12.00	\$9.32	high
Showroom	4	73,293 sq. ft.	\$7.51	\$30.00	\$13.21	medium
Distribution	2	41,605 sq. ft.	\$7.74	\$9.57	\$8.65	low
Light Manufacturing	2	69,228 sq. ft.	\$8.53	\$12.75	\$11.11	high
Telecom Hotel/Data Hosting	2	47,990 sq. ft.	\$9.83	\$13.03	\$11.58	low
Light Distribution	1	78,917 sq. ft.	\$5.91	\$7.22	\$6.57	low
Refrigeration/Cold Storage	1	10,150 sq. ft.	\$13.28	\$16.23	\$14.76	low
Truck Terminal	1	60,600 sq. ft.	\$11.83	\$14.45	\$13.14	low

Source: CoStar Group

Clusters of Industrial Properties

The PALS team analyzed industrial real estate properties in Prince George’s County, focusing on those near walkable commercial areas. These industrial properties were grouped into 49 separate clusters based on a 0.25-mile buffer—typically a five-minute walk. This is based on the assumption that a 0.25-mile distance indicates a walkable density. A walkable commercial area with industrial properties could provide the basis for a thriving small-scale manufacturing ecosystem, while revitalizing main streets, generating a valuable sense of place, and drawing desirable jobs to the area.

Overlapping buffers were then grouped into larger clusters. The 49 clusters of industrial real estate comprise 19,336 separate parcels that make up 12,416.7 acres of land—3% of Prince George’s County’s 319,360-acre total. As expected, many run along major arterials: Indian Head Highway, Route 1/Baltimore Avenue, Route 50, Central Avenue, Branch Avenue, and I-495. There are 454 preferable properties, based on their 0.25-mile proximity to commercially

zoned land. Of those, the highest concentration is in the municipalities of Beltsville (107), Hyattsville (64), Capitol Heights (63), District Heights (32), and Clinton (29) (see Table 6).

TABLE 6. Number of Industrial Buildings by City

City	# of buildings	Est. Rent (low-high)	Sq.ft. (low-high)
Beltsville	107	\$4.83-18.00	6,250-158,224
Hyattsville	64	\$4.87-21.20	1,650-248,930
Capitol Heights	63	\$4.02-24.62	5,020-115,600
District Heights	32	\$5.06-17.09	8,200-216,875
Clinton	29	\$6.23-19.11	1,031-38,762
Temple Hills	26	\$4.91-19.56	7,500-84,066
Upper Marlboro	26	\$3.92-30.96	5,500-150,000
Bladensburg	20	\$5.68-21.00	5,125-51,500
College Park	19	\$6.03-19.45	4,152-73,038
Laurel	14	\$3.22-13.68	9,600-354,000
Lanham	12	\$7.50-13.90	8,420-108,252
Brentwood	10	\$3.28-12.11	7,400-40,500
Bowie	8	\$7.26-14.38	20,000-38,716
Oxon Hill	5	\$9.00-24.75	13,439-41,538
Fort Washington	4	\$10.94-20.10	9,016-26,525
Riverdale	4	\$5.95-12.80	4,061-15,636
Brandywine	3	\$5.75-30.00	17,100-624,502
Mount Rainier	3	\$6.67-8.68	7,821-11,758
Glenn Dale	2	\$5.95-5.95	28,800-314,923
Suitland	2	\$6.89-12.46	14,671-113,512
Accokeek	1	\$5.26-6.43	12,897-12,897

Of the 886 analyzed buildings across the County—including those in the clusters mentioned above—664 (75%) are categorized as warehousing. Of most interest for small manufacturers and maker businesses are three categories provided by CoStar: Light Manufacturing (7 buildings), Manufacturing (24), and a set of uncategorized buildings that may be viable (111). Five showroom spaces, which are considered flex space, may be of further interest to

small-scale manufacturers, in addition to the five properties listed as Light Distribution. Further research might reveal that additional secondary types, particularly warehouses, would meet the needs of small manufacturers in the County. Among these five categories of spaces, the average Rentable Building Area falls between 38,000 and 75,000 square feet.

Main Street Appeal

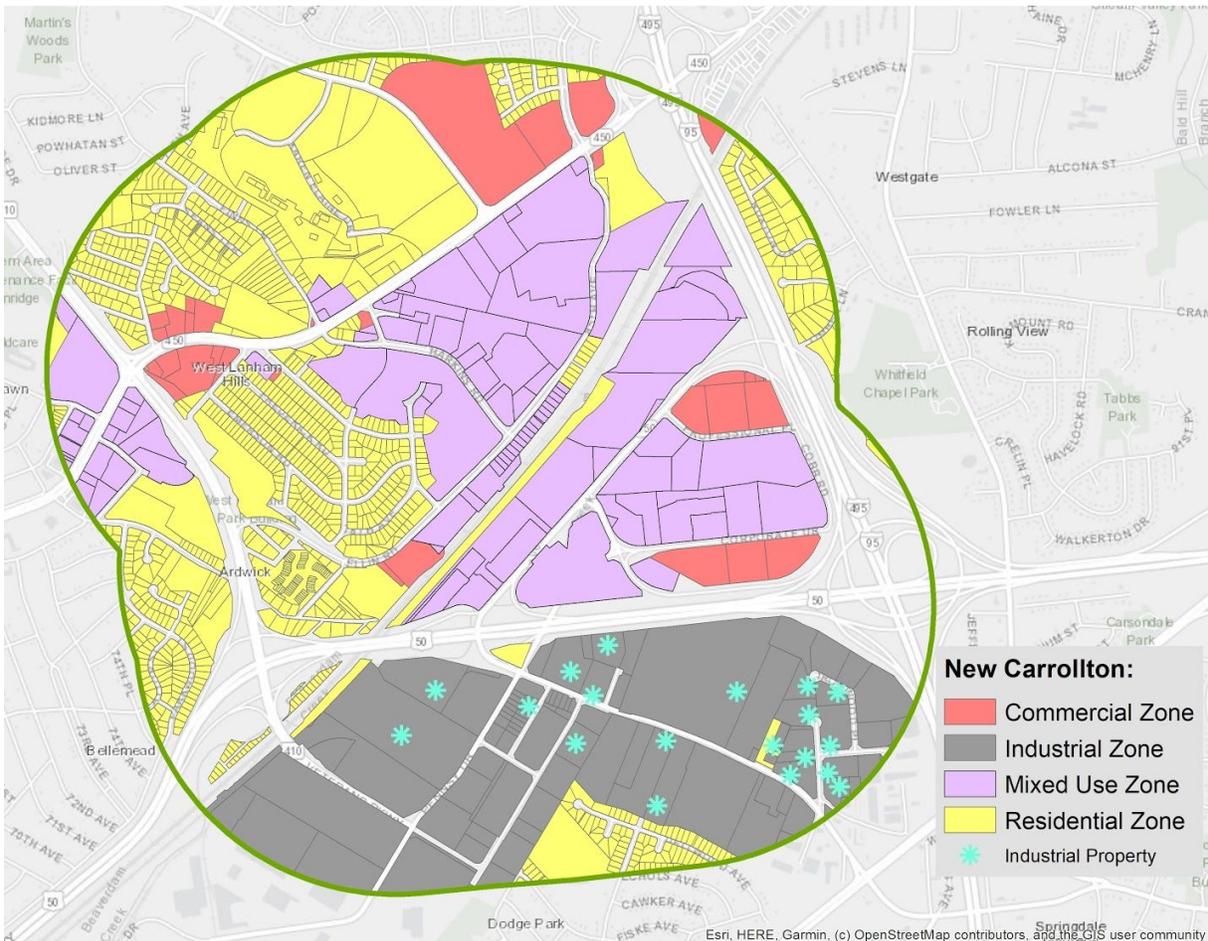
Bringing small manufacturing and light industrial uses to walkable commercial areas and Main Streets has significant economic and community value. Today's retail landscape is changing fast—the advent of rapid home delivery and online ordering has shifted what retail consumers are looking for when they visit a brick-and-mortar establishment.* Increasingly, in-store shoppers are looking for an experience beyond aisles, tables, or racks of merchandise to peruse. Combining small-scale manufacturing with retail space can realize this goal. Consumers can see products being made, and forge a person-to-person connection with the maker. For local residents and visitors alike, this interaction drives foot traffic and community connection.

Andy Cook, Founder and CEO of Made in Baltimore—which has nearly 200 Baltimore-based manufacturing businesses in its program—cited the desire of these businesses to be more customer-facing. Cook sees this as an opportunity to not only support small businesses, but to revitalize neighborhood commercial corridors and make leasing space to makers more attractive to retail space owners. Ultimately, Preuss and Cook agree that integrating small-scale manufacturing businesses with Main Street commercial corridors has four primary benefits:

1. Small-scale manufacturing businesses can spark local revitalization, putting middle-income jobs in neighborhoods and contributing to walkability.
2. Allowing such businesses to become part of a commercial corridor expands the portfolio of space that is accessible to and appropriate for light-industrial manufacturing businesses.
3. Incorporating small manufacturers making local goods can bring pride and a strong sense of place to a community.
4. And finally, a diversified Main Street—both in business type and ownership—is much more stable, dynamic, and attractive to residents and visitors.

*For more information, consult Mark Pilkington (2019). *Retail Therapy: Why The Retail Industry Is Broken*, and Recast City LLC, "'Experiential Retail' Sounds Great. Where Do We Start?"

Case Study: New Carrollton, MD



MAP 3. New Carrollton Zoning in 0.5-mile buffer of Designated TOD.

Overview: Mixed-use centers like New Carrollton that are focused on activated sidewalks, walkability, and transit access—per *Plan 2035*—are an excellent location for small manufacturers. In interviews and case study research, the PALS team learned that small manufacturers, makers, and artisans are excellent tenants and neighbors for retail areas like main streets and other vibrant, walkable centers. In addition to generating high paying jobs, they can drive foot traffic by creating the kind of “experience” retail that shoppers are looking for.⁷⁰ Customers can watch goods being produced, meet the makers, and form a personal connection with these businesses.

Fortunately, some places are figuring this out. They are adding the **coffee roaster**, the **soap maker**, the **belt and bag maker** back into main street. And they are **reaping the benefits**.
-Ilana Preuss, Recast City

⁷⁰ Recast City LLC. “‘Experiential Retail’ Sounds Great. Where Do We Start?” Accessed April 30, 2020. <https://www.recastcity.com/blog-source/2019/4/17/experiential-retail-sounds-great-where-do-we-start>.

Context: *Plan 2035* identifies New Carrollton as one of the County’s designated Downtowns: “best positioned to develop—in the near term—into vibrant, walkable, regional-serving centers” with both “a robust economic and employment base” and “a distinct sense of place and identity.”⁷¹ The area is already a major transit hub that provides access to Amtrak, MARC, Metro, Metrobus, and the forthcoming Purple Line light rail, making New Carrollton easy to reach from points across the region. A 2012 report on walkable urban places primed to drive the local real estate market and increase tax revenue identified New Carrollton as one of three areas in the County with significant potential.⁷²

Evidence: Nineteen industrial buildings are within a 10-minute walk of the designated Transit-Oriented Development area, totaling 1.4 million square feet of rentable space. Of these properties, 14 are warehousing, and all are classified as multi-tenant with a B or C CoStar rating. Rent per square foot averages between \$7.21 and \$8.44—peaking at \$12.56. Second only to transportation land uses, industrial land comprises 18% of land use within 0.5-mile of the designated TOD zone. Commercial uses account for 15.11% of the area’s acreage, and single-family residential uses make up 16.19%. With this mix of industrial and commercial space, and the defining New Carrollton transit hub, the area is a good candidate for an influx of makers and manufacturers—especially those interested in combining production with ground-floor retail space. It is important to note that as redevelopment pressure enters the real estate market, industrial land will be targeted for conversion to residential or commercial uses if no protections are in place.

Key Findings

1. An ideal production space for a small manufacturer scaling up is between 400 and 1,200 square feet. An ideal price point is between \$3 and \$9 per square foot.
2. The majority of available industrial space in the county is warehouse space—much larger than the desired 400-1,500 square feet—but warehouse space is flexible. Subdivision and co-locating businesses enables more small businesses to adapt to these bigger spaces.
3. Transit-oriented developments may be ideal zones to locate and build up small manufacturing and maker businesses. The New Carrollton case study shows a healthy rate of industrial, walkable real estate in an activity center that could offer main street appeal to business owners, employees, and consumers.

⁷¹ *Plan 2035*, p. 23

⁷² *Plan 2035*, p. 104.

Applicable Zones and Impact of the Zoning Rewrite

The PALS team undertook a high-level examination of existing zones and permitted uses—attempting to identify zones that support or hinder the expansion of small-scale manufacturing. This section provides an overview of industrial, commercial, and mixed-use zones, identifies which zones are ideal for small-scale manufacturers, and discusses some potential impacts of the zoning rewrite. Zoning categories included here reflect the most updated zoning code,⁷³ but they do not represent the simplified zones that are outlined in the “Prince George’s County Countywide Sectional Map Amendment Rewrite: Approved Guide to New Zones” from July 2019.⁷⁴ See Appendix Tables 2.2-2.7 (pages 72-80) for a full description of existing industrial, commercial, and mixed-use zones, as well as matrices of relevant permitted uses in each zone. The case studies included in this section provide creative inspiration for zoning changes that were successful in promoting maker and small-scale manufacturing businesses around the country.

Applicable Existing Zones

Industrial Zones

Prince George’s County’s industrial zoning, before the zoning rewrite underway, allows a wide variety of permitted uses, including retail and commercial, educational institutions, and some residential uses with conditions. Of the five main industrial zones, the most applicable for small-scale manufacturing are Light Industrial (I-1), Limited Intensity Industrial (I-4), and Urban Light Industrial (U-L-I). While most industrial zones allow relevant light industrial uses undertaken by small production companies, these three zones specifically promote physical design standards that meet small-scale manufacturers’ increasing desire to be located near complementary retail businesses and within activity centers.

Light Industrial and Limited Intensity Industrial zones have some physical design standards for industrial parks. However, a number of non-industrial uses relevant to small-scale manufacturers are either permitted or allowed by special exception, including artists’ residential studios and eating and drinking establishments. The Urban Light Industrial zone permits similar uses but with an added focus on revitalizing older industrial areas with light-intensity uses that are more compatible with residential and commercial uses. Notably, brewing and distilling uses are permitted only in the Limited Intensity Industrial zone. Yet, through interviews, we know that this kind of production business can activate streetscapes and co-locate well with other commercial uses and eating establishments.

⁷³ Prince George’s County, MD Government. March 27, 2020. Code of Ordinances: Subtitle 27: Zoning. Retrieved from Municode Library.

⁷⁴ M-NCPPC Prince George’s County Planning Department. July 2019. Prince George’s County Countywide Sectional Map Amendment: Approved Guide to New Zones.

Commercial Zones

Only two commercial zones allow relevant industrial uses for small-scale manufacturers—Commercial Shopping Centers (C-S-C) and Commercial Miscellaneous (CM). Within these zones, relevant permitted manufacturing uses are limited to carpentry, bakery products, printing, catering, and repair shops—among a few others. Importantly, some uses that may be compatible with existing commercial uses—such as weaving, brewing and distilling, and other food preparation or packaging—are not permitted in these zones.

Mixed-Use Zones

Mixed-use zones are the only zones that mention home-occupations. Only one existing mixed-use zone, Mixed Use Transit (M-X-T), allows a number of permitted light-industrial uses that are applicable to small manufacturing and maker businesses. The permitted uses are geared toward small production businesses—identifying flex space explicitly as a permitted use and focusing on extremely light manufacturing. This mixed-use zone is highly applicable to small production businesses. Yet, while dining establishments are permitted, food production—which might include production bakeries, fermented foods makers, or shared commercial kitchens—is not a permitted use in the M-X-T zone. Further, additional light production uses such as apparel design and manufacturing, printing, carpentry, brewing, and distilling, are not permitted.

Urban Center Zones

Building on the “main street appeal” discussed in interviews⁷⁵ and the Inventory of Suitable Industrial Real Estate section of this report (page 36), many small manufacturing and maker businesses are looking for production and combined retail space within transit and activity centers. Urban Center Zones are located in *Plan 2035* designated downtowns and corridors. The uses permitted in these zones are more flexible than all other zones and focus on mixed-use, dense development in areas of the County that are the least car-dependent. Uses are divided by street story (1st floor) and upper story (upper floor) within different designated building forms (e.g., storefront, small apartment, workshop) (see Appendix Table 2.7, page 82, for the full permitted use table). A general category is designated for light industrial and manufacturing uses, and these are permitted in designated workshops only—not in a storefront or general buildings. This creates barriers for small production businesses looking to locate in activity centers and downtowns.

Transit District Overlay Zone

Another zone that could facilitate location in main street or transit-oriented districts for small production businesses is the Transit District Overlay Zone. This zone is “placed over other zones on the Zoning Map, and [modifies] specific requirements of those underlying zones”—while other requirements may remain unaffected. Any use that is permitted in the

⁷⁵ Interview with Apparel and Textile Manufacturer #1. March 5, 2020.; Interview with Apparel and Textile Manufacturer #2. March 24, 2020.; Interview with Ilana Preuss. March 3, 2020.; Interview with Andy Cook. February 28, 2020.

underlying zone is still permitted, and new uses may be made permitted through an approved Transit District Development Plan. For example, if a Transit District Overlay Zone were applied to a Commercial Shopping Center zone, additional light manufacturing uses, such as a brewery or distillery, may be permitted if they are approved through the Development Plan process. “The Transit District Overlay Zone may not be placed over the Urban Center or Corridor Node Zones (UC).”⁷⁶

Impacts of Zoning Rewrite

Based on the “Prince George’s County Countywide Sectional Map Amendment Rewrite: Approved Guide to New Zones” from July 2019,⁷⁷ many of these existing zones will be simplified into fewer, but more permissible zones. However, the full impacts of the zoning rewrite cannot be determined without clear use tables, and tables updated on March 27, 2020 do not reflect the simplified zones. Therefore, the analysis included here is only preliminary, and a closer examination of the proposed changes is warranted.

The zoning rewrite could result in the loss of some permitted uses in both commercial and industrial zones. In the rewrite, most commercial zones will be combined into a “Commercial, General, and Office” zone.⁷⁸ Because manufacturing uses are currently permitted in only two commercial zones, it is possible that, when these individual zones are converted to the “Commercial, General, Office” zone, some of the permitted manufacturing uses may be lost. Similarly, most existing industrial zones will be converted to an “Industrial, Employment” zone, and one will remain “Industrial, Heavy.”⁷⁹ In the process of condensing individual industrial zones to an “Industrial, Employment” zone, the unique purpose of some zones (e.g., industrial land revitalization within Urban Light Industrial zones) may no longer be present in the zoning code.

Perhaps the most significant impacts will come from the conversion of mixed-use zones and the deletion of the Transit District Overlay zone and all Urban Center zones. Some mixed-use zones will become “legacy” zones—no longer allowing rezoning into these zones. Mixed-Use Transit (M-X-T) zones that border rural or residential areas will become residential zones, and M-X-T zones border industrial or commercial zones will become some variation of those zones. In this process of conversion to residential or commercial zones, permitted uses that explicitly promote home occupations and flex space may no longer be permitted.

While the PALS team cannot determine the full impacts of the Zoning Rewrite with the information provided, a closer examination is warranted if the County wants to promote successful, local small production businesses.

⁷⁶ Prince George’s County, MD Government. March 27, 2020. Code of Ordinances: Subtitle 27: Zoning. Retrieved from Municode Library.

⁷⁷ M-NCPPC Prince George’s County Planning Department. July 2019. Prince George’s County Countywide Sectional Map Amendment: Approved Guide to New Zones.

⁷⁸ Ibid.

⁷⁹ Ibid.

Case Study: Bozeman, MT

Overview: The City developed a new artisan zoning category that provides access to space for small-scale manufacturing businesses while contributing to walkable commercial corridors. With limited small-scale industrial real estate, abundant commercial, and corridors that could benefit from more walkable businesses, Prince George’s County might benefit from adding artisan manufacturing as an allowed use to its commercial land use tables.

Context: Montana’s 2009 Economic Development Forecast highlighted manufacturing as one of the key growth industries in the City of Bozeman.⁸⁰ The City sought to sustain the energy of its main streets and corridors while increasing walkability, adding commercial diversity, and filling vacant ground-floor commercial spaces. At the same time, handmade, small-batch manufacturing businesses sought space where production and customer-facing retail could be combined.

Evidence: Bozeman adopted a new zoning category, “Manufacturing, Artisan,” defined in the city’s ordinances as the “production of goods by the use of hand tools or small-scale, light mechanical equipment.” Within specific districts, including Bozeman’s dense downtown, the use is permitted in every commercial, residential and mixed-use zoning category. To ensure compatibility with existing uses, the artisan manufacturing category prohibits outdoor storage and limits square footage to 3,500 feet, while requiring producers to work in totally enclosed space.⁸¹

Case Study: Saint Louis, MO

Overview: A maker district, established through a Special Use District overlay zone and anchored by several makerspaces, has become an important tool for community development in St. Louis. The maker district is also a centralized hub for community activity and civic engagement. Prince George’s County has established an Innovation District, but the PALS team found that several interviewees questioned whether the District engages local residents. By activating a maker district that also serves a community development purpose, St. Louis helped bridge the divide between historically segregated communities.

Context: A cluster of maker operations and spaces occupying one block of Delmar Boulevard, historically a dividing line between Black St. Louis to the north and white St. Louis to the south. The District grew out of a nearby glass-blowing factory in 2002. The maker district is managed by a development committee of area residents, business owners, community leaders, and other stakeholders guided by principles of equity and accessibility.

⁸⁰ City of Bozeman (2009). “Economic Development Plan”.

⁸¹ Schattauer, E. (November 19, 2013). “Bozeman Giving Green Light to Artisan Manufacturing.” *Bozeman Daily Chronicle*.

Evidence: In materials for community outreach on Special Use Districts, these districts are presented as an alternative to Community Improvement Districts, which are more administratively onerous to achieve. St. Louis Ordinance 66941 establishes Special Use Districts as a tool to further the Strategic Land Use Plan, Commercial District Redevelopment Plan, or a Neighborhood Plan. Artist and urban planner Theaster Gates plans to build and convert a nearby elementary school into artist lofts and creative spaces called the Fountain Park Arts Block, similar to his culture-driven redevelopment work in Chicago.⁸²

Key Findings

1. Supportive zoning policies—whether permitted industrial uses or districts—help makers and small manufacturers locate in areas where they will have more opportunity. This includes areas that may also offer commercial storefronts or that are located near transit and activity centers—where interviewed businesses indicated they prefer to locate.
2. The updated zoning code may not explicitly protect or permit neighborhood-scale manufacturing and maker businesses.
3. Overlay zoning with permitted manufacturing and artisan uses can provide access to customer-facing retail space for small-scale manufacturing businesses while contributing to increased walkability, commercial diversity, and filling vacant ground-floor commercial spaces in downtowns and corridors.
4. Centralized maker districts can create hubs for community activity, civic engagement, and systematic neighborhood revitalization.

⁸² Delmar Maker District. “Special Use District.” www.delmarmakerdistrict.org/special-use-district; Theaster Gates housing project: <https://www.nickiscentralwestendguide.com/tag/jim-mckelvey/>; City of Saint Louis Special Use District Ordinance, 2014: <https://www.stlouis-mo.gov/government/departments/planning/documents/SUD-Ordinances.cfm>

Conclusion and Recommendations

As this study suggests, the value of makers and small manufacturers is abundant in the aggregate—a limitless source of energy for Prince George’s County to further strengthen its industrial real estate potential. As it stands, however, support for makers appears to be uncoordinated and secondary to any larger County goals of inclusive economic growth.

Prince George’s County has an advantage over its regional neighbors due to the relatively high amount of suitable industrial real estate and the comparatively lower rents. Further, the County’s extensive investments in transit and transit-oriented design, and its ongoing efforts to improve walkability, job clustering, and neighborhood revitalization, suggest that now is the time for Prince George’s County to assess its industrial potential with renewed effort. The following recommendations further strengthen the County’s small-scale manufacturing and maker ecosystem.

Complete a Comprehensive Small-Scale Manufacturing Market Study

Building on the findings in this report, undertake a comprehensive study to clarify the potential and challenges of the small-scale manufacturing and maker economy. The PALS team envisions this study in three parts.

Develop a Business Typology. Through surveys, interviews, and field work, establish relationships with small-scale manufacturing and maker businesses. Identify the financial, spatial, workforce, and technical challenges faced by these businesses so that programmatic and policy support can be tailored to their needs. Determine whether and how businesses progress from home-based businesses to leased or owned space.

“How do we take people from **low-income jobs into something stable and wealth-creating and long term?**”

-Ilana Preuss, Recast City

Conduct a Comprehensive Real Estate Analysis. Determine the conversion rate over time of industrial uses to residential and commercial uses, as well as the loss of industrial buildings to demolition. Identify occupancy and vacancy rates over time, and determine whether businesses with an industrial use are clustered in specific neighborhoods or near certain amenities, such as transit, shopping, new construction, or easy access to major transportation routes. This will help the County evaluate whether and to what degree the industrial market is balanced, while strengthening insights gained through the business typology about what sorts of businesses are locating where and why. Additionally, determine whether targeted businesses are scaling up into commercial spaces and the availability of visible, easily reconfigurable space for small-scale manufacturers at affordable prices in Prince George’s County. The real estate analysis should pay close attention to transit areas, in keeping with the County’s effort to invest in transit-oriented design and walkable neighborhoods.

Assess the Impact of Small Manufacturers and Makers. Aim to understand the full economic impact of makers and small-scale manufacturers, including those operating at home, in leased spaces, owned spaces, or makerspaces. In 2013, when the City of Bozeman, Montana elected to pursue an artisan manufacturing land use allocation, it was in part because local leaders recognized this impact: “These are types of businesses that are popular. They are on-trend and contribute to the downtown core.”⁸³ Understanding consumer preferences and the ability of makers to meet those needs will help the County better incorporate this market segment into its long-term economic development and planning strategies.

Establish a “Made in Prince George’s” Business Development Program

Made in Baltimore Case Study

200 maker businesses in network. Bridges manufactures, consumers, and City supports through:

- Branding + Promotions
- Workforce Development
- Technical Assistance
- Public Policy

This effort will bridge small-scale manufacturers, makers, consumers, and the Prince George’s County Economic Development Corporation, among other institutional stakeholders. A business development program that highlights “Made in Prince George’s” products and entrepreneurs could provide access to marketing and branding support, financing, workforce development resources, and technical skills.

This program would also add value by ensuring public policy efforts that help these businesses grow in Prince George’s County.

Founding a “Made in” program would also build regional and local visibility for maker and small manufacturing businesses, further strengthening the County’s identity and potentially attracting new businesses. Finally, a place-based business development program that targets light-industrial businesses can also help tell the story of the economic and social value these

“There has to be a wider knowledge that this is the place to go to find up and coming designers or do manufacturing. **It’s not just about providing the space, but the whole branding behind it.**”

— Apparel and Textile Business Owner

businesses provide. During COVID-19, for example, many businesses in Baltimore pivoted to manufacture personal protective equipment. Made in Baltimore has used its platform to provide critical resources to struggling businesses and to highlight the unequivocal value of these businesses to a strong and resilient city.

⁸³ Schattauer, E. (November 19, 2013). “Bozeman Giving Green Light to Artisan Manufacturing.” *Bozeman Daily Chronicle*.

Promote the Development of Arts and Entertainment Districts

In Hyattsville, an Arts and Entertainment District designation from the Maryland Department of Commerce and State Arts Council powered the Gateway Arts District by promoting live-work space and creating tax credits that make leases attainable for small-scale manufacturers. As made clear in discussions with the Prince George’s County Planning Department and Economic Development teams, the Hyattsville community is known for its vibrant small business activity and a strong sense of place. Makers and production businesses in Hyattsville—such as coffee roasters, brewers, and sewing studios—drive foot traffic and create personal connections among residents and business owners. The County should pursue an A&E designation in other locations to promote the creation of additional maker ecosystems. In addition, there could be strong synergy between a “Made in” business development program and any existing or new A&E Districts. Both reinforce the County as a dynamic, engaging place to live and do business.

Facilitate Partnerships with Mission-Driven Developers That Are Committed to Industrial Redevelopment

Brooklyn, NY Case Study

The Greenpoint Manufacturing and Design Center revitalizes industrial real estate throughout Brooklyn, ensuring affordable space for production-based businesses. Partnerships with mission-driven nonprofit developers can serve mutual goals.

- Rehabilitation and activation of industrial real estate, and associated neighborhood revitalization
- Long-term and affordable leases for production-based businesses
- Community organizing and business development

Case studies demonstrate that mission-driven and nonprofit developers make excellent partners in achieving mutually defined needs of rehabilitating industrial real estate, continuing to drive a local maker economy, and revitalizing neighborhoods with a high density of industrial buildings. Critically, partnerships can enable these developers to offer affordable and long-term leases to manufacturing businesses, which are often the lowest-paying tenants. Whether these partnerships are aimed at developing new makerspaces or rehabilitating strategically located properties, facilitating affordable and accessible space for makers and small manufacturers will help ensure that these businesses thrive.

Ensure Opportunity for Maker Businesses in Zoning and Land Use

Zoning and economic forces appear to have clustered many maker and manufacturing businesses into specific areas of the County. A complete business typology and industrial analysis will clarify why supportive zoning and land use policies will help makers and small-scale manufacturers locate where they have more opportunities. This includes areas that may also

offer commercial storefronts or that are located near transit and activity centers—where interviewed businesses indicated they prefer to locate. It is unclear from publicly available information about the updated zoning code just how and to what extent the rewrite will impact current and future small businesses. However, case studies and research point to zoning policies that the County can enact to ensure the continued growth of these businesses.

Bozeman, MT Case Study

“Manufacturing, Artisan” land use activates street-level retail while attracting young, creative, and innovative businesses to the downtown core:

- Permitted in every Commercial, Residential, and Mixed-Use zone
- Ensures compatibility with neighborhoods by attaching use standards to limit size and outdoor storage
- Embraced by furniture fabricators, coffee roasters, and apparel designers, among others

One option for strengthening the presence of makers and small manufacturers will be to develop an “artisan manufacturing use” and permit it in all commercial, industrial, and mixed-use zones. This is how the City of Bozeman, MT, encouraged production-based businesses to help revitalize its downtown commercial corridor. Prince George’s County could also consider establishing a maker district or overlay zone, as was done in St. Louis, MO, to help small manufacturing businesses grow in particular locations. These businesses are proven to be complementary to County efforts to develop more walkable, activated neighborhoods. The challenge is to ensure that zoning and land use continue to support the ability of these businesses to power those efforts.

Develop a Workforce Pipeline to Small-Scale Manufacturing and Maker Businesses

On-the-job training and certificate-based education programs are excellent ways to invest in a skilled, local workforce. Data demonstrate that low-barrier, high-skilled jobs, such as those involved with small-scale manufacturing, facilitate family-sustaining wages and stability for people with educational and language barriers. Further, case studies and interviews revealed that a skilled workforce is one barrier to scaling up for maker and manufacturing businesses in Prince George’s County.

“The most salient needs are resources for local schools and access to opportunity.

Students and adult residents need mentoring, tutoring, and job-readiness programming.”

—UMD Office of Community Engagement

Through the course of completing the comprehensive study identified in the first recommendation, the County may learn that certain industries—apparel or beverage manufacturing, for example—are growing more quickly than others. Once known, these industries would be obvious candidates for partnership with existing workforce development programs or investment in new ones.

APPENDIX

Small-Scale, Local Production in Prince George's County, MD

Anna Brinley, Lily Murnen, & Kari Nye
URSP 788 | Spring 2020



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1. Interviews

1.1 Interview Insights

Apparel and Textile Manufacturer #1

This apparel business is a for-profit makerspace centered on sewing crafts and fashion. The co-founder/owner is a fashion designer who started the makerspace out of a company focused on sewing education in 2014, which was housed at the Anacostia Arts Center. The owner moved the operation to Mount Rainier in 2017 where she was attracted to the existing arts culture and craft community in the Gateway Arts District. Her business also has a satellite office in Suitland, Maryland, and one in Chicago. She employs 12 contracted sewing instructors, and some summer staff are placed at the business through Employ Prince George's Inc. Despite clear synergy with the creative and local community, the owner finds County supports for makers, manufacturers, and small businesses are insufficient for creating or maintaining a healthy maker ecosystem. As a business owner, she finds immense value in initiatives such as Made in DC—a branding program for locally made goods—and placemaking as an economic development strategy.

Apparel and Textile Manufacturer #2

This manufacturer is the proprietor and head designer at a leatherwork and tote bag company housed in a street level retail store and production studio at the Monroe Street Arts Walk in Washington, DC. She started the business from her dining room in 2006, and successfully graduated from selling her products online to securing a space in the Arts Walk—which she acknowledges is well below market rate in the region, especially given its proximity to the Brookland-CUA Metro Station. Despite securing a corporate contract and manufacturing some products with a Baltimore-based company, this owner has struggled to maximize profits because of overhead like hourly labor, insurance, and rent. Compounding these challenges, the address on record for the company is in Virginia, making it ineligible for support from Made in DC or Made in Baltimore, where all the products are made. The company would be eligible if a majority of employees lived in the District, but none can afford to do so. Given the expense of renting the studio and retail space and sustaining employment, the owner expressed an intention to scale back the business and move back into at-home production. Even so, she says having the Arts Walk studio allowed greater visibility for her brand than would have otherwise been possible.

Apparel and Textile Manufacturer #3

This owner's business produces stuffed animals and pillows made one by one with upcycled materials purchased at thrift stores and craft fairs. The sales supplement her full-time income as

a marketing professional in the Washington DC area. Products are made in the owner's home in Virginia, and sold at craft fairs, holiday markets, and a small number of brick-and-mortar locations in the region. She gained greater visibility for her brand when she was awarded a residency at Artisphere, a now defunct arts space in Rosslyn, VA. The residency included both production/studio and retail space, and, like other makers in the region, this visibility has helped grow her sales and outreach. The owner has not registered her business to a limited liability company, citing complicated paperwork as the main obstacle.

Andy Cook, Founder and Executive Director, Made in Baltimore

Made in Baltimore promotes investment in Baltimore City by growing the market for locally produced goods. As executive director, Andy Cook operates the program under three primary umbrellas: 1) marketing, branding, and promotion of businesses and products that are made in Baltimore; 2) business development, which includes workforce development, real estate matching, and skills-based trainings for entrepreneurs; and 3) research and policy development to support growth of the city's light-industrial manufacturing and maker sectors more broadly. In Cook's experience, more and more product-based businesses are interested in becoming customer-facing as they seek space to combine production and retail into one location. Importantly, Cook cites evidence that a strong light-industrial manufacturing sector supports living-wage livelihoods, equitable economic development, and the creation of walkable communities—outcomes that Made in Baltimore believes are critical to the city's revitalization. "These jobs," he says, "are going to pay better than fast-food or Uber or Amazon, or whatever. If you're trying to get living wage jobs for people, that's where to focus." Made in Baltimore is an LLC, operated through the Baltimore Development Corporation, which is a nonprofit.

Ilana Preuss, Founder and CEO, Recast City

Ilana Preuss runs a local economic development firm that works with partners to revitalize places and small business communities by focusing on small-scale manufacturing. She has expertise and experience that spans the nation, and has been recently active in Fairfax County, Baltimore City, and Montgomery County, among other regional jurisdictions with which Prince George's County compares. Preuss' perspective is that these businesses matter in all contexts, not just urban, and that they have additional advantages for revitalizing storefronts, creating good paying jobs, building resilient local communities, and furthering more opportunity for more people. In fact, small manufacturers and makers could play a similarly important role in activating and personalizing suburban main streets. One outcome of interviewing Preuss was clear justification of the pursuit of an inclusive economic development strategy in Prince George's County. She says, "There's a whole world the County probably isn't thinking about: 'How do we take people from low-income jobs into something stable and wealth-creating and long term?'"

Sammy Popat, University of Maryland Campus Connector and Discovery District Manager

Sammy Popat is the Campus Connector and the Manager of the University of Maryland (UMD) Discovery District—an area just off UMD’s campus that houses The Hotel, technology start-ups, venture companies, WeWork, and an event venue, The Hall — all within a short walk of the Purple Line College Park Station underway. The Discovery District is part of the Innovation Corridor, and part of Popat’s role is to make the University more proactive and visible off campus and to focus resources on innovation, entrepreneurship, and economic development. Popat has a keen interest in makerspaces and sees high-tech makerspaces as essential to bridging UMD resources and students with the surrounding College Park community. Popat recognizes that ROI is much less for creative industries, but that voice, representation, quality of life, and community aspirations should be valued, as well as the aggregate financial impact of non-tech production businesses.

Gloria Aparicio-Blackwell, Director of Community Engagement, University of Maryland, and Jose Cadiz, Lead Community Engagement Coordinator, University of Maryland

As staff in the University of Maryland’s Office of Community Engagement (OCE), Gloria Aparicio-Blackwell and Jose Cadiz coordinate and connect university students, faculty, and other staff to initiatives, service projects, and other engagement with the Greater College Park neighborhood and beyond. They work to create meaningful connections and act as a conduit of goodwill between the university and the community. Aparicio-Blackwell and Cadiz Gloria said that residents of greater College Park are often skeptical of the University; student- or other university-affiliated groups often fail to follow through on commitments, disengaging as soon as a project is complete. In their view, the community’s most salient needs are resources for local schools and broad economic opportunity. Students in local schools as well as adult residents need culturally competent, Spanish-language job readiness programming, and would benefit from more walkable neighborhoods. They identified nonprofits and local small businesses who might be useful for deeper efforts to understand the economic development needs of the surrounding community: Savor, Seed, the Maryland Youth Center, the Latin American Youth Center, Prince George’s Community Colleges, College Park Arts Exchange, Joe’s Movement Emporium, and the Mount Rainier Arts District.

Quint Gregory, Director of Michelle Smith Collaboratory for Visual Culture

Dr. Quint Gregory is a professor of Art History and Archaeology at the University of Maryland. He is also the Director of the Michelle Smith Collaboratory for Visual Culture—a shared space with an immersive viewing screen, software for dot projections of historical artifacts, and other technologies to support the visual arts. Dr. Gregory discussed how the Collaboratory got its start, work that faculty and students do in the space, ideas for extending a makerspace into the community off-campus, UMD’s mission to serve the community as a land grant institution, and the work of collaborators in the Gateway Arts District and Bowie State University.

Key Findings

1. Local designer and maker businesses are looking to expand the manufacturing of their products, but they have not been able to find the support to do so.
2. Businesses want to build the whole lifecycle of an industry so that their entire production process can be completed in Prince George's County.
3. A "Made in Prince George's County" branding program could be beneficial to grow the impact of the Gateway Arts District and reach both local, national, and international buyers.
4. Community engagement staff at educational institutions mentioned that they feel children would benefit by getting excited to study something, and that encouraging making could get them excited about starting their own businesses. Makerspaces could be a great opportunity to engage Prince George's County students.

1.2 Sample Interview Questions for Local Production Businesses

Background Questions

1. Can you tell us about when and how your business got started and what you do?
2. Tell us about getting started in this space. Is this your first location? Why Prince George's County [or ___]?
3. Could you describe what is working well for your business space-wise? What is not?
4. Could you describe the costs required for your space and for running your business, and any changes since you first opened?
5. If you own your space, could you describe what's required to maintain the space? Could you describe how you found this space?
6. If you rent your space, could you describe what role your landlord fulfills with space maintenance and improvement? Could you describe your interaction level with your landlord?
7. What sorts of supports—funding, permitting, construction, government, friends and family, etc.—have been the most helpful throughout the various stages of your business? Did you ever seek assistance from the economic development office or any other small business support?
8. How would you describe your relationship with the surrounding business community?
9. What do you wish you had known before getting started?
10. Can you talk about your hopes for this business five years from now?
11. What do you perceive will be the biggest challenges between where you are today and getting to that vision for five years from today?
12. Could you recommend any other businesses we could talk with?

COVID-19 Questions: scene-setting, crisis management, business health & resilience

13. [Basically - what's going on in your world?] How are you being affected by the pandemic? Do you have employees or collaborators also affected?
 - a. e.g. employee payment, how long you can stay afloat without being open in-store
14. Is transportation an issue? Do you/your employees travel to the shop? Are you still doing shipping/online orders?
15. Tell us about the terms of your lease. What have you heard from your landlords about lease terms/extensions/etc?
16. We've seen makers in Baltimore and other parts of the country contributing to the effort. Do you have a role in that? Are you contributing to any COVID-19 efforts?
 - a. e.g. making protective gear, sewing masks, etc.
17. Since we can't be there to see your space, could you describe your workspace and retail space?

1.3 Full Interviews

1.3.1 Sammy Popat, University of Maryland Campus Connector and Discovery District Manager

February 18, 2020

Summary:

Sammy Popat is the Campus Connector and the Manager of the UMD Discovery District—an area just off campus that houses The Hotel, technology start-ups, venture companies, WeWork, and an event venue, The Hall, all within a short walk of the Purple Line College Park Station underway.

Evidence:

- Sammy’s focus is on building an ecosystem—distributing resources, identifying mentors.
- The Discovery District is an investment putting infrastructure in place for the future developments with transit and attracting students and faculty to live in the neighborhood.
- The UMD MakerSpace Initiative (MSI) brings together all the makerspaces on campus to help students bring entrepreneurial ideas to life.
 - Makerspace fits within the vision of the Discovery District—helping students create prototypes and incubate ideas
 - The main question for these makerspaces is how to keep themselves financed, and facilitate maintenance and cleaning
 - Makerspaces as only makerspaces need a funding source to survive, need to be part of something concrete. There are for-profit and non-profit spaces. The university wants to promote the educational component, but it wants to also be part of this larger innovation culture—of people coming to Prince George’s County with creative ideas
 - Charging for access may present too high a barrier to underserved members of community, but not charging for access is a big financial barrier for the County
- Sammy mentioned the possibility of a new makerspace that includes greenscreens and could attract Amazon to produce their streaming shows there.
- The Discovery District is part of the Innovation Corridor, and part of this role is to make the university more proactive and visible off campus and focus university resources on innovation, entrepreneurship, economic development.
 - Equity should be a component, but they really want to not have a “fear of thinking big” and attracting large companies and investors.
- The Discovery District hasn’t connected directly with economically disadvantaged residents. Part of the problem is that the university has not been very welcoming to the larger community (e.g. costly performances at Clarice).
 - “More people would feel like they can walk into the space [if the campus builds more entrepreneurial connections with surrounding neighbors.]”

- “Whatever we create, we have to make sure the doors are open.”
- Some small businesses are located in the Discovery District because they want to be near the ideas, talent, workforce.
 - But Sammy argues that Makerspaces and the Discovery District don’t actually offer real jobs for people in the community. There are some resources but not the right kind of resources. There are some components available for small businesses incubation, but this is not explicitly part of the mission.
 - “Makerspaces are part of the continuum that leads from small businesses to industry for economic development.”
- Sammy acknowledges that he works mostly with developers (drones, apps) which are easier to find funding for and generates more tax base for county and city.
 - Investment and ROI is much less for arts—but there are other important aspects like voice, representation, quality of life, community aspirations that should be examined.

1.3.2 Andy Cook, Founder and Executive Director of Made in Baltimore

February 28, 2020

Summary:

Made in Baltimore promotes reinvestment in Baltimore City by growing the market for locally produced goods. As executive director, Andy Cook operates the program under three primary umbrellas: 1) marketing, branding, and promotion of businesses and products that are made in Baltimore; 2) business development, which includes workforce development, real estate matching, and skills-based trainings for entrepreneurs; and 3) research and policy development to support growth of the city's light-industrial manufacturing and maker sectors more broadly. More and more, product-based businesses are interested in being customer-facing as they seek space to combine production and retail into one location. Importantly, Cook cites evidence that a strong light-industrial manufacturing sector supports living-wage livelihoods, equitable economic development, and the creation of walkable communities—outcomes that Made in Baltimore believes are critical to the city's revitalization.

Evidence:

- Five general phases in the life cycle of Made in Baltimore businesses:
 - One-person staff, business operates on a part-time basis, in-home production
 - One-person staff, business operates full-time, generates bread-winning income
 - One-person staff, business outgrows in-home production, pays to lease shared makerspace or single-use space
 - Business hires more staff to support production and operations
 - Mature: 10 employees, 10,000 sq ft, open for 10 years
- Changing the public perception of these businesses is important. Made in Baltimore aggregates data on member businesses to treat them as an economic sector worthy of attention and a role in economic development strategies: “The idea is that we can talk about it as a sector that has bigger numbers behind it.”
- At the State level, Made in Baltimore is advocating for a change in the thresholds for the More Jobs for Marylanders program, so that more small manufacturing businesses will be able to access tax credits for job creation. Currently, the act benefits companies that create at least five jobs, but Made in Baltimore advocates for credits for those who create even one or two—Cook again stresses the power of the aggregate.
- The biggest challenge for small manufacturers in Baltimore is access to capital, which could be better facilitated by local government willing to back loans.
 - Local procurement policies from Baltimore City could better support small businesses: “There's huge spending power in our city's institutions that isn't being spent on local businesses. And we try and as much as possible to advocate with the universities, the museums, local government agencies, that when they're buying stuff they should be buying it from [local] businesses. Everyone's thinking about it in terms of the bottom line and their budgets and that

makes sense, but there's all kinds of ways that people are not doing the math right.”

- The City, County, or State could create structures to stabilize businesses with collectivized health care plans for workers and training to create a supply of high-quality labor. Some businesses have had uneven experiences hiring and staffing their businesses with citizens or youth returning from prison.
- Just like housing, the small manufacturing sector would be stronger with a cadre of mission-driven nonprofit developers like Greenpoint Manufacturing and Design Center (Brooklyn, NY) to develop or adapt affordable commercial space. “You’re just always going to make the most money by creating something for the highest paying tenant—and manufacturers are the lowest-paying tenant.”
- Cook suggested that the field of maker businesses and the nonprofits that support them would benefit from a reliable way to measure the social impact of this sector, as a way to encourage procurement from local government and institutions.
- Cook cited Baltimore City’s Neighborhood Impact Investment Fund as one way that the City is investing in local small businesses—through small business loans from CDFIs—though currently, the level of risk that the government is willing to take on falls short of what is possible.
- Cook says, small manufacturers in Baltimore “desire to be more customer-facing, possibly combining retail space with production space...this as an opportunity to not only support small businesses, but to revitalize neighborhood commercial corridors and make leasing space to makers more attractive to retail space owners.”
 - “These jobs are going to pay better than fast-food or Uber or Amazon or whatever. If you’re trying to get living wage jobs for people, that’s where to focus.”

1.3.3 Quint Gregory, Director of Michelle Smith Collaboratory for Visual Culture

March 2, 2020

Summary:

Quint Gregory is a professor of Art History and Archaeology at the University of Maryland. He is also the Director of the Michelle Smith Collaboratory for Visual Culture—a shared space with an immersive viewing screen, software for dot projections of historical artifacts, and other technologies to support the visual arts. Dr. Gregory discussed how the Collaboratory got its start, work that faculty and students do in the space, ideas for extending a makerspace into the community off-campus, UMD’s mission to serve the community as a land grant institution, and the work of collaborators in the Gateway Arts District and Bowie State University.

Evidence:

- The Collaboratory is focused more on the college and university community and not a fully open space. The Smith family historically offered fellowships for professors to act as curators, and they offered significant money for transformative use of technology in the arts. They also provided the start-up money for the Collaboratory but do not provide sustaining funds currently.
- There are some roles this space could play for the community, like teaching people hard skills with software or holding workshops in digital art.
- Quint is currently on the Campus Arts Taskforce, whose goal is to make arts more relevant on campus—where the focus is on science and technology. Part of this is making the work they already do more public and also generating new work.
 - They generated a report which prompted an idea for a “STEAM” room—a kind of makerspace for STEM + Art that could be located just off campus and accessible to the community. The goal would be for the UMD community to collaborate with the larger community in mutual exchange of ideas.
 - One avenue that could provide a gateway for making this kind of space possible could be connecting the makerspace through the new IMDM major on campus (sometimes known as the “gaming major”)—which incorporates digital arts, computer programming, and game theory. This space could have greenscreens, computers, and other tools.
 - The Collaboratory is part of the campus Maker Space Initiative—a group that connects all makerspaces on campus—and while there are already quite a few spaces on campus, they could be a resource for developing one off campus.
- As a land grant institution, UMD has a duty to serve the community and undertake community engagement. Ultimately, whatever an off-campus makerspace could look like, he wants the community to have a voice in its formation
- Quint mentioned a business in Hyattsville called Creative Edge—an arts non-profit run by Pierre Wolcott that focuses on film and new media. Pierre’s nonprofit used to use spaces in the Hornbake Library for video production, but that space is now taken over by

the iSchool; this was a good partnership with the outside community that could no longer be sustained. Pierre also organizes an annual open house event with tours of all the artist/maker businesses in the Gateway Arts District.

- Joe's Movement Emporium also plays a major role in training young people how to use technology and making; they hire high school- and college-age kids to learn lighting design, set design, and video (including augmented reality). Joe's Movement Emporium puts on dance, plays, musicals, and provides space that can be rented to teach classes.
- Quint also mentioned collaborating with professors at Bowie State on a community mural for the lieutenant who was murdered on the UMD campus. At the NextNow festival last fall, UMD and Bowie State hosted a participatory group public mural project where anyone could participate in painting. That mural has travelled around the state and is just one example of how UMD could play a role in bringing the campus communities together with resident communities for collective benefits.

1.3.4 Ilana Preuss, Founder and CEO, Recast City

March 3, 2020

Summary:

Ilana Preuss runs a local economic development firm that works with partners to revitalize places and small business communities by focusing on small-scale manufacturing. She has expertise and experience that spans the nation, and has been recently active in Fairfax County, Baltimore City, and Montgomery County, among other regional jurisdictions with whom Prince George's County competes. Preuss' perspective is that these businesses matter in all contexts, not just urban and not just downtown, and that they have additional advantages for revitalizing storefronts, creating good paying jobs, building resilient local communities, and creating more opportunity for more people. Our goal in interviewing Ilana was to justify pursuit of an inclusive economic development strategy in a County that comprises rural and suburban neighborhoods, in addition to urban cores.

Evidence:

Differences between urban and suburban context

- "There's no difference between the urban and suburban context when it comes to the importance of small-scale manufacturing businesses, their needs, or how to support them."
- The challenge is that you're talking about tons of different towns and communities. What they need in Laurel is different than what they need in Bowie.
- If you want to create a bit of a continuum of the kind of places, these businesses do better when they are around other businesses. But, they also do well when they find really cheap space where they can have freedom to do funky stuff.
- "There are arguments to be made for businesses selling in place and creating foot traffic, filling vacant storefronts, creating an inclusive base of business-owners. There are a lot of great reasons to pursue small-scale manufacturing ecosystems."
- Preuss says, "I know there are food product businesses that are moving out of DC into Prince George's County because it's too expensive in DC."

Primary challenges faced by small-scale manufacturing businesses

- They usually don't have affordable space.
- They're usually working by themselves and nobody knows what they're doing.
- They're getting no business development support from the jurisdiction.
- "There's a whole world the County probably isn't thinking about: 'How do we take people from low-income jobs into something stable and wealth-creating and long term....Financing is one of the things that can make the difference for people, but it's not the only thing.'"
- They need business development support, including financial literacy, life assets, low-interest loans, how to market/sell.

- Lots of things people know how to make but no idea how to start a business.
- “We have start-up spaces for tech spaces all over the country. We have almost no space at our startups for people making products. Why?”
 - Is there political will to support this?
- Are there strong relationships between business owners? When they have strong relationships, they’re more resilient. Businesses that have that social capital will survive where others won’t.
- “New construction is so expensive, there’s no way that small-scale manufacturing would ever be able to afford it. We have to start talking about what sorts of businesses will be in these spaces after they’re constructed. Do we want diverse business types and owners? Then we might have to provide some below-market-rate spaces.”
- “A lot of jurisdictions feel like they don’t have a responsibility to help businesses in this way.”
- “Permitting becomes an enormous issue. In Fairfax County we changed the zoning so they could allow this kind of use in their commercial zones, but this was brand-new to the permitting department and we had to walk them through it.”

1.3.5 Gloria Aparicio-Blackwell and Jose Cadiz, University of Maryland Director of Community Engagement and Lead Community Engagement Coordinator

March 4, 2020

Summary:

As staff in the University of Maryland's Office of Community Engagement (OCE), Aparicio-Blackwell and Cadiz coordinate and connect university students, faculty, and other staff to initiatives, service projects, and other engagements in the Greater College Park neighborhood and beyond. They work to create meaningful connections and act as a conduit of goodwill between the university and the community. They provided insight into the needs and challenges that the non-university community faces, as well as small businesses interested in outreach and workforce development programming already in place.

Evidence:

- The OCE is also tasked with bringing economic development to Greater College Park. Aparicio-Blackwell and Cadiz referred to their work as "TLC - tender loving care" for the community, which includes beautifying and enhancing the surrounding neighborhoods.
- Aparicio-Blackwell said that these communities are often skeptical of the university, as student or other university affiliated groups often disengage as soon as a given project is complete and fail to follow through on commitments.
- They've found that the community's most salient needs come from a lack of resources for local schools and a lack of access to opportunity. Students in local schools as well as adult residents need mentoring, tutoring, and job readiness programming. Spanish-speaking residents experience language barriers to training as well.
- Residents also face issues of housing affordability, health care concerns like diabetes and high blood pressure. Many neighborhoods are not walkable and residents must drive long distances to work and amenities.
- Aparicio-Blackwell mentioned that immigrants in the community tend to distrust the political system. The OCE is working with community groups and nonprofits to increase participation in the census, which is anticipated to be low in 2020.
- They recommended a list of nonprofits and local small businesses that the University has worked with who might be useful for the PALS team's research: Savor, Seed, the Maryland Youth Center, the Latin American Youth Center, Prince George's Community Colleges, College Park Arts Exchange, Joe's Movement Emporium, and the Mount Rainier Arts District.

1.3.6 Apparel and Textile Manufacturer #1

March 5, 2020

Summary:

This owner's business is a for-profit makerspace centered on sewing crafts and fashion in Mount Rainier, Maryland. The co-founder/owner is a fashion designer who started the makerspace out of a company focused on sewing education in 2014, which was housed at the Anacostia Arts Center. The owner moved the operation to Mount Rainier in 2017 where she was attracted to the existing arts culture and craft community in the Gateway Arts District. She expressed frustration with existing County supports for makers, manufacturers and small businesses. In particular, she found the County's systems difficult to navigate and inefficient to create or maintain a genuine manufacturing ecosystem. She has had some luck applying for grants herself and getting some loans.

Evidence:

- The makerspace is on the second floor of a commercial building on Rhode Island Avenue. The space includes retail (fabric, thread and other sewing equipment), dedicated office space for a designer with her own clothing line, and storage. A larger room in the rear has rows of shared tables with sewing machines, as well as a series of smaller tables with dedicated sewing machines that can be rented to specific users for a monthly fee. The space includes dress forms and mannequins.
- Her staff is made up of 12 contracted sewing instructors, and some summer staff placed at the business through Employ Prince George's, Inc. The summer placement interns are trained at Employ PG and then placed in temporary positions at local small businesses.
 - The hobbyists, seamstresses, and designers who practice at her makerspace largely live in Prince George's County.
- Her makerspace offers sewing classes for adults and children, as well as day camp programming that includes training in how to use sewing and cutting machines, fashion design, entrepreneurship, and fashion design software.
 - Twelve contracted teachers run classes on quilting, leather bag construction, formal wear, rugs and curtains, and more.
 - The makerspace operates on a membership model; three tiers of monthly dues provide members with discounts on classes, time in the studio space, use of shared tools, and dedicated space for sewing.
- According to the owner, sewing crafters, makers, and local fashion designers face challenges like access to capital and the absence of a fashion industry in the DC area.
 - DC's Fashion Week lacks buyers like those that attend Fashion Week in New York
 - She feels that the region needs to create a whole industry—from designer to manufacturer to branding to buyers. "If this is an interest, there has to be a wider knowledge that this is the place to go to find up and coming designers or do

manufacturing...it's not just about providing the space, but the whole branding behind it.”

- Currently, there are few local jobs for graduates of Bowie State and Howard University fashion degree programs, and labor for manufacturing designs is scarce.
- She remarked that a branded effort similar to Made in DC would benefit maker businesses like hers and help coalesce resources for small manufacturers and provide retail space. A Made in Prince George's campaign might include a website with a list of makerspaces specialized to make specific products, marketing support, and a tie to capital and small business lending.
- While she lives in Prince George's County, the owner sends her designs to New York to be manufactured. She mentioned that her business suffered from that distance. It would be better, she said, if she could see her designs in progress, and be able to comment on them more frequently and make adjustments.
- The owner expressed a desire to own and move into a street-level space of a similar size, and invest in marketing, signage, and branding for the company to expand its customer base and get in touch with more local designers and seamstresses. The company's online store will launch soon.
- The company's largest expenses are rent, pay for sewing instructors (currently hired as contractors), fabric to sell in the retail shop and to use for classes, and electricity, which can be \$300-400 per month.
- The owner has experience with grant writing, and successfully applied for and secured two \$50,000 loans through the SBA and the Mount Rainier Million Dollar Incentive Fund. The company has also received funds through local business lender FSC First.
 - This funding will allow her to hire a full-time staff person in 2020 to ease the load of the administrative side of her business.
- The company has two satellite operations—one at Creative Suitland in southern Prince George's County where they teach classes, and one in Chicago where the owner's mother teaches sewing.
- The owner recently acquired industrial sewing machines from a now-shuttered nonprofit in DC. She approached staff at Employ PG about the potential for textile manufacturing in the County, but that attempt didn't result in any assistance. Right now, she is still paying to store machines that don't fit in her current space. She may have found a buyer who works for a union apprenticeship program.
- The owner recently acquired the now-shuttered nonprofit in DC and is working with pro bono attorneys at George Washington University to transfer the rights and combine it with her makerspace, a for-profit.
- Great places and streets are a good thing. The owner cited the Great Streets Grant in DC that played a big role in revitalizing the H Street corridor. She felt that this investment created a really lively place for DC-based businesses.

1.3.7 Apparel and Textile Manufacturer #2

March 24, 2020

Summary:

This manufacturer is the proprietor and head designer at a leatherwork and tote bag company housed in a street level retail store and production studio at the Monroe Street Arts Walk in Washington, DC. After a career in theatre props and costumes, she started the business from her dining room in 2006, has always been cash positive, and hires part-time staff to produce her designs. Despite this success, her company has struggled to maximize profits due to the expense of overhead like hourly labor and rent, despite the discounted rents offered to studio occupants in the Arts Walk. She expects a 35% loss due to the coronavirus crisis but was planning to scale back her business regardless and move it back into her home due to high overhead costs.

Evidence:

- In response to the COVID-19 crisis, her landlord at the Arts Walk has recommended she apply for US Small Business Administration loans to cover expenses with the loss of retail business. Web sales were sufficient as of the day of the interview, when her brick-and-mortar store had been closed for nine days. She is preparing to produce out of her home for one month.
- Typically, she takes out a line of credit annually to cover expenses and repays with credit card sales. In 2020, thanks to a unique sale event she held in January, the line of credit was unnecessary to cover the year's expenses.
- To manage sales, tax obligations, and other data, she uses QuickBooks and retains the services of a part-time bookkeeper.
- The owner started the business in 2006, processing online orders through then-new Etsy, and in-person sales at craft shows. She eventually stopped working in theatre, turning to her business as her main source of income in 2013. She worked from home for one year, using her 120 square-foot dining room as her main production space and hiring a friend skilled in sewing to assist on an hourly basis.
- She applied for and was selected via jury for a space in the Monroe Street Arts Walk, but the terms of the lease—intended to incentivize artisans and small manufacturers with united retail and production space—are confidential.
- In 2019, her company was hired to generate \$35,000 of branded leather swag for corporate clients. That income for 2020 will likely be eliminated due to the COVID-19 crisis.
- The equipment she and her employees use to manufacture products includes industrial sewing machines and two pieces of machinery that require more skill to operate: a table saw motor and an industrial “clicker” press that wields eight tons of mechanical advantage. She designs the product patterns on software, and the press cuts the leather to the correct size and shape.

- According to the owner, overhead for her business is dominated by labor reaching \$50,000 annually including workers compensation insurance, and rent for the Arts Walk studio. While the rent is confidential per the terms of the lease, she acknowledges that it is well below market rate for retail space in the region, especially given its proximity to the Brookland-CUA Metro Station.
- Leather products are produced in the Arts Walk space, while she sends designs for fabric products to Sew Lab USA in Baltimore for manufacturing.
- To supplement sales income, she also holds sewing and leather work workshops for a fee.
- Beyond the reduced studio rent, the owner used no government support, loans, grants or other support from local government or nonprofits. Given that the address on record for her company is in Fairfax County, Virginia, the business is ineligible to benefit from membership with Made in DC or Made in Baltimore, even though all products are manufactured in these two jurisdictions. Her company would be eligible if a majority of employees lived in the District, but none can afford to do so.
- She expressed that it is prudent to hire skilled production labor on a piece-by-piece basis, rather than hourly. As such, the employee is paid based on productivity, and the business suffers no losses due to unexpected events.
- Her company's supply chain includes steel rule dies—i.e. cookie cutters—for cutting leather and fabric from Milwaukee, cutting machines from Ohio, Japanese sewing machines, and leather supply from Maine, Illinois and Idaho. Despite modern technology and periodic trade shows, the owner says, she can often get the best price on material by calling the supply company to ask what is in stock.
- At the Arts Walk, she originally occupied a smaller studio, but quickly outgrew it. Her current space is 600-650 sq. ft. Given the expense of renting the studio and retail space and sustaining employment, she expressed an intention to scale back the business and return to at-home production. Even so, having the Arts Walk studio allowed greater visibility for her brand than would have otherwise been possible.
- Her company produces approximately 1,000 units of fabric and leather goods annually: tote bags, dopp kits, handbags, and other products.
- Some products are sold wholesale, while more labor-intensive products are sold directly to consumers at a lower price, especially if they are likely to sell quickly at the shop or craft markets.

1.3.8 Apparel and Textile Manufacturer #3

March 26, 2020

Summary:

This owner's business produces stuffed animals and pillows made one-by-one with upcycled materials purchased at thrift stores and craft fairs. The sales supplement her income as a full-time marketing professional in the Washington DC area. Products are made in her home in Virginia and sold at craft fairs, holiday markets, and a small number of brick-and-mortar locations in the region. She has not registered her business to a limited liability company, citing complicated paperwork as the main obstacle.

Evidence:

- The owner makes her products in her home and sells them online or at craft shows. Sometimes she leaves pillows unstuffed until they are ready to sell or transport to save space.
- The feedback from customers at in-person craft fairs and markets is invaluable. The owner prefers to be present at the point of sale, telling customers to "Feel free to take [her stuffed creatures] for a test hug."
- Each piece is based on a loose pattern the owner has designed, but ultimately is unique. Materials and fabrics vary widely, and patterns are modified frequently.
- The owner worked in theatre props and costumes and at other arts nonprofits, where she learned the sewing skills she now uses to generate her products.
- Her pace of production is typically driven by future sales events on her calendar.
- The only material she purchases new is the "safety" eyes for stuffed toys, which are safe for small children.
- The owner gained greater visibility when she was awarded a residency at Artisphere, a now defunct arts space in Rosslyn, VA. The residency included both production/studio and retail space.
- Early in business' existence, she was a weekly seller at Eastern Market in southeast DC. Out of the sellers she interacted with there, the owner believes she is the only artisan that has not established an LLC.
- Of DC's crafter and small manufacturer network, she said that the majority she knows are jewelry makers, letterpress artists, and woodworkers. Her relationship with other crafters is positive and supportive—she feels confident reaching out to them with a problem or question.
- Complex paperwork and logistics have kept her from establishing an LLC, though if her Etsy sales went up, she says she would consider it.
- For her business's sales and product price point, she says craft events and fairs that are shopping destinations are preferable to events aimed at socializing—like festivals that combine retail stands with live entertainment or dining opportunities.
- She uses a handful of websites to market and sell her products: Instagram, Twitter, Etsy, and a branded website built on Squarespace.

- She mentioned that the Made in DC program is “all about branding,” and there is no legislation for affordable spaces. She cited success in Brooklyn and North Carolina makerspaces that never materialized in DC.
- She also mentioned that while she lives in Virginia and has been part of the DC maker scene, the Made in DC program stops at the border. Even though DC has expanded the program five miles in Virginia, she’s still too far out.

2. Tables

TABLE 2.1: Prince George’s County Preliminary Production Business Inventory: Business Type and Subtype

Business Name	Business Type	Business Sub-Type
Greater Gateway Arts District		
Sugar Vault Desserts	Food and Beverage	Bakery
Shortcake Bakery		Bakery
Vigilante Coffee		Coffee roaster
Southeastern Roastery		Coffee roaster
Relish Market		Juices and Health Foods
Delectable Cakery		Bakery
Savor at Studio 3807		Commercial kitchen incubator
Dutch Mill Catering		Catering
Sangfroid Distilling		Brewing and Distilling
Streetcar 82 Brewing		
Maryland Meadworks		
Denizens Brewing Co		
Chase Custom Boots	Apparel/Textiles	Shoemaker
Sew Creative Lounge		Shared studio, Designer/ Retail
Otis Street Arts Project	Art Studio/Gallery	Shared studio
Red Dirt Studio		Shared studio
Tanglewood Works	Fabrication	Upcycled art
Gruver Company Inc		Bookbinding
Pyramid Atlantic	Makerspace	
Three Little Birds Sewing Company	Retail	

Business Name	Business Type	Business Sub-Type
Beltsville		
Mays Delicious Inc	Food and Beverage	Food Processing
Hollywood		
Nick's Custom Cabinets	Fabrication	Furniture
Capitol Kettle Corn	Food and Beverage	Snack producer
Cheverly		
Action Fabricators & Erectors, Inc.	Fabrication	Ornamental Iron Fabrication
Morgan Blvd. Metro		
The Embroidery Store	Apparel/Textiles	Fabric printing
Williams & Heintz Map Corporation	Graphics/Printing/Signs	Maps
Tristar Litho, LLC	Graphics/Printing/Signs	Printing press
Forestville		
V.H. Sign Company, Inc.	Graphics/Printing/Signs	
Westland Enterprises, Inc.	Graphics/Printing/Signs	Printing Press
Other Areas		
Greenbelt MakerSpace	Makerspace	
Lyon Bakery	Food and Beverage	Bakery
Klc Kischenna L. Coley Couture	Apparel/Textiles	Designer/ Retail
At Residential Addresses		
The Organic You, LLC.	Food and Beverage	Bakery
Keep Your Hair Headgear, Llc	Apparel/Textiles	Headwear
Pneuma Fashions LLC	Graphics/Printing/Signs	Embroidery/Screen Printing
Tastes Better Than Yours (Tbty), Llc	Food and Beverage	Canned products
Cotton's Gourmet Gifts & Creations, Llc	Food and Beverage	Bakery
Wink & Pout, LLC	Cosmetics	

Table 2.2. Existing Industrial Zones

Industrial Zone	Description	Permitted Use Highlights
I-1	<u>Light-Industrial</u> : To attract a variety of labor-intensive light industrial uses that create a distinct light industrial character, setting it apart from both the more intense Industrial Zones and high-traffic-generating Commercial Zones; and to provide for a land use mix which is designed to sustain a light industrial character.	Applicable for small makers who need cheapest space and larger manufacturing productions of a startup that has grown. Some industrial uses are available only by special exception.
I-2	<u>Heavy Industrial</u> : To accommodate a mix of intense industrial uses which require larger tracts of land that may impact adjoining properties, but are essential to the County's economic well-being; and to apply site development standards which will generate an attractive, conventional heavy industrial environment.	Industrial park setting may be detrimental to attracting makers and small-scale manufacturers looking for active storefronts and customer interaction.
I-3	<u>Planned Industrial/Employment Park</u> : To provide for a mixture of industrial, research, office, and in certain instances specific retail commercial uses (along with compatible institutional, recreational, and service uses) in a manner which will retain the dominant industrial/employment character of the area, while also providing for the enhanced viability of the zone by providing for the location of certain retail commercial uses on the periphery of the area; To provide development standards which assure the compatibility of proposed land uses with surrounding land uses, maximize open space so as to create a park-like setting, and improve the overall quality of industrial/employment areas in Prince George's County.	Industrial park setting may be detrimental to attracting makers and small-scale manufacturers looking for active storefronts and customer interaction.
I-4	<u>Limited Intensity Industrial</u> : To provide for limited industrial and commercial development and uses limiting employee and patron occupancy levels and floor area ratios.	Applicable for larger manufacturing productions of a startup that has grown.
U-L-I	<u>Urban Light Industrial</u> : To attract and retain a variety of small-scale light industrial uses in older, mostly developed industrial areas, with structures lacking state-of-the-art mechanical features, and located close to established residential communities; setting it apart from both the more intense industrial zones and the high-traffic-generating commercial zones; To encourage the location of small-scale "clean industries" (e.g., electronic, assembly of precision laboratory equipment, etc.) and new "incubator" or "cottage businesses"; To establish a flexible regulatory process with appropriate standards that will promote reinvestment in, and appropriate redevelopment of, older urban industrial areas as employment centers.	Applicable for neighborhood revitalization. Some industrial uses are available only by special exception.

Table 2.3 Existing Commercial Zones

Commercial Zone	Description	Permitted Use Highlights
C-O	<u>Commercial Office</u> : to provide non-retail commercial uses, such as business offices and services of a professional, clerical, or administrative nature.	Most industrial uses are <u>not</u> permitted in this zone.
C-A	<u>Ancillary Commercial</u> : to provide limited commercial uses that are subordinate to the uses of immediately surrounding neighborhoods and are limited to small lots.	Most industrial uses are <u>not</u> permitted in this zone.
C-S-C	<u>Commercial Shopping Center</u> : to provide retail commercial shopping facilities and compatible institutional, recreational, and service uses.	Some industrial uses related to makers are permitted or allowed with special exception or permit.
C-W	<u>Commercial Waterfront</u> : to provide areas for commercial marine activities related to tourism, recreational activities, and limited water-related employment areas.	Most industrial uses are <u>not</u> permitted in this zone.
C-M	<u>Commercial Miscellaneous</u> : to provide locations for commercial uses which may be disruptive to the harmonious development, compactness, and homogeneity of retail shopping areas; To provide these locations, where possible, on nonresidential streets; and concentrations of these uses which are relatively far apart.	Some industrial uses related to makers are permitted or allowed with special exception or permit.
C-R-C	<u>Commercial Regional Center</u> : To provide locations for major regional shopping centers and related uses; to assure compatibility with existing and proposed surrounding land uses and proposed public facilities and services; and to assure that the anchor tenant mix, architectural features, landscaping, and other site amenities of the regional shopping center are consistent with the concept of an upscale mall.	This zone will be deleted in the Zoning Rewrite. Most industrial uses are <u>not</u> permitted in this zone.

Table 2.4. Existing Mixed-Use Zones

Mixed-Use Zone	Description	Permitted Use Highlights
M-X-T	<p><u>Mixed-Use Transportation-Oriented</u>: to promote development and redevelopment of land in the vicinity of major interchanges, intersections, and transit stops so that these areas will enhance the economic status of the County and provide an expanding source of desirable employment and living opportunities for its citizens; to create compact, mixed-use, walkable communities enhanced by a mix of residential, commercial, recreational, open space, employment, and institutional uses; to facilitate and encourage a twenty-four (24) hour environment</p>	<p>Manufacturing, fabrication, assembly or repair from materials or parts previously produced elsewhere is permitted.</p>
M-X-C	<p><u>Mixed-Use Community</u>: to create a comprehensively planned community with a distinct physical identity, a balanced mix of residential, commercial, recreational, and public uses, and the preservation of significant open spaces.</p>	<p>Manufacturing, fabrication, assembly or repair is generally not permitted.</p>

Table 2.5 Industrial and Commercial Zones: Use Table for Relevant Small Production and Accessory Uses (March 27, 2020)

Use	Industrial Zones					Commercial Zones					
	I-1	I-2	I-3	I-4	U-L-I	C-0	C-A	C-S-C	C-W	C-M	C-R-C
Eating or Drinking Establishments:											
excluding drive-through service	P	P	P	P	P	P	P	P	P	P	P
with drive-through service	P	P	P	P	SP	P	X	P	X	P	X
any type, including music and patron dancing past the hours of 12:00 A.M., excluding adult entertainment	SE	SE	P	SE	SP	X	X	SE	SE	SE	X
Artist's studio						P	X	P	X	X	P
Artists' residential studios	SP	X	X	X	SP	SP	X	SP	X	SP	X
Bicycle repair shop	P	P	X	P	P	X	X	P	X	P	X
Blacksmith shop	P	P	X	P	P	X	X	X	X	P	X
Catering establishment	P	X	X	X	X	X	X	P	X	P	X
Household appliance or furniture repair shop	P	P	P	P	P	X	P	P	X	P	X
Blueprinting, photostating, or other photocopying establishment	P	P	P	P	P	X	X	P	X	P	P
Photographic processing plant	P	P	P	P	P	X	X	X	X	P	X
Photography studio or darkroom	P	P	X	X	P	P	X	P	X	P	P
Photographic equipment and supplies	P	P	P	P	P						
Printing, Publishing, Paper, and Related Industries:											
Bookbinder manufacturing	P	P	P	P	P						
Bookbinding	P	P	P	P	P						
Paper or paperboard products (except containers) manufacturing	SE	P	P	P	SE						
Printing and engraving (which may include all processes)	P	P	P	P	P						
Printing shop	P	P	P	P	P	X	X	P	X	P	X
Shoe repair shop	P	P	P	X	P	X	P	P	X	P	P
Tailor or dressmaking shop (may include incidental dyeing and pressing)	P	P	P	P	P	X	X	P	X	P	P
Dyestuffs (manufacturing)	X	P	X	P	X						
Upholstery shop	P	P	P	P	P	X	X	PA	X	P	X
Watch or jewelry repair shop						X	PA	P	X	X	P
Watches, clocks, measuring, or time-keeping devices	P 34	P 34	P	P	P						
Welding shop:	P	P	X	P	P						
Accessory to an allowed use						X	X	X	P	P	X
All others						X	X	X	X	P	X
Bakery products, wholesale (may include retail sales)	P	P	P	P	P	X	X	X	X	P	X

Bakery products manufacturing that may include companion uses	P	P	P	P	P						
Confectioner (not exceeding 40,000 square feet of gross floor area):											
Retail						X	X	P	X	X	P
Wholesale (may include accessory retail sales)						X	X	X	X	P	X
Confectionery products manufacturing	P	P	X	P	P						
Farmer's market or flea market	P	P	P	P	P	X	X	P	X	P	X
Food or beverage goods preparation on the premises of a food or beverage store, provided goods are only sold on the premises and retail						X	PB	PB	PB	PB	PB
Food or beverage goods preparation for wholesale sales:											
Not exceeding 1,500 square feet of gross floor area						X	X	P	X	P	X
Containing 1,501 to 3,000 square feet of gross floor area						X	X	SE	X	P	X
Food or beverage store:											
Within an existing retail center with net leasable building space of less than 26,000 square feet	P	X	P	X	X						
Not exceeding 3,000 square feet of gross floor area						X	P	P	PB	SE	P
Not exceeding 125,000 square feet of gross floor area						X	P	P	X	SE	P
Carpentry, cabinet making, or other woodworking shop:											
Accessory to an allowed use						X	X	X	P	P	X
All others						X	X	X	X	P	X
Furniture, cabinets, fixtures, or interior decorating components	P	P	P	P	P						
Cosmetics, medicinal, pharmaceutical, and toilet article products, fabrication	P	P	P	P	P						
Soaps, cleaners, polishes, sanitation preparations, bleaches, and detergents	X	SE	X	SE	X						
Engineering, computer, drafting, laboratory, office, research, and scientific instruments, devices, equipment and supplies	P	P	P	P	P						
Brushes, brooms, combs, or lamp shades manufacturing	P	P	X	P	P						
Cigarettes, cigars, or other tobacco products (chewing or smoking) manufacturing	X	P	X	P	X						
Explosives, fireworks, or gunpowder manufacturing	X	X	X	X	X						
Gelatin manufacturing	X	X	X	X	X						
Glue or size manufacturing	X	X	X	X	X						

Jewelry manufacturing	P	P	P	P	P						
Musical instruments, athletic goods, notions, novelties, sporting goods manufacturing	P	P	P	P	P						
Precious metalware manufacturing and plating	P	P	P	P	P						
Processing of Food and Kindred Products for Human Consumption:											
Beverage bottling (all containers):											
(i) Alcoholic	X	P	P	P	X						
(ii) Nonalcoholic	P	P	P	P	P						
Brewery, distillery, winery	X	P	X	P	X						
Cereals, grains, or spice processing	P	P	X	P	P						
Coffee roasting	P	P	X	P	P						
Oil and fat manufacturing (edible)	P	P	X	P	P						
Packaging, packing, and canning of food products	P	P	X	P	P						
Pickling	SE	P	X	P	SE						
Sauce, seasoning, and dressing manufacturing	P	P	X	P	P						
Smoking and curing	SE	P	X	P	SE						
Syrup and flavor extract manufacturing	P	P	X	P	P						
Textile Products:											
Fabrication of finished goods	P	P	P	P	P						
Felt manufacturing	P	P	P	P	P						
Fiber or thread manufacturing	X	P	X	P	X						
Finishing of textile goods	P	P	P	P	P						
Knitting	P	P	P	P	P						
Lace (and similar products) manufacturing	P	P	P	P	P						
Recycling of textiles	SE	P	P	P	SE						
Weaving	P	P	P	P	P						
Glass blowing and molding	P	P	X	P	P						
Manufacturing of ornamental products made of clay, concrete, glass plaster, porcelain, or stone	P	P	X	P	P						
Ornamental products made of china, clay, concrete, glass, or stone	P	P	P	P	P						
Medical Cannabis Grower and/or Processor	P	X	P	X	X						
Sign making shop	P	P	X	P	P						
Hardware fabrication and manufacturing of products from material produced elsewhere						X	X	X	X	P	X
School, Private: for artistic instruction (including a studio)						P	X	P	X	P	X
School, Private: business or trade, where the business or trade is permitted (P) in the respective zone						P	X	P	PA	P	P

School, Private: business or trade, where the business or trade is permitted by Special Exception (SE) in the respective zone						SE	X	SE	SE	SE	X
Accessory structures and uses, except as otherwise provided						P	X	P	X	P	P
Adaptive reuse of a surplus public school, when not otherwise allowed						SE	SE	SE	SE	SE	SE
Adaptive use of a Historic Site, when not otherwise allowed						SE	SE	SE	SE	SE	X
Consolidated Storage						X	X	P	X	X	X
Storage, wholly enclosed, accessory to an allowed use						P	P	P	P	P	P
Wholesaling, distribution, and related storage of products not used or produced on the premises						X	X	P	X	P	X
Wholesaling of products incidental to the retail sales of the products on the premises						X	X	PA	PA	PA	PA
Wholesaling or distribution of products used or produced on the premises	P	P	P	P	P						
Museum, aquarium, art gallery, cultural center, or similar facility	P	P	P	X	SP	P	X	P	P	P	P
Performance arts center	SP	X	X	X	SP	SP	X	SP	X	SP	X

Table 2.6. Mixed-Use Zones: Use Table for Relevant Small Production and Accessory Uses (March 27, 2020)

Use	Zones	
	M-X-T	M-X-C
Eating or Drinking Establishments	P	P
Studio for artistic practice	P	P
Manufacturing, fabrication, assembly or repair of the following, from materials or parts previously produced elsewhere:		
Artist's supplies and equipment	P	X
Business machines	P	X
Drafting supplies and equipment	P	X
Electrical and electronic equipment and component parts for radio, television, telephone, computer, and similar equipment	P	X
Flex Space	P	X
Jewelry and silverware	P	X
Musical instruments	P	X
Optical equipment and supplies	P	X
Photographic developing and processing establishment	P	X
Photographic equipment and supplies	P	X
Scientific and precision instruments, devices, and supplies	P	X
Small electrical household appliances (including televisions, but excluding refrigerators and the like)	P	X
Surgical, medical, and dental instruments, devices, and supplies	P	X
Toys, sporting and athletic equipment (excluding ammunition, firearms, and fireworks)	P	X
Watches, clocks, and similar timing devices	P	X
Wearing apparel	P	X
Where not otherwise specifically permitted, any use allowed in the I-1 Zone (excluding those permitted by Special Exception)	P	X
Home occupations (except in multifamily dwellings)	P	P
Other uses of appropriate size, which can be justified as similar to one of the uses listed in this Section	P	P

Table 2.7 Urban Center Zone: Use Table (March 27, 2020)

Use		GENERAL		STOREFRONT		TOWNHOUSE/ SMALL APARTMENT		WORKSHOP		DETACHED	
		1st Floor	Upper Floor	1st Floor	Upper Floor	1st Floor	Upper Floor	1st Floor	Upper Floor	1st Floor	Upper Floor
RESIDENTIAL	Household living	P	P	A	P	P	P	X	A	P	P
	Group living	P	P	A	P	P	P	X	A	P	P
CIVIC	Civic	A	A	A	A	A	A	A	A	A	A
COMMERCE	Day care	X	A	X	A	A	X	X	X	X	X
	Medical	P	P	P	P	X	X	X	X	X	X
	Office	P	P	X	P	X	X	X	X	X	X
	Outdoor recreation	X	X	X	X	X	X	X	X	X	X
	Overnight lodging	P	P	A	P	X	X	X	X	X	X
	Passenger terminal	P	X	P	X	X	X	X	X	X	X
	Personal service	A	A	A	A	X	X	X	X	X	X
	Restaurant/Bar	P	A	P	A	X	X	X	X	X	X
	Retail sales	A	A	A	A	X	X	A	X	X	X
	Vehicle sales	P	X	P	X	X	X	X	X	X	X
	Water-oriented	P	X	P	X	X	X	X	X	X	X
WORKSHOP	Light industrial	X	X	X	X	X	X	P	P	X	X
	Light manufacturing	X	X	X	X	X	X	P	P	X	X
	Research and development	P	P	X	P	X	X	P	P	X	X
	Self-service storage	X	X	X	X	X	X	X	P	X	X
	Vehicle service	X	X	X	X	X	X	A	A	X	X
INDUSTRIAL	Agriculture	X	X	X	X	X	X	X	X	X	X
	Heavy industrial	X	X	X	X	X	X	X	X	X	X
	Resource extraction	X	X	X	X	X	X	X	X	X	X
	Warehouse and distribution	X	X	X	X	X	X	X	X	X	X
	Waste-related service	X	X	X	X	X	X	X	X	X	X
	Wholesale trade	X	X	X	X	X	X	X	X	X	X