



**SEWN TRADES MANUFACTURING  
IN THE UNITED STATES  
FROM PRE-COVID  
STATE OF THE  
INDUSTRY TO  
THE FRONTLINE  
RESPONSES TO  
PPE DEMANDS**

# Acknowledgements

This report was created by the Urban Manufacturing Alliance. Part One, “Equitable prosperity in the new manufacturing economy? A look at the potential of sewn trades employment and entrepreneurship” was authored by Laura Wolf-Powers, Associate Professor at Hunter College and UMA’s Lead Academic Advisor. Part Two, the practitioner interviews were authored by Andrew Dahlgren, UMA’s Research Partner. Thank you to Lee Wellington, UMA’s Founding Executive Director, and Katy Stanton, UMA’s Programming and Operations Director, for their thought-leadership and guidance. We are ever grateful to our 40+ Sewn Trades Collective Members for their time and dedication to their communities and to this work.

Thanks to the members of the STC for use of their photos.

# Introduction

The COVID-19 pandemic thrust manufacturing to the forefront of everyone's attention; just a few months before, the sewn trades industry, manufacturing workforce development, and industrial businesses were often overlooked. But as demand for Personal Protective Equipment (PPE) grew almost overnight, the Urban Manufacturing Alliance (UMA) and members of their Sewn Trades Collective (STC) knew that they could respond. Launched in 2017, UMA's Sewn Trades Collective is a coalition of 40+ US workforce and entrepreneurial service organizations focused on serving the sewn goods manufacturing sector.

Before COVID-19 hit, UMA was already working with Laura Wolf-Powers, Associate Professor of Urban Policy and Planning at Hunter College, to research equitable prosperity in the new manufacturing economy around the sewn trades. Her research identified opportunities for sewn trades leaders in the United States to reinvigorate their industries after years of decline by responding to shifting consumer demands and thinking differently about technology and workforce training. In her research, she identified several organizations across the country that were building wealth for their stakeholders (employees, owners, investors, and communities) by developing

new models that both responded to industry shifts and met the goals of providing good pay and meaningful work.

In the midst of an economy transformed by the pandemic, UMA interviewed five of these organizations to see how they have fared. Each organization was disrupted by economic shifts caused by the pandemic, but they all identified ways to take strategic action. Within a very short timeframe, they were able to reorganize their operations, source inputs, raise capital, and manufacture PPE for a range of customers – from those who couldn't afford personal protection to frontline hospital workers. No two strategies were the same; however, UMA identified several overlapping elements among the five different responses.

The keys to surviving, responding, and, in some cases, thriving during the pandemic echo many of the points Professor Wolf-Powers' research uncovered as relevant to the long term survival of the sewn trades industry. UMA hopes this work will reinforce consensus around a new framework for the sewn trades industrial ecosystem – one that integrates equity and inclusion, promotes collaboration, and produces long-term sustainable impacts.



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# Equitable prosperity in the new manufacturing economy?

## A LOOK AT THE POTENTIAL OF SEWN TRADES EMPLOYMENT AND ENTREPRENEURSHIP

### Context Setting

The manufacturing sector seems an unlikely target of hopes for job creation and sustainable economic revival. Since the 1950s, it has accounted for a steadily decreasing proportion of U.S. employment – 8.5% of all non-farm jobs today vs. 30% in 1956. The Bureau of Labor Statistics records nearly 6 million fewer manufacturing industry jobs today than in 1980, despite the economy having added about 60 million net new nonfarm jobs since that time.

Explanations for the decline lie along two vectors. First, trade liberalization has made U.S.-based firms vulnerable to international competition, such that many companies in labor-intensive industries, in order to compete, have chosen to locate production in places where they can pay workers

less. Second, especially in the capital-intensive industries that have tended to remain “onshore,” automation and other technological improvements have led to gains in labor productivity that have greatly reduced demand for workers. As a result, while gross manufacturing output has grown by 38.5% since its trough during the 2007-2009 recession, manufacturing employment has grown only 11% since its recession low point, to 12.8 million from 11.5 million (as recently as 2000, the sector employed more than 17 million workers).<sup>1</sup> A 2017 Congressional Research Service brief noted that enhancing domestic manufacturing is of great interest to legislators, yet cautioned that the goal of creating new employment through efforts to strengthen it may be difficult to achieve.<sup>2</sup>

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1 Bureau of Economic Gross Output by Industry 2008-2018, released April 19, 2019; Bureau of Labor Statistics Employment, Hours and Earnings from the Current Employment Statistics Survey, 1950-2019.

2 Marc Levinson, Job Creation in the Manufacturing Revival, Washington, DC: Congressional Research Service Report 7-5700, May 5, 2017.

There are many reasons, however, to take an interest in the potential of manufacturing to promote living-wage employment and sustainable livelihoods.

**ONE** Manufacturing continues to offer a significant compensation premium relative to work in other sectors, a premium that has risen since 2000 across all levels of educational attainment.<sup>3</sup> This means that someone without a bachelors degree earns higher wages and better benefits in manufacturing than in most other industries. Educational attainment levels of manufacturing workers have been increasing; the sector employs a higher proportion of bachelor's and graduate degree holders than in the past. But research suggests that this is in part a matter of policy. Inclusion-oriented workforce development institutions can successfully prepare non-college educated job candidates to contribute value to advanced manufacturing operations, thus providing people with high school degrees or some college to be part of a high-wage production economy even as skill requirements increase.<sup>4</sup> Jobs in manufacturing are also more likely than other jobs to provide healthcare and retirement benefits to less educated workers.<sup>5</sup>

**TWO** The growth of the maker movement presents new opportunities for manufacturing entrepreneurship. As costs for 3-D printers, food production machinery, and personal CNC machine tools decrease, individuals with designs or

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3 David Langdon and Rebecca Lehrman, *The Benefits of Manufacturing Jobs*, Washington, DC: U.S. Department of Commerce, Economics and Statistics Administration, Issue Brief #01-12, May 2012. Langdon and Lehrman estimated a compensation premium of 17%, noting that the premium is greater for workers with a bachelors degree or higher than for workers with less formal education. A 2018 analysis by economist Lawrence Mishel found an overall 13% compensation premium. Mishel identified firms' increased use of workers supplied by temporary staffing agencies as a main source of the decline in the compensation premium over time.

4 Nichola Lowe and Laura Wolf-Powers, Who works in a working region? Inclusive innovation in the new manufacturing economy. *Regional Studies* 52:6, 828-839, 2018.

5 Lawrence Mishel, *Yes, manufacturing still provides a pay advantage, but staffing firm outsourcing is eroding it*, Washington, DC: Economic Policy Institute, March 12, 2018.

recipes can tap into these technologies either by acquiring them inexpensively or by accessing them via maker spaces, commercial kitchens, and open-source communities. The proliferation of individualized digital media and sales platforms, as well as other business services available through the Internet, has made it easier for small-scale entrepreneurs to market and distribute physical products.<sup>6</sup> Interest in products with high design content and a minimal environmental footprint has also boosted demand for the output of local, place-identified enterprises oriented to batch rather than mass production. Barriers to entry into the world of makers, while not negligible, are sufficiently low to make small-scale manufacturing attainable for the first time micro-entrepreneur. In food and beverage manufacturing, for example, the Economic Census recorded over 52,000 sole proprietor or “non-employer” establishments in 2015 (up from 20,000 in 2000); these small businesses accounted for \$2.2 billion in sales.<sup>7</sup>

**THREE** In an encouraging phenomenon connected in many cases to the maker movement, sector-based and place-based *communities of practice* are developing among small-scale manufacturers. These communities are institutionally diverse — some maintained by public agencies, some by non-profit groups, some through informal ties. They are also diverse in their activities, which encompass information exchange and peer-to-peer networking, connection to external capital and technical assistance, joint marketing and branding, and, in the case of maker spaces and accelerators, access to equipment and formal learning opportunities.<sup>8</sup> Communities

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6 Marc Doussard, Greg Schrock, Laura Wolf-Powers, Max Eisenburger, and Stephen Marotta, Manufacturing without the Firm: Challenges for the Maker Movement in Three U.S. Cities. *Environment and Planning A: Economy and Space*, 2018.

7 Greg Schrock, Marc Doussard, Laura Wolf-Powers, Max Eisenburger, and Stephen Marotta, Appetite for Growth: Challenges to Scale for Food and Beverage Makers in Three U.S. Cities. *Economic Development Quarterly* 33(1): 39-50, 2019.

8 Jennifer Clark, Manufacturing by design: The rise of regional intermediaries and the re-emergence of collective action. *Cambridge Journal of Regions, Economy and Society*, 7, 433-448, 2014.

of practice have the potential to nurture, mentor, and influence the principles of manufacturing enterprises in ways that lead to skill development and job generation for residents of disadvantaged urban and rural neighborhoods.

These factors warrant new attention to manufacturing entrepreneurship support and manufacturing workforce development on the part of the public and philanthropic sectors. This paper examines the *sewn trades* (apparel and textile products) as a potential area on which to cast attention. It considers what would be needed to build earning power and sustainable livelihoods in the sewn trades through targeted workforce development and the support and facilitation of entrepreneurial communities of practice.



## Sewn trades in the U.S.: bad news and good news

As noted above, while manufacturing output has grown more than manufacturing employment since the 2007-2009 recession, both have rebounded. In the textile and apparel or “sewn trades” sectors, however, neither output nor employment has returned to pre-2007 levels. In fact, these industries have been in secular decline since the early 1970s. In 1973, there were more than 2.4 million textile and apparel workers in the United States; in 2019 there were about 335,000. Decline in apparel employment is attributable to the internationalization of production and the off-shoring of labor-intensive cutting and assembly work. Until the 1980s, there were specialized garment production centers in nearly every city in the United States – men’s coats and suits in Chicago, outerwear in Detroit and Minneapolis, sportswear in Los Angeles and San Francisco, dresses in Dallas, swimwear in Miami, wedding dresses in St. Louis, and outdoor wear and “gear” in Portland and Seattle. These specialized urban agglomerations have all but vanished, with the exception of sportswear in Los Angeles



and haute couture in New York City. Textile production employment, which since the mid-1900s has been concentrated in rural areas in the southeastern U.S., particularly western North Carolina, has also been affected by globalization, but even more significantly by capital investments that

reduce demand for labor.<sup>9</sup> Training and vocational education have declined along with the industry.<sup>10</sup>

It would be unrealistic to imagine that the apparel and textile sectors can be revived in the United States in their pre-existing forms. And from a workforce equity perspective, one would not want to do this; despite the sometime presence of union representation, for example, firms in the apparel industry have tended to pursue “low-road” competitive strategies dependent on low wages and persistent labor law violations.<sup>11</sup> There is some evidence, however, that two emerging industry trends offer opportunities to create conditions for sustainable livelihoods in apparel and textile product manufacture.

First, businesses are considering on-shoring apparel production to respond to greater demand volatility and to reduce waste and overstock. Given rising wages overseas, an increasing number of industry leaders believe that it is possible to be competitive and to produce domestically, provided that firms invest in technology-intensive production methods and needed skills training.

According to a 2018 report by McKinsey & Company, large apparel companies are driven both by an interest in greater speed and agility and by the recognition that adopting the values of a circular economy (with resource-efficient production, less waste, and shorter shipping distances) reduces some costs and increases the appeal of merchandise to socially-conscious consumers.

The second trend is the rise of small-scale firms headed up by designer-entrepreneurs who do their own production, merchandising, and distribution. The relative ease of accessing business services (Computer Aided Design (CAD) services, accounting, consulting) and marketing, retailing, and distribution infrastructure (social media, drop-ship services) on the Internet makes it increasingly possible for individual apparel and textile “creatives” to go into business for themselves. The recent nationwide growth rate of non-employer manufacturing establishments in apparel, textile, and leather, at 20%, is not as dramatic as in food and beverage production; nevertheless, sole proprietor establishments in apparel, textile, and leather manufacturing posted

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9 Mark Mittlehauser, Employment trends in textiles and apparel, 1973-2005. *Monthly Labor Review*, August 1997. Western North Carolina is also a traditional center of garment production.

10 Abigail Clarke-Sather and Kelly Cobb, Onshoring fashion: Worker sustainability impacts of global and local apparel production. *Journal of Cleaner Production* 208 1206-1218, 2019.

11 Tarry Hum, Mapping Global Production in New York City’s Garment Industry: The Role of Sunset Park, Brooklyn’s Immigrant Economy. *Economic Development Quarterly*, 17(3), 294-309, 2003.

receipts of \$1.28 billion in 2017.<sup>12</sup> Mutualistic communities of fashion entrepreneurs have emerged in Detroit, Nashville, Cincinnati, Portland, Pittsburgh, Chicago, and Austin, as well as the more traditional fashion capitals of New York and Los Angeles. Their interest is often in making quality products at a high price point, aimed at socially-conscious consumers or people seeking individuation and customization. They rely on one another for referrals to local (and hyper-local) sample-makers, pattern-makers, and input suppliers. They rely as well on retail stores – such as Chicago’s Wolfbait and B-girls, and Portland’s MadeHere PDX – that showcase locally-made products. Recent survey and qualitative research on urban manufacturers and makers provides insight into the growing universe of small-scale clothing, footwear, and accessories producers in U.S. cities.

Many enterprise owners strongly identify with place, and to the extent they would like to expand, they are committed to doing so locally.<sup>13</sup> They have salvaged deaccessioned machinery from out-of-business factories, run up credit card debt as working capital, and taught people to sew. After decades of industry decline, however, homegrown social networks can go only so far in supporting

the initiation and expansion of small-batch apparel and accessories enterprises. Barriers are particularly high for entrepreneurs who do not have connections to family wealth or angel investors.

While the trends and changes that comprise the “good news” discussed above offer potential new opportunities for skill and job development in apparel and textiles, prospects for their realization are strongest in contexts where public, non-profit, and philanthropic sectors are active and supportive partners. The next two sections of this report provide examples of initiatives that are helping to build institutional and social infrastructure for next-generation apparel and textile production in the U.S. We start with efforts that support localized networks of clothing and textile designers and associated production specialists.

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12 U.S. Census Bureau, Non-employer Statistics series, 2000 and 2017. According to this data, there were 25,953 sole proprietor apparel manufacturers, 5,326 sole proprietor textile products manufacturers, and 5,903 sole proprietor leather manufacturers in the United States in 2017. The cited growth rate of 20% is for 2000-2017.

13 Of 28 apparel and accessories makers interviewed for the 2016 *Maker Economy in Action* study, 19 were typologized as “emerging place-based manufacturers.” Over 75% of the 118 apparel and textile firms responding to UMA’s 6-city State of Urban Manufacturing survey indicated that they intended to add employees in the future.

# STRATEGY I

## Strategy I

### Connecting small designer-entrepreneurs to resources and production capacity

Support for start-up businesses represents a central economic development strategy in many cities. Municipal officials pursuing it are animated by the principle that nurturing homegrown enterprises in rapid-growth mode yields better and more sustainable long-term economic outcomes than striving (often using expensive incentive packages) to attract mobile capital from outside of a region. But for economic development officials, a “start-up” is often synonymous with a technology enterprise, which leads public sector actors to focus most of their energy and resources on entrepreneurs who write software, develop on-line applications, or build Internet-connected devices.<sup>14</sup> Manufacturing – and particularly craft-oriented manufacturing – has not traditionally been on their agenda. But the re-connection of design and production represented by the “maker” movement has shifted that dynamic. Designers and producers of apparel, shoes, accessories, and outdoor gear are now



claiming their place in many cities’ so-called “start-up ecosystems.”

Depending on their experience with production methods and technologies, the founders of apparel and textile startups may need mentoring and instruction around

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14 See Greg Schrock and Laura Wolf-Powers, “Opportunities and Risks of Localised Industrial Policy: The Case of ‘Maker-Entrepreneurial Ecosystems’ in the USA.” *Cambridge Journal of Regions, Economy and Society*, 2019.



how to design for manufacturability, how to choose appropriate fabric, how to connect with potential customers, or even how to sew. To make patterns and samples, they also need specialized equipment that they may not have cash on hand to purchase. Enter mission-driven urban intermediary organizations or enterprises – Portland Apparel Lab, the Nashville Fashion Alliance, and Baltimore’s SewLab are a few examples – that serve as resources for start-up firms. Some of these intermediaries make sewing equipment accessible in a shared space in exchange for a membership fee or hourly rental cost, effectively offering early-stage entrepreneurs a capital subsidy. They provide consulting to designer clients who want to make sure that they are creating product specifications that manufacturers will be able to work with. They themselves sometimes perform short production runs

on contract for designers; alternatively, they connect designer-entrepreneurs to contract manufacturers. Finally, intermediaries provide opportunities for collaboration, exchange, and informal mentoring in both physical and virtual spaces, helping start-up designers and production specialists connect with peers and build solidarity and community.

An example of an urban intermediary serving the needs and interests of small designer-entrepreneurs in the sewn trades is Cincinnati’s Sew Valley. The founders of this not-for-profit are both artists. One, Shailah Maynard, often needed sewn goods for theatrical productions and other installations with which she was involved. The other, Rosie Kovacs, was constantly sought after by people who needed custom sewn goods produced; she approached Maynard with the idea of creating a “sewing makerspace.” There was design and sewing talent being incubated in Cincinnati – much of it by the fashion design program at the University of Cincinnati’s College of Design, Art, Architecture, and Planning – but graduating students frequently left to find opportunities in other places, or remained in Cincinnati but worked in other fields. When Maynard and Kovacs (with the help of the Haile/U.S. Bank Foundation) opened a production space on the vacant first floor of a flag manufacturer in the city’s West End neighborhood and set up a program by which entrepreneurs could gain access to shared equipment, they





quickly gained dozens of members.<sup>15</sup> Soon after, they established a production service that attracted revenue-generating clients. Says Maynard, “Some of the designers had ideas but didn’t know where to start. With our help they were able to create patterns, samples, and tech packs.”<sup>16</sup> Other clients were ready for production but were looking for a contractor who could turn out 50-100 items – well below the minimum for mainstream contract manufacturing operations. Sew Valley filled the gap. While philanthropic funding continues to be part of Sew Valley’s budget, revenue from consulting and contract production work is growing. “The biggest need,” says Maynard, “is finding more help. We’re going to have to train people.”



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15 Sew Valley and New York City’s Custom Collaborative (described below) were both inspired by the Brooklyn Fashion and Design Accelerator, a highly regarded intermediary affiliated with Pratt Institute which emphasized environmentally sustainable fabrics and production technologies. BF&DA closed in June 2019.

16 A tech pack, in the fashion world, is an instructional blueprint that contains all of the information and specifications a manufacturer needs to turn a design into a finished product.

# STRATEGY II

## Strategy II Preparing a new production workforce

The need for trained sewers presents a challenge for sewn trades intermediaries serving start-up firms – but it also affects larger domestic producers. Lauren Rash, the Chief Operating Officer at Diamond Brand Gear, an Asheville, North Carolina-based backpack and tent manufacturer, notes, “In the last two generations there haven’t been sewers...even before much of the textile industry left [the American South], it had a reputation for being a bad employer.” Rash believes that it is possible to “redefine sewing and sewing work” to attract a new generation of production employees. But this is a multi-step process that entails paying workers livable wages and conducting outreach aimed at growing consumer demand for higher-quality, ethically-produced products. “The more [high-road firms] collaborate in educating consumers, the better it is for the industry as a whole,” she says.

As part of this effort, the North Carolina Cut and Sew Coalition, a multi-firm consortium that Rash co-founded, recently spearheaded

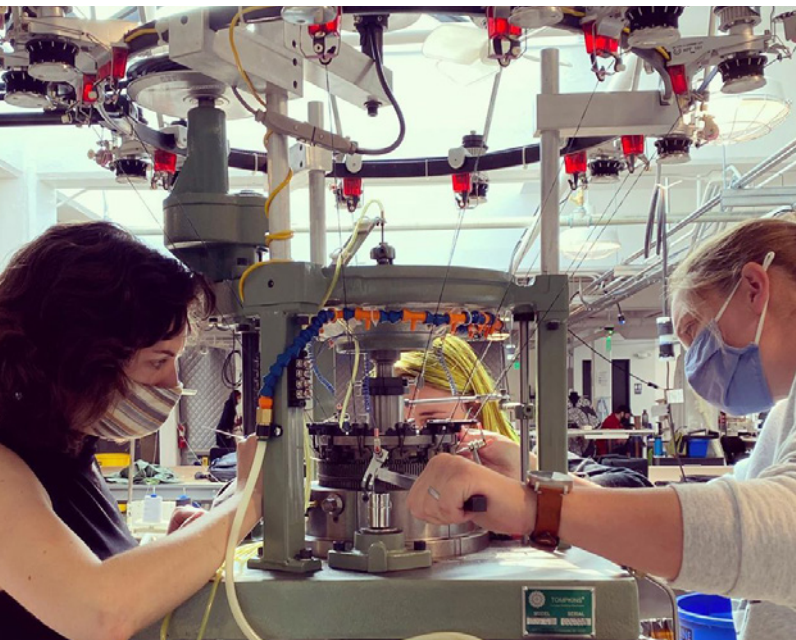


an effort to develop and mount a basic sewing course that launched at Blue Ridge Community College in Henderson County in September, 2019.<sup>17</sup> People who complete the course are prepared for living-wage, entry-level positions at Diamond Brand Gear and other regional firms; some already work at those firms and are having the course paid for by employers as part of their entry-level training. A key source of expertise for the North Carolina Cut and Sew Coalition as they created the community college course was the Industrial Sewing and Innovation Center

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17 The effort was funded in part by the Carolina Textile District (see below).

(ISAIC), a national institute based in Detroit. ISAIC's Deborah Vandermar, a production specialist and engineer with decades of experience in the sewn trades, witnessed the “destruction of the domestic supply chain” — including training infrastructure — in the 1980s and 1990s and came out of retirement to create a training curriculum for sewers that combines classroom-based technical instruction with time on the shop floor. The U.S. Department of Labor has recognized ISAIC's model as a federal apprenticeship, and it can now be adapted



to state-level apprenticeship requirements in North Carolina and elsewhere. Like Rash, Vandermar and ISAIC believe that the future of textile and apparel production in the U.S.

lies with high-quality, innovation-driven, low-waste production. The ISAIC apprenticeship program and training programs derived from it are designed in part to elevate the status of the employees who will take part in that future and position them to earn family-supporting wages.

An important precondition for the emergence of opportunities for such employees, of course, is growth in domestic production of apparel and other sewn goods. According to Cal McNeil, who oversees manufacturing initiatives at the New York-based Council of Fashion Designers of America (CFDA), small independent clothing and accessories designers are increasingly interested in domestic production, for several reasons. In addition to having lower minimum order requirements than non-domestic contractors, U.S.-based contract manufacturers often are willing to work closely with and provide more attention to designers whose production orders number in the hundreds or low thousands of items. Keeping sewn goods assembly in the United States also lowers firms' shipping-related costs and carbon footprint and enables them to be transparent with their customers about product supply chains.<sup>18</sup> Growing awareness of the environmental and social costs of “fast fashion” has generated an expanding market for ethically sourced clothing, and domestic manufacture (with transparency built in) is a

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18 See, for example, <https://whereyourclothing.com/>.

key element of many independent designers' sustainability-conscious business models.

McNeil notes that suppliers to global companies who mass produce apparel and accessories are also exploring the option of establishing or re-establishing production campuses in the United States. Here, the value proposition revolves around automating many aspects of the production process. To be efficient and profitable in the U.S., suppliers to major brands will rely on a combination of modular and robotic manufacturing techniques,<sup>19</sup> and on workers who are computer-literate and facile with flexible technologies. While this high-productivity model is unlikely to restore domestic sewn trades employment to its levels of four decades ago, observers believe it has the potential to significantly reduce environmental costs while creating remunerative job opportunities for workers with advanced manufacturing training. In Detroit, the Industrial Sewing and Innovation Center is collaborating with government, corporate, and philanthropic actors on an effort to make the city a hub for fashion production and design, drawing on an ample inventory of low-cost real estate and

on an incumbent population of workers with skills transferable from the automotive manufacturing sector. In 2020, ISAIC opened a training center where it delivers its apprenticeship program, as well as a small contract manufacturing facility.

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19 "One of the major modifications in apparel in recent years has been the adoption of the modular manufacturing system. In contrast to the bundle system, in which a worker performs the same operation on a piece as it moves along the production line as part of a bundle, the modular system uses a group of workers trained in several operations to produce a piece from start to finish. Each module contains the machines and the workers necessary to take cut pieces of fabric and transform them into finished apparel. Workers in the modular system are trained to perform a number of functions so that they can fill in for other workers who are absent or help out when pieces back up at a station. As a result, the modular system is more flexible, productive, and responsive to changes in demand. It also is better from an ergonomic perspective, reducing the costs of injuries and lifting morale." ( Mark Mittelhauser. Employment Trends in Textiles and Apparel, 1973-2005. *Monthly Labor Review* August 1997.



# STRATEGY III

## Shifting the 'value chain' in traditional production centers

Recent trends in sewn trades entrepreneurship – sparked by the growth of the maker movement and by the anticipation of global production on-shoring – have begun to change the geography of employment in the apparel and textile sectors. The emergence of small designer-entrepreneurs in Cincinnati, Portland, Baltimore, and other small cities has instigated new fashion production initiatives in those places. If suppliers to global fashion brands re-establish a manufacturing presence in the United States, workers in cities like Detroit, which have not traditionally been apparel hubs, will have new opportunities. At the same time, intermediary organizations working to advance principles of environmental sustainability and good jobs have also emerged in historic centers of textile and garment production.

The Carolina Textile District (CTD), founded in 2013, represents about 150 textile-related manufacturers and production specialists – cut and sew operations, pattern makers,



and fabric producers – concentrated along Interstates I-85 and I-40 in western North Carolina's Piedmont Crescent. CTD's founders created the organization explicitly to respond to the growth of interest in sustainable and ethical fashion among small clothing and textile designers.<sup>20</sup> Since its founding, it has helped more than 1,200 designers connect with contract

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<sup>20</sup> The CTD's founders are Molly Hemstreet, who launched the worker-owned textile business Opportunity Threads, and Dan St. Louis, the director of the Manufacturing Solutions Center, an industrial extension program based at Catawba Valley Community College in Hickory, North Carolina.



manufacturers and form relationships with them to produce things they have designed, both in sample batches and longer production runs. The majority of CTD's designer clients are between 20 and 40 years old and intend to sell their products online, through their own websites or via platforms like Etsy and Grommet. Designers turn to CTD staff for help with market research, production planning, and business development — making it more likely that when a connection with a manufacturer is made, the production process runs smoothly, and both manufacturer and designer are

satisfied.<sup>21</sup> A recent study of CTD by scholars Nichola Lowe and Tara Vinodrai highlights the organization as a model for linking craft and artisan revival in urbanized areas with initiatives to sustain and transform rural manufacturing agglomerations.<sup>22</sup>

New York City, a historic apparel center where enterprises specialize in high-quality ready-to-wear clothing, is another place where intermediary organizations are attempting to shape an industry in flux. The fashion industry is an important component of the city's diverse economy, but the off-shoring of production and adoption of advanced technology have eliminated production jobs over the past few decades. Moreover, the midtown Manhattan Garment District, which hosts a concentration of design offices and showrooms, suppliers and wholesalers, pattern and sample-makers, and contract manufacturers, has been under threat as demand for high-end office and residential property has caused rents to escalate.<sup>23</sup> Working from the premise that sewn trades firms in New York City are an important resource for the fashion industry as



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- 21 Data from UMA's State of Urban Manufacturing study indicates that beneficial partnerships between designer/maker enterprises and contract manufacturers are often stymied by designers' insufficient understanding of the manufacturing process. CTD addresses designer capacity issues as part of the referral and matching process to manufacturers.
- 22 Nichola Lowe and Tara Vinodrai, 'The Maker-Manufacturing Nexus as a Place-Connecting Strategy: Implications for Regions 'Left-Behind.' Manuscript under review at *Economic Geography*, 2019. The CTD is a financial supporter of the North Carolina Cut & Sew Coalition's community college-based training effort.
- 23 In 2018, the New York City Council and City Planning Commission relaxed regulations governing the Special Garment Center District, which had provided a protected area for fashion-related wholesale and industrial uses in midtown Manhattan. As a result, many properties in this "naturally occurring industrial district" are converting to higher-rent uses and causing the displacement of fashion manufacturers, designers and wholesalers. City economic development specialists are financing the build-out of subsidized spaces in Brooklyn to encourage a new fashion agglomeration, but many are skeptical that the symbiotic relationships that have historically typified the Garment Center's vibrancy can replicate themselves elsewhere. See Sharon Zukin, *The Innovation Complex: Cities, Tech, and the New Economy*. New York: Oxford University Press, 2020.

a whole,<sup>24</sup> the Council of Fashion Designers of America is collaborating with the city's Economic Development Corporation on a program of support, the Fashion Manufacturing Initiative. Its components are a grant fund that helps contract manufacturers modernize their facilities and equipment; a Local Production Fund that encourages U.S.-based designers to start or increase production in New York City; and workforce development programming spearheaded by the Detroit-based Industrial Sewing and Innovation Center.

Meanwhile, New York City non-profit organizations encourage access to and social mobility within the industry by working with aspirant entrepreneurs eager to find footing in the city's remaining fashion ecosystem. One such organization is Custom Collaborative, which recruits small cohorts of "under-invested" women who want to work in fashion for intensive training and business development led by staff with industry experience. The foundation of the training is instruction in creating made-to-measure clothes; it also includes instruction in pattern making, custom and batch sewing, and small business planning and operations. "Everyone graduates with a business plan," says founder Ngozi Otaru. "It's important to teach people not just to design and sew clothing but also to go into business. But we make sure everyone has a core set of

skills." Custom Collaborative has a small business incubation program and recently began a cooperative enterprise whose owner-members accept small batch orders on contract. A major inspiration for this most recent phase of Custom Collaborative's work is Opportunity Threads, the enterprise whose founder, Molly Hemstreet, is part of the team behind the Carolina Textile District.



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24 Sewn trades enterprises are also an important part of the value chain in New York City's theater, film and television industries.

## A Niche worth nurturing

As noted above, the prospect of reviving U.S. apparel and textile sectors at their previous scale or in their pre-existing form is both unrealistic and undesirable. However, with the growth of the maker movement and with the emergence of communities of practice among small-scale producers, there is strong evidence that new types of enterprises are creating conditions for sustainable livelihoods in apparel and textile product manufacture. The work of intermediary organizations like the ones referenced above — Baltimore’s SewLab, Cincinnati’s Sew Valley, Detroit’s ISAIC, New York City’s Custom Collaborative, the Carolina Textile District, and the Council of Fashion Designers of America — is a crucial part of this. In the late 2010s, publicly- and philanthropically-supported intermediation efforts were already creating promising opportunities for skill and job development in apparel and textiles. Intermediaries were mentoring small-scale firms headed up by designer-entrepreneurs and facilitating a revived domestic fashion manufacturing ecosystem. This new system is much smaller in scale than its predecessor, but also more expressive of innate social values around

satisfying, well-paid work, and around community and creativity.

When the COVID pandemic hit, many industry and labor market intermediaries in the textile and apparel sectors were able to pivot. Their stories are below.





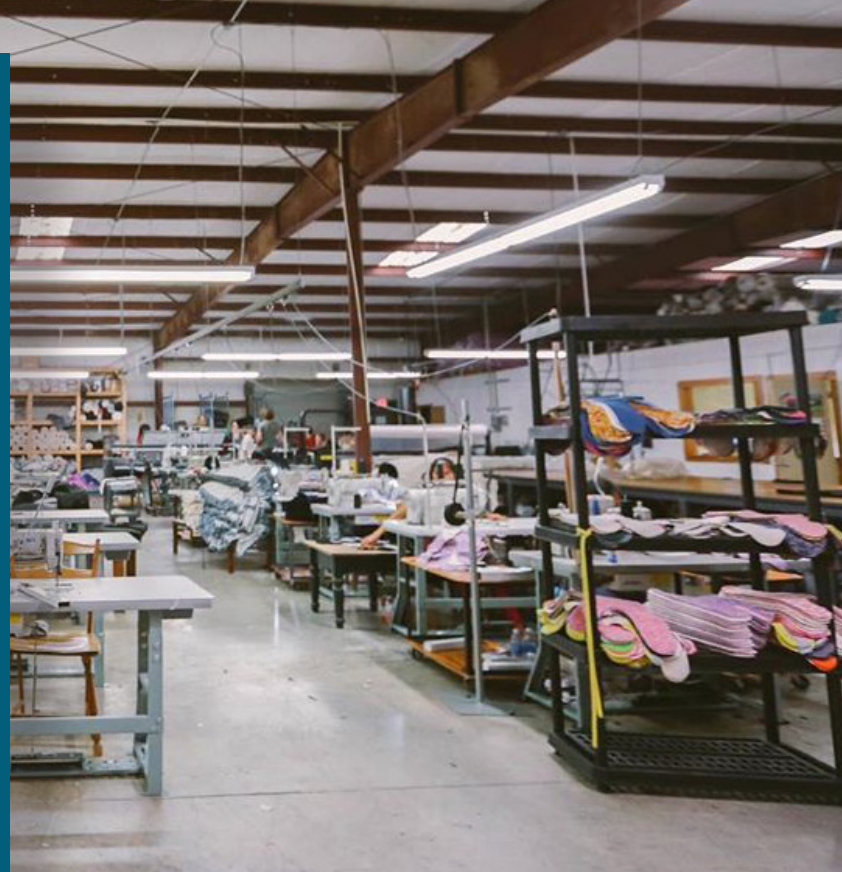
# Case Study Interviews

- 23**      **CAROLINA TEXTILE DISTRICT**  
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# Carolina Textile District

LEIGH ANNE HILBERT  
NETWORK  
COORDINATOR

WESTERN NORTH CAROLINA



## ABOUT CAROLINA TEXTILE DISTRICT + LEIGH ANNE HILBERT

Carolina Textile District (CTD) connects makers, designers, and entrepreneurs to reliable domestic supply chains in order to make quality products in Western North Carolina. An enterprise of The Industrial Commons (TIC), CTD is committed to empowering workers and supporting local communities by providing secure, meaningful jobs, while aspiring to economic, environmental, and social sustainability. CTD focuses on facilitating active collaboration

amongst makers and manufacturers across their region – ensuring an ethical, values-based process – creating new possibilities for the future of the American textile industry.

Three organizations, Manufacturing Solutions Center, Burke Development Inc, and Opportunity Threads, came together to form the CTD in 2013 to help entrepreneurs, existing companies, and local economies benefit from the solutions that only an American supply chain can provide. CTD acts as a one-stop shop for all things textile, connecting clients with partners – from designers to printers, fabric producers to cut and sew companies, material suppliers to fulfillment centers – to ensure that high-





quality products get to market as quickly and efficiently as possible. Textile manufacturers and related companies in Carolina Textile District's network are dedicated to collaborating and growing together to meet the increasing demand for US textile production.

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Leigh Hilbert is the Network Coordinator for the Carolina Textile District. Growing up in a textile region in southwestern Virginia, she saw factories close and thousands of people laid off, including her mother. After witnessing the positive impact that TIC and CTD had in the region, both for owners and workers, she jumped in. Leigh also owns and operates The Drygoods Studios, a community-driven, mixed-use studio space in the heart of West Asheville, where

she sells her canvas and leather bags and accessories. She is also the Director of Design and Development at Sew Co., one of CTD's members.

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When the pandemic started, CTD knew they needed to respond. ***“We have been building our network of manufacturers for 10 years. We already had in place sources for domestically made materials, supply chains, and motivated manufacturers.”***

Some of their members produced apparel and needed no help, yet others, like those in the furniture industry, needed help pivoting. CTD's PPE response strategy focused on developing 1,000 unit mask kits for companies that needed the most help pivoting their production. This required developing patterns, sourcing and cutting materials, and packing and distributing kits, as well as picking up finished masks, completing quality control, and shipping finished orders. To manage the process within CTD, people with existing talents got assigned similar roles in the PPE response. To manage the external relationships, a **webpage** was added to their existing platform. Organizations, big and small, looking for PPE were able to place orders and manufacturers could order kits.

CTD was able to respond quickly and effectively because they had already been building their industrial ecosystem before

the pandemic. ***“We have always focused on ways to bring everyone in the textile trades together.”*** From the beginning, one of CTD’s goals has been to help companies learn to collaborate. During the pandemic, they have helped member companies build new relationships and partnerships. By pairing demand with supply, companies that had no prior interactions connected to each other, creating a stronger ecosystem in real time. ***“Because companies were encouraged to collaborate through this process, they have learned it is easier to do than they thought and are more likely to keep working together. The Carolina Textile District often serves as the glue and facilitator for these ventures, and we look forward to more of that. We try to take some of the organizing off already stressed business owners and workers, so that they can actually bring their voices and talents to the table.”***

Manufacturers the CTD organized produced 30,000 masks a week, helping them sustain their business and employees through this time. Another goal of CTD has been to keep driving work to these established companies beyond the pandemic. This is going to require ongoing exploration to keep it financially sustainable for everyone. Now that cheaper PPE manufactured overseas has started flowing back into the U.S., CTD has had to pivot their focus. ***“No one wants to pay higher prices. When one hospital is likely to throw away hundreds***



***of thousands of gowns and masks a week, they don’t want to pay any more than they had been paying.”*** It would take a big investment in new equipment to make standard medical masks because they aren’t sewn, but are made using nonwoven fabric that is stamped and fused. CTD is starting to focus on a new market, smaller buyers (dentist offices, for example), who now have new PPE requirements and could wash and sterilize masks and gowns, rather than throw them away.

Helpfully, ongoing PPE production fits within a pre-pandemic initiative of The Industrial Commons, an apparel and accessories product line that is manufactured by CTD members. ***“We design, source, and sell the Collection product line. We added a line of masks to our existing product offerings which has given us more experience being***

*a retailer which should help us grow and manage the Collection.”* This and other pre-pandemic programs at Carolina Textile District were put to the test and refined. The pivoting, learning, and testing done by CTD and member companies are still playing out.

The need to pivot has highlighted some regional and national manufacturing issues, like trying to source medical grade fabrics. *“Very little medical grade fabric is manufactured in the United States, and what is made here needs to go through a more consistent testing process.”* The Carolina Textile District wanted to have their masks and gowns certified so that hospitals could confidently source them. But, the certification process was held up because certified fabric was either hard to find, or was sold as certified but then failed in-house testing. This meant certification became reliant on external testing labs, which were quickly overwhelmed, given only a few exist in the country.

From a big picture point of view, Leigh has high hopes for the future of the sewn trades industry: *“We think the collaborative mentality will stick around. The cut-throat approach to business had not been helping the industry, even before the pandemic. Instead CTD and partners are helping to flip that strategy and are involved in assisting companies to see each other as collaborators. Now that some companies have been moved to*

*work this way through the pandemic, we hope it will change their long-term business strategy to include more concerted efforts in the future to join forces.”*

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For more information on Carolina Textile District visit [carolinatextiledistrict.com](http://carolinatextiledistrict.com).





# Custom Collaborative

NGOZI OKARO  
EXECUTIVE DIRECTOR

NEW YORK CITY, NY



## ABOUT CUSTOM COLLABORATIVE + NGOZI OKARO

Custom Collaborative is a New York City-based entrepreneurship and workforce development program that trains and supports women from low-income and immigrant communities to launch fashion careers and businesses. Custom Collaborative helps equip women to achieve viable livelihoods in the women's fashion industry as designers, fashion entrepreneurs, pattern makers, and seamstresses who create and sell high-quality clothing and

accessories. Their focus on teaching standard techniques and ethical business practices of the fashion industry means participants professionalize their sewing and design skills, overcome barriers to employment, and ultimately, change the economics of the industry. Custom Collaborative provides participants with opportunities to increase their economic standing through fulfilling production needs of local independent designers.

Custom Collaborative envisions a global women's apparel industry in which garment makers are fairly compensated for their labor and consumers have access to well-made, sustainably sourced clothes that fit and



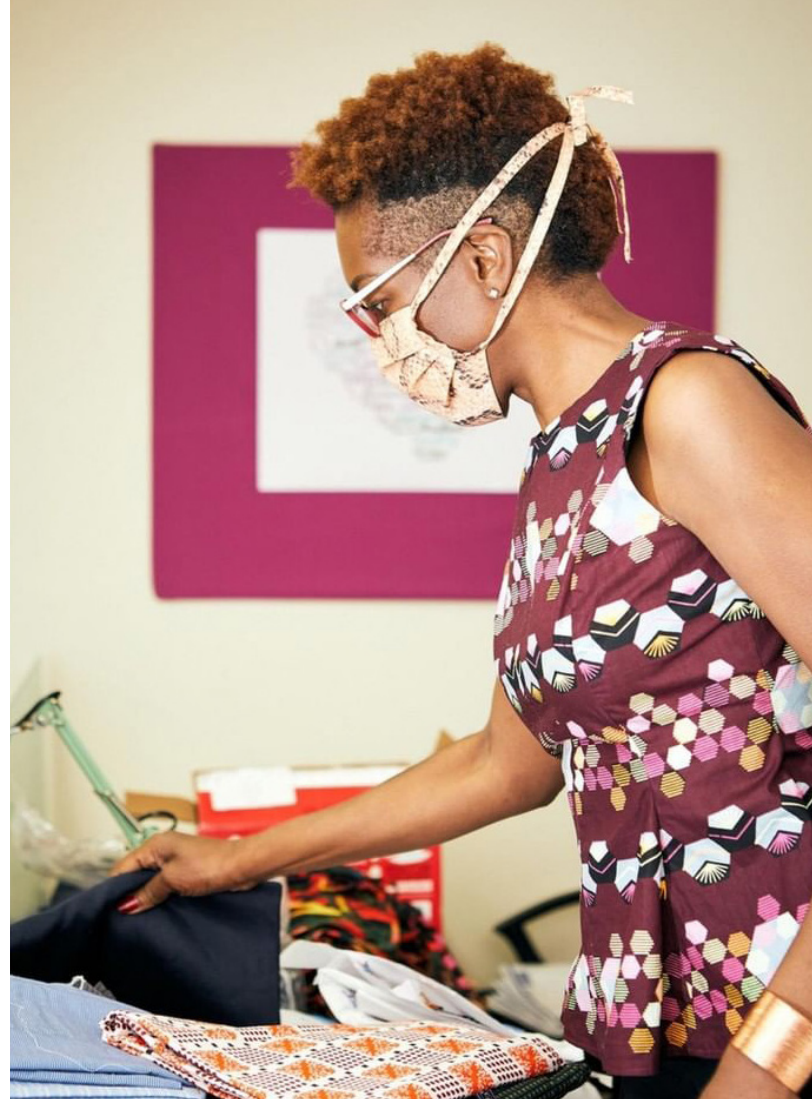
affirm all bodies. Their strategy for changing the economics of the apparel industry focuses on serving the underinvested. 85% of their participants are mothers, 80% live below the federal poverty level, and 50% live in unstable housing. Participants come from 20 nations, including the U.S. Along with supporting women is the priority to create sustainable fashion. Awareness of environmental impact is at the core of Custom Collaborative's design instruction and product development.

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Ngozi Okaro is an advocate for socioeconomic justice. She understands the challenges facing women who want nice clothes but whose bodies do not conform to a ready-to-wear template that a majority of US clothing buyers are forced into by the market. Ngozi aims to bridge gaps between constituencies: fashion-industry workers who want fair compensation, thoughtful consumers who want quality clothes, and the natural environment.

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Before the COVID-19 pandemic, Custom Collaborative's (CC) mission was to provide income for underserved women, so when the need for PPE production arose, they made sure their response remained in alignment. ***“Initially we got going with the idea of producing isolation gowns for New York***



***City. That didn't pan out, so we thought about what we knew we could do and we pivoted to make masks.”*** CC has been making masks to sell to consumers and to donate to individuals and organizations most in need. They were in a good position to respond to the instant demand because they had just finished a strategic planning process exploring how to be more adaptable. ***“We strategized how to respond and we took it seriously. We were responding to the crisis, not just working from home.”*** Within a few days, employees formed subgroups and a resilience task force to figure out what could be done to be relevant, not just



now, but after the pandemic. Employees stepped up and took on more than they were doing before which meant working through individual and organizational strengths and weaknesses.

Once a management strategy was in place, CC reopened their work space. They worked first with the women who have graduated from their training and incubator programs because they knew their skills. Next, CC worked with the cohort they were training when the shop first closed. To get them working, Custom Collaborative was forced to develop a training strategy through the production of masks which meant new quality control and skill evaluation processes. ***“We had a rough start. The whole process of making thousands of items of PPE,***

***with a workforce that had never made masks before, on top of working remotely, mailing fabric, and managing logistics was a lot to learn. We paused and retooled, and it has been smoother ever since.”***

Outside of the organization, Custom Collaborative needed to build new connections. Everything they produce is made from donated fabric, which meant needing to find new sources for fabric and material. Also to respond to the scale of demand, CC connected with a larger manufacturer to do bulk fabric cutting. The Urban Manufacturing Alliance also provided help through their Sewn Trades Collective.

***“Hosting calls and sharing resources via emails opened up new connections. Increased connections has helped us become more nimble and quick.”*** Another new relationship was with a volunteer who stepped up to distribute sewing supplies and finished masks because shipping via FedEx became too wieldy and expensive. Custom Collaborative will continue to foster these relationships even as mask production winds down.

Internally, CC has made changes to their operations. ***“This process has helped inform where our training can be in the future, has shown us we could scale our production, and changed our quality control process and skill evaluations.”***

In the past, they had their own internal measures of who is, for example, an “A+”



level maker who is “C-” level. With future projects, they plan to be more systematic, implementing new tools, guidelines, and feedback loops to increase quality. Working remotely has created new ways of teaching and clarified the belief that some things are best taught in person. And while many things have changed, others haven’t. For example, part of their training includes entrepreneurship skills such as generating invoices, setting expectations, and negotiating pricing remain relevant and have been reinforced during this time.

Ngozi hopes that other stakeholders – including workforce coalitions, the economic arms of city government, fashion designers, state government agencies, and other organizations – will want to come together and build new strategies that will help everyone become more resilient: ***“I definitely think this will push the conversation of local manufacturing. People are going to realize it is necessary, easier, and better. It will force people to rethink sourcing strategies. People are going to learn the impact. I’m a strategic planner and this has shown there aren’t enough “plan Cs”. People have talked about the need to put together a strategic plan for regional manufacturing, but this hasn’t started. This is a new construct, we need to have***

***the conversation and be intentional about it”.***

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For more information on Custom Collaborative visit [customcollaborative.org](https://customcollaborative.org).

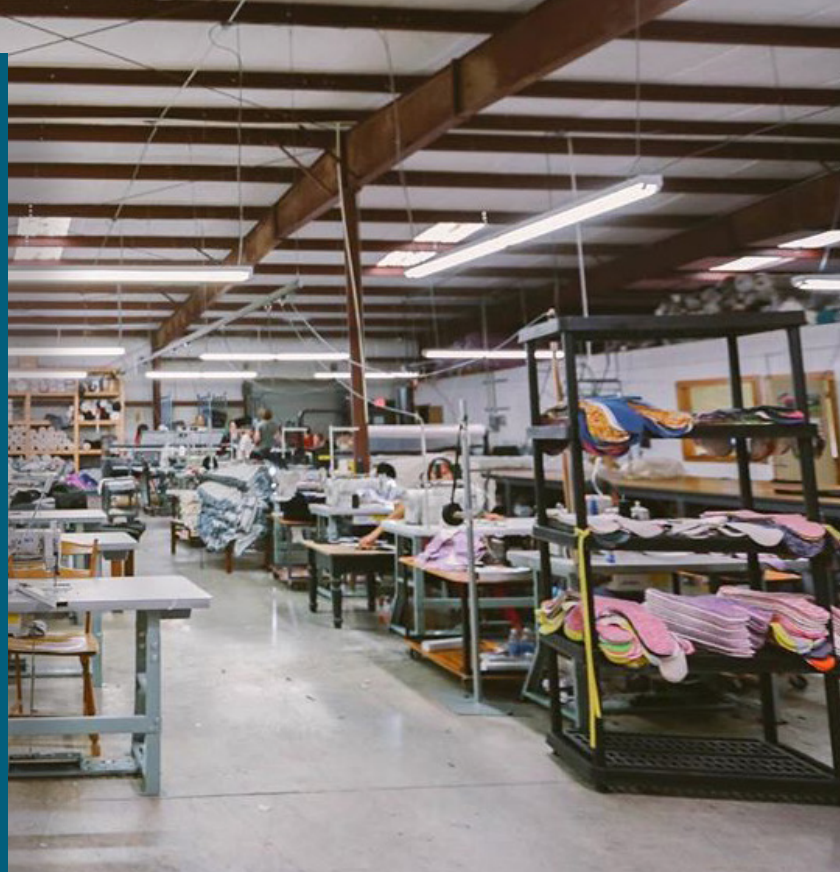


# Sew Valley

**SHAILAH MAYNARD**  
CO-FOUNDER COO

**JESSICA HEMMER**  
FOUNDER AND  
CREATIVE DIRECTOR  
OF HEMMER DESIGN

CINCINNATI, OH



**ABOUT  
SEW VALLEY  
+  
SHAILAH MAYNARD &  
JESSICA HEMMER**

Sew Valley exists to provide resources to apparel designers and entrepreneurs, aiming to help brands grow in a sustainable and thoughtful way. They offer physical workspace, educational workshops, and contract services like pattern making, sample making, and small batch production. Sew Valley is the brainchild of Rosie Kovacs and Shailah Maynard. Rosie knew there was

an opportunity to help other designers and entrepreneurs build their brands locally because of her own experience attempting to produce clothing in the Midwest. Shailah, who is also the owner/operator of concept brand Working Girls, noticed a shortage of resources for regionally-made products. With Rosie's background in fashion and Shailah's business background, they saw a need for design and manufacturing in Cincinnati and built Sew Valley from the ground up. Sew Valley is excited to be a part of bringing sewn production back to the region and hopes they can remove some of the hurdles small brands face when developing and manufacturing sewn products.



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Jessica Hemmer is the founder and creative director of Hemmer Design, LLC. She is an accomplished researcher, designer, and collaborator who has built her career creating innovative and inspiring products, services, and experiences. Working as a corporate designer at companies such as JCPenney, Woolrich, and Under Armour, Jessica discovered that in addition to creating innovative products she had a love affair with wanting to create better organizations and design experiences. Jessica decided to branch out on her own to create Hemmer Design, which is a collaborative product creation studio. She is passionate about helping companies bring their best ideas to life through a combination of inspiration, collaboration, and strategy, and she focuses on creating lean, agile, and thoughtful innovation.

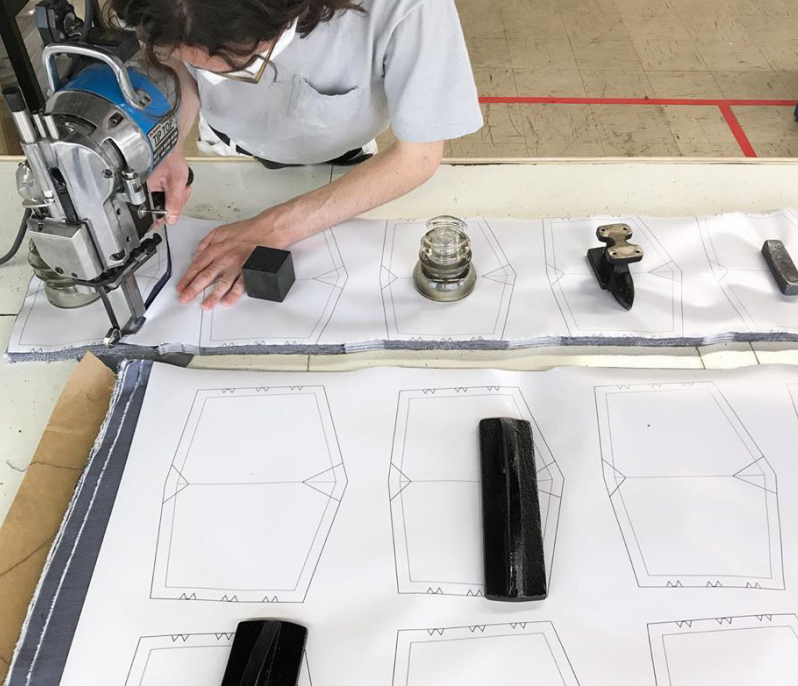
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***“Our response to PPE was very intentional. We knew from the beginning we could respond.”*** Shailah, Rosie, and Jessica began to brainstorm how to pivot when the pandemic hit. They shut the doors to their workspace, started making samples, and began sourcing materials. They put together production goals, and breakdowns of costs, material sources, and outputs. They engaged with the Haile /U.S. Bank Foundation – a local philanthropy and pre-



COVID financial supporter of Sew Valley – who provided a \$10,000 grant, allowing them to buy new equipment, purchase materials, cover pay for three weeks for six sewers, and ultimately reopen and get to work producing masks. Once that was up and running, they reopened their existing services and they haven't missed a deadline since. ***“Our normal production team is still producing for our regular client customers. Mask production is a different stream. We have brought on four new people for new demand. This is the largest staff we have had.”***

Like their national counterparts, their network has grown. A local print shop is printing their



fabric cutting guides for free. Sew Valley has also started new conversations with Proctor & Gamble, and they are talking with Kroger about a PPE project. These discussions have opened up connections with another local manufacturer in the bedding space who is making a cheaper mask and is able to do very large quantities. **“There is a lot of potential and many parts still to be nailed down.”** Additionally, Sew Valley has been forming partnerships with other small-scale producers through the [Queen City Mask Collective](#) – a group of producers pooling their production capabilities to respond to orders.

Whereas some Cincinnati-based, larger-scale manufacturers couldn’t figure out how to respond, Sew Valley learned how to be flexible and roll with the punches, figuring out how to pivot as needed. They added a **shop feature to their website** and can now fill individual customer orders. Corporations and restaurants have started placing orders

as the word is getting out. People are finding Sew Valley through marketing and organic searches. **“At first we got a lot of press so we got sales because we were first to market. Other companies are realizing this is an accessory everyone needs and no one has.”** The plan is to continue as long as people need masks, and because they have proven their capabilities, follow up orders for other products will come along.

Finding skilled labor was the biggest problem even before the pandemic. **“If we can find a way to bring on more sewers, we will. We have had a big increase of applications from people who want to work as sewers.”** Previous applicants knew how to sew at home and some worked with theaters, but no one had industrial production experience. Mask production created a chance to learn how to work faster and more efficiently. **“We created a four-step production process. We rotate people to learn each step. This is a great training opportunity. If mask production ends, we would ideally bring those workers on to other production.”**

Shailah and Jessica shared that this whole process has reinforced the need for what Sew Valley originally set out to do: create a space for designers to come and have a hands on experience. When asked if they think this has impacted the larger industry, they focused on the importance of storytelling to create a lasting impact: **“This experience is forcing people to see what**



*is possible to do in the U.S. And there is a new, bigger opportunity for local branding. We need a way to tell the story of Sew Valley and to advocate for what is happening. People are more receptive to getting and understanding it right now. If we can get the story out enough it will stick.”*

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For more information on Sew Valley visit [sewvalley.org](http://sewvalley.org).



# SewLab USA

## JEREMIAH JONES OWNER/MEMBER

BALTIMORE, MD



### ABOUT SEWLAB USA + JEREMIAH JONES

SewLab USA (SewLab) is a Baltimore-based manufacturing company that provides superior quality soft goods constructed from sustainably-sourced materials by serving customers personalized service, innovative designs, and inspirational solutions. Owners Jeremiah Jones and Cecilia Grimm believe in truly listening to their customers and tailoring products to suit their needs, allowing SewLab to grow and adapt techniques to an ever-changing marketplace.

SewLab is committed to the fundamental importance and intrinsic value of Made in America. The spirit of SewLab lies in the steadfast history of manufacturing domestically: quality products conscientiously constructed, not just by laborers but by highly-trained artisans who are dedicated to their craft and their craftsmanship.

SewLab USA encapsulates a vision that developed when they launched Hold Fast – a line of bike accessories and bags. Jeremiah and Cecilia believed if they were going to manufacture in Baltimore, they first needed to revitalize the environment so that a business like theirs could grow. This led



them to get involved with sewing-focused training programs through collaborations with a community focused makerspace (OpenWorks) and local brand initiative (Made in Baltimore). Their work in the community is constantly bringing awareness and accessibility to sewn trades through the lens of high volume manufacturing.

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Both Cecilia and Jeremiah have backgrounds in art and manufacturing. Jeremiah began sewing and constructing around 1998. Shortly after beginning an apprenticeship, he developed a mindset that centered around the question, “Why buy something if I can make it?” With that, SewLab was born. His vision is to create a space that is simple, clean, centered around family values, and most importantly, a teaching environment. Jeremiah has strategically and purposefully built a team of talented individuals who also have independent ventures. He wants SewLab to be a catalyst for job creation, education, and creativity. SewLab is a reminder of an industrial spirit that once was widespread throughout Baltimore. It is a small company, but one with a huge heart.

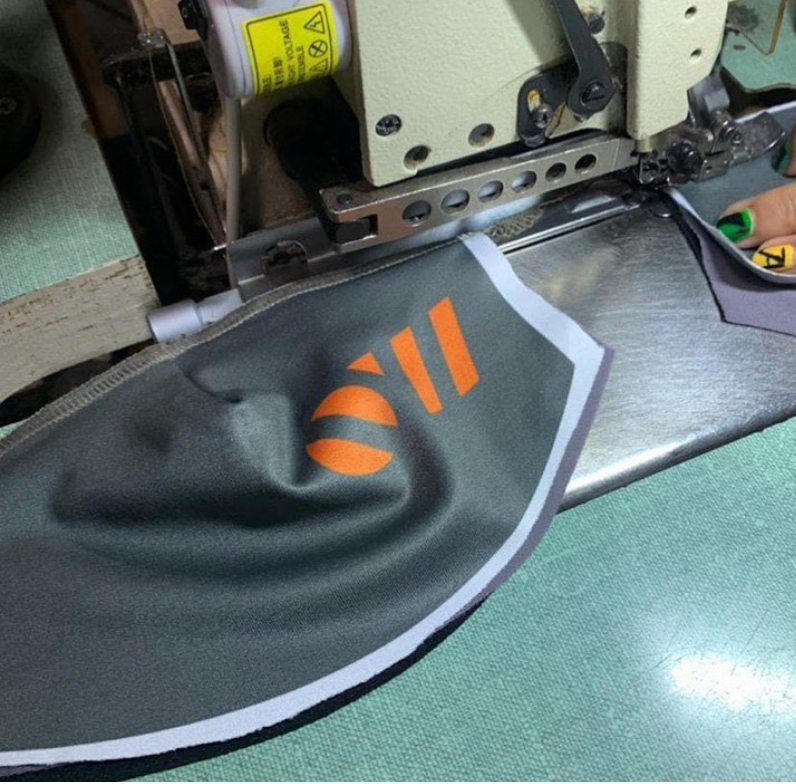
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***“Our strategy to respond to the PPE demand started as a Hail Mary. Our orders were drying up, contracts were disappearing, to the point where, before***



***we closed, we had to lay people off. We had to start from scratch in essence.”***

SewLab quickly became late on rent, and after focusing on paying people, then bills, they were in a tight spot. They began talking to Eclipse Sportswear (based in Columbia, MD) about what they were going to do. Eclipse had a relationship with another contract manufacturer and the three companies decided it would be best to join forces. As a group they got started with a mask design that was already in production in Korea. The Baltimore non-profit, Innovation Works, stepped in and provided a loan to buy materials and helped get initial mask sales. A grant from Baltimore’s Mayor’s Office allowed



*don't have the management team to run a third shift."*

The majority of what SewLab has been able to pull off relied on pre-existing relationships. ***"One of the ways we got started so quickly is because Innovation Works Baltimore created a website that was linking together SewLab, as mask manufacturer, and OpenWorks, a makerspace in Baltimore, as a face shield producer."*** Innovation Works corralled both organizations and sold directly through a newly created [website](#). Another key relationship was with ***Made in Baltimore***, an advocate since 2015 for small businesses focused on making and small batch manufacturing. This connection opened up the Baltimore City Government as a market opportunity.

SewLab to buy a new machine which would help decrease production time. And they leveraged existing relationships and started marketing to entities they already knew such as Baltimore City Government, Maryland Transit, and Amtrak Police.

Enough sales came in to allow them to have two manufacturers making the masks and three entities selling them. Roughly three months in, SewLab is still making masks and starting to see a decline in direct to consumer sales while larger orders from State and Local Governments continue. SewLab is still not working at full capacity because of social distancing requirements, limiting production workers to six, half of their pre-pandemic capacity. ***"There are still a handful on unemployment and we rotate employees on and off. We have the work, just don't have the space capacity, and we***

The speed of the pivot paired with the decreased workforce required SewLab to develop new management strategies. ***"We owe a lot of credit to a newly appointed production manager. Before we organized work based on individual workers skills and capabilities. Now that we have a smaller staff we have to be more resourceful. Our manager, she opened it up to everybody to step up and take charge of what they wanted depending on what they wanted to learn and do more of."*** This has led to more positive morale and a "go-get-it" attitude. SewLab sewers



now have more control over what they are working on. It hasn't been easy and it has required new training and pushing people outside of their prior comfort zones. This kind of freestyle, picking the next steps, getting deeper into projects, versus doing one part of a bigger thing is a production strategy they intend to keep. Even though they have had success manufacturing masks, SewLab has already asked: When a vaccine comes, will masks be needed? ***“To some degree we might continue to make a line of masks primarily because we have spent so much time building the system, not just building the product, building an assembly line, investing money and time into that system. We need to get money back on that investment.”***



An advantage of their business is that they are small and agile, and can change directions; the purchase of just one new machine and some materials allowed them to respond. ***“We think when it happens again we can pivot again to the next thing the world needs most.”*** Not everyone has found a successful pivoting strategy. Before the pandemic, a lot of small, one- or two- person companies were thinking they wanted to scale up production. SewLab got a lot of calls from people who were making PPE and got overwhelmed and wanted to hire SewLab to make it for them. ***“We couldn't help, we were doing our best, and we are constantly behind.”*** Some business owners who dreamed of scaling are now reconsidering and many are likely to stay very small and build relationships with companies to outsource larger scale production.

***“For the first time since the industrial revolution supply chain is in the limelight. Instantly everyone is now hearing about and seeing supply chain issues. There is more awareness and people are becoming more informed about where things come from.”*** SewLab has always pushed “made in the U.S.A.” and “buy local”. To them, it's critical for their customers to know where and how products are made. The final product might be more expensive but it is made in Baltimore and that has an impact. While the pandemic has been bad for the industry as a whole, Jeremiah shared it

created an opportunity for small companies to step up, do it their way, and with their intentions: ***“Small companies got a break, are getting in the limelight, and getting a lot of publicity because we responded. And this hasn’t been done alone. Supporters of small-batch manufacturers like Made in Baltimore are out there representing companies like ours, so when city organizations, hospitals, etc. are looking for something, they make quick connections. These organizations will play a bigger role as small-batch manufacturing grows.”***

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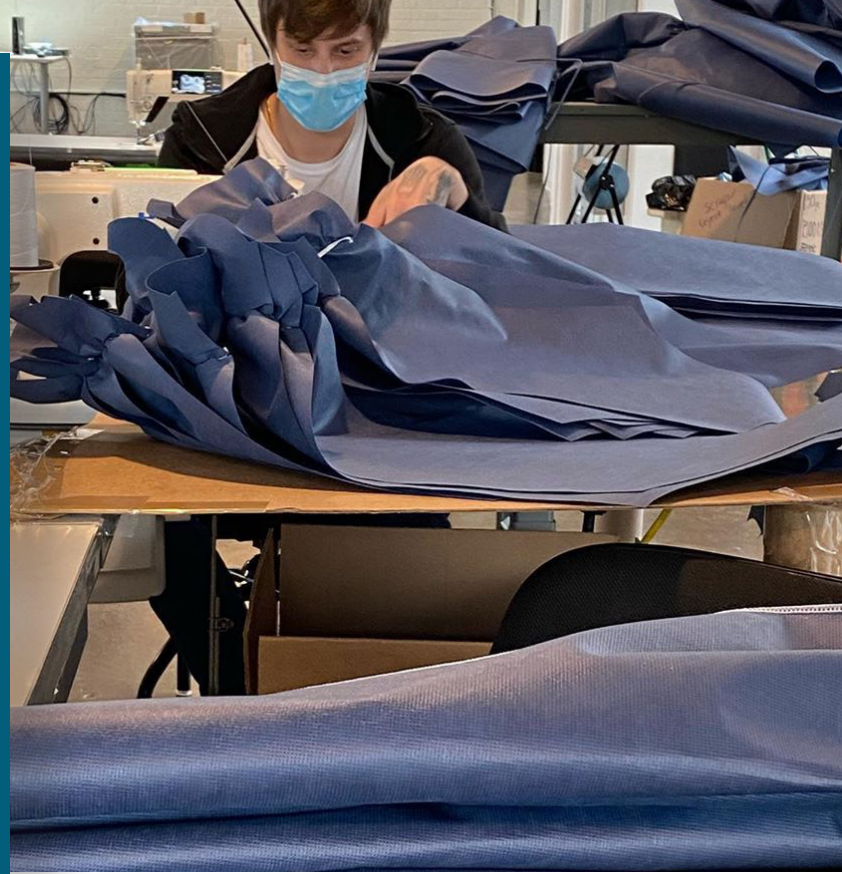
For more information on SewLab, visit [sewlabusa.com](http://sewlabusa.com).



# Industrial Sewing and Innovation Center

JENNIFER GUARINO  
CEO AND PRESIDENT  
OF THE BOARD OF  
TRUSTEES

DETROIT, MI



## ABOUT ISAIC + JENNIFER GUARINO

Industrial Sewing and Innovation Center (ISAIC) is a fundamentally new approach to talent force development and economic stimulus. A Detroit-based 501(c)3 nonprofit, ISAIC is a national resource for those committed to positive impact through responsible production of high-quality garments, and provides solutions centered around people, education, advanced

manufacturing, and upward mobility for workers. ISAIC's proprietary training curriculum is being used in multiple states across the country. Its learning and contract manufacturing factory is located in midtown Detroit.

ISAIC's mission is to build and sustain a talent force development and advanced manufacturing model which acts as responsible stewards for the wellbeing of their team, their partners, their community, and the planet. If successful, ISAIC will be recognized as a national leader, reinventing the apparel and sewn goods industries

with human-centered values, advanced technologies, and a commitment to sustainability in people and processes.

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Jennifer Guarino's early career focused on fashion illustration, creative direction, and product design and development. She eventually transitioned to business development, becoming Vice President of Brand Management for The Sak in 1998. In 2003 she became CEO and co-owner of JW Hulme, a struggling 100-year-old leather manufacturing firm. While there she righted the company and set a new direction of success. As an accomplished executive and a leading voice for the advancement of domestic manufacturing, Jen most recently led the creation of the Detroit-based manufacturer Shinola's leather manufacturing unit.

With a futuristic and human-centric eye towards manufacturing, Jen is on the forefront of global shifts towards sustainable and responsible supply chains. She is fully committed to quality domestic manufacturing and passionate about the return of valuing tradespeople and the work they do. A robust leader in all aspects of manufacturing, Jen is as comfortable on the floor interacting with line workers as in an executive suite.

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ISAIC quickly recognized two key things as the pandemic hit. First, the Michigan region had a lot of demand and a lot of unused capacity to produce sewn PPE, but the two weren't being connected. Second, the biggest barrier to companies responding was the upfront capital to bring in bulk material. Individual small-batch producers ready to sew didn't have the capacity to source bulk materials, nor did they have the financial ability to finance a purchase. This is where ISAIC stepped in. ***“We tapped into our relationships with foundations, as well as connections in the private sector and Michigan State offices. We put together several financing streams including low-interest term notes and grant money.”*** As for production, ISAIC worked out a strategy to receive large orders and organized a





distributed manufacturing model of an isolation gown they designed by working directly with a local hospital.

***“Once we had material coming in, we cut and kitted the materials and distributed them to twelve sewing companies. The cut and kit approach expanded who could do sewing for us.”*** In house, ISAIC utilized their learning factory – a fully functioning cut and sew production floor – to train and employ people. ISAIC saw an immediate impact because they were able to find a lot of people that had been displaced and get them reemployed. And they were able to keep other local companies open by getting them orders and materials.

Another key to their production strategy was training not just their staff to make gowns, but those with whom they contracted. ISAIC brought employees from other factories into their space, trained them, and sent them back to run their own production floor. The last big component was quality control for products made and shipped back to ISAIC. ***“We started with 100% quality control audits. If we opened a box and it didn’t meet standards, companies had to come in and self QC. We used this as another round of training.”*** By requiring companies to come in, they were able to learn more quickly what to do to get their standards up. Beyond training, the one gap they really had to overcome was material sourcing. Across the country, and the globe, everyone was trying to find material that was already limited and hard to get. ***“This was probably the hardest part, but now we have a much better understanding of the landscape.”***

Pre-COVID, ISAIC had plans to be a training facility, small-batch manufacturing facility, and research center. The pandemic simply sped up the timeline of their development. ***“We knew we were always going to train people to sew. Now we understand the importance of training people on quality control and managing production of new products.”*** However they hadn’t planned on their new role as aggregator. ***“We think the role of being an aggregator could be a really good opportunity to keep***

*pursuing. This model applies to sourcing and distributing materials, as well as sourcing and distributing orders for finished goods.”* ISAIC has proven this is possible with PPE. They believe they can apply this strategy to other products, hopefully reducing workload on individual small producers while helping expand their production lines, without having to expand their sales team or replace work from existing markets.

When asked if the pandemic is leading to lasting impact, Jen quickly jumps to the economics of it: *“The way I frame it is: if you keep 10% of production here you help companies reduce the risk of all their supply chains going down. And this won’t drive up the bottom dollar price drastically. I believe companies will see and experience more benefits, the real benefits of having more local supply chains, and that will motivate them to move a larger percentage over time. If we could get to 10% produced in the U.S. that would be a huge gain and would have big impacts on the industry. If we can get one or two big CEOs to come to the table and make the 10% pledge, we think it can have a domino effect. This is going to require finding the right industry champions willing to step up to the challenge to pledge to make a change. We think changing the minds of business*

*leaders first will lead to government change. We need a very big village to solve this.”*

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For more information on ISAIC, visit [isaic.org](http://isaic.org).





# Conclusion

U.S.-based sewn trades companies and supply chains were facing major disruptions to the industry before the COVID-19 pandemic hit. The global economic shutdown paired with massive needs for textile-based personal protective equipment (PPE) forced the industry to pivot in ways and at a rate that was unimaginable before it became reality. While the final outcomes of these shifts won't be fully understood for a long time, we already know that some companies struggled to find a place

within the new reality, while others thrived and became leaders. Within a very short timeframe, new manufacturing models have proven it is possible to collaborate, design, source, raise capital, manufacture, and deliver PPE to a range of customers.

This research has illustrated several key findings about individual companies, infrastructure elements to support industry changes, and the need for new resource investments:

## **THERE IS POWER IN BEING SMALL, NIMBLE, AND AGILE.**

Small-scale makers and manufacturers helped guide our domestic response. Companies that stepped up to meet the challenges presented by the COVID-19 pandemic are shedding light on the need to find new ways to evaluate what scale works best. Individual companies that exist within an industry, and business culture, that has pushed bigger is better and continuous growth as the goal, are having to reflect on how to find ways to resize and be effective.

## **PLATFORMS ARE NEEDED FOR COLLABORATION.**

In this time of crisis, some of the most robust responses came from collaborative efforts. Collaborations don't happen accidentally and they need space and resources to be successful. It's essential that digital platforms that connect the regional and national sewn trades ecosystems be seen as mechanisms that promote, support, and simplify collaborations. Platforms

function best when they foster the belief that companies benefit more from collaboration than competition – and when they bring together all parts of the ecosystem and supply chain, including customers, producers, big and small manufacturers, and design and technical experts. Encouraging collaboration will be critical as we move through and look beyond the pandemic.

### **FLEXIBLE CAPITAL IS PIVOTAL TO A SWIFT AND CONTINUED RESPONSE.**

Pre-COVID-19, companies across sewn trades industries struggled to gain access to capital. An influx of capital - primarily from all levels of government and philanthropic foundations - due to PPE demands and the larger economic shut down opened gateways for many small manufacturers who had previously struggled to access capital. This spike in grants and small business loans has led to new technology purchases, new materials research, and new product development along with the creation of new workforce training and new market development. Post-COVID-19 capital must continue to flow quickly in order to be meaningful to these firms to allow them to maintain their new business growth trajectory – including the jobs they sustain.

### **MARKETING AND EXPOSURE FACTOR INTO THE STRENGTH OF SEWN TRADES COMPANIES.**

Even in times of increased demand, it is important to market your product. Sewn trades companies are not always consumer-facing and may require technical assistance to access new markets and procurement opportunities. Along with helping companies and groups of companies gain new market access, there is an opportunity to invest in marketing individual region's manufacturing capacities along with national capacity.

### **THE SKILLS GAP FACING THE INDUSTRY IS LINKED TO MISPERCEPTION.**

The ecosystem needs to recast its narrative to attract a new generation of manufacturing workers to these businesses. Initiatives like those profiled

here are doing the necessary work of helping communities to imagine rewarding opportunities and careers in manufacturing. Individual companies are taking on the responsibility to not only train for entry-level positions, but for jobs with meaningful career ladders and entrepreneurship.

These first hand experiences tell the story of an industry much in need of change, but many of the old issues are hardest to overcome. Jen Guarino from ISAIC put it this way: ***“The barriers to lasting impact are many, including dealing with the ongoing stigma attached to manufacturing which currently impacts why people won’t invest. There is a need to learn how to make a better case, to show that manufacturing is different. Everyone in the industry needs to be part of the conversation, existing brands and new entrepreneurs. This is going to require finding partners that have the resources to put investment towards it and are willing to put a certain amount into these trials, are willing to accept a slower return on investment, and open to a broader definition of ROI.”***

The leaders highlighted here are already taking on the challenge of reinventing the global industry by focusing on creating equitable economic opportunities within their communities. These include new business opportunities, such as manufacturing medical grade fabrics, creating material testing facilities, becoming aggregators and distributors of materials and orders, and

creating design and manufacturing education centers, as well as recommendations for the industry as a whole, such as, committing to a 10% made in the United States pledge, creating a formalized national advocacy group, developing better stories, and adopting collaborative supply chain strategies.

If we can use these five new models of what is possible for the whole industry then we are likely to be seeing the foundation of a new generation of thriving sewn trades manufacturing in the U.S. If the pandemic has revealed anything, it is that new strategies for manufacturing sewn goods just need to be given opportunities, resources, and time (even if limited) and they will prove what is possible.



# Appendix

## Recent survey and qualitative research on sewn goods manufacturers and makers

### The Maker Economy in Action (Portland State University, 2016)

This research, funded by the Ewing Marion Kauffman Foundation, addresses practical questions about how urban entrepreneurs identified with the maker movement build revenue-generating businesses. It also proposes distinct contributions that three different types of makers – “micro-makers,” “global innovators” and “emerging place-based manufacturers” – are capable of making to urban economies. Micro-makers are entrepreneurs who value direct, daily involvement in the manufacturing process. They are unlikely to expand, because in their view, scale-up will outpace their resources and diminish the time they can spend on design and craft. Their chief contribution to economic development consists in providing livelihoods for their sole-proprietor owners and nurturing the cultural distinctiveness

that makes places attractive for living and working. Global innovators rely on talent and resources in their cities of origin to design products and iterate prototypes, and typically conduct early-stage production there. They then use global outsourcing arrangements when they begin scaling up to manufacture for larger markets. While global innovators do not create local production jobs, they contribute creative energy to urban economies, employ engineers, industrial designers, and programmers, and generate business for auxiliary enterprises such as crowdfunding platforms and advertising consultancies. Emerging place-based manufacturers are firms that produce locally or regionally and whose principals report the intention to grow. They aspire to continue producing locally, to add new employees, and scale up.

**Urban Manufacturing Alliance State of Urban Manufacturing Study** (UMA, 2018-19)

In 2017, the Urban Manufacturing Alliance embarked on the State of Urban Manufacturing research process in six inaugural cities (Baltimore, Cincinnati, Detroit, Milwaukee, Philadelphia, and Portland, Ore.) to comprehensively understand the making and manufacturing ecosystem in each place, as well as the service provider landscape that supports it. The research consisted of an on-line contained-choice-question survey of manufacturing enterprises; focus groups in each city with small-scale and at-scale manufacturers and with service provider organizations; and an ecosystem mapping process that documented the variety of organizations and enterprises dedicated to building the manufacturing sector in each place.

Among the 568 companies who completed the Urban Manufacturing Alliance’s 2017 six-city survey, over 20 percent were apparel, textile and leather enterprises, making “sewn trades” the largest single category in that survey. The firms are small: more than 60% are sole-proprietor companies, and of the 42 firms that employ others, only 14, or less than half, have 10 or more workers. The primary channel through which they distribute their products is direct-to-consumer, and just slightly over 40% have more than \$100,000 in annual sales. Despite this small scale, their digital presence enables them to ship products far and wide – over half of them sell into national or international markets.

