BLACK PAPER 2

Inclusive Capital for Manufacturers

Advancing Racial Equity and Community Wealth Building through a Sector-Based Approach to Capital Access

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ICC

The Inclusive Capital Collective is a growing network of community fund managers and entrepreneur support organizations who have been designing and developing shared technical and financial infrastructure for aggregating and deploying financial capital and other resources to entrepreneurs and communities of color in the US.

Its purpose is to **overcome systemic racism through equitable access to capital**.

The ICC achieves this purpose by aiding and amplifying capital innovators and service providers who are building wealth in their communities using debt, equity, and real estate instruments, and by connecting them in a jointly owned and governed network. With the ICC, capital innovators and service providers centering communities of color have created a novel kind of intermediary infrastructure to help each other accelerate the learning curve required to design and redesign for a more equitable future; mobilize capital; and grow their businesses.

ICC capital innovators are exploring alternative types of capital, developing more equitable ownership models, and structuring blended finance offerings that mobilize a range of philanthropic and private capital.

This work was important before the pandemic, and it has only become more urgent as we contemplate how to rebuild an economy and society that creates health and wealth for all.

The **Black Papers** are a series of briefings written by and for practitioners. They illuminate the systemic barriers in financial markets, focusing on specific areas and segments that are ripe for interventions by investors interested in deploying their resources for social justice. Each Black Paper spotlights scalable solutions developed by members of the ICC, and invites the reader to take action.

In our second Black Paper, we introduce you to the innovations that capital providers and policymakers can and should implement within the manufacturing industry in order to spark wealth-building among entrepreneurs and communities of color. We highlight along the way the inventive Black, Indigenous, and other POC (BIPOC) manufacturers whose work both showcases the very real challenges they face and the unique possibilities if they are given adequate support. This work is contextualized within the current and historical challenge that manufacturers of color have experienced. As the manufacturing businesses highlighted in this Black Paper will show, the sector can provide living-income jobs, offer ownership opportunities, and drive economic activity with other local industries that fuels inclusive place-based development. But this will only happen if these BIPOC manufacturers, and others like them, receive the support they so richly deserve after centuries of marginalization.

What you are about to read showcases the years of hard work, tenacity, and brilliance of Black and other manufacturers of color across the nation. We hope you enjoy their stories and will join us as we work to bring racial equity to an industry that touches all of us.

Urban Manufacturing Alliance

Urban Manufacturing Alliance

Executive Summary

Manufacturing has long been seen as something that only happens in factories, but today manufacturing comes in a number of different forms. Cities are increasingly home to the kinds of small- and mid-sized companies that represent today's manufacturing. These aren't the sooty, unventilated halls where workers toiled away at the turn of the 20th century. The sector has evolved with the integration of new technology, shifting demographics of business ownership, and consumer interests in promoting ethical and environmentally sustainable businesses.

Catering companies that produce batches of their own recipes are manufacturers. Clothing designers — the artists who turn fabrics into fashion — are manufacturers. Metalworkers in machine plants and students in medical device startups: all of them are performing the central act of manufacturing, which is creating a physical good that will be sold.

Sometimes, small-scale producers are more likely to self-identify with the terms "artists," "artisans," and "makers" when starting out. Many start to call themselves "businesses" and "manufacturers"

as they grow and understand their fit in the marketplace, according to research by the Urban Manufacturing Alliance.[1]

Manufacturing, while providing a pathway to the middle class for millions of people, including people of color, also has a dark history. Systemic racism has been deeply embedded in our economic and social system since the transatlantic trade and slavery enabled the industrial revolution and helped build our cities.[2]

> **In order to dismantle systemic racism and build a more equitable future, our next steps must be intentional, placing racial justice and equity at the forefront of policy and financial infrastructure.**

This Black Paper invites you into the stories of makers and manufacturers of color from across the country who have innovated and succeeded despite systemic barriers and long odds. They highlight for us the possibilities that are present if they and entrepreneurs like them receive transformational support. And this paper goes into deep detail on what that support looks like:

A call to action for policymakers

- **REFORM PUBLIC POLICIES AND REGULATIONS** to ensure Community Development Financial Institutions (CDFIs) and other lenders have the resources they need to help manufacturers of color who are scaling up or leading ownership transitions. These businesses often have unmet capital needs but need patient capital on equitable terms to activate their visions for their businesses and communities.
- Policymakers should **INCLUDE EQUITY METRICS** in funding programs to elevate manufacturing as an impact sector for living-income jobs, BIPOC business ownership, and community development.

A call to action for capital providers and financial intermediaries

- CDFIs and other lenders along the capital continuum should **EMBED SECTORAL KNOWLEDGE** in equitable underwriting paradigms.
- Partnerships are a key way for CDFIs and manufacturing organizations to **GROW AN ECOSYSTEM OF SUPPORT** for manufacturers of color.
- CDFIs and other lenders need to **DEPLOY PATIENT CAPITAL** to manufacturers of color on equitable and workable terms.

We have an opportunity to use this combination of systems-level and on-the-ground change to reactivate manufacturing as a strategy to advance equitable economic development and wealth-building with communities of color. We hope you will join us.

1 Urban Manufacturing Alliance, "The State of Urban Manufacturing. 2016. https://www.urbanmfg.org/wp-content/uploads/2017/11/SUM-National-Report-Final.pdf

2 PBS, "Growth and Entrenchment of Slavery. https://www.pbs.org/wgbh/aia/part3/3narr6.html

The Systemic Problems with Manufacturing

Systemic racism has been deeply embedded in our economic and social system since the transatlantic trade and slavery enabled the industrial revolution and helped build our cities.[3] While the manufacturing sector created pathways toward the middle class for Black Americans in the early twentieth century, particularly in the Midwest, ownership in manufacturing was and remains largely white and male, a product of long-standing barriers to building wealth that was imposed on BIPOC communities. This was further exacerbated by the asset-heavy nature of these firms, which often required substantial financial support.

> **When manufacturing jobs contracted in the latter half of the twentieth century — a product of trade policy and technological advances — Black Americans were especially hard hit.[4]**

And the racial wealth gap that already existed made it harder to navigate the contraction of these jobs. Moreover, there was a grave cost to how manufacturing stabilized Black communities and other communities of color: the most dangerous positions in manufacturing were held by these communities. Echoes of this trauma continue to haunt communities of color, making it difficult to celebrate when children and grandchildren choose manufacturing as a career path. When manufacturing jobs contracted in the latter half of the twentieth century — a product of trade policy and technological advances — Black Americans were especially hard hit. The perception among the middle class that manufacturing does not offer appealing and stable jobs is still pervasive.

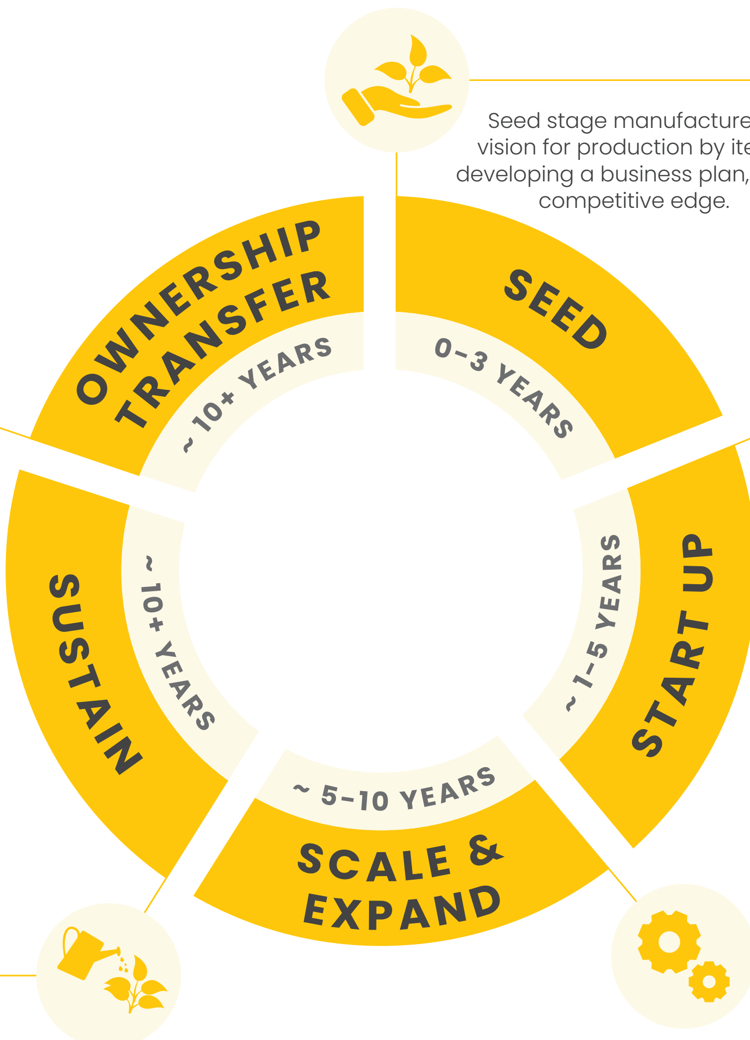
Today, manufacturing firms are smaller, the jobs less visible and more difficult to access, but no less important to the economic mobility of BIPOC communities and entrepreneurs. While people entering the sector may not need a four-year degree, some amount of specialized training is typically needed to break into the sector. Entrepreneurial pathways are also tough, with Black and other communities of color encountering the same biases from the twentieth century that made it impossible to access the capital to start or scale a company.

These barriers are described below in the context of three phases: seed and start up, scale and growth, and acquisition and succession. While quality and supportive capital is important throughout the various growth stages of a manufacturing business, these three phases are critical to unlocking entry points into ownership in the sector. (See Table 1 in the Appendix for a deeper dive.)

3 PBS, "Growth and Entrenchment of Slavery. https://www.pbs.org/wgbh/aia/part3/3narr6.html

4 Joe William Trotter, Jr, Workers on Arrival Black Workers and the Making of America (Oakland: University of California Press, 2019). See an excerpt: "Expanding Employment in the 'Land of Milk and Honey," April 2019: https://www.ucpress.edu/blog/42666/expanding-employment-in-the-land-of-milk-and-honey/

The Capital Lifecycle of Manufacturing Businesses



Seed stage manufacturers begin to chart their vision for production by iterating product design, developing a business plan, and exploring their competitive edge.

Start ups have increasing capital demands. They begin to lease space and purchase materials. Start up manufacturers begin generating revenue, but are likely not profitable at this point.

Scaling up manufacturers have intensive fixed asset and working capital needs. Scaling is a longer-term process for manufacturers.

Mature firms have business assets and a record of cash flows. Nevertheless, the capital-intensive nature of production and delayed payment collection process can strain working capital for mature firms.

Buyers need equity for a down payment to acquire a business. Down payments can be $100K to $500K or more. They also need working capital to continue operating.

Narrative Case Studies

In this Black Paper, we follow the journeys of five makers and manufacturers as they seek capital to start up, scale and sustain, or acquire their businesses.

Meet the Makers and Manufacturers

Eduardo Pabon owns Eco Friendly Millworks — a Los Angeles area-based high-end commercial cabinets company with no website or marketing. They do projects for notable buildings in Southern California such as LAX and the Staples Center.

Roderick Ramsey runs Ocular Arcade — a Pittsburgh-based digital production studio specializing in design, print, and web development. The company helps small businesses and entrepreneurs establish their brands and enhance their digital and physical presence.

Mubariz Razvi is the CEO of FiberElectronics — a Baltimore-based Original Equipment Manufacturer (OEM). The company specializes in fiber optic connectivity products for clients around the globe in various sectors.

Armando Reyes owns Lake Erie Woodworks — a wood furniture maker — which produces tables, cabinets, doors, wall panels, shelves, and more in Erie, Pennsylvania.

April N. Richardson Esq. is the President and Co-Founder of Food Opportunity LLC — a manufacturer of baked goods — whose DC Sweet Potato Cake products are sold in hotels, restaurants, and national retailers such as Starbucks, Wegmans, Nordstrom, and Safeway.

Stephanie Swepson Twitty is the President and CEO of Eagle Market Streets Development Corporation (EMSDC) – a non-profit organization serving the economic and property development community in Asheville, North Carolina. EMSDC runs Block-by-Block Industries, a commercial sewing company and social enterprise.

Seed and Start up

Businesses in the "seed" and start up phases usually have the following characteristics:

- 1-5 years old
- Experiencing slow/moderate growth
- May be using shared space and equipment
- Iterating revenue and business models
- Still in R&D and may pivot both their product design and business plan
- Have yet to establish product-market fit

Long-standing racial barriers to wealth accumulation and credit access mean entrepreneurs of color in these phases are less likely to have family and friends or angel networks they can turn to for equity and start up loans at this stage. What's more, these businesses are not yet profitable, putting pressure on the entrepreneur to find a way to survive during this part of their journey.

Without support networks or an income, starting up can be a major challenge.

Assessing Risk as a Start Up Manufacturer

"From a financial standpoint, I haven't made large investments into the business up until very recently. That was because as minority business owners, we tend to be very risk averse. So I took things very slowly and deliberately. I didn't want to lose everything that I had built up to that point. We have a house, we have our children, we're putting them through school, and we've worked very hard to get to this point. For me to then all of a sudden make a 180 degree turn and say I'm going to start a business, was very scary for me."

In the beginning, Reyes didn't seek financing to get started, upgrade equipment, or hire staff. He did everything himself, like building the website and doing the books. As things became more successful and he needed to reinvest in his business, he sought external funding.

"We had a Kiva loan that we used to purchase a table saw for around $5,600 [...] The Kiva loan was great, because I did have a lot of people who were willing to support me in that way. I had a lot of family, but they weren't local. So they were able to go online and lend. Erie has a Kiva administrator that works for the city's business development office, who knew the ins and outs. She was able to easily guide me through the process. [...] Then we used the Erie County Redevelopment Authority (ECRDA) loan program. I put together a package of $15,000-worth of equipment that we needed to upgrade. We received the loan, and it was our biggest investment to date. That was the only time we actually used actual investment capital."

Armando Reyes
Lake Erie Woodworks

And without a credit score or personal assets such as a home, commercial banks are very unlikely to extend an initial loan. If banks do provide loans to companies in this phase, the terms can be restrictive, like repayment schedules that don't align with revenue projections or prepayment penalties.

"UNDERWRITING" AND WHY IT MATTERS

Underwriting not only determines whether a prospective entrepreneur receives approval for a loan, but also under what terms. Conventional commercial banks use automated credit scoring or underwriting methods that require entrepreneurs to bring capital, credit history, and collateral to the table to qualify for a loan. For early-stage or scaling up companies without business assets, banks often look to personal assets such as a home or a car. Consequently, credit history, capital, and collateral become a proxy for the perceived "risk" of the loan. Here, conventional underwriters narrowly construct "risk" in terms of the financial institution's bottom line, rather than the risk that an unworkable or predatory loan poses to the borrower.

Yet credit, capital, and collateral are factors of a borrower's access to wealth and privilege, not a reflection of the entrepreneur's skills or the viability of their business model. Conventional risk assessment models in small business underwriting reinforces a cycle where deep racial disparities in wealth inheritance and credit access inhibit entrepreneurs of color from accessing capital to leverage entrepreneurship as a wealth-building tool for their households and communities.

These terms only reinforce the distrust and disillusionment rooted in the community's historical experience with predatory and extractive practices, from redlining to subprime mortgages and payday loans.[5] Many entrepreneurs of color, particularly Black American entrepreneurs, feel they can't turn to mainstream financial institutions.

5 Mehrsa Baradaran, How the Other Half Banks (Cambridge: Harvard University Press, 2015).

A Maker Shares His Experience With Capital

If Roderick Ramsey had a superpower, it would be capturing his clients' imagination, manifesting their vision, and creating content that questions the status quo. Ramsey's business, Ocular Arcade, is a digital production studio specializing in design, print, and web development.

From 2008 to 2012, Ramsey ran a T-shirt company as an undergrad at Saint Vincent College, in Latrobe, Pennsylvania. He emptied out his savings to get the company up and running. He designed t-shirts based on his personal artwork and paid for the cost of production. Once production was complete he spent money on gas and time travelling across Western Pennsylvania to fulfill orders. It was challenging, but a good learning experience.

Although access to capital for minority-led small businesses is better now than in the past, Ramsey believes that financial institutions are still approaching the problem the wrong way. "... [T]here doesn't seem to be as much risk capital available to small businesses, especially BIPOC small businesses. What I mean by that is there needs to be a source of capital set up, where it allows us to take into consideration systemic racism," says Ramsey. "All the way down from top to bottom, bottom to top when it comes to financing loans and bidding on contracts for different jobs. [...] So when you take that into consideration, it wouldn't be effective to give that BIPOC small business the same loan requirements as a predominantly White run business." His suggestion is that risk capital, loan forgiveness, and grants should be more accessible, which would make it easier for entrepreneurs of color to start businesses.

Ramsey works out of his home studio by himself. He has ambitions to scale Ocular Arcade and bring on other creatives, but right now he can manage his current client base.

Roderick Ramsey
Ocular Arcade

Scale and Growth

The signs of a manufacturer in the scale and expansion phase:

- More mature at 5-10 years in operations
- More intense capital needs
- Looking to acquire larger fixed assets, such as equipment or lease expanded space
- A better understanding of their market and potential revenue

As manufacturers gain more customers and contracts, they welcome the challenge of trying to scale a business. Reaching their growth potential often requires large investments in fixed assets, such as machinery and equipment, or securing expanded or upgraded space.

These firms need to leverage supportive capital and scale on their own terms. But entrepreneurs of color are less likely to have networks they can turn to for this support. Firms in this phase are also unlikely to have robust enough business assets to collateralize.

The Ins-and-Outs of Financing Scale

Richardson financed the company's move into manufacturing with $100,000 of her own money and her credit cards. "I didn't know what the options were. I did not look around. I didn't really understand that there were resources out there." When they moved to Baltimore, they were able to get financing from FSC First, City First, and an MSBDFA [Maryland Small Business Development Finance Authority] loan.

"And what I didn't know then, which I definitely know now, is that being a woman or a brown woman in manufacturing is nuanced. Everybody wanted to put their hands in our financing. Everyone wants to have a story to say, *hey, we funded her*. But really, when you look at the terms of the deals, it didn't make sense because we paid a whole lot more in attorney and processing fees than we should have paid," explains Richardson. "We paid three times the amount of closing costs. Had we just gone to one company, it would have made better sense. But we didn't know at the time, and people were very excited to have their corporate brand connected with our story."

Looking back, Richardson sees how things could have been easier for the company if they knew then what they know now. Scaling the business was harder than it looked, and they needed to seek wisdom from someone with experience.

"At that time, it would have been great if we would have had a mentor that understood the structuring of financial deals," Richardson admits. "If we would have had someone from manufacturing saying, *you don't just need the money to acquire, but you also need money for technology. The way that you're doing it right now, it works, but let me show you how you can fix your labor costs and how that savings by using technology will trickle down to a lower price product, that retailers will buy twice the amount of instead of what they're buying now*. Had we had that type of leadership, that would have been impactful. Having an organization take a look at where we are in the market, and helping us to pre-negotiate some of the deals so that we could leverage contracts in our hand to finance our bakery differently would have been helpful."

April N. Richardson Esq.
Food Opportunity

Manufacturers follow slow and steady growth trajectories that create a substantial value-add for their communities — and therefore tend to be ill-suited to typical venture capital or private equity investments. A venture capital fund's narrow-minded evaluation of short-term return on investment misses how manufacturing businesses create long-term value for the entrepreneur, the people they hire, and the broader community.[6]

DO MANUFACTURERS HAVE DIFFERENT FINANCING NEEDS FROM OTHER SECTORS?

While manufacturing businesses are diverse in terms of the production process and the types of goods they fabricate, the manufacturing sector still stands out as particularly capital-intensive. We can break this down into financing for ongoing business operations (*working capital*) and for large-scale investments in long-term business assets (*fixed assets*).

Working capital: Working capital refers to the funds that a manufacturer needs to operate day-to-day, from purchasing raw materials for production to paying their employees. Many small- and mid-sized manufacturers are strained by permanent working capital needs; these are not seasonal or periodic issues.[7] In particular, manufacturers that sell to other businesses (B2B) tend to have lengthy cash conversion cycles because they collect payments after a good is delivered to the client rather than at the point of order.[8] Consider a steel

6 Robinson Meyer, "The Bill That Could Truly, Actually Bring Back U.S. Manufacturing," August 18, 2021. The Atlantic. https://www.theatlantic.com/science/archive/2021/08/america-into-the-worlds-factory-again-industrial-finance-corporation/619793/

7 PwC,"Pressure in the System: Working Capital Study." 2017/2018. https://www.pwc.com/gx/en/working-capital-management-services/assets/working-capital-opportunity-2017-2018.pdf

8 PwC,"Pressure in the System: Working Capital Study." 2017/2018. https://www.pwc.com/gx/en/working-capital-management-services/assets/working-capital-opportunity-2017-2018.pdf

manufacturer that accepts an order that requires four to five coils of steel as raw materials for production. They purchase the coils at $50,000 each and invoice the client once the product is delivered to their door. Even then, the manufacturer often doesn't see their payment for 30 to 90 days after issuing the invoice. Some manufacturers rely on very large lines of credit, short-term loans, or factoring (selling existing invoices to a factoring company for a cash advance), but securing working capital financing often remains a huge financial strain.

Fixed assets: Compared to retailers and service-based businesses, makers and manufacturers own a higher portion of business assets that are "fixed." Fixed assets are the tangible resources that a business needs to produce their goods and services, such as a distribution company's trucks or a consulting firm's office furniture. But unlike service industries, manufacturers require equipment and machinery that are sometimes highly specialized, and need supportive, long-term debt to finance these investments. One of the main providers for fixed asset financing, commercial banks often perceive issuing long-term debt as "risky" due to the uncertainty of long-term business cash flows, leading to a gap in this type of financing.

These manufacturers simultaneously struggle to secure workable long-term loans without a business history of cash flows. That could preclude them from programs like the Small Business Administration (SBA)'s Community Advantage and 504 loan programs, which screen applicants based on credit scores and can prevent prospective business owners of color from accessing these public resources.

With patient capital on supportive terms, manufacturers in this phase could land bigger contracts, and get financing for purchase orders to activate their visions for growth.

Bridging the Gap: Resourcing a Manufacturer's Slow and Steady Growth

The issue Razvi sees in accessing financing is that businesses like his are in the gap between what microlenders, community banks, and financial institutions are capable of providing and what venture capitalism can do.

"The venture capitalists look for a high rate of return, which is conducive towards retail. When it comes to manufacturing, the processes themselves are kind of sluggish. It's not like putting a new perfume or spandex at a Macy's counter. It doesn't move like that."

"A micro loan is a bracket unto itself. It caps off at $20,000 to $25,000. When it comes to manufacturing, I need $200,000 to buy additional equipment. This investment in equipment will add to our product offerings. This is a product that is relatively available in the market and its demand is growing rapidly. I have no means of reasonably financing this equipment," Razvi says. "One can either go for micro loans or the multimillion dollars. Neither venue works for the small manufacturer."

For now, FiberElectronics succeeds by providing quality products to customers who need it. When they deliver goods, they know Razvi manufactures products few companies can compete with. Despite the lack of external financing, they're still expected to grow in the coming years.

"The majority of our orders are shipped within 24 hours, so we are a quick turnaround outfit. But we seriously keep getting handicapped when we want to grow, because of lack of financing."

Mubariz Razvi
FiberElectronics

Acquisitions and Successions

At some point, most manufacturing businesses may question throwing in the towel, whether because they want to take another direction in life or they're at the point of retiring. An estimated 125,000 manufacturing firms are owned by baby-boomers, and risk closure when these owners retire.[9]

Some in that situation might want the business to continue, but they don't have family or heirs to take over. What sounds like a pending closure of these companies could actually be an opportunity to create new leaders in the sector and transition wealth to entrepreneurs of color.

> **Employees of these companies are in the best position to take over from retiring owners. They know what skills and processes are needed to make the company successful. They know who the customers are and what products they need. And they know who the other employees are and how to work with them.**

Becoming the Boss

Pabon arrived in the U.S. from La Paz, Bolivia in 1985 at the age of 19. He worked for his cousin's roofing company for a while, but later began to work for a cabinet shop owned by a transplanted New Yorker named Gary. Fortunately for Pabon, other South Americans worked for the company, so he learned from them even though he couldn't speak English. It was there he learned how to build cabinets.

"In one year, I went from sweeping floors to [becoming] the manager. When I started, the company was doing $80,000 a month, but when I became the manager, it rose to $200,000 a month [...]" Gary was impressed, and Pabon worked there as the manager from 1987 to 2002. Then, after 15 years working under Gary, Pabon made a bold move.

"I said, *you know what Gary, I'm done making money for Gary. Now I'm going to make money for me.*" Pabon was in charge of many aspects of the company's operations. He signed checks. He hired and fired staff. He handled the payroll. Gary liked that Pabon knew the craft as well as he did. He thought that Pabon could one day take over his business. Gary didn't want Pabon to leave and open his own shop, so he suggested a partnership, which Pabon accepted.

In 2009 Pabon got his contractor's license and opened Eco Friendly Millworks on the side in the same building as Gary's company, where he was also a partner. He paid Gary $12,000 a month in rent, but Gary also helped Pabon find the small business loans he might need to hire workers. While larger companies were laying off people in the Great Recession, Pabon was starting a side business, hiring workers, and getting clients that surprised even Gary.

Eddy Pabon
Eco Friendly Millworks

9 Andrew Stettner and Michelle Burris, The Century Foundation and Dan Swinney, Manufacturing Renaissance, "The Challenge of Business Succession in Manufacturing and the Opportunities for Diversifying Ownership." October 2021.

Helping employees or outside entrepreneurs acquire ownership, also known as "succession planning," is deeply under-utilized as an economic development and equity strategy. Community Development Financial Institutions (CDFIs) and economic development practitioners are well-positioned, with support, to create infrastructure around succession planning.

SUCCESSION PLANNING

Nearly 9 in 10 employer-owned domestic manufacturing firms are owned by White entrepreneurs. Today, these owners of small- and mid-sized manufacturing businesses are nearing retirement age. **Estimates indicate that baby-boomers own 125,000 manufacturing firms that employ 2.6 million workers.**[10]

Yet most of these small businesses lack a plan to keep the business alive after the owner retires. Surveys of employer-owned manufacturers in Chicago found that 61 percent of firms were at "immediate risk" of shutdown because they lacked a succession plan.[11] Large segments of many metropolitan regions' manufacturing bases are positioned for closure, which would trigger waves of job losses in manufacturing businesses and adjacent firms in the regional supply chain.

Succession planning with employees of manufacturing firms is a deeply under-utilized equitable economic development strategy. Employees of manufacturing firms are uniquely equipped to acquire businesses from retiring owners. Through years of work experience, they've cultivated a specialized skillset in the production process and knowledge about business operations to drive the firm's future competitiveness. Facilitating ownership transitions to BIPOC employees or entrepreneurs from outside the company can be a powerful racial equity strategy to save domestic manufacturing businesses and jobs, while advancing BIPOC business ownership and wealth-building.[12]

The employee or outside entrepreneur needs a hefty amount of equity for a down payment to acquire a manufacturing business. With business acquisitions of small- and mid-sized legacy manufacturing firms typically priced at $1 million to $4 million or more, that calls for a $100,000 or a half-million dollar equity injection. That is asking potential buyers to take a huge financial risk, particularly among people of color with less access to inherited wealth.

In addition to securing equity for the down payment, these businesses need ongoing financing to remain operational during the transition period. This requires working capital and sometimes revival financing to upgrade or replace key fixed assets, like equipment, machinery, and space.

10 Andrew Stettner and Michelle Burris, The Century Foundation and Dan Swinney, Manufacturing Renaissance, "The Challenge of Business Succession in Manufacturing and the Opportunities for Diversifying Ownership." October 2021.

11 Ownership Conversion Project and Great Cities Institute, University of Chicago, "Intervening with Aging Owners to Save Industrial Jobs." February 2019. https://greatcities.uic.edu/wp-content/uploads/2019/03/Succession-Report-v5.0.pdf

12 Andrew Stettner and Michelle Burris, The Century Foundation and Dan Swinney, Manufacturing Renaissance, "The Challenge of Business Succession in Manufacturing and the Opportunities for Diversifying Ownership." October 2021.

Yet all of this can be considered an opportunity. While automation led to the displacement of many frontline workers, we are now seeing a paradigm shift as technological innovation becomes a source of new advanced manufacturing and hardware companies. New technologies like cloud computing, predictive analytics, and 3D printing have transformed how manufacturers design, produce, collaborate, and distribute goods. Taken together they can make manufacturing more economically viable at scale, which means more opportunities for small- and mid-sized manufacturing firms to enter the field.[13]

The Internet of Things

FiberElectronics manufactures fiber optic connectivity products. Razvi's clientele are large companies who deal in the flow of data around the globe, from the aerospace, marine, military, delivery, and telecommunication industries. They come to FiberElectronics because they have the quality to produce on-spec products according to their specifications. When you use electronic devices to communicate, work, or to consume entertainment, all of that was made possible by companies like Razvi's.

"The differentiator is that in the past, the medium used to be copper cable. Copper at best, even with the latest technology, can only carry three calls simultaneously. If you lay fiber optic between LA and New York City, they will carry the entire traffic of the two cities," explains Razvi. "Each fiber is basically able to carry 220,000 phone calls simultaneously, and the fiber is as slim as the hair on my head."

Mubariz Razvi
FiberElectronics

That same technology is also lowering the barriers to owning a manufacturing business — production is not nearly as asset-intensive as it once was. Take a fuel nozzle for an airplane, for example. Rather than piecing together milled parts out of larger blocks of material, additive manufacturing uses 3D printing technology to form layers of metal and other composite materials and build the nozzle from the inside out. 3D printing streamlines the production process, but it also creates a product that weighs three-fourths what a fuel nozzle typically weighs.[14]

And although a lot of commodity production has shifted outside of the US, there are areas of manufacturing that are ripe for growth: high-value added production, often associated with customization and craft. Buy-local movements and a growing concern for environmental sustainability has helped to fuel maker movements, and cities offer strong end-markets for these businesses. While emerging technologies can accelerate innovation, the potential for these technologies to drive inclusive economic activity is contingent on how policymakers and businesses put these tools into practice. Productivity gains from innovation should create quality jobs and career pathways for those working on the front lines of manufacturing.[15]

13 Urban Manufacturing Alliance, "Prototyping Equity: Local Strategies for a More Inclusive Innovation Economy." September 2016. https://www.urbanmfg.org/wp-content/uploads/2017/11/Prototyping-Equity_Full-Report.pdf

14 Ben Wang, "The Future of Manufacturing: A New Perspective." October 2018. Engineering, Vol.4, Issue 5. https://doi.org/10.1016/j.eng.2018.07.020

15 Communities of color should be centered in devising solutions to technology adoption in the manufacturing sector, from equitable access to broadband to developing technical training programs that prepare people for career pathways in advanced manufacturing. On emerging technologies and racial justice, see: Dominique Harrison, "Civil Rights Violations in the Face of Technological Change." October 22, 2020. The Aspen Institute. https://www.aspeninstitute.org/blog-posts/civil-rights-violations-in-the-face-of-technological-change/

SEEDING EQUITABLE INNOVATION ECONOMIES

In recent decades, offshoring of manufacturing jobs has devastated the sector domestically. But the impact is not just on manufacturing and local economic health; it has also affected the country's ability to innovate. Research from the National Institute of Standards and Technology (NIST) cites findings that the offshoring of manufacturing is linked to losses in research capabilities: "Losing this [manufacturing] exposure makes it harder to come up with innovative ideas."[16]

One solution is the intentional co-location of manufacturing and technologies industries in the same geographic space. Advanced manufacturing firms and nearby research centers share technological insights, sparking innovation economies that create jobs with living-wage incomes and provide career ladders for workers without four-year degrees.[17]

The story of Durham, North Carolina's Biotech Center illustrates how manufacturing is a key ingredient in creating equitable innovation economies. Public officials intentionally co-located medical research companies and biopharmaceutical manufacturers at the Biotech Center. Partnerships between the companies and regional workforce organizations connected local workers to manufacturing jobs with living-income wages and career ladders. The presence of manufacturing companies not only fueled innovation and economic growth through knowledge transfers, but also created quality job opportunities and pathways to the middle class for workers without advanced degrees.[18] Together, these industries created knowledge spillovers and drove new forms of product development.

Ultimately, while this is about economic opportunity, it is also about justice. Without intentional rebuilding, we will miss the talent and diversity needed to catalyze new growth in manufacturing, and we will repeat the racism of the past. We should be lifting up those that took on some of the most challenging jobs in manufacturing and suffered the greatest hardships as the sector declined in total employment. Communities of color must be centered in the process of reactivating the manufacturing sector. Only then will we be able to dismantle the structural racism that formed the foundation of the manufacturing sector all those years ago.

So how might manufacturing be uplifted as a strategy to generate qualitatively different economic activity that advances racial equity? And how might the strengths that manufacturing provides — including ownership in businesses that are rooted in place, quality job opportunities, and regional economic development — forge new modes of wealth accumulation rooted in racial justice?

16 President's Council of Advisors on Science and Technology, Executive Office of the President, "Report to the President on Capturing Domestic Competitive Advantage in Advanced Manufacturing." July 2012. https://www1.eere.energy.gov/manufacturing/pdfs/pcast_july2012.pdf p. 9

17 Urban Manufacturing Alliance, "Prototyping Equity." September 2016.

18 Nichola J. Lowe and Laura Wolf-Powers, "Who works in a working region? Inclusive innovation in the new manufacturing economy." 2017. Regional Studies. http://dx.doi.org/10.1080/00343404.2016.1263386

Harnessing the Power of Manufacturing for People and Communities

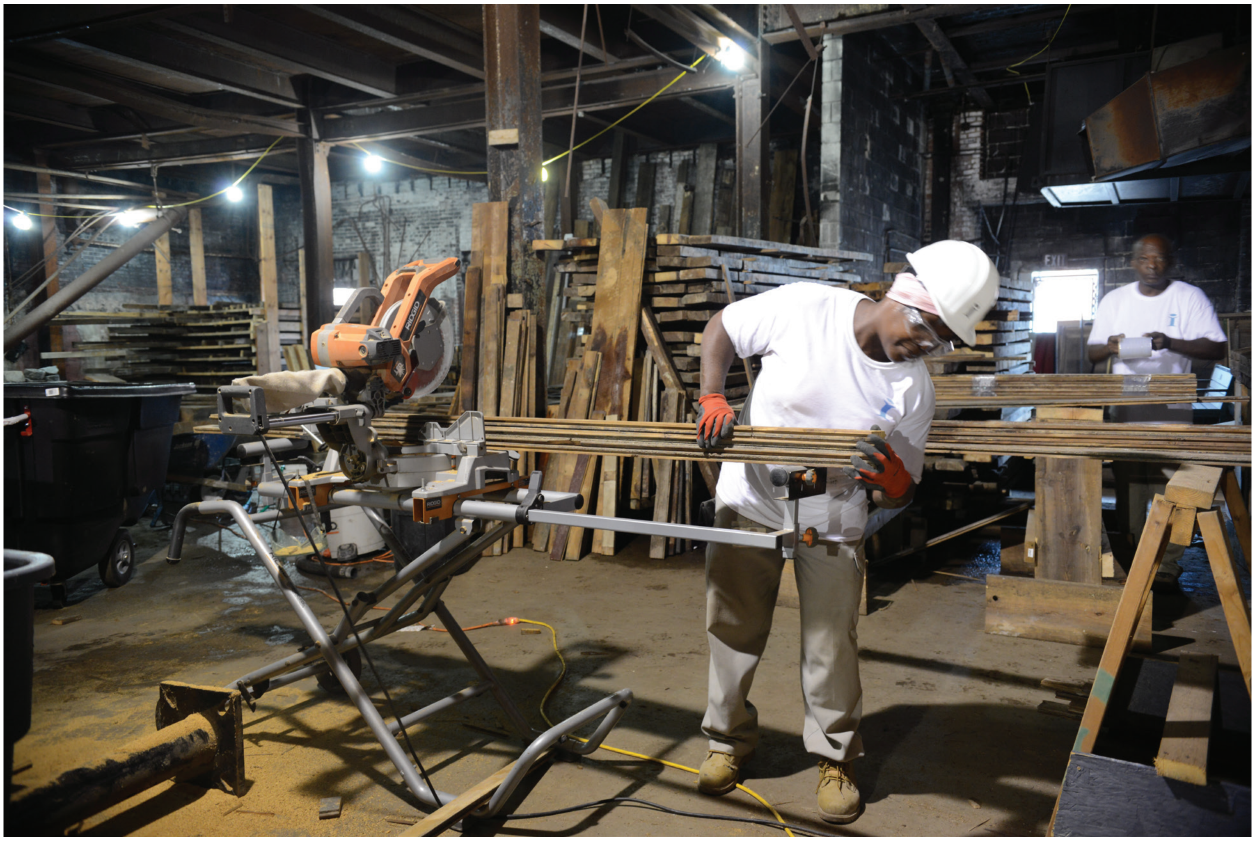
The joy of producing a tangible, finished product; the ability to work in a dynamic industry that combines technology, craft, and customization; the possibility of ownership — these represent important generational opportunities for upward economic mobility, and they are all possible through manufacturing jobs.

To consider the promise that manufacturing holds for communities, imagine regional economies as ecosystems composed of social and economic relationships between people, businesses, community organizations, and local governments.

Examining the nature of these relationships offers insight into the health of the ecosystem-economy as a whole. We continually find that the presence of well-resourced manufacturers in an industrial base transforms the entire ecosystem because the sector can generate mutualistic relationships among people, businesses, and cities that are rooted in equitable economic activity.

Expanding Access to Quality Jobs

Many manufacturing business models can pay workers living wages from the entry-level and create career ladders.[19] Among workers without a four-year college degree, manufacturing workers earn $150 more per week than in other sectors. On average, manufacturing workers earn 9 percent more than workers in other sectors.[20]



Capital and workforce programming that is both focused on racial equity and geared toward the manufacturing sector is critical in connecting sector-based opportunity to communities of color. In cities with a rich history of manufacturing, local organizations are working with employers to create wealth-generating jobs that are accessible to workers from communities of color who otherwise face systemic racism in the labor market. And while today technology and regulatory changes have made factory floors safer, we must be vigilant about ensuring that people of color are connected to manufacturing positions with clear career pathways, including a path to ownership.

19 Urban Manufacturing Alliance, "Industry and Inclusion: Manufacturing Workforce Strategies to Build an Inclusive Future." June 2021. https://www.urbanmfg.org/wp-content/uploads/2021/06/Industry-and-Inclusion-Manufacturing-Workforce-Strategies-to-Build-an-Inclusive-Future-Final.pdf

20 Andrew Stettner, Joel Yudkin, and Michael McCormack, "Why Manufacturing Jobs are Worth Saving." July 2017. https://tcf.org/content/report/manufacturing-jobs-worth-saving/

Building Local Businesses Means Building the Community

Businesses owned by people of color play an important role in providing employment opportunities to people from their communities, leading to wealth creation within that community.[21] Since manufacturing businesses tend to be particularly asset-intensive and tied to the community they depend on for production space, these firms cultivate business assets with staying power. Community members who are invested in the business can reap the benefits of these roots, while others may be inspired to start their own businesses once they see successful role models who look like them.

Despite the common misperception, manufacturing may be one of the safest sectors for those entrepreneurs to step into — even amid a global pandemic, as some data suggest. A survey of 476 manufacturers in the Midwest found that the majority are expecting their businesses will grow in 2021.[22] The survey also found that some people with manufacturing careers were shielded from layoffs. Wages and benefits grew slightly last year, with about half of the companies surveyed saying there were no changes in employment.

Creating Inclusive Workforce Opportunities

Currently, Razvi employs 5 employees in Baltimore, but would love to double his workforce. The problem has been finding employees, which is something he's been discussing with Dr. Ron Williams from Coppin State University.

Now Razvi is working to establish a formal relationship with Coppin State University to create a new job training program that can increase the number of workers in emerging technologies.

"I came up with the idea that perhaps we need to create an emerging technologies workforce development center for folks in Baltimore who do not go to college. We bring them in for three weeks. Coppin State teaches them what we call life skills — how to communicate, take constructive criticism, manage personal finance — and then after the three weeks, we transition them into a fiber optic deployment training."

According to Razvi, although the manufacturing workforce in the fiber optic space is limited in scope, there will be exponential growth in the fiber optic deployment sector, especially due to the U.S. infrastructure bill and the connectivity of Rural America. This job growth will continue for the next 10 to 15 years. Jobs for these new technicians at FiberElectronics starts at $20/hour. With experience and further training, one can work their way up to around $100,000 per year. In short, they will provide their students with the skillsets in an emerging technology and a path with great earning potential.

"This training program is a complete wrap-around, from induction, life skills, technology training, job placement, and mentoring," says Razvi.

Mubariz Razvi
FiberElectronics

21 Minority Business Development Agency, Department of Commerce, "Disparities in Capital Access between Minority and Non-Minority-Owned Businesses: The Troubling Limitations of Capital Limitations Faced by MBEs." January 2010. https://www.mbda.gov/sites/default/files/migrated/files-attachments/DisparitiesinCapitalAccessReport.pdf

22 Federal Reserve Bank of Minneapolis, "After a Rough Year, Manufacturers Optimistic for 2021." 2020 Manufacturing Survey. February 17, 2021. https://www.minneapolisfed.org/article/2021/after-a-rough-year-manufacturers-optimistic-for-2021

Creating Inclusive Workforce Opportunities

Workforce development is at the heart of what Eagle Market Streets Development Corporations (EMSDC) does.

"We identified very early on in the organization, that there were individuals who had barriers to traditional employment opportunities, i.e. older adult workers, individuals with differing or disabled abilities, veterans and re-entry citizens [...] We felt very strongly that having a program like Block-by-Block Industries, which is our commercial production sewing program, would be an answer to those barriers to employment."

"[In 2014], we were operating a program called the Block Academy, that was looking at business 101 for businesses of color, helping them go from concept to business plan, and from business plan to implementation." During one of these sessions, EMSDC did a survey and asked participants what they learned and what type of business they wanted to build. Many said they wanted to build non-profits.

"My heart sank," confessed Swepson Twitty. "I was like, no, that's not what you want to do. You want to have some way to sustain yourself and then have some way to give back. So that led to a discussion about what are some ways that we can build business opportunities that will sustain us on the operational side, and that will also allow us to be mission driven or have a corporate social responsible arm."

It was then that one person in the class suggested a sewing operation. This idea for a social enterprise, alongside Swepson's position as chair of another organization in Asheville called Hand Made in America, led her to pursue Block-by-Block Industries.

Stephanie Swepson Twitty
Eagle Market Streets Development Corporation and Block-by-Block Industries

Embedding Craft in Urban Economies

Cities are good for manufacturing. They give aspiring manufacturing entrepreneurs the environment they need to get started. Proximity to peer firms and adjacent industries, a diverse and talented workforce, a high number of consumers (whether it be individuals or other businesses), and access to shared tools and infrastructure (space, technology, business services) all comprise the urban space.[23] From handmade jewelry to custom-designed smartphone cases and wood furniture to medical devices, small-batch creative producers are taking root in cities. Today's urban manufacturers are artisans who create jewelry in small batches from their home or a studio they share with other makers. They are the engineering students who design a product at a local makerspace. They are leather manufacturers who stretch and cut sheets of the material in the back of their stores. They're craft brewers who sell bottles and kegs at farmers markets, restaurants, and grocery stores.

And it might be getting easier to be a manufacturer in a city, despite the relatively higher cost of housing a business. New production technologies that are more compact or accessible in shared spaces, growing demand for small-batch artisanal production, and a nascent interest among policymakers in keeping manufacturers and supply chains local can help lay the foundation for a healthy urban manufacturing ecosystem.

Many of these maker businesses have a unique connection to the cities that house them and are positioned to support place-based economic development. Some pride themselves on sourcing

23 Wolf-Powers, Laura, Greg Schrock, Marc Doussard, Charles Heying, Max Eisenburger and Stephen Marotta. 2016. The Maker Economy in Action: Entrepreneurship and Supportive Ecosystems in Chicago, New York and Portland. Portland, OR: Portland State University. https://fabfoundation.org/resource-folder/pdfs/The+Maker+Economy+in+Action+--+Final+Report+w+Appendices.pdf

local materials because it stimulates economic activity. Others set themselves apart from products in the global marketplace by creating and delivering environmentally sustainable goods.

Further, maker businesses leverage a competitive advantage in their proximity to their end markets, particularly for food and beverage manufacturers or artisanal producers that exist in densely-populated cities. They also work hand-in-hand with local industries.[24]

New Owner Transforms Established Retail Bakery to a Catering Company

In the early 2000s, April Richardson was a white-collar crimes lawyer running her private practice in Washington D.C. trying to prevent unfair and illegal residential foreclosures. Before the end of the decade, she would be transforming a small bakery into a manufacturer of baked goods.

Richardson and her client decided to approach the building owner to stop the eviction of the business. The building owner invited them over to her house on the Potomac to make their case. Richardson made such a compelling case that the building owner agreed to stop the eviction, under one condition: Richardson needed to be the one running the company.

Richardson accepted, and became President of the company. She implemented a slow growth strategy which gave her time to research what she needed to know about owning a bakery and how the staff worked. From there, they shifted from making one-off sweet goods to large-scale manufacturing.

"I remember coming across a statistic that said there are 6,000 bakeries in the U.S. Of the 6,000, only 50 of them control 75 percent of the revenue. And then I saw that of the 6,000, the majority, maybe 4,500, are small mom-and-pops whose revenues were under $500,000. And then the others' revenues were over $500,000, and they happen to be wholesalers and manufacturers of baked goods," describes Richardson. "So I said, 'I don't want to be a mom-and-pop bakery, I want to go into manufacturing, because I want to be on this side of the statistic that generates high revenues.'"

"It's important for women and brown people to show that we are in this industry. It bothers me that traditionally the roles that women have always had to play — cooks and bakers — were never the ones to make the money on it. Yeah, we can bake a cake, but who's monetizing it? There are recipes that have come from women from all over the world who have spent hours perfecting them in their home kitchens and those same recipes were copied and turned into billion-dollar companies and those same women were never compensated. I never wanted to be part of the uncompensated group, so I said, we want in financially. We've been the ones historically that have been thrown into the kitchen, but most of the food companies that are the largest in the world are not women-owned. So understanding this history is what continues to be the driver, that keeps me on the manufacturing side."

Richardson was the reason DC Sweet Potato Cake scaled up to another level and broadened the reach beyond the neighborhood, while most mom-and-pop businesses never make that move to mass production.

April N. Richardson Esq.
Food Opportunity

These businesses take advantage of new consumer markets that increasingly value quality craftsmanship, handmade products, and custom-designed goods. People want products that are soulful, that have their own identity.

In 2016, makers generated $2.8 billion in sales on Etsy.[25] These microbusinesses exist because they can take advantage of lower barriers of entry to production. Small-batch can mean lower production costs, for example, and the existence of makerspaces and other shared production spaces reduces

24 Laura Wolf-Powers, Marc Doussard, Greg Schrock, Charles Heying, Max Eisenburger, and Stephen Marotta, "The Maker Movement and Urban Economic Development." 2017. Journal of the American Planning Association. http://dx.doi.org/10.1080/01944363.2017.1360787

25 Etsy, "Crafting the Future of Work: The Big Impact of Microbusinesses in the US." 2017. https://extfiles.etsy.com/advocacy/Etsy_US_2017_SellerCensus.pdf

the financial pressures of finding the right real estate.[26] **City-led policy innovations can take a nascent craft economy and allow it to blossom and thrive.**

Business Owner Shares Why He Loves His Craft

Armando Reyes never thought that he would run a woodworking business, despite being around woodworkers for much of his life. Growing up as a child in Chicago, he watched his father, grandfather, and uncles work in their basement. He has vivid memories of watching them fix things and helping out whenever he could.

“One of the things that brings back those memories are the smells. The smell of the wood being cut, the distinctive smell of old-style polyurethane or varnish on wood. And even now, when I use that, it kind of triggers those memories of the basement at their house,” recalls Reyes.

He loved woodworking, but initially he didn’t think of it as an economic opportunity. “I had a good job. I worked for almost 16 years as an auto mechanic. [...] It never really occurred to me that this was going to start a woodworking business. It was just one of those things that kind of took on a life of its own.”

In 2018, he started Lake Erie Woodworks. Reyes used the Gannon University Small Business Development Center which listed free information and grant opportunities on their website. The Ben Franklin Technology Partners organization couldn’t help him directly, but pointed him in the right direction. For the more specific help that Reyes was looking for, he joined Bridgeway Capital’s 10-week Creative Businesses Accelerator (CBA). The program understood his maker business, which gave him the knowledge he needed as a creative entrepreneur.

His father and uncles are proud of what he’s doing with Lake Erie Woodworks. They’re happy to see their legacy continuing in a professional way that none of them could have imagined.

Reyes loves that each day is different with its own challenges, and at the end he has a feeling of accomplishment. “For me, the greatest thing is seeing the final result of your work in a physical form.”

Armando Reyes
Lake Erie Woodworks

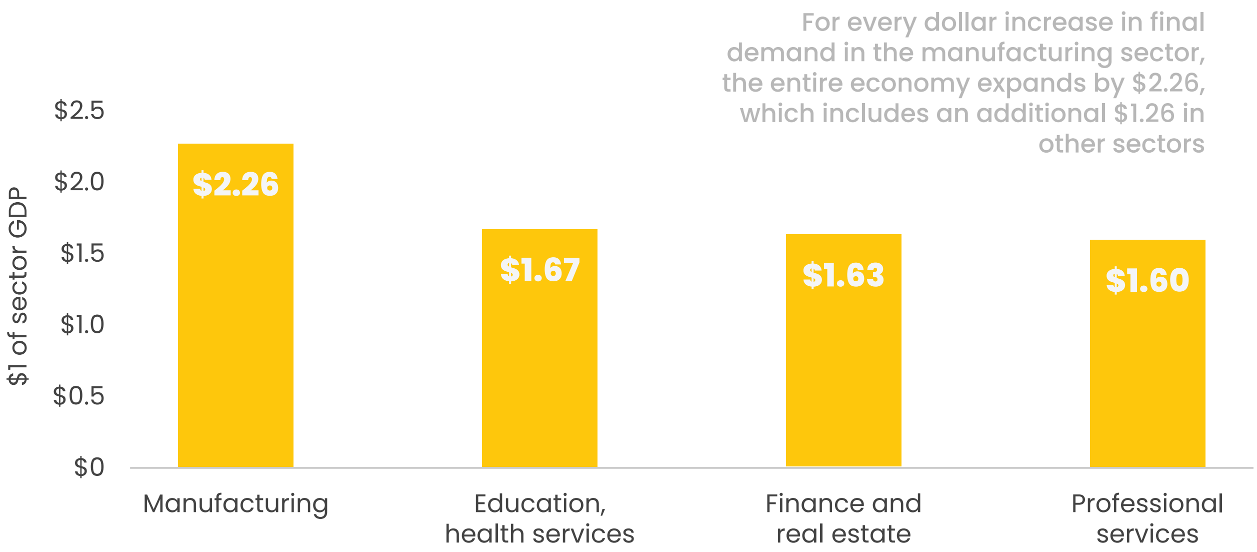
26 National League of Cities, Etsy, Recast City, and Urban Manufacturing Alliance, “Discovering Your City’s Maker Economy.” 2017. https://www.nlc.org/wp-content/uploads/2017/11/NLC-Discovering-Your-Citys-Maker-Economy-FINAL.pdf; http://dx.doi.org/10.1080/01944363.2017.1360787

Regional Growth and Innovation

The next time you drink a mug of tea, use your cell phone, or do the laundry, just think about the diversity of services and production that went into the manufacturing process — from R&D to sourcing raw materials — and shapes how goods move to their final destination — from transport to wholesaling to marketing and retail. The manufacturing sector unquestionably fuels cross-sector innovation and regional development.[27]

When manufacturers design, fabricate, and distribute a tangible good to a market, these manufacturing businesses can forge interdependencies with many other industries across the economy. These linkages across sectors are particularly robust, and are illustrated by the industry's economic output multiplier. Although manufacturing currently comprises 11 percent of real GDP, manufacturing has the largest multiplier effect across all sectors of the economy. For every dollar increase in final demand in the manufacturing sector, the entire economy expands by $2.26,[28] which includes an additional $1.26 in other sectors.[29] **That means the manufacturing sector is about 40 percent more impactful in terms of spurring economic output than the largest industry in terms of real GDP, the finance and real estate industry.**[30]

Economic Output Multiplier



Showing manufacturing and largest sectors by real GDP; ranked by output multiplier

Source: Bureau of Economic Analysis, 2020. Industry-by-Industry Total Requirements, After Redefinition

27 Cross-sector collaboration can generate equitable outcomes when partnerships are grounded in shared values, open discussion about structural inequities, and a willingness to engage in the hard work of productive conflict. See Tabitha Bentley, "The Challenge of Negotiating Race in Cross-Sector Spaces." June 11, 2019. https://ssir.org/articles/entry/the_challenge_of_negotiating_race_in_cross_sector_spaces#

28 Bureau of Economic Analysis, Industry-by-Industry Total Requirements, After Redefinitions by Sector, 2020.

29 Notably, traditional estimates of the economic impact of domestic manufacturing underestimate the "downstream" and "upstream" value-added of domestic manufacturing. More detailed value-added analyses pointed to a value-added multiplier of 3.6. In other words, an additional one dollar of value added to manufacturing contributes $3.60 of value added to the economy, including $2.60 of value in other sectors. See: D.J. Meckstroth "The Manufacturing Value Chain Is Much Bigger Than You Think!", Manufacturers Alliance for Productivity and Innovation (MAPI) Foundation, (September 2016). https://static1.squarespace.com/static/58862301f7e0ab813935c244/t/58c05a2f6a4963ad69ed3734/1489001008886/PA-165_web_0.pdf

30 The financial services and real estate industry has an output multiplier of 1.63 or an additional $0.63 in demand across other sectors. Bureau of Economic Analysis, Industry-by-Industry Total Requirements, After Redefinitions by Sector, 2020.

A Time to Reimagine Supply Chains

Global supply chains were rattled by the COVID-19 pandemic. Slowdowns in international trade put critical products and materials out of reach. A task force commissioned by President Biden in June 2021 found that the following were particularly vulnerable: medical products and essential medicine; advanced batteries for electric vehicles and machinery; and semiconductor chips needed to manufacture cars and industrial and communications products.[31]

All these things are produced by manufacturers.

The pandemic has given our country an opportunity to uplift local supply chains. Medical equipment shortages were felt across the country, but some regional governments that worked closely with their local manufacturing ecosystems at the onset of the pandemic had an advantage.

For instance, Made in NYC, a Local Branding Initiative (LBI) founded in 2001 with a longstanding relationship with the New York City Council, became a key producer of personal protective equipment production in the city. The initiative helped local manufacturers prototype and secure approval for new personal protective equipment (PPE) production. They did this while ensuring that, in the spaces where products were made, workers followed public health and safety guidelines.[32]

A Sewing Business Grows Revenue During the Pandemic

In 2014, EMSDC bought a struggling sewing business called Block-by-Block Industries. They grew it with small contracts for three years, and received a big contract in the fourth year from a company manufacturing fabric stadium seats. In 2019 they finally broke even. Then they used the profits to downsize the sewing business just before the pandemic.

“COVID really spurred us in some ways because we went to making masks and gowns and we had our first contract from the Bergen County Sheriff’s Department […] In a year when we probably would not have been successful, we were more than successful. Block-by-Block really had significant revenues and ended the year at about probably 20 or 30 percent net income for the year (2020), which for an operation as small as us, with three people was significant.”

Stephanie Swepson Twitty
Eagle Market Streets Development Corporation and Block-by-Block Industries

31 The White House, “100-Day Reviews Under Executive Order 14017: Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth.” June 2021. https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf

32 Local Progress and Urban Manufacturing Alliance, “Building Local Resilience Through Local Brand Initiatives.” March 2021. https://www.urbanmfg.org/wp-content/uploads/2021/05/2020-LP-PolicyBrief-layout_LocalResilience_rev1.pdf

Transforming Capital Pathways for BIPOC Manufacturers

This paper has laid out the importance of the manufacturing sector to communities of color. **But the sector will not advance, and certainly not in equitable ways, without a significant shift in how capital is accessed and deployed, and the policies underpinning capital and space**. Transforming entrepreneurial finance is key to advancing racial equity through manufacturing. The capital journeys of entrepreneurs of color in the manufacturing sector highlighted throughout this paper illustrate just how pervasive the intersection of structural racism and sectoral barriers in capital access really is.

This paper has highlighted the potential of the manufacturing sector as a racial equity and community wealth-building strategy. The stories of manufacturers of color that are shared in this paper illustrate the intersection of structural racism and sectoral barriers in accessing quality capital. Public policy interventions must shift how financial intermediaries deploy capital to makers and manufacturers of color in order to activate the sector for equitable development. In the recommendations that follow, we call for policy and practice-based solutions that can transform how capital is deployed to makers and manufacturers of color.

Equitable Policy Structures

The way that government programs structure capital delivery mechanisms bears significant weight on whether public funds can generate equitable outcomes. The Small Business Administration (SBA)'s Paycheck Protection Program missed a critical opportunity to equitably distribute credit to small business owners of color who were hardest hit during the pandemic. Among many cracks in the system,[33] SBA centrally distributed the funds in a series of short-term waves without accountability mechanisms to extend public support equitably. The program also sidestepped coordination with community lenders.

The expansion of the State Small Business Credit Initiative (SSBCI) in 2022 is a prime opportunity to incorporate the many lessons learned about accountability to racial equity. SSBCI not only represents a significant $10 billion injection of federal funding — it packages funds through flexible and decentralized delivery mechanisms. This creates opportunities for state and local policymakers to intentionally use public resources to leverage quality capital on supportive terms for entrepreneurs of color. States should intentionally capitalize CDFIs and mission-driven providers with solid track records of equitable capital deployment. During earlier iterations of the SSBCI program, CDFIs were among the most effective distributors of quality capital to BIPOC-owned businesses compared to commercial banks and other mainstream financial institutions.[34]

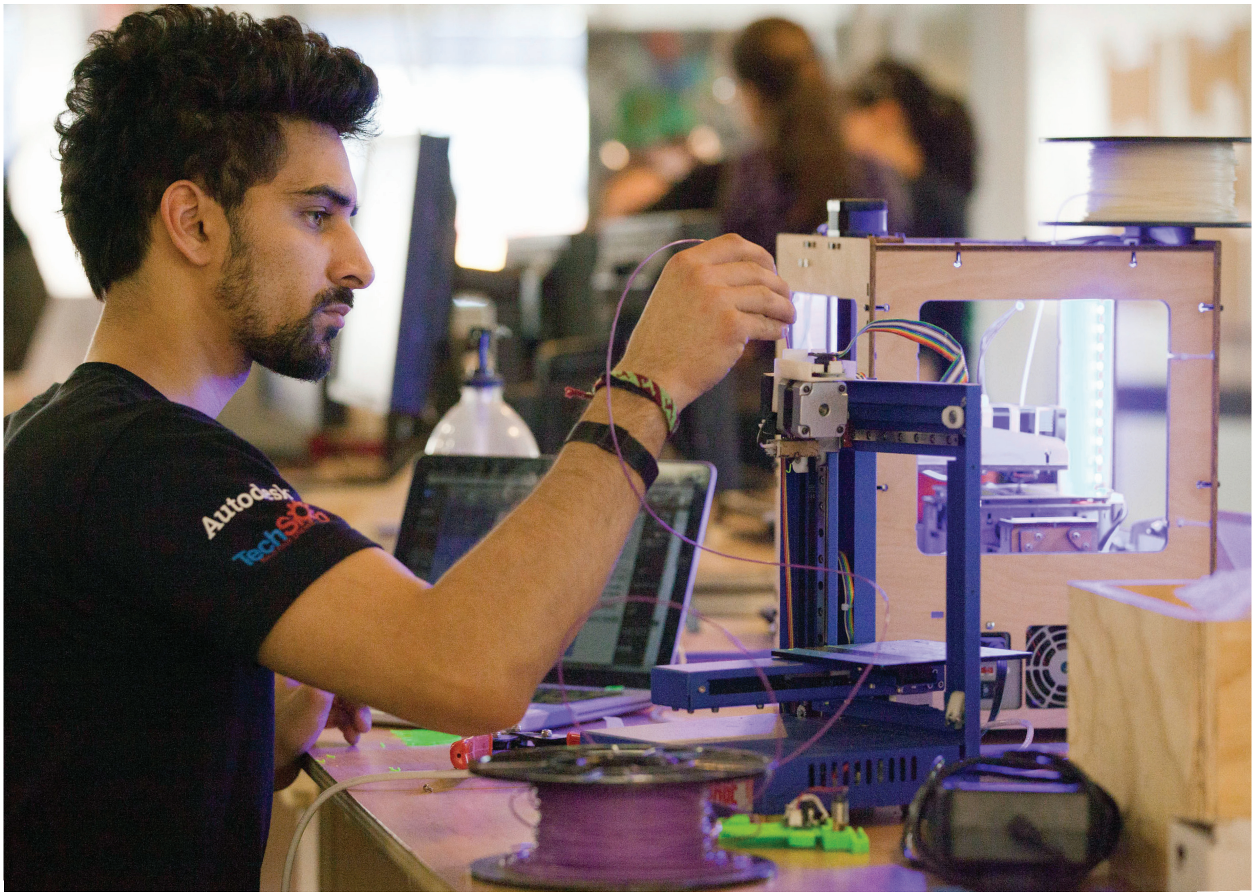
In light of prolonged supply chain disruptions, new proposals for a federally-owned industrial bank have emerged that elevate the opportunity to invest in the manufacturing sector as a national priority. The proposed industrial bank would serve as a patient capital source geared toward manufacturers in key sub-sectors related to supply chain resiliency, with racial equity embedded at the heart of its mission and financial operations. With these funds, financial intermediaries across the country could deploy long-term debt and equity investments to support manufacturers in scaling up and sustaining

33 Center for Public Integrity, "Six Lessons from the Paycheck Protection Program." December 1, 2021. https://publicintegrity.org/health/coronavirus-and-inequality/six-lessons-paycheck-protection-program-ppp-lending/

34 Interview with Andrew Stettner, The Century Foundation. November 23, 2021.

their growth. The recommendations that follow are specific illustrations of the ways in which such an industrial bank could hold participating intermediaries accountable for institutionalizing inclusive underwriting practices and financial products.[35]

For example, pushing for regulatory reforms in government-sponsored loan guarantee programs, such as the Small Business Administration (SBA)'s 7(a) and Community Advantage programs, would go a long way. Many SBA loans have been used to finance business acquisitions, but the government-insured loan program requires a 10 percent down payment to qualify. Regulators should reform SBA loan programs to enable the retiring owner or a CDFI to offer subordinated debt when the purchaser does not have the cash on hand for a $100,000 or greater down payment. These types of reforms would make a big impact in enabling these deals to go through and help reinvigorate a region's manufacturing base in the process.[36]



Establishing a national down payment assistance program or a secondary market to finance down payments for manufacturing ownership transitions could be transformative. A secondary market for employee ownership loans would expand access to supportive financing for ownership transitions on a national scale. Scaling ownership transitions with employees and entrepreneurs of color through a secondary market can drive new national trajectories of equitable economic development.[37]

35 Robinson Meyer, " The Bill That Could Truly, Actually Bring Back U.S. Manufacturing," August 18, 2021. The Atlantic. https://www.theatlantic.com/science/archive/2021/08/america-into-the-worlds-factory-again-industrial-finance-corporation/619793/

36 Interview with Bruce Dobb, Concerned Capital. November 1, 2021.

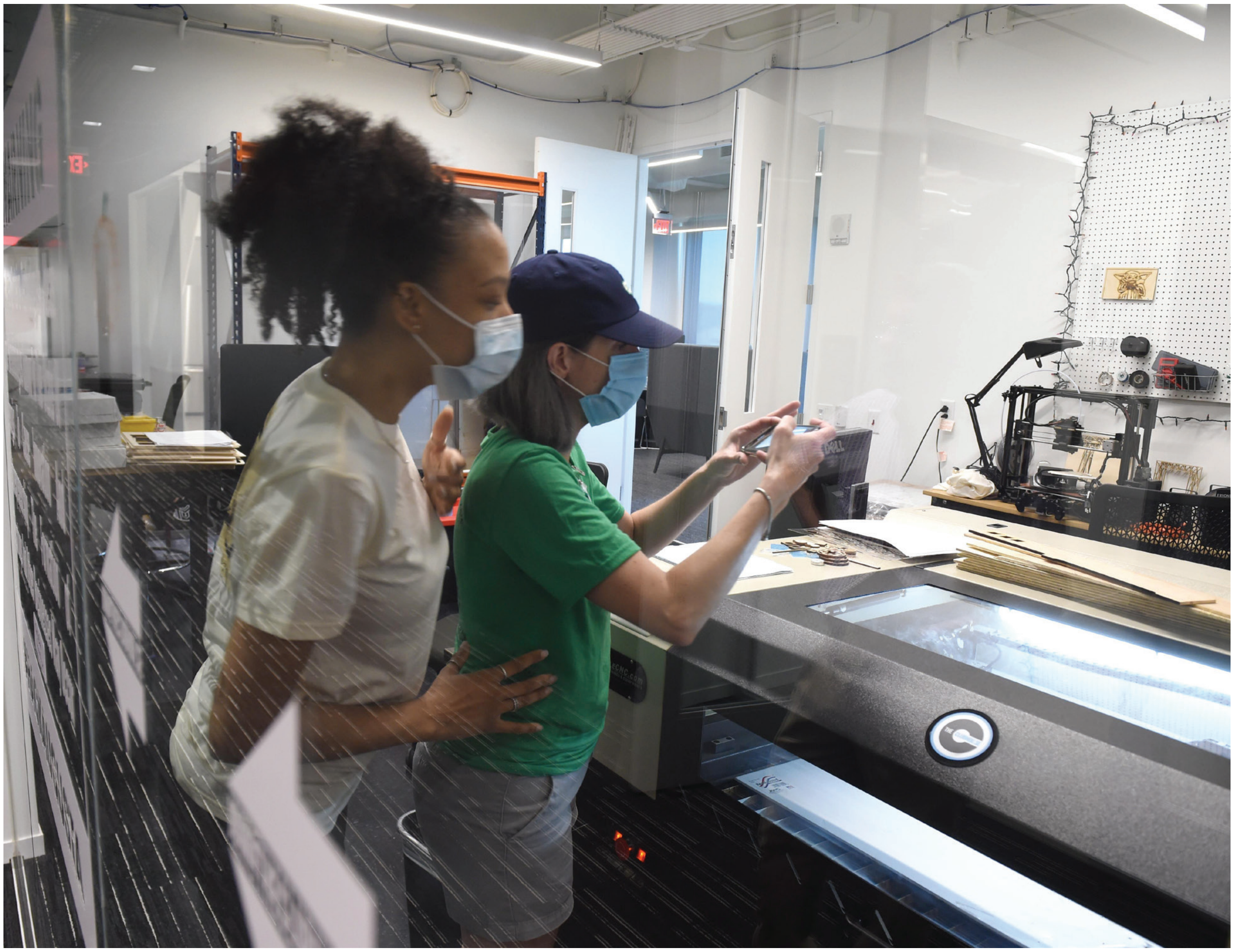
37 Interview with Bruce Dobb, Concerned Capital. November 1, 2021.

It is crucial that these resources are equitably distributed to elevate BIPOC-owned CDFIs and financial institutions that are best-positioned to activate deep ties and relational networks with entrepreneurs of color.[38]

Adequate CDFI Policy Support

Our interviews with CDFIs and impact funds suggest manufacturers in the scale up phase need financial innovations focused on deploying equity-like capital. These scale up funds extend equity without revenue-sharing, or provide deeply subordinated long-term debt to enhance the firm's leverage. This type of equity-like capital is crucial to resource major investments, such as equipment or space that will promote gradual and steady growth.

Capital from the CDFI Bond Fund via a Qualified Issuer offers one source of long-term debt to resource manufacturing scaling up funds. In addition, federal and state government agencies can create additional grant programs to pilot these equity-like funds for manufacturers of color that are positioned to scale up.



38 African American Alliance of CDFI CEOs, "The Case for the Alliance." https://static1.squarespace.com/static/5d557f89a75c9d00010dfe15/t/5fe3e75602b953270aa6b1fb/1608771415464/AllianceConceptPaper-12-10.pdf

Capacity Building for CDFIs

Sector-based technical assistance from CDFIs and other capital providers is particularly important for makers and manufacturers, whose business models diverge from firms in retail and service industries.

> **CDFIs can also become a hub for lending and succession planning with manufacturers by bringing a unique set of financing and partnership-based technical assistance capabilities to the table.**

To facilitate ownership transitions, CDFIs need large amounts of patient capital to finance down payments for business acquisitions ranging from $100,000 to $400,000 or more. Existing government programs such as the CDFI Bond Fund can provide CDFIs with long-term, low-cost debt for large-scale projects over 30 years.[39] Many ownership transitions of legacy manufacturing firms are capital-intensive and fit the bill for financing through very patient debt.

Equitable Funding Program Metrics

Federal and state policymakers committed to promoting equitable economic growth and quality job opportunities in their communities should elevate manufacturing as an impact sector. Public programs that extend public money or leverage private sources can use equity metrics to drive resources to inclusive economic development opportunities.

These metrics could include:

- The number of living-income jobs
- Worker satisfaction with these jobs
- The number of BIPOC entrepreneurs launching new businesses
- Community satisfaction and perception of these businesses

Activate the Capital Continuum

CDFIs are uniquely positioned to innovate on their financial and technical assistance offerings to makers and manufacturers of color. The Urban Manufacturing Alliance's ongoing collaboration with a cohort of CDFI practitioners committed to racial equity and the manufacturing sector is an example of what can be achieved when CDFIs lean into their close ties to communities and mission to expand access to quality capital.[40]

Alongside CDFIs, a range of capital providers and institutional actors across the continuum of capital are also well-positioned to take advantage of the opportunities present in the manufacturing sector.

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39 U.S. Department of the Treasury, CDFI Bond Guarantee Fund, "A Gateway to Capital and Community Revitalization." March 2020. https://www.cdfifund.gov/sites/cdfi/files/documents/cdfi-bond-guarantee-program-fact-sheet-(english)-12march2020.pdf

40 Urban Manufacturing Alliance's Pathways to Patient Capital Cohort, https://www.urbanmfg.org/project/pathways/

These include impact funds making equity-like investments in BIPOC-owned manufacturing firms ready to scale, to federal and local agencies designing grant programs and credit enhancement initiatives.

Partnerships between Local Branding Initiatives (LBIs) and CDFIs can create platforms for specialized financial services geared toward makers and micro manufacturers of color. LBIs uplift small-scale manufacturers to advance equitable development in cities by forging networks of support in partnership with government agencies, community organizations, and consumers.[41] LBIs can contribute their understanding of the challenges and opportunities that makers navigate to ensure that small-batch producers have access to quality capital geared toward their particular needs.

To support medium-sized manufacturers across subsectors, CDFIs and capital providers can look to the Manufacturing Extension Partnership (MEP) network which covers every state. MEPs are a hub for various manufacturing business development needs, from product design to market research and workforce development. CDFIs can link to MEP centers to incorporate knowledge about the manufacturing operating cycle into an equitable and holistic underwriting process.

Bringing in outside partners will build ecosystem capacity and integrate CDFIs into business development networks, possibly without requiring an increase in CDFI staff.

41 Local Progress and Urban Manufacturing Alliance, "Building Local Resilience Through Local Brand Initiatives." March 2021. https://www.urbanmfg.org/wp-content/uploads/2021/05/2020-LP-PolicyBrief-layout_LocalResilience_rev1.pdf

These partnerships should strive to create a technical assistance network that acts as a single entity providing a range of resources, from referrals to contracts and procurement and opportunities to networking connections and coaching resources.

Equitable Underwriting Paradigms

Equitable underwriting methods must account for how the racial wealth gap has shut out many entrepreneurs of color from qualifying for non-predatory business loans.

> **Credit history, capital, and collateral are factors of a borrower's access to wealth and privilege, not a reflection of the entrepreneur's skills or the viability of their business model.**

Since an understanding of the viability of the business plan informs underwriting in character-based lending, it is crucial that underwriters are equipped with a robust understanding of the operating cycle of firms in the manufacturing sector.

Underwriters committed to lending based on the feasibility of a business plan, rather than a prospective borrower's inherited wealth and privilege, must be grounded in the nuances of the manufacturing business model. That will help ensure capital reaches makers and manufacturers of color on supportive and workable terms.

CDFIs and other capital providers can embed sectoral expertise in their underwriting process by forging partnerships with industry experts at manufacturing-serving organizations. Practitioners at Local Branding Initiatives (LBIs), Manufacturing Extension Partnership (MEP) centers, and other industry-specific organizations, for example, can help underwriters understand the nuances of the operating cycle for niche subsectors ranging from asset-intensive manufacturers to small-batch artisanal producers.

Be Part of the Manufacturing Revolution

Across the nation, there are an abundance of BIPOC makers and manufacturers creating the products we touch every day, building prosperity in their communities through stable jobs, and stepping up when larger supply chains collapse — despite having to navigate a historically complex, unjust, and hostile world of public policy and capital products. Just imagine what they could achieve with inclusive, friendly policies and patient capital. We hope you will join us in the movement to transform manufacturing so that it works for real people and not just asset owners.

- **Get in touch** with Urban Manufacturing Alliance to learn more about their work to advance community manufacturing solutions. Visit UMA at urbanmfg.org and email Katy Stanton at katys@urbanmfg.org;
- **Visit the Inclusive Capital Collective and join our mailing list** to meet other innovators, learn about upcoming events, and receive upcoming Black Papers on other topics in inclusive finance; and
- **Contact Zebras Unite** to learn more about how you can support the continued development of the Inclusive Capital Collective as a collectively owned backbone organization for people like those featured here. Reach out to Najaah Yasmine Daniels at najaah@zebrasunite.com.

About the Organizers & Acknowledgements

About the Organizers

Inclusive Capital Collective

The Inclusive Capital Collective (ICC) is a growing network of community fund managers and entrepreneur support organizations who have been designing and developing shared technical and financial infrastructure for aggregating and deploying financial capital and other resources to entrepreneurs and communities of color in the US. Its purpose is to overcome systemic racism through equitable access to capital.

Urban Manufacturing Alliance

The Urban Manufacturing Alliance (UMA) advances place-based strategies that create more equitable communities by building community wealth through employment, ownership, and entrepreneurship through manufacturing. We connect and convene hundreds of partners across more than 200 cities, helping them learn from one another, and act as a collaborative ecosystem builder that supports local manufacturing communities and leads a national movement. Our learnings and policy recommendations in this report stem from UMA's Pathways to Patient Capital program focused on equitable capital access for makers and manufacturers of color. The Pathways program is grounded in a cohort of eleven innovative CDFIs and community-based capital providers that share a commitment to racial equity and a focus on the manufacturing sector as a strategic avenue to advance community development.

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Inclusive Capital for Manufacturers is part of the Inclusive Capital Collective (ICC)'s Black Papers series written by and for practitioners. They illuminate the systemic barriers in financial markets, focusing on specific areas and segments that are ripe for interventions by investors interested in deploying their resources for social justice. Each Black Paper spotlights scalable solutions developed by members of the ICC, and invites the reader to take action.

This Black Paper is the product of collective learning among the ICC and UMA teams, makers and manufacturers of color, mission-driven capital providers, and manufacturing-serving practitioners. Members of UMA's team authored this report, including Elana Simon, Graduate Fellow; Johnny Magdaleno, Storyteller; Phil Roberts, Storyteller; and Lee Wellington, Executive Director. Najaah Yasmine Daniels, Community Manager of the Inclusive Capital Collective, led and advised our team. A special thanks goes to Patience Wall, UMA Graduate Fellow, for providing thought leadership and research. Katy Stanton, UMA Director of Programming & Operations, and Eva Pinkley, UMA Community Leader, provided guidance and project support throughout the process.

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Appendix

Table 1[42]

	ASSET STRUCTURE OF FIRM	CAPITAL STRUCTURE OF FIRM	CAPITAL JOURNEY OF MANUFACTURER OF COLOR
SEED	***• ~1-3 years • Not generating revenue***		
	Firm is not producing revenue and there are no or very few business assets. Conducting R&D, iterating product design. Developing a business plan/proof of concept. Conducting market research to explore its competitive edge and niche in the market.	Without business assets and cash flow to secure debt, entrepreneurs rely on equity, grants, or "informal" sources of funding from personal networks of family and friends for R&D, business planning, and market research.[43] Mainstream investors perceive seed manufacturing firms as riskier because the business does not have a track-record of generating revenue.	Entrepreneurs of color are less likely to be able to tap into their personal networks for equity investments due to deep racial disparities in wealth accumulation and credit access among their networks. Entrepreneurs seeding a business are not generating revenue but need an income. Entrepreneurs of color are less likely to have accumulated personal wealth or rely on family members to cushion them during this period.
START UP	***• ~1-5 years • Slow/moderate growth • Financing needs increase • Acquiring some assets; may be using shared space and equipment • Earnings are unpredictable • Continuing to iterate product design, business plan • Has not broken through market / defined market niche yet***		
	Continued R&D and product design. Refining business plan and market research. Using shared space or leasing initial space. Sharing or leasing initial equipment and machinery. Working capital to sustain business operations.	Largely similar to seed capital phase. Seeking equity to finance R&D and fixed assets. May be able to secure a start up loan with a solidified business plan and nascent sales record. However, investors perceive start ups as unpredictable and high-risk. Needs working capital to produce goods (payroll, inventory, lease, etc.).	Entrepreneurs of color are much less likely to be able to secure equity and debt capital to finance start up costs from commercial banks and mainstream financial institutions due to structural racism inherent in the underwriting process. Sometimes, lenders will issue start up loans, but under extractive terms that inflict harm rather than support entrepreneurs of color in starting up their manufacturing businesses. Even when entrepreneurs of color are able to apply for start up loans with more supportive terms from community-based lenders such as CDFIs, they are often not receiving large enough loans to sustain their start up business.

42 Adapted from Karl Seidman, Economic Development Finance. 2005. SAGE Publications; NIST Manufacturing Extension Partnership, "Connecting Small Manufacturers with the Capital Needed to Grow Compete and Succeed," 2011. https://www.nist.gov/system/files/documents/ineap/MEP_Capital_Needs_Assessment_Final.pdf

43 Seidman, 2005; NIST MEP, 2011

SCALE & GROWTH	• *~ 5-10 years* • *For manufacturers, scaling up is often more gradual than other sectors* • *Intense capital needs* • *Larger fixed assets* • *Increased predictability of revenue*		
	Acquire fixed assets: machinery and equipment, new space and leasehold improvements. Liquidity is tied up in inventory while these firms face a longer cash conversion cycle due to accounts receivable processing (ie being able to sell of their inventory).	Fixed assets financing: long-term debt or equity. Working capital financing.	Manufacturers of color who are scaling up production need to make large investments in fixed assets such as equipment, machinery, or space for the first time. At this stage, scaling up businesses do not have existing business assets to collateralize and do not have a long-term business history of cash flows to show lenders. The SBA 504 loan program as well as the 7(a) loan guarantee programs screen applicants with an automated credit scoring methodology that prevents prospective business owners of color from accessing these public resources.
SUSTAIN	• *10 + years* • *Moderate growth* • *Predictable revenue*		
	Working capital for ongoing operations (even successful firms with long track records of profitability risk bankruptcy if they do not have access to predictable working capital).[44] Maintain, upgrade, or repair fixed assets or space.	Working capital financing. Fixed assets face depreciation - standard accounting practices will show manufacturing firms with depreciated equipment as less valuable on paper (need to research this and how depreciation impacts credit and access to capital).	Ongoing working capital financing. Financing to invest in maintaining fixed assets.
EXPAND / DIVERSIFY	• *Non-manufacturing firms pivot to manufacturing to diversify revenue streams* • *Manufacturers expand to increase scale of production or develop new products*		
	New equipment or machinery. New or expanded space. Working capital to purchase inventory, make payroll.	Intensive financing needs for fixed assets requires equity or long term debt . Working capital financing.	Similar to the scaling up phase, entrepreneurs of color who are diversifying their revenue streams through production, or manufacturers that are expanding production, need equity or long-term debt to invest in fixed assets.
OWNERSHIP TRANSITION	• *An estimated 125,000 manufacturing firms are owned by baby-boomers and risk closure, unless there is a succession plan to transition ownership and save the business.*[45]		
	Financing for employee or outside acquirer to purchase business.. Working capital to keep business operational during the transition period. Revival financing to upgrade or replace key fixed assets, e.g., equipment, machinery, space.	Equity for down payment to acquire business. Down payments are typically 10% of the sale price, often exceeding $100,000 for legacy firms positioned for ownership transitions. Working capital financing to keep the business operational. Revival financing to invest in upgrades to fixed assets - equity or long-term debt.	Due to the racial wealth divide, BIPOC employees who are best positioned to acquire and run these businesses lack the generational wealth to put the money down for down payments.

44 Seidman, 2005, p. 93

45 Andrew Stettner and Michelle Burris, The Century Foundation and Dan Swinney, Manufacturing Renaissance, "The Challenge of Business Succession in Manufacturing and the Opportunities for Diversifying Ownership." October 2021.

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