



2015 letter from SFMade and Citi Community Development



# Urban Manufacturing: An Equity Engine

For the past 5 years straight, since SFMade’s inception, San Francisco has been a leader in the renaissance of US urban manufacturing, posting double-digit job growth year over year. Nationally, manufacturing jobs have also been growing, with the sector adding more than 800,000 jobs since 2010<sup>1</sup>. Yet, as an overall percentage of the economy, modern day manufacturing here and across the US has a more modest place in our economic fabric than in the past: nationally, manufacturing now represents approximately 12% of GDP and provides 8.8% of US employment, down from almost 30% of GDP and 20% of US jobs in 1970.

On the one hand, familiar pro-economic arguments supporting the outsized economic benefits of manufacturing still ring true: Manufacturing pays more than comparable service sector jobs, in particular for entry-level workers. Manufacturing offers training and advancement opportunities for individuals with less traditional education or other barriers to employment that far surpasses those of other industries. And manufacturing’s “economic multiplier” effect in the local economy remains greater than any other industry. Conservatively, San Francisco manufacturers, who drove more than \$614M into the regional economy in 2014, generated an additional \$816M<sup>2</sup> in indirect economic impact, back into the Bay Area.

Urban manufacturing is perhaps one of the few sectors capable of moving the needle in a positive direction around economic equity.

But the undisputed economic benefits of a healthy urban manufacturing ecosystem, while impressive, understate an even richer set of societal benefits:

**Sustainable Innovation.** Local manufacturing is critical to sustained regional innovative capacity. The US, and specifically the Bay Area, remains a global innovation leader, increasingly in *physical* products. A strong local manufacturing ecosystem provides designers the opportunity to rapidly

prototype new products, manufacture in small volumes, gain feedback from the local consumer base, and then repeat. This “virtuous cycle” of innovation is equally at play both in San Francisco’s emerging advanced manufacturing sector and in more traditional sectors, exemplified by Levi Strauss and Co’s recently opened Eureka Innovation Lab, which marries denim product development with manufacturing, steps from Levi’s headquarters in San Francisco.

**Inclusive Ownership.** A thriving local manufacturing “start-up” culture is a powerful gateway to more diverse business ownership. Maker-based businesses—fueled by the democratization of access to capital, markets, equipment, shared space, and most of all information—are providing new pathways to start and own a business. San Francisco has been the birthplace of successful manufacturers owned by artists, skilled union craftspeople, formerly low-income women, immigrant families, and by individuals from other at-risk populations, including a remarkable growing advanced manufacturer launched by a formerly homeless man.

**Economic Equity.** Above all, urban manufacturing is perhaps one of the few sectors capable of moving the needle in a positive direction around economic equity, in a time when nationally we are seeing more inequitable distribution of income and wealth than ever. No city better understands the perils of this growing inequity than San Francisco: a recent Brookings Institute report found the income gap between San Francisco’s rich and poor is growing faster than any other city in the nation. Local and, in particular, urban manufacturing co-locates jobs and companies near and in the very communities of people who can most benefit from them. Urban manufacturing has a unique capacity to knit together diverse neighborhoods, socio-economic groups, and disciplines. Ultimately urban manufacturing provides the possibility for residents from all walks of life to enter the mainstream economy, to advance their skills, their economic self-sufficiency, and to become invested stakeholders and leaders in our communities.

All of these benefits create a powerful argument for cities across the US to actively fight to maintain healthy manufacturing sectors, irrespective of the size or scale relative to other local industries. And while we recognize to do so in San Francisco—one of the most expensive and land-constrained cities in the country—is perhaps an especially daunting task, the economic and societal benefits from a strong local manufacturing ecosystem are simply too important. Urban manufacturing is a unique engine that can power a more equitable economy. And as ever, San Francisco has the potential to lead the way.



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1. Source: US Department of Commerce, 2015.  
2. Source: Manufacturing Institute, April 2014.

# 2015 State of Local Manufacturing Report



## ENTREPRENEURIAL MANUFACTURING

San Francisco's local manufacturing sector has reached an all time high since the launch of SFMade in 2010, as shown by the results of this year's *Annual SFMade Survey of Manufacturers*.<sup>3</sup> SFMade membership—at 605 companies representing over 90% of the local manufacturing sector—is **up by 11% over last year, the greatest single year of growth in number of SFMade member companies since our launch**. Together, these vibrant companies drove \$614M in direct sales into the regional economy.

San Francisco manufacturers reflect the entrepreneurial spirit of the city they call home. 38 companies in the SFMade community launched within the last 18 months, largely on pace with new company formation rates of prior years. Further, a whopping **96% of SFMade's membership started their business from scratch**; the other 4% either inherited a family business or bought an existing business. And these

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self-starters are vastly self-funded as well—81% utilized savings or loans from personal resources or family and friends to make the first year happen. While home is the place that 45% of the companies launched from, maker-spaces or shared spaces have begun to play a more prominent role: 13% of manufacturers now report starting in a

maker-space such as TechShop, Double Union (a new maker-space for women), or private shared spaces.

Overall, San Francisco manufacturing remains concentrated in consumer products, with growth occurring largely proportionate to the industry sectors reported in our 2014 report: sewn products—including apparel and accessories such as bags—account for over a third of member companies (32%), food and beverage remains second (18%). The remaining half is comprised of home products, jewelry and accessories, and a diverse “Other” category which includes advanced manufacturing companies making technology-enabled products, as well as a range of other products including bikes, sporting goods, and print/media.

There was a slight shift away from sourcing goods in San Francisco, yet the amount of inputs from California in total remained the same, signaling perhaps more robust access to regional supply chains. Tools like BriteHub—an online supply chain management and sourcing platform currently being implemented across the Bay Area—are starting to shift access to source materials as suppliers and manufacturers get networked in a way that provides streamlined information in both directions.

Companies in San Francisco are still largely manufacturing in house—almost 80% of total product value—and overall, we observe a positive trend of companies *increasing* their local manufacturing over time: 44% of companies surveyed now manufacture more in San Francisco than they did five years ago. While a small portion of sub-contracted production moved from San Francisco contract manufacturers to regional contract manufacturers, we see this as a positive reflection of both the increasing strength of regional supply chain offerings and improved access to information about how to locate suppliers across the region. The strength of the region is also a key driver of sales for San Francisco manufacturers, with an estimated 58% of sales attributed to Bay Area and San Francisco customers.

## MORE JOBS, SOME CHALLENGES

In 2014, the **manufacturing sector added more jobs for the 5th year in a row, at 12% net new jobs**. Food and beverage remained the powerhouse sector in sheer number of jobs reaching a total of 1,000 jobs, with an 18% growth in net new jobs for the sector. Manufacturers now account for **over 4,400 jobs, with fully 70% of those jobs held by individuals from low-income households**. Looking forward, 36% of the jobs manufacturers plan to add in the next 12 months will be focused on the production or distribution of the products, with another 25% in customer service/sales, 15% in retail, 14% in management, administration or finance, and just 8% in design or engineering positions. Over 60% of the low-income workers currently employed by SFMade companies are persons from minority populations. In addition, **women hold 60% of all manufacturing jobs in San Francisco and continue to represent close to 50% of the ownership of local manufacturers**.

For the first time, however, since SFMade has been reporting on the sector, while the overall number of manufacturing jobs filled has grown, the sector reported a slight slowing down of the pace of job growth as compared to prior years (12.5% in 2012, 13% in 2013, and 15% in 2014). The root cause: while the sector continues to be a robust new job generator, manufacturers are having difficulty filling job openings. Entry-level jobs on SFMade's job board currently are going unfilled for up to 6 months. The main drivers are rising costs (of housing and other expenses) for workers to live locally and increased competition with other sectors for talent. For entry level workers, the manufacturing sector overall continues to start employees at wages above current minimum wage—ranging from \$15-\$25 per hour—yet it's still not enough for people to support themselves or their families unless they already have stable housing. For more experienced job positions,

3. SFMade's annual survey of local manufacturers was completed by close to 300 member companies.

manufacturers have additional trouble competing with the wages and other benefits offered by sectors like technology and finance.

Local manufacturers have reacted by crafting innovative ways to approach the compensation and retention of employees. Some SFMade companies have engaged in projects to design profit-sharing programs for hourly workers or have incorporated other non-cash benefits such as flexible work hours, providing employees access to equipment for personal projects, or support for education/training. And a few SFMade manufacturers have gone all the way to devise outright employee ownership structures. For example, Heath Ceramics recently converted its business structure to an Employee Stock Ownership Plan (ESOP). Employees are much more invested in the company and Heath has some of the lowest turnover in the sector.

At a civic level, the connection between housing and manufacturing jobs is the place where innovation is needed most. One short-term solution that bears consideration is to specifically market manufacturing job openings to individuals already stabilized in their housing through affordable housing partners. The City should also be looking at its policies to encourage new manufacturing job production and housing production for low-income individuals together on city-owned parcels. This approach, for example, has been taken in planning uses for the Mission Rock development, a mixed office, housing, open space, and manufacturing project on Port property. Imagine the collective economic stability of pursuing manufacturing and other accessible jobs and affordable housing together, rather than considering them as separate, stand-alone initiatives.

## ADVANCING MANUFACTURING

Over the course of 2014, San Francisco's advanced manufacturing sector—companies that design and build products that incorporate digital manufacturing technologies and/or advanced materials—has begun to crystallize into a defined component of our local ecosystem. While still modest in size, **the advanced manufacturing sector was the fastest growing of all sectors—more than doubling the number of jobs over the course of the last 12 months.** About 30% of new jobs were production or distribution jobs, demonstrating the capacity for advanced manufacturing, like other sectors, to offer entry-level opportunities. Importantly, SFMade's advanced manufacturing community reports that the majority of new production jobs can accommodate individuals with limited experience and most specific skills are trained on the job. At the same time, 38% of the job growth was in design or engineering positions, demonstrating that these firms are both attracted to—and rely on access to—much of the same talent being sought by the technology sector as a whole.

Consumer product hardware design and engineering has clearly become the engine of San Francisco's emerging advanced manufacturing sector. The city is home to more formal hardware incubators (Highway One, Lemnos Labs), prototyping/engineering/product invention firms (PCHLimeLab, Otherlab) and informal hardware/gadget communities than any other city in the country. While the majority of products being incubated in these "innovation nodes" are either pre-production or have yet to identify local supply chains that support scaled manufacturing, **clearly the great opportunity for San Francisco's emerging advanced manufacturing sector is to capture more market-share of short and medium-run production.** The move of major electronics contract manufacturer Flextronics into SOMA—the first newly arrived electronics manufacturer offering not just prototyping services but actual manufacturing in San Francisco—is an encouraging sign for things to come.

The advanced manufacturing sector also leads the way in equity investment and, in particular, venture funding. In the past year, San Francisco manufacturers overall secured \$47M in new capital, up from \$41M in 2014. 60% of that capital was in the form of debt, with the remaining 40% comprised of mostly equity and less than 1% of crowd funding. In contrast, the advanced manufacturing sector anticipates 80% of next year's capital to come in the form of equity.

Currently, San Francisco's nascent advanced manufacturing sector has three main impediments to growth. First, and foremost, holes in the local and regional hardware and electronics supply chain make it difficult to manufacture more products locally. Second, early stage

advanced manufacturing companies cannot easily find expansion-stage industrial space at an affordable price. And finally, local cost of living pressures equally impact advanced manufacturers who compete with each other and the technology sector for talent.

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In a positive response to the opportunity and the challenges, the Mayor's Office of Civic Innovation, in partnership with the Office of Economic and Workforce Development and SFMade, has launched a concerted Advanced Manufacturing initiative, led by a working group drawn from industry and a unique, full-time *Make to Manufacture Fellow* housed part-time at SFMade and part-time at City Hall. Over the next year—in collaboration with the design and engineering community, existing manufacturers, and anchor educational institutions—the initiative will focus on developing an implementable toolkit of regional solutions to create more fertile soil in which these promising local companies can start, stay, and grow in San Francisco.

## MISSING THE MIDDLE

Amid the continued success of San Francisco's local manufacturing sector, a new, more worrying trend has emerged in this year's data: **For the first time in the five years, growth-stage manufacturers with \$500K-5M in revenue and 5-20 employees have declined as a percentage of the local manufacturing base in San Francisco—from 15% to 10%.** Companies with 1–4 employees now comprise 83% of SFMade's membership, up from 79% in 2014. Larger, established San Francisco brands with 20 or more employees, comprising 6% of the membership, have remained stable and continue to create jobs. What is the explanation for a shrinking "middle class" of manufacturers? While a few have failed, the **majority of the decline is due to expanding manufacturers—otherwise healthy and profitable—moving production out of the City.** These companies are leaving just as they reach the next level of growth, just as they are ready to find a bigger space, raise capital, and expand their workforce. The trend is worrisome in the near term, as San Francisco is failing to capture all the new manufacturing jobs it could, the very jobs that provide an on-ramp to employment for diverse residents. If this trend continues it will have an adverse impact on the size and number of the most mature manufacturers who are now our largest job generators. **The "middle class" of manufacturing must thrive in order to build the workforce-sustaining large manufacturers of the future.**

Most often, these vibrant producers are thwarted by lack of availability of affordably priced real estate—especially quality industrial space



near public transportation. At the same time, the demographics of where the manufacturing workforce lives has also continued to shift, in large measure in response to surging housing prices in San Francisco and limited availability. **Companies are choosing to relocate not only because of rising real estate prices for production space, but also because increasingly their workforce lives elsewhere.**

At a macro level, housing remains a critical input. Recently San Francisco Mayor Ed Lee announced a plan to create dedicated affordable housing for teachers. Perhaps this same creativity can be applied to the manufacturing workforce. Efforts to better connect the city's industrial areas with public transit will also enable more growing manufacturers to still operate in San Francisco even if they must draw a workforce from the greater Bay Area. And above all, a continued focus on securing flexible, affordable, multi-tenant industrial space for the sector—by better using what we have and by building more of it—is essential now more than ever.

### INDUSTRIAL SPACE: BUILDING BLOCKS

Manufacturers continue to feel the oppressive realities of an overheated real estate market, particularly in the transit-accessible industrial districts. For some industrial spaces in San Francisco, annual rents have risen above \$50 per square foot—and even more modest rents can exceed \$24 per square foot—rates that were previously unheard of for these types of properties. More companies this year than ever before have been forced to move when their lease expired because the new rents and terms were not sustainable for their business—even after considering the costs incurred to undertake a real estate search and move their operations. 85% of SFMade companies lease and with 42% of those leases coming due within the next year, if we don't see a cooling of the market or some other changes soon—we are truly at risk of losing a number of additional companies in the next 12–18 months. Through our *Places to Make* program, which assists manufacturers in looking for space, only 13% of companies who have undertaken a search in 2015 were successfully placed in San Francisco.

However, there are some bright spots on the real estate storm cloud. A number of promising new projects have started in the past 12 months, since the launch of the City's *Five Point PDR Plan*. For the first time in decades, new PDR development is happening in San Francisco. Two projects will deliver smaller footprint industrial spaces within the year as part of mixed-use residential developments: 350 8th Street and Potrero 1010. The City—via the Port—is now an active player in the development of two larger, mixed-use projects at Pier 70 (Forest City) and Mission Rock (San Francisco Giants)—which combined will deliver over 400,000 square feet of light manufacturing space, including providing for the highly anticipated expansion of our largest manufacturer,

Anchor Brewers and Distillers. And PlaceMade—San Francisco's first affordable industrial real estate developer born out of a collaboration between SFMade and the City—is poised to release over 55,000 square feet of affordable industrial space at One Hundred Hooper in partnership with Kilroy Realty Corporation. On the same site, Kilroy will build an additional 90,000 square feet of industrial space in a mixed office-industrial project, the first of its kind on the West Coast. This project is noteworthy as the first to take advantage of the City's new "inclusionary industrial" zoning passed in 2014 that allows for the cross-subsidization of new industrial space via the development of co-located new office on previously vacant industrial parcels.

While these new construction initiatives are both laudable and important, the majority of new projects will not come online until 2017 or later. In parallel, a sustained focus on making the best possible use of existing space will be essential. Continued enforcement of industrial zoning is key. The City must also confront the opportunity—and challenge—presented by the emergence of product design-engineering firms, whom we need in our ecosystem but who may not use the required 66% of their space that PDR zoning requires for active production and who can often pay far more in rent than most traditional manufacturers.

### DEMOCRATIZATION OF MAKER EDUCATION

The recent explosion of maker-based education opportunities—in particular, for young people—shows promise in the evolving landscape of San Francisco's manufacturing economy. The San Francisco Public Library has included some maker equipment at The Mix—a teen focused program—including a 3D printer and a laser cutter. TechShop and other shared maker-spaces offer classes for all ages with focused

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events and programs for the younger demographics, clearly stoking the fires of creativity and what's possible for kids to make with their own hands (and a few helpful tools). SFMade's own *Inside Manufacturing* program combines both educational and experiential elements to expose

San Francisco public high school students to the possibility of a career in manufacturing and takes it a step further to connect them to internship opportunities at SFMade companies through our youth internship program, *YouthMade*. The Bay Area's Laney College has launched a nationally-watched "Manufacturing 101" program, a great example of a community college refining its offerings to connect more to manufacturing. At the California College of the Arts, the Design MBA program brings in manufacturers from the SFMade network who educate

students about how they manufacture locally and conversely the manufacturer hears from students on innovative “design thinking.”

All of these programs are deeply interconnected to the growing ecosystem of education that holds the potential to support local manufacturing. The next opportunity is to more intentionally connect these initiatives—and students—to our existing community of manufacturers. Could our own City College play a more explicit role in providing advanced manufacturing skill training to young adults? How can we expand the capacity of manufacturers to host interns and apprentices and how can we inspire more designers and engineers to eschew the benefits of a big company and instead work for a small manufacturer? What would it take to create a full circle of opportunity that connects maker-education with workforce development with manufacturing?

## LET’S GET TOGETHER

If there is a theme to how local manufacturers are staying and even thriving in San Francisco during these intense economic times, it is surely in how the sector has been working together to create collective opportunity.

**Collaboration among manufacturers.** Nearly half of all survey respondents collaborated with each other during the year. 35% of companies report sharing supply chains and recommending contract manufacturers to one another, the top reported collective activity in 2015. Shared retail selling events were equally popular, with 30% of SFMade companies participating in *SFMade Week* and several hundred in the annual *Holiday Sale*. Companies are also sharing production space, and not always out of necessity: local manufacturers Capital Eyewear and Galanter & Jones so enjoy the communal environment of shared space that when the lease was up on their shared production space, they pursued and successfully found new space together. SFMade companies additionally report a number of interesting product development collaborations, such as Etta + Billie’s use of T-We Tea and Ritual Coffee in their soaps. Other companies enjoy more traditional B2B collaborations, such as SOMA-based Standard Metal Products making machine parts for Mission-based Other Machine Co. These bonds tie companies not only to each other but more closely to San Francisco as well.

**Collaboration with large local non-manufacturers.** As locally-made products are being increasingly demanded by residents and visitors alike in cities across the country, finding ways to curate entire sections of local, independent brands is of interest to major retailers as never before. 40% of sales of SFMade manufacturers are now to major

wholesale retailers and distributors, including national retailers with local footprints such as Whole Foods and Target. As more national retailers seek to create a unique customer experience, they are seeking out precisely the types of products—and stories behind those products—that SFMade companies represent. In 2013, the San Francisco Westfield Center tailored a kiosk space for SFMade companies featuring a rotating set of manufacturers and now Stonestown Mall is following suit. SFMade recently renewed our partnership with a major retailer at SFO and our creative collaboration with Climb Real Estate. Even our local SF Giants kept it local with their project—The Yard at Mission Rock—which in addition to several other SFMade brands, like Anchor Brewing and Humphry Slocombe, featured a rotation of locally made companies in one of the retail containers.

**Collaboration through intentional procurement.** Intentional corporate procurement is a significant opportunity to harness the potential for San Francisco to further grow local manufacturing. A growing number of major corporations are directing more of their B2B spend on locally-made products—primarily from small businesses. From Square and Lyft buying their office furniture from Ohio Designs, to DropBox ordering Rickshaw Bags for their annual meeting, to LinkedIn creating customized DodoCase gifts, intentional local corporate procurement can mean major business for local manufacturers, and an even bigger impact on our local workforce. One of our most visible examples:

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SFMade company Social Imprints—who employs a workforce of 35 men and women who have faced a myriad of life challenges—has built an entire silk-screening business by selling customized printed goods in large part to major tech brands,

both local and national. Recognizing the opportunity, in 2015 the San Francisco Chamber of Commerce in partnership with the City, launched SF Biz Connect—a platform connecting larger businesses who have pledged to spend at least 5% more of their total purchases through local purchasing, with smaller San Francisco businesses.

The reason local manufacturers report that they continue to start, grow, and stay here, in spite of the challenges, is that they simply want to be in San Francisco. Imagine what more we can do if we fully leverage the richness of our community—across industry lines, across public and private, tech and manufacturing, housing and jobs, office and industrial, large and small—to create a shared future where a robust maker-manufacturing ecosystem is the thread that knits our community together.



**Empowering manufacturers.  
Creating jobs.  
Transforming our city.**

SFMade’s mission is to build and support a vibrant manufacturing sector in San Francisco, that sustains companies producing locally-made products, encourages entrepreneurship and innovation, and creates employment opportunities for a diverse local workforce.

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