Industrial Jobs of the Future

Ensuring Diverse Participation in San Francisco’s Growing Manufacturing Economy

Final Project Report
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Introduction

SFMade is a California 501(c)(3) non-profit corporation, established in 2010 and headquartered in San Francisco. It is the only organization of its kind focused on building San Francisco’s economic base by developing the local manufacturing sector. Its 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.

SFMade engages directly with entrepreneurs and growing small companies, all of whom are headquartered in and manufacture within San Francisco, offering industry-specific education, networking opportunities, and connecting these companies to powerful local resources. SFMade also collaborates with both the public and private sectors to define and enhance the local infrastructure – from access to capital to industrial land use policy – required to support a vibrant manufacturing sector. By building strong companies, SFMade helps sustain and create job opportunities for the City’s low-income communities and individuals with less typical education, experience, or skills. This includes working with manufacturers directly on workforce issues, including connecting companies to local hiring resources and job training programs and connecting their workers to relevant local resources and assistance.

In 2015 SFMade received funding from Citi Community Development to lead a study to better understand the employment needs of the local manufacturing sector, and the potential for connecting local job seekers to high quality jobs making things in San Francisco. SFMade contracted with Corporation for a Skilled Workforce and Pathways Consultants to conduct the research study. Their work included secondary labor market data research, analysis of job postings, interviews with area businesses, a survey of SFMade members, and interviews with workforce partners. They worked closely with a project steering committee composed of SFMade staff, representatives of San Francisco manufacturing businesses, education and training partners, and the Mayor’s Office of Workforce Development.

Access to good jobs is the promise of a vibrant economic sector, and SFMade’s mission is to make good on that promise by connecting low-income residents and people with barriers to employment to opportunities within manufacturing. This report is intended to show the potential for deepening this work.
Executive Summary

In 1880 San Francisco was a manufacturing powerhouse. Manufacturing jobs accounted for one third of all employment in the city. Today, manufacturing jobs account for less than 2% of all jobs in the city. However, San Francisco (like other cities across the US) is on the precipice of a new maker-manufacturing economy, and manufacturing employment has grown by 12% over the last 5 years. With production and distribution wages higher than other typical entry-level occupations, urban manufacturers in San Francisco are creating the kinds of accessible jobs for the City’s low-income residents that can provide pathways to sustainable, productive, and economically equitable livelihoods.

In 2015 there were approximately 11,000 manufacturing industry jobs in San Francisco County. The city’s manufacturing businesses are small: those 11,000 jobs are spread across over 700 establishments, with an average of just 15 jobs per establishment.¹

- 24% of jobs (2,600) classified as being in manufacturing are in Computer and Electronic Products manufacturing, although the majority are higher skilled R&D, design, sales, management and administration positions.
- Food and Beverage manufacturing is the next largest subsector with 2,300 jobs (21% of total manufacturing employment), including production and distribution positions, but also retail, food service and customer service positions in tap rooms, cafes and retail shops.
- While the Apparel and Sewn Products industry has contracted sharply in the city over recent decades, it still employs 13% of the city’s manufacturing workers, and the sector has seen the highest number of new business start-ups in recent years.

While the industry is small, there are opportunities to be found. Our survey sample of 61 SFMade companies reported hiring more than 300 entry-level workers over the last two years, and expected to hire more than 700 people over the next two years, with 66% of those positions being entry-level. Extrapolating this to a larger sample of the 240 SFMade companies for whom we had industry size and sector data, we estimated hiring of up to 1,770 people over the next two years, including 1,164 entry-level workers. Two-thirds of this hiring is projected to come from food & beverage companies (63% of all hires, 67% of entry-level hires) and includes jobs in both production and retail/sales capacity.

When hiring entry-level workers employers were less interested in specific technical skills than in so-called “soft” or employability skills (polite, comes to work on time, dresses appropriately), as well as a potential employee’s “fit” with the company. When asked what was most important to them in hiring, 72% said it was “Finding the right person to grow in my business long-term” compared to only 28% who were focused on “Finding the right person to fill the immediate workforce need.” Interviews indicate that promotion opportunities and practices vary a great deal depending on factors such as the size of the business, whether it was family-owned, the age of the business, level of unionization, and diversity of products made. The companies that offered the most opportunity for employees to move around and become promoted a) produced multiple products and b) had a multi-tiered leadership structure.

In our interviews and surveys, businesses identified several workforce-related challenges:

- **Cost of Living**: Businesses simply could not pay enough to attract and keep workers in the positions where they needed them.
- **Transit Accessibility**: Cost of living also impacted another commonly mentioned challenge, which had to do with transit accessibility, especially for workers commuting from outside the city because of cost of living concerns.
- **General Employability Skills**: Where respondents mentioned worker-related challenges, many reflected the sorts of soft skills/employability skills mentioned above.

- **Job Specific Skills**: Other respondents were looking to hire workers with at least some specific skills, and found these occupations hard to fill due to competition for a limited supply of workers and/or an inability to pay competitively compared to other companies and industries.

- **Retention & Advancement**: Businesses were concerned about a general lack of interest in the industry or in making a long-term commitment to the company.

- **Labor Market Mismatch**: The city's small, artisanal companies are often looking for people who have the flexibility to work both front and back of the house, including fluent English language skills. Given the city's low unemployment rate of 3%, there may be a limited pool of people interested in manufacturing jobs and have the requisite skills.

The project steering committee identified a variety of possible initiatives and actions that could be taken to address the challenges identified by San Francisco manufacturers. While the committee was able to envision potential responses to many of the challenges raised, in some cases the group didn’t see a way that they could effectively implement the response in order to impact the challenge. For example, while everyone agreed that increasing transit opportunities was important and would help address company challenges, most felt that this group did not have the leverage to make that happen.

However, the committee did identify a few specific initiatives that they felt had the most implementation potential. In the report each of these is explored in turn, providing information on how such initiatives have been implemented elsewhere and identifying questions to be answered and steps towards implementation that could be taken. Possible initiatives include:

- Create a manufacturing-specific soft skills training/work readiness program that is employer driven.

- Start a mission-driven and manufacturing specific temp-to-perm staffing agency, under an alternative staffing agency model.

- Launch a job seeker engagement initiative to improve awareness about opportunities within manufacturing and improve the image of the industry by more accurately describing the modern manufacturing landscape.

The manufacturing sector in San Francisco is growing and offers the possibility of career pathways opportunities for low-income and lower-skilled workers. However, businesses face a variety of challenges that include both worker skill issues and larger economic factors. SFMade is ideally situated to be a facilitator in addressing some of these factors and contribute to continued growth and success in the sector.

The workforce and economic development sectors are often isolated from one another, and while many impressive workforce development and training organizations have formed lasting relationships with employers, business intermediaries such as SFMade have the potential to leverage existing relationships to create access to jobs. The benefits of creating a strong support infrastructure for manufacturing in the city could extend beyond success for individual workers and businesses and to the sector itself. Strengthening overall employability for entry-level workers in manufacturing could attract entrepreneurs and new businesses who see the opportunities of a reliable talent pipeline. This could help the manufacturing sector continue to grow and thrive.

This report lays the groundwork for reaching this vision. Further research and relationship building will be required to determine the feasibility and scope of work to be done.
Manufacturing in San Francisco

In 1880 San Francisco was a manufacturing powerhouse. Manufacturing jobs accounted for one third of all employment in the city, ranking 9th in the country and exceeding all the other western cities combined. But in the intervening 136 years, de-industrialization and suburbanization have dramatically changed the San Francisco economy. Today, manufacturing jobs account for less than 2% of all jobs in the city.

However, San Francisco (like other cities across the US) is on the precipice of a new maker-manufacturing economy. Over the past five years, fueled by a resurgence in consumer interest in locally-made products, a national agenda to re-shore production, and a new movement of makers, San Francisco’s manufacturing employment has grown by 12%. As illustrated in the chart to the right, the production and distribution jobs that are prevalent in manufacturing tend to pay better wages than many other entry-level job categories. In short, urban manufacturers in San Francisco are creating the kinds of accessible jobs for the City’s low-income residents that can provide pathways to sustainable, productive, and economically equitable livelihoods.

In 2015 there were approximately 11,000 manufacturing industry jobs in San Francisco County. The city’s manufacturing businesses are small: those 11,000 jobs are spread across over 700 establishments, with an average of just 15 jobs per establishment. According to labor market projections, total manufacturing employment is projected to decline by 4% through 2020. However, from SFMade’s position on the ground, it seems likely that recent gains will continue and the city will see growth instead. While the manufacturing sector is dwarfed by the size of the tech sector in San Francisco, local manufacturing is spurred by the vibrancy of the sector in San Francisco. Tech companies look to local companies to produce furniture, t-shirts, and corporate gifts, and the general prosperity puts money in the pockets of local consumers willing to pay for high end artisan products. At the same time, the city of San Francisco itself is a valuable brand, and products made there are attractive to consumers in places as far flung as Japan and Hong Kong.
Within manufacturing, there are several key subsectors, each with their own unique challenges and opportunities.

- **24% of jobs (2,600) classified as being in manufacturing are in Computer and Electronic Products manufacturing.** We know that there are very few actual manufacturing facilities for these products within San Francisco. Many of the jobs within the city are in R&D, design, sales, management and administration rather than production. However, there are some entry-level opportunities. In 2015 approximately 18% of employment in this subsector (425 jobs, mostly in electrical and electronic equipment assembly) required minimal preparation (see Appendix A for preparation-level definitions).

- **Food and Beverage manufacturing** is the next largest subsector with 2,300 jobs (21% of total manufacturing employment). Food and Beverage manufacturers make up 18% of SFMade’s membership, including companies such as Dandelion Chocolate, Anchor Brewing, and Nana Joe’s Granola. About half of the jobs in this subsector are in Bakeries and Tortilla manufacturing, with the others split across a wide variety of business. Most jobs require only minimal (46%) to moderate (44%) preparation, and 46% are in production occupations. In addition to production workers, many of the city’s food and beverage manufacturers sell directly to customers through tap rooms, cafes, and retail shops, meaning that retail salespeople and other customer service staff are an important part of the industry.

- **Apparel and sewn products manufacturing** was once a key part of the San Francisco economy. Over the decades, the sector has contracted sharply, but the apparel industry is still the third largest manufacturing subsector with over 1,300 jobs (13%) across 97 establishments, including 520 sewers. With a workforce composed largely of Asian women over 45 years of age and the continued movement of garment manufacturers out of San Francisco, the apparel industry faces many challenges. However, despite past and projected declines in the total workforce, apparel and sewn products is SFMade’s most vibrant sector in terms of the number of new business start-ups and the highest percentage of SFMade members (32%), indicating that the apparel industry may not be going away, but instead is reinventing itself. Many apparel manufacturers large and small have their products sewn at sewing factories within the city, and these remain an important part of the local manufacturing ecosystem. SFMade members such as Cut Loose, Cayson Designs, Taylor Stitch are growing steadily within their niche and adding retail and wholesale business.

- The remaining manufacturing employment is spread across a wide array of industry subsectors, which include printing (accounting for nearly one quarter of remaining jobs), furniture production, fabricated metal products and more. This includes SFMade members such as OHIO Design, Urban Farm Girls, and Heath Ceramics. Contract manufacturers, who manufacture products for other companies, are also an important part of this ecosystem. This includes companies such as Plethora who use new technology for rapid prototyping, and Pagoda Arts, who do laser cutting and engraving as a manufacturing service. This wide variety of companies employs an array of workers at both entry-level and advanced positions.
Employment Opportunities within Manufacturing

While the industry is small, there are opportunities to be found. Our survey sample of 61 SFMade companies reported hiring more than 300 entry-level workers over the last two years. More than half of those hires were made by food & beverage companies (53%), while other product manufacturers accounted for 35% and Sewn Product manufacturers for 12%. When asked to project their future hiring, our sample indicated that they expected to hire more than 700 people over the next two years, and that 66% of those would be for entry-level positions. Extrapolating this to a larger sample of the 240 SFMade companies for whom we had industry size and sector data, we estimated hiring of up to 1,770 people over the next two years, including 1,164 entry-level workers. Two-thirds of this hiring is projected to come from food & beverage companies (63% of all hires, 67% of entry-level hires) and includes jobs in both production and retail/sales capacity.

While this demonstrates that there are entry-level opportunities within the sector, those opportunities are not evenly distributed. A full third of survey respondents reported that they employed fewer than 10% entry-level employees, including half of all respondents in the “other” category. Food & Beverage manufacturers were most likely to use entry-level workers, with over 56% of those respondents reporting that over 50% of their positions were entry-level.

Online job posting data for a sample of SFMade employers who could be tracked revealed that retail salespeople were the positions most likely to be posted, followed by retail supervisors, production workers of various kinds, other sales representatives, and delivery drivers. But our interviews and surveys indicate that 90% of respondents were highly likely to use word-of-mouth and referrals from existing staff for hiring, so online job postings do not necessarily reflect the breadth and depth of job openings. Almost no survey respondents reported using traditional newspaper classified ads, but a steering committee member reported that some sewn product manufacturers use Asian language newspapers and radio to look for sewers.

Survey respondents did identify some hard-to-fill positions. Often the positions were hard to fill because they required specific skills, such as bread bakers, bench jewelers, sewers and machine operators. In cases where entry-level positions were hard to fill, it was more typically due to competition for a limited supply of workers and an inability to pay competitively compared to other companies and industries.

In general, however, employers were less interested in specific technical skills than in so-called “soft” or employability skills (polite, comes to work on time, dresses appropriately), as well as a potential employee’s “fit with the company. When asked what was most important to them in hiring, 72% said it was “Finding the right person to grow in my business long-term” compared to only 28% who were focused on “Finding the right person to fill the immediate workforce need.”
For entry-level hiring, soft skills and fit with the organization were nearly universally rated as important or essential characteristics, followed in importance by basic skills (reading and math, English language speaker) and potential to grow. In open-ended responses, the most frequently mentioned characteristics included reliability, enthusiasm, personable nature, work ethic, and ability to learn. Other skills such as specific technical skills or past experience were considered important or essential by fewer than half of respondents.

Online job postings correspond to the survey findings, with the top “baseline skills” mentioned in job postings including organization, detail-orientation, communication, customer service, writing, team work and problem solving. Specific technical skills were mentioned much less often, but included things such as repair, sales, and merchandising.

One reason for the focus on manufacturing for this workforce study is a perception that there may be more opportunities for career opportunities and advancement within manufacturing than within some other entry-level occupations and industries. Company interviews revealed that promotion opportunities and practices varied a great deal depending on factors such as the size of the business, whether it was family-owned, the age of the business, level of unionization, and diversity of products made. The companies that offered the most opportunity for employees to move around and become promoted a) produced multiple products and b) had a multi-tiered leadership structure.
Business Challenges

We asked survey respondents to identify their most important challenges when it comes to recruitment and retention (at all job levels). Although we asked them to think beyond the elephant in the room (cost of living in SF), for many businesses that really was the crux of their challenge.

Cost of Living

Businesses simply could not pay enough to attract and keep workers in the positions where they needed them. Sample comments included:

- Competitive market for labor. Higher pay can be found at companies that are funded by Venture Capital firms.
- Finding the right fit and being able to pay them enough!
- Hourly rates are not enough for most. Most entry-level positions would require workers to work two part time jobs to afford living local. I offer flexible hours so that my employees have that opportunity.
- Competitive market has startups and dot-coms hiring entry-level people quickly after we train.

Transit Accessibility

Cost of living also impacted another commonly mentioned challenge, which had to do with transit accessibility, especially for workers commuting from outside the city because of cost of living concerns.

- High rent leading to less transit-accessible locations.
- Finding individuals that can handle the commute to Bayview... generally these workers live in the East Bay or Sunset and the commute via public transportation is really terrible. I wish SF had a better and more efficient transit system, because some employees can take up to an hour to get to work, from within SF, taking public transit.
- Public transit. My employees are commuting from further and further away. They cannot get to work via Bart, especially on Sundays.

General Employability Skills

Where respondents mentioned worker-related challenges, many reflected the sorts of soft skills/employability skills described above:

- Dependable workers who take pride in producing products.
- Finding someone dedicated to the job.
In terms of recruitment, it's hard to find people who have the jack-of-all-trades skill set we need for our tiny company. There are a lot of people who have some of the skills we need, but not all of them, or people who don't know how to self-start to manage their time and projects.

The individual needs to have passion about the subject matter and dedication to the highest quality product possible.

Job Specific Skills

Other respondents were looking to hire workers with at least some specific skills:

- Skilled workers are hard to find because of advanced age and lack of new comers into the industry.
- Lack of qualified individuals — local jewelry programs offer inadequate training for even entry-level positions. Lack of access to inexpensive training opportunities that could be done in house.
- I've had employees stay for years. The hard part is getting new ones with experience.
- Training someone takes months, so it is difficult to retrain new people to have the same high quality production level.

Retention & Advancement

And others were concerned about a general lack of interest in the industry or in making the kind of long-term commitment they are looking for:

- Finding smart people that are willing to work repetitive manufacturing jobs.
- Blue collar manufacturing is not a glamorous or appealing career that holds younger people.
- Job hoppers - sense of career and return on training investment.
- Candidates that don't consider the role when applying.
- Transient, distracted workforce.

Labor Market Mismatch

In an interview, one of the workforce partners identified what she sees as a fundamental mismatch between the desires of employers and the job pool in the city, which echoes the challenges expressed by the businesses above. San Francisco manufacturers – especially new businesses – tend to be small, artisanal companies. In her experience, they are looking for people who have the flexibility to work both front and back of the house – the “jack of all trades” mentioned above. The positions need higher skilled English-language speakers, and those job seekers are not necessarily interested in manufacturing. In her experience there is a pool of low-skilled and/or monolingual candidates who are more likely to want manufacturing positions, but they don’t have the skills that employers are looking for.

San Francisco’s low unemployment rate may also be contributing to a diminished pool of potential workers. With a current unemployment rate of only 3%, the remaining unemployed job seekers are likely those who face a variety of barriers/challenges related to poverty or other issues.
Exploring Solutions to Business Challenges

The project steering committee identified a variety of possible initiatives and actions that could be taken to address the challenges identified by San Francisco manufacturers. While the committee was able to envision potential responses to many of the challenges raised, in some cases the group didn’t see a way that they could effectively implement the response in order to impact the challenge. For example, while everyone agreed that increasing transit opportunities was important and would help address company challenges, most felt that this group did not have the leverage to make that happen.

However, the committee did identify a few specific initiatives that they felt had the most implementation potential. Those included:

- Create a manufacturing-specific soft skills training/work readiness program that is employer driven.
- Start a mission-driven and manufacturing specific temp-to-perm staffing agency, under an alternative staffing agency model.
- Launch a job seeker engagement initiative to improve awareness about opportunities within manufacturing and improve the image of the industry by more accurately describing the modern manufacturing landscape.

In the next section we explore each of these in turn, providing information on how such initiatives have been implemented elsewhere and identifying questions to be answered and steps towards implementation that could be taken.

Manufacturing-Specific Work Readiness Program

While many businesses would be happy to hire someone with a prior manufacturing experience or demonstrated mechanical aptitude, those skills and experiences were not the most important skills for entry-level employees. Instead, the businesses are looking for employees who possess a variety of skills and characteristics that will make them good employees. These skills are often referred to as “work readiness skills.” They are skills and behaviors that are necessary for any kind of job, rather than tailored to a specific occupation. Work readiness training is an essential part of many workforce training programs. This is especially true for those training programs that are attempting to increase the labor force attachment of lower-skilled/low-income workers and people who have not previously been attached to the labor market, including youth.

Most businesses look for evidence of these skills during the interview process. Did the interviewee show up on time? Had they researched the company in advance? Were they dressed professionally? Did they communicate articulately? In the absence of a mechanism to assess employability skills, some employers use education as a proxy, such as preferentially hiring those with a Bachelor’s degree even for jobs that do not require one. This increases the barriers to employment faced by lower-skilled workers who may still be qualified for a given job.

General categories of work readiness skills include:\(^\text{12}\)

- Job search skills (completing job applications, preparing cover letters and resumes, interview preparation)
- Job keeping skills (importance of attendance and punctuality, work ethic, importance of timeliness of task completion)
- Interpersonal and communication skills (speaking, listening, conflict resolution, politeness, professional behavior)
- Information skills (asking questions, understanding instructions)
- Thinking skills (problem recognition and problem solving, decision making)
- Personal qualities (self-starter, honesty and integrity, personal hygiene and appearance, perseverance)

While general work readiness training programs can be very effective, research shows that programs tend to be even more successful when they are contextualized to a particular industry, occupation, or work environment, rather than generic. While most people have some idea of what working in a restaurant or retail service environment would be like, fewer have any experience with the environment and norms of a manufacturing business. For example, manufacturing work is hands-on and fast paced, and can include long periods of sitting, standing, and/or repetitive physical movements. Depending on the product being produced, it may be loud and/or hot work. Safety and cleanliness is of paramount importance. Workers are part of a system, and must be able to do their part of the process in a timely and consistent manner and work well with others. While the work can be repetitive, it must meet quality standards each and every time. Most San Francisco manufacturing businesses are small, so workers often need to be flexible and able to take on different roles as needed. Small businesses operate on thin margins, so efficiency is prized and rewarded. When programs are contextualized, participants gain specific skills needed to perform well within the manufacturing environment and are more likely to stay in the job because they know what to expect before they are hired. Such programs also typically require participants to treat the training program as if it were a job, and participants can be removed from the program if they don’t exhibit good work behaviors such as showing up on time and dressing appropriately.

SFMade member Nana Joe’s uses a skills test during the job interview which provides a good example of the sorts of skills a contextualized work readiness program could teach. Candidates are given a large pile of peaches to chop, and are observed to see how they perform. The interviewer is not only looking to
see how well or how quickly the candidate chops the peaches, but if they are able to do production line problem solving during that time. Do they look for ways to cut the peaches more quickly and effectively/efficiently? A contextualized work readiness program could include manufacturing specific technical skills like knife techniques, large scale production and safety, but could also teach people how to adapt, improvise, and look for ways to increase efficiency and solve problems, which are qualities that companies value highly in an entry level employee.

Program Examples

There are a number of examples of these kinds of contextualized training programs. The exact format and content varies depending on the type of manufacturing that is prevalent where the program is being delivered. Examples include:

- **Manufacturing Pre-Employment Program** (Everett Community College, Everett, WA): “The Manufacturing Pre-Employment program serves as an introduction to manufacturing. The knowledge and skills acquired in the Manufacturing Employment Readiness course are required for entry-level positions in diverse workplace scenarios with special emphasis on aerospace. Graduates of the Manufacturing Pre-Employment program receive a manufacturing pre-employment certificate and the national career readiness certificate.” The program is a one-quarter, 12-credit optional pathway within an associate degree program, but is also offered as a stand-alone credential for people seeking to enter the manufacturing field. Course topics include:
  - Core workplace skills (reading for information, applied mathematics, problem solving)
  - Technical skills (manufacturing basics and environment, blueprint reading, shop tools and vocabulary)
  - Advanced manufacturing introduction (primarily aerospace specific topics)
  - Soft skills (personal accountability, teamwork, workplace culture)
  - Job finding skills (results, job applications, behavioral interviewing)

- **Manufacturing Work Readiness Program** (Grand Rapids Community College, Grand Rapids, MI): This short term accelerated program prepares participants for entry-level work in area manufacturers, including giving them “an understanding of what it means to work in manufacturing and what you need to succeed and grow in that career.” Topics for the class were selected by local manufacturing human resource managers, and successful completers are guaranteed at least two job interviews with local manufacturers. Topics include:
  - Communication and Teamwork
  - Manufacturing 101, measurement and manufacturing math
  - Understand basic quality assurance
  - Learn basic blueprint reading
  - Practice and demonstrate workplace skills
  - Learn Job Readiness Skills including interviewing techniques

- **Industrial Readiness Training** (Southwest Tennessee Community College, Memphis, TN): “The IRT is a four week program at Southwest Tennessee Community College designed to prepare individuals for jobs in local manufacturing and industry. The training teaches and measures foundational technical, academic, and interpersonal knowledge and skills that have been identified by local industry leaders as critical to long-term employee success. Applicants are
assessed using both ACT’s WorkKeys and mechanical skills aptitude testing. Students who successfully complete the IRT program have demonstrated significant improvement in both test scores.”

Manufacturing Readiness Program (Oh-Penn Manufacturing Collaborative): This program is a product of a manufacturing collaborative that spans 5 counties across two states (Columbiana, Mahoning and Trumbull Counties in Ohio and Lawrence and Mercer Counties in Pennsylvania). “The MRP combines two weeks of “soft skills” training, which includes everything from goal planning to the importance of getting to work on time, followed by four weeks of skill training, which includes OSHA-10 and Certified Production Technician critical production functions. Participants receive training in Safety, Manufacturing Processes and Production, Quality Practices and Measurement and Maintenance Awareness. In addition, each participant will also earn a WorkKeys credential.”

As demonstrated above, the programs vary considerably in terms of the balance between technical and soft skills training. Many of these were designed for advanced manufacturing environments and or local manufacturing sectors made up of large manufacturers which may have little in common with San Francisco businesses.

What would it take to do this here?

In the interviews, employers indicated that they felt they could train workers in the technical skills needed for their specific entry-level positions but expressed interest in a training program that prepared potential entry-level workers in these kinds of work readiness skills. Following the steering committee meeting we reached out to a variety of workforce partners (see Acknowledgements for list), and many of them agreed that they saw a need for work readiness training, both overall and contextualized to manufacturing.

There are several key elements to investigate to determine if such an approach is feasible or appropriate. These are:

1. Determining hiring demand by employers in San Francisco to justify starting up a training program: is the volume of demand high enough to absorb training graduates?
2. Determining commitment by employers to champion the program’s creation, inform its development, and hire its graduates.
3. Determining the capacity of local providers to create and sustain such a program, including a funding/investment strategy to do so.

One concern raised by the workforce partners and potential training partners is that of scale. As noted previously, the overall size of the manufacturing industry in San Francisco is small, and according to labor market projections, may decline over the next five years. While some hiring is anticipated among SFMade members (an estimated 1,200 jobs over the next two years), that hiring is spread across more than 700 individual businesses, so the number of people being hired by any given business at any given time is likely to be very small, and some of those businesses do not even have entry-level openings that training participants would be qualified for. Currently there are roughly 5-7 entry level job openings posted on the SFMade job board at any given time, and about 20-25 positions total. In order to have enough job openings to meet trainee demand, the program might need to look outside the city of San Francisco for placement opportunities.

For a program to be launched here, it would be key to engage local businesses in identifying the specific skills that they are looking for and which could be included in such a program. Examples from our research include:
Active listening
Showing interest in the product
Evidence that they researched the position and the company
Time management
Strong work ethic
Personal characteristics: energetic, positive attitude and pride/ownership in one’s work
Ability to persevere and achieve a goal
Able to hustle, has a “need for speed”
Detail-oriented while doing consistent work

This list is just a starting point. Significant business outreach would need to be conducted in order to identify the skill needs that would drive the development or adaptation of a training curriculum. Credentials and programs like this must be business driven to be successful. This would require engaging businesses as partners throughout the program, which could include:

- Curriculum development assistance. This should include not only asking the management or human resources staff about what skills they look for, but also interviewing actual workers in the companies to find out what kind of skills they think are important to their work.
- Participation in the actual training program delivery, such as acting as mock interviewers and opening up their facility for site visits for trainees.
- Commitment to interview and/or give preference in some way to applicants who completed the training program.

Another important element in proceeding would be identifying a training provider. There are a variety of training providers in San Francisco who offer work readiness programs, either on their own or through OEWD sector initiatives. A program like this would benefit from aligning program elements and strategies and building partnerships with organizations in SF that have a demonstrated ability to develop the curriculum, engage the students and deliver a training that leads to job placements. A preliminary list is below of potential partners includes:

- Mission Hiring Hall (currently offers work readiness for hospitality program)
- FACES SF (offers airport hospitality soft skills training)
- Jewish Vocational Services
- Goodwill
- Young Community Developers (currently working with Hunters Point Family on a training program for the EPA)

### Key Actions/Next Steps for Work Readiness Program

- Conduct outreach to employers to gauge their willingness to participate in the program, and in what capacities.
- Conduct outreach to potential training providers to understand existing offerings and to determine what scale of demand is needed to justify program delivery.
- Identify potential population targets for such a training program. (Low income adults? Youth? Other?)
- Investigate funding sources for developing and delivering the training.
Manufacturing-Specific Alternative Staffing Organization

Many companies take advantage of the services of temporary staffing agencies. These firms offer recruiting and screening services that are crucial to small and medium-size companies who lack the resources to effectively perform these functions themselves. Traditionally companies may have used staffing firms primarily to staff up for short bursts of increased business. Now an increasing number of companies are adopting temp-to-perm models where potential permanent hires are first brought on temporarily through a staffing agency. Our research did not ask businesses specifically about their use of temporary agencies, but several mentioned that they use them.

Alternative staffing organizations (ASOs) are temporary staffing firms operated by community based organizations and which usually have a mission to serve a particular population, such as low-income or lower skilled workers. These firms often provide job readiness and basic skills training to potential employees before placement. Research shows that while many companies may first turn to these firms from a corporate social responsibility perspective or out of a need to meet diversity requirements, they find that ASOs perform competitively with conventional staffing agencies. As mission-drive organizations focused on improving the position of low-income or lower skilled workers, they are often better suited for supplying workers for entry-level or low-skilled positions. And because of their mission-driven focus, the staffing organization is highly motivated to ensure that each individual worker succeeds on the job, as opposed to the high-volume, low-margin strategy of some conventional agencies.

The steering committee expressed interest in possibly establishing such an organization. The organization would be focused on providing placements for temp-to-perm jobs within the city’s manufacturers. Such an organization could help address concerns expressed by businesses about the difficulty of finding qualified applicants, since the organization would be responsible for initial screening. The organization could be tied to the Manufacturing Work Readiness Program described previously, such that job seekers would need to complete the program before being eligible for placement.

Steering committee members were concerned that it might be difficult for SFMade to attract and maintain a standing pool of temporary workers that would be needed to be able to quickly meet employer demand as expected in the temporary agency. Alternately, SFMade could simply expand its recent “Enhanced Referral Process” efforts. This would include conducting additional pre-screening on job seeker referrals from community-based organizations and workforce agencies before referring them to companies looking to hire. For example, SFMade has recently conducted phone screenings and set up back to back in person screenings for two brewery members, resulting in successful hires.

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**Key Actions/Next Steps for Alternative Staffing Agency**

- Conduct a landscape analysis to understand the extent to which alternative staffing programs exist in San Francisco already.
- Research and understand the business model, leveraging the work and resources of the Alternative Staffing Alliance (http://altstaffing.org/) and REDF (http://redf.org/).
- Conduct outreach to employers to determine their level of interest.
- Identify potential implementation partners.
- Investigate start-up funding sources.
Create a Job Seeker Engagement Initiative

The manufacturing industry has long faced an image problem. As businesses stated in interviews, “[it is hard to] find smart people that are willing to work repetitive manufacturing jobs” and “blue collar manufacturing is not a glamorous or appealing career that holds younger people.” Some of this is reality, but much of it is perception. There are career and advancement opportunities within San Francisco manufacturers, and the face of modern manufacturing is very different than many people’s expectations of the industry. An effective marketing campaign could tap into people’s excitement about food, fashion, and technology, and show them how they could translate that excitement into a job in manufacturing.

When it comes to the city’s population of lower-skilled, low-income, and/or ethnically diverse individuals, they may not be aware of the opportunities in manufacturing. Because so many of these businesses are small and young, their hiring efforts may fall below the radar screen of many job seekers. The steering committee expressed interested in possibly launching a campaign or engagement initiative that would help to raise the profile of manufacturing jobs and assist people in finding out about them.

A consortium composed of the 28 Bay Area community colleges, including CCSF has launched an initiative to connect workers to jobs in manufacturing across the region. Their efforts, funded by the California Community College Chancellor’s Office, include the development of a website (http://BayAreaManufacturingCareers.com) to increase awareness of manufacturing opportunities and to help students and jobseekers find community colleges that teach skills need for those jobs. The consortium is joining the Manufacturing Institute’s “Dream it. Do It.” program, which provides resources and information on best practices for increasing awareness of manufacturing careers. While the work of the consortium is focused on the broader Bay Area, the steering committee felt that any work to increase job seeker engagement and awareness in the city itself should be coordinated with their efforts.

### Key Actions/Next Steps

- Get involved with consortium planning activities.
- Conduct research on what job seekers already know, and what they need to know.
- Look for examples of similar engagement initiatives elsewhere.
Conclusions

The manufacturing sector in San Francisco is growing and offers the possibility of career pathways opportunities for low-income and lower-skilled workers. However, businesses face a variety of challenges that include both worker skill issues and larger economic factors. SFMade is ideally situated to be a facilitator in addressing some of these factors and contribute to continued growth and success in the sector.

The workforce and economic development sectors can be isolated from one another, and while many impressive workforce development and training organizations have formed lasting relationships with employers, business intermediaries such as SFMade have the potential to leverage existing relationships to create access to jobs. For example, SFMade helps members with real estate, branding and marketing, and government relations. Small business owners don't have extra bandwidth to form relationships with multiple organizations, so it is efficient and potentially powerful to build on existing relationships as an intermediary between businesses and training organizations.

The three areas of action described in this report show great promise for creating infrastructure to support this sector. Each one could have impact on its own, and there is potential for them to work even better together. For example, the job seeker engagement initiative could drive job seekers to the contextualized work readiness program, and graduates of that program could provide a pool of pre-screened and qualified workers who could be either referred for direct employment or placed with employers as part of an alternative staffing agency model.

The benefits of creating a strong support infrastructure for manufacturing in the city could extend beyond success for individual workers and businesses and to the sector itself. Strengthening overall employability for entry-level workers in manufacturing could attract entrepreneurs and new businesses who see the opportunities of a reliable talent pipeline. This could help the manufacturing sector continue to grow and thrive.

This report lays the groundwork for reaching this vision. Further research and relationship building will be required to determine the feasibility and scope of work to be done.
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Appendix A – Definition of Preparation Levels

CSW uses the following categorization of occupations by the amount of education and/or training needed to enter the job.

- Minimal Preparation: jobs that usually only require a high school diploma or less, with or without short-term on-the-job training
- Moderate Preparation: jobs that usually require a high school diploma and one of moderate to long-term on-the-job training or apprenticeship, as well as jobs that usually require some kind of postsecondary training such as a certificate program, including some college but no degree
- High Preparation: jobs that require prior work experience in the occupation regardless of education (i.e. first line supervisors), as well as any job requiring an associate’s degree or higher
Endnotes

1 Economic Modeling Systems Inc
2 ibid
3 ibid
4 ibid
5 Author’s calculations from Economic Modeling Systems Inc data
6 Economic Modeling Systems Inc
7 Author’s calculations from Economic Modeling Systems Inc data
8 Economic Modeling Systems Inc
9 Our extrapolation method was limited. We did not attempt to make a projection as to if companies with zero employees current will hire any, and we did not include companies that didn't give size data. Our extrapolation also assumes that every company will be hiring, and doesn't reflect that some of those businesses will no doubt contract or fail completely.
10 Burning Glass Technologies Labor Insight Tool
11 Burning Glass Technologies Labor Insight Tool
12 Adapted from https://jfs.ohio.gov/owd/WorkforceProf/Youth/Docs/infobrief20-WorkReadinessSkills.pdf
13 https://www.everettcc.edu/programs/aamc/pre-employment
14 https://learning.grcc.edu/ec2k/CourseListing.asp?master_id=1501&course_area=CEMF&course_number=132&course_subtitle=00
15 http://www.southwest.tn.edu/irt/