Anchors in Resilient Communities Regional Food System Project Workforce Assessment

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Introduction

In a thriving economy like the Bay Area's, no one should be too poor to live a healthy, fulfilling life. Yet soaring housing prices and the exorbitant cost of living in the area especially challenge working families who face barriers to good jobs and the support they need to start businesses and create wealth. Too often those struggling the most are people of color, disabled people, children, and the elderly. These most vulnerable citizens are also the hardest hit by the added challenges that climate change is presenting; extreme weather conditions, droughts, wildfires, and rising food and energy costs hit people of color and those already on shaky financial ground the hardest.

These inequities are not natural or inevitable. They are the result of a series of decisions made by people with power to benefit some groups over others. As a result, generations of disinvestment and harmful policy decisions have drained certain communities of basic resources and disconnected them from the chance to live up to their potential. While people of color and low- and moderate-income families bear the brunt of these injustices, their lack of connection to opportunity holds all of us back from living up to our values and our region's economic potential.

Anchors in Resilient Communities (ARC) believes that it is within the collective control of institutions and individuals to make better decisions and design a local economy that works for everyone. Working collectively, ARC seeks to create opportunity for all East Bay residents to fully participate on the Bay Area economy and live a full and healthy life.

ARC is a multi-stakeholder initiative co-coordinated by Emerald Cities Collaborative (ECC) and Health Care Without Harm (HCWH) that leverages the assets of Bay Area anchor institutions and community-based partners to improve the social determinants of health and build resilience in the Bay Area community. Anchor institutions such as hospitals, schools, municipalities, and universities are rooted in communities, holding significant investments in real estate and social capital, and often are among the largest employers in their region. They are often explicitly oriented toward supporting community health and prosperity in alignment with their missions. The anchor institutions engaged with the ARC initiative fit each of these criteria. By aggregating and coordinating the purchasing power and collective investment of the region's anchor institutions, ARC aims to expand community wealth and ownership, improve health outcomes, and strengthen the capacity of communities of color and low and moderate-income residents to be resilient in the face of climate and economic disruptions.

ARC's Regional Food Systems Project aims to document the assets of the regional food system within 250 miles of the Bay Area, and identify actions that anchor institutions in the region can take to foster a local food supply chain capable of meeting institutions' growing demand for healthy, sustainable and local foods. ARC also aims to identify opportunities for anchor institutions to leverage their influence to shift rural farmers toward water-saving, soil-health building production practices, and to encourage innovative urban food production, all of which can foster California's agriculture resilience to climate change. Within those efforts, ARC is partnering with Food Service Partners (FSP) on the development of the MyCultiver Food Production Center in Richmond, which aims to purchase directly from local and sustainable farmers, develop hydroponics production within its facility, and foster relationships with community-based organizations supporting healthy food access in urban communities in the East Bay.

In pursuit of ARC's objectives to build health, wealth, and climate resilience within communities most vulnerable to health and wealth disparity and climate-based disruption, there is an opportunity to explore wealth building in the form of job quality improvement in certain sectors within the food system of the Bay Area. ECC brings to this work decades of experience partnering with workforce development intermediaries in the East Bay, and as part of the partnership with FSP, ECC is leveraging these connections to foster union-supported, living wage career pathways for residents with barriers to employment. This assessment provides a deeper analysis of the economic context around food production in the Bay Area and the opportunities within the food system for improving job opportunity and job quality for workers in the most vulnerable communities in the region.

The goals of this assessment are to:

- 1) Synthesize relevant findings from locally-based workforce and economic development assessments and regional plans to articulate the context of this work;
- 2) Document the status of career opportunities, wages, and career pathways in the Bay Area, with particular focus on the food sector occupations most relevant to the ARC project;
- 3) Identify barriers to high quality jobs in the food sector in the East Bay and potential opportunities to surmount those barriers; and
- 4) Describe how ARC and its partnerships with anchor institutions, workforce development organizations, and local food enterprises could strategically act to improve the East Bay community's access to quality employment in the regional food sector.

This assessment pays particular attention to the East Bay communities of Oakland and Richmond because of ARC role as a supporting partner of the development of the MyCultiverTM Richmond food processing facility in Richmond, and because of ARC's partnership with the Building Healthy Communities Initiative, funded by The California Endowment (TCE). TCE committed to \$1Billion dollars total, for 10 years, commencing in 2010, in Fourteen Communities in California, that faced decades of disinvestment, were underserved, and represented communities of color, and constituents with barriers to employment. Richmond and East Oakland were two of these fourteen locals, and TCE funded Anchors in Resilient Communities to target sector development and project opportunities within these areas. Specifically, ARC was fulfilling one of the 10 objectives outlined in TCE's goals focused on economic development:

Community health improvements are linked to economic development. All communities deserve their fair share of economic resources. New projects should balance economic gains with health and environmental concerns, and guarantee that local residents reap the benefits of economic development.

http://ca-endow.s3.amazonaws.com/wp-content/uploads/Ten-Outcomes.pdf

Methodology

This assessment drew largely from secondary data via literature review and novel data analysis, while producing primary data through informal interviews with key stakeholders. Data collection included:

- 1) Literature review of local workforce assessments, governmental and urban planning publications, local workforce development project case studies, and food system workforce assessments in other communities;
- 2) Stakeholder interviews of economic analysts, workforce development partners, food sector employers, and labor organizers;
- 3) Public data downloads from U.S. and California state labor agencies; and
- 4) Online prospecting of non-profit organizations, educational institutions, and community-based projects that are engaged with food sector-relevant training and education.

Findings

Bay Area: Economic & Workforce Context

Overview

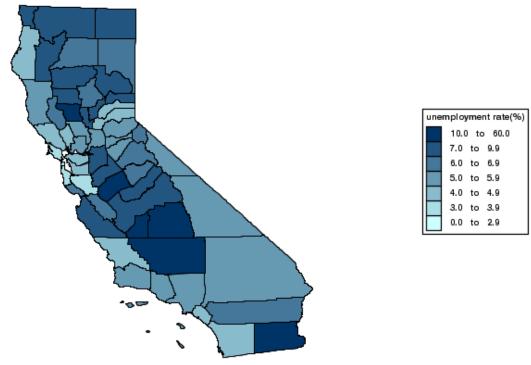
The nine county-region known as the San Francisco Bay Area has a dynamic, thriving economy with diverse employment and educational opportunities. However, the region is also experiencing increasing income inequality and a severe housing crisis that is contributing to migration, displacement and poverty, especially among its most vulnerable community members. An influx of people from Boston, Chicago, and New York City are arriving to take advantage of the many assets of the area, while significant out-migration is occurring to Sacramento, Portland, Phoenix, Seattle, Austin, and Denver, especially among people with lower household incomes (P1). Recent analysis shows that the annual household income of people moving into the Bay Area is \$20,000 more, on average, than those moving out of the area (P1).

Assets

Compared to sister regions nationwide, the Bay Area outperforms in many measures of upward mobility for low-wage workers, due in part to lower levels of spatial segregation by socio-economic class (Terplan and Mehrens, 2014). The region has rebounded from the recession strongly, and has captured large venture capital investments, which drive innovation and job growth throughout the economy (Terplan and Mehrens, 2014). Compared to the rest of California, unemployment is relatively low in the Bay, Figure 1 illustrates (Bureau of Labor Statistics, 2018, City of Oakland, 2016).

Figure 1: Annual Unemployment by County, 2016

Unemployment rates by county, not seasonally adjusted, California Annual 2016



Source: Bureau of Labor Statistics, 2018

Challenges

Mirroring a nationwide trend, middle-income jobs in the Bay Area are shrinking. In fact, income inequality is now higher in the Bay Area than in California or the U.S. as a whole (Terplan and Mehrens, 2014). Economic analysis from SPUR, a leading urban planning organization in the Bay Area, indicated that, currently, more than one third of Bay Area residents earn less than \$18 per hour, and the majority of those low-wage workers earn less than \$12 per hour (Terplan and Mehrens, 2014). Such low-wage jobs are growing at a faster rate than any others in the economy, but increasingly lack pathways to higher-wage work (Terplan and Mehrens, 2014). The Association of Bay Area Government's analysis of the economic outlook in 2040 echoed this dynamic, signaling a continued hollowing out of the middle class, as shown in Figure 2 (ABAG, 2016).

Figure 8: Projected Household Income Distribution (Bay Area, *1999 Dollars) <30,000* **\$30-\$59,999 \$60-\$99,999 \$100,000+*** 1.2 Millions of Households 1 0.8 0.6 0.4 0.2 0 2010 2015 2020 2025 2030 2035 2040

Figure 2: ABAG Projections of Household Income Changes Over Time

Source: ABAG household income distribution analysis.

Contributing to those projected income shifts are changes in the types of jobs that are expected to grow in the region. Higher paying jobs and some middle-wage jobs are expected to grow over the next 30 years, while many middle and low-wage jobs are expected to stagnate or decline (except for construction, which is expected to grow after 2025, as shown in Figure 3 (ABAG, 2016).

Projected Employment by Sector, San Francisco Bay Area 9 County Area, 2010 to 2040 **Thousands** Prof'l & Managerial Services Health, Educational Services Arts, Recreation, Other Serv ი გ Government Manufacturing & Wholesale 0.6 Retail Construction 0.4 Financial & Leasing 0.2 Information Transportation & Utilities Agriculture & Nat Resources 2015 2020 2025 2030 2035 2040 Year

Figure 3: Projected Employment by Sector

Source: Analysis by Caitlin Joseph using data in ABAG forecast based on REMI version 1.7.8, model NC3RC1

Geographically, low-wage workers live and work in all corners of the Bay Area, not only in historically "high need" communities (Terplan and Mehrens, 2014). However, low-wage workers tend to work in the same counties they live in, which suggests that county level efforts to support low-wage workers are likely to produce gains for local economies (Terplan and Mehrens, 2014). Creating meaningful pathways from low-wage to middle-wage work will be critical for the Bay Area to achieve sustainable economic prosperity.

Health Impacts of Income Inequality

In addition to economic challenges, growing income inequality has implications for population health. Much research has found inverse relationships between income inequality and life expectancy within populations (CDFA, 2014). Such research suggests that high levels of inequality negatively affect the health of both the poor and the affluent (CDFA, 2014, Inequality.org, 2018). This body of research suggests that communities with large income disparities experience less social cohesion and individuals may experience higher rates of stress, fear, and insecurity that contribute to ill health (CDFA, 2014, Inequality.org, 2018). Nutritional inequality (the tendency for wealthy people to eat more healthfully than the poor) is also well documented in the U.S. (Alcott and Dubé, 2018). In fact, an increasing body of evidence suggests that income has a larger impact on diet quality and health outcomes than neighborhood environmental factors such as access to a grocery store (Alcott and Dubé, 2018, Wilde and Ver Ploeg, 2014). Such evidence suggests that healthcare institutions engaged with promoting population health should focus on lifting incomes for the lowest paid workers in addition to addressing the lack of healthy food access with high-need neighborhoods.

To address these challenges, government and non-profit agencies engaged in economic development, workforce training and education programs, and public health will need to be more closely coordinated. For example, decision-makers capable of encouraging business development can foster more equitable economic gains by focusing on growing middle-wage job opportunities (Terplan and Mehrens, 2014). A 2014 Economic Prosperity report from SPUR noted that development agencies in the Bay Area often focus on retail development as a means of enhancing growth in the form of local tax revenues (Terplan and Mehrens, 2014). Retail establishments, however, create lower-wage jobs than manufacturing and warehousing establishments, which tend to hire a higher number and variety of middle-wage jobs (Terplan and Mehrens, 2014). With greater alignment of priorities, it is possible to foster economic growth and health equity through increased incomes for the lowest-paid workers.

The following section zooms in to describe the workforce context of the communities of Oakland and Richmond.

Oakland and Richmond Workforce Dynamics

Overview

The East Bay is one of the most diverse places in the nation racially, economically, and ecologically (ABAG, 2015). This diversity has enabled the East Bay to become a hotbed of innovation especially for craft entrepreneurs, including in those in food (ABAG, 2015). Additionally, the area has a strong network of community-based non-profits, including many that serve in an economic development role for the agriculture and food sector (SAGE and AFT, 2017, ABAG, 2015).

Assets

The East Bay's workforce has a wide range of education and skill levels to meet the needs of this diverse economy (ABAG, 2015). One of the East Bay's historic strengths is its strong network of anchored healthcare and education institutions, which represent the few growing industries that offer middle wage jobs (ABAG, 2015).

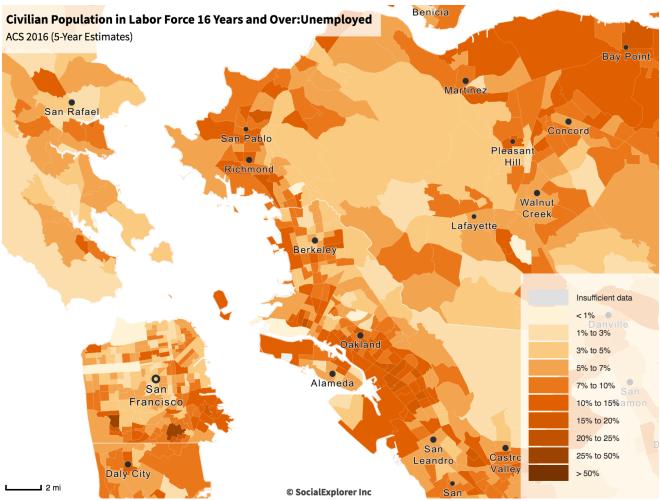
In recent years, the East Bay region has grown jobs on pace with the rest of the nation, but slightly slower than the San Francisco Metro Area (East Bay EDA, 2017). From 2016-2017, the fastest growing sectors of the East Bay's labor market included Wholesale Trade (5.2%), Construction (4.2%), Educational Services (4.1%), and Healthcare (2.8%), the latter of which produced the largest total jobs gains of all industries (East Bay EDA, 2017). Food Services, Leisure and Hospitality industries have also experienced significant gains in recent years (ABAG, 2015, East Bay EDA, 2017).

Challenges

Despite these positive trends, many low-wage workers in the East Bay are not benefitting substantially from this broader labor market growth. Over the long term, high wage sectors are projected at the forefront of job growth with Management and Professional Services expected to grow by 8.7% and Information Services by 11.6% between 2017-2021 (East Bay EDA, 2017).

This trend is concerning, especially for specific communities where unemployment remains high, such as in pockets of Richmond and Oakland where many residents face structural barriers to employment. Figure 4, for example, shows that in 2016 a substantial number of census tracts in Oakland and Richmond had rates of unemployment between 7-25%.

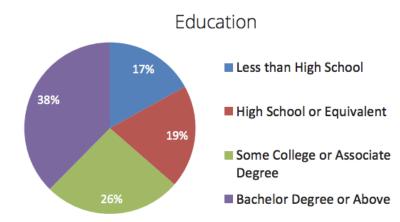




Source: American Communities Survey, 2016 (5 Year Estimates), Accessed via Social Explorer

Educational attainment among residents in the East Bay is varied, including a substantial portion of the population that lacks college experience, as shown in Figure 5 (ABAG, 2015). For the 36% of the population that have not pursued education beyond high school, accessing the increasingly small number of middle income jobs will be an even greater challenge in the coming years.

Figure 5: Educational Attainment in the East Bay



Source: East Bay Corridors Report, ABAG

Across sectors, employers in the East Bay report that local graduates lack needed skills (ABAG, 2015). As a result, they often hire from outside the community to fill in skills gaps (ABAG, 2015). Schools and community colleges are taking steps to improve skill levels to match employer needs. For example, I-180/880 Linked Learning program connects students to job & networking opportunities while in school (focused on STEM) (ABAG, 2015). Among food service employers and within the food entrepreneurship sector, technical training in food safety is currently in high demand. Though educational improvements are needed, much research suggests that improving wages may also help employers attract more qualified workers, thus increasing workers' the efficiency, productivity, and the profitability of their firms (Helper and Noonan, 2015, FCWA, 2012, SAGE and AFT, 2017).

With the current wage conditions, East Bay-located food service and manufacturing businesses, in particular, are finding it challenging to secure sufficient and reliable workers for their facilities (RichmondWorks, 2018). One of the underlying dynamics of this challenge seems to be entry-level workers' lack of awareness of career opportunities in these industries (many pursue restaurant work instead) as well as a high turnover of workers hired into the industry due to challenges experienced during entry, such as adjustment to workplace culture and lack of transportation access to industrial facilities (RichmondWorks, 2018). While employees and employers are both likely to benefit from increasing workers' awareness of job opportunities in the food sector, on-the-job factors such as supervisor support and compensation should also be addressed. National research across many industries suggests that improvements to wages and benefits increase employee loyalty and productivity enough to raise revenues that make up for the increased compensation costs (Helper and Noonan, 2015).

The next section discusses dynamics that are specific to the food system and its workforce, including greater detail on how employers in these industries fit into the larger food chain context.

U.S. Food System Workforce

Occupations in the Food System: Framing ARC's focus

The U.S. food system is comprised of several core industries from farm to fork, each with their own unique workforces and labor practices. Table 1 summarizes these core industries and the key occupations in each.

Table 1: Food Chain Workers

Industry	Occupations
Food Production	Farmworkers, foreman, farm operators, farm owners, as well as a host
	of others involved in the creation and delivery of agricultural inputs.
Food	Slaughterhouse workers, food processing machine operators, bakers,
Processing/Manufacturing	canners, confectioners, production line workers, forklift operators,
	entry level mechanics, warehouse staff, and others engaged in
	transforming raw agricultural products into finished products for
	storage and sales.
Food Distribution	Warehouse workers, truck drivers, sales managers, refrigeration
	technicians, logistics managers, etc.
Food Retail	Grocery store workers, convenience store operators, etc.
Food Service	Restaurant and food service workers engaged in the preparation of
	food for public consumption. Broadly, this includes workers in
	restaurants, catering companies, and food truck, in addition to food
	service establishments such as school cafeterias and other institutional
	dining halls.

Certain well-paying occupations are also in demand cross several food industries, such as mechanics, electricians, boiler operators, HVAC specialists, and Quality Assurance specialists.

Since the ARC initiative is focused on supporting anchor institutions¹ in fostering the social determinants of health in their communities, this assessment is particularly interested in the workforce dynamics and opportunities in Food Processing/Manufacturing and Institutional Food Service occupations. Due to the higher prevalence of unionization in the food processing industry, this sector in particular presents a strategic opportunity for ARC to leverage increased job quality (FCWA, 2012). Additionally, ARC's partnership with values-aligned anchor institutions, food service companies, and community-based workforce development organizations presents a potential opportunity for it to influence job quality and create pathways for workers to access jobs at values-driven employers.

The next section discusses the challenges workers face across the food chain in the U.S. Since this assessment is most concerned with the Food Processing/Manufacturing and Institutional Food Service sectors, the following section also highlights challenges that are unique to occupations within those industries.

¹ Currently, the ARC initiative brings together anchor institutions that include hospitals, universities, and the food service companies in their supply chain.

Inequity in the Food System Workforce

Although there are exceptions, most front-line jobs in the U.S. food chain pay low wages and offer few opportunities for workers to advance. The Food Chain Workers Alliance (FCWA) is a non-profit organization dedicated to documenting the experiences of these front-line workers and advocating for improved working conditions from farm fields to cook lines to grocery stores. Their data, as presented in Table 2, demonstrate that less than 17% of workers earn a living wage in every sector of the food chain, and in many sectors, subminimum or poverty wages are most prevalent (FCWA, 2012). **Ironically, but not surprisingly, food system workers across the U.S. experience higher rates of food insecurity than the rest of the workforce, participating in food stamp programs at more than double the rate of non food-system workers.** (FCWA, 2012). On a macroeconomic scale, such low wages in the industry shift the burden of ensuring food security from employers to taxpayers (FCWA, 2012).

Table 2: Earnings Categories by Food Industry

PERCENT OF WORKERS EARNING A LIVING WAGE IN EACH INDUSTRY

INDUSTRY	SUBMINIMUM WAGE	POVERTY WAGE	LOW WAGE	LIVING WAGE
Agriculture & nurseries	52.4%	40.2%	7.3%	0%
Meatpacking, poultry & food processing	13.1%	38.4%	31.8%	16.7%
Restaurants & food service	21.6%	33%	28.9%	16.5%
Grocery	16.7%	53.6%	14.3%	15.5%
Warehouse	25%	25.9%	35.2%	13.9%
Total	23%	37.6%	25.8%	13.5%

Source: FCWA, 2012

Certain segments of the food chain have greater potential for career advancement, particularly in restaurants and food processing, but even within those segments, advancement typically occurs more readily within firms than across firms in the industry (FCWA, 2012). In reality, however, occupational segregation and systemic discrimination has concentrated people of color and immigrants in the lowest paying positions even within firms, making advancement limited for many entry-level workers (FCWA, 2012). Additionally, surveys of these front-line workers suggest that wage theft across industries occurs at different rates depending on workers' racial identity, as shown in Table 3.

Table 3: Wage Theft Across Food Industry Workers

PERCENT OF INDUSTRY CASES OF WAGE THEFT BY RACE

i	Farm/ agricultural & nurseries	Meat-packing & poultry processing	Food processing, distribution & packing-houses	Restaurant & food services	Grocery	Warehouse	Total Wage Theft
Latino	92.9%	25%	68.2%	36.4%	78.6%	10.3%	57.9%
Black	0%	0%	18.2%	40.9%	14.3%	75.9%	27.8%
White	0%	0%	4.5%	4.5%	7.1%	6.9%	3.8%
Asian	0%	75%	9.1%	4.5%	0%	0%	4.5%
Indigenou	rs 7.1%	0%	0%	4.5%	0%	0%	3%
Other	0%	0%	0%	9.1%	0%	6.9%	3%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Source: FCWA, 2012

Each segment of the food chain has unique challenges for workers. Within food warehouses, for example, workers' most pressing challenge is the temporary, unstable nature of jobs (FCWA, 2012). In a national survey conducted by FCWA, half of food warehouse workers indicated that their jobs were temporary, and another 18% indicated their positions are seasonal (FCWA, 2012). These jobs also take a toll on workers' bodies, with many involving hours working in refrigerators or freezers, lifting and moving heavy loads, and/or being exposed to large, potentially dangerous machinery (FCWA, 2012). Given that few of these workers have health insurance, small injuries and illnesses often turn into life-long health challenges (FCWA, 2012). Food processing and meatpacking facilities also pose health risks for workers, including serious injury and death (FCWA, 2012). Due to stiff competition in the market, many food companies face financial incentives to increase efficiency by expediting line speeds or cutting corners on safety measures, which put workers at greater risk (FCWA, 2012). Few regulatory barriers exist to protect workers from these risks, and for those that do exist, enforcement is often inadequate (FCWA, 2012). For example, in 2012 the U.S. Department of Occupational Safety and Health Administration found that a fatal incident at a tortilla factory could have been prevented if the machine involved had been installed with the proper safety guard (FCWA, 2012).

Beyond the moral imperative for changing these working conditions for food chain workers at all levels, there are a host of practical and economic reasons to take action. For example, a lack of adequate paid sick leave for food pickers, processors, and cooks leads a substantial number of such workers to perform their tasks while ill² (FCWA, 2012).

² When California passed the Healthy Workplaces, Healthy Families Act of 2014, it became the second state in the nation, following Connecticut, to require employers to provide paid sick leave to employees (Barreiro, 2014). As of July 1, 2015, employers in California need to comply with new paid sick leave and minimum wage requirements (Grady, 2016, Barreiro, 2014). Under that law, any employee who works in California for 30 days or more is entitled to receive paid sick leave (Grady, 2016). An employer is required to provide a minimum of 3 days, or 24 hours, of sick leave per year, and an employee may begin to take sick leave after 90 days of employment (Grady, 2016). In addition, Oakland, Richmond, Berkeley, El Cerrito, San Francisco, Santa Clara, and several other Bay Area counties have enacted more

Additionally, many such workers lack health insurance, causing illnesses to linger and become more costly and dangerous for workers and the food they are exposed to. Given that the *one third* of the food borne illnesses reported by the CDC between 1998-2002 were traceable to contamination during production and processing, these practices clearly put the safety of the food supply at risk (FCWA, 2012).

Barriers to Mobility

Many of the same challenges facing low-wage workers across industries apply to frontline workers in the food system. A key barrier for front-line workers in the Bay Area, including those in the food sector, is the lack of opportunities for on-the-job training, which could elevate workers into middle-wage jobs (Terplan and Mehrens, 2014). At the root of this challenge are the discrepancies between the skills employers expect in middle-wage jobs and those that lowwage workers learn on the job (Terplan and Mehrens, 2014). For example, skills such as reading comprehension, English language proficiency, judgment and decision-making, and complex problem solving are difficult to train for on-the-job in many low-wage roles, but are required of nearly all middle-wage jobs (Terplan and Mehrens, 2014). Despite the existence of funds that can support employers in offering training to their employees, many choose not to apply for the funds and therefore few offer paid, on-the-job training (such as internships) that might help workers advance (Terplan and Mehrens, 2014). Additionally, apprenticeship programs are rare, especially and the food sector, and existing programs are difficult for workers to enter (Terplan and Mehrens, 2014). Improved coordination between career counselors, workforce development agencies, and public education campaigns may help workers understand the opportunities to enter existing apprenticeship programs that can offer effective pathways into careers with greater mobility (Terplan and Mehrens, 2014).

Given that there are not enough middle-wage jobs for low-wage workers to move into, it is critical that focus be placed on both improving conditions for low-wage workers while also growing the number of middle-wage jobs (Terplan and Mehrens, 2014). The following section describes what is known about the Food Processing/Manufacturing and Food Service workers in the Bay Area to provide context on where there may be opportunities for improving wages for front-line workers while creating clearer pathways for mobility into higher-wage jobs in those industries.

Bay Area Food Sector Workforce

Overview

The food economy in the Bay Area produces \$113 billion of annual revenue and employs close to half a million people, which accounts for around 13 percent of the region's workforce (SAGE and AFT, 2017). However, wages in the food sector are 64 percent lower than the regional average for all other industries (SAGE and AFT, 2017). For example, in 2015 the average annual wage for the overall agricultural and food sector was \$31,281, while the average

stringent requirements for employers around minimum wages and sick leave (Grady, 2016). For example, as of January 1, 2016, employees in Oakland accrue paid sick leave at the rate of 1 hour for every 30 hours worked, and may begin to use such leave after 90 days of employment (Grady, 2016). More information on the law and specific changes made on the county level can be found in Grady, 2016.

for all other industries was \$87,368 (SAGE and AFT, 2017). While wages in all other industries in the area grew close to 20% over the last twenty years, wages in the agriculture and food sector grew by only 11% (SAGE and AFT, 2017). These staggering statistics suggest that a focus on developing higher wage, union-supported, and career pathway jobs in the food sector could produce gains for thousands of workers in the region.

Trends

Between 1995 and 2015, food-system related employment in the Bay Area increased 42%, almost twice the rate of employment for all jobs in the same time period, expanding that sector's total share of employment from 11% to 13 % (SAGE and AFT, 2017). Within that growth, most jobs were added in restaurants and bars, while employment dropped most in warehousing storage, as shown in Figure 6 (SAGE and AFT, 2017). By 2015, close to two-thirds of total food system employment was in food service establishments (SAGE and AFT, 2017).

Figure 6: Agriculture and Food Sector Employment Trends, Bay Area, 1995-2015

	Total Employment (a)		% Change	
NAICS Code	1995	2015	1995-2015	
Food Production and Support Activities				
111 Crop Production	16,758	11,133	-34%	
112 Animal Production and Aquaculture	1,662	1,200	-28%	
1151 Support Activities for Crop Production	2,408	6,489	169%	
1152 Support Activities for Animal Production	135	268	99%	
Subtotal	20,963	19,090	-9%	
Manufacturing				
311 Food Manufacturing (including animal food)	28,879	25,996	-10%	
3121 Beverage Manufacturing	11,094	21,603	95%	
3253 Pesticide, Fertilizer, and Other Agricultural Product Manufacturing	-	-	n/a	
Subtotal	39,973	47,599	19%	
Wholesale Trade				
42382 Farm and garden machinery and equipment merchant wholes alers	516	439	-15%	
4244 Grocery and Related Product Merchant Wholesalers	13,559	17,375	28%	
4245 Farm Product Raw Material Merchant Wholesalers	68	69	1%	
4248 Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	3,323	6,548	97%	
42491 Farm Supplies Merchant Wholesalers	347	745	115%	
42493 Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers	1,122	1,327	18%	
Subtotal	18,935	26,503	40%	
Warehousing and Storage				
49312 Refrigerated Warehousing and Storage	309	219	-29%	
49313 Farm Product Warehousing and Storage	88	-	-100%	
Subtotal	397	219	-45%	
Retail Trade				
445 Food and Beverage Stores	62,114	77,992	26%	
446191 Food (Health) Supplement Stores	773	1,834	137%	
454210 Vending Machine Operators	570	139	-76%	
44422 Nursery, Garden Center, and Farm Supply Stores	2,402	1,498	-38%	
Subtotal	65,859	81,463	24%	
Food Services				
624210 Community Food Services	329	973	196%	
722 All Food Service and Drinking Places	182,230	292,385	60%	
Subtotal	182,559	293,358	61%	
Total, Ag and Food	328,686	468,232	42%	
Total, All Industries	2,964,060	3,666,533	24%	
Ag & Food-Related Employment as % of Total Bay Area Employment	11%	13%		

Sources: California Employment Development Department, QCEW, 2016; American Farmland Trust, 2016. Notes:

Table Extracted From: (SAGE and AFT, 2017)

In addition to historically lower wages in the food sector compared to the rest of the workforce, wage growth has also been slower overtime and has not kept pace with the rising cost of living (SAGE and AFT, 2017, East Bay EDA, 2017). Broken down by subsector, some positive trends emerge. For example, the Food Production & Wholesale Trade, Manufacturing, and Food Service sectors experienced increases in wages between 1995 and 2015 (SAGE and AFT, 2017). Additionally, wages are higher in the Bay Area for jobs in the agriculture supply, distribution, and processing sectors compared to anywhere else in California (SAGE and AFT, 2017). However, those margins are not enough to offset the increasingly high costs of living for workers in the area. In fact, 75% of households in Alameda and Contra Costa counties cannot

a) Totals do not include estimates for industries with confidential information.

afford to purchase the median priced homes in their counties (East Bay EDA, 2017). Given that food sector workers are some of the lowest paid in these high-cost areas, most food system workers are likely experiencing housing instability.

Food Workforce in Oakland and Richmond

Oakland, Richmond, and the surrounding communities offer a wide range of educational opportunities that can bring workers into the growing food sector employment pool (SAGE and AFT, 2017). There are also a wide range of job opportunities in the food sector, representing an array of training requirements and earning potential (SAGE and AFT, 2017). Alameda County, for example, has the greatest number of food system employees in the Bay Area, as shown in Figure 7. In fact, 28% of the workforce in Alameda County is employed in the food sector (SAGE and AFT, 2017). That high share of employment is attributable largely to the concentration of several large firms that serve mainstream and export trade markets, namely Safeway Canada, Arytza, E-Brands Restaurants, and others (SAGE and AFT, 2017). Santa Clara then San Francisco counties follow Alameda with next highest share of workers employed in the food sector (SAGE and AFT, 2017). Contra Costa County trails behind those, with just over 50,000 food sector employees accounting for 10% of the workforce, where the largest food sector employers in 2017 were PacPizza, C&H Sugar Company, Kellogg Company, and Nancy's Specialty Foods (SAGE and AFT, 2017).

Figure 7: Ag and Food Sector Employees by County

Table 5. Agricultural and Food Sector Establishments and Employees by County

	Agricultural and Food Sector			
County	Establishments	% of Total	Employment %	of Total
Alameda	7,433	19%	132,223	28%
Contra Costa	4,160	11%	50,109	10%
Marin	1,559	4%	15,838	3%
Napa	2,235	6%	21,207	4%
San Francisco	6,366	17%	66,740	14%
San Mateo	3,494	9%	40,488	8%
Santa Clara	7,490	19%	92,162	19%
Solano	1,720	4%	21,380	4%
Sonoma	4,064	11%	39,319	8%
Total, Bay Area	38,521	100%	479,466	100%

Sources: Dun & Bradstreet, 2017; BAE, 2017.

Table 4 below shows the top 20 occupations, by the number of people employed, in the East Bay metro area during May 2017. With 95,220 workers employed in food preparation and service occupations, the <u>food sector employed more than education and healthcare occupations</u> in the area at that time. Extrapolating from this one-month snapshot, these data indicate that a large portion of the East Bay's workforce is already in front-line food system occupations.

Table 4: Top 20 Occupations, East Bay

	Top 20 Occupations in the East Bay Metro Area, May 2017, ranked by employment			
Rank	Occupation	Employment ³		
1	Office and Administrative Support	163,130		
2	Sales	107,180		
3	Food Preparation and Serving	95,220		
4	Education	73,900		
5	Management	72,200		
6	Business and Financial Operations	69,560		
7	Transportation and Material Moving	69,490		
8	Production	64,530		
9	Personal Care and Service	61,210		
10	Healthcare Practitioners	59,430		
11	Construction	55,440		
12	Computer and Mathematical	41,500		
13	Installation, Maintenance, and Repair	36,660		
14	Personal Care Aides	36,060		
15	Building and Grounds Cleaning and Maintenance	30,430		
16	Retail Salespersons	28,910		
17	Architecture and Engineering	28,210		
18	Healthcare Support	26,070		
19	Cashiers	25,650		
20	Combined Food Preparation and Serving Workers, Including Fast Food	24,880		

Source: Bureau of Labor Statistics, http://www.bls.gov/soc/home.htm, Extracted June 13, 2018

Table 5 below shows data on the average wages received by workers in the food processing and institutional food service sectors in the East Bay metro area during the month of May 2017. Occupations are grouped roughly based on rank from entry-level workers (front-line), to mid-career/skilled workers (professional), to senior level workers (management), and wages are averaged for each rank to allow for comparisons across sectors in the industry.

Table 5: Wages - Food Processing and Institutional Food Service

Wages in Food Processing and Institutional Food Service Occupations in the East Bay Metro Area, May 2017

Occupation
Level Occupation (SOC code)

Hourly
mean
wage
Annual
mean wage⁴

³ Employment estimates do not include self-employed workers. Some estimates are more precise than others. The relative standard errors (a measure of precision) for employment estimates are reported in the BLS data, accessible at http://www.bls.gov/soc/home.htm.

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⁴ Annual wages have been calculated by multiplying the hourly mean wage by 2,080 hours.

Front-Line	Light Truck or Delivery Services Drivers (533033)	\$19.13	\$39,790.00
Front-Line	Food Batchmakers (513092)	\$14.78	\$30,740.00
Front-Line	Food Cooking Machine Operators and Tenders (513093)	\$15.59	\$32,420.00
Front-Line	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders (513091)	\$17.57	\$36,540.00
Front-Line	Food Preparation Workers (352021)	\$13.08	\$27,200.00
Front-Line	Cooks, Institution and Cafeteria (352012)	\$20.86	\$43,390.00
Front-Line	Food Servers, Non-restaurant (353041)	\$14.93	\$31,040.00
Front-Line	Food Preparation and Serving Related Workers, All Other (359099)	\$14.69	\$30,560.00
Front-Line	Food Processing Workers, All Other (513099)	\$12.19	\$25,350.00
Front-Line	Dishwashers (359021)	\$12.04	\$25,040.00
	AVERAGE FOR ALL FRONT-LINE OCCUPATIONS	\$15.49	\$32,207.00
Professional	First-Line Supervisors of Food Preparation and Serving Workers (351012)	\$18.24	\$37,930.00
Professional	Food Scientists and Technologists (191012)	\$36.81	\$76,570.00
Professional	Chefs and Head Cooks (351011)	\$22.56	\$46,920.00
Professional	Procurement Clerks (433061)	\$21.68	\$45,100.00
	AVERAGE FOR ALL PROFESSIONAL OCCUPATIONS	\$24.82	\$51,630.00
Management	Food Service Managers (119051)	\$22.33	\$46,440.00
Management	Industrial Production Managers (113051)	\$57.37	\$119,320.00
Management	Transportation, Storage, and Distribution Managers (113071)	\$59.69	\$124,160.00
Management	Purchasing Managers (113061)	\$64.01	\$133,130.00
Management	Training and Development Managers (113131)	\$66.31	\$137,930.00
Management	General and Operations Managers (111021)	\$71.42	\$148,550.00
Management	Sales Managers (112022)	\$70.31	\$146,250.00
Management	Marketing Managers (112021)	\$81.08	\$168,660.00
	AVERAGE FOR ALL MANAGEMENT OCCUPATIONS	\$61.57	\$128,055.00

For comparison, these same data are listed in Table 6 and Table 7 for occupations within the Restaurant and Food Retail sectors. Due to the classification system used by the BLS, some occupations are the same across the sectors addressed.

Table 6: Wages – Restaurant Food Service

Wages in Restaurant Food Service Occupations in the East Bay Metro Area, May 2017				
Occupation Level	Occupation (SOC code)	Hourly mean wage	Annual mean wage ³	
Front-Line	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop (353022)	\$12.75	\$26,510.00	
Front-Line	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop (359031)	\$12.50	\$25,990.00	
Front-Line	Waiters and Waitresses (353031)	\$16.05	\$33,380.00	
Front-Line	Dishwashers (359021)	\$12.04	\$25,040.00	

Front-Line	Cooks, Restaurant (352014)	\$14.62	\$30,410.00
Front-Line	Cooks, Fast Food (352011)	\$11.80	\$24,550.00
Front-Line	Cooks, Short Order (352015)	\$14.20	\$29,530.00
Front-Line	Cooks, All Other (352019)	\$19.96	\$41,510.00
	AVERAGE FOR ALL FRONT-LINE OCCUPATIONS	\$14.24	\$29,615.00
Professional	Chefs and Head Cooks (351011)	\$22.56	\$46,920.00
Professional	First-Line Supervisors of Food Preparation and Serving Workers (351012)	\$18.24	\$37,930.00
Professional	Food Scientists and Technologists (191012)	\$36.81	\$76,570.00
	AVERAGE FOR ALL PROFESSIONAL OCCUPATIONS	\$25.87	\$53,806.67
Management	General and Operations Managers (111021)	\$71.42	\$148,550.00
Management	Marketing Managers (112021)	\$81.08	\$168,660.00
	AVERAGE FOR ALL MANAGEMENT OCCUPATIONS	\$76.25	\$158,605.00

Table 7" Wages – Food Retail

Table 7 Wages	1 Ood Retain				
W	Wages in Food Retail Occupations in the East Bay Metro Area, May 2017				
Occupation Level	Occupation (SOC code)	Hourly mean wage	Annual mean wage ³		
Front-Line	Cashiers (412011)	\$13.38	\$27,830.00		
	AVERAGE FOR ALL FRONT-LINE OCCUPATIONS	\$13.38	\$27,830.00		
Professional	First-Line Supervisors of Retail Sales Workers (411011)	\$23.31	\$48,490.00		
Professional	Food Scientists and Technologists (191012)	\$36.81	\$76,570.00		
	AVERAGE FOR ALL PROFESSIONAL OCCUPATIONS	\$30.06	\$62,530.00		
Management	General and Operations Managers (111021)	\$71.42	\$148,550.00		
Management	Sales Managers (112022)	\$70.31	\$146,250.00		
Management	Marketing Managers (112021)	\$81.08	\$168,660.00		
Management	Purchasing Managers (113061)	\$64.01	\$133,130.00		
Management	Training and Development Managers (113131)	\$66.31	\$137,930.00		
	AVERAGE FOR ALL MANAGEMENT OCCUPATIONS	\$70.63	\$146,904.00		

Comparing across these sectors, a few trends are notable. First, the wages for front-line workers are the highest in the food processing and institutional food service sector, with an average hourly wage of \$15.49 and an average annual wage of \$32,307. This is slightly higher than the average for front-line workers in restaurant food service and food retail, which averaged \$14.24 and \$13.38 per hour, respectively. Also notable is the wider variety of occupations that fall under the food processing and institutional food service sectors, as compared to restaurant and retail. Depending on individual firms' promotion practices, this may indicate that food processing and institutional food service firms can offer front-line workers greater potential for career advancement than restaurant and food retail firms.

The remaining sections of this report focus on how, given the conditions laid out above, ARC and its partners might act to improve opportunities for living wage jobs in the food system it is poised to influence.

Next Steps: Improving the East Bay Food System Workforce

Challenges

The conditions presented above paint a picture of jobs in the food sector that involve lowwages, few benefits, and limited mobility. In addition to those challenges, workers face a lack of connectivity to existing job opportunities. For example, the lack of public transportation options to food processing and manufacturing employers in the East Bay is a specific barrier that both employees and employers in those sectors noted throughout this assessment (Sal Vaca, 2018, RichmondWorks, 2018). Additionally, the firms that offer slightly better opportunities for midwage, career pathway jobs, such as food processing and distribution, represent an increasingly small fraction of existing firms in the food industry (SAGE and AFT, 2017). As such, job opportunities in those sectors are less plentiful in the East Bay compared to opportunities in restaurant food service or retail (Yvette Nunez, 2018, RichmondWorks, 2018). Stakeholder interviews also indicated that entry-level workers seem to be more aware of career opportunities in the restaurant industry than in other aspects of the food system, such as processing, manufacturing, and distribution (Yvette Nunez, 2018, RichmondWorks, 2018). To address these challenges, ARC and its workforce partners should consider fostering collaboration with community colleges, culinary training programs, urban planners, transportation authorities, and others to increase workers' awareness of and access to existing jobs in higher paying food sectors.

The challenges that employers in the food processing and institutional food service sectors face, further complicate efforts that might be taken to improve conditions for workers. With a history of corporate consolidation in the production and retail ends of the food system, businesses in the middle such as processors, manufacturers, and distributors face stiff competition to stay profitable. Tight margins create an environment in which employers cite the cost of labor as a chief concern (SAGE and AFT, 2017, Yvette Nunez, 2018). At the same time, employers across the food system are experiencing a shortage of skilled workers seeking entrylevel positions (SAGE and AFT, 2017, Sal Vaca, 2018, RichmondWorks, 2018). Relatively low unemployment in the Bay Area compared to the rest of the state means that local employers are being challenged not just to get workers, but to get skilled workers and retaining them in the long term to reduce the costs associated with turn over (City of Oakland, 2016). During this assessment, firms in the East Bay echoed these difficulties with on-boarding and retaining new hires, and noted a need for more support to train their workforce while minimizing labor costs (Sal Vaca, 2018, Yvette Nunez, 2018, RichmondWorks, 2018).

Employers and workforce partners also noted particular areas of knowledge and skill that serve as barriers for them and the workers they support. English language skills, food safety training, financial and time management, and conflict resolution are among the top gaps highlighted (Sal Vaca, 2018, Yvette Nunez, 2018, RichmondWorks, 2018).

Opportunities

Institutional purchasing initiatives focused on local, values-driven procurement have the potential to stabilize the labor pool for the entire food chain (SAGE and AFT, 2017, FCWA, 2012). Purchasing policies that prioritize fair labor practices for farmworkers may, in the long run, contribute to alleviating some of the farm labor shortages that result in lost revenue for farmers, reducing their pricing flexibility (SAGE and AFT, 2017, FCWA, 2012). Additionally, indirect/multiplier analyses suggest that for every 100 jobs created in the agriculture and food industry, 94 additional jobs are created throughout the state (MOCA, 2009). As such, by promoting institutional sales from local farmers, the ARC Regional Food Systems project may indirectly contribute to preserving the remaining farms in our region while fostering job opportunities across industries and geographies.

Rising commercial rents have driven demand for co-locating operations, especially business incubator spaces that double as workforce development programs with their own production and manufacturing facilities (SAGE and AFT, 2017, East Bay EDA, 2017). Such operations have the potential to effectively train workers for meaningful careers in the food processing, manufacturing and food service industries. Workers may experience clearer pipelines to middle and high wage careers if such programs could be more closely connected to values-aligned food companies with growing workforce needs.

One opportunity that employers have to address turn-over and lack of mobility is the Employment Training Panel (ETP), an incentive program administered by the State of California that enables employers to upgrade the skills of their workers through training that leads to good paying, long-term jobs (State of California, 2018). Under the program, businesses determine their own training needs and how to provide training, then the ETP assists firms in applying for funds that can allow them to address their workforce's unique needs (State of California, 2018). Firms that participate receive a \$25 rebate per hour of training administered (State of California, 2018).

Finally, potential linkages exist between restaurant and culinary work and jobs in food processing and manufacturing, where earning and mobility potential are somewhat higher. Some of the skill sets that may translate across these sectors include:

- Food safety and quality assurance skills
- Management skills (financial management, problem-solving, conflict resolution, etc.)
- English language skills
- Time management and communication skills
- Culinary skills, and product and recipe development skills (Yvette Nunez, 2018)

By highlighting such linkages to existing culinary training program operators, workers may be able to forge stronger pathways between the industries.

Strategies

Employment in the food sector can serve as a career ladder for workers with limited skills and experience if employers provide opportunities for workers to progress to higher skilled positions and/or a path to business ownership (SAGE and AFT, 2017). Listed below are several

key strategies that emerged from this assessment, which ARC and its network of partners could potentially engage in to develop a stronger, more resilient workforce in the local food system. They include:

- Support connectivity between workforce, food business, and transportation decision-makers to attract investment in infrastructure that will catalyze workers' access to quality jobs, as well as business profitability.
- Document the entry points that offer workers pathways to higher-wage, secure careers in the food sector and share that information with K-12 schools, community colleges, technical training programs, and business incubators in the East Bay.
- Identify organizations that provide training for food sector workforce, document employers' needs, and match employers with training resources.
- Raise and/or leverage funds to support the expansion of training programs to help food sector employers on-board and retain workers hired from the communities of Oakland and Richmond.
- Support the development of quality jobs in the food chain by encouraging institutional buyers to prioritize labor standards in their purchasing policies and internal practices.
- Support the development of an outreach campaign to increase awareness of job opportunities with high-road employers in the food processing and institutional food service sectors.
- Identify job and career opportunities currently unfulfilled within Anchor partners (i.e. food workers in universities or healthcare facilities)

Potential Role of Bay Area Anchor Institutions

Setting an Example

In a survey conducted by the Food Chain Workers Alliance, most of the 47 small and mid-sized food companies interviewed reported agreement with the notion that providing better wages, working conditions, and advancement opportunities increases company productivity (FCWA, 2012). However, most also admitted to not implementing those practices, due in large part to the financial incentives and constraints they face (FCWA, 2012). Competing with the low prices that large firms are able to offer causes many smaller firms to cut costs. Often those cuts are made at the expense of workers. The anchor institutions engaged in the ARC collaboration are not immune to these dynamics, and some face unique challenges due to their nature as public institutions. For example, worker strikes, lead in part by food service employees, occurred across the University of California system campuses in May 2018 after funding cutbacks at the state lead to wage cuts at all levels (Watanabe and Resmovits, 2018). ARC's reciprocal relationship with food service directors within these systems, however, could serve to improve conditions for such workers.

Despite the challenges such employers face, there are examples of institutional employers that provide living wages, good working conditions, and advancement opportunities for their food chain workers. In turn, these firms can also offer higher quality, safer, more sustainable food to their consumers. One such example, Yale University, showcases how the goals of

improved sustainability and worker justice can go hand in hand. After years of advocating with the administration and a three week strike, Yale University food service workers secured a contract between the university and the UNITE HERE Local 35 union that established a framework for more cooperative relations between laborers and the administration (FCWA, 2012). With the protection of their union contract, workers were later able to partner with students and parents to advocate for improved sustainability and quality practices when they noticed those aspects deteriorating after a new food service contractor came on board. Workers' success in this effort set the stage for Yale's commitments to higher benchmarks for sustainable food purchasing (FCWA, 2012). This case study can serve as a model for employers in institutional food service in other regions, as well.

In the Bay Area several employers in the institutional food service and food processing/manufacturing industries are making strides to improve the quality of jobs they offer their employees. One of ARC's collaborators, Food Service Partners (FSP), reflects how a company can meet their bottom line and drive innovation in their industry, while also creating long-term, living wage career opportunities for local residents. FSP produces around 8,000 meals per day for Kaiser Permanente and retail clients at their facility in South San Francisco, where it employs 80 unionized workers represented by the UNITE HERE Local 2 and Teamsters Local 2785 unions (MOU, 2017). FSP has embarked on an effort to build a new food production facility in Richmond, at which new hires would be targeted from the communities of Richmond and Oakland. Within that effort, FSP has partnered with ECC, ARC, Richmond Works, and other local stakeholders to leverage support for workers of color and those with barriers to employment. FSP has participated in the city's ProjectACES workforce program, a professional skills development academy hosted by RichmondWorks, and which ARC helped to convene, that aims to prepare Richmond residents for careers in local industries. This partnership helped pave the way for other local employers, such as Nutiva, participate in the creation of meaningful career pathways and training opportunities that will attract and retain new hires. Among FSP's long term stated goals for their Richmond facility is the creation of an Employee Stock Option Program (ESOP), a program that provides ownership and benefits to the employees.

In addition to FSP, Nutiva is a Richmond based organic food product manufacturer that has started to engage with efforts to offer meaningful career pathways for the Richmond community. This effort is partially in response to the company's challenge to find and retain enough entry-level workers. Nutiva offers benefits to their employees that include comprehensive insurance benefits, disability coverage, commuter benefits, 401k match, and wellness incentives (Nutiva, 2018). Nutiva has been active in contributing to and shaping the ProjectACES program by providing feedback to its organizers on what worked well in the first year of the program, and what areas of training and support might be helpful to include in the program moving forward (RichmondWorks, 2018). While Nutiva does not serve the network of anchor institutions that ARC is focused on, the fact that it has engaged with the framework set up by ARC's community partners to improve the workforce demonstrates how powerful anchor institutions can be in infusing values-based practices, even beyond the institutional food supply chain. By choosing to contract with food service providers that are taking meaningful steps to improve conditions for their workers, institutions can pave the way for major shifts in labor practices across the food system.

A recent report by the U.S. Federation of Worker Cooperatives (included in Appendix 3) found that the San Francisco Bay Area has the highest concentration of worker owned cooperative businesses than any other region in the country (Democracy at Work Institute, 2017). In 2016, that number totaled 50 businesses, representing many industries, including food (Democracy at Work Institute, 2017). One such cooperative, Alvarado Street Bakery, is located in Sonoma County, CA, and has been a worker owned and managed cooperative since 1981 (U.S. Federation of Worker Cooperatives, 2017, UCSC Center for Agroecology & Sustainable Food Systems, 2018). As a baked goods manufacturer that uses primarily whole grain and organic ingredients and employs more than 100 people using cooperative principles, it represents the largest and one of the most innovative food sector cooperatives in the U.S. (U.S. Federation of Worker Cooperatives, 2017, Alvarado Street Bakery, 2018, UCSC Center for Agroecology & Sustainable Food Systems, 2018). Its practices have gained it notoriety, including a feature in Michael Moore's recent film, Capitalism A Love Story, during which they were lauded for their ability to balance people and profit (UCSC Center for Agroecology & Sustainable Food Systems, 2018). When it was originally established in 1978, it was part of a non-profit organization based in San Francisco called Red Clover Worker's Brigade, which consisted of Alvarado Street Bakery, a retail store (Santa Rosa Community Market), a trucking company, and a wholesale warehouse (Alvarado Street Bakery, 2018). Their products primarily serve the retail sector, including vendors such as Costco, Safeway, Whole Foods, and others (Alvarado Street Bakery, 2018). The particulars of bread-baking and the logistics of its distribution for its \$25 million dollar business require a committed, on-time, and hard-working workforce. To ensure the reliability of this workforce, Alvarado Street pays well, provides a low-deductible health insurance plan for workers and their children (spouses pay half the cost), monthly retirement contributions, and the annual patronage dividend, for which co-ops are known (UCSC Center for Agroecology & Sustainable Food Systems, 2018). Like many employers across the U.S., the business has struggled with the high cost of health insurance and workers compensation, which have limited their ability to provide more benefits for their worker-owners (UCSC Center for Agroecology & Sustainable Food Systems, 2018). More detail about their operation and its financial history can be found in Appendix 5. Alvarado Street Bakery is just one of dozens of businesses that can serve as a model for those in the food processing and manufacturing sector that are motivated to improve opportunities for their workers.

For employers not ready or able to make drastic shifts in their economic and structural models, small changes in the way management and employees interact can build momentum for powerful shifts in the future. For example, universities and K-12 schools with in-house food service staff can initiate dialogues between their workforce and administration to identify potential needs for on-the-job training that can help workers succeed and advance. These institutions can develop closer relationships with community workforce groups able to connect entry level workers to the firm and provide on-the-job training to improve retention and advancement opportunities. Kaiser Permanente, for example, has partnered with its Coalition of Kaiser Permanente Unions to construct a variety of programming that results in increased career mobility, upskilling and lifelong-learning for its healthcare workforce (National Workforce Planning & Development, 2015). More detail on this programming is featured in Appendix 6. By targeting these same principle to the workers in their food service occupations, Kaiser Permanente can continue to push the envelope in improving the livelihoods of its workers.

Procurement Policies

Due to the scale of institutional procurement practices and contracts, anchor institutions including K-12 schools, universities, and healthcare facilities, wield enormous influence throughout the food value chain. In 2015, Health Care Without Harm (in collaboration with School Food Focus, and Real Food Challenge) quantified the collective demand for sustainably produced food products within a subset of 14 key educational and health care institutions in California (Taylor, 2015)⁵. It found that those institutions combined spend \$108,315,045 on their overall food purchasing, of which \$19,015,708 goes to sustainable purchases, \$13,464,931 goes to produce, and \$8,681,642 goes to poultry (Taylor, 2015). Given that Health Care Without Harm's Healthy Food in Health Care network in California includes 165 hospitals throughout the state, the ARC project is poised to leverage even larger amounts of spending towards just labor practices in the food chain, in addition to health and sustainable food purchases.

Using their procurement policies, institutions can set the bar high and demand strong standards for worker protection and job quality in the food system. For example, institutional buyers can include language and criteria in their Requests for Proposals that penalize firms with a record of wage-theft, exploitation, or discrimination and reward firms that demonstrate third-party verified worker justice practices, such as farms that have received the Equitable Food Initiative certification.

A number of institutions have begun to make this connection between working conditions in their supply chain and the health of their communities, and some are even setting purchasing priorities accordingly. For example, under UCSF's Sustainable Food Criteria, the workforce practices of its vendors can be used to meet their standards for sustainability. Farm and food business that practice social responsibility by offering the following are considered part of UCSF's sustainability criteria:

- "Union membership or prevailing wages
- Transportation and/or housing support
- Health care benefits

• Other practices or certified processes as determined by campus." (Alexander and Davies, 2018)

Many other institutions in the region have adopted the **Good Food Purchasing Policy**, which supports institutions to buy from food providers that demonstrably value their own

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⁵ The participating institutions in the assessment included: Hospitals - California Pacific Medical Center (CPMC), Sutter Health Sacramento Sierra Region (including 8 Sutter Health facilities: Sutter Amador, Sutter Auburn Faith, Sutter Roseville, Sutter Memorial, Sutter General, Sutter Center for Psychiatry, Sutter Davis, and Sutter Solano Medical Center), UC Davis Medical Center o UCSF Medical Center & Campus, Washington Hospital; K-12 School Districts - Oakland Unified School District (OUSD), Sacramento City Unified School District (SCUSD); University of California Campuses - Berkeley (UCB) – Cal Dining, Davis (UCD), Merced (UCM), Riverside (UCR), San Diego (UCSD), Santa Barbara (UCSB), Santa Cruz (UCSC)

workforce⁶. While adopting such a policy is merely a guide for purchasers to benchmark against, and does little to enable firms to reduce barriers to higher wages, for example, it does open a pathway for conversation between suppliers, buyers, and food system support organizations about finding solutions to improved labor practices.

Investment

Coupling institutions' own investments with their procurement power, and external philanthropic investments can yield enormous gains, and ARC and its institutional partners are uniquely positioned to deliver that. For example, Community Benefit programs at non-profit hospitals target programming that can demonstrably improve *priority* health outcomes identified in their Community Health Needs Assessments. Given the strong connections between poverty, income inequality, and negative health outcomes indicated in much public health literature, investing in the improvement of workforce opportunities and job quality has great potential to indirectly, but powerfully, foster health. Support is needed in the Bay Area for job training programs that are open to all workers, and which genuinely highlight pathways for advancement to living wage jobs (FCWA, 2012, Terplan and Mehrens, 2014). Community Benefit programs are one way that hospitals might contribute to such programming.

Since diet-related diseases are indicated as high priorities in many hospitals' Community Health Needs Assessments, hospitals around the country are investing in programs that improve access to healthy, affordable food by addressing the social determinants of health that influence healthy nutrition (Health Care Without Harm, 2018). Investment of hospital resources can mean much more than simply providing financial support. Across the country, hospitals are providing community benefit though a broad range of mechanisms, including:

- Providing grant support
- Providing use of hospital facilities
- Conducting food insecurity and health screenings and connecting patients to social services
- Providing staff or financial support for program evaluation to external partners
- Providing staff support for grant writing or securing sustainable funding of community benefit initiatives

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<u>https://goodfoodpurchasing.org/program-overview/</u> or by contacting Colleen McKinney at <u>cmckinney@goodfoodpurchasing.org.</u>

⁶ Colleen McKinney, Associate Director at The Center for Good Food Purchasing which manages the Good Food Purchasing Program, shared via email on 7/23/18 that "the vision of the Good Food Purchasing Program's Valued Workforce standards is that institutions prioritize purchasing that provides safe and healthy working conditions and fair compensation for all food chain workers and producers from production to consumption. The baseline for compliance in the Valued Workforce category is compliance with basic labor laws by the institution, its vendor(s) and all suppliers for the institution. Vendors sign in writing that they and all suppliers are in compliance with domestic labor law and perform due diligence follow up to learn more in cases where suppliers are not in compliance with those laws. Examples of certifications and practices that receive credit at higher levels include companies that have a union contract with their employees, are a worker cooperative, are Food Justice Certified by the Agricultural Justice Project, or are certified by the Equitable Food Initiative." More detail on the standards within the Good Food Purchasing Program can be found on their website at

- Managing or coordinating a program or community collaboration
- Participating in a community collaboration
- Participating in policy advocacy (Health Care Without Harm, 2018)

Through any of these mechanisms, hospitals and other anchor institutions can use their influence to advocate decision-makers and investors to prioritize community programs that can address the needs of front-line food service workers. Many hospitals across the country are addressing the interconnected needs of people facing food insecurity, including housing and transportation support. For example, Health Leads, a Boston-based nonprofit, is helping hospitals connect patients to community-based resources such as food, transportation, and housing by placing undergraduate volunteers in hospitals to connect patients with local resources (Health Care Without Harm, 2018). Additionally, Unite Us developed software that hospitals can use to coordinate care across all social determinants of health, including a centralized system to record social needs and referrals in electronic medical records and connect patients to service providers, community resources, and employment opportunities (Health Care Without Harm, 2018). Such programs could be replicated and/or expanded in the Bay Area to focus particularly on connecting low-wage food service workers with workforce development programs and/or transportation support to get to in-demand, higher paying food sector jobs.

Potential Role of ARC Staff and Collaborators

As a collaborative, ARC aims to form working groups within each of its project areas that will carry out the actions needed to achieve its collective goals. One of those working groups will be focused on improving Workforce and Community Ownership opportunities in the community. That working group would facilitate knowledge sharing and collaboration among influencers of the food chain workforce, and could include members from local unions, workforce development agencies, educational institutions and food system employers. Once established, that working group can collaborate to validate this report, and if useful, employ the evidence herein and their own expertise to chart a course of action forward.

Based on the needs and opportunities revealed by this assessment, the following actions may be explored as part of that working group's future strategy for improving the food sector workforce in the East Bay:

- Highlight exemplary employers with values-aligned labor practices to drive others in the industry to improve job quality, especially for front-line workers.
- Analyze and map the career pathways that exist in the food processing and institutional food service sectors, particularly in the East Bay to highlight ways that workers can enter career-pathway jobs in food more effectively and/or move to such positions from restaurant food service jobs.
- Document and connect the network of support organizations that is poised to support, educate, and train the workforce to enter and progress through career-pathway jobs in the food system.
- Identify barriers to unionization in the food sector and coordinate action to protect existing unions.

 Document best-practices from national and statewide case studies of groups fostering improved workforce opportunities in the food system, especially in institutional food service and food processing.

Broadly defined, these actions fit into two scopes that ARC might choose to align their priorities around: 1) Research and Education; and 2) Stakeholder Coordination. The following sections discuss each of these potential actions in greater detail, while listing on-going projects and organizations that represent potential collaborators.

Research & Education

By highlighting food system employers making strides to value their workforce, ARC can play a role in fostering a culture of quality within the East Bay food industry employers. In partnership with workforce development programs and media outlets in the area, for example, ARC could launch a messaging campaign using case studies, videos, and strategic media outreach to encourage workers to seek employment in businesses with higher standards for labor practices. Since food industry employers are currently facing stiff competition to hire and retain quality workers, such messaging could serve to heighten the pressure employers are already feeling to attract employees through job quality improvement strategies.

There are a plethora of community-based partners poised to help ARC pursue this strategy. For example, the Restaurant Opportunities Center and Food Chain Workers Alliance are two non-profit organizations deeply engaged with worker justice in the food system, and they may have expertise that could be used to identify the employers with high-road labor practices that ARC might wish to highlight. Additionally, the Oakland Food Policy Council includes members that are deeply engaged with communications and media focused on food justice, reaching both local and national platforms. ARC could foster mutually beneficial relationships with the council and its members in order to occasionally partner with them on communications projects related to this goal.

This assessment also revealed that deeper research may be needed to inform strategies moving forward, and ARC is potentially poised to gather that necessary knowledge. For example, workforce development organizations in the East Bay interviewed for this assessment highlighted a need to understand the career pathways in the food system that are most likely to lead to living wages and higher quality of life for workers. This report has begun to meet this need by gathering career pathway diagrams (Appendix 4) and by inquiring to receive more from workforce partners across the state, such as those at CD Tech, Food Industry Business Roundtable, and others. By continuing to partner with responsible employers to research and report out about the career pathways that exist within their companies, ARC can encourage more employers to be transparent about their hiring, training, and promotion practices, while educating potential workers on viable career opportunities in the food sector.

Research and education in this realm can also help draw clear connections between workforce improvements and the health, wealth, and climate resilience gains to be made by focusing on jobs. Such connections can broaden the scope of funding that ARC projects may be eligible for. For example, by synthesizing the evidence from academic literature on the connections between increased income and healthy food consumption, ARC staff can make the

case for investing in projects that aim to increase income for populations experiencing food insecurity and lack of healthy food access the most. Also, ARC staff and collaborators can draw connections to climate resilience by highlighting the ways that improved public transit options could increase workers' access to high-road employers. During this assessment, food industry employers in Richmond revealed that lack of reliable transportation to their facilities is a key barrier for employing quality workers (Sal Vaca, 2018, RichmondWorks, 2018). Urban planning literature overwhelming supports public transit as a key strategy for improved climate change resilience, and has documented the magnitude of health co-benefits of such strategies (Kwan and Hisham, 2016). By drawing out these connections in reports and grant applications, ARC staff and collaborators may be able to capture funding and other types of support from those in the urban planning, public health, and climate change fields.

Coordination

In addition to coordinating a working group to implement the strategies named above, ARC could pursue the creation of a workforce initiative focused on cross-sector career pathways in the food system, much like the Health Workforce Initiative (HWI) in CA (Health Workforce Initiative, 2018). HWI's mission is to foster the healthcare workforce by facilitating community colleges' response to workforce needs (Health Workforce Initiative, 2018). It has created a website that includes a directory of occupations in the industry and the educational programs that provide the needed skills for each, as well as a calendar of networking and educational events to support workers entering the field (Health Workforce Initiative, 2018). Using the list of partners listed in the following section and in Appendix 2, ARC could explore opportunities to develop similar tools and collaborations focused on its industries of interest.

Potential Partners

East Bay Workforce Training and Support Organizations

One organization in particular, RichmondWorks, has already been deeply integrated into ARC's Regional Food Systems project. RichmondWorks is a career services center run by the City of Richmond that hosts an array of services including training & job search assistance and more. In recent years, it has coordinated with healthcare and food systems employers, including working closely with ARC partners on its role in the development of ProjectACES (Accelerating Careers through Essential Skills), a professional skills development academy launched in 2017. In September of 2017, that program graduated 23 participants from its first cohort who were hired at Food Service Partners. Mission-driven urban farms also work closely with municipal and county-based agencies to integrate workforce training with urban agriculture programming. Groundwork Richmond, EcoVillage Farm, Urban Tilth, and Rising Sun Energy Center are a few community-based organizations that have hosted these activities in the past (City of Richmond, 2011). Several of the employers featured in earlier sections of this report, such as Food Service Partners and Nutiva, have also participated in the ongoing design of this program.

Appendix 2 lists the variety of organizations in the East Bay that are poised to offer both workers and their employers with education, training, funding, and technical assistance that they can use to access and create living wage, career-pathway jobs in food industries. ARC staff are engaged in ongoing partnership with many of the organizations listed, and are well equipped to

forge connections between the institutional food service employers and food processors interested in improving conditions for their workers while building their own reliable workforce. Representatives from the organizations listed there may be people of interest for invitation to the anticipated Workforce and Community Ownership Working Group within ARC.

Food Industry Business Roundtable (FIBR), Los Angeles

The Food Industry Business Roundtable (FIBR), based in Los Angeles, is an example of a collaboration that strategically serves both workers with barriers to entry-level jobs and employers in need of a reliable workforce. Through its ongoing relationships with employers, FIBR identifies what employers need from their workforce and implements programming for its membership and within local community colleges to meet those needs (Yvette Nunez, 2018). As a nonprofit business association dedicated to promoting the growth of the food processing industry in Southern California, FIBR also works to build the capacity of individuals in marginalized communities in Los Angeles to become successful business owners in the food processing industry. For example, FIBR found that many workers needed to improve their English language skills in order to access opportunities, and as such had added literacy components to its training programs. Literacy around regulatory compliance has also been a gap for community members trying to start their own businesses (Yvette Nunez, 2018). As such, FIBR developed a tri-lingual curriculum to teach its memberships of potential business owners about critical compliance issues, such as Good Manufacturing Practices (GMPs), Standard Operating Procedures (SOPs), Hazard Analysis and Critical Control Points (HACCP), and the Food Safety Modernization Act (FSMA) (Yvette Nunez, 2018). Further, FIBR created a Food Safety Training Institute to help its membership build skills to ensure that they are staying at the forefront of regulatory changes in food safety and quality assurance (FIBR, 2018). FIBR also offers business seminars focused on developing financial management skills and other critical vocational skills for the processing industry. To drive workers' ability to advance into management positions, it has also worked with Chapman University to implement training programs in food science, and continues to advocate for continuing education institutions to include agribusiness and food industry management courses in their offerings (Yvette Nunez, 2018).

FIBR has already been partnering with the ARC Regional Food Systems Project to identify the career pathways in the food industry that can lead to the highest paying, family-sustaining jobs. That collaboration contributed valuable information for this report, and will continue to produce connections, knowledge, and resources that will be key to achieving ARC's goals through its food system workforce efforts.

Bay Area Anchor Institutions

Finally, the anchor institutions (hospitals, schools, municipalities, and universities) engaged with ARC will be key partners in ARC's efforts to improve workforce opportunities in the food sector. For example, in 2014, The University of California system employed 140,000 nonacademic staff across a range of occupational categories, including food and auxiliary

services staff among many others⁷ (University of California, 2015). That same year, growth rates for staff salaries across the university system were below market rates across the Western region (University of California, 2015). Through Health Care Without Harm and its auxiliary project, ProcureWorks, the ARC team has built strong working relationships with the food service directors and operators within the UC system across California. By cultivating these relationships over time, ARC may have a role in encouraging decision-makers within those operations to make improvements to their workforce that can drive the health, wealth, and resilience gains ARC seeks. For example, The Center for Good Food Purchasing, a Berkeley-based non-profit organization, supports institutions in pursuing comprehensive procurement goals that include specific criteria around the labor standards in institutions' food supply chains as well as their internal food service operations. By collaborating with that organization, workforce training organizations, and aligning ARC's procurement work with the valued workforce criteria within the Good Food Purchasing Policy, ARC can contribute to significant improvements within institutions' own workforce practices.

Conclusion

Our community's leaders and institutions have the moral and economic imperative and opportunity to reinvest in our neighborhoods so that all residents – especially under-resourced people of color and low- to moderate-income families – can reach their potential and live a full life. As this report highlights, it is good business for anchor institutions like hospitals and universities to increase the economic opportunity among the communities they serve. Anchors who apply their economic power in partnership with their communities are investing in the longevity of their institutions and the wellbeing of the people they serve, thus enabling a more just and prosperous future for all. The ARC collaborative has the potential to prove that a different reality is possible when business is done differently. When our policy decisions, investments and development align with strong values, a healthy, just and inclusive society is possible.

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⁷ That number also includes non-academic staff employed as doctors, nurses and other health care staff; research administration and laboratory staff; student services staff; maintenance and physical plant staff; and management and clerical staff (University of California, 2015).

Appendices

- Appendix 1: Food Worker Organizations, compiled by the Food Chain Workers Alliance, 2012
- Appendix 2: Food Sector Workforce Organizations in the East Bay and Beyond
- Appendix 3: 2016 State of the Sector: Worker Cooperatives in the U.S.
- Appendix 4: Career Pathways in the Food Sector
- Appendix 5: Alvarado Street Bakery Case Study
- Appendix 6: Kaiser Permanente's Workforce Development Case Study

Works Cited

- "2016 State of the Sector: Worker Cooperatives in the U.S." *Democracy at Work Institute and US Federation of Cooperative Workers.* 2017. Accessed July 16, 2018 https://institute.app.box.com/s/fcxez74qvpgxoanup435f11111wza1xo
- ACES 2.0 Roundtable Discussion. RichmondWorks. Richmond, CA. May, 9, 2018.
- "Agriculture and Culinary Arts Career Technical Education (CTE) Best Practices". *California Department of Food and Agriculture (CDFA)*. June 2014. Accessed March 3, 2018. http://cafarmtofork.com/files/Ag&CulinaryCTEBestPracticesReport.pdf
- Alexander, Anne and Chuck Davies. "Sustainable Food Purchasing Overview." Presentation by *University of California San Francisco (UCSF)*. April 23, 2018. Accessed May 10, 2018 https://docs.google.com/presentation/d/1pgEIHz2Q5in21pRW5hTOwwyjLmeEnF0MRdM3MMNAD5s/edit?usp=sharing
- Allcott, Hunt, Rebecca Diamond, Jean-Pierre Dubé. The Geography of Poverty and Nutrition: Food Desserts and Food Choices Across the United States. January 2, 2018. *Stanford University Graduate School of Business*. Research Paper No. 18-6. https://ssrn.com/abstract=3095779 or http://dx.doi.org/10.2139/ssrn.3095779
- "Alvarado Street Bakery About Us." *Alvarado Street Bakery*. Accessed July 16, 2018. https://www.alvaradostreetbakery.com/about
- Barreiro, Sachi. "California Passes Paid Sick Leave Law." Nolo. 2014. Accessed July 23, 2018. https://www.nolo.com/legal-encyclopedia/california-passes-paid-sick-leave-law.html
- "Bay Area Food Economy White Paper: Existing Conditions and Strategies for Resilience." Sustainable Agriculture Education (SAGE) and American Farmland Trust (AFT). October, 2017. Accessed January 19, 2018. https://abag.ca.gov/planning/pdfs/BA%20Food%20Economy%20White%20Paper_Final.pdf
- Careers. Nutiva. Accessed July 10, 2018. https://www.nutiva.com/company/careers/
- "Connecting Food-insecure Individuals to Resources." Delivering Community Benefit: Healthy Food Playbook. *Health Care Without Harm.* March 07, 2018. Accessed July 30, 2018. https://foodcommunitybenefit.noharm.org/resources/implementation-strategy/connecting-food-insecure-individuals-resources.
- "East Bay Corridors Initiative: Priorities 2015-16." Association of Bay Area Governments

- (ABAG). 2015. Accessed March 1, 2018.
- http://reports.abag.ca.gov/corridors/2015/East Bay Corridors 2015-16 Priorities.pdf
- "East Bay Economic Outlook, 2017-2018." *East Bay Economic Development Alliance (East Bay EDA).* 2017. Accessed February 3, 2018.
 - http://eastbayeda.org/ebeda-assets/reports/2018/East Bay Midyear Final.pdf
- "Employment Training Panel." *State of California*. 2018. Accessed May 10, 2018. https://etp.ca.gov/
- "Examples of Worker-Owned Cooperatives." *U.S. Federation of Worker Cooperatives*. 2017. Accessed July 16, 2018 https://institute.coop/examples-worker-cooperatives
- Grady, Jennifer A. "Minimum Wage and Paid Sick Leave Time Increases Throughout California." The Grady Firm. 2016. Accessed July 23, 2018.

 https://www.employers.org/clientuploads/hr forms/Updates to CA MinWage Paid Sick Leave by City.pdf
- "Hospital Community Benefit Roles." Delivering Community Benefit: Healthy Food Playbook. *Health Care Without Harm.* March 7, 2018. Accessed March 8, 2018. https://foodcommunitybenefit.noharm.org/resources/implementation-strategy/hospital-community-benefit-roles.
- Health Workforce Initiative. Accessed May 20, 2018 http://ca-hwi.org/
- Helper, Susan, and Ryan Noonan. "Taking the High Road: New Data Show Higher Wages May Increase Productivity, Among Other Benefits." August 4, 2015. U.S. Department of Commerce Economics and Statistics Administration. Accessed July 27. 2018. http://www.esa.doc.gov/sites/default/files/taking-the-high-road-new-data-show-higher-wages-may-increase-productivity-among-other-benefits.pdf
- "Inequality and Health." Inequality.org. Accessed July 25, 2018. https://inequality.org/facts/inequality-and-health/
- "Local Area Unemployment Statistics Map." *U.S. Bureau of Labor Statistics (BLS*). February 20, 2018. Accessed July 25, 2018. https://data.bls.gov/map/MapToolServlet?survey=la
- Kwan, Soo Chen and Jamal Hisham Hisham. "A review on co-benefits of mass public transportation in climate change mitigation." *Sustainable Cities and Society*. April 2016. 22:2016:11-18, https://doi.org/10.1016/j.scs.2016.01.004. Accessed July 20, 2018. http://www.sciencedirect.com/science/article/pii/S221067071630004X
- "Meet Your FIBR Training Council." *Food Industry Business Roundtable (FIBR*). Accessed July 10, 2018 http://www.fibr.info/food-safety/trainers.html
- MOU: Memorandum of Understanding mutually entered into between Emerald Cities Collaborative, Health Care Without Harm, and Food Service Partners. February 15, 2017
- "Oakland Food and Beverage Industry Forum". Vimeo video, 48.00 and 1:30:00. Posted by *City of Oakland*. March 3, 2016. https://vimeo.com/157793031
- "Regional Forecast for Plan Bay Area 2040". *Association of Bay Area Governments (ABAG)*.

 February 2016. Accessed February 20, 2018.

 http://reports.abag.ca.gov/other/Regional_Forecast_for_Plan_Bay_Area_2040_F_030116

 http://reports.abag.ca.gov/other/Regional_Forecast_for_Plan_Bay_Area_2040_F_030116
- Sal Vaca (Director of Employment and Training at RichmondWorks) in discussion with author in Richmond, CA on March 19, 2018.
- Taylor, Vanessa M. "Leveraging Institutional Purchasing Power to Support Sustainable Food Systems and Healthy Communities." *Health Care Without Harm and UC Berkeley Master of Development Practice*. 2015. Available by email from vtaylor22@berkeley.edu

- Terplan, Egon, Imran Bhatti, Tony Vi, Stephen Levy, Maria Belén Seara, Kristen Snow Spalding, Louise Auerhahn, Bob Brownstein, and Derecka Mehrens. "Economic Prosperity Strategy". *SPUR*. October 2014. Accessed March 3, 2018. http://www.spur.org/sites/default/files/publications_pdfs/Economic_Prosperity_Strategy.pdf
- "The Hands That Feed Us: Challenges and Opportunities for Workers Along the Food Chain." *Food Chain Workers Alliance (FCWA)*. June 6, 2012. Accessed May 10, 2018. https://foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf
- "The Measure of California Agriculture (MOCA): 5.1 Agriculture's role in the economy."

 University of California Agricultural Issues Center. 2009. Accessed January 10, 2018. http://aic.ucdavis.edu/publications/moca/moca09/moca09chapter5.pdf
- "The Power of Kaiser Permanente's LMP: Workforce Development." *National Workforce Planning & Development*. March 16, 2015. Accessed July 16, 2018
 http://www.kpcareerplanning.org/workforceofthefuture/include/articles/Power_of_KPs_LMP_Workforce_Development.pdf
- Thistlethwaite, Rebecca. "Innovative Business Models Case Studies No.1: Alvarado Street Bakery." *UCSC Center for Agroecology & Sustainable Food Systems*. Accessed July 16, 2018. https://casfs.ucsc.edu/documents/business-models/CaseStudy_no1_Alvarado.pdf
- "University of California Accountability Report Chapter 6: Staff." *University of California*. 2015. Accessed July 24, 2018 https://accountability.universityofcalifornia.edu/2015/chapters/chapter-6.html#6.1.3
- "Urban Agriculture Assessment." *City of Richmond*. October 2011. Accessed December 15, 2017. https://www.ci.richmond.ca.us/DocumentCenter/View/8291/Urban-Ag?bidId=
- Watanabe, Teresa and Joy Resmovits. "Massive UC workers' strike disrupts dining, classes and medical services." *LA Times*. May 7, 2018. Accessed July 24, 2018. http://www.latimes.com/local/education/la-me-uc-workers-strike-20180507-story.html
- Wilde, Parke, Joseph Llobrera, and Michele Ver Ploeg. "Population Density, Poverty, and Food Retail Access in the United States: An Empirical Approach." *International Food and Agribusiness Management Review.* 2014. 17:A:171. Accessed November 1, 2016. https://www.ifama.org/resources/Documents/v17ia/Wilde-Llobrera-Ploeg.pdf
- Yvette Nunez (Senior Program Director for Business and Economic Development at CDTech and formerly Food Industry Business Roundtable) in discussion with author during phone call on April 19, 2018.

Acknowledgements

This report was produced in 2018 by Anchors in Resilient Communities (ARC), with research and writing support from Caitlin Joseph, an independent consultant for Emerald Cities Collaborative. Critical research and editing support was also provided by Tara Marchant and Denise Fairchild at Emerald Cities Collaborative, Yvette Nuñez at Community Development Technologies, Sal Vaca at RichmondWorks, and Betony Jones at the UC Berkeley Center for Labor Research and Education. Questions can be directed to tmarchant@emeraldcities.org or caitlin.e.joseph@gmail.com.