

# NEW SKILLS AT WORK

JPMORGAN CHASE & CO.

## STRENGTHENING THE BAY AREA

BUILDING A MIDDLE-SKILL WORKFORCE TO SUSTAIN  
ECONOMIC GROWTH AND EXPAND OPPORTUNITY



SAN FRANCISCO

# WELCOME

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### WELCOME

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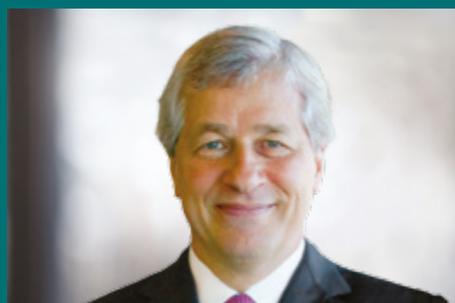
We are pleased to share this skills gap report for the San Francisco Bay Area. This is one in a series of reports that will examine labor market conditions in metropolitan regions across the United States and in France, Germany, Spain and the United Kingdom and provide data-driven solutions to address the mismatch between employer needs and the skills of current job seekers. These reports are a key component of *New Skills at Work*, JPMorgan Chase's five-year \$250 million global workforce readiness and demand-driven training initiative. Communities across the United States are working to rebuild their economies and the good news is that indicators, such as the unemployment rate, tell us we are moving in the right direction. At the same time, we face persistent challenges ensuring that everyone has access to opportunities as economies continue to strengthen and grow.

For JPMorgan Chase, we see an opportunity to reduce the gap between the skilled workforce employers need to be competitive and the training opportunities available to job seekers. This is especially critical for middle-skill jobs – those that require a high school diploma and some postsecondary education and training, but not necessarily a four-year college degree. Aligning workforce training with the skills industries value will benefit job seekers and employers and contribute to more broadly shared economic prosperity.

One obstacle that policymakers, civic leaders and employers face in solving this problem is the lack of actionable data. Everyone involved – from mayors to educators to employers – needs to understand what skills and competencies jobs require so that community colleges, training providers and high school career and technical education programs can align curriculum and credentials to actual industry needs. Good data can help everyone better target their efforts on key sectors and occupations where jobs – particularly those that pay good wages and offer opportunities for advancement – are going unfilled.

By focusing on the jobs that have opportunities for advancement along a clear career pathway, we can help give workers opportunities for advancement and businesses a steady pipeline of skilled talent that they need. We also need to learn from best practices that are already demonstrating success across communities and industries in the U.S. and overseas.

This report has been designed with these requirements in mind. We hope the data presented here will support the work underway in the Bay Area's healthcare and finance industries and encourage additional efforts to build a pipeline of skilled workers for career-building jobs.



**JAMIE DIMON**  
Chairman and Chief Executive Officer  
JPMorgan Chase & Co.  
Chair, Global Workforce Advisory Council



**MELODY BARNES**  
Former Assistant to the President  
Director, White House Domestic Policy Council  
Co-Chair, Global Workforce Advisory Council

# ACKNOWLEDGEMENTS

JPMorgan Chase & Co. is investing \$250 million over five years in a global initiative to help markets build a demand-driven workforce development system and to prepare youth and adults for careers in high-demand, middle-skill occupations. To advance this work, we are supporting data analysis in domestic and international markets: Chicago, Columbus, Dallas-Fort Worth, Detroit, Houston, Los Angeles, Miami, New York City, San Francisco, France, Germany, Spain and the United Kingdom.



## JOBS FOR THE FUTURE

JPMorgan Chase deeply appreciates the work of partners in producing this report. **Jobs for the Future** ([www.jff.org](http://www.jff.org)), which is a national partner in the *New Skills at Work* initiative, is serving as the lead intermediary for the U.S. reports. Founded in 1983, Jobs for the Future works to ensure that all underprepared young people and workers have the skills and credentials needed to succeed in our economy, by creating solutions that catalyze change in our education and workforce delivery systems. We are especially thankful for the work of the writers of this report: Thomas J. Hilliard, Hilliard Policy Research Consulting, and Rachel Pleasants McDonnell, as well as data collection and analysis provided by Lois Joy. The report has been strengthened by insightful feedback from Lucretia Murphy, Maria Flynn and Steven Baker and by editing from Carol Gerwin and Sara Lamback.

Two national organizations provided the data and analysis for the U.S. reports: **Economic Modeling Specialists International**, a CareerBuilder company, turns labor market data into useful information that helps organizations understand the connection between economies, people and work ([www.economicmodeling.com](http://www.economicmodeling.com)). **Burning Glass Technologies** develops leading technologies for matching people with jobs through pioneering solutions, and leverages a deep understanding of people and their careers in order to deliver superior workforce and marketplace insight ([www.burning-glass.com](http://www.burning-glass.com)).

Each report also relies on the insights and feedback of local stakeholders. We would like to express our appreciation to the employers and economic development and workforce development stakeholders in the San Francisco Bay Area who informed report findings and reviewed drafts: Lorraine Giordano, Executive Director, Bay Area Workforce Funding Collaborative; Abby Snay, Executive Director, and Lisa Countryman, Grants Development Manager, Jewish Vocational Service; Linda Galliher, Vice President of Public Policy, Bay Area Council;

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# EXECUTIVE SUMMARY

## THE BAY AREA IS STRONG AND GROWING

The San Francisco Bay Area has rebounded from the recession with robust job growth and low unemployment. Best known for its dynamic technology sector, the region also has several other fast-growing industries, a highly educated workforce and many thriving large employers.

The regional<sup>1</sup> labor market grew by

**14%**

between 2009 and 2014 (2.8% annually), only slightly lower than the national rate of 15%

The region's projected job growth of

**1.8%**

between 2014-2019 is higher than the national rate of 1.4% per year for the same time period

The unemployment rate as of January 2015 was

**4.1%**

in San Francisco, 3.9% in San Mateo and 4.7% in Santa Clara<sup>2</sup>

About

**48%**

of all residents over 25 in the three-county region have at least a Bachelor's degree, compared to 31% nationwide<sup>3</sup>

(Source: EMSI unless otherwise noted<sup>4</sup>)

## MIDDLE-SKILL JOBS ARE CRITICAL TO THE BAY AREA ECONOMY

The Bay Area's

**554,000**

middle-skill jobs are found across multiple thriving sectors and represent **27%** of all regional positions (2.1 million total)

Middle-skill jobs are projected to grow by

**1.5%**

annually in the Bay Area<sup>5</sup>

Middle-skill jobs represent growing occupations that offer a living wage<sup>6</sup> and opportunities for career advancement

(Source: EMSI)

- 1 In this report, the "San Francisco Bay Area" refers to the counties of Santa Clara, San Mateo and San Francisco.
- 2 State of California Employment Development Department. Labor Market Information Division, (January 2015). *Monthly Labor Force Data for Counties*. Retrieved from: <http://www.calmis.ca.gov/file/lfmonth/countyur-400c.pdf>
- 3 Three-county data from U.S. Census Bureau. Educational Attainment, 2011-2013 American Community Survey 3-Year Estimates. Retrieved from <http://factfinder.census.gov/>. National data from U.S. Census Bureau. Table 2. Educational Attainment of the Population 25 Years and Over, by Selected Characteristics: 2014. Retrieved from: <http://www.census.gov/hhes/socdemo/education/data/cps/2014/tables.html>.
- 4 EMSI conducted a proprietary analysis of middle-skill opportunities in the Bay Area for JPMorgan Chase. All EMSI citations in this report refer to that analysis.
- 5 EMSI.
- 6 EMSI drew upon data from the Massachusetts Institute of Technology's *Living Wage Calculator* for the living wage for a family of three living in the Bay Area. Additional information can be found here: <http://livingwage.mit.edu>

## THE BAY AREA



**3,500,000**  
people live in the area

(Source: CA Dept. of Finance)

## GROWING OPPORTUNITY GAP

Despite the vitality of the Bay Area economy, a growing opportunity gap prevents many residents from accessing pathways to rewarding careers. As the data show, this gap disproportionately affects African-American and Hispanic residents, thus exacerbating employers' concerns about the diversity of the talent pipeline.<sup>7</sup>

- In the three-county region, only 26% of African-Americans and 28% of Hispanics hold an Associate's degree or above, compared with 62% of white residents and 57% of Asians.
- 27% of African-Americans and 19% of Hispanics have some college experience but have not earned a credential or degree.
- In all three counties, unemployment rates for adults without a high school diploma (8.3%–13.3%) are much higher than unemployment rates for adults with a Bachelor's degree (4.5%–5.3%).
- The standard measure of poverty shows a relatively small share of Bay Area households in poverty. But using a measure that includes housing prices, which are among the nation's highest, that share nearly doubles.<sup>8</sup>



- Poverty also varies dramatically by race. Based on the California Poverty Measure, 12% of white households in the three-county area live in poverty compared to 34% of Hispanic households, 22% of African-American households and 18% of Asian-American households.<sup>9</sup>

<sup>7</sup> All data for next three bullets are from the U.S. Census Bureau, 2011-2013 estimates for the three-county region. American Community Survey. Retrieved from <http://factfinder.census.gov>

<sup>8</sup> The California Poverty Measure is a variation of the federal Supplemental Poverty Measure that adjusts the standard poverty measure for geographically adjusted housing costs, a wider range of consumer expenditures, non-cash and post-tax transfers and deduction of non-discretionary expenses from income. <http://web.stanford.edu/group/scspi/cpm>

<sup>9</sup> Stanford Center on Poverty and Inequality, 2015 analysis for JFF.

# EXECUTIVE SUMMARY CONT.

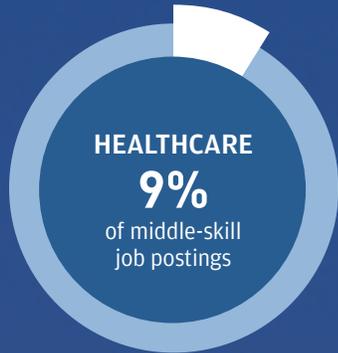
## HEALTHCARE AND FINANCE OFFER GROWING MIDDLE-SKILL OPPORTUNITIES



### SAN FRANCISCO

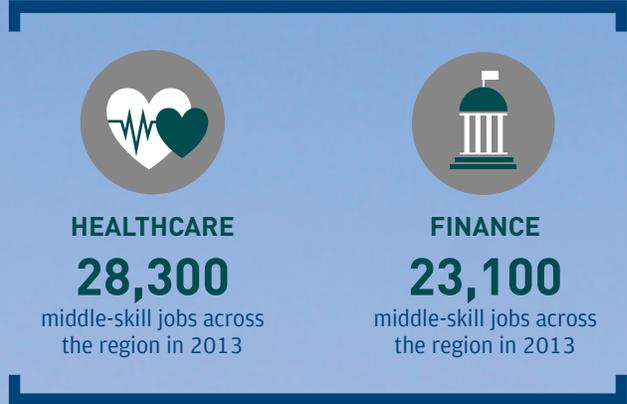
The healthcare and finance sectors provide strong middle-skill opportunities. The healthcare sector has impressive projected employment growth and solid career pathways and the finance sector offers a wide range of career pathways, including many cross-sector opportunities.

### Demand for middle-skill jobs



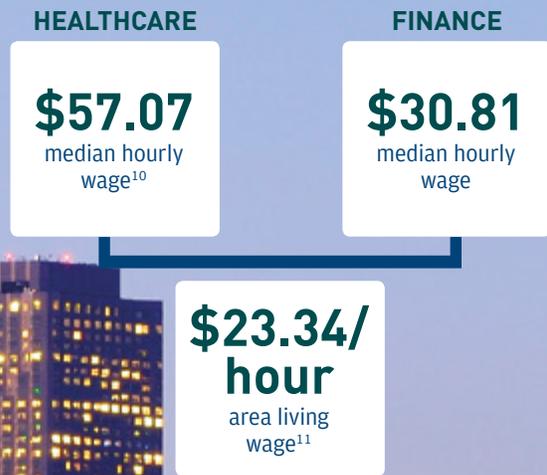
(Source: Burning Glass)

In 2013



(Source: 2013 EMSI)

### High Wages in Middle-Skill Jobs



(Source: Burning Glass)

10 The median hourly wage for the healthcare sector is particularly high because of the large number of nurses – especially RNs who have a median hourly wage of \$64.12, according to Burning Glass.

11 Based on the living wage for a family of three (with two adults and one child), living in San Francisco, San Mateo and Santa Clara Counties, as defined by the MIT Living Wage Calculator. For more information, see: <http://livingwage.mit.edu/>

## PROMISING OPPORTUNITIES IN HEALTHCARE

Sub-BA Practitioners  
(such as radiology technicians,  
respiratory therapists and  
medical assistants)



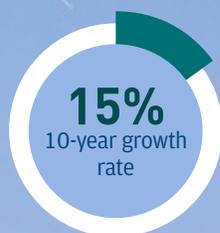
Administrative



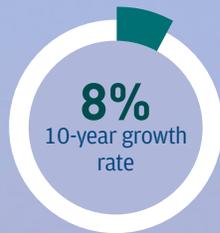
(Source: Burning Glass)

## PROMISING OPPORTUNITIES IN FINANCE

Financial Transactions  
and Analysis



Sales



(Source: Burning Glass)

## BACHELOR'S DEGREE HOLDERS INFLATE CREDENTIAL REQUIREMENTS IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)

In the Bay Area's technology sector, the availability of jobs that require less than a Bachelor's degree is shrinking. In some cases, job descriptions are identical to those filled by middle-skill applicants elsewhere in the United States, but Bay Area employers often prefer to hire from the region's large pool of college graduates with Bachelor's degrees. This credential inflation trend can hurt employers by weakening their internal promotion pipelines and making it more difficult to replace retiring workers. It also limits the diversity of the ICT workforce.

- 75% of postings for technology positions considered entry level (requiring less than two years' experience) actually request Bachelor's degrees, compared to 49% nationally.
- 63% of Help Desk job postings request a Bachelor's degree, compared with 42% nationally.
- 31% of middle-skill technology postings are entry level, compared with 46% nationally.

(Source: Burning Glass)

Despite this trend among high-tech employers, some companies and programs are seeking to preserve and strengthen middle-skill opportunities in ICT. In addition, there are several other sectors that are seeing growth in demand for middle-skill workers. This report focuses on healthcare and finance, two of the strongest growth sectors in the region.

EXECUTIVE SUMMARY CONT.

# OPPORTUNITIES TO EARN HIGHER INCOMES WITH MORE EDUCATION AND TRAINING



## HEALTHCARE PATHWAY



## FINANCE PATHWAY

	Occupation	Median Hourly Wage*
Advanced Middle-Skill	<b>Registered Nurse</b> ASN or BSN RN Certification	<b>\$54</b>
	<b>Community Health Worker Manager</b> 3-4 years' experience	<b>\$30+</b>
Bridge Role	<b>Community Health Worker Supervisor</b> Postsecondary Credential or AA	<b>\$26-\$30</b>
Middle-Skill	<b>Senior Community Health Worker</b> Postsecondary Credential; Internship	<b>\$21-\$26</b>
	<b>Medical Assistant</b> Postsecondary Credential; CMA Certification	<b>\$19.83</b>
Bridge Role	<b>Medical Office Assistant</b> High School with Training	<b>\$14</b>
Entry-Level	<b>Certified Nursing Assistant</b> High School with Training (2-6 weeks) CNA Certification	<b>\$12</b>
	<b>Home Health Aide</b> High School with Training (75 hours) HHA Certification	<b>\$11.62</b>

	Occupation	Median Hourly Wage
Advanced Middle-Skill	<b>Banking Branch Manager</b> Bachelor's degree; Certified Public Accountant; Licensed Mortgage Loan Originator; Chartered Financial Analyst; Project Management Certification; Series 7	<b>\$75</b>
	<b>Loan Officer</b> Bachelor's degree; Mortgage License	<b>\$42</b>
	<b>Financial Service Sales Agent</b> Bachelor's degree; Series 6; Series 7; Mortgage License	<b>\$54</b>
Middle-Skill	<b>Insurance Sales Agent</b> High School Diploma or Equivalent; Life and Health Insurance License; Property and Casualty License; Series 6	<b>\$35</b>
	<b>Personal Banker</b> High School Diploma or Equivalent; Mortgage License; Series 6	<b>\$19</b>
Entry-Level	<b>Teller</b> High School Diploma or Equivalent	<b>\$15</b>

Sources: Adapted from the "Healthcare Jungle Gym" developed by The Public Equity Group and Jewish Vocational Service; median hourly wage for San Francisco and San Mateo from the U.S. Bureau of Labor Statistics and the San Francisco Office of Economic and Workforce Development (rounded to the nearest whole dollar)

\* Because the chart is adapted from a local stakeholder the wages may not align exactly with those used elsewhere in the report.

Commonly-requested baseline sales skills include: communications; writing; organizational skills; problem solving; computer skills; listening; detail-oriented; multi-tasking; self-starter; presentation skills; strong math; customer service.

Common software skills: Microsoft Office and Excel.

Source: Burning Glass

## EXECUTIVE SUMMARY CONT.

# OUR RECOMMENDATIONS

Bay Area stakeholders should develop and implement regional strategies to strengthen the middle-skill sector, diversify the talent pipeline and close the opportunity gaps that prevent disadvantaged residents from accessing middle-skill jobs.

### Recommendation

#### 1. Strengthen middle-skill opportunities in the Bay Area.

- Engage the business community by responding to employers' growing desire to diversify their workforces.
- Determine skills needed for specific occupations, so that employers can base hiring and promotion on competencies rather than academic credentials.
- Develop clear progressions within firms to enable incumbent workers to advance to middle-skill positions, both within and across companies and sectors.
- Expand the use of transitional jobs, in which employers receive a public subsidy for a trial employment period, as an incentive to hire prospective workers in need of experience.

### Recommendation

#### 2. Develop a comprehensive regional system of career pathways to effectively prepare low-skilled individuals for middle-skill occupations in target industries.

- Expand "on-ramps" that help residents gain the literacy and English-language skills they need to begin career pathway programs.
- Engage community-based organizations in career pathway development efforts.
- Develop strategies to accelerate degree completion for residents who attended college but did not complete a credential.
- Advocate for policies that would enable community colleges to respond more effectively to emerging employer needs.
- Streamline access to support services to eliminate barriers to participation in career pathway programs.

### Recommendation

#### 3. Map out pathways to careers within and across industry sectors to help job seekers leverage transferable skills.

- Convene employers and education and training providers to identify in-demand competencies and develop "transferable competency maps" for their industries.
- Develop career navigation materials for job seekers that illustrate where transferable skills are in demand across a range of industries.

### Recommendation

#### 4. Expand work-based learning and career advancement strategies that are mutually beneficial to low-skill workers and employers.

- Develop a range of on-the-job learning opportunities that build general workforce readiness skills and specific occupational competencies.
- Forge stakeholder agreements that provide workers who participate in work-based learning with credits that count toward a postsecondary credential.
- Offer working students tuition assistance and on-site career counseling, along with regular work schedules and paid release time for training.

### Recommendation

#### 5. Build capacity to take a regional approach to education, workforce development and economic development.

- Leverage existing initiatives and funding streams that incentivize regional collaboration across education, workforce development and economic development.
- Convene workforce, community college and community-based organizations partners to devise shared accountability measures and promote greater alignment and increase effectiveness.
- Use data to track the progress of students as they move from community colleges into the workforce.

Through the *New Skills at Work* initiative, JPMorgan Chase will contribute resources and expertise to accelerate this work to help transform lives and help strengthen the Bay Area's economy.

# INTRODUCTION

The Bay Area has made a strong recovery from the recession and once again enjoys high employment and economic growth. An anticipated wave of retirements along with continued job growth are projected to produce thousands of middle-skill job openings that provide middle-class wages and career advancement opportunities.

However, labor market challenges loom in **the region** **1**. Recent economic growth has accelerated the expansion of both low-skill and high-skill jobs, while middle-skill occupations are growing more slowly. Further, with an abundance of college graduates, employers now often prefer—or even require—candidates with Bachelor’s degrees for middle-skill positions that traditionally were filled by workers with less education, especially in the information communications technology (ICT) sector. A large number of Bay Area residents working in low-skill jobs can’t advance their careers and many job seekers can’t even get started. This has created an opportunity gap that threatens not only individual economic mobility, but also the future of the region’s middle-skill talent pipeline.

Education and workforce development organizations throughout the region have begun to work with employers to narrow this opportunity gap and address the emerging skills gap that could weaken economic growth. Bay Area stakeholders have a chance to be leaders in the development of a regional system of **career pathways** **2** that meets the needs of employers in an increasingly knowledge-based economy and ensures a diverse pipeline of middle-skill talent. Where the Bay Area is today, much of the United States will be tomorrow.

This report provides data and analyses that highlight middle-skill opportunities within the growing sectors of healthcare and finance, as well as opportunities across sectors. It also describes the barriers to advancement facing large groups of workers, particularly people of color. The report concludes with recommendations for scaling existing efforts in the region to develop a system of middle-skill career pathways.

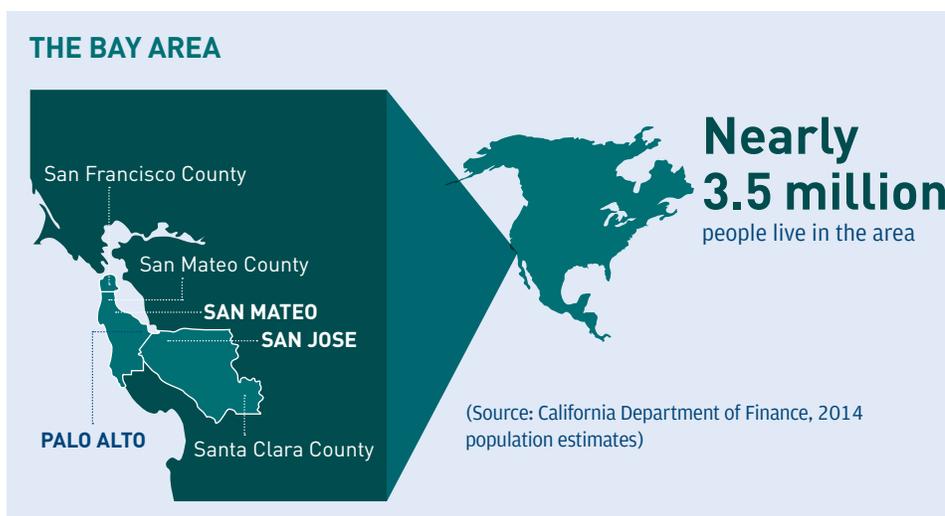
## 1 Defining the Bay Area

For the purposes of this report, the “Bay Area” includes San Francisco, San Mateo and Santa Clara counties.

## 2 What are Career Pathways?

The term **career pathways** in this report describes education and training programs for adults that offer a well-articulated sequence of courses and work experiences that align with employer skill demands and lead to the completion of industry-valued “stackable” credentials. Stackable credentials offer multiple entry and exit points as students progress toward an Associate’s degree or the highest industry credential required for a specific occupation. This enables people to find jobs with increasing responsibility, by accessing training as needed to move ahead. Career pathways have proven effective for launching individuals with low skills into good jobs because they can be designed to serve a range of populations and skill levels.

A **career pathways system** aligns employers, workforce development agencies, education providers and funders to identify shared goals and drive changes in programs, institutions and policies to address employer demand through *multiple career pathways* in targeted industry sectors.



# THE OPPORTUNITIES

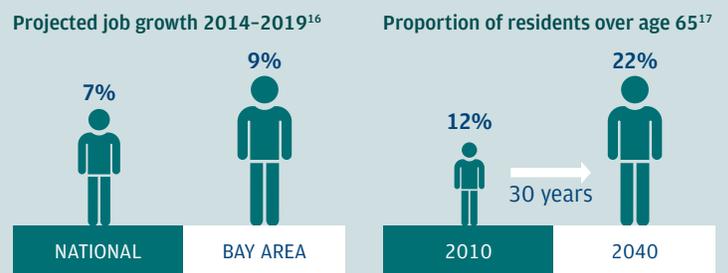
## BUILDING ON STRONG ECONOMIC GROWTH, DEMAND FOR MIDDLE-SKILL WORKERS

Several fast-growing industries and a highly educated workforce have helped the Bay Area bounce back from the recession. To maintain growth, employers need access to middle-skill talent. Expanding the middle-skill talent pipeline will also provide education and career advancement opportunities for low-income and unemployed residents.

### THE BAY AREA REBOUNDS, FUELED BY TECHNOLOGY, HEALTHCARE, FINANCE

- The recession hit the Bay Area hard. Between 2007 and 2009, San Mateo and Santa Clara counties lost 6.6% of their jobs, more than double the 3.2% national rate. Employment fell 4% in San Francisco County.<sup>12</sup>
- After a few difficult months immediately following the recession, the region began to recover, adding nearly 322,000 jobs between 2009 and 2014.
- Since the end of the recession, from 2009 through 2014, the regional labor market grew 14%, similar to the 15% national growth rate.<sup>13</sup>
- In January 2015, the unemployment rate was 4.1% in San Francisco, 3.9% in San Mateo and 4.7% in Santa Clara.<sup>14</sup>
- The Bay Area is renowned for its information and communications technology (ICT) sector, which continues to fuel the region's economy. In San Francisco alone, the ICT sector has grown by 45% since 2010 and accounts for 13% of total employment.<sup>15</sup>
- Continued growth is projected for ICT-related sectors, including computer and information services and research and consulting services.

### NEW JOBS AND IMPENDING RETIREMENTS SPUR MIDDLE-SKILL JOB GROWTH



<sup>12</sup> EMSI.

<sup>13</sup> EMSI.

<sup>14</sup> State of California, Employment Development Department, Labor Market Information Division, (2015). Monthly Labor Force Data for Counties. Retrieved from: <http://www.calmis.ca.gov/file/lfmonth/1501pcou.pdf>

<sup>15</sup> Mandel, Michael, (2014). *San Francisco and the Tech/Info Boom: Making the Transition to a Balanced and Growing Economy*. South Mountain Economics. Retrieved from: [http://www.mikebloomborg.com/files/SouthMountainEconomics\\_SF\\_TechInfo\\_Boom.pdf](http://www.mikebloomborg.com/files/SouthMountainEconomics_SF_TechInfo_Boom.pdf)

<sup>16</sup> EMSI data analysis by Lois Joy.

<sup>17</sup> Bay Area Association of Governments and Metropolitan Transit Commission, (2013) *Draft Bay Area Plan: Strategy for a Sustainable Region*. Retrieved from: [http://planbayarea.org/pdf/Draft\\_Plan\\_Bay\\_Area/Draft\\_PBA\\_Forecast\\_of\\_Jobs\\_Population\\_and\\_Housing.pdf](http://planbayarea.org/pdf/Draft_Plan_Bay_Area/Draft_PBA_Forecast_of_Jobs_Population_and_Housing.pdf)

<sup>18</sup> EMSI.

<sup>19</sup> California Department of Finance, population projections, retrieved from: Report P-2: State and County Population Projections – Race/Ethnicity and 5-Year Age Groups, 2010–2060 (by year).



Middle-skill jobs – including new positions as well as replacements – are projected to grow by

**7.5%**

from 2014–2019. This is on par with overall national job growth<sup>18</sup>



The Bay Area's working age population (25–64) is projected to grow by

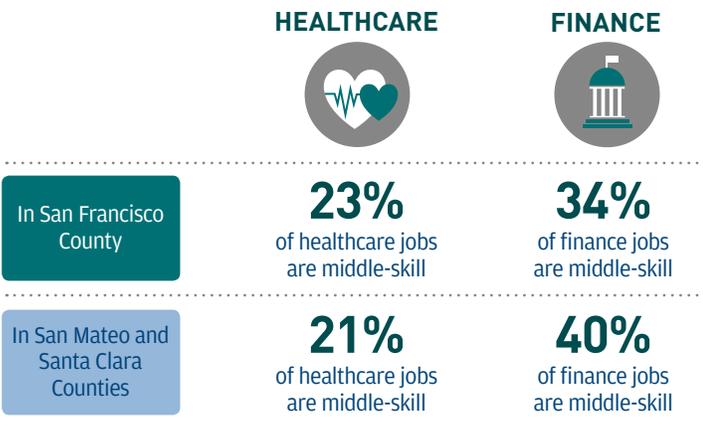
**2.1%**

from 2014–2019<sup>19</sup>

# MIDDLE-SKILL DEMAND GROWS IN THE BAY AREA

## MIDDLE-SKILL OPPORTUNITIES IN HEALTHCARE AND FINANCE

- This report’s target industries – healthcare and finance – are also driving regional economic growth. These two sectors employ nearly 200,000 people in the Bay Area, have strong concentrations of middle-skill occupations, and are projected to grow over the next decade.<sup>20</sup>
- Healthcare and finance provide better **entry-level opportunities** **3** for middle-skill workers than ICT, which favors candidates with higher credentials.
- Retirements are also expected to drive middle-skill job growth. About one-quarter of all employees in healthcare and finance are expected to retire within the next decade, creating a substantial need for replacement hires.<sup>21</sup>
- With starting hourly wages of at least \$23.34 per hour and opportunities for advancement, middle-skill jobs put workers and their families on the path to economic **self-sufficiency** **4**.



Bay Area postings for Help Desk request a Bachelor’s degree, compared with 42% nationally. This trend may reflect the widespread availability of applicants with four-year degrees in the Bay Area.<sup>22</sup>

This trend reduces the diversity of the talent pipeline for companies in the ICT sector, a concern for many Bay Area employers, and makes it more challenging for underserved populations to break into this growing high-wage sector. But the preference for a Bachelor’s degree is not an inevitable trend.

But the preference for a Bachelor’s degree is not an inevitable trend. Bay Area education and training providers help employers and disadvantaged residents through robust industry partnerships and high-quality, industry-aligned training programs. One promising model is **Year Up Bay Area**, which prepares young adults for careers with the region’s largest employers. Year Up’s yearlong intensive training program includes hands-on skill development, paid corporate internships and classroom learning focused on professional and technical skills. Staff advisors and professional mentors provide ongoing support. Students can also earn college credit from Foothills/DeAnza Community College and can continue on an ICT pathway. Seven of every eight completers are employed earning competitive wages or enrolled in college within four months of completion. Year Up Bay Area partners with a number of high-profile companies, including JPMorgan Chase, Salesforce, Yelp and Symantec.

JobTrain, Cañada College, SparkPoint and Sequoia Adult School are building ICT pathways for low-income individuals. Pathways include JobTrain’s free, intensive four-month coding bootcamp, job counseling, support services, soft skills training and college credits from Cañada. Through JobTrain’s extensive employer partnerships, which included LinkedIn, Workday and Intuit, participants will be able to access mentors, internships and employment at a range of Bay Area firms and employers will have a well-trained and diverse pool of coding professionals.

### 3 Breaking into Information Communications Technology

The Bay Area’s information communications technology (ICT) sector is a global hub of innovation. Middle-skill ICT workers benefit from high entry-level wages and opportunities for career advancement. However, aspiring workers with middle-skill credentials may find breaking into the tech sector harder than expected due to credential inflation. Three-fourths (75%) of entry-level (requiring less than two years’ experience) middle-skill ICT job postings in the Bay Area request a Bachelor’s degree, compared with only about half of similar postings nationally, even though the skills and certifications required can be satisfied without a Bachelor’s degree. Help Desk jobs account for more than half (53%) of middle-skill technology openings in the Bay Area. Yet 63% of

### 4 Self-Sufficiency Wages in the Bay Area

A self-sufficiency standard, or living wage, uses the cost of living – including housing and transportation – to determine how much workers need to earn to support themselves and any family members. The exact wage varies depending on family composition.<sup>23</sup> For this report, EMSI used \$23.34 per hour (two adults and one child) as the wage threshold for middle-skill jobs discussed in this report, based on the MIT living wage calculator. As part of a career pathway, these jobs provide opportunities for advancement to higher wages and the ability to move out of poverty to self-sufficiency.

<sup>20</sup> EMSI.

<sup>21</sup> U.S. Census Bureau, 2011-2013 estimates for the three-county region. *American Community Survey*. Retrieved from: <http://factfinder.census.gov>

<sup>22</sup> Burning Glass.

<sup>23</sup> The Insight Center for Community Economic Development has created a self-sufficiency calculator for California counties (<http://www.insightcced.org/calculator.html>), which has been used by the United Way of the Bay Area to determine a “self-sufficiency” wage for the region ([https://www.uwba.org/files/galleries/Minimum\\_Wage\\_Brief.pdf](https://www.uwba.org/files/galleries/Minimum_Wage_Brief.pdf)); the MIT living wage calculator used by EMSI in its analysis uses a similar approach (<http://livingwage.mit.edu/counties/06075>).



# OPPORTUNITIES IN HEALTHCARE

## THE HEALTHCARE SECTOR OFFERS A WIDE RANGE OF MIDDLE-SKILL JOB OPPORTUNITIES

The region's fast-growing healthcare sector offers many middle-skill opportunities for Bay Area job seekers.

- Between 2014-2019, the healthcare sector is projected to grow by 14% in San Mateo and Santa Clara and 6% in San Francisco.
- The relatively high median hourly wage of \$57.07 is boosted by the large number of well-compensated nurses, who comprise 41% of all middle-skill postings.<sup>24</sup>
- Bay Area employers increasingly prefer to hire nurses with a Bachelor's degree, limiting opportunities for nurses trained at the Associate's degree level.
- However, there remains a wide range of well-paid opportunities in healthcare that do not require a Bachelor's degree.
- As table 1 shows, about 40% of middle-skill healthcare job postings in 2013-2014 were for sub-BA practitioners and administrators.<sup>25</sup> Sub-BA practitioners earn a median hourly wage of \$29.23, and administrative positions a wage of \$34.88.
- This sector is the third highest employer of **administrative roles** **5** behind finance and professional services.<sup>26</sup>
- Several specific sub-BA practitioner occupations are projected to grow rapidly, including radiology technicians, health technicians and medical assistants. Table 2 provides more details on growth and wages for these occupations.
- With a projected growth rate of 13% over 10 years and a median hourly wage of \$21 per hour, the medical assistant occupation merits close attention from education providers.<sup>27</sup> With additional training, medical assistants can advance to clinical and administrative positions that pay more than \$30 per hour.

### **5** Responding to Employer Demand in Healthcare Administration

**Excellence through Community Engagement and Learning (EXCEL)** is a partnership between the University of California-San Francisco and Jewish Vocational Service to prepare people receiving public financial assistance for work as middle-skill healthcare administrators. The program combines both classroom and on-the-job training. Eligible jobs pay at least \$18 per hour and help participants start a pathway to career advancement and higher wages. The six-month program, which enrolled its first cohort in 2010, has an 80% completion and placement rate.<sup>28</sup>



<sup>24</sup> Burning Glass. The median hourly wage of nurses in the Bay Area is \$64.12.

<sup>25</sup> Calculations based on Burning Glass data.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*

<sup>28</sup> Unpublished case study from Jewish Vocational Service, 2014.

## EMPLOYERS ARE SEEKING MIDDLE-SKILL HEALTHCARE WORKERS

- All of the middle-skill occupations in healthcare analyzed for this report require more than 30 days to fill, which may signal employers' challenge in finding workers. Healthcare support and non-patient care roles have average posting durations of 45 days, and health information management roles take 51 days to fill.<sup>29</sup>

**TABLE 1. OVERVIEW OF DEMAND, GROWTH, WAGES AND POSTING DURATION IN MIDDLE-SKILL HEALTHCARE CATEGORIES**

Functional Category	SF-Bay Area Total Postings (July 2013–June 2014)	Projected 10-year growth	Mean Hourly Wage	Average Posting Duration
Nursing	12,630	15%	\$61.72	35 days
Sub-BA Practitioner	6,722	16%	\$29.23	37 days
Administrative	5,313	18%	\$34.88	39 days
Healthcare Support	3,535	24%	\$15.66	45 days
Technical, Non-Patient Care	2,000	15%	\$25.92	45 days
Health Information Management	564	13%	\$25.56	51 days

Source: Burning Glass

**TABLE 2. OVERVIEW OF DEMAND AND GROWTH FOR SELECT SUB-BA PRACTITIONER OCCUPATIONS IN HEALTHCARE**

Occupation	Total Postings (July 2013–June 2014)	Projected 10-year growth	Median Hourly Wage	Average Posting Duration
Medical Assistant	1,852	13%	\$21.04	36 days
Health Technician	680	14%	\$26.06	40 days
Radiology Technician	485	18%	\$42.38	36 days
Respiratory Therapist	225	21%	\$44.13	41 days
Physical Assistant	215	30%	\$31.97	39 days

Source: Burning Glass



<sup>29</sup> Based upon Burning Glass data, the average posting duration in the San Francisco region is 39 days – for middle-skill occupations and occupations overall.

# CAREER PATHWAYS



## HEALTHCARE PATHWAY

It is quite common in healthcare to move from clinical to administrative during career advancement. Some jobs feature both aspects.

	Occupation	Median Hourly Wage*	Education/Experience/Certifications	Role
Advanced Middle-Skill	Registered Nurse	\$54	ASN or BSN RN Certification	Clinical
	Licensed Vocational Nurse	\$29.64	Postsecondary Credential or AA LVN Certification	Clinical
	Medical/Health Services Manager	\$44.20	3-4 years of experience	Administrative
	Community Health Worker Manager	\$30+	3-4 years of experience	Administrative
Bridge Role	Community Health Worker Supervisor	\$26-\$30	Postsecondary Credential or AA	Administrative
Low Middle-Skill	Community-Based Organization or Public Housing Development Program Officer	\$24-\$30	BA or MA in Public Health	Administrative
	Medical Evaluation Assistant	\$24-\$30	Postsecondary Credential MEA Certification	Administrative
	Senior Community Health Worker	\$21-\$26	Postsecondary Credential; Internship	Clinical/ Administrative
	Community Health Educator	\$24+	Postsecondary Credential	Administrative
	Pharmacy Technician	\$19-\$21	High School with Training	Administrative
	Health Information Technician	\$22.57	BA/AA in Health Information Management	Administrative
	Medical Assistant	\$19.83	Postsecondary Credential CMA Certification	Clinical/ Administrative
	Community Health Worker	\$17-\$21	Postsecondary Credential CHW Certification	Clinical/ Administrative
Bridge Role	Medical Office Assistant	\$14	High School with Training	Administrative
Entry-Level	Certified Nursing Assistant	\$12	High School with Training [2-6 weeks] CNA Certification	Clinical
	Home Health Aide	\$11.62	High School with Training [75 hours] HHA Certification	Clinical
	Personal Care Aide	\$11.59	High School with Training	Clinical

[Source: Adapted from the "Healthcare Jungle Gym" developed by The Public Equity Group and Jewish Vocational Service; median hourly wage for San Francisco and San Mateo from the U.S. Bureau of Labor Statistics & the San Francisco Office of Economic and Workforce Development (rounded to the nearest whole \$)]

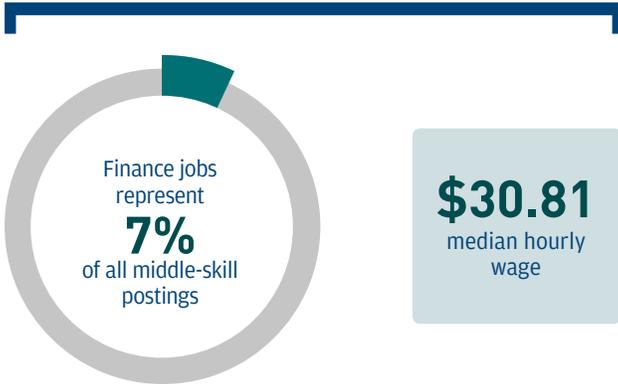
\* Because the chart is adapted from a local stakeholder the wages may not align exactly with those used elsewhere in the report.



## OPPORTUNITIES IN FINANCE

The finance industry provides a variety of middle-skill positions and positions with skills that are in high demand in other sectors.

### THERE ARE MORE THAN 14,000 MIDDLE-SKILL FINANCE JOB POSTINGS IN THE BAY AREA



(Source: Burning Glass)

- Finance occupations are found across a wide range of sectors, including healthcare, professional services, real estate and manufacturing. 37% of all finance occupations are in sectors other than finance and insurance.<sup>30</sup>
- For Bookkeeping/Accounting Clerk – one of the most in-demand finance roles – 91% of postings are in sectors other than finance and insurance.<sup>31</sup>
- While the financial sector overall is projected to decline by 5% between 2014-2019,<sup>32</sup> Table 3 shows that there is a strong 10-year growth rate projected for targeted middle-skill finance occupations – 15% in Financial Transactions and Analysis and 8% in Sales.<sup>33</sup>
- These cross-sector job possibilities increase career advancement opportunity for middle-skill finance workers.
- As table 4 shows, sales roles include a variety of well-paid positions. The high average posting duration for these occupations indicates that employers may be struggling to find qualified candidates.

**TABLE 3. OVERVIEW OF DEMAND AND GROWTH ACROSS OCCUPATIONAL GROUPS IN FINANCE**

Primary Skill Group	Total Postings (July 2013–June 2014)	Projected 10-year growth	Mean Hourly Wage
Financial Transactions and Analysis	5,594	15%	\$25.13
Sales	5,248	8%	\$43.09
Customer Service	2,610	6%	\$20.10
Administrative Support	446	-8%	\$21.95
Inventory Management and Inspection	218	8%	\$19.19

Source: Burning Glass

**TABLE 4. DEMAND AND GROWTH IN SELECT SALES OCCUPATIONS**

Occupation	Total Postings (July 2013–June 2014)	Average Median Wage	Average Posting Duration
Financial Services Sales Agent	1,271	\$54.22	41 days
Loan Officers	1,043	\$42.11	35 days
Insurance Sales Agent	830	\$34.80	40 days
Bank Branch Manager	788	\$75.32	41 days

Source: Burning Glass

<sup>30</sup> Burning Glass.

<sup>31</sup> Burning Glass.

<sup>32</sup> EMSI.

<sup>33</sup> Burning Glass.

## FINANCE OCCUPATIONS LEAD TO CROSS-SECTOR MIDDLE-SKILL OPPORTUNITIES

- Transferrable skills allow middle-skill workers to access career advancement opportunities across a wide range of industry sectors. For example, there are nearly 37,000 well-compensated openings for General and Operations Managers across a wide variety of industries, such as computer and information services and research and consulting.<sup>34</sup>
- Finance occupations in particular provide a range of cross-sector employment opportunities in industries such as professional services, real estate, educational services and accommodation and food services.<sup>35</sup>
- The baseline and secondary skills required for sales positions – communications, customer service, financial analysis and problem solving – are critical for finance jobs, such as Loan Officer or Bank Branch Manager, and also occupations in insurance, real estate and professional services.
- Nearly half of all job postings for payroll specialists are in professional services, healthcare and manufacturing, combined. Demand for billing clerks is spread across healthcare (25% of job postings) and professional services (27%).<sup>36</sup>
- Similarly, one-quarter of finance postings in 2013-14 were for Bookkeepers/Accounting Clerks. These positions have a median hourly wage of \$23.64 and are sought after by employers across healthcare, manufacturing and insurance.<sup>37</sup>



<sup>34</sup> EMSI.

<sup>35</sup> Burning Glass.

<sup>36</sup> *Ibid.*

<sup>37</sup> Calculations based on Burning Glass data.

# CAREER PATHWAYS



## FINANCE PATHWAY

	Occupation	Median Hourly Wage	Typical Entry-Level Education	Certifications and Skills	Top Industries
Advanced Middle-Skill	Bank Branch Manager	\$75.32	Bachelor's Degree	Certified Public Accountant; Licensed Mortgage Loan Originator; Chartered Financial Analyst; Project Management Certification; Series 7 Business Development; Financial Product Sales; Sales Management; Business Planning	Finance
	Loan Officer	\$42.11	Bachelor's Degree	Mortgage License Business Development; Loan Origination; Underwriting; Mortgage Lending	Finance; Real Estate; Insurance; Professional, Scientific and Technical Services
	Financial Service Sales Agent	\$54.22	Bachelor's Degree	Series 6; Series 7; Mortgage License Business Development; Financial Product Sales and Delivery; Insurance Sales; Telemarketing; Financial Planning and Advisement	Finance; Insurance
Middle-Skill	Insurance Sales Agent	\$34.80	High School Diploma or Equivalent	Life and Health Insurance License; Property and Casualty License; Series 6 Business Development; Health Insurance Sales; Lead Generation; Product Sales and Delivery; Telemarketing; Insurance and Lending Rules and Regulations	Insurance
Entry-Level	Personal Banker	\$19.06	High School Diploma or Equivalent	Mortgage License; Series 6 Business Development; Cold Calling; Product Sales and Delivery; Telemarketing; Mortgage Loan Origination	Finance
	Teller	\$14.82	High School Diploma or Equivalent  Short-Term On-The-Job Training	Product Sale and Delivery; Cash Handling; ATM Transactions; Payment Processing; Retail Sales	Finance

Commonly requested baseline sales skills include: communications; writing; organizational skills; problem solving; computer skills; listening; detail-oriented; multi-tasking; self-starter; presentation skills; strong math; customer service.

Common software skills: Microsoft Office and Excel.

(Source: Burning Glass)

# EXPANDING OPPORTUNITY

Despite overall economic job growth, too many Bay Area residents are struggling with unemployment, low educational attainment and poverty. In addition, systemic challenges constrain the capacity of stakeholders to address the skills and opportunity gaps on a regional level.

## MANY BAY AREA RESIDENTS ARE NOT BENEFITTING FROM THE REGION'S PROSPERITY

### EDUCATIONAL ATTAINMENT

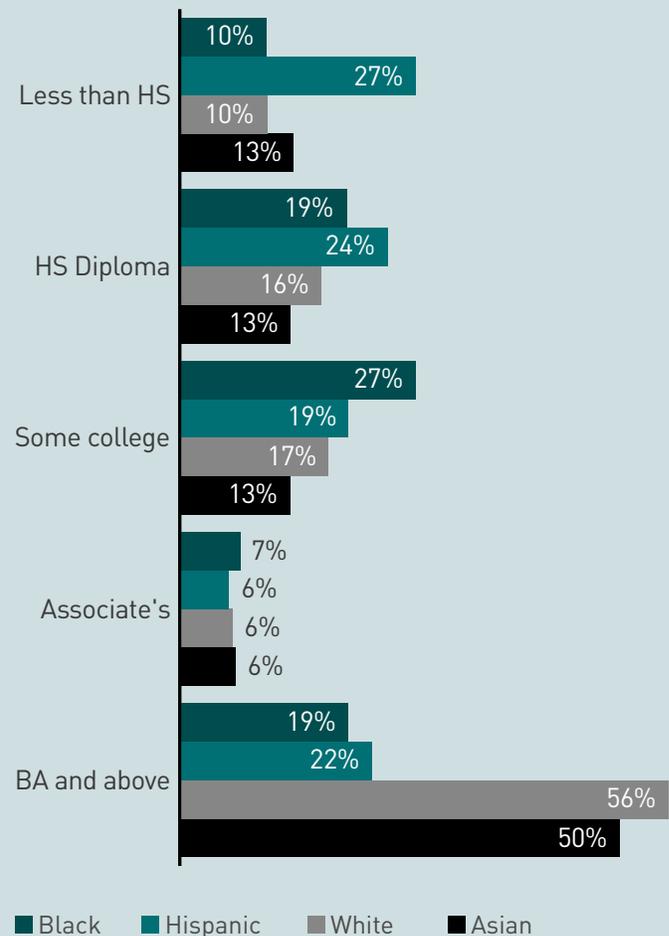
While the Bay Area on average boasts high educational attainment, many residents lack the skills and credentials to succeed in the middle-skill job market.<sup>38</sup> More critically, educational attainment in the Bay Area varies dramatically by race and ethnicity.

- In the three-county region, 56% of whites and 50% of Asians over the age of 25 hold Bachelor's degrees, compared to 19% of African-Americans and 22% of Hispanics.
- 27% of Hispanic adults lack a high school credential, compared with 10% of whites.
- 27% of African Americans and 19% of Hispanics have earned some college credits but lack the degree that would help them access middle-skill jobs.

### POVERTY

- The California Poverty Measure (CPM), which accounts for the high cost of living in the Bay Area, shows steep poverty rates – 25% in San Francisco and 18% in San Mateo and Santa Clara counties.<sup>39</sup>
- Poverty is highly correlated with race, ethnicity and educational attainment. According to the CPM, 15% of whites in San Francisco County live in poverty, compared to 37% of Hispanic San Franciscans and roughly three in 10 African-American and Asian-American residents.<sup>40</sup> Only 9% of college graduates live in poverty, while 64% of adults with less than a high school credential live in poverty.
- A recent report from SPUR, a leading local civic planning organization, identified infrastructure challenges such as inadequate affordable housing and limited public transportation as significant barriers to employment opportunities and economic development. The report offers a variety of strategies to address these issues.<sup>41</sup>

CHART 1. EDUCATIONAL ATTAINMENT BY RACE



(Source: American Community Survey U.S. Census Bureau)

38 All data in this section are from the U.S. Census Bureau. The 2011-2013 estimates are for the three-county region. *American Community Survey*. Retrieved from: <http://factfinder.census.gov>

39 Stanford Center on Poverty and Inequality, 2015 analysis for JFF.

40 *Ibid.*

41 SPUR, Center for Continuing Study of the California Economy, San Mateo County Union Community Alliance and Working Partnerships USA, (2014). *Economic Prosperity Strategy: Improving Economic Opportunity for the Bay Area's Low- and Moderate-Wage Workers*. Retrieved from: [http://www.spur.org/sites/default/files/publications\\_pdfs/Economic\\_Prospersity\\_Strategy\\_print.pdf](http://www.spur.org/sites/default/files/publications_pdfs/Economic_Prospersity_Strategy_print.pdf)

## UNEMPLOYMENT

Despite the region's low overall unemployment rate, people of color and those with low educational attainment are much more likely to be unemployed.

- Unemployment is highest for those with a high school diploma or less. In San Francisco, 13% of high school dropouts are unemployed, the highest rate in the Bay Area.<sup>42</sup>
- However, the **long-term unemployed** **6** are more likely to be well educated.

**TABLE 5. UNEMPLOYMENT BY EDUCATION LEVEL**

Educational Attainment	San Francisco	San Mateo	Santa Clara
Less than High School Graduate	13.3%	8.3%	11.9%
High School Graduate (includes equivalency)	10.2%	9.1%	12.6%
Some College or Associate's degree	9.2%	7.9%	9.6%
Bachelor's degree or higher	4.5%	4.7%	5.3%

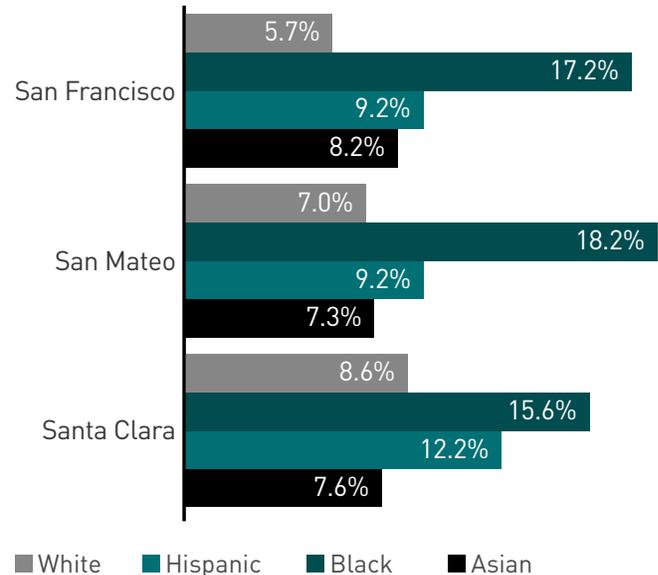
Source: American Community Survey

- Unemployment rates are much higher for African-Americans than for whites, Hispanics or Asians. In San Francisco, the unemployment rate is 5.7% for whites, but three times as high (17.2%) for African-Americans. In San Mateo, 7% of white job seekers are unemployed, compared to 18.2% of black job seekers.<sup>43</sup>

### **6 (Re)Employment for the Long-Term Unemployed**

JPMorgan Chase has made a national commitment to address the needs of the long-term unemployed. Respondents in the Bay Area report that long-term unemployed job seekers tend to be well-educated former financial and professional services professionals perceived as lacking up-to-date skills or "too old" (on average, age 46) and lacking up-to-date skills. Jewish Vocational Service (JVS) has prioritized meeting the needs of the long-term unemployed because they make up just over 40% of all clients. Because these workers have a different profile (three-fourths have a Bachelor's degree and one-fourth have a post-graduate degree), JVS is developing technology training programs specifically for the long-term unemployed. This new effort, which will serve 800 job seekers, is supported by a U.S. Department of Labor Ready to Work Grant.

**CHART 2. UNEMPLOYMENT RATE BY RACE/ETHNICITY, BAY AREA COUNTIES**



(Source: American Community Survey U.S. Census Bureau)

## MANY BAY AREA WORKING RESIDENTS ARE STUCK IN LOW-WAGE, LOW-SKILL JOBS

Low-skilled residents tend to work in low-wage jobs with limited opportunity for advancement and unpredictable work schedules. More than one-third of the Bay Area workforce earns less than \$18 per hour for full-time work,<sup>44</sup> far below the region's **living wage** **7** of \$23.34 for a family of two adults and one child.<sup>45</sup> Low wages and unpredictable schedules prevent these residents from taking advantage of education and training opportunities that would increase their earnings.

### **7 Raising the Minimum Wage**

In San Francisco, the minimum wage will increase from \$10.74 to \$15 per hour by 2018, an important step towards greater financial stability for low-skill and entry-level middle-skill workers.<sup>46</sup> The Center on Wage and Employment Dynamics at the University of California-Berkeley estimates that 71% of the affected workers will be people of color; 29% have children and nearly 80% work full time.<sup>47</sup>

<sup>42</sup> U.S. Census Bureau, 2011-2013 estimates for the three-county region. *American Community Survey*. Retrieved from: <http://factfinder.census.gov>

<sup>43</sup> *Ibid.*

<sup>44</sup> *Ibid.*

<sup>45</sup> EMSI drew upon data from the MIT Living Wage Calculator for this estimate. Additional information is available here: <http://livingwage.mit.edu>

<sup>46</sup> At the time of writing the report, San Jose (Santa Clara county) also has a bill pending to raise the minimum wage. Retrieved from: <http://livingwage.mit.edu>

<sup>47</sup> Michael Reich, Ken Jacobs, Annette Bernhardt and Ian Perry, (2014). *San Francisco's Proposed City Minimum Wage Law: A Prospective Impact Study*. Institute for Research on Labor and Employment, University of California, Berkeley. Retrieved from: <http://www.irle.berkeley.edu/cwed/briefs/2014-04.pdf>

## CREDENTIAL INFLATION IS LIMITING MIDDLE-SKILL OPPORTUNITIES

Research suggests that an increase in the supply of qualified applicants can lead employers to raise credential requirements for job postings up to 30%<sup>48</sup> as employers may rely on a Bachelor's degree as a proxy for skills and competencies in areas where they lack measures of proficiency.<sup>49</sup>

Almost half of all Bay Area residents hold Bachelor's degrees, compared to 31% nationwide, which may lead the region's employers to prefer candidates with higher than necessary credentials, even when their postings do not require that credential.<sup>50</sup> This makes many positions that require only middle-skill competencies unattainable for workers with less than a Bachelor's degree.

Yet employers may find credential inflation problematic over time.

- Job notices in occupations with high levels of credential inflation are posted longer than others, suggesting that these employers have more trouble filling positions.<sup>51</sup>
- Employers report that workers with Bachelor's degrees in middle-skill jobs have higher turnover, driving up training and recruitment costs. In addition, employers must constantly recruit for high-skill workers (often poaching from competitors) because they lack a pool of middle-skill workers to train for advancement.<sup>52</sup>
- Companies and industries with older-than-average workforces and rising credential requirements will have greater difficulty replacing their retirees, because younger workers – even those with appropriate skills and experience – lack the credentials to qualify for those jobs.<sup>53</sup>

## SYSTEMIC CHALLENGES LIMIT THE BAY AREA'S CAPACITY TO ADDRESS REGIONAL SKILLS AND OPPORTUNITY GAPS

The state's workforce delivery system is organized in such a way that multiple workforce boards represent distinct sub-economies. As a result, cities and counties tend to work on problems in parallel rather than collaborating across the region for greater impact. Similarly, autonomous community colleges often develop their own career pathways, creating disconnected and duplicated programs and credit transfer rules that students often struggle to navigate. Better partnerships with education and training providers might help employers gain access to a larger and more qualified talent pool. However, employers vary in their awareness of how community colleges can help meet their hiring needs. Some report confusion in their attempts to work with community colleges on training initiatives for specific industries or acknowledge having minimal provider interactions.<sup>54</sup> Community colleges can collaborate with the workforce system to position colleges as a key component of the talent supply chain. To address these challenges, the state is now promoting stronger **regional collaboration** **8**.

### **8 Promoting Regional Collaboration**

The California Community Colleges system's **Doing What Matters** promotes regional alignment among community college workforce training programs and capacity to track salaries and employment of program graduates.<sup>55</sup> **Bay Area Community College Consortium** coordinates this effort, focusing on healthcare and technology pathways.

**Assembly Bill 86** provides funding to support regional collaboration among consortia of community colleges and school districts to develop strategies that improve outcomes for individuals in adult education, ESL and career training programs – a critical and under-resourced approach to helping low-skilled adults access career pathways.<sup>56</sup> **AB86** also created the **Career Pathways Trust** to fund consortia of school districts, community-based organizations, postsecondary institutions and employers to develop pathways that connect high school students to education and training in high-demand occupations.

The California Workforce Investment Board's **Slingshot Initiative** provides funds to support regional partnerships to tackle large-scale employment and education issues.<sup>57</sup>

48 Alicia Sasser Modestino, Joshua Balance and Daniel Shoag (2015). *Upskilling: Do Employers Demand Greater Skill when Workers are Plentiful?* Working Paper, Northeastern University. Retrieved from: [http://www.uml.edu/docs/sasser\\_tcm18-168682.pdf](http://www.uml.edu/docs/sasser_tcm18-168682.pdf)

49 Burning Glass Technologies, (2014). *Moving the Goalposts: How Demand for a Bachelor's Degree is Reshaping the Workforce*. Retrieved from: <http://burning-glass.com/research/credentials-gap/>

50 Burning Glass.

51 Burning Glass Technologies, (2014). *Moving the Goalposts: How Demand for a Bachelor's Degree is Reshaping the Workforce*. Retrieved from: <http://burning-glass.com/research/credentials-gap/>

52 McDonnell, Rachel and Murphy, Lucretia (October 2014). Interview with Jay Banfield of Year Up of the Bay Area.

53 Burning Glass Technologies, (2014). *Moving the Goalposts: How Demand for a Bachelor's Degree is Reshaping the Workforce*. Retrieved from: <http://burning-glass.com/research/credentials-gap/>

54 McDonnell, Rachel (February 2015). Interview with Linda Galliher, Vice President of Public Policy, Bay Area Council.

55 California Community Colleges, (2015). *Doing What Matters for Jobs and the Economy* website. Retrieved from: <http://doingwhatmatters.cccco.edu>

56 California Department of Education and California Community Colleges Chancellor's Office, (2015). *AB86: Collaborating to Better Serve the Educational Needs of Adults*, website. Retrieved from: <http://ab86.cccco.edu>

57 California Workforce Investment Board, (2015). *Slingshot: Accelerating Income Mobility Through Regional Collaboration*. Retrieved from: [http://www.cwib.ca.gov/res/docs/meeting\\_agendas/2014/Slingshot%20Packet.pdf](http://www.cwib.ca.gov/res/docs/meeting_agendas/2014/Slingshot%20Packet.pdf)

# RECOMMENDATIONS

The Bay Area economy is vigorous, but sustaining the region's long-term prosperity will require collaboration by stakeholders to create a comprehensive and inclusive human capital strategy. Some promising regional strategies have already emerged. The following recommendations will assist stakeholders in strengthening middle-skill opportunities and ensuring a diverse supply of qualified middle-skill workers.

## DEVELOP A REGIONAL DEMAND-DRIVEN CAREER PATHWAYS SYSTEM TO CONNECT MORE RESIDENTS TO MIDDLE-SKILL JOBS

### Recommendation

#### 1. Strengthen middle-skill opportunities in the Bay Area.

The Bay Area's bifurcated labor market raises concerns about the erosion of middle-skill job opportunities in some sectors. Efforts to strengthen middle-skill opportunities would be mutually beneficial for employers and residents and slow the fast-rising inequality in the region.

- Leverage employers' growing commitment to diversifying the talent pipeline in order to engage the business community. Business and industry leaders should be front and center in developing and executing solutions. Organizations like the Bay Area Council and the Bay Area Workforce Funders Collaborative can use their convening power to promote employer-driven strategies.
- Develop clear career progressions within firms or industries that enable incumbent workers to advance from entry-level jobs to middle-skill positions based on experience, performance and demonstration of skills mastery. Partners like the Bay Area Community College Consortium (BACCC) and Year Up can help inform this effort.
- Expand strategies for developing work readiness through the use of **transitional jobs** **9** which incentivizes hiring workers in need of experience through public subsidies for a trial employment period. San Francisco's JobsNow program, for example, connects job seekers with subsidized opportunities in small businesses.

#### 9 Investing in Businesses that Invest in Low-Skilled Workers

REDF, a California-based nonprofit, invests in "social enterprises" across the state – **employers committed to creating jobs** and providing training and support for applicants with multiple barriers to employment. For example, REDF collaborated with Community Housing Partnership (CHP), which provides supportive housing to formerly homeless individuals and families, to create Solutions SF, a social enterprise that provides lobby staffing and maintenance services to local property managers. Solutions SF hire CHP clients, providing them an entry-level position in property maintenance. A recent evaluation showed that employees of social enterprises receive on-the-job training, have better job retention and experience greater overall life stability.<sup>58</sup>



58 Nan Maxwell, Dana Rotz and Adam Dunn, (2015). *Social Enterprises, Economic Self-Sufficiency and Life Stability*. Mathematica Policy Research. Retrieved from: <http://redf.org/wordpress/wp-content/uploads/2015/02/REDF-MJS-Final-Report-Brief.pdf>

## Recommendation

### 2. Develop a comprehensive regional system of career pathways that expand and diversify the talent pipeline for middle-skill careers.

- Develop and expand “**bridge**” programs **10** that connect low-skilled residents to career pathway programs by integrating basic skills, including ESL and workplace skills into the first stage of all career pathway programs.
- Increase **collaboration with community-based organizations** **11** in career pathway development. CBOs play a critical role in connecting education and training providers and employers, and provide students and job seekers comprehensive support services that reduce **barriers to success** **12**.
- Encourage residents with some college credits but no degree to earn a marketable postsecondary credential. Promising strategies include developing targeted recruiting materials; awarding credit for prior learning and experience; providing flexible class scheduling and offering comprehensive support services.
- Advocate for policies that would enable community colleges to respond more quickly with new pathway programs to meet emerging labor market needs, such as differential funding for high-cost, high-demand programs.<sup>59</sup>

### **10** Bay Area Workforce Funders Collaborative: Investing in On-Ramps to Success

Since 2008, the Bay Area Workforce Funders Collaborative has worked to boost access to middle-skill jobs by increasing the capacity of community colleges to educate and train low-skilled adults. The collaborative focuses on expanding the delivery and effectiveness of “on-ramp” programs that integrate basic skills, ESL and workforce readiness instruction with technical training in established career pathways. The Collaborative’s investments include **Cabrillo College’s** Accelerated Medical Assisting Program; **City College of San Francisco’s** Bridge to Bioscience program, **Skyline College’s** Allied Health and Transportation, Distribution and Logistics programs, **Cañada College’s** ICT program, and **Laney College’s** bridge programs for Industrial Maintenance. All programs feature strong partnerships, contextualized basic skills and work-based learning.

### **11** SparkPoint Centers Connect Students With Supports They Need

SparkPoint, a program offered by the United Way Bay Area, is a platform for integrated service delivery across a range of partners, including community-based organizations, community colleges and employers, to improve the delivery of support services for students and also help employers reduce the costs of recruitment and retention. Bundled services include career and financial coaching, adult education and workforce training. At Skyline Community College, retention for SparkPoint students is 87%, compared with 50% for other students.<sup>60</sup> Cañada College recently added a SparkPoint center as well.

### **12** Expanding Opportunities for Ex-Offenders

A criminal record can pose a major challenge to students and job seekers – but the challenge is not insurmountable. Education and training providers can work with industry partners to identify jobs that are open to ex-offenders and advocate with employers to give qualified applicants an opportunity. Education and training providers can also work closely with prisons and re-entry programs to create programs specifically designed around their clients’ needs. One measure to open up opportunities to ex-offenders is San Francisco’s new Ban the Box ordinance, which will bar most private employers, publicly funded housing providers and city contractors from asking about criminal history on job applications.

## Recommendation

### 3. Map out pathways to careers within and across industry sectors to help job seekers leverage transferable skill sets.

- Assess where there are intersecting skill sets across high-growth industries to support more expansive thinking about both program development and funding.
- Identify portable in-demand skills and competencies and develop “transferable competency maps” for relevant industries.
- Develop career navigation materials for job seekers that illustrate where transferable skills are in demand across a range of industries.
- Ensure adequate career navigation support for job seekers taking less traditional routes to education and training.

<sup>59</sup> The Bay Area Council Economic Institute has also recommended differential state funding, see Sean Randolph and Hans Johnson, (2014). *Reforming California Public Higher Education for the 21<sup>st</sup> Century: A Bay Area Council Economic Institute White Paper*. Retrieved from: <http://documents.bayareacouncil.org/higheredreport.pdf>. The California Community College Task Force on Workforce, Job Creation and a Strong Economy is also considering strategies for differential funding. See: <http://doingwhatmatters.cccco.edu/StrongWorkforce/BurningQuestionsFAQs.aspx> for additional information.

<sup>60</sup> McDonnell, Rachel (February 2015). Interview with Emily Harpster of the United Way of the Bay Area.

## Recommendation

### 4. Identify and develop work-based learning **13** and career advancement strategies that are mutually beneficial to low-wage workers and employers.

- Develop and expand on-the-job learning opportunities, including apprenticeships, paid internships and other “learn and earn” approaches with built-in rewards for employees as they progress along a career pathway.
- Explore innovative strategies to make the most of work-based learning, including agreements between employers and community colleges to award postsecondary credit and credentials for work-based learning.
- Facilitate participation in work-based learning through tuition assistance, on-site career counseling, regular work schedules and paid release time. On-site workplace ESL/literacy courses have proven especially successful for frontline workers (such as janitors and food service) in the tech sector, for example.

### **13** Expanding Work-Based Learning

The Bay Area benefits from several work-based learning models that could be expanded and adapted to provide valuable work experience to more young people and adults across the region.

**Summer Jobs+** has helped over 19,000 young adults since 2012 find summer employment through partnerships with employers, including Starbucks, Old Navy and University of California-San Francisco. United Way’s MatchBridge manages Summer Jobs+ in partnership with multiple city agencies.<sup>61</sup>

**Linked Learning** and **California Community Colleges Linked Learning Initiative** have developed strategies for integrating academics, career-based learning and work experience into high school and postsecondary pathways that enable students to graduate high school prepared for both college and careers.

**LaunchPath**, a joint project of the Linked Learning Alliance and the Foundation for California Community Colleges, provides a centralized platform for matching students with work-based learning opportunities. Students earn “digital badges” for specific competencies they master through work-based learning to help communicate the skills they have gained to prospective employers.

## Recommendation

### 5. Build capacity across education, workforce development and economic development to expand the regional approach to strengthening middle-skill sector and diversifying the supply of middle-skill workers.

- Leverage federal and state policies, including the Workforce and Innovation Opportunity Act and California’s AB86, which incentivize regional collaboration and offer **technical assistance** **14** to help plan, staff and implement regional strategies.
- Expand the region-wide efforts of the BACCC, which convenes multiple employers within a particular sector, such as advanced manufacturing or biotechnology, along with workforce development, education and economic development stakeholders, to design employer-responsive career pathways and prepare residents for middle-skill occupations.
- Establish clear roles across stakeholders that draw on each organization’s strengths, including community-based organizations that are often the first point of entry for low-skilled residents seeking education and training.
- Devise shared accountability measures for regional stakeholders and identify opportunities to use these measures to promote greater alignment and collaboration.
- Leverage the California Community College Launch Board to track students and workers across community colleges and into the workforce. These data can identify challenges in hiring and retention, racial/ethnic disparities and other weak points in the system, as well as opportunities to expand on best practices.

### **14** The Career Ladders Project

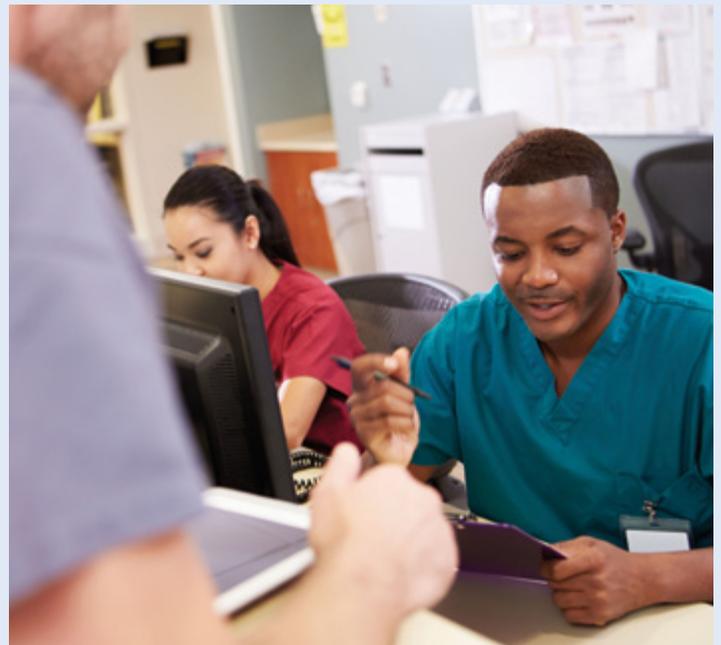
The Career Ladders Project provides technical assistance to community college pathway development and has played a key role in several transformative projects with a Bay Area presence, including the Career Advancement Academies, the California Gateway Project and the California Community Colleges Linked Learning Initiative. This level of technical assistance is critical for maximizing the opportunities presented by AB86, Doing What Matters and state and local initiatives.

<sup>61</sup> United Way of the Bay Area, (2014). *Summer Jobs+ Report: Putting Young People to Work*. Retrieved from: <http://sfsummerjobs.org/resources/sf-summer-jobs-report>

# CONCLUSION

Viewed overall, the Bay Area economy appears to hum like a high-end processor. But the region is not humming for everyone, especially young people and African-American and Hispanic job seekers. Armed with few resources and supports to access education and training, many who are employed find it difficult to move beyond the fast-growing but low-wage employment sector. Employers and stakeholders have also expressed concern that the middle-skill sector is shrinking, which limits individual advancement opportunities and could undermine employers' ability to grow a talent pool large enough to replace retiring workers. But Bay Area stakeholders are well positioned to strengthen middle-skill jobs, create economic opportunities for families, meet employers' demand for a diverse, skilled workforce and boost regional prosperity.

Through the *New Skills at Work* initiative, JPMorgan Chase proposes to help advance these stakeholders' efforts by offering guidance on how to develop a regional career pathways system to launch young people and low-skill adults into good jobs with advancement potential. Starting with the middle-skill occupations in two leading industries - healthcare and finance - JPMorgan Chase has helped to provide targeted recommendations to implement this strategy in the Bay Area, fortify the region's middle-skill sector for the future and help more Bay Area residents access good jobs that enable them to support themselves and their families.



# APPENDIX A – Methodology

All data in this report are provided for the San Francisco Bay Area, defined as San Francisco County, San Mateo County and Santa Clara County, unless otherwise noted.

## Methodology to Identify “Middle-Skill” Occupations

Four criteria were used to identify middle-skill occupations, as follows:

1. Selected occupations must pass a minimum requirement for the percentage of their workforce that possesses a high school diploma and less than a four-year degree.
2. 25% or more of the workforce for each target occupation must surpass the living wage for families with two adults and one child.
3. Each occupation must surpass a minimum growth rate over the past three years.
4. Occupations with limited annual openings are filtered out. The term “middle-skill” typically refers to the level of education required by a job. This study expands the common definition by adding three additional criteria (wage, growth rate and number of annual openings). This expanded approach will make sure selected occupations are not only middle skilled but also provide a living wage and are growing.

To provide a picture of the economy (e.g. description of employment, unemployment, workforce and education) the report uses EMSI’s data aggregated from over 90 federal, state and private sources. EMSI aggregates data such as the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics, Local Area Personal Income (LAPI) from the Bureau of Economic Analysis, County Business Patterns (CBP) from the Census Bureau and Education Completers data from

the Department of Education. EMSI applies proprietary methods to remove suppressions and include data for proprietors to yield a comprehensive representation of the regional workforce. Unlike the Bureau of Labor Statistics data, EMSI’s trademarked methodology includes underreported self-employment, investments trusts and partnerships, certain farms and tax-exempt nonprofit cooperatives.

The report includes analytical information from Burning Glass Technologies, which provides real-time labor market demand information from online job postings. Real-Time Labor Market Information (RT LMI) is data gleaned from a large number of online job postings. Several private sector entities have developed software that collects online job postings by “scraping” or “spidering” the listings from the Internet and organizing them into standardized data categories, especially the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system. These private-sector entities have also built tools that permit analysis by those looking for current and detailed information on hiring trends and employer demand (including certifications and skill prerequisites).

Burning Glass aggregates and codes data from online job postings based on the North American Industry Classification System (NAICS), Standard Occupational Classification (SOC) and the Occupational Information Network (O\*NET). Burning Glass’ patented parsing and data extraction capabilities can extract, derive and infer more than 70 data elements from any online job posting, providing in-depth insights into employers demand for skills and credentials.

This analysis does not include participation in the informal economy.

# APPENDIX B – Select Middle-Skill Occupations in Healthcare and Finance

TABLE 6. TARGET OCCUPATION DEMAND 2014-2019, SAN FRANCISCO, SAN MATEO AND SANTA CLARA COUNTY

Description	2014 Jobs	2019 Jobs	2014-2019 Change	2014-2019 % Change	2013 Avg. Hourly Earnings, San Francisco	2013 Avg. Hourly Earnings, San Mateo & Santa Clara	Annual Openings
Administrative Services Managers	5,735	6,179	444	8%	\$49.36	\$55.93	187
Financial Managers	17,307	18,834	1,527	9%	\$72.09	\$67.73	662
Purchasing Managers	1,541	1,589	48	3%	\$66.44	\$72.80	45
Human Resources Managers	3,411	3,689	278	8%	\$57.14	\$70.59	152
Wholesale and Retail Buyers, except Farm Products	2,378	2,526	148	6%	\$30.84	\$26.80	97

Description	2014 Jobs	2019 Jobs	2014-2019 Change	2014-2019 % Change	2013 Avg. Hourly Earnings, San Francisco	2013 Avg. Hourly Earnings, San Mateo & Santa Clara	Annual Openings
Purchasing Agents, except Wholesale, Retail and Farm Products	6,080	6,358	278	5%	\$35.69	\$38.46	172
Cost Estimators	3,116	3,433	317	10%	\$44.15	\$37.69	169
Human Resources Specialists	9,712	10,183	471	5%	\$35.82	\$40.98	281
Logisticians	3,030	3,406	376	12%	\$38.74	\$46.06	113
Meeting, Convention and Event Planners	3,303	3,892	588	18%	\$28.68	\$29.77	168
Business Operations Specialists, All Other	24,084	25,582	1,498	6%	\$40.69	\$46.72	643
Credit Analysts	1,342	1,430	88	7%	\$47.85	\$41.32	53
Loan Officers	3,697	3,768	71	2%	\$49.87	\$39.23	125
Tax Preparers	2,451	2,641	191	8%	\$29.93	\$26.01	91
Health Educators	970	1,059	90	9%	\$34.26	\$31.03	45
Community Health Workers	887	985	97	11%	\$19.63	\$23.23	44
Community and Social Service Specialists, All Other	1,307	1,434	127	10%	\$24.94	\$23.33	62
Dental Hygienists	2,749	2,981	232	8%	\$54.76	\$49.02	121
Emergency Medical Technicians and Paramedics	1,195	1,316	121	10%	\$30.17	\$23.12	64
Licensed Practical and Licensed Vocational Nurses	4,523	5,188	665	15%	\$29.75	\$28.74	261
Opticians, Dispensing	801	979	177	22%	\$19.81	\$21.64	62
Massage Therapists	3,882	4,408	526	14%	\$19.83	\$15.87	150
Dental Assistants	5,504	5,764	260	5%	\$23.43	\$20.53	170
Medical Transcriptionists	942	1,079	137	15%	\$19.55	\$18.42	47
Parts Salespersons	1,423	1,433	11	1%	\$22.63	\$18.84	43
Advertising Sales Agents	5,327	5,782	456	9%	\$30.77	\$30.75	272
Insurance Sales Agents	10,817	11,523	706	7%	\$39.98	\$30.32	440
Sales Representatives, Services, All Other	24,192	26,518	2,325	10%	\$35.44	\$41.45	1,174
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	12,661	13,840	1,179	9%	\$45.39	\$56.19	505
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	15,358	16,744	1,386	9%	\$29.48	\$30.78	639
Sales Engineers	4,895	5,191	296	6%	\$56.96	\$59.33	149
Sales and Related Workers, All Other	4,844	5,266	422	9%	\$25.79	\$23.67	185
First-line Supervisors of Office and Administrative Support Workers	20,941	22,310	1,369	7%	\$32.02	\$32.40	803
Bill and Account Collectors	3,767	4,089	322	9%	\$21.98	\$24.08	177
Billing and Posting Clerks	6,274	6,848	573	9%	\$23.51	\$22.63	238
Bookkeeping, Accounting and Auditing Clerks	26,896	29,247	2,351	9%	\$23.73	\$23.23	734
Payroll and Timekeeping Clerks	2,582	2,780	198	8%	\$25.88	\$25.54	101
Loan Interviewers and Clerks	2,178	2,311	133	6%	\$23.81	\$22.62	58
Order Clerks	3,362	3,576	214	6%	\$20.21	\$21.31	139
Human Resources Assistants, except Payroll and Timekeeping	2,146	2,222	76	4%	\$21.93	\$24.70	71
Production, Planning and Expediting Clerks	5,674	5,909	235	4%	\$24.54	\$28.67	192
Medical Secretaries	7,665	8,471	805	11%	\$20.65	\$21.54	260

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