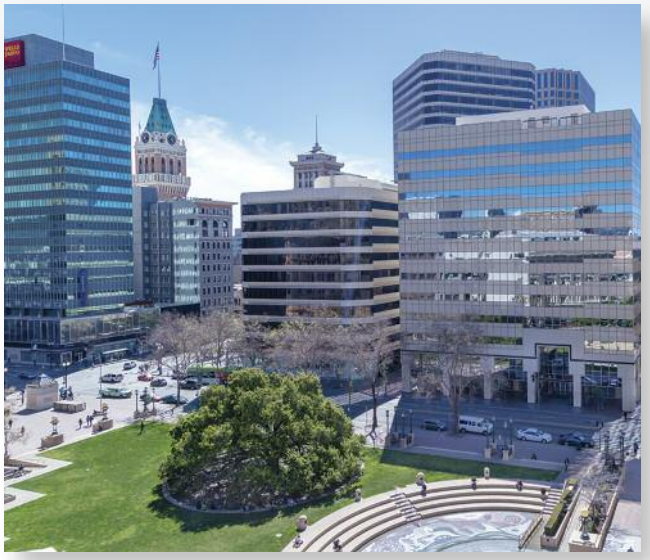
2016 Occupational Analysis of the Bay Area Labor Market

Executive Summary

WHEN IT COMES TO JOB GROWTH, MEDIA COVERAGE AND PUBLIC DISCOURSE OFTEN CENTER on which industries are doing well but omit key discussions about which occupations within those industries are driving the growth. Ultimately, this leads to an incomplete picture of a local labor force. The Health Care Services industry in the City of Oakland, for example, has been one of the area's leaders in job growth over the last few years, but it has not been clear which occupations are driving the expansion or whether Oakland residents are ready for the newest high-demand positions.

This report uses data on pay levels, occupations, educational attainment, and job requirements to provide a more complete picture of the region's labor force. The analysis reveals which Bay Area industries have been driving growth in terms of the number of new jobs created and the leading occupations within these industries at the regional level. The report also examines the city's labor force to give a sense of how well prepared Oakland residents are for the fast-growing occupations in today's economy.



Some of the report's top findings:

• Job growth by occupation has been diverse over the last few years, with occupations on both ends of the wage spectrum adding the most to overall employment growth.

• Software developer occupations in the Professional, Scientific, and Technical Services industry have been among the largest contributors to employment gains in the Bay Area, followed by food preparation occupations in the Leisure and Hospitality industry.

• The top five industries in the Bay Area that have consistently contributed to employment growth over the last three years have been Leisure and Hospitality, Professional, Scientific, and Technical Services, Information, Health Care Services, and Construction.

• Leading occupations within these industries that hold higher wage potential include software developers, computer systems analysts, registered nurses, and carpenters.

• A large share of employees in these leading occupations hold degrees, primarily in the computer, mathematics, and statistics field as well as in the physical and related sciences field.

• The educational profile for the Oakland population indicates that the local labor force has room for improvement in adapting to the job needs of tomorrow. Over the last few years, most new bachelor's degrees have been in the visual and performing arts field, and growth in the small number of bachelor's degrees in the computer, mathematics, and statistics field was among the slowest in the City.

There has been some progress over the last few years in aligning residents with the type of education that prepares them for the jobs of tomorrow. Growth in the number of new bachelor's degrees in the physical and related sciences field ranked second.

This report is divided into three sections. The first will examine which industries have been the drivers of job growth in the region and which occupations have been the top contributors within each industry. The second will identify specific occupations within the leading industries that are attainable and provide middle to high income. The final section will examine the city's labor force in particular and provide an assessment of how ready the city is for the jobs in highest demand.

OAKLAND CHAMBER of COMMERCE

July, 2016

BAY AREA LABOR MARKET

THE SAN FRANCISCO BAY AREA HAS BEEN ONE OF the major drivers of job growth in the Golden State over the last few years, providing residents in the region with more employment opportunities than many other areas in the state. The high-growth Technology industry has been a major factor in the strong pace of job creation, but other industries have made solid gains as well. The result is a diverse range of occupational opportunities for local residents of the City of Oakland and throughout the San Francisco Bay Area.

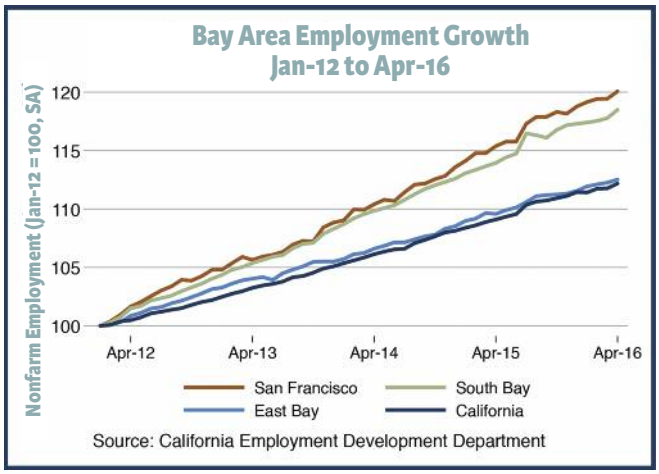
The labor market for the broader Bay Area is particularly relevant in examining job opportunities for Oakland residents, given that such a large percentage work outside of their county of residence, more than in other parts of the Bay Area.

According to the 2014 American Community Survey, 36.5% of workers who live in the City of Oakland commuted to jobs outside of Alameda County. In contrast, 12.7% of workers in Santa Clara County commuted to jobs outside that County, and 23.2% of workers living in San Francisco County did so. The number of outbound commuters from the City of Oakland is also substantially higher than the statewide average of 16.9%.

Within the San Francisco Bay Area, the six counties of the major metropolitan areas (East Bay, South Bay, and San Francisco, which together will be referred to as the "Bay Area" throughout the report) account for nearly 90% of all nonfarm employment in the larger nine-county San Francisco Bay Area and are the major locations of job growth. This section will focus on these metropolitan regions as a whole, and on the top industries contributing to overall job growth, in order to identify occupations driving employment growth.

The pace of job creation in the Bay Area has been exceptionally robust and, since the beginning of 2011, Bay Area job growth has been faster than for the state overall. Most recently, total nonfarm employment in the Bay Area increased by 3.3% compared to 2.6% for the state overall.

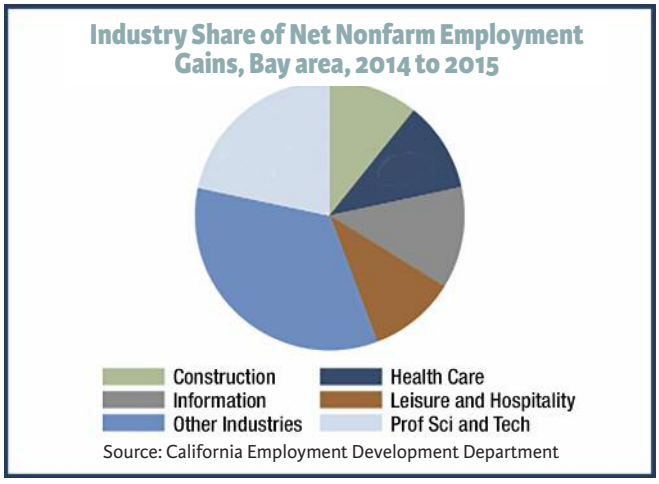
Some specific industries have been driving job gains in the Bay Area these last few years. Looking at job growth in the last year and in the last two years produces a specific list of leading industries. Described below are the top five industries in the Bay Area that have made the largest contributions to job growth in terms of the number of jobs created, and the top five occupations in each industry that have seen the most new jobs



Commuting Outside of County of Residence, 2014

Area of Residence	Percent of Workers
City of Oakland	36.5
San Francisco County	23.2
California	16.9
Santa Clara County	12.7

Source: American Community Survey



Professional, Scientific, and Technical Services

• The Professional, Scientific, and Technical Services industry has been the top contributor to job growth and has benefited from the tech boom in Silicon Valley, San Francisco, and increasingly in Oakland and from general economic expansion of the diverse businesses in this industry. The occupations that have been responsible for most of the new jobs from 2012 to 2014 (the latest data available from the American Community Survey):

- Software developers
- Miscellaneous managers
- Accountants and auditors
- Computer and information systems managers
- Chief executives

Information

The information industry has also benefited greatly from the Bay Area tech boom, and the non-tech companies in this industry have also done well. The information industry is made up of a diverse range of publishers of everything from software to books, and the types of jobs contributing to employment growth in the industry reflect this diversity. The top five occupations in the information industry:

- Software developers
- Miscellaneous managers
- Sales representatives
- Marketing and sales managers
- Designers

Health Care

Serving one of the most populous regions in the state, the Bay Area Health Care industry continues to be a steady source of employment growth as demand for Health Care services increases with time. The stable upward trajectory in this industry creates a great opportunity for training because jobs in demand now will probably still be in demand five to ten years from now. The top five occupations that have added the most jobs to the Health Care industry:

- Registered nurses
- Medical assistants
- Personal care aides
- Therapists
- Social workers

Construction

As the Bay Area's economy continues to grow, demand has been increasing for new structures and for alterations and additions to existing structures has been on the rise. The construction industry can be highly cyclical, leaving it more vulnerable to economic downturns than other industries. Nevertheless, the Construction industry has been one of the top sources of job growth over the last few years, which is even more impressive given that it makes up a relatively small share of total nonfarm employment in the Bay Area. The top five occupations that have been driving gains in the Construction industry:

- Carpenters
- First-line supervisors
- Drywall installers
- Construction laborers
- Construction managers

Leisure and Hospitality

The Leisure and Hospitality industry has certainly been a large source of job growth in the Bay Area, but because of the lower wages in this industry, it will not be a focus for this report. Nevertheless, because it has been such a strong contributor to job growth, it warrants mention. As the regional economy and indeed the state and national economies have continued expanding, travel and tourism have also trended higher. This has created large demand for Leisure and Hospitality occupations, particularly in restaurants. The top five occupations that have added the most jobs from 2012 to 2014:

- Food preparation workers
- Bartenders
- Miscellaneous managers
- Restaurant food servers
- Receptionists

Many of these industries have been strong drivers of growth over a longer period as well, which underscores the importance of focusing on them. The Professional, Scientific, and Technical Services industry, as well as the Health Care and Information industries, have been the fastest-growing major industries over the last decade.

On a more local scale, job growth in Alameda County has been represented by many of the same industries, but there have been some unexpected findings. Professional, Technical, and Scientific Services, Construction and Health Care have been top contributors to overall job growth, but Manufacturing employment also made the list. In fact, from 2014 to 2015, the Manufacturing industry added 3,958 jobs, a 5.9% increase, and was the second-largest contributor to growth behind the Professional, Scientific, and Technical Services industry, which added 4,542 new jobs over the same period.

Long-Run Bay Area Industry Employment Trends

Industry	April-16 Employment Level	Percent Growth (%) 1-year	5-year	10-year
Total Nonfarm	3,270,928	3.6	19.6	15.8
Prof Sci and Tech	496,054	5.3	35.7	46.3
Government	388,525	1.2	2.8	-2
Health Care	380,959	3.9	18.2	35.4
Manufacturing	286,209	1.6	5.7	-4.6
Retail Trade	285,792	1.9	11.9	3.1
Admin Support	187,209	3.2	26.7	16
Information	163,683	6	45.2	55.1
Construction	159,489	10.1	52	4.9
Wholesale Trade	113,910	3.3	16.3	2.9
Other Services	106,089	1.5	13	14.3
Educational Services	96,968	4.6	20	38.2
Transport,Warehouse,Util.	96,027	3.2	20.9	7.5
NR/Mining	1,132	-7.7	-14.9	-20.9

Source: California Employment Development Department

OCCUPATIONAL OPPORTUNITIES

WHEN IT COMES TO IDENTIFYING JOB opportunities in the Bay Area labor market, a few considerations should be taken into account. Growth rates within occupations, average incomes, and levels of experience, skills, and abilities all come into play.

Identifying the occupations that provide most of the new jobs is certainly important, but income levels also need to be considered to gauge if an occupation is worth pursuing. In similar fashion, occupations requiring industry experience, such as manager or executive, are not always the best targets as they are not usually attainable immediately after completion of school. In addition, when looking at occupational opportunities from a region's workforce or economic development perspective, one must look at the region's current and prospective pool of workers as well as the education and other resources that can affect that pool in the future.

For these reasons, this report does not examine sectors such as Retail Trade and Leisure and Hospitality, both of which are large sources of employment, but in lower-skilled and entry level occupations for which there is generally an adequate supply of labor in the city and region. Occupations such as manager or executive are not considered either. Medical doctors are not taken into consideration as they require substantial education and training and are generally not as attainable as most other occupations.

The chart below uses these criteria to put together a list of the hottest occupations in the Bay Area. These are the top occupations within the industries that are driving job growth. They provide medium to high income and have long-term growth potential because they are known to reward experienced workers. Some are more attainable than others, of course, but overall they are target occupations for workforce development.

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Source: California Employment Development Department

What stands out most in the list is how attainable many of these jobs are, particularly the high-income positions. Except for a master's degree for software developer and a doctorate for physical scientist, the jobs in this list have an average educational attainment of a bachelor's degree or less. The takeaway is that getting an advanced graduate or professional degree isn't necessarily the only route to these hot occupations. The key is targeting the right field in order to be well positioned for the jobs of tomorrow.

The top-ranked occupations in the Professional, Scientific, and Technical Services industry show a diverse range of backgrounds and high incomes across the board. Top bachelor's degrees include computer science, account-

Top Bay Area Occupations for Workforce Development

Occupation	Industry	2014 Average Income ($)	Top Field of Bachelor Degree	Average Educational Attainment
Software developer	Prof, Sci, and Tech / Information	141,000	Computer science	Master's
Accountants and auditors	Prof, Sci, and Tech Services	96,000	Accounting	Bachelor's
Human resources workers	Prof, Sci, and Tech Services	124,000	Business mgmt and admin	Bachelor's
Physical scientists	Prof, Sci, and Tech Services	108,000	Chemistry	Doctorate
Sales representatives	Information Services	161,000	General business	Bachelor's
Designers	Information Services	78,000	Commercial art and graphic design	Bachelor's
Computer programmers	Information Services	140,000	Computer science	Bachelor's
Registered nurses	Health Care Services	98,000	Nursing	Bachelor's
Social workers	Health Care Services	45,000	Social work	Bachelor's
Diagnostic technicians	Health Care Services	91,000	General medical / health services	Associate's
Therapists (including physical)	Health Care Services	53,000	Psycology	Bachelor's
Carpenters	Construction	42,000	No Bachelor degree	High school diploma
Drywall / ceiling tile installers	Construction	49,000	No Bachelor degree	No diploma
HVAC / refrigeration installers	Construction	46,000	No Bachelor degree	Some college
Sales representatives	Construction	59,000	No Bachelor degree	Associate's

ing, business management and administration, and chemistry. This diverse range allows for multiple paths to high-wage jobs in the Bay Area and highlights the opportunities job seekers have in this industry.

Some of the occupations in the Information industry that ranked high are a bit surprising, given the tech-heavy nature of this industry. Although computer science degrees offer a good path to software developer and computer programmer positions, sales representatives and designers are also in high demand. There are always support positions related to the broader Technology industry; after all, every product needs someone to sell it.

Top-ranked occupations in the Health Care Services industry demonstrate that quality jobs are readily attainable, given that none of the occupations on the list shows a graduate or professional degree as the average educational attainment. In particular, the average educational attainment for diagnostic technicians is an associate's degree, and the average annual income was $91,000 in 2014. Also noteworthy: There is a diverse range among the top field of bachelor's degrees for each occupation, again highlighting the multiple paths to gainful employment in the Bay Area.

And finally, the top-ranked occupations in the Construction industry show that, even without a college degree, there are occupations that offer paths to jobs with decent wages. Notably, among the Construction industry occupations that made the list, most of the workers did not have bachelor's degrees. This finding suggests that vocational schools could be an important part of workforce development strategies as sometimes workers need only some specialized training.

East Bay Trends

A more localized and longer-term analysis shows many of the same occupations are in high demand in the East Bay. The Occupation and Employment Statistics (OES) data from the Bureau of Labor Statistics offers a more current snapshot of local occupations compared to the American Community Survey. The downside to this data source is that East Bay occupations in specific industries cannot be readily identified, only that these occupations are within the East Bay.

An analysis of the OES data for the East Bay shows that many of the same occupations in the hot industries in the larger Bay Area are driving job growth in the East Bay as well. Software developers, sales reps, and construction workers top the list of high-demand occupations in the East Bay. The chart below shows the top 20 occupations in the East Bay based on the criteria for the top Bay Area occupations listed above. These represent the occupations in the East Bay that have contributed the most to overall job growth, are relatively attainable, and offer medium to high income.

Not surprisingly, occupations related to the technology industry have commanded strong wage growth. From 2010 to 2015, median wages for software developer occupations increased by roughly 25%. No other occupation in the top 20 reached that level of growth. The closest was compliance officer, with wages growing 21.3% from 2010 to 2015. In contrast, the median wage across all occupations increased by 5.9% over the same period.

OAKLAND CHAMBER of COMMERCE

Top East Bay Occupations

Occupation	Median Wage		5 year job growth		
	2015 Wage	5 year growth (%)	2015 Employment	New Jobs	Growth (%)
Secretaries and Assistants, Except Legal, Medical, and Executive	42,520	4.5	12,775	5,235	69.4
Software Developers, Systems Software	121,890	26.9	7,092	3,108	78.0
Software Developers, Applications	121,090	24.4	9,098	2,210	32.1
Computer Systems Analysts	91,760	10.1	6,912	2,010	41.0
Sales Representatives, Services, All Other	58,370	-1.5	7,560	1,954	34.9
Market Research Analysts and Marketing Specialists	80,140	10.3	5,026	1,692	50.7
Painters, Construction and Maintenance	48,890	5.4	2,913	1,047	56.1
Heavy and Tractor-Trailer Truck Drivers	45,170	1.6	7,956	1,000	14.4
Securities, Commodities, and Financial Services Sales Agents	51,990	-38.7	2,783	970	53.5
Insurance Sales Agents	67,420	-28.7	2,681	966	56.3
Carpenters	61,630	-0.3	7,320	958	15.1
Self-Enrichment Education Teachers	46,210	18.6	1,942	936	93.0
Middle School Teachers, Except Special/Technical Education	65,260	1.3	4,387	924	26.7
Financial Analysts	99,890	13.4	3,105	923	42.3
Electricians	78,870	2.7	4,344	823	23.4
Compliance Officers	85,100	21.3	2,289	732	47.0
Management Analysts	88,840	-4.8	5,759	707	14.0
Cost Estimators	73,470	-8.7	2,449	670	37.7
Cement Masons and Concrete Finishers	51,160	-14.1	1,329	602	82.8
Police and Sheriff's Patrol Officers	99,030	15.7	4,332	535	14.1

Source: Bureau of Labor Statistics

OCCUPATIONAL OPPORTUNITIES

Vocational Training for Top Occupations

The top skills and abilities that employers look for are often unanimous across the board: Employers want critical thinkers, active listeners who can comprehend oral directions, and those who can comprehend written directions. However, the importance of specific skills and abilities in one occupation relative to the rest can help explain which skills and abilities could be developed to help employees succeed. Here are descriptions of skills and abilities that employers value highly, based on surveys conducted by the Occupational Information Network (O*NET).

Professional, Scientific, Technical Services

• Software developers: The skills most desired by employees include programming and technology design. Employers also look for ability in mathematical reasoning, number facility, and originality.

• Accountants and auditors: Employers seek workers with skill in managing financial resources, number facility, and ability in mathematical reasoning and written expression.

• Human resources workers: Workers in these occupations are expected to be skilled in social perceptiveness, written expression, and deductive reasoning.

• Physical scientists: Apart from the advanced academic standards required to enter this occupation, employers highly value skills in science and operations analysis and inductive reasoning.

Information Services

• Sales representatives: The skills most desired by employers include management of financial and material resources; ability in oral and written expression is highly valued.

• Designers: Workers in this occupation succeed when they are highly skilled in operations analysis and technology design. Exceptional originality, visualization, visual color discrimination, and fluency of ideas are also valued.

• Computer programmers: Programming is the critical skill required in this occupation; however, employers also value technology design and design skills as well as information ordering ability.

Health Care Services

Registered nurses: Speaking, science, service orientation, and instructing skills are important for nurses. Employers and health care service recipients also highly value sensitivity.

• Social workers: The skills most desired by employers include speaking and social perceptiveness. Employers also seek workers with ability in oral comprehension and oral expression.

• Diagnostic technicians: Workers in this occupation succeed when they are skilled in science, technology design, and troubleshooting and when they are sensitive to problems.

• Therapists, including physical: The skills that help workers in these occupations include reading comprehension, active listening, and learning strategies. Therapists do well in these occupations when they also have dynamic flexibility, stamina, and gross body coordination ability.

Construction

• Carpenters: Workers in this occupation, as in many other occupations in the industry, do well when they have strong skills in installation, repairing, and equipment maintenance. Manual dexterity, problem sensitivity, visualization, and strength are also important.

• Drywall and ceiling installers: Apart from strong installation, repairing, and equipment maintenance skills, workers in this occupation are expected to excel in near vision, trunk strength, and arm-hand steadiness.

• HVAC and refrigeration installers: The skills most desired by employers include troubleshooting and equipment maintenance; they also look for ability in problem sensitivity, near vision, deductive reasoning.

OAKLAND
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CITY OF OAKLAND LABOR FORCE

THE CITY OF OAKLAND HAS A UNIQUE opportunity to capitalize on strong regional employment growth given its location in the heart of one of the major engines of economic growth in California and the nation. The job centers in the South Bay and San Francisco have been the epicenter of that growth, and these vibrant economies are increasingly spilling over into the City of Oakland.

This raises the important question: Are Oakland residents ready for these new jobs, both in their own City and elsewhere in the Bay Area? Examination of the City's labor force and top-ranked occupations shows that the City has its work cut out for it in the years to come.

It's not that the City's labor force isn't educated. On the contrary, the City of Oakland's population is markedly more educated than the population of the state overall and of the nation. Nearly 50% of the population age 25 and over in the City had associate's degrees or higher in 2014, compared to about 40% in California and the United States overall. What's more, 17.6% of Oakland resident's age 25 and over hold graduate or professional degrees; in the state and nation overall, those shares are 11.8% and 11.4%, respectively.

But it's not just the general level of educational attainment that matters in getting the hottest new jobs. The fields in which degrees are earned are important. In 2014 a large number of bachelor's degrees held by Oakland residents were in the social sciences (15.4%) and visual and performing arts (10.5%), neither of which matches up well with the top occupations in the Bay Area.

This is not to say that education in the social sciences and visual and performing arts is without value, but from a workforce development perspective, it would be beneficial to see the degrees held by City residents align more closely with workforce demands for the growing regional labor market. In the field of computers, mathematics, and statistics, for example, there were only 157 new degrees in the most recent two years of data. In contrast, there were 2,795 new visual and performing arts degrees over the same period.

There are some promising trends in the latest data, however. The number of new degrees in the physical sciences field has increased greatly from 2012 to 2014 and ranked third among new bachelor's degrees. Engineering degrees have also been on the uptrend and ranked fifth in 2014. This is the opportune time for the City to reinforce these trends and encourage students to earn degrees in other strong fields, such as computers, mathematics, and statistics.

Educational Attainment, 2014

Attainment	United States	California	City of Oakland
Population 25 years and over	213,725,624	25,654,292	291,686
Less than 9th grade	5.6%	10.0%	11.2%
9th to 12th grade, no diploma	7.5%	7.9%	9.0%
High school graduate (includes equivalency)	27.7%	20.9%	15.1%
Some college, no degree	21.0%	21.7%	19.3%
Associate's degree	8.2%	7.8%	6.2%
Bachelor's degree	18.7%	20.0%	21.7%
Graduate or professional degree	11.4%	11.8%	17.6%

Source: American Community Survey

Fields of Bachelor's Degrees, City of Oakland 2014

Degree Field	Population 25 and over	Compared to Two Years Ago
Total:	114,577	6,814
Science and Engineering		
Computers, Mathematics and Statistics	4,163	157
Biological, Agricultural, and Environmental Sciences	8,618	891
Physical and Related Sciences	4,064	1,549
Psychology	6,730	-760
Social Sciences	17,623	-89
Engineering	6,905	1,387
Multidisciplinary Studies	1,594	664
Science and Engineering Related Fields	6,684	-126
Business	11,744	-3,023
Education	4,878	-828
Arts, Humanities, and Other		
Literature and Languages	10,440	934
Liberal Arts and History	9,337	1,762
Visual and Performing Arts	12,081	2,795
Communications	4,755	-38
Other	4,961	1,539

City of Oakland Demographics 2014

Median Age	36.2
Percent of Population:	
Male	48.0
White	27.5
Hispanic	27.4
Black	23.6
Asian	15.3

Source: American Community Survey

The demographic profiles of the top occupations in this report highlight another challenge facing workforce development programs: how to deal with a lack of racial diversity in the hot jobs of tomorrow. Whites and Asians fill most of the occupations listed in the previous section. The City of Oakland, however, is diverse, with blacks and Hispanics/Latinos making up a large portion of the population.

This demographic/cultural divide is most apparent in the occupations related to the tech industry. Software developer occupations in the Professional, Scientific and Technical Services and Information industries, for example, are nearly 80% male, and jobs are filled almost entirely by Asians or whites. Computer programmers in the information industry have a similar distribution, and there are so few black or Hispanics/Latinos in these occupations that they did not even appear in the Bay Area sample of the American Community Survey.

CITY OF OAKLAND LABOR FORCE

The lack of diversity in the tech industry was recently put in the spotlight in a report released by the Equal Employment Opportunity Commission (EEOC). It found that employment in computer science and engineering in the United States is growing twice as fast as total employment in the nation overall but that there are "significantly" few female, black, and Hispanic employees in those jobs, which often provide better pay and benefits.

The EEOC later held a three-hour panel discussion on the topic, and panelist Benjamin Jealous of Kapor Capital, former president and CEO of the National Association for the Advancement of Colored People, suggested the following steps organizations can take to increase diversity:

• Use blind screening of resumes.

• Use a variation of the National Football League's "Rooney Rule" to require the interviewing of at least one minority or female in each interview round.

• Double bonuses for employee referrals of diverse candidates.

• Take into account past adversities overcome as a metric in evaluating candidates.

• Audit work environments for subtle messages, such as science fiction posters in computer science classrooms, which may send subtle messages to women that they don't belong.

• Encourage establishment of employee resource groups, providing women and minorities the space to talk to people like themselves.

• Update the organization's conflict resolution process so that everyone might be heard without triggering a battle.

• Encourage and reward employees who work with nonprofits and develop underrepresented talent.

• Use technology to diversify your talent pool and eliminate bias in hiring.

Demographic Profiles of Top Bay Area Occupations, 2014

Occupation	Industry	Median Age	Percent of Occupations				
			Male	White	Asian	Hispanic	Black
Software developer	Prof, Sci, and Tech / Information	35	79.8	34.2	59.5	2.3	1.4
Accountants and auditors	Prof, Sci, and Tech Services	36	38.2	53.9	39.8	3.8	0
Human resources workers	Prof, Sci, and Tech Services	37	35.9	55.2	32.0	7.0	4.9
Physical scientists	Prof, Sci, and Tech Services	37	58.3	48.7	41.4	5.5	4.4
Sales representatives	Information Services	40	62.7	54.6	22.7	16.8	1.0
Designers	Information Services	29	43.8	62.4	28.6	9.0	0
Computer programmers	Information Services	34	68.9	35.5	64.5	0	0
Registered nurses	Health Care Services	44	13.5	38.1	41.7	9.5	6.5
Social workers	Health Care Services	43	21.4	41.0	19.6	29.5	5.8
Diagnostic technicians	Health Care Services	48	39.5	60.8	19.0	11.5	2.0
Therapists (including physical)	Health Care Services	35	31.4	51.7	30.0	13.8	3.3
Carpenters	Construction	37	98.5	20.2	5.0	73.2	1.2
Drywall / ceiling tile installers	Construction	37	100	4.7	0	95.3	0
HVAC / refrigeration installers	Construction	38	100	40.0	5.3	53.3	0
Sales representatives	Construction	38	78.6	82.0	10.9	3.6	0

Source: American Community Survey

CONCLUSION

MANY OF THE INDUSTRIES LEADING JOB GROWTH in the Bay Area are here to stay. The tech industry has taken root in San Francisco and Silicon Valley, and the economy of the future will increasingly rely technology to boost productivity and economic growth. The Health Care industry will be a constant source of labor demand as the region's population ages and grows. The Construction industry will also be a source of labor demand as the stock of current residential and commercial structures ages and new structures are needed to support growth.

With these industries leading the way for the immediate future, the occupations that have provided the bulk of new jobs within these industries can also be expected to remain in high demand. The city of Oakland is well situated to take advantage of strong job growth throughout the Bay Area by focusing workforce development efforts on preparing its residents for new jobs.

The city's labor force is well educated, but the fields of the majority of academic degrees do not match well with the occupations in high demand. There are some signs of a transition to fields that align more with these occupations, such as physical sciences and engineering, but there is still much room for improvement as there has been very little growth in the number of new degrees in some important areas, including computers, mathematics, and statistics.

OAKLAND CHAMBER of COMMERCE

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