Emerging Jobs and Changing Demands of the Workforce

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What does BLS do?

- Principal Federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy
- Principal federal economic indicators for inflation, employment/unemployment, and employment costs
- Also, produce measures of occupational safety and occupational projections
- Data used by policymakers, funding, benefits, wage setting, and contracts
Employment in total nonfarm
January 2003–October 2014
Seasonally adjusted, in thousands

October 2014 Level: 139,680
OTM Change: 214*
Jan 2008 peak: 138,365
Feb 2010 trough: 129,655

Shaded area represents recession as denoted by the National Bureau of Economic Research.
Most recent 2 months of data are preliminary.
* denotes significance.
Employment in total nonfarm

Over-the-month change, January 2011 - October 2014
Seasonally adjusted, in thousands

Most recent 2 months of data are preliminary.
Civilian unemployment rate
Seasonally adjusted, 2003–2014

October 2014
Level: 5.8

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS14000000.

Civilian labor force participation rate
Seasonally adjusted, 2003–2014

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS11300000.

Employed part time for economic reasons
Seasonally adjusted, 2003–2014

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS12032194.

Persons not in the labor force, selected indicators
Not seasonally adjusted, 2003–2014

Numbers in thousands

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNU05026642&series_id=LNU05026645.

Alternative measures of labor underutilization
Seasonally adjusted, 2003–2014


Long-term unemployed as a percent of total unemployed
Seasonally adjusted, 2003–2014

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS13025703.

Duration of unemployment
Seasonally adjusted, 2003–2014

Numbers in thousands

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000
0 1,000 2,000 3,000 4,000 5,000 6,000 7,000


Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS13008396&series_id=LNS13008756&series_id=LNS13008876&series_id=LNS13008636.

Unemployment rates by race and Hispanic or Latino ethnicity
Seasonally adjusted, 2003–2014

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Persons of Hispanic or Latino ethnicity may be of any race. Data online at http://data.bls.gov/timeseries/LNS14000003&series_id=LNS14000006&series_id=LNU04032183&series_id=LNS14000009.
Unemployment rates for persons 25 years and older by educational attainment
Seasonally adjusted, 2003–2014

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS14027659&series_id=LNS14027660&series_id=LNS14027689&series_id=LNS14027662.

Unemployment rates for 25- to 64-year-olds by educational attainment, race, and Hispanic or Latino ethnicity, February 2013

Percent, not seasonally adjusted

- Less than a high school diploma
- High school graduates, no college
- Some college or associate degree
- Bachelor's degree and higher

Note: Persons whose ethnicity is identified as Hispanic or Latino may be of any race.
Education equals lower unemployment and more $
Unemployment Rates for Recent College Graduates and Other Groups

College Graduates’ Unemployment Rate, by Age

Percent

Age

Sources: U.S. Census Bureau, Decennial Census and American Community Survey.
Underemployment Rates for College Graduates

Share of Underemployed Graduates in Good Non-College and Low-Wage Jobs

Share of Underemployed Graduates Working Part-Time

Employment Outcomes for Recent College Graduates by Major, 2009-11

![Chart showing employment outcomes by major] (percentage unemployed, percentage in jobs where a bachelor's degree is required, percentage in jobs where a bachelor's degree is not required)
The “Work-More” Economy

- Employees doing two jobs for the price of one
- Employers expect employees to work longer hours than ever before
- Stress is number one reason high performers quit
- Towers & Watson 2013/14 Report Shows Employer-Employee Disconnect (see next slide)
<table>
<thead>
<tr>
<th>Issue</th>
<th>Employer View</th>
<th>Employee View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of work/life balance (excessive workloads or long hours)</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Inadequate staffing (lack of support, uneven workload or performance in group)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Technologies that expand availability during nonworking hours (e.g., mobiles, notebooks)</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Unclear or conflicting job expectations</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Fears about job loss; too much change</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Lack of supervisor support, feedback and role modeling</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Fears about benefit reduction/loss (e.g., lower value or loss of health care coverage, reduction in retirement benefits)</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Organizational culture, including lack of teamwork, and tendency to avoid accountability and assign blame to others</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Low pay or low increases in pay</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Lack of technology, equipment and tools to do the job</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>
Diverging trends for Productivity and Real Wages
Diverging trends for Productivity and Real Wages
Corporate Profits Have Recovered

Source: U.S. Department of Commerce: Bureau of Economic Analysis
Shaded areas indicate US recessions - 2014 research.stlouisfed.org
More job openings than hires

Change in Job Openings vs. Hires Since June 2009
Seasonally adjusted
Employers have more applicants and recruiting intensity is down
LinkedIn Study

10 hot job titles that barely existed 5 years ago

We examined over 259,000,000 LinkedIn members' profiles to determine the 10 most popular job titles that were barely on the map in 2008. Technology and fitness are the biggest drivers for these fascinating changes.

Source: http://talent.linkedin.com/blog/index.php/2014/01/top-10-job-titles-that-didnt-exist-5-years-ago-infographic
The Digital Marketing Specialist

Social media and digital marketing have become significant facets of many businesses (and we’re pretty glad that’s the case!)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>166</td>
</tr>
<tr>
<td>2013</td>
<td>2,886</td>
</tr>
</tbody>
</table>

17x growth in 5 years
THE CLOUD SERVICES SPECIALIST

Salesforce.com and Amazon were the 2 companies that introduced cloud computing to businesses throughout the early 2000s. The stark contrast in the number of jobs shows how popular and reliable cloud services have become.

<table>
<thead>
<tr>
<th>Year</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>195</td>
</tr>
<tr>
<td>2013</td>
<td>3,314</td>
</tr>
</tbody>
</table>

17x growth in 5 years
The Beachbody Coach

Beachbody coaches are distributors of fitness products produced by Beachbody LLC, the most famous of which is P90X, launched in 2004.

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td>3,360</td>
</tr>
</tbody>
</table>

3,360 x growth in 5 years
Although it's been around for at least 2 decades, the concept of big data took off around 2008. That year, the Computing Community Consortium published a white paper which propelled the term into the limelight.

- **2008**: 0
- **2013**: 3,440

3,440 x growth in 5 years
THE UI/UX DESIGNER

User interface and user experience designers focus on making our technology pleasant and intuitive to use. Seeing as our lives depend on interacting with technology, it’s no small wonder UI/UX designers are in hot demand.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>159</td>
</tr>
<tr>
<td>2013</td>
<td>3,509</td>
</tr>
</tbody>
</table>

22x growth in 5 years
5

THE DATA SCIENTIST

Our digital lives have created an overwhelming flood of information. In the last 5 years, data scientists have come to the rescue by trying to make sense of it all.

<table>
<thead>
<tr>
<th>Year</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>142</td>
</tr>
<tr>
<td>2013</td>
<td>4,326</td>
</tr>
</tbody>
</table>

30x growth in 5 years
THE SOCIAL MEDIA INTERN

LinkedIn, Facebook, YouTube and Twitter were all founded between 2003 and 2006. These networks really started hitting their stride after 2008 and are currently at peak popularity. Not a shocker that this is a surging profession.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>25</td>
</tr>
<tr>
<td>2013</td>
<td>4,350</td>
</tr>
</tbody>
</table>

174x growth in 5 years
The Zumba Instructor

Zumba started in the early 2000's and quickly gained traction in 2007 as fitness centers started popping up all over the US.

- 2008: 16
- 2013: 6,331

396x growth in 5 years
THE ANDROID DEVELOPER

Google's Android platform was also announced in 2007, with the release of the first Android-powered handset in 2008.

<table>
<thead>
<tr>
<th>Year</th>
<th>Android Developers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>53</td>
</tr>
<tr>
<td>2013</td>
<td>10,554</td>
</tr>
</tbody>
</table>

199x growth in 5 years
Apple announced the iPhone in 2007, and 3rd party development for iOS took off in 2008 with the release of iOS 2 and the App Store.

- 2008: 89
- 2013: 12,634

142x growth in 5 years
New 2010 SOC Job Titles

- Information Security Analysts
- Web Developers
- Computer Network Architects
- Magnetic Resonance Imaging Technologists
- Ophthalmic Medical Technicians
- Genetic Counselors
- Exercise Physiologists
- Hearing Aid Specialists
- Solar Photovoltaic Installers
- Wind Turbine Service Technicians
Employment Projections

Background

- 10-year projections made every 2 years
- 2012-22 projections cover over 800 occupations and 300 industries
- BLS projections prepared at the national level only
Employment Projections Process

**Labor Force**
- Total and by age, sex, race and ethnicity

**Aggregate Economy**
- GDP, total employment, and major demand categories

**Occupational Employment**
- Job openings due to growth & replacement needs
- Staffing patterns
- Staffing pattern ratio analyses
- Staff expertise
- Replacement rates

**Industry Final Demand**
- Sales to consumers, businesses, government, and foreigners

**Industry Employment**
- Labor productivity, average weekly hours, wage & salary employment

**Industry Output**
- Use and Make Relationships, Total Requirements Tables

**Population**
- Labor force participation rate trends

**Demographics**
- Fiscal policy
- Foreign economies
- Energy prices
- Monetary policy

**Industry Output**
- Input-Output Tables

**Technological change**
- Sector wage rates
Unemployment Rate

Assumption 2022
CA and U.S. Total Nonfarm Employment Between 1995-2022

Source: California Employment Development Department, Labor Market Information
Employment Outlook: 2012-22

Industry Employment
CA Projected Job Growth by Industry Sector, 2012-2022

- Leisure and Hospitality, 302,000
- Professional and Business Services, 550,200
- Educational Services, Health Care, and Social Assistance, 576,300
- Construction, 201,700
- Wholesale Trade, 108,300
- Retail Trade, 222,500
- Financial Activities, 89,000
- Information, 68,100
- Transportation, Warehousing, and Utilities, 66,600
- Other Services, 50,400
- Government, 97,100
- Mining and Logging, 4,500

Source: California Employment Development Department, Labor Market Information
CA Projected Employment Percent Change by Major Industry Sectors, 2012-2022

CA = 14.9%
US = 10.8%

Source: California Employment Development Department, Labor Market Information
Employment Outlook: 2012-22

Occupational Employment
Largest Occupations in California

Highest Concentrated Occupations in California

## Fastest Growing Occupations, California

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>2012 Employment</th>
<th>2022 Employment</th>
<th>2012 - 2022 Percent Change</th>
<th>Median Annual Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economists</td>
<td>3,100</td>
<td>5,100</td>
<td>64.5%</td>
<td>$95,263</td>
</tr>
<tr>
<td>Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters</td>
<td>2,900</td>
<td>4,600</td>
<td>58.6%</td>
<td>$31,491</td>
</tr>
<tr>
<td>Brickmasons and Blockmasons</td>
<td>5,100</td>
<td>8,000</td>
<td>56.9%</td>
<td>$64,916</td>
</tr>
<tr>
<td>Insulation Workers, Floor, Ceiling, and Wall</td>
<td>1,600</td>
<td>2,500</td>
<td>56.3%</td>
<td>$32,301</td>
</tr>
<tr>
<td>Stonemasons</td>
<td>1,100</td>
<td>1,700</td>
<td>54.5%</td>
<td>$45,598</td>
</tr>
<tr>
<td>Insulation Workers, Mechanical</td>
<td>1,100</td>
<td>1,700</td>
<td>54.5%</td>
<td>$44,738</td>
</tr>
<tr>
<td>Personal Care Aides</td>
<td>386,900</td>
<td>587,200</td>
<td>51.8%</td>
<td>$21,473</td>
</tr>
<tr>
<td>Foresters</td>
<td>1,200</td>
<td>1,800</td>
<td>50.0%</td>
<td>$72,702</td>
</tr>
<tr>
<td>Terrazzo Workers and Finishers</td>
<td>1,100</td>
<td>1,600</td>
<td>45.5%</td>
<td>$42,623</td>
</tr>
<tr>
<td>Mechanical Door Repairers</td>
<td>1,100</td>
<td>1,600</td>
<td>45.5%</td>
<td>$43,725</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information
# Largest Growing Occupations, California

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>2012 Employment</th>
<th>2022 Employment</th>
<th>Total Openings due to Growth</th>
<th>Median Annual Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care Aides</td>
<td>386,900</td>
<td>587,200</td>
<td>200,300</td>
<td>$21,473</td>
</tr>
<tr>
<td>Combined Food Preparation and Serving Workers, Including Fast Food</td>
<td>286,000</td>
<td>362,400</td>
<td>76,400</td>
<td>$19,166</td>
</tr>
<tr>
<td>Retail Salespersons</td>
<td>468,400</td>
<td>528,100</td>
<td>59,700</td>
<td>$22,405</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>270,500</td>
<td>322,300</td>
<td>51,800</td>
<td>$24,339</td>
</tr>
<tr>
<td>Waiters and Waitresses</td>
<td>246,100</td>
<td>290,300</td>
<td>44,200</td>
<td>$19,065</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>254,500</td>
<td>297,400</td>
<td>42,900</td>
<td>$95,415</td>
</tr>
<tr>
<td>General and Operations Managers</td>
<td>253,800</td>
<td>295,700</td>
<td>41,900</td>
<td>$105,248</td>
</tr>
<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>212,800</td>
<td>250,100</td>
<td>37,300</td>
<td>$37,415</td>
</tr>
<tr>
<td>Cashiers</td>
<td>357,800</td>
<td>392,600</td>
<td>34,800</td>
<td>$20,762</td>
</tr>
<tr>
<td>Cooks, Restaurant</td>
<td>116,900</td>
<td>150,600</td>
<td>33,700</td>
<td>$23,317</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information
## Average Annual Job Openings, California

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>New Jobs due to Growth</th>
<th>Replacement Needs</th>
<th>Total Openings due to Growth + Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care Aides</td>
<td>20,030</td>
<td>2,770</td>
<td>22,800</td>
</tr>
<tr>
<td>Retail Salespersons</td>
<td>5,980</td>
<td>16,020</td>
<td>22,000</td>
</tr>
<tr>
<td>Cashiers</td>
<td>3,480</td>
<td>15,470</td>
<td>18,950</td>
</tr>
<tr>
<td>Combined Food Preparation and Serving Workers, Including Fast Food</td>
<td>7,650</td>
<td>10,920</td>
<td>18,570</td>
</tr>
<tr>
<td>Waiters and Waitresses</td>
<td>4,420</td>
<td>11,840</td>
<td>16,260</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>5,180</td>
<td>8,380</td>
<td>13,560</td>
</tr>
<tr>
<td>Farmworkers and Laborers, Crop, Nursery, and Greenhouse</td>
<td>3,110</td>
<td>7,830</td>
<td>10,940</td>
</tr>
<tr>
<td>Office Clerks, General</td>
<td>3,030</td>
<td>6,930</td>
<td>9,950</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>4,300</td>
<td>4,930</td>
<td>9,230</td>
</tr>
<tr>
<td>General and Operations Managers</td>
<td>4,200</td>
<td>4,750</td>
<td>8,940</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information
# Fastest Declining Occupations, California

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>2012 Employment</th>
<th>2022 Employment</th>
<th>2012 - 2022 Percent Change</th>
<th>Median Annual Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal Service Clerks</td>
<td>7,400</td>
<td>5,000</td>
<td>-32.4%</td>
<td>$54,517</td>
</tr>
<tr>
<td>Postal Service Mail Sorters, Processors, and Processing Machine Operators</td>
<td>13,600</td>
<td>9,500</td>
<td>-30.1%</td>
<td>$54,507</td>
</tr>
<tr>
<td>Textile Knitting and Weaving Machine Setters, Operators, and Tenders</td>
<td>1,700</td>
<td>1,200</td>
<td>-29.4%</td>
<td>$19,861</td>
</tr>
<tr>
<td>Postal Service Mail Carriers</td>
<td>32,300</td>
<td>23,600</td>
<td>-26.9%</td>
<td>$57,210</td>
</tr>
<tr>
<td>Word Processors and Typists</td>
<td>26,800</td>
<td>20,400</td>
<td>-23.9%</td>
<td>$40,209</td>
</tr>
<tr>
<td>Semiconductor Processors</td>
<td>5,800</td>
<td>4,500</td>
<td>-22.4%</td>
<td>$34,021</td>
</tr>
<tr>
<td>Travel Agents</td>
<td>9,300</td>
<td>7,300</td>
<td>-21.5%</td>
<td>$38,127</td>
</tr>
<tr>
<td>Data Entry Keyers</td>
<td>23,700</td>
<td>18,700</td>
<td>-21.1%</td>
<td>$31,683</td>
</tr>
<tr>
<td>Prepress Technicians and Workers</td>
<td>4,400</td>
<td>3,500</td>
<td>-20.5%</td>
<td>$43,616</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information
Education and Training Classification

- Consists of three categories of information for each occupation:
  - Typical education needed for entry
  - Work experience in a related occupation
  - Typical on-the-job training needed to attain competency in the occupation
### CA Largest Growing Occupations Requiring Less than H.S. Diploma

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Employment 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care Aides</td>
<td>200,300</td>
</tr>
<tr>
<td>Combined Food Preparation and Serving...</td>
<td>76,400</td>
</tr>
<tr>
<td>Retail Salespersons</td>
<td>59,700</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material...</td>
<td>51,800</td>
</tr>
<tr>
<td>Waiters and Waitresses</td>
<td>44,200</td>
</tr>
<tr>
<td>Cashiers</td>
<td>34,800</td>
</tr>
<tr>
<td>Cooks, Restaurant</td>
<td>33,700</td>
</tr>
<tr>
<td>Janitors and Cleaners, Except Maids and...</td>
<td>33,200</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>31,800</td>
</tr>
<tr>
<td>Farmworkers and Laborers, Crop,...</td>
<td>31,100</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information, 2012-2022 Projections
## CA Largest Growing Occupations Requiring H.S. Diploma or Equivalent

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Employment 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretaries and Administrative...</td>
<td>37,300</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>32,000</td>
</tr>
<tr>
<td>Office Clerks, General</td>
<td>30,300</td>
</tr>
<tr>
<td>Carpenters</td>
<td>28,000</td>
</tr>
<tr>
<td>Bookkeeping, Accounting, and Auditing...</td>
<td>26,400</td>
</tr>
<tr>
<td>First-Line Supervisors of Office and...</td>
<td>25,000</td>
</tr>
<tr>
<td>Sales Representatives, Services, All Other</td>
<td>23,600</td>
</tr>
<tr>
<td>Security Guards</td>
<td>22,200</td>
</tr>
<tr>
<td>First-Line Supervisors of Food...</td>
<td>21,000</td>
</tr>
<tr>
<td>Sales Representatives, Wholesale and...</td>
<td>20,200</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information, 2012-2022 Projections
CA Largest Growing Occupations Requiring Associate’s Degree

Source: California Employment Development Department, Labor Market Information, 2012-2022 Projections
CA Largest Growing Occupations Requiring Bachelor’s Degree

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Job Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>41,900</td>
</tr>
<tr>
<td>Management Analysts</td>
<td>30,100</td>
</tr>
<tr>
<td>Market Research Analysts and Marketing...</td>
<td>28,500</td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td>28,000</td>
</tr>
<tr>
<td>Accountants and Auditors</td>
<td>25,600</td>
</tr>
<tr>
<td>Software Developers, Systems Software</td>
<td>19,000</td>
</tr>
<tr>
<td>Elementary School Teachers, Except...</td>
<td>18,700</td>
</tr>
<tr>
<td>Computer Systems Analysts</td>
<td>17,500</td>
</tr>
<tr>
<td>Computer and Information Systems...</td>
<td>10,400</td>
</tr>
<tr>
<td>Financial Managers</td>
<td>10,100</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information, 2012-2022 Projections
CA Largest Growing Occupations Requiring Master’s Degree

- Educational, Guidance, School, and...: 4,000
- Healthcare Social Workers: 3,200
- Physician Assistants: 2,800
- Instructional Coordinators: 2,700
- Nurse Practitioners: 2,600
- Rehabilitation Counselors: 2,500
- Education Administrators, Postsecondary: 2,500
- Occupational Therapists: 2,100
- Economists: 2,000
- Art, Drama, and Music Teachers, ...: 2,000

Source: California Employment Development Department, Labor Market Information, 2012-2022 Projections
CA Largest Growing Occupations Requiring Doctoral or Professional Degree

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawyers</td>
<td>9,900</td>
</tr>
<tr>
<td>Postsecondary Teachers, All Other</td>
<td>6,600</td>
</tr>
<tr>
<td>Medical Scientists, Except Epidemiologists</td>
<td>5,000</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>4,700</td>
</tr>
<tr>
<td>Health Specialties Teachers, Postsecondary</td>
<td>4,400</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>4,100</td>
</tr>
<tr>
<td>Physicians and Surgeons, All Other</td>
<td>3,600</td>
</tr>
<tr>
<td>Clinical, Counseling, and School...</td>
<td>2,400</td>
</tr>
<tr>
<td>Family and General Practitioners</td>
<td>2,100</td>
</tr>
<tr>
<td>Biochemists and Biophysicists</td>
<td>1,700</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, Labor Market Information, 2012-2022 Projections
Job Vulnerability due to Computerization

<table>
<thead>
<tr>
<th>Job</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational therapists</td>
<td>0.003</td>
</tr>
<tr>
<td>Dentists</td>
<td>0.004</td>
</tr>
<tr>
<td>Athletic trainers</td>
<td>0.007</td>
</tr>
<tr>
<td>Clergy</td>
<td>0.008</td>
</tr>
<tr>
<td>Chemical engineers</td>
<td>0.02</td>
</tr>
<tr>
<td>Editors</td>
<td>0.06</td>
</tr>
<tr>
<td>Firefighters</td>
<td>0.17</td>
</tr>
<tr>
<td>Actors</td>
<td>0.37</td>
</tr>
<tr>
<td>Health technologists</td>
<td>0.40</td>
</tr>
<tr>
<td>Economists</td>
<td>0.43</td>
</tr>
<tr>
<td>Commercial pilots</td>
<td>0.55</td>
</tr>
<tr>
<td>Machinists</td>
<td>0.65</td>
</tr>
<tr>
<td>Word processors and typists</td>
<td>0.81</td>
</tr>
<tr>
<td>Real estate sales agents</td>
<td>0.86</td>
</tr>
<tr>
<td>Technical writers</td>
<td>0.89</td>
</tr>
<tr>
<td>Retail salespersons</td>
<td>0.92</td>
</tr>
<tr>
<td>Accountants and auditors</td>
<td>0.94</td>
</tr>
<tr>
<td>Telemarketers</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Employment Outlook: 2012-22

Resources for Additional Information
Employment Projections Products

- **Occupational Outlook Handbook**
- **Occupational Outlook Quarterly**
- Long-term employment projections by industry and occupation
- Technical materials—replacement rates, education and training categories, and more
Employment Projections Program

www.bls.gov/emp
Projections articles in *Monthly Labor Review*

- Overview of projections to 2022
- The U.S. economy to 2022: settling into a new normal
- Labor force projections to 2022: the labor force participation rate continues to fall
- Industry employment and output projections to 2022
- Occupational projections to 2022
- Links to articles at [http://www.bls.gov/emp/publications.htm](http://www.bls.gov/emp/publications.htm)
Useful Employment Projections Sites

- Technical documentation of Employment Projections program methods and data

- Other Employment Projections program publications, including past *Monthly Labor Review* articles

- Frequently asked questions
  - http://www.bls.gov/emp/ep_faq_001.htm
State and Local Area Projections

- BLS prepares projections only for the nation as a whole
- Projections of industry and occupational employment are prepared by each state, using input from the BLS national projections
- State projections data, and links to each state’s projections site, are available
  - [http://www.projectionscentral.com/](http://www.projectionscentral.com/)
Projections Evaluation

- Last performed for 1996-2006 projections
- Comparisons were difficult due to classification changes
- BLS projections outperformed naïve models
- Direction of employment change was generally correct
Contact Information

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