About the Supply and Demand Tool: Description, Methodology and Update Notes

About This Tool - Description

The Supply and Demand Tool is a web-based interactive tool developed by the California Employment Development Department. This tool is designed to assist workforce partners, businesses, and educational institutions by providing data to build and strengthen partnerships in alignment with the Workforce Innovation and Opportunity Act.

Components:

California (Main Tab): provides statewide overviews of the Top 20 Instructional Programs by Completer and most in-demand Occupations.

Supply Tab: presents views of Regional Planning Unit/Occupation specific data regarding Instructional Program Completers for the previous five-year period.

Demand Tab: presents Regional Planning Unit/Occupation specific data regarding historic and projected job postings, with current median wages. It also provides region-specific detail regarding in-demand Occupations.

Education Tab: provides additional detail regarding Supply including a breakdown of the specific Instructional Programs and Award Levels associated with an Occupation. It also maps the schools where completers obtained their education.

Definitions/Key Measures:

Regional Planning Unit (RPU): The Workforce Investment and Opportunity Act (WIOA) of 2014 directed Local Workforce Development Boards and chief elected officials (CEOs) to cooperate within a planning region and develop a common response to local planning requirements that discusses regional labor market information. The 15 RPUs are comprised of one or more counties each and are primarily based on population and commute patterns, but also labor market information and geographic location. To see which RPU your county is in, hover over it on the map on the California Tab.

Occupation: The Bureau of Labor Statistics (BLS) maintains a set of Standard Occupational Classifications (SOC Codes) that provide a uniform framework for classifying positions based on the type of work performed regardless of employer or industry.

Completer: Completer totals represent the number of graduates from post-secondary programs (including technical, academic, and professional degree programs) from

schools located within that RPU. Data are obtained from the Integrated Postsecondary Education Data System (IPEDS).

Instructional Program: The National Center for Education Statistics (NCES) Classification of Instructional Program codes (CIP Codes) provide a uniform coding method to identify subject of study across all degree levels and types.

Middle-Skill: This is a way of categorizing Occupations based on entry-level education levels developed by the Department of Labor (DOL). Middle-skill occupations are linked to the following categories: Associates Degree, Post-Secondary Non-Degree Award, and Some College.

Exits: The projected number of workers leaving an occupation and exiting the labor force entirely. Labor force exits are more common at older ages as workers retire, but can occur at any age. Labor force exits are not necessarily permanent exits from the labor force; for example, some workers exit the labor force to pursue additional education with the intention of returning to the labor force.

Transfers: Workers permanently separating from an occupation. It does not include temporary movements where the worker is expected to return to the same occupation in the future.

Change: This measures the projected number of job gains or losses in an occupation for the projection period.

Total Job Openings: The sum of exits, transfers, and change.

For technical documentation regarding underlying data, please see references linked below under "Sources."

Methodology Notes: Data Compilation Methods, Limitations, Censored Data

The data presented are only an estimate of the supply and demand for specific occupations and should be considered as just one among many indicators.

Because certain data sources do not provide a one-to-one assignment, users should not attempt to generate totals across multiple groupings without a clear understanding of the data sources and methods used to generate the data.

Supply/Education:

Scope: Supply data reflects only the portion of the labor market representing individuals who have recently completed an instructional program beyond high school. It does not include estimates of unemployment, job transfers, or regional migration. Completers may already have a job, plans for further education, or may have moved/plan to move out of the geographic area.

Note: Only first (primary) majors are included.

Non-Exclusive Occupational Linkages: IPEDS Completer data is classified by CIP. In order to present data by Occupation, additional processing is required. The standard method for linking such data is the CIP-SOC Crosswalk from the Department of Labor (DOL). It is important to note that the linkages between CIP Codes and SOC Codes are not mutually exclusive.

Multiple CIP Codes are attached to an Occupation and vice-versa. This means that when the data is processed completers will be counted toward each occupation to which their instructional program is linked. Data should not be summed across occupations as this would result in a potentially significant over count. The main goal is to show supply for a particular occupation even if some portion of completers could work in another occupation.

Workforce Demand:

Scope: Help Wanted OnLine™ Data Series (HWOL) provides data on new online job postings which are comparable in timing and geographic detail to the Bureau of Labor Statistics' monthly measures of labor supply (unemployment). Data are annualized from mid-monthly vacancies. However, job vacancies classified as "statewide" or "nationwide" in the datasets are not included in this visualization because data are presented at the RPU level.

Suppressed Data: Projection and wage data are not presented for certain occupations and/or locations for one or more of the following reasons:

1) Workers may not work full-time all year-round, or there is wide variation in hours worked. It is not feasible to calculate either an hourly or annual wage.
2) To protect the confidentiality of individual workers or employers when total numbers for a particular grouping are too small or values exceed certain ceilings.
3) Survey response rates were too low to develop reliable estimates.

Users may want to refer to a comparable occupation or RPU where data is not available.

For further information or assistance with Supply and Demand Tool data, please contact Michael Boucher at (916) 651-5693.

Update Notes

Regular users can check here to find information on updated data and usability enhancements.

NEW UPDATE October 2021:

Completer Data: Completer data has been updated with the latest information. It now reflects the five-year period from 2016 to 2020.

UPDATE July 2021:

Projected Employment: Projections now reflect the ten-year estimates for 2018 to 2028.

Wage Estimates: wages now reflect the updated estimate for the first quarter of 2021.

UPDATE February 2021:

Job Postings Data: Help Wanted Online (HWOL) data has been updated to reflect the three year period from 2018 to 2020.

UPDATE October 2020:

Regional Planning Units: The Coastal Region is now broken out to North Central Coast and South Central Coast. San Benito shifted from the Bay-Peninsula to the new North Central Coast region. The Humboldt region is now called North Coast.

Wage Estimates: Wages now reflect the updated estimate for the first quarter of 2020.

Completer Data: Completer data has been updated with the latest information. It now reflects the five year period from 2015 to 2019.

Job Postings Data: Help Wanted Online (HWOL) data has been updated to reflect the three year period from 2017 to 2019.

UPDATE January 2020:

Enhanced Tooltips: Users can now find text summaries of each data point by hovering over it with their mouse. They provide a clear written summary of the Region and Occupation selected as well as the name of the measure. Tooltips are presented in 12 point font to assist with readability.

Completer Data Time Period: Completer data has been updated with the latest information. It now reflects the five year period from 2014 to 2018.

Completer Data-Additional Information: The tool now contains additional data.

1) New Matches: Previously, there were several Occupations that were not matched to Instructional Programs. When research identified a reasonable pairing, these matches were added so that users could see the data.
2) Unmatched Completers: Beginning with this version, Completer data is presented for Instructional Programs that do not match a specific Occupation. These can be found by looking at the bottom of the Occupations Filter for options identified as "Unmatched Degrees." They are grouped based on major subject areas. This data will only be relevant on the Supply and Education Tabs as they are not linked to an Occupation (no Demand can be projected).