

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

About This Tool

The Supply and Demand Tool is a web-based interactive tool developed by the California Employment Development Department. The CA EDD designed this tool to help 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 Tab: Provides statewide overviews of the Top 20 Instructional Programs by Completer and most in-demand Occupations.

Supply Tab: Presents Instructional Program Completer data by Regional Planning Unit (RPU) and Occupation for the previous 5-years.

Demand Tab: Presents RPU/Occupation specific data of historic and projected job postings, with current median wages. It also includes region-specific detail regarding in-demand Occupations.

Education Tab: Provides more 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 made up of one or more counties each and are primarily based on population and commute patterns, but also labor market information and geographic location. *Hover over a county on the California Tab map to see the RPU.*

Occupation (SOC Code): The Bureau of Labor Statistics (BLS) maintains a set of Standard Occupational Classifications (SOCs) that provide a uniform framework for classifying positions based on the type of work performed regardless of employer or industry. The data from this tool is in the 2018 SOC structure.

Completer: Completer totals are the number of graduates from post-secondary programs (including technical, academic, and professional degree programs) from schools found within that RPU. Completer data is from the Integrated Postsecondary Education Data System (IPEDS).

Instructional Program (CIP Code): The National Center for Education Statistics (NCES) Classification of Instructional Program 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 are 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 more education with the intention of returning to the labor force.

Transfers are permanent separations from an occupation where the worker will not return to the same occupation in the future.

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

Total Job Openings are the sum of exits, transfers, and numeric change.

Methodology Notes: Data Compilation Methods, Limitations, Censored Data

The data presented are only an estimate of the supply and demand for specific occupations and are 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 part of the labor market representing individuals who have recently completed an instructional program beyond high school. It does not include estimated unemployment, job transfers, or regional migration. Also:

- 1) Completers may already have a job, plans for further education, or may have moved/plan to move out of the geographic area.
- 2) The data includes only first (primary) majors.

Non-Exclusive Occupational Linkages: The Department of Labor (DOL) classifies IPEDS Completer data CIP. To present data by Occupation, more 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 CIPs and SOCs **are not mutually exclusive**. The DOL associates multiple CIPs to each Occupation and vice-versa. This means that processed data **will count** completers toward each occupation associated with their instructional program. Users should not summarize data 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 part of completers could work in another occupation.

Workforce Demand:

Scope: Help Wanted OnLine™ Data Series (HWOL) supplies 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). This visualization excludes job vacancies classified as "statewide" or "nationwide" in the datasets because it organizes the data at the RPU level.

Suppressed Data: The tool may not include projection and wage data for certain occupations and/or locations for the following reasons:

- A) Workers may not work full-time all year-round, or there is wide variation in hours worked. It is not possible to calculate either an hourly or annual wage.
- B) To protect the confidentiality of individual workers or employers when total numbers for a particular grouping are too small or values exceed certain ceilings.
- C) 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 December 2023

Data Releases

Completer Data: The latest Completer data has been updated with the latest information. It now reflects the 5-year period 2018-2022. **New!**

Wage Estimates: Wages now reflect the updated estimate for the first quarter of 2023. **New!**

Job Postings Data: Help Wanted Online (HWOL) data now reflects the 3-year period 2020-2022. **New!**

Projected Employment: Statewide projections now reflect the ten-year estimates for 2020-2030. **New!**

Regional Planning Unit projections reflect the ten-year estimates for 2020-2030. **New!**

Content Changes

Aggregated Occupations: Per the Bureau of Labor Statistics "During the transition to the 2018 Standard Occupational Classification (SOC) system, estimates will be based on a "hybrid" structure that is a combination of the 2010 SOC and 2018 SOC." This version of the Supply and Demand Tool uses the 2018 SOC structure without aggregations. Users seeking data on aggregated occupations can access it on the OEWS Employment and Wage Statistics and Long-Term Occupational Employment Projections pages on this website using the links below.

OEWS Employment and Wage Statistics

Long Term Occupational Employment Projections

PRIOR DATA RELEASE CHANGES

October 2022: Completer Data: The latest Completer data has been updated with the latest information. It now reflects the 5-year period 2017-2021.

PRIOR CONTENT CHANGES

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.

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 11 point font to assist with readability.

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

A) 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.

B) 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).