Semiconductor Data Resource Guide

In alignment with the CHIPS Act, the Governor's Office of Business and Economic Development (GO-Biz) has commissioned the Labor Market Information Division (LMID) at the Employment Development Department (EDD) to compile ***semiconductor-related industry, workforce, and talent pipeline data***. The intent of providing this data at no-cost ***is to aid applicants design and deliver more robust, evidence-based CHIPS proposals.*** Contact calbis@gobiz.ca.gov for all CHIPS-related data support as you develop your proposal.

Where can I access the semiconductor data resources?

On the CHIPS resource page at https://business.ca.gov/industries/CHIPS. Under News & Resources you will find a list of downloadable excel files. A synopsis of what is found on each spreadsheet and how it may be used for your CHIPS application is detailed below.

Additionally, we provide a link to the GO-Biz 'Community & Placed-Based Data Tool'. This free, online interactive map provides community, demographic, education, workforce, and business data at the state level all the way down to individual zip codes. This tool provides a supplement the semiconductor-specific data provided in the series of excel sheets. View a pre-recorded training overview of the Community & Place-Based Data Tool here.

What kind of information will I find in the semiconductor data excel files? and how can I use it to support the design and delivery of my CHIPS proposal?

The following table outlines the data file information, the type of data you may find on the file, and potential use cases for applying the collected data. Each spreadsheet contains multiple sheets, inclusive of an Intro Sheet that details source data and methodology.

Name of File	Data Details	Use-cases
Employment, Wage Establishment Data (by NAICS)	Number of establishments, employment count, and total annual wages for each semiconductor-related NAICS code (4-6 digit). NAICS codes span sector 33 (Manufacturing), sector 42 (wholesale trade), and sector 54 (professional, scientific, and technical services). Geography: State level and county level data are provided Source Data: Quarterly Census of Employment and Wages (QCEW)	Number of establishments, employment counts, and wages may be used to quantify the presence of the semiconductor ecosystem surrounding your business. Understanding the size of the labor force in your industry, and tangential industries, can help exemplify the likelihood of talent and knowledge exchange. ***Demonstrating co-location of linked semiconductor industries can be used to make a case that investments may have a greater regional economic impact.***
Talent and Training Data	A list of top standard occupation codes (SOC) in the semiconductor industry linked to the programs (CIP/TOP) that feed those occupations. Data for each occupation and program showing number of program completers and award level. A list of universities and colleges in California with the largest pools of program completers for each semiconductor related program (CIP). Geography: Regional Planning Unit (groupings of one or more counties). Find your regional planning unit here. Source Data: National Center for Education Statistics, Integrated Postsecondary Education Data System, California Community College Chancellor's Office	This data set provides a very powerful means for understanding and communicating talent pipelines within your regional planning unit. Working from the type of occupation you may anticipate a future need for, you can use this data to find the top colleges and universities that feed into those occupations and the programs they offer. This can be used to inform who you may consider workforce partnerships with, and which programs are essential for supplying your workforce. It can inform if talent pipelines are currently strong in your region and to what level they may need to be built out to feed your expansion.

Long-Term Employment Projection (by SOC & RPU)	A list of the top standard occupations (SOCs) that comprise the semiconductor industry. For each code there is data on the 2020 employment estimate and the 2030 future employment projection. Geography: State level and Regional Planning Unit (groupings of one or more counties). Find your regional planning unit here. Source Data: Labor Market Information Division, Occupational Employment and Wage Statistics Program, QCEW, BLS, U.S. DOL	The dataset provides an easy source to view employment counts by occupation in your regional planning unit. By quantifying the existing labor force in your area, you can demonstrate to what extent the present workforce can feed your proposal plans. Future projections can be used to make an approximate argument about the availability of the future talent/workforce. The median hourly and annual wages provided on the spreadsheet can provide evidence for which occupations match local cost of living.
Long-Term Employment Projection (by SOC & MSA)	See 'Long-Term Employment Projection (by SOC & RPU).' Geography: State level and MSA Source Data: Labor Market Information Division, Occupational Employment and Wage Statistics Program, QCEW, BLS, U.S. DOL	See 'Long-Term Employment Projection (by SOC & RPU).' Employment data on this sheet is provided by Metropolitan Statistical Area (MSA) opposed to Regional Planning Unit (RPU).
Short-Term Employment Projection (by SOC)	A list of the top standard occupations (SOCs) that comprise the semiconductor industry. For each code there is historical data on the 2019, 2020, and 2021 employment counts, as well as 2023 projected employment counts. Geography: State level Source Data: California Employment Development Department, LMID	This data element can be used similarly as the Long-Term Projection Data. While only available at the state level, a short-term projection may serve to demonstrate a more immediate demand or growth potential for each occupation. For a CHIPS proposal this evidence can support investment in certain workforce pipelines to meet future demand.
Employment, Wage, Establishment Data (by NAICS & Business Size)	Number of establishments, total employment count, and total annual payroll for semiconductor-related NAICS codes (2 and 3 digit), filtered by	This data set provides another lens to consider the 'Employment, Wage, Establishment Data (By NAICS)' at the state level. The data shows the

	business size (based on number of employees) for 2019, 2020, and 2021. Geography: State level data provided	distribution of employment and number of businesses by business size, which may be used to show the range and scope of business activity contained within California. Business size is defined by number of employees.

What kind of information will I find on the Community & Place-Based Data Tool? and how can I use it to support the design and delivery of my CHIPS proposal?

Name of File	Data Details	Use-cases
GO-Biz Community & Place-Based Data Tool (https://business.ca.gov/communitydata)	The Community & Place Based Data Tool is an interactive web-mapping data tool containing up-to-date demographic, industry & business, education, consumer expenditure, and occupation data. Geography: Cities, counties, user-defined regions, and economic regions across California. Source Data: developed by GIS-Planning and powered by federal census data and third-party data providers (EMSI, Applied Geographic Solutions, Data Axle)	This powerful online tool is a great source of holistic demographic and business data. The tool allows you to explore your city, county, multi-county region, or alternatively, you can draw your own regional boundaries to analyze. The business tab provides a 'yellow-pages' that lets you explore existing businesses by NAICS throughout California. This resource may help you leverage new partnerships and quantitatively communicate the presence of a surrounding ecosystem in your proposal. The talent tab uses NCES data to show the number of graduates by degree type in each field of study. It also shows the top universities within a radius from a specified location. Alongside the 'Talent & Training' Data, this feature may help you demonstrate the current existence of talent pipelines in your surrounding area and can help target important academic partnerships for workforce and research planning.