

**ABC of CA  
Economic Impact Study:  
2022**

**Prepared for:**



**ABC of California**

**By**



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## Executive Summary:

### Key Findings

**ABC of CA is a dynamic part of the Golden State’s economy. The key findings of the study include:**

- ABC of CA directly and indirectly creates jobs for **78,025** Californians.
- Total industry wages and benefits sum to about **\$5.94 billion**.
- The total economic output for ABC of CA is **\$17.36 billion**.
- In terms of taxes, ABC of CA pays **\$1.83 billion** annually.

ABC of CA Economic Impact Study: 2022, estimates the economic contributions made by the Associated Builders and Contractors of California (ABC of CA) members to the state of California for the year 2022. John Dunham & Associates (JDA) conducted this research, which was funded by ABC of CA. For this analysis, the industry is defined as ABC of CA member firms involved in commercial and industrial construction, including oil and gas related contractors, independent contractors, and ABC sponsored apprentices. This work used standard econometric models first developed by the U.S. Forest Service, and now maintained by IMPLAN Inc.<sup>1</sup> Data came from ABC of CA, Data Axle, county building departments, and other government sources.

The study measures the number of jobs for ABC of CA, the wages paid to employees, and total economic output. In addition, it measures the economic impact of the suppliers that support ABC of CA, as well as those industries supported by the induced spending of direct and supplier employees.

Industries are linked to each other when one industry buys from another to produce its own product or service. Each industry in turn makes purchases from a different mix of other industries, and so on. Employees in all industries extend the economic impact when they spend their earnings. Thus, economic activity started by ABC of CA generates output (and jobs) in hundreds of other industries, often in areas far removed from the original economic activity. The impact of supplier firms, and the “induced impact” of the re-spending by employees of industry and supplier firms, is calculated using an input/output model of California’s economy. The study calculates the impact for the state, by county, and by California state legislative districts.

The study also estimates taxes paid by ABC of CA and its employees. State and local tax systems vary widely. State business taxes may include state and local sales taxes, license fees, and applicable gross receipt taxes as well as real estate and personal property taxes, business income taxes, and other business levies that vary in each municipality.

### Summary Results:

ABC of CA (as defined in this study) consists of ABC of CA members involved in commercial and industrial construction, oil and gas related contracting, independent contracting, and ABC of CA sponsored apprentices. ABC of CA is a dynamic part of the Golden State’s economy with a total economic impact of \$17.4 billion. Total economic impact is comprised of both the direct and indirect economic output of ABC of CA and represents the value of services by industry in a given state, district, county, or city.

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<sup>1</sup> IMPLAN® model, 2021 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2023), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, [www.IMPLAN.com](http://www.IMPLAN.com).

**Table 1 – Economic Contribution of ABC of CA (2022)**

<b>Impact</b>	<b>Direct</b>	<b>Supplier</b>	<b>Induced</b>	<b>Total</b>
Jobs	33,547	18,616	25,862	78,025
Wages	\$2,756,702,500	\$1,460,216,600	\$1,720,827,800	\$5,937,746,900
Economic Impact	\$7,858,738,500	\$4,642,306,200	\$4,854,445,800	\$17,355,490,500
Taxes				\$1,833,632,600

### Direct Impact

The activities of ABC of CA reach into all corners of California, directly generating 33,547 full-time-equivalent (FTE) jobs, and generating \$2.76 billion in wages and benefits. ABC of CA directly generates \$7.86 billion in economic activity in the state.

To put the direct impact of ABC of CA in context, it directly employs more people that work in the state’s apparel manufacturing industry, its furniture manufacturing industry, or its printing industry. This one segment of the construction industry employs more people than all of the state’s museums, historical sites and similar institutions combined.<sup>2</sup>

### Indirect Impact - Suppliers

Other firms are related to ABC of CA as suppliers. These firms provide a broad range of products like construction material, equipment, and gear. In addition, supplier firms provide a broad range of services, including personnel services, financial services, advertising services, consulting services or transportation services. Finally, a number of people are employed in government enterprises responsible for the regulation of the industry. All told, JDA estimates that the industry is responsible for 18,616 supplier jobs paying wages totaling \$1.46 billion. These firms generate about \$4.64 billion in economic activity.

### Indirect Impact - Induced

An economic analysis of ABC of CA will also take additional linkages into account. While it is inappropriate to claim that suppliers to the suppliers are part of the industry being analyzed,<sup>3</sup> the spending by employees of the industry, and those of supplier firms that are directly dependent on ABC of CA, should be included. This spending - on everything from housing, to food, to education and medical care - makes up what is traditionally called the “induced impact,” or multiplier effect, of ABC of CA. For 2022, the induced impact of the industry creates 25,862 jobs paying total wages of \$1.72 billion and generates \$4.85 billion in economic impact, for an instate multiplier of 0.28.<sup>4</sup>

### Taxes

Another important part of an impact analysis is the calculation of the contribution of the industry to the public finances of the state and local governments. In the case of ABC of CA, the taxes paid by firms and their employees provide \$1.83 billion to state and local governments including income taxes, property taxes, profits taxes, etc.

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<sup>2</sup> Based on data for December of 2022 from the US Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages, at: [https://data.bls.gov/cew/apps/data\\_views/data\\_views.htm#tab=Tables](https://data.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables). Data accessed August 13, 2023.

<sup>3</sup> These firms would more appropriately be considered as part of the indirect firm’s industries.

<sup>4</sup> Often economic impact studies present results with very large multipliers – as high as 4 or 5. These studies invariably include the firms supplying the induced industries as part of the induced impact. John Dunham & Associates believes that this is not an appropriate definition of the induced impact and as such limits this calculation only to the effect of spending by direct and indirect employees.

## Economic Impact by Location Segments

ABC of CA has employees located in both offices and construction sites. Table 2 breaks down these impacts by location segments.

**Table 2 – Economic Contribution of ABC of CA by Segment <sup>5</sup>**

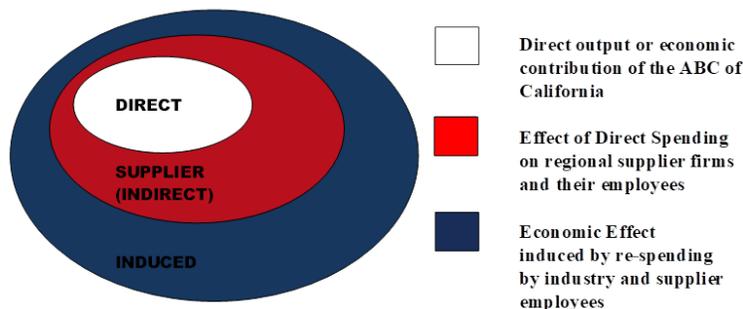
Impact	Direct	Supplier	Induced	Total
Jobs	33,547	18,616	25,862	78,025
At Facility	10,551	5,831	8,092	24,474
At Job Site	22,996	12,787	17,770	53,553
Wages	\$2,756,702,500	\$1,460,216,600	\$1,720,827,800	\$5,937,746,900
At Facility	\$866,198,900	\$456,537,498	\$538,483,795	\$1,861,220,193
At Job Site	\$1,890,504,000	\$1,003,679,260	\$1,182,344,277	\$4,076,527,538
Economic Impact	\$7,858,738,500	\$4,642,306,200	\$4,854,445,800	\$17,355,490,500
At Facility	\$2,462,169,300	\$1,453,669,347	\$1,519,419,575	\$5,435,258,222
At Job Site	\$5,396,570,300	\$3,188,637,511	\$3,335,026,937	\$11,920,234,748
Taxes				\$1,833,632,900
At Facility				\$573,786,803
At Job Site				\$1,259,846,084

Note: Totals do not add exactly due to rounding.

## Economic Impact Modeling:

The Economic Impact Study begins with an accounting of the direct employment by ABC of CA members. These employees include oil and gas related contractors, independent contractors, ABC of CA sponsored apprentices and other jobs directly related to ABC of CA. The data comes from a variety of government and private sources. It is sometimes mistakenly thought that initial spending accounts for all of the impact of an economic activity or a product. For example, at first glance it may appear that expenditures for services, like construction, are the sum total of the impact on the local economy. However, a single economic activity leads to a ripple effect whereby other sectors and industries benefit from this initial spending. This inter-industry effect of an economic activity can be assessed using multipliers from regional input-output modeling.

**Figure 1: Visualization of Impacts by Type**



The economic activities of ABC of CA are linked to other industries in the state economy. Activities related to ABC of CA represent the direct effects on the economy. Indirect supplier impacts occur when these activities require purchases of goods and services such as lumber, cement or legal services from

local or regional indirect firms. Additional induced impacts occur when workers involved in direct and indirect activities spend their wages. The ratio between induced output and direct output is termed the multiplier.

<sup>5</sup> The data doesn't add up precisely to the CA state totals due to rounding and geographic boundary file inconsistencies.

This method of analysis allows the impact of local services to be quantified in terms of final demand, earnings, and employment in California as a whole. Once the direct impact of the industry has been calculated, the input-output methodology discussed below is used to calculate the contribution of the indirect sector and of the re-spending in the economy by employees in the industry and its indirect firms. This induced impact is the most controversial part of economic impact studies and is often quite inflated. In the case of ABC of CA economic impact model, only the most conservative estimate of the induced impact has been used.

### **Model Description and Data:**

This economic impact analysis was developed by JDA based on data provided by ABC of California, Data Axle, county building departments, and other government sources. The analysis utilizes the IMPLAN model in order to quantify the economic impact of the construction industry on the economy of California, each of the state's 58 counties and on every state legislative district.<sup>6</sup> The model adopts an accounting framework through which the relationships between different inputs and outputs across industries and sectors are computed. It is based on the national income accounts generated by the US Department of Commerce, Bureau of Economic Analysis (BEA).<sup>7</sup>

Every economic impact analysis begins with a description of the industry being examined. In the case of ABC of CA, it includes ABC member firms in the following economic sectors:

- ❖ Commercial and industrial construction
- ❖ Oil and gas related contractors, independent contractors
- ❖ ABC sponsored apprentices.

The IMPLAN model is designed to run based on the input of specific direct economic factors. It uses a detailed methodology (see IMPLAN Methodology section) to generate estimates of the other direct impacts, tax impacts and indirect and induced impacts based on these entries. In the case of ABC of CA model, direct employment in ABC of CA is a starting point for the analysis.

Direct employment is based on data provided to John Dunham & Associates by ABC of California, Data Axle, county building departments, and other government sources.<sup>8</sup> Data Axle data are recognized nationally as a premier source of micro industry data. Data Axle is the leading provider of business and consumer data for the top search engines and leading in-car navigation systems in North America. Data Axle gathers data from a variety of sources, by sourcing, refining, matching, appending, filtering, and delivering the best quality data. Data Axle verifies its data at the rate of almost 100,000 phone calls per day to ensure absolute accuracy.

By cross-referencing job numbers from Data Axle with survey data, JDA is able to gather job numbers for most ABC of CA company facilities. For businesses where no job data was immediately available, median jobs by business were used.

Once the initial direct employment figures have been established, they are entered into a model linked to the IMPLAN database. The IMPLAN data provide wage and output per employee multipliers which are used to generate estimates of direct wages and output. Wages are derived from data from the U.S. Department of Labor's ES-202 reports that are used by IMPLAN to provide annual average wage and

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<sup>6</sup> The model uses 2021 input/output accounts.

<sup>7</sup> The IMPLAN model is based on a series of national input-output accounts known as RIMS II. These data are developed and maintained by the U.S. Department of Commerce, Bureau of Economic Analysis as a policy and economic decision analysis tool.

<sup>8</sup> Data Axle data as of December 2, 2022.

salary establishment counts, employment counts and payrolls at the county level. Since this data only covers payroll employees, it is modified to add information on independent workers, agricultural employees, construction workers, and certain government employees. Wage data include not only cash wages, but health and life insurance payments, retirement payments and other non-cash compensation. It includes all income paid to workers by employers.

Total output is the value of services by industry in a given state, district, county, or city. It is estimated by IMPLAN from sources similar to those used by the BEA in its RIMS II series. Where no Census or government surveys are available, IMPLAN uses models such as the Bureau of Labor Statistics’ growth model to estimate the missing output.

The model also includes information on income received by the state and local governments and produces estimates for the following taxes at the state and local level: Corporate profits, property, sales, severance, estate and gift and personal income taxes; licenses and fees and certain payroll taxes.

**County and District Breaks:**

While IMPLAN is used to calculate the state level impacts, direct county and district level impacts are based on both individual construction industry locations, and on the locations where commercial construction activities are currently being undertaken in the state. This is done through two separate models, the first of which analyzes the management, administrative, engineering, and other jobs that are generally performed at company facilities.<sup>9</sup>

**Administrative Jobs**

The overall data were first broken into on-site and off-site jobs using data from the Bureau of Labor Statistics.<sup>10</sup> Comprehensive data on occupational titles by industry are available each May. These data were gathered for 10 separate construction/contractor categories which were then bridged to the individual facility business types. Based on these data, facility level workers account for between about 20 and 70 percent of FTE jobs depending on the particular type of company.

**Table 3 – Job Breaks by Type**

Category	On-Site	At Facility
Utility System Construction	76.8%	23.2%
Building Equipment Contractors	73.3%	26.7%
Residential Building Construction	64.3%	35.7%
Other Speciality Trade Contractor	75.5%	24.5%
Nonresidential Building Construction	68.5%	31.5%
Land Subdivision	34.1%	65.9%
Highway, Street, and Bridge Construction	79.7%	20.3%
Other Heavy and Civil Engineering Construction	75.0%	25.0%
Foundation, Structure, and Building Exterior Contractors	79.7%	20.3%
Building Finishing Contractor	76.5%	23.5%

<sup>9</sup> Post COVID, many of these jobs may be currently performed remotely; however, they are assigned to the company facility address with administrative oversight of the remote individual.

<sup>10</sup> US Department of Labor, Bureau of Labor Statistics, *Occupational Employment and Wage Statistics*, May 2022, at: <https://data.bls.gov/oes/#/home>. Data accessed August 3, 2023.

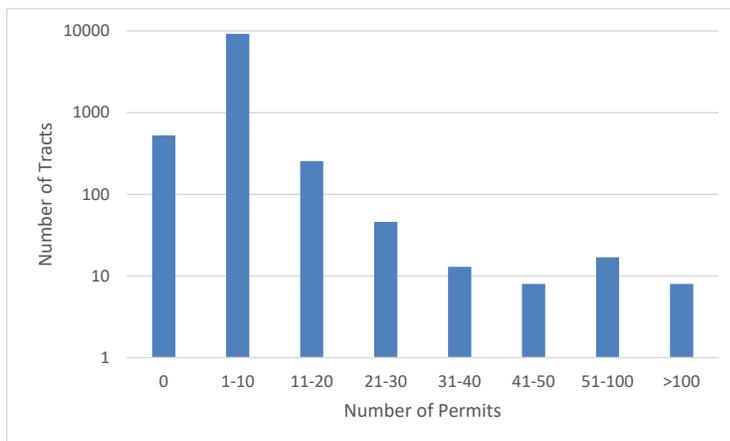
Facility level employment was broken out for each facility, and were then run through the same process as the overall data. This provided economic impact estimates for the industry at the facility level, which were then mapped to the appropriate county, state house and state senate districts.

### On-Site Jobs

As with the facility level jobs, on-site construction jobs were allocated based on the percentages in Table 3. Once the total figure was calculated, jobs were allocated based on data gathered from California county building departments where available, and from modeled data for the 15 counties that were not able to provide detailed permit level data.

For the approximately 8,020 permits where site data were available, the locations were mapped and tagged to the appropriate county, and state legislative districts. They were also tagged with the census tract code corresponding to their location. Census tract data were then used to estimate the number of permits issued in each census tract not included in the counties from which data were available. In the end, permit estimates were created for a total of 10,086 census tracts in California. The number of permits estimated for each ranged from 0 to 188, all depending on either actual data, or correlations between the actual data and characteristics of the modeled census tracts.

**Figure 2: Number of Tracts per Permit Range (Log Scale)**



The tract level data used in the correlation analysis all showed very limited correlation with the number of permits issued; however, the best relationships were used in the analysis, with the number of permits issued most directly related to the amount of economic activity in the tract. Table 4 presents the correlation coefficients used in the analysis.

**Table 4 – Correlation Table**

Variable	Correlation Coefficient
Land Area	0.0521
Populaton Median Age	0.0534
Populatoin Median Family Income	(0.0513)
Number of Vacant Housing Units	0.0729
Percent of Populaton of Age 25 to 34	(0.0607)
Number of Jobs in Tract	0.1152
Number of Firms/Facilities in Tract	0.1111

Once the number of permits were assigned to each tract, the 22,995 direct jobs estimated to be on-site were allocated based on each tract's percentage of the total number of estimated permits.

For the supplier and induced effects, Data Axle data provide the basis for legislative district and local level estimates. Publicly available data at the county and legislative district level is limited by disclosure restrictions, especially for smaller sectors of the economy. This model therefore uses actual physical location data provided by Data Axle in order to allocate jobs – and the resulting economic activity – by physical address or when that is not available, zip code. For zip codes entirely contained in a single county or district, jobs are allocated based on the percentage of total sector jobs in each zip code. For zip codes that are broken by geographies, allocations are based on the percentage of total jobs physically located in each segment of the zip code weighted by the number of road miles.

### **IMPLAN Methodology:<sup>11</sup>**

Francoise Quesnay one of the fathers of modern economics, first developed the analytical concept of inter-industry relationships in 1758. The concept was actualized into input-output analysis by Wassily Leontief during the Second World War, an accomplishment for which he received the 1973 Nobel Prize in Economics.

Input-Output analysis is an econometric technique used to examine the relationships within an economy. It captures all monetary market transactions for consumption in a given period and for a specific geography. The IMPLAN model uses data from many different sources – as published government data series, unpublished data, sets of relationships, ratios, or as estimates. The Minnesota IMPLAN group gathers this data, converts it into a consistent format, and estimates the missing components.

There are three different levels of data generally available in the United States: Federal, state and county. Most of the detailed data are available at the county level, but there are many issues with disclosure – especially in the case of smaller industries. IMPLAN overcomes these disclosure problems by combining a large number of datasets and by estimating those variables that are not found in any of them. The data is then converted into national input-output matrices (Use, Make, By-products, Absorption and Market Shares) as well as national tables for deflators, regional purchase coefficients and margins.

The IMPLAN Make matrix represents the production of commodities by industry. The Bureau of Economic Analysis (BEA) Benchmark I/O Study of the US Make Table forms the bases of the IMPLAN model. The Benchmark Make Table is updated to current year prices and rearranged into the IMPLAN sector format. The IMPLAN Use matrix is based on estimates of final demand, value-added by sector and total industry and commodity output data as provided by government statistics or estimated by IMPLAN. The BEA Benchmark Use Table is then bridged to the IMPLAN sectors. Once the re-sectoring is complete, the Use Tables can be updated based on the other data and model calculations of interstate and international trade.

In the IMPLAN model, as with any input-output framework, all expenditures are in terms of producer prices. This allocates all expenditures to the industries that produce goods and services. As a result, all data not received in producer prices is converted using margins which are derived from the BEA Input-Output model. Margins represent the difference between producer and consumer prices. As such, the margins for any good add to one.

Deflators, which account for relative price changes during different time periods, are derived from the Bureau of Labor Statistics (BLS) Growth Model. The 224 sector BLS model is mapped to the 546 sectors

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<sup>11</sup> This section is paraphrased from IMPLAN Professional: Users Guide, Analysis Guide, Data Guide, Version 2.0, MIG, Inc., June 2000.

of the IMPLAN model. Where data are missing, deflators from BEA’s Survey of Current Businesses are used.

Finally, the Regional Purchase Coefficients (RPCs) – essential to the IMPLAN model – must be derived. IMPLAN is derived from a national model, which represents the “average” condition for a particular industry. Since national production functions do not necessarily represent particular regional differences, adjustments need to be made. Regional trade flows are estimated based on the Multi-Regional Input-Output Accounts, a cross-sectional database with consistent cross interstate trade flows developed in 1977. These data are updated and bridged to the 546 sector IMPLAN model.

Once the databases and matrices are created, they go through an extensive validation process. IMPLAN builds separate state and county models and evaluates them, checking to ensure that no ratios are outside of recognized bounds. The final datasets and matrices are not released until extensive testing takes place.

## Appendix 1: Impact Data by County

	Industry Jobs	Total Jobs	Industry Wages	Total Wages	Industry Output	Total Output
Alameda CA	1,275	3,234	\$ 103,254,300	\$ 240,903,900	\$ 302,863,000	\$ 699,064,700
Alpine CA	5	5	\$ 415,400	\$ 458,200	\$ 1,184,200	\$ 1,277,900
Amador CA	29	65	\$ 2,388,700	\$ 4,769,000	\$ 6,871,600	\$ 14,211,700
Butte CA	193	435	\$ 15,913,800	\$ 32,044,200	\$ 42,620,200	\$ 89,642,500
Calaveras CA	91	119	\$ 7,470,100	\$ 9,629,400	\$ 21,059,000	\$ 27,812,200
Colusa CA	44	64	\$ 3,665,800	\$ 5,321,200	\$ 11,195,300	\$ 16,216,900
Contra Costa CA	1,119	2,167	\$ 94,783,400	\$ 170,540,000	\$ 276,328,500	\$ 668,053,400
Del Norte CA	21	41	\$ 1,749,100	\$ 3,213,500	\$ 4,986,200	\$ 9,558,400
El Dorado CA	341	482	\$ 28,001,700	\$ 37,143,000	\$ 78,751,300	\$ 105,149,100
Fresno CA	859	1,817	\$ 71,061,600	\$ 135,480,400	\$ 196,465,600	\$ 383,152,300
Glenn CA	51	77	\$ 4,209,700	\$ 6,043,800	\$ 12,497,700	\$ 18,522,600
Humboldt CA	209	369	\$ 17,299,400	\$ 28,360,800	\$ 45,569,700	\$ 77,426,500
Imperial CA	125	295	\$ 10,256,700	\$ 21,587,500	\$ 29,531,400	\$ 63,366,100
Inyo CA	21	33	\$ 1,750,300	\$ 2,771,000	\$ 4,989,800	\$ 8,247,400
Kern CA	2,017	2,791	\$ 167,392,600	\$ 220,512,900	\$ 469,411,400	\$ 649,145,000
Kings CA	95	202	\$ 7,597,200	\$ 14,573,500	\$ 21,839,300	\$ 43,228,200
Lake CA	133	179	\$ 10,451,900	\$ 14,099,500	\$ 29,081,900	\$ 42,735,600
Lassen CA	43	59	\$ 3,517,900	\$ 4,994,700	\$ 10,028,800	\$ 14,723,400
Los Angeles CA	7,406	19,613	\$ 610,337,800	\$ 1,504,476,400	\$ 1,752,839,600	\$ 4,334,643,100
Madera CA	111	225	\$ 9,128,700	\$ 17,068,200	\$ 26,284,600	\$ 52,130,100
Marin CA	188	543	\$ 15,520,600	\$ 40,892,900	\$ 44,138,400	\$ 114,899,800
Mariposa CA	36	49	\$ 2,929,000	\$ 4,055,400	\$ 8,349,800	\$ 11,980,400
Mendocino CA	458	573	\$ 37,676,900	\$ 45,676,700	\$ 107,232,400	\$ 133,043,900
Merced CA	204	404	\$ 16,822,000	\$ 29,417,200	\$ 46,143,500	\$ 85,002,300
Modoc CA	14	18	\$ 1,142,200	\$ 1,712,200	\$ 3,256,100	\$ 4,882,100
Mono CA	19	52	\$ 1,535,200	\$ 3,883,400	\$ 4,376,400	\$ 11,024,700
Monterey CA	357	916	\$ 30,089,600	\$ 65,524,400	\$ 85,803,500	\$ 182,536,700
Napa CA	157	344	\$ 12,904,100	\$ 25,188,100	\$ 36,485,100	\$ 71,465,700
Nevada CA	102	206	\$ 8,384,500	\$ 15,354,300	\$ 24,057,300	\$ 42,978,000
Orange CA	2,325	6,553	\$ 188,641,200	\$ 488,902,200	\$ 538,003,900	\$ 1,409,955,700
Placer CA	699	1,219	\$ 57,591,800	\$ 93,169,600	\$ 161,668,600	\$ 273,321,000
Plumas CA	27	48	\$ 2,212,500	\$ 3,841,400	\$ 6,307,500	\$ 11,104,400
Riverside CA	1,632	3,576	\$ 134,780,200	\$ 263,220,900	\$ 394,827,000	\$ 773,375,000
Sacramento CA	1,545	3,109	\$ 127,958,600	\$ 235,217,000	\$ 357,889,600	\$ 675,479,600
San Benito CA	52	94	\$ 4,326,600	\$ 7,268,400	\$ 13,228,000	\$ 21,643,400
San Bernardino CA	1,532	3,651	\$ 124,592,500	\$ 271,043,100	\$ 359,106,600	\$ 808,546,800
San Diego CA	3,839	7,669	\$ 312,564,500	\$ 578,849,200	\$ 911,429,900	\$ 1,673,823,300
San Francisco CA	410	2,127	\$ 33,807,900	\$ 181,966,000	\$ 96,271,500	\$ 507,902,500
San Joaquin CA	662	1,422	\$ 54,068,100	\$ 107,164,300	\$ 140,271,600	\$ 310,328,600
San Luis Obispo CA	270	626	\$ 22,320,400	\$ 48,248,400	\$ 61,944,200	\$ 152,482,700
San Mateo CA	354	1,343	\$ 29,125,200	\$ 106,142,100	\$ 81,107,700	\$ 305,132,800
Santa Barbara CA	315	820	\$ 25,948,200	\$ 59,372,100	\$ 74,342,600	\$ 168,625,900
Santa Clara CA	1,134	3,418	\$ 90,167,600	\$ 275,941,800	\$ 247,944,400	\$ 794,390,800
Santa Cruz CA	189	455	\$ 15,278,700	\$ 32,873,500	\$ 43,127,300	\$ 93,183,100
Shasta CA	135	353	\$ 11,100,800	\$ 25,893,000	\$ 31,786,600	\$ 75,516,200
Sierra CA	8	8	\$ 650,200	\$ 836,600	\$ 1,853,500	\$ 2,562,000
Siskiyou CA	53	91	\$ 4,321,100	\$ 7,198,900	\$ 12,318,500	\$ 21,591,600
Solano CA	309	684	\$ 25,601,700	\$ 50,567,300	\$ 74,239,900	\$ 146,221,800
Sonoma CA	476	992	\$ 40,084,300	\$ 74,377,200	\$ 105,726,500	\$ 210,556,300
Stanislaus CA	348	875	\$ 28,666,900	\$ 64,927,700	\$ 83,763,200	\$ 202,459,400
Sutter CA	69	180	\$ 5,688,300	\$ 12,985,600	\$ 16,588,600	\$ 36,865,100
Tehama CA	47	120	\$ 3,832,000	\$ 8,590,600	\$ 10,845,400	\$ 25,556,200
Trinity CA	17	27	\$ 1,368,600	\$ 2,297,600	\$ 3,901,600	\$ 7,875,000
Tulare CA	379	814	\$ 31,207,100	\$ 60,096,700	\$ 89,163,700	\$ 174,162,800
Tuolumne CA	109	159	\$ 8,938,000	\$ 12,369,300	\$ 25,186,000	\$ 36,388,900
Ventura CA	503	1,382	\$ 41,376,000	\$ 100,405,900	\$ 119,137,400	\$ 291,705,000
Yolo CA	278	538	\$ 23,006,200	\$ 39,988,300	\$ 56,202,500	\$ 109,680,600
Yuba CA	109	149	\$ 9,001,600	\$ 12,006,300	\$ 26,791,200	\$ 35,628,800
<b>Total</b>	<b>33,548</b>	<b>77,879</b>	<b>\$ 2,755,877,000</b>	<b>\$ 5,931,456,700</b>	<b>\$ 7,849,216,600</b>	<b>\$ 17,332,186,000</b>

## Appendix 2: Impact Data by State Senate District

	Industry Jobs	Total Jobs	Industry Wages	Total Wages	Industry Output	Total Output
State Senate District 1	981	1,963	\$ 80,805,000	\$ 147,164,300	\$ 229,622,200	\$ 426,418,400
State Senate District 2	1,454	2,586	\$ 120,174,100	\$ 199,340,100	\$ 329,523,000	\$ 569,105,200
State Senate District 3	980	1,969	\$ 81,263,500	\$ 145,584,600	\$ 225,333,600	\$ 414,147,600
State Senate District 4	1,037	2,022	\$ 85,423,700	\$ 151,522,600	\$ 244,519,600	\$ 453,672,000
State Senate District 5	912	2,026	\$ 73,057,600	\$ 152,745,200	\$ 193,572,400	\$ 439,622,100
State Senate District 6	1,266	2,226	\$ 104,770,500	\$ 170,428,200	\$ 292,371,300	\$ 488,527,100
State Senate District 7	751	1,743	\$ 65,213,300	\$ 131,789,000	\$ 193,325,900	\$ 417,654,200
State Senate District 8	804	1,812	\$ 66,512,600	\$ 136,485,600	\$ 188,013,700	\$ 399,096,100
State Senate District 9	834	1,873	\$ 67,711,200	\$ 142,584,900	\$ 193,563,600	\$ 547,327,800
State Senate District 10	624	1,961	\$ 51,099,400	\$ 161,146,700	\$ 151,624,700	\$ 467,707,900
State Senate District 11	477	2,328	\$ 39,308,700	\$ 195,552,000	\$ 111,679,900	\$ 546,525,800
State Senate District 12	1,614	2,730	\$ 134,018,300	\$ 209,457,000	\$ 388,759,000	\$ 619,945,500
State Senate District 13	440	1,887	\$ 35,792,400	\$ 157,658,800	\$ 98,427,100	\$ 461,648,100
State Senate District 14	737	1,503	\$ 60,818,100	\$ 112,030,100	\$ 171,299,000	\$ 326,728,300
State Senate District 15	798	1,741	\$ 63,260,000	\$ 129,729,900	\$ 174,065,000	\$ 371,262,900
State Senate District 16	1,232	1,867	\$ 101,702,500	\$ 144,163,800	\$ 270,619,700	\$ 405,112,600
State Senate District 17	788	1,955	\$ 65,377,200	\$ 143,449,500	\$ 186,394,600	\$ 420,112,600
State Senate District 18	607	1,378	\$ 50,223,700	\$ 99,378,000	\$ 146,668,300	\$ 288,219,500
State Senate District 19	747	1,620	\$ 60,839,700	\$ 117,900,000	\$ 176,165,300	\$ 336,964,500
State Senate District 20	660	1,522	\$ 53,979,800	\$ 113,956,100	\$ 153,798,600	\$ 329,823,400
State Senate District 21	714	1,799	\$ 58,802,600	\$ 130,079,200	\$ 167,617,800	\$ 372,740,300
State Senate District 22	714	1,892	\$ 58,969,400	\$ 142,143,800	\$ 171,454,200	\$ 423,495,600
State Senate District 23	591	1,294	\$ 48,664,000	\$ 96,533,400	\$ 137,839,300	\$ 283,651,000
State Senate District 24	661	2,798	\$ 54,567,100	\$ 219,573,200	\$ 153,529,100	\$ 598,000,200
State Senate District 25	590	1,866	\$ 48,285,500	\$ 146,412,300	\$ 136,381,600	\$ 393,747,500
State Senate District 26	730	2,003	\$ 58,431,200	\$ 150,851,600	\$ 161,826,600	\$ 422,653,200
State Senate District 27	566	1,896	\$ 46,548,000	\$ 141,768,300	\$ 133,728,300	\$ 411,201,900
State Senate District 28	1,240	2,518	\$ 102,902,300	\$ 199,862,200	\$ 317,509,100	\$ 592,133,100
State Senate District 29	627	1,541	\$ 50,225,300	\$ 112,215,200	\$ 145,447,800	\$ 342,898,900
State Senate District 30	834	2,042	\$ 70,641,900	\$ 158,811,900	\$ 192,520,300	\$ 460,592,700
State Senate District 31	683	1,391	\$ 56,495,000	\$ 104,901,000	\$ 164,843,400	\$ 308,617,000
State Senate District 32	488	1,229	\$ 39,944,200	\$ 89,802,700	\$ 118,672,900	\$ 266,873,300
State Senate District 33	690	1,654	\$ 57,075,700	\$ 125,703,200	\$ 168,062,300	\$ 406,508,600
State Senate District 34	821	1,894	\$ 66,989,500	\$ 139,204,400	\$ 198,159,600	\$ 414,282,300
State Senate District 35	742	1,841	\$ 61,144,700	\$ 138,748,700	\$ 175,824,600	\$ 403,965,800
State Senate District 36	673	1,864	\$ 53,205,000	\$ 136,543,700	\$ 149,071,400	\$ 388,075,300
State Senate District 37	843	2,530	\$ 70,077,300	\$ 195,702,000	\$ 195,609,100	\$ 559,362,300
State Senate District 38	926	2,169	\$ 74,205,100	\$ 159,407,500	\$ 222,436,000	\$ 457,498,500
State Senate District 39	1,065	2,353	\$ 87,439,400	\$ 179,437,400	\$ 250,523,400	\$ 510,081,100
State Senate District 40	1,606	2,704	\$ 130,738,500	\$ 207,980,800	\$ 378,336,700	\$ 609,493,800
<b>Total</b>	<b>33,547</b>	<b>77,990</b>	<b>\$ 2,756,703,000</b>	<b>\$ 5,937,748,900</b>	<b>\$ 7,858,740,000</b>	<b>\$ 17,355,494,000</b>

### Appendix 3: Impact Data by State Assembly District

	Industry Jobs	Total Jobs	Industry Wages	Total Wages	Industry Output	Total Output
Assembly District 1	552	1,120	\$ 45,452,100	\$ 83,301,500	\$ 129,660,000	\$ 240,306,800
Assembly District 2	845	1,416	\$ 69,786,500	\$ 108,903,700	\$ 192,393,300	\$ 313,902,000
Assembly District 3	577	1,148	\$ 47,639,500	\$ 85,580,100	\$ 133,093,600	\$ 245,214,000
Assembly District 4	719	1,254	\$ 58,784,100	\$ 94,290,200	\$ 158,089,400	\$ 267,683,100
Assembly District 5	654	1,131	\$ 53,840,400	\$ 86,795,900	\$ 152,470,300	\$ 255,996,500
Assembly District 6	402	1,119	\$ 33,057,300	\$ 83,432,200	\$ 91,241,300	\$ 241,876,900
Assembly District 7	824	1,270	\$ 68,428,500	\$ 98,879,100	\$ 191,700,600	\$ 280,161,500
Assembly District 8	612	1,250	\$ 50,646,000	\$ 92,770,200	\$ 137,660,000	\$ 258,178,400
Assembly District 9	519	1,144	\$ 42,420,500	\$ 84,693,200	\$ 106,867,400	\$ 238,331,500
Assembly District 10	374	661	\$ 31,038,900	\$ 49,725,200	\$ 88,172,600	\$ 144,382,000
Assembly District 11	429	828	\$ 35,682,100	\$ 62,297,900	\$ 103,140,300	\$ 179,583,600
Assembly District 12	373	975	\$ 31,490,700	\$ 73,067,300	\$ 84,041,100	\$ 203,096,200
Assembly District 13	286	671	\$ 23,499,600	\$ 51,081,400	\$ 66,936,600	\$ 156,607,200
Assembly District 14	348	768	\$ 31,796,700	\$ 59,756,700	\$ 95,232,100	\$ 205,945,700
Assembly District 15	504	927	\$ 41,344,800	\$ 70,181,000	\$ 118,200,900	\$ 218,256,600
Assembly District 16	425	1,139	\$ 33,324,500	\$ 89,051,100	\$ 96,871,700	\$ 377,513,200
Assembly District 17	285	1,700	\$ 23,494,400	\$ 151,223,800	\$ 66,843,200	\$ 427,965,100
Assembly District 18	421	1,029	\$ 34,946,200	\$ 75,962,200	\$ 102,459,900	\$ 222,187,900
Assembly District 19	193	639	\$ 15,857,300	\$ 45,128,400	\$ 44,959,500	\$ 121,252,200
Assembly District 20	362	879	\$ 29,254,200	\$ 64,007,300	\$ 84,589,300	\$ 187,605,800
Assembly District 21	223	903	\$ 18,434,900	\$ 74,039,700	\$ 51,930,500	\$ 214,239,900
Assembly District 22	317	755	\$ 26,200,300	\$ 56,308,100	\$ 77,317,100	\$ 177,062,100
Assembly District 23	197	893	\$ 15,742,100	\$ 75,043,000	\$ 41,678,200	\$ 220,116,300
Assembly District 24	323	898	\$ 26,452,800	\$ 74,421,400	\$ 79,840,300	\$ 220,550,200
Assembly District 25	282	847	\$ 23,269,900	\$ 65,077,700	\$ 65,102,600	\$ 193,242,600
Assembly District 26	207	792	\$ 16,891,600	\$ 68,170,500	\$ 46,747,500	\$ 190,580,500
Assembly District 27	346	696	\$ 28,518,200	\$ 51,276,900	\$ 80,639,100	\$ 150,703,500
Assembly District 28	397	850	\$ 29,681,400	\$ 60,128,600	\$ 76,457,200	\$ 161,700,400
Assembly District 29	447	928	\$ 37,113,900	\$ 67,726,300	\$ 112,219,000	\$ 197,868,700
Assembly District 30	446	1,070	\$ 37,384,100	\$ 80,376,400	\$ 104,450,800	\$ 241,822,500
Assembly District 31	400	803	\$ 33,043,600	\$ 60,935,200	\$ 93,747,500	\$ 177,123,600
Assembly District 32	1,117	1,750	\$ 92,930,500	\$ 136,442,500	\$ 275,917,700	\$ 414,729,300
Assembly District 33	326	704	\$ 26,620,500	\$ 51,382,400	\$ 77,387,400	\$ 152,507,300
Assembly District 34	399	884	\$ 32,383,800	\$ 65,859,100	\$ 91,475,600	\$ 194,785,200
Assembly District 35	994	1,284	\$ 82,276,600	\$ 102,034,200	\$ 215,018,200	\$ 283,900,900
Assembly District 36	291	675	\$ 23,955,700	\$ 48,905,200	\$ 68,844,000	\$ 142,294,100
Assembly District 37	333	846	\$ 27,425,900	\$ 61,442,100	\$ 77,381,900	\$ 173,409,800
Assembly District 38	317	746	\$ 26,073,500	\$ 53,975,500	\$ 74,863,700	\$ 155,673,200
Assembly District 39	275	457	\$ 22,612,800	\$ 34,837,600	\$ 64,636,800	\$ 102,373,800
Assembly District 40	293	852	\$ 24,064,700	\$ 62,656,100	\$ 68,750,900	\$ 181,825,700
Assembly District 41	247	1,011	\$ 20,057,600	\$ 75,894,800	\$ 57,692,800	\$ 206,969,500
Assembly District 42	351	1,117	\$ 28,936,000	\$ 83,476,000	\$ 83,511,200	\$ 244,726,300
Assembly District 43	320	645	\$ 26,357,000	\$ 48,893,300	\$ 75,453,700	\$ 146,933,200
Assembly District 44	303	1,022	\$ 24,527,900	\$ 75,332,400	\$ 67,436,000	\$ 210,913,600
Assembly District 45	278	592	\$ 22,975,700	\$ 42,993,100	\$ 66,142,500	\$ 124,437,100
Assembly District 46	327	931	\$ 26,734,400	\$ 71,099,400	\$ 76,820,200	\$ 205,147,800
Assembly District 47	445	960	\$ 36,672,700	\$ 68,694,900	\$ 106,854,400	\$ 196,875,700
Assembly District 48	295	656	\$ 24,207,900	\$ 49,148,400	\$ 69,082,000	\$ 147,884,600
Assembly District 49	329	789	\$ 27,086,800	\$ 65,340,700	\$ 77,210,600	\$ 176,869,600
Assembly District 50	369	968	\$ 28,763,400	\$ 71,114,800	\$ 83,554,400	\$ 221,053,400
Assembly District 51	298	1,802	\$ 24,486,100	\$ 143,387,800	\$ 70,030,500	\$ 371,206,100
Assembly District 52	344	777	\$ 26,713,300	\$ 55,089,700	\$ 72,635,800	\$ 152,168,100
Assembly District 53	372	996	\$ 31,100,300	\$ 75,957,600	\$ 90,815,400	\$ 226,376,500
Assembly District 54	538	1,536	\$ 44,426,200	\$ 121,483,800	\$ 130,375,000	\$ 359,943,100
Assembly District 55	284	910	\$ 23,420,600	\$ 69,446,900	\$ 66,991,200	\$ 192,779,100
Assembly District 56	461	1,104	\$ 38,090,500	\$ 86,043,500	\$ 107,904,200	\$ 249,188,100
Assembly District 57	340	772	\$ 27,958,200	\$ 59,244,100	\$ 79,944,000	\$ 174,720,500
Assembly District 58	376	745	\$ 31,174,400	\$ 57,689,400	\$ 94,065,500	\$ 172,109,400
Assembly District 59	545	1,197	\$ 44,408,600	\$ 90,439,500	\$ 122,862,700	\$ 265,222,900
Assembly District 60	277	530	\$ 22,752,200	\$ 39,053,100	\$ 63,162,100	\$ 109,427,000
Assembly District 61	854	1,445	\$ 71,184,600	\$ 114,904,300	\$ 226,381,900	\$ 334,082,900
Assembly District 62	269	549	\$ 22,176,200	\$ 40,391,800	\$ 63,439,000	\$ 125,244,200
Assembly District 63	272	695	\$ 22,465,200	\$ 52,358,400	\$ 67,046,900	\$ 159,909,500
Assembly District 64	435	937	\$ 38,005,200	\$ 73,331,000	\$ 101,199,100	\$ 209,725,100
Assembly District 65	400	978	\$ 32,982,900	\$ 73,691,700	\$ 94,851,800	\$ 222,704,700
Assembly District 66	361	1,016	\$ 29,846,400	\$ 77,663,400	\$ 82,889,800	\$ 224,830,200
Assembly District 67	280	792	\$ 22,837,100	\$ 56,452,800	\$ 66,761,300	\$ 164,510,000
Assembly District 68	378	1,088	\$ 30,794,200	\$ 80,090,700	\$ 91,024,700	\$ 239,070,600
Assembly District 69	341	870	\$ 28,156,800	\$ 66,856,900	\$ 81,268,900	\$ 225,060,200
Assembly District 70	292	690	\$ 23,567,100	\$ 50,404,200	\$ 66,683,800	\$ 141,350,100
Assembly District 71	276	738	\$ 22,835,800	\$ 53,161,100	\$ 67,249,300	\$ 152,685,100
Assembly District 72	326	1,084	\$ 25,291,100	\$ 79,578,400	\$ 70,567,000	\$ 223,902,500
Assembly District 73	378	1,375	\$ 31,362,200	\$ 109,459,200	\$ 91,552,400	\$ 315,807,200
Assembly District 74	435	859	\$ 35,107,400	\$ 63,491,800	\$ 103,307,300	\$ 184,609,500
Assembly District 75	576	1,047	\$ 45,605,200	\$ 76,512,400	\$ 132,706,100	\$ 223,697,300
Assembly District 76	602	1,058	\$ 49,493,600	\$ 80,603,800	\$ 130,822,300	\$ 223,699,000
Assembly District 77	542	1,490	\$ 43,353,600	\$ 110,248,500	\$ 128,761,900	\$ 317,531,500
Assembly District 78	1,027	2,077	\$ 84,653,600	\$ 164,494,600	\$ 254,542,700	\$ 480,841,000
Assembly District 79	432	696	\$ 35,586,000	\$ 51,565,900	\$ 104,184,400	\$ 148,870,200
Assembly District 80	333	711	\$ 27,687,500	\$ 51,495,900	\$ 81,925,800	\$ 149,856,900
<b>Total</b>	<b>33,542</b>	<b>77,956</b>	<b>\$ 2,756,702,600</b>	<b>\$ 5,937,746,900</b>	<b>\$ 7,858,739,700</b>	<b>\$ 17,355,495,100</b>