The Economic Benefits of Housing in California

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Executive Summary

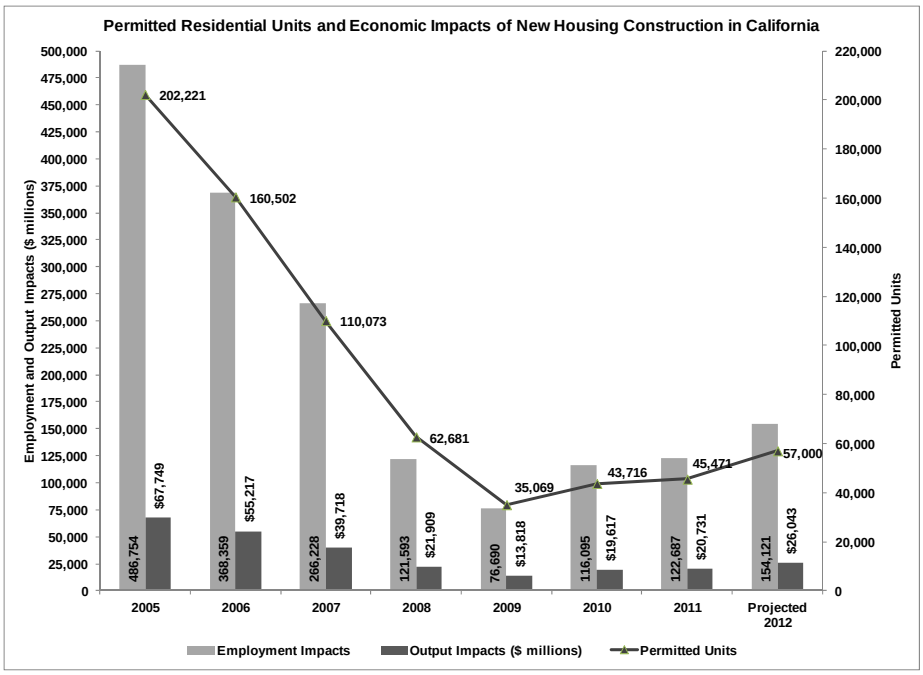
New housing construction:

- Contributes over $20.7 billion to the California economy
- Supports over 122,000 jobs per year
- Constitutes 0.3 percent of the state's output

New housing construction is one of the most visible and widely dispersed industries in California. Taking into account the full range of economic impacts, new housing construction contributes over $20.7 billion per year to the California economy and supports nearly 123,000 jobs statewide on an annual basis, based on 2011 new housing unit permit numbers. Almost one-half of the economic output (about $9.6 billion) is directly the result of new housing construction. The balance (nearly $11.1 billion) is generated by those sectors which supply goods and services to the residential construction industry as well as the spending activities of the employees of the construction industry and its supplier sectors. Every dollar spent on new housing construction in California generates another $1.20 in total economic activity, while each job created through residential construction supports an additional 1.4 jobs.

New housing construction is an important industry for the state's economy, accounting for 0.3 percent of California's total output and ranking among the top 15 percent of all industries. While new housing construction remains a key contributor to the California economy, its potential economic benefits are much greater. According to the California Department of Housing and Community Development, the expected population growth and household formation in California demands housing unit production levels around 220,000 per annum. New housing construction has lagged behind the estimated demand since the late 1990s and permit levels have fallen well short in recent years. An annual production level closer to the statewide need would significantly increase the economic benefits of new housing construction in California.

With a drop in residential permit activity of close to 78 percent between 2005 and 2011, the economic benefits of new housing construction in California have decreased considerably. In 2005, a period around the most recent peak, permit levels topped 202,000 units, generating an economic impact of over $67.7 billion and nearly 487,000 jobs. At that time, building levels were much closer to the anticipated annual demand and the full range of economic benefits of new housing construction accounted for close to three percent of the state's total output. Housing construction declined each year from 2005 until bottoming out in 2009 at $13.8 billion of output and 76,000 jobs. The number of building permits issued increased in the years 2010 and 2011 which led to greater total employment and output impacts. From 2009 to 2011, output and employment impacts increased about 50 percent and 60 percent, respectively. Thus, while the economic downturn has had a dramatic effect on the contributions of new housing construction over the last few years, the current trend suggests that with the increase in building activity, 2012 impacts could potentially reach over 154,000 jobs and $26 billion of output. However, the forecast for 2012 still shows new housing activity well below the long-term average. Overall, the declines in new housing construction's contribution to the state's economy are considerable and the impacts affect a wide range of linked sectors.



In all of the state's counties, new housing construction is an important economic contributor with total output benefits capturing a notable portion of overall output. Los Angeles, San Diego, and Orange Counties have seen the greatest economic benefits from new housing construction, based on 2011 new housing unit construction data each with total impacts measuring between around $1.4 and $4 billion of output and 8,000 and 25,000 jobs.

The entire housing industry:

- Generates close to $328.5 billion of output
- Supports about 922,000 jobs
- Accounts for 10 percent of all economic activity in California

The larger picture of the housing industry's influence in California includes not only the construction of new housing units, but also a wide range of related activities such as remodeling, repair, brokerage, property management, and financing. Accounting for all facets of the housing industry shows that it generates over $328.5 billion of output and supports about 922,000 jobs throughout the state. Around 10 percent of California's total economic output is encompassed within the entire housing industry, ranking it first among the state's leading industries in terms of output. Even when accounting for the front end of the housing downturn, the industry's output places ahead of some of the state's most notable sectors including Wholesale & Retail Trade; Finance and Insurance; and Professional, Scientific, & Technical Services.

The entire housing industry creates a notable contribution to all of the state's counties. The economic benefits of the housing industry are highest in California's largest and most mature counties where the accumulation of housing assets over many years, along with ongoing construction, has resulted in a large inventory with high value. The highest levels of output fall within Los Angeles, Orange, and San Diego Counties where the housing industry encompasses between about $30.7 and $82.4 billion of output and 91,000 and 228,000 jobs.

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Introduction

The housing industry is one of California's most visible and far-reaching industries. On the most basic level, the state's housing stock provides shelter for its current and future residents and offers a variety of real estate ownership and investment options, while construction of new housing units supports jobs and expands the housing stock. The general public typically recognizes these basic benefits, but the full economic impacts of new housing construction and the housing industry in its entirety are not readily apparent. The complete influence of housing in the California economy includes not only the construction of new single- and multi-family units, but also a wide range of related activities such as remodeling, repair, brokerage, property management, and financing. Despite the recent downturn in the housing market, the industry is still an important sector and contributor to the state's economy.

Study Background

In order to fully understand and keep track of the economic benefits of California's housing industry, the California Homebuilding Foundation commissioned the Center for Strategic Economic Research (CSER), formerly known as the Sacramento Regional Research Institute (SRRI), to generate a fifth update to the 2003 report also titled *The Economic Benefits of Housing in California*.

This study is designed to provide an economic perspective of the housing industry on California's economy and its individual counties. The report presents two views of the importance of housing in terms of economic activity and job creation:

1. The full range of economic impacts of new housing construction, including the support industries and consumption expenditures, which are generated through the multiplier or "ripple" effect.

2. The greater importance of the entire housing industry, broadly defined, to include residential real estate and financing, maintenance and repair, additions and alterations, construction, homeowner expenditures, property management, and all other aspects of the entire stock of owner- and renter-occupied housing.

This report employs similar methodology as the 2008 and 2010 updates and analyzes the most recent residential construction data for 2010 and 2011 by means of the newest database and structural matrices for the econometric model utilized to calculate economic impacts. This update continues to demonstrate the effects of the housing downturn and provide a more comprehensive accounting of county-level activities. At the statewide level, this update examines forecasts for 2012 from the Construction Industry Research Board (CIRB) *California Construction Review* report series and provides historical information on new housing construction back to 2005.

The report is presented in two main sections. The first section examines the economic contributions of California's housing industry including new housing construction and the broader housing industry. This section also touches on the untapped potential of residential construction based on projected demand. The second section analyzes the economic contributions of new housing construction and the entire housing industry within the state's 58 counties. In addition to the two main sections, three appendices are provided—Appendix A presents detailed sector impacts of new housing construction, Appendix B shows sub-sector detail for California's leading industries, and Appendix C shows a map of the county population distribution in the state.

Research Methodology

Data for residential permit activity in 2010 and 2011 were gathered from the U.S. Census Bureau Building Permit series, which covers privately-owned housing units authorized by building permit for new residential construction. Information on the number of single- and multi-family buildings and units are available in this series along with valuation, which is an estimate of the cost of construction including materials, labor, profit, architecture/engineering, and other overhead costs. CIRB provides 2012 forecasts for similar measures in the *California Construction Review*—the May 2012 version was used in this analysis. Construction valuation was used as the primary determinant of the direct impacts of new housing construction.

The IMPLAN input-output model was used to further define the direct impacts of new housing construction as well as the indirect and induced impacts. This model is widely used in economic analysis to estimate multiplier effects and quantify the full range of economic impacts. Input-output models, including IMPLAN, evaluate the effects of industries on each other based on final demand for goods and services. Most typical measures of economic activity examine only the total output or employment of an industry or the amount of final consumption demand provided by a given industry. The use of an input-output model provides a much more comprehensive view of the inter-related economic impacts. Specifically, new housing construction directly creates output and employment throughout California's economy; however, the economic benefits do not end with these general construction activities. The multiplier or "ripple" effect generates further benefits through the purchase of goods and services in addition to employee consumption activities.

The full range of economic impacts produced by new housing construction includes direct, indirect, and induced benefits.

- *Direct Benefits* consist of economic activity related exclusively to new housing construction. This includes all employees who work for homebuilders and all expenditures made by those companies in the state. These are often the most visible and recognizable activities of new housing construction.

- *Indirect Benefits* define the creation of additional economic activity that results from linked businesses, suppliers of goods and services, and provision of operating inputs. Examples of indirect activity include wholesale trade where builders purchase lumber, roofing, electrical, and plumbing materials; motor freight services that deliver materials to the wholesaler and construction sites; and engineering and architectural services which participate in the design and planning of housing units and subdivisions.

- *Induced Benefits* measure the consumption expenditures of direct and indirect sector employees. Examples of induced benefits include employees' expenditures on items such as retail purchases, housing, medical services, banking, and insurance.

These benefits also illustrate the multiplier effect that quantifies the incremental indirect and induced impact of each additional direct job or dollar of output related to new housing construction within the state.

In this analysis, the total direct, indirect, and induced benefits are presented in two ways:

- *Employment* demonstrates the number of jobs generated on an annual basis.

- *Output* accounts for total revenues including all sources of income; the total value of production generated by an industry for a given time period; or the total value of contributions to the overall supply of a specific service or creation of a good. This is the best overall measure of business and economic activity because it is the measure most establishments use to determine current activity levels.

All economic activities within the IMPLAN model contain data on study area employment and output (value of production) among many other factors. This background information was used to derive output per employee ratios for the residential construction industry. The IMPLAN model was then used to quantify the indirect and induced effects of the construction valuation and related jobs. Models for the state and each county were created and calibrated using 2010 data parameters and imports and leakages were accounted for using study area boundaries and regional purchasing coefficients. For the county-level analysis, each county's individual economic attributes (productivity, structure, output, etc.) are captured in the modeling with limited comparisons and linkages to other counties. As such, housing's economic activities and related relationships stop at each county's border. Depending on the related attributes, larger areas like a metropolitan statistical area or state capture other interrelated economic activity. This occurrence contributes to discrepancies between the sum of all 58 counties' economic impacts and the total statewide impacts. While the analysis of the economic impacts associated with new housing construction in this update is based on IMPLAN's 2010 snapshot of the economy containing unique economic activity, industry structure, and sector relationships, general comparisons are applicable between this report and the previous updates, making allowances for the model differences.

INTRODUCTION

In order to create an accounting of the entire housing industry, employment and output data for detailed economic activities from the most recent IMPLAN were allocated into broad categories based on similarity of activities as well as reviews of construction, brokerage, and labor market data. One particular area of interest in this analysis was the Real Estate sector, which captures both residential and non-residential activity. In order to disaggregate this sector and allocate the residential portion to the housing industry, CSER reviewed detailed employment data, major real estate brokerage activities, and residential and commercial valuation measures. This review showed that, on average at the statewide level, 70 percent of the Real Estate sector's employment and output is focused on residential property transactions, management, and leasing while the remaining 30 percent is related to commercial property. A similar approach was employed for all 58 counties in the state (focusing on the average mix from 2001-2010)—a more complete set of information was generally available for the larger counties while only a few data points were used for the smaller counties. This estimation methodology creates the small variation between the sum of the entire housing industry in all counties and the statewide total. It is important to note that the Real Estate sector was not included in the county-level estimates for the entire housing industry presented in earlier reports, which eliminates the ability to compare across updates.

By taking into account the multiplier effect, direct, indirect, and induced benefits, and other housing-related activities, this study provides a measurement of the full range of economic impacts and offers insight into how the housing sector, beginning with new housing construction, produces a wide range of economic benefits to the California economy.

Economic Contributions of California's Housing Industry

The housing industry, one of California's largest and important industries, is comprised of activities related to new home construction, remodeling, repair, brokerage, property management, and financing. A detailed look at the impacts of new housing construction and a discussion on the untapped potential of residential construction will be provided within this section, followed by an examination of the broader housing industry's economic contributions to California.

New Housing Construction

According to the United States Census Bureau residential building permit data, as shown in Figure 1 (on the following page), authorization was provided for about 44,000 and 45,000 new privately-owned housing units throughout California in 2010 and 2011, respectively. Construction Industry Research Board (CIRB) forecasts for 2012 reflect an uptick to 57,000 permitted in the state. Single-family units accounted for approximately 59 percent of the permits granted in 2010 with the remaining 41 percent for multi-family construction. In 2011, the proportion shifted by 11 percent with 48 percent of permits for single-family units and 52 percent issued for multi-family units. The 2012 forecast shows a slight decrease in the percentage of single-family units, as the percentage of single-family units is projected to be 45 percent. Construction costs for the housing units permitted amounted to around $9.1 billion in 2010 and $9.6 billion in 2011—these costs account for labor, materials, profits, and other related expenses. This equates to an average construction valuation per unit of nearly $209,000 in 2010 and $212,000 in 2011. Valuation is forecast at over $12.1 billion for 2012 with an average cost per unit to remain relatively consistent at approximately $212,000.

In general, permits activity in California has dropped off substantially with the housing market downturn and ongoing recession. In 2005, around the most recent peak, permits were issued for over 200,000 units and construction costs were valued at approximately $37 billion. However, while the most current levels remain well below the recent peak period and less than half the state's long-term annual average, the current levels do suggest a trend of slow recovery as the past two years saw increases in the number of permitted units. There was a 25 percent increase in the number of permitted units and 2011 saw a year over year increase of approximately 4 percent. Permitted units are forecast to increase 25 percent in 2012.

FIGURE 1
RESIDENTIAL BUILDING PERMITS IN CALIFORNIA (VALUATION IN THOUSANDS)

Year	*Units*	*Valuation*
Projected 2012	57,000	$12,108,000
2011	45,471	$9,638,517
2010	43,716	$9,120,591
2009	35,069	$7,758,484
2008	62,681	$12,301,095
2007	110,073	$21,335,308
2006	160,502	$29,614,392
2005	202,221	$37,158,906

Center for Strategic Economic Research, June 2012
Data Source: U.S. Census Bureau and Construction Industry Research Board

The benefits of new residential construction to the state's economy do not end with those activities directly related to building housing units. New housing construction produces a ripple effect in California's economy as a result of the linkages that occur between construction activities, suppliers of goods and services, and employee spending. As shown in Figure 2 (on the following page), overall, based on 2011 values, the economic benefits of new housing construction in California equate to over $20.7 billion of output and close to 123,000 jobs on an annual basis. These total economic impacts are a result of the following three effects: 1) new housing construction *directly* provides about $9.6 billion of output and 50,000 jobs to the state's economy, 2) housing construction *indirectly* supports nearly $4.9 billion of output and 31,000 employees through its demand on suppliers of goods and services, and 3) spending activities of those employed directly and indirectly through new home construction generate an *induced* impact of approximately $6.2 billion of output and 42,000 jobs.

As residential permit levels have dropped since the recent peak, the economic benefits of new housing construction have also decreased substantially. In 2005, economic impacts of residential construction reached nearly $68 billion of output and 487,000 jobs—economic benefits have fallen every year following before bottoming out in 2009 with output impacts at about 20 percent of the 2005 level and employment impacts falling to close to 16 percent of this value. However, from 2009 to 2010 output and employment impact levels increased by 42 percent and 51 percent, respectively, then increased again in 2011, and is forecast to increase further in 2012 to impacts that could potentially reach over 154,000 jobs and $26 billion of output. In terms of contribution to the state's

economy, the full range of economic activities associated with the construction of new privately-owned housing units has dropped from nearly three percent of California's total output in 2005 to about 0.3 percent of state output in 2011. Nonetheless, at over $20.7 billion, the 2011 contribution is still a notable value for one specific economic activity in the state, ranking among the top 15 percent of sectors in California in terms of output.

FIGURE 2
TOTAL ECONOMIC IMPACTS OF NEW
HOUSING CONSTRUCTION IN CALIFORNIA
(OUTPUT IN THOUSANDS)

Year/Impact	*Direct*	*Indirect*	*Induced*	*Total*	*Yr. % Change*
Projected 2012 Employment	63,330	38,399	52,393	154,121	25.6%
Projected 2012 Output	$12,108,000	$6,153,836	$7,781,227	$26,043,062	25.6%
2011 Employment	50,413	30,567	41,707	122,687	5.7%
2011 Output	$9,638,517	$4,898,731	$6,194,209	$20,731,456	5.7%
2010 Employment	47,704	28,925	39,466	116,095	51.4%
2010 Output	$9,120,591	$4,635,498	$5,861,361	$19,617,450	42.0%
2009 Employment	35,041	23,484	18,164	76,690	-36.9%
2009 Output	$7,758,484	$3,442,435	$2,617,364	$13,818,284	-36.9%
2008 Employment	55,558	37,236	28,799	121,593	-54.3%
2008 Output	$12,301,095	$5,457,990	$4,149,837	$21,908,922	-44.8%
2007 Employment	130,556	63,084	72,588	266,228	-27.7%
2007 Output	$21,335,308	$8,537,544	$9,845,384	$39,718,236	-28.1%
2006 Employment	179,294	88,717	100,348	368,359	-24.3%
2006 Output	$29,614,392	$11,992,084	$13,610,057	$55,216,532	-18.5%
2005 Employment	219,884	129,360	137,510	486,754	3.0%
2005 Output	$37,158,906	$15,115,100	$15,475,289	$67,749,296	3.0%

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, years 2010-2012 based on 2010 Coefficients, years 2008-2009 based on 2007 Coefficients, years 2006-2007 based on 2006 Coefficients, year 2005 based on 2003 Coefficients, United State Census Bureau, Construction Industry Research Board
Note: Differences due to rounding.

The multiplier effect of new housing construction shows that, on average, for each additional dollar of construction valuation, the state will see another $1.20 of output and for every employee created directly as a result of constructing new housing units, California will gain another 1.4 jobs through indirect and induced activity. The economic multiplier effect pertaining to output did shift significantly in 2010 and 2011 from its previous yearly average of approximately $0.80. Total economic impacts of new housing construction have varied on an annual basis mainly as a result of residential permit levels, the mix of single- and multi-family units authorized, and the associated construction costs. In both the peak and current downturn periods, California's economy has been able to internalize construction activity as well as a notable amount of supplier activities and worker spending.

Figure 3 (on the following page) illustrates, that in addition to housing construction activities, the Wholesale Trade; Monetary Authorities & Depository Credit Intermediation Activities; and Architectural, Engineering, & Related Services sectors benefit the most from the total output impacts created through new housing construction (based on the 2011 economic impact values). The largest indirect output gains are concentrated in the Architectural, Engineering, & Related Services; Wholesale Trade; and Petroleum Refineries sectors as a result of their role as linked and service-providing sectors. Aside from the owner-occupied dwelling activities (capturing the expenses of homeownership), the Real Estate Establishments; Food Services & Drinking Places; and Offices of Physicians, Dentists, & Other Health Practitioners see the greatest induced impacts due to the direct and indirect employees' spending within these sectors. Appendix A provides additional details on the output impacts of new housing construction on the full range of sectors within California's economy.

FIGURE 3
DETAILED OUTPUT IMPACTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA (IN THOUSANDS)

Sector	*Direct*	*Indirect*	*Induced*	*Total*
Construction of new residential permanent site single- and multi-family structures	$9,638,517	-	-	$9,638,517
Imputed rental activity for owner-occupied dwellings	-	-	$645,386	$645,386
Real estate establishments	-	$153,254	$361,683	$514,938
Wholesale trade businesses	-	$260,765	$241,016	$501,781
Monetary authorities and depository credit intermediation activities	-	$154,250	$209,825	$364,074
Architectural, engineering, and related services	-	$308,592	$18,450	$327,043
Petroleum refineries	-	$189,591	$135,260	$324,851
Food services and drinking places	-	$42,878	$270,678	$313,556
Telecommunications	-	$147,053	$145,693	$292,746
Offices of physicians, dentists, and other health practitioners	-	-	$267,380	$267,380
Securities, commodity contracts, investments, and related activities	-	$70,279	$182,477	$252,756
Private hospitals	-	$1	$232,058	$232,059
Transport by truck	-	$183,365	$44,050	$227,415
Nondepository credit intermediation and related activities	-	$60,178	$161,919	$222,097
Legal services	-	$120,923	$93,177	$214,101
Ready-mix concrete manufacturing	-	$183,697	$1,207	$184,904
Retail Stores - Motor vehicle and parts	-	$111,810	$72,751	$184,561
Insurance carriers	-	$26,265	$156,724	$182,989
Retail Stores - Food and beverage	-	$82,930	$90,465	$173,395
Retail Stores - General merchandise	-	$64,983	$71,371	$136,354
Accounting, tax preparation, bookkeeping, and payroll services	-	$84,957	$41,723	$126,679
Management of companies and enterprises	-	$65,644	$54,444	$120,088
Services to buildings and dwellings	-	$60,154	$42,662	$102,816
Medical and diagnostic labs and outpatient and other ambulatory care services	-	$30	$101,843	$101,873
Ornamental and architectural metal products manufacturing	-	$99,395	$2,207	$101,603
Retail Stores - Building material and garden supply	-	$67,432	$30,840	$98,272
Other state and local government enterprises	-	$15,053	$79,823	$94,876
Pharmaceutical preparation manufacturing	-	$148	$90,061	$90,208
Employment services	-	$51,216	$34,620	$85,836
Retail Stores - Clothing and clothing accessories	-	$38,521	$45,845	$84,367
Civic, social, professional, and similar organizations	-	$35,423	$45,778	$81,201
Retail Stores - Health and personal care	-	$38,985	$41,742	$80,727
Electric power generation, transmission, and distribution	-	$31,182	$47,670	$78,852
Retail Nonstores - Direct and electronic sales	-	$32,498	$44,162	$76,660
Automotive repair and maintenance, except car washes	-	$34,355	$40,639	$74,994
Management, scientific, and technical consulting services	-	$37,410	$36,416	$73,825
Natural gas distribution	-	$31,343	$40,703	$72,046
Funds, trusts, and other financial vehicles	-	$1,636	$69,054	$70,690
Retail Stores - Miscellaneous	-	$33,046	$37,637	$70,684
Maintenance and repair construction of nonresidential structures	-	$35,953	$34,035	$69,988
Insurance agencies, brokerages, and related activities	-	$13,714	$53,296	$67,011
Retail Stores - Gasoline stations	-	$36,115	$30,785	$66,900
Advertising and related services	-	$32,082	$33,648	$65,729
Nursing and residential care facilities	-	-	$64,817	$64,817
All other miscellaneous professional, scientific, and technical services	-	$47,429	$17,347	$64,776
Wood windows and doors and millwork manufacturing	-	$63,062	$1,296	$64,359
Other plastics product manufacturing	-	$56,877	$6,234	$63,111
Wood kitchen cabinet and countertop manufacturing	-	$58,889	$1,489	$60,378
Commercial and industrial machinery and equipment rental and leasing	-	$52,393	$7,798	$60,191
Private junior colleges, colleges, universities, and professional schools	-	$1,303	$57,666	$58,969

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, 2010 Coefficients based on United States Census Bureau information
Notes: Figure only includes the 50 sectors with the largest total impacts based on the 2011 impact values.
Differences due to rounding.

As Figure 4 (on the next page) demonstrates, Food Services & Drinking Places; Wholesale Trade; and Food & Beverage Retail Stores are the non-housing-related sectors that capture the largest employment gains in the state resulting from new housing construction (using the 2011 economic impact values). The Architectural, Engineering, & Related Services; Wholesale Trade; and Transport by Truck sectors experience the largest indirect gains because of their linkages to new housing construction activities. Additionally, the Food Services & Drinking Places; Offices of Physicians, Dentists, & Other Health Practitioners; and Real Estate Establishments sectors see the greatest induced benefits, demonstrating the demand for goods and services from these sectors that are generated by spending activity from the direct and indirect employees. Additional sector-level details for new housing construction's employment impacts are provided in Appendix A.

FIGURE 4
DETAILED EMPLOYMENT IMPACTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA

Sector	*Direct*	*Indirect*	*Induced*	*Total*
Construction of new residential permanent site single- and multi-family structures	50,413	-	-	50,413
Food services and drinking places	-	675	4,263	4,938
Wholesale trade businesses	-	1,537	1,421	2,958
Real estate establishments	-	776	1,831	2,607
Retail Stores - Food and beverage	-	1,212	1,322	2,533
Architectural, engineering, and related services	-	2,242	134	2,377
Retail Stores - General merchandise	-	1,058	1,162	2,219
Offices of physicians, dentists, and other health practitioners	- -		2,113	2,113
Securities, commodity contracts, investments, and related activities	-	571	1,482	2,052
Employment services	-	1,199	810	2,010
Transport by truck	-	1,475	354	1,830
Retail Stores - Motor vehicle and parts	-	1,075	700	1,775
Services to buildings and dwellings	-	897	636	1,533
Private hospitals	- -		1,453	1,453
Private household operations	-	-	1,395	1,395
Nondepository credit intermediation and related activities	-	378	1,017	1,395
Retail Stores - Clothing and clothing accessories	-	601	715	1,316
Retail Nonstores - Direct and electronic sales	-	502	682	1,183
Retail Stores - Miscellaneous	-	543	618	1,161
Legal services	-	647	499	1,146
Retail Stores - Building material and garden supply	-	774	354	1,128
Accounting, tax preparation, bookkeeping, and payroll services	-	705	346	1,051
Nursing and residential care facilities	-	-	1,030	1,030
Retail Stores - Health and personal care	-	452	484	936
Civic, social, professional, and similar organizations	-	382	493	875
Monetary authorities and depository credit intermediation activities	-	347	472	819
Individual and family services	-	-	764	764
Automotive repair and maintenance, except car washes	-	338	399	737
Ready-mix concrete manufacturing	-	637	4	641
Retail Stores - Sporting goods, hobby, book and music	-	283	331	613
Management of companies and enterprises	-	318	264	582
Medical and diagnostic labs and outpatient and other ambulatory care services	- -		570	570
Telecommunications	-	285	282	567
Other private educational services	-	14	545	559
Private junior colleges, colleges, universities, and professional schools	-	12	530	542
Management, scientific, and technical consulting services	-	272	265	536
Insurance carriers	-	76	451	527
Investigation and security services	-	278	238	516
Ornamental and architectural metal products manufacturing	-	499	11	510
Wood kitchen cabinet and countertop manufacturing	-	472	12	484
Insurance agencies, brokerages, and related activities	-	93	363	456
Maintenance and repair construction of nonresidential structures	-	233	221	454
Private elementary and secondary schools	-	-	452	452
Child day care services	- -		441	441
Advertising and related services	-	209	219	428
Retail Stores - Gasoline stations	-	228	194	422
Personal care services	-	-	422	422
Retail Stores - Electronics and appliances	-	191	214	406
Retail Stores - Furniture and home furnishings	-	170	231	401
Wood windows and doors and millwork manufacturing	-	380	8	387

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, 2010 Coefficients based on United States Census Bureau information
Notes: Figure only includes the 50 sectors with the largest total impacts based on the 2011 impact values.
Differences due to rounding.

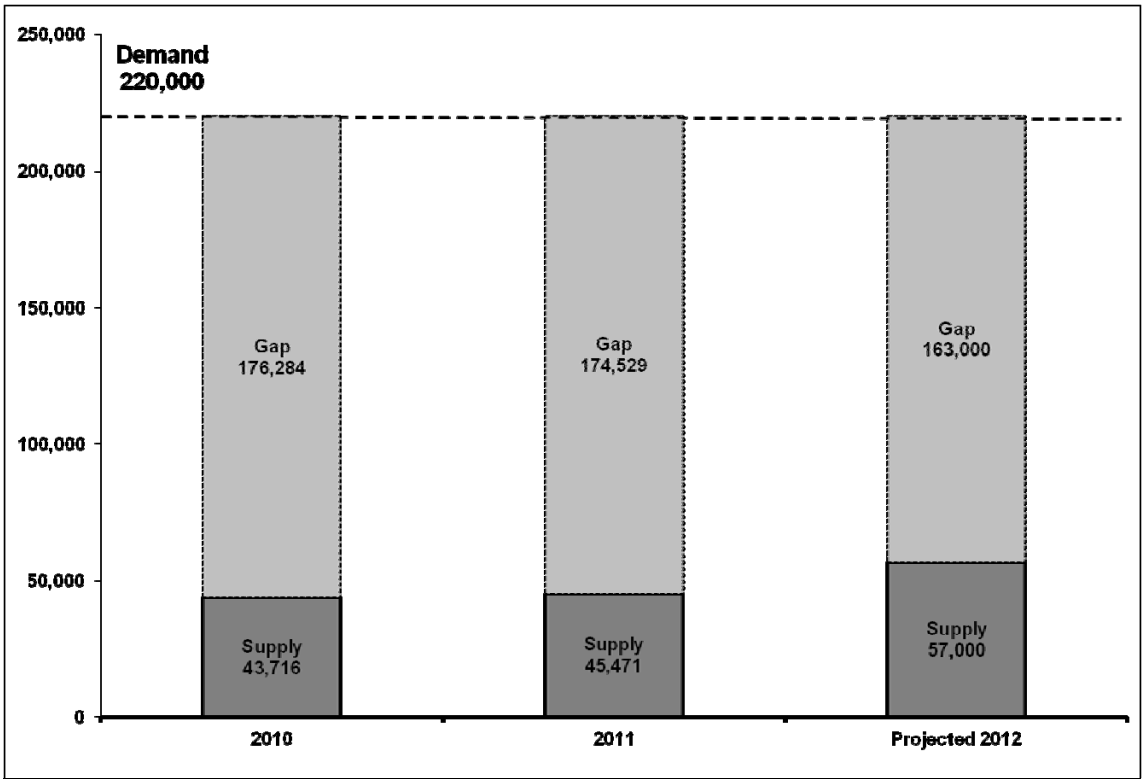
New Housing Construction's Untapped Potential

As overall housing production has declined since 2005, the gap between supply and projected demand has expanded in recent years. Based on California Department of Housing and Community Development analysis, California's housing stock would have to expand by 220,000 units every year between 1997 and 2020 to meet the needs of the expected population growth and household formation in the state.[1] The Department's assessment shows that new home construction has been lagging behind the projected demand since the late 1990s. Even with the relatively high production levels seen in 2004 and 2005, the supply of housing did not reach the projected demand. As shown in Figure 5 (on the following page), supply fell short of demand by over 176,000 units in 2010 with the gap shrinking only slightly to about 175,000 in 2011 (only about 21 percent of the projected need was permitted). Permit level forecasts for 2012 expect a difference of 163,000 units between supply and estimated demand.

While the economic downturn has taken the state further off pace, an annual production level closer to the projected demand would significantly increase the economic benefits of new housing construction in California. If the residential permit level in 2011 met the estimated 220,000 housing need, the state would see an incremental increase in the total output impact of another $79.6 billion and an additional employment impact of over 471,000 jobs. This reflects the difference in economic impact created by the actual 2011 construction of approximately 45,000 units and projected demand. Similarly, if housing construction in 2010 reached the 220,000-unit demand rather than the approximately 44,000 permitted, California would have seen an additional economic benefit of about $79.1 billion of output and nearly 469,000 jobs including direct, indirect, and induced impacts. The gap in the 2012 permit projection and estimated demand shows a potential incremental economic impact increase of around $74.5 billion of output and 440,000 jobs if the additional 163,000 demanded units were authorized.

[1] *Raising the Roof—California Housing Development Projections and Constraints 1997-2020*

FIGURE 5
HOUSING SUPPLY AND DEMAND



Center for Strategic Economic Research, June 2012
Data Sources: United States Census Bureau and California Department of Housing and Community Development

Entire Housing Industry

The housing industry's influence in California includes a wide range of activities such as remodeling, repair, brokerage, property management, and financing, in addition to the construction of new housing units. The industry is driven by building and selling housing units as well as activities related directly to home ownership, which tend to increase as the housing stock grows. As described within the Research Methodology section of this report, 70 percent of the Real Estate sector's employment and output is allocated to the housing industry grouping to account for residential real estate activities.

Figure 6 (on the following page) shows that, overall, the housing industry generates over $328.5 billion in output and supports about 920,000 jobs throughout the state. This reflects a minimal decrease over the previous estimate. There are a few pieces of the industry that kept the sector from shrinking substantially with the housing market downturn and recession. These include general escalations in output values and costs over time (across the activities encompassed in the housing industry and other sectors) as well as increases in the housing stock and associated ownership (leading to a greater aggregate of homeownership costs and linked expenditures).

A comparison of the economic contributions of the housing industry with other leading sectors in the state demonstrates the importance of housing in California's economy. With over 10 percent of total state output, housing is California's leading industry, ranking above some of the state's most recognized industries. The top three industries following housing in the ranking include Wholesale & Retail Trade ($267 billion of output); Finance and Insurance ($263.4 billion of output); and Professional, Scientific, & Technical Services ($242.6 billion of output). Additional sector-level details for California's leading industry groupings are provided in Appendix B.

FIGURE 6
COMPARISON OF CALIFORNIA'S LEADING INDUSTRIES
(OUTPUT IN THOUSANDS)

Leading Industry Sectors	*Output*	*Employment*	*% of Total Output*
Housing*	$328,549,056	922,317	10.3%
Wholesale and Retail Trade	$266,972,904	2,585,476	8.4%
Finance and Insurance	$263,423,755	1,259,757	8.3%
Professional, Scientific, and Technical Services	$242,592,580	1,745,733	7.6%
State and Local Government	$199,301,271	2,218,818	6.3%
Information	$197,379,561	501,719	6.2%
Health Care and Social Assistance	$188,602,063	1,846,821	5.9%
Computer and Electronic Product Manufacturing	$184,607,279	256,778	5.8%
Agriculture and Food Processing	$151,882,300	599,223	4.8%
Non-Residential Construction*	$141,409,121	876,426	4.5%
Leisure and Hospitality	$133,614,707	1,883,849	4.2%
Management and Support	$114,711,974	1,389,776	3.6%
Other Services	$85,133,448	1,192,029	2.7%
Transportation and Warehousing	$78,478,504	622,234	2.5%
Medical Manufacturing	$75,273,761	111,668	2.4%
Federal Government	$66,023,196	466,420	2.1%
Utilities	$55,640,630	59,132	1.8%
Transportation Equipment Manufacturing	$48,610,304	105,357	1.5%
California Total	$3,176,523,531	19,821,474	-

Center for Strategic Economic Research, June 2012
Data Source: CSER estimates based on IMPLAN, 2010 coefficients
* Housing industry includes an allocation of 70 percent of the Real Estate sector; Non-Residential Real Estate Activities includes 30 percent of the Real Estate sector.

County-Level Economic Contributions of the Housing Industry

Each of California's 58 counties is characterized by unique economic trends and development patterns. The counties range from very small, such as Alpine and Sierra Counties with respective populations of approximately 1,100 to 3,200 people, to very large, in particular, Los Angeles with around 9.8 million residents and San Diego and Orange Counties, each with populations of around 3 million people. Some counties are within metropolitan areas that have been experiencing significant population and related housing gains in the past decade, namely, Riverside-San Bernardino-Ontario, Los Angeles-Long Beach-Glendale, San Diego-Carlsbad-San Marcos, Sacramento-Arden Arcade-Roseville, and Santa Ana-Anaheim-Irvine. Appendix C includes of a map of California and its counties shaded by population size.

This section will cover the impacts of new housing construction within all of California's counties in addition to each county's entire housing industry output and employment.

New Housing Construction

As shown in Figure 7 (on the following page), in both 2010 and 2011, the largest number of residential units permitted and highest construction valuations (based on data from the United States Census Bureau) were generally in the southern portion of the state. Los Angeles, Riverside, San Diego, and Orange counties comprised about 42 percent (2010) and 50 percent (2011) of total units permitted statewide and 45 percent (2010) and 49 percent (2011) of total construction valuation. Counties in Southern California have topped the list of units permitted in the state for a number of years, primarily as a result of market size and regional growth.

FIGURE 7
RESIDENTIAL BUILDING PERMITS IN CALIFORNIA'S COUNTIES
(VALUATION IN THOUSANDS)

	Units		*Valuation*	
County	*2010*	*2011*	*2010*	*2011*
Alameda	922	862	$397,633	$516,026
Alpine	4	3	$1,237	$1,625
Amador	29	80	$4,114	$11,316
Butte	512	240	$61,182	$42,692
Calaveras	45	29	$13,648	$8,640
Colusa	19	14	$5,004	$2,849
Contra Costa	1,676	861	$304,359	$191,488
Del Norte	29	89	$6,419	$10,257
El Dorado	120	141	$47,090	$54,457
Fresno	2,248	1,622	$398,560	$278,260
Glenn	45	26	$7,348	$4,662
Humboldt	191	263	$23,379	$29,410
Imperial	102	257	$17,870	$37,648
Inyo	8	6	$2,177	$2,901
Kern	1,656	969	$256,977	$150,696
Kings	265	222	$39,838	$28,528
Lake	46	43	$8,943	$7,104
Lassen	13	21	$2,352	$3,886
Los Angeles	7,260	9,895	$1,689,660	$2,177,034
Madera	192	291	$24,379	$31,281
Marin	186	181	$64,281	$57,542
Mariposa	45	28	$9,917	$6,571
Mendocino	157	106	$21,586	$13,054
Merced	106	157	$22,930	$29,805
Modoc	16	11	$1,968	$1,809
Mono	22	15	$9,771	$5,916
Monterey	279	156	$67,126	$38,140
Napa	110	154	$61,077	$55,850
Nevada	142	91	$24,324	$22,201
Orange	3,134	4,352	$691,582	$820,241
Placer	1,166	812	$299,008	$236,223
Plumas	35	42	$5,891	$6,524
Riverside	4,547	3,264	$947,867	$650,619
Sacramento	1,162	1,286	$225,023	$250,737
San Benito	47	32	$10,071	$9,030
San Bernardino	1,789	1,472	$282,842	$264,133
San Diego	3,494	5,370	$772,067	$1,089,286
San Francisco	779	1,818	$194,472	$481,144
San Joaquin	813	933	$166,494	$182,054
San Luis Obispo	468	306	$114,809	$92,274
San Mateo	253	751	$193,565	$288,782
Santa Barbara	400	231	$138,930	$80,063
Santa Clara	4,132	3,065	$745,489	$700,940
Santa Cruz	158	208	$37,720	$35,096
Shasta	253	138	$42,773	$23,168
Sierra	7	6	$2,381	$1,211
Siskiyou	58	52	$10,617	$10,726
Solano	467	387	$103,818	$81,456
Sonoma	477	632	$87,520	$131,369
Stanislaus	292	164	$40,531	$28,290
Sutter	88	77	$16,631	$12,258
Tehama	77	48	$13,360	$8,673
Trinity	40	25	$6,442	$3,355
Tulare	1,367	922	$199,679	$135,666
Tuolumne	57	46	$11,430	$9,114
Ventura	590	568	$110,971	$116,433
Yolo	254	252	$44,432	$58,393
Yuba	62	69	$9,028	$9,612

Center for Strategic Economic Research, June 2012
Data Source: United States Census Bureau

Like at the statewide level, the local benefits of new housing construction extend well beyond the economic activities directly related to building new single- and multi-family housing units. Throughout each county, the multiplier effect generates additional output and jobs within linked suppliers of goods and services and sectors that support employees' consumption activities within the county boundaries. As a result, housing construction provides considerable economic benefits to virtually every county in the state, even those counties which do not have significant levels of economic activities in manufacturing, financial services, or other high value sectors.

Figures 8 and 9 (on pages 18 through 21) demonstrate that the largest economic impacts in 2011 occurred within the counties with the highest levels of units permitted and construction valuation—Los Angeles, San Diego, and Orange. Based on 2011 values and including direct, indirect and induced impacts, the economic contributions of new housing construction in Los Angeles County reach over $4 billion of output and almost 25,000 jobs; around $1.9 billion of output and 12,000 jobs in San Diego County; and about $1.5 billion of output and 8,000 jobs in Orange County. New housing construction is important even in the state's smallest counties like Alpine, Sierra, and Modoc where 2011 residential building activities generated a total of between approximately $1.4 and $2.3 million of output and 10 and 16 jobs.

FIGURE 8
TOTAL OUTPUT IMPACTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA'S COUNTIES
(IN THOUSANDS)

	2010				2011			
County	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Alameda	$397,610	$120,375	$177,390	$695,374	$515,996	$156,216	$230,207	$902,419
Alpine	$1,164	$94	$85	$1,343	$1,530	$124	$111	$1,765
Amador	$4,110	$782	$744	$5,636	$11,305	$2,152	$2,047	$15,504
Butte	$61,181	$18,622	$20,925	$100,728	$42,691	$12,994	$14,601	$70,286
Calaveras	$13,646	$2,817	$2,364	$18,827	$8,639	$1,784	$1,496	$11,919
Colusa	$5,002	$625	$714	$6,342	$2,849	$356	$407	$3,611
Contra Costa	$304,322	$80,707	$117,157	$502,186	$191,465	$50,777	$73,709	$315,951
Del Norte	$6,409	$1,114	$1,266	$8,790	$10,240	$1,781	$2,023	$14,044
El Dorado	$47,085	$10,078	$12,193	$69,355	$54,451	$11,654	$14,100	$80,206
Fresno	$398,554	$108,134	$145,532	$652,220	$278,256	$75,495	$101,605	$455,356
Glenn	$7,347	$1,488	$933	$9,769	$4,661	$944	$592	$6,198
Humboldt	$23,379	$7,902	$6,481	$37,762	$29,410	$9,940	$8,152	$47,503
Imperial	$16,292	$3,258	$2,617	$22,167	$34,324	$6,863	$5,514	$46,700
Inyo	$2,168	$401	$341	$2,910	$2,889	$535	$454	$3,878
Kern	$256,911	$64,288	$67,404	$388,603	$150,658	$37,700	$39,527	$227,885
Kings	$36,494	$5,213	$7,305	$49,012	$26,133	$3,733	$5,231	$35,097
Lake	$8,936	$1,723	$1,551	$12,210	$7,098	$1,369	$1,232	$9,699
Lassen	$2,174	$434	$321	$2,929	$3,593	$716	$530	$4,839
Los Angeles	$1,689,582	$652,751	$804,070	$3,146,403	$2,176,934	$841,033	$1,036,000	$4,053,968
Madera	$24,369	$4,572	$5,113	$34,055	$31,268	$5,867	$6,561	$43,695
Marin	$64,270	$14,562	$18,375	$97,208	$57,531	$13,036	$16,449	$87,016
Mariposa	$9,912	$1,538	$1,240	$12,690	$6,568	$1,019	$822	$8,409
Mendocino	$21,582	$6,207	$5,155	$32,944	$13,052	$3,754	$3,117	$19,923
Merced	$22,925	$4,042	$5,463	$32,430	$29,797	$5,254	$7,100	$42,152
Modoc	$1,946	$326	$227	$2,498	$1,789	$299	$209	$2,297
Mono	$9,770	$1,356	$1,354	$12,480	$5,915	$821	$820	$7,556
Monterey	$67,066	$16,047	$18,534	$101,646	$38,105	$9,118	$10,531	$57,754
Napa	$61,072	$14,355	$19,646	$95,073	$55,845	$13,127	$17,965	$86,936
Nevada	$24,320	$6,320	$5,482	$36,122	$22,196	$5,769	$5,003	$32,968
Orange	$691,520	$206,491	$339,199	$1,237,210	$820,166	$244,906	$402,302	$1,467,375
Placer	$298,998	$85,058	$118,528	$502,585	$236,216	$67,198	$93,640	$397,054
Plumas	$5,890	$1,134	$962	$7,986	$6,524	$1,255	$1,066	$8,845
Riverside	$947,841	$284,853	$295,953	$1,528,647	$650,600	$195,523	$203,143	$1,049,267
Sacramento	$224,960	$80,494	$87,614	$393,067	$250,667	$89,692	$97,626	$437,985
San Benito	$10,068	$1,808	$1,498	$13,374	$9,028	$1,621	$1,343	$11,992
San Bernardino	$282,599	$64,286	$87,766	$434,652	$263,906	$60,034	$81,961	$405,901
San Diego	$771,350	$246,607	$323,354	$1,341,311	$1,088,275	$347,930	$456,211	$1,892,416
San Francisco	$194,445	$48,804	$60,843	$304,092	$481,077	$120,747	$150,531	$752,355
San Joaquin	$166,477	$45,924	$62,664	$275,066	$182,036	$50,216	$68,521	$300,773
San Luis Obispo	$114,802	$36,234	$36,868	$187,903	$92,269	$29,122	$29,631	$151,022
San Mateo	$193,531	$38,766	$59,685	$291,981	$288,732	$57,835	$89,045	$435,612
Santa Barbara	$138,919	$41,275	$44,373	$224,567	$80,056	$23,786	$25,571	$129,413
Santa Clara	$745,455	$197,921	$231,243	$1,174,619	$700,908	$186,094	$217,425	$1,104,427
Santa Cruz	$37,709	$8,302	$12,180	$58,190	$35,086	$7,724	$11,333	$54,143
Shasta	$42,773	$14,600	$15,409	$72,781	$23,168	$7,908	$8,346	$39,422
Sierra	$2,363	$225	$135	$2,723	$1,201	$114	$69	$1,384
Siskiyou	$10,615	$2,547	$2,053	$15,215	$10,724	$2,573	$2,074	$15,372
Solano	$103,804	$24,057	$31,187	$159,048	$81,445	$18,875	$24,470	$124,790
Sonoma	$87,517	$24,704	$30,691	$142,912	$131,364	$37,080	$46,068	$214,512
Stanislaus	$40,528	$11,973	$13,120	$65,621	$28,288	$8,357	$9,157	$45,802

FIGURE 8—CONTINUED
TOTAL OUTPUT IMPACTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA'S COUNTIES
(IN THOUSANDS)

	2010				2011			
County	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Sutter	$16,631	$4,727	$4,608	$25,967	$12,257	$3,484	$3,396	$19,138
Tehama	$13,358	$2,506	$2,351	$18,216	$8,671	$1,627	$1,526	$11,824
Trinity	$6,429	$1,202	$671	$8,302	$3,349	$626	$350	$4,324
Tulare	$199,652	$42,768	$43,889	$286,309	$135,647	$29,058	$29,819	$194,524
Tuolumne	$11,428	$2,450	$2,515	$16,393	$9,112	$1,953	$2,005	$13,071
Ventura	$110,903	$35,902	$37,076	$183,881	$116,361	$37,669	$38,901	$192,932
Yolo	$44,425	$12,157	$11,476	$68,059	$58,384	$15,977	$15,082	$89,442
Yuba	$8,714	$1,760	$1,554	$12,028	$9,278	$1,874	$1,654	$12,806

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, 2010 Coefficients based on United States Census Bureau information
Note: Differences due to rounding.

FIGURE 9
TOTAL EMPLOYMENT IMPACTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA'S COUNTIES

	2010				2011			
County	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Alameda	1,987	860	1,272	4,119	2,578	1,117	1,651	5,345
Alpine	7	1	1	8	9	1	1	11
Amador	24	8	6	38	67	21	17	104
Butte	343	171	179	692	239	119	125	483
Calaveras	78	28	21	127	50	18	13	80
Colusa	26	6	6	37	15	3	4	21
Contra Costa	1,458	548	788	2,794	917	345	496	1,758
Del Norte	38	11	11	60	60	18	17	96
El Dorado	252	95	101	449	291	110	117	519
Fresno	2,159	954	1,177	4,290	1,507	666	822	2,995
Glenn	45	13	8	67	29	8	5	43
Humboldt	142	73	58	272	178	91	73	342
Imperial	94	32	24	150	198	68	51	316
Inyo	13	4	3	20	17	5	4	27
Kern	1,431	581	567	2,580	839	341	333	1,513
Kings	198	52	61	311	142	37	44	223
Lake	55	17	13	85	44	14	10	68
Lassen	14	5	3	21	23	8	5	35
Los Angeles	9,204	4,342	5,682	19,228	11,858	5,594	7,322	24,774
Madera	135	43	41	218	173	55	52	280
Marin	330	106	131	566	295	95	117	507
Mariposa	59	16	11	86	39	11	7	57
Mendocino	130	55	45	230	79	33	27	139
Merced	119	40	46	206	155	52	60	268
Modoc	12	4	2	17	11	3	2	16
Mono	54	14	12	80	33	8	7	48
Monterey	355	129	150	633	201	73	85	360
Napa	308	119	154	581	281	109	141	531
Nevada	141	61	49	250	128	56	44	228
Orange	3,271	1,439	2,411	7,121	3,879	1,706	2,860	8,445
Placer	1,502	679	899	3,080	1,187	536	710	2,433
Plumas	34	11	8	54	38	12	9	59
Riverside	5,253	2,482	2,543	10,277	3,606	1,703	1,745	7,054
Sacramento	1,210	611	672	2,494	1,348	681	749	2,778
San Benito	59	19	13	91	53	17	11	81
San Bernardino	1,548	606	758	2,912	1,445	566	708	2,719
San Diego	3,959	1,815	2,442	8,216	5,586	2,561	3,445	11,591
San Francisco	938	296	382	1,617	2,321	732	946	4,000
San Joaquin	834	372	500	1,705	912	406	546	1,864
San Luis Obispo	607	283	296	1,186	487	228	238	953
San Mateo	966	269	388	1,623	1,441	401	579	2,421
Santa Barbara	747	318	354	1,419	430	183	204	818
Santa Clara	3,759	1,269	1,529	6,557	3,534	1,193	1,437	6,165
Santa Cruz	183	71	101	356	170	67	94	331
Shasta	237	124	128	489	129	67	69	265
Sierra	16	2	1	19	8	1	1	10
Siskiyou	66	25	18	109	67	25	18	111
Solano	541	199	245	985	425	156	192	773
Sonoma	455	203	253	911	683	305	379	1,368
Stanislaus	226	105	108	439	158	73	75	306

FIGURE 9—CONTINUED
TOTAL EMPLOYMENT IMPACTS OF NEW HOUSING CONSTRUCTION IN CALIFORNIA'S COUNTIES

	2010				2011			
County	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Sutter	95	44	40	179	70	33	30	132
Tehama	80	25	21	126	52	16	14	82
Trinity	41	11	7	59	21	6	3	31
Tulare	1,094	417	381	1,892	744	283	259	1,286
Tuolumne	68	24	22	114	54	19	17	91
Ventura	622	281	286	1,189	653	295	300	1,248
Yolo	233	99	91	423	306	130	120	556
Yuba	49	14	13	76	52	15	13	80

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, 2010 Coefficients based on United States Census Bureau information
Note: Differences due to rounding.

New housing construction makes a notable contribution to the local economy within each of the state's 58 counties as total output impacts associated with residential building activities generally account for a similar or greater proportion of total economic output compared to the statewide level. Total output impacts measure in the hundreds of millions or billions for 21 counties in the state and job creation reaches in the thousands for 18 counties.

In general, the industry sectors in each of California's counties experience a similar distribution of benefits of new home construction as the statewide average due to existing inter-industry linkages. In addition to homebuilding-related sectors, the Real Estate; Wholesale Trade; Monetary Authorities & Depository Credit Intermediation Activities; and Architectural, Engineering, & Related Services sectors benefit the most from the total output impacts created through new housing construction while the Food Services & Drinking Places; Wholesale Trade; Real Estate; and Food & Beverage Retail Stores sectors capture the largest employment gains.

Entire Housing Industry

The broader housing industry is a considerable factor in the local economies within California's counties. The industry measures in the tens of billions of dollars of output and at least tens of thousands of total jobs in 11 of California's counties. Even the smaller counties see at least $14 million of output and 55 jobs from the entire housing industry. Figure 10 (on pages 22 and 23) displays the housing industry's output and employment within these local economies. Similar to the statewide totals, these figures represent activities of the broader definition of the housing industry which also includes residential real estate sales, financing, brokerage, repairs, and the maintenance and operation of existing housing units, in addition to new home construction.

The economic contributions of the entire housing industry are highest in California's largest and most mature areas of Los Angeles, Orange, and San Diego Counties, with respective outputs of about $82.4, $35.5, and $30.7 billion (a combined total of about 46

percent of the state's total housing industry output). Other areas with relatively large housing industry output totals include Santa Clara, Riverside, and Alameda Counties, all contributing between $13.9 and $19.5 billion of output. In these leading counties, employment related to the entire housing industry ranges from nearly 36,000 to 228,000 (larger than the entire economy of many individual counties in the state).

FIGURE 10
ENTIRE HOUSING INDUSTRY
TOTAL OUTPUT AND
EMPLOYMENT IN CALIFORNIA'S
COUNTIES
(OUTPUT IN THOUSANDS)

County	*Output*	*Employment*
Alameda	$13,917,554	36,291
Alpine	$15,651	66
Amador	$292,594	959
Butte	$1,547,741	4,867
Calaveras	$431,059	1,714
Colusa	$130,265	249
Contra Costa	$12,181,468	32,142
Del Norte	$142,963	390
El Dorado	$2,384,194	9,008
Fresno	$5,556,801	16,190
Glenn	$141,813	362
Humboldt	$894,701	3,039
Imperial	$648,345	1,229
Inyo	$95,883	209
Kern	$4,448,189	12,823
Kings	$594,128	1,211
Lake	$458,981	1,545
Lassen	$163,179	475
Los Angeles	$82,393,814	228,130
Madera	$777,469	2,237
Marin	$4,693,734	11,523
Mariposa	$135,452	460
Mendocino	$693,836	2,436
Merced	$1,180,906	2,907
Modoc	$44,361	99
Mono	$202,367	824
Monterey	$3,260,572	8,762
Napa	$1,320,067	3,452
Nevada	$1,338,585	5,301
Orange	$35,511,221	103,056
Placer	$3,999,063	13,132
Plumas	$182,236	673
Riverside	$14,361,587	48,101
Sacramento	$10,102,343	27,415
San Benito	$374,393	1,117
San Bernardino	$11,504,740	32,970
San Diego	$30,722,940	91,062
San Francisco	$10,801,021	23,575
San Joaquin	$3,983,290	10,746
San Luis Obispo	$2,677,651	9,103
San Mateo	$10,129,538	22,041
Santa Barbara	$4,013,579	11,530
Santa Clara	$19,544,327	45,663
Santa Cruz	$2,700,424	7,561
Shasta	$1,314,347	4,250
Sierra	$14,065	55
Siskiyou	$292,411	922
Solano	$2,903,472	7,281
Sonoma	$4,673,633	14,247
Stanislaus	$3,184,970	9,440

FIGURE 10—CONTINUED
COUNTY-LEVEL ECONOMIC OUTPUT AND EMPLOYMENT OF THE HOUSING INDUSTRY (OUTPUT IN THOUSANDS)

County	*Output*	*Employment*
Sutter	$708,859	2,319
Tehama	$290,632	816
Trinity	$67,627	230
Tulare	$2,097,018	5,366
Tuolumne	$461,775	1,674
Ventura	$7,124,676	19,199
Yolo	$1,378,360	3,748
Yuba	$304,077	701

Center for Strategic Economic Research, June 2012
Data Source: CSER estimates based on IMPLAN, 2010 Coefficients

Appendix A—2011 Detailed Economic Impacts of New Housing Construction in California

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
California Total Impacts	$9,638,517	$4,898,733	$6,194,208	$20,731,458	50,413	30,567	41,707	122,687
Construction of new residential permanent site single- and multi-family structures	$9,638,517	-	-	$9,638,517	50,413	-	-	50,413
Imputed rental activity for owner-occupied dwellings	-	-	$645,386	$645,386	-	-	-	-
Real estate establishments	-	$153,254	$361,683	$514,938	-	776	1,831	2,607
Wholesale trade businesses	-	$260,765	$241,016	$501,781	-	1,537	1,421	2,958
Monetary authorities and depository credit intermediation activities	-	$154,250	$209,825	$364,074	-	347	472	819
Architectural, engineering, and related services	-	$308,592	$18,450	$327,043	-	2,242	134	2,377
Petroleum refineries	-	$189,591	$135,260	$324,851	-	24	17	41
Food services and drinking places	-	$42,878	$270,678	$313,556	-	675	4,263	4,938
Telecommunications	-	$147,053	$145,693	$292,746	-	285	282	567
Offices of physicians, dentists, and other health practitioners	-	-	$267,380	$267,380	-	-	2,113	2,113
Securities, commodity contracts, investments, and related activities	-	$70,279	$182,477	$252,756	-	571	1,482	2,052
Private hospitals	-	$1	$232,058	$232,059	-	-	1,453	1,453
Transport by truck	-	$183,365	$44,050	$227,415	-	1,475	354	1,830
Nondepository credit intermediation and related activities	-	$60,178	$161,919	$222,097	-	378	1,017	1,395
Legal services	-	$120,923	$93,177	$214,101	-	647	499	1,146
Ready-mix concrete manufacturing	-	$183,697	$1,207	$184,904	-	637	4	641
Retail Stores - Motor vehicle and parts	-	$111,810	$72,751	$184,561	-	1,075	700	1,775
Insurance carriers	-	$26,265	$156,724	$182,989	-	76	451	527
Retail Stores - Food and beverage	-	$82,930	$90,465	$173,395	-	1,212	1,322	2,533
Retail Stores - General merchandise	-	$64,983	$71,371	$136,354	-	1,058	1,162	2,219
Accounting, tax preparation, bookkeeping, and payroll services	-	$84,957	$41,723	$126,679	-	705	346	1,051
Management of companies and enterprises	-	$65,644	$54,444	$120,088	-	318	264	582
Services to buildings and dwellings	-	$60,154	$42,662	$102,816	-	897	636	1,533
Medical and diagnostic labs and outpatient and other ambulatory care services	-	$30	$101,843	$101,873	-	-	570	570
Ornamental and architectural metal products manufacturing	-	$99,395	$2,207	$101,603	-	499	11	510
Retail Stores - Building material and garden supply	-	$67,432	$30,840	$98,272	-	774	354	1,128
Other state and local government enterprises	-	$15,053	$79,823	$94,876	-	49	261	310
Pharmaceutical preparation manufacturing	-	$148	$90,061	$90,208	-	-	60	60
Employment services	-	$51,216	$34,620	$85,836	-	1,199	810	2,010
Retail Stores - Clothing and clothing accessories	-	$38,521	$45,845	$84,367	-	601	715	1,316
Civic, social, professional, and similar organizations	-	$35,423	$45,778	$81,201	-	382	493	875
Retail Stores - Health and personal care	-	$38,985	$41,742	$80,727	-	452	484	936
Electric power generation, transmission, and distribution	-	$31,182	$47,670	$78,852	-	39	59	98
Retail Nonstores - Direct and electronic sales	-	$32,498	$44,162	$76,660	-	502	682	1,183
Automotive repair and maintenance, except car washes	-	$34,355	$40,639	$74,994	-	338	399	737
Management, scientific, and technical consulting services	-	$37,410	$36,416	$73,825	-	272	265	536
Natural gas distribution	-	$31,343	$40,703	$72,046	-	25	33	58

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Funds, trusts, and other financial vehicles	-	$1,636	$69,054	$70,690	-	4	178	182
Retail Stores - Miscellaneous	-	$33,046	$37,637	$70,684	-	543	618	1,161
Maintenance and repair construction of nonresidential structures	-	$35,953	$34,035	$69,988	-	233	221	454
Insurance agencies, brokerages, and related activities	-	$13,714	$53,296	$67,011	-	93	363	456
Retail Stores - Gasoline stations	-	$36,115	$30,785	$66,900	-	228	194	422
Advertising and related services	-	$32,082	$33,648	$65,729	-	209	219	428
Nursing and residential care facilities	-	-	$64,817	$64,817	-	-	1,030	1,030
All other miscellaneous professional, scientific, and technical services	-	$47,429	$17,347	$64,776	-	193	71	264
Wood windows and doors and millwork manufacturing	-	$63,062	$1,296	$64,359	-	380	8	387
Other plastics product manufacturing	-	$56,877	$6,234	$63,111	-	239	26	265
Wood kitchen cabinet and countertop manufacturing	-	$58,889	$1,489	$60,378	-	472	12	484
Commercial and industrial machinery and equipment rental and leasing	-	$52,393	$7,798	$60,191	-	170	25	195
Private junior colleges, colleges, universities, and professional schools	-	$1,303	$57,666	$58,969	-	12	530	542
Retail Stores - Electronics and appliances	-	$26,788	$30,008	$56,795	-	191	214	406
Lessors of nonfinancial intangible assets	-	$33,458	$21,331	$54,789	-	15	10	25
Saw mills and wood preservation	-	$53,529	$994	$54,523	-	221	4	225
Paint and coating manufacturing	-	$48,749	$1,556	$50,305	-	80	3	83
Scenic and sightseeing transportation and support activities for transportation	-	$30,281	$17,646	$47,927	-	222	129	352
Mineral wool manufacturing	-	$46,899	$230	$47,129	-	141	1	142
Waste management and remediation services	-	$24,891	$21,452	$46,343	-	117	101	218
Transport by air	-	$11,833	$30,485	$42,318	-	39	101	140
Data processing, hosting, ISP, web search portals and related services	-	$11,492	$29,122	$40,614	-	27	69	96
Retail Stores - Furniture and home furnishings	-	$16,979	$23,052	$40,031	-	170	231	401
Mining and quarrying sand, gravel, clay, and ceramic and refractory minerals	-	$39,078	$301	$39,378	-	278	2	280
Grantmaking, giving, and social advocacy organizations	-	$25	$39,349	$39,375	-	-	366	367
Office administrative services	-	$24,670	$14,397	$39,067	-	201	117	318
Motion picture and video industries	-	$11,828	$27,037	$38,865	-	35	80	115
Warehousing and storage	-	$20,805	$17,286	$38,091	-	206	172	378
Amusement parks, arcades, and gambling industries	-	$16	$37,964	$37,980	-	-	363	363
Commercial and industrial machinery and equipment repair and maintenance	-	$29,299	$7,767	$37,066	-	242	64	306
Retail Stores - Sporting goods, hobby, book and music	-	$16,705	$19,553	$36,258	-	283	331	613
Religious organizations	-	-	$33,777	$33,777	-	-	241	241
Couriers and messengers	-	$18,000	$15,436	$33,435	-	181	156	337
Soft drink and ice manufacturing	-	$348	$32,797	$33,145	-	-	43	44
Cable and other subscription programming	-	$15,216	$17,837	$33,053	-	39	46	85
US Postal Service	-	$13,837	$18,865	$32,702	-	130	177	307
Scientific research and development services	-	$13,968	$18,251	$32,218	-	69	91	160
Other private educational services	-	$801	$30,665	$31,467	-	14	545	559
Other personal services	-	$1,806	$28,951	$30,757	-	11	184	195
Individual and family services	-	-	$30,522	$30,522	-	-	764	764

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Radio and television broadcasting	-	$14,362	$15,800	$30,162	-	53	58	111
Transport by rail	-	$24,245	$5,527	$29,772	-	78	18	95
Computer systems design services	-	$19,162	$10,427	$29,589	-	191	104	295
Personal care services	-	$1	$29,426	$29,426	-	-	422	422
Extraction of oil and natural gas	-	$16,305	$12,751	$29,055	-	64	50	114
Automotive equipment rental and leasing	-	$9,013	$17,929	$26,942	-	38	75	113
Other computer related services, including facilities management	-	$18,905	$7,992	$26,897	-	57	24	81
Cement manufacturing	-	$26,101	$284	$26,385	-	59	1	60
Private elementary and secondary schools	-	-	$26,072	$26,072	-	-	452	452
Concrete pipe, brick, and block manufacturing	-	$25,054	$506	$25,560	-	89	2	91
Mining and quarrying stone	-	$25,064	$384	$25,448	-	91	1	93
Paperboard container manufacturing	-	$13,542	$11,035	$24,577	-	34	28	62
Business support services	-	$14,804	$9,523	$24,327	-	227	146	374
Air conditioning, refrigeration, and w arm air heating equipment manufacturing	-	$23,325	$787	$24,111	-	66	2	68
Motor vehicle parts manufacturing	-	$18,054	$6,023	$24,078	-	49	16	66
Asphalt paving mixture and block manufacturing	-	$23,778	$259	$24,037	-	30	-	30
Internet publishing and broadcasting	-	$10,019	$13,346	$23,365	-	30	40	69
Softw are publishers	-	$10,279	$12,579	$22,858	-	19	24	43
Wiring device manufacturing	-	$22,250	$368	$22,618	-	70	1	71
Investigation and security services	-	$11,867	$10,153	$22,019	-	278	238	516
Lime and gypsum product manufacturing	-	$21,323	$590	$21,914	-	47	1	49
State and local government electric utilities	-	$8,611	$13,101	$21,712	-	20	31	51
Specialized design services	-	$17,093	$4,445	$21,538	-	113	29	143
Child day care services	-	-	$21,080	$21,080	-	-	441	441
Printing	-	$8,432	$11,931	$20,363	-	53	75	129
Lighting fixture manufacturing	-	$19,522	$602	$20,124	-	73	2	76
Plastics pipe and pipe fitting manufacturing	-	$19,142	$859	$20,001	-	57	3	59
Plumbing fixture fitting and trim manufacturing	-	$19,358	$364	$19,722	-	40	1	41
Fruit and vegetable canning, pickling, and drying	-	$369	$18,941	$19,310	-	1	36	36
Fertilizer manufacturing	-	$18,138	$989	$19,127	-	15	1	15
Home health care services	-	-	$19,074	$19,074	-	-	319	319
Soap and cleaning compound manufacturing	-	$1,864	$17,138	$19,003	-	1	12	13
Plate w ork and fabricated structural product manufacturing	-	$17,829	$868	$18,698	-	70	3	73
Other concrete product manufacturing	-	$17,758	$870	$18,628	-	89	4	93
Animal (except poultry) slaughtering, rendering, and processing	-	$304	$18,268	$18,572	-	1	41	41
Electronic computer manufacturing	-	$2,147	$16,421	$18,569	-	2	12	14
All other crop farming	-	$15,344	$2,127	$17,472	-	46	6	53
Other support services	-	$9,592	$7,607	$17,198	-	84	67	151
Miscellaneous nonmetallic mineral product manufacturing	-	$16,738	$146	$16,885	-	41	-	41
Machine shops	-	$14,410	$1,987	$16,397	-	96	13	110

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Hotels and motels, including casino hotels	-	$4,963	$10,529	$15,492	-	43	90	133
Custom architectural w oodw ork and millw ork manufacturing	-	$15,412	$14	$15,426	-	108	-	108
Engineered w ood member and truss manufacturing	-	$15,091	$193	$15,284	-	101	1	102
Coating, engraving, heat treating and allied activities	-	$13,434	$1,525	$14,958	-	74	8	82
Adhesive manufacturing	-	$13,599	$1,193	$14,792	-	24	2	26
Community food, housing, and other relief services, including rehabilitation services	-	-	$14,767	$14,767	-	-	345	345
Fluid milk and butter manufacturing	-	$218	$14,348	$14,566	-	-	21	21
Semiconductor and related device manufacturing	-	$9,255	$5,138	$14,393	-	13	7	21
Other amusement and recreation industries	-	$1,453	$12,906	$14,360	-	22	195	217
Transit and ground passenger transportation	-	$3,993	$10,338	$14,330	-	68	177	246
Promoters of performing arts and sports and agents for public figures	-	$2,506	$11,796	$14,302	-	37	173	209
Periodical publishers	-	$4,845	$9,391	$14,236	-	16	30	46
Bread and bakery product manufacturing	-	$244	$13,947	$14,192	-	1	80	81
Spectator sports companies	-	$3,343	$10,775	$14,118	-	57	184	241
Private household operations	-	-	$14,110	$14,110	-	-	1,395	1,395
Commercial logging	-	$13,697	$336	$14,033	-	119	3	122
Personal and household goods repair and maintenance	-	$6,919	$7,019	$13,939	-	41	42	83
Independent artists, w riters, and performers	-	$6,293	$7,571	$13,864	-	28	34	62
Fabricated pipe and pipe fitting manufacturing	-	$13,584	$137	$13,721	-	54	1	55
Snack food manufacturing	-	$169	$13,548	$13,717	-	-	19	19
Iron and steel mills and ferroalloy manufacturing	-	$12,476	$1,064	$13,540	-	20	2	22
Travel arrangement and reservation services	-	$5,462	$7,959	$13,421	-	36	52	87
Dry-cleaning and laundry services	-	$1,376	$11,802	$13,177	-	20	170	190
Other Federal Government enterprises	-	$4,241	$8,275	$12,516	-	12	23	34
Maintenance and repair construction of residential structures	-	$356	$12,044	$12,400	-	2	69	71
Sw itchgear and sw itchboard apparatus manufacturing	-	$11,749	$329	$12,078	-	37	1	38
Electronic and precision equipment repair and maintenance	-	$6,611	$5,308	$11,918	-	37	30	66
General and consumer goods rental except video tapes and discs	-	$1,377	$10,225	$11,602	-	14	102	116
Cheese manufacturing	-	$458	$11,110	$11,568	-	1	14	15
Fitness and recreational sports centers	-	$2,133	$9,290	$11,423	-	52	228	281
New spaper publishers	-	$3,960	$7,413	$11,373	-	30	55	85
Frozen food manufacturing	-	$153	$11,154	$11,307	-	-	33	34
Plastics packaging materials and unlaminated film and sheet manufacturing	-	$8,029	$3,117	$11,146	-	23	9	31
Communication and energy w ire and cable manufacturing	-	$10,629	$447	$11,076	-	19	1	20
Brew eries	-	$102	$10,956	$11,058	-	-	9	9
Custom computer programming services	-	$7,105	$3,849	$10,954	-	47	26	73
Asphalt shingle and coating materials manufacturing	-	$10,218	$613	$10,831	-	11	1	11
Dairy cattle and milk production	-	$315	$10,223	$10,538	-	1	44	45
Environmental and other technical consulting services	-	$6,342	$4,176	$10,518	-	61	40	101
Steel product manufacturing from purchased steel	-	$9,700	$762	$10,462	-	23	2	25

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Reconstituted wood product manufacturing	-	$9,778	$104	$9,882	-	28	-	29
Toilet preparation manufacturing	-	$279	$9,486	$9,765	-	-	12	13
Greenhouse, nursery, and floriculture production	-	$3,057	$6,630	$9,687	-	15	32	47
Sound recording industries	-	$720	$8,957	$9,677	-	1	7	8
Veterinary services	-	$5	$9,575	$9,580	-	-	153	153
Automobile manufacturing	-	$132	$9,096	$9,228	-	-	6	6
Other communications equipment manufacturing	-	$8,001	$735	$8,736	-	19	2	21
Other animal food manufacturing	-	$285	$8,274	$8,560	-	-	7	8
Book publishers	-	$691	$7,699	$8,390	-	2	22	24
Other commercial and service industry machinery manufacturing	-	$7,909	$297	$8,207	-	25	1	26
Wineries	-	$98	$8,071	$8,169	-	-	18	18
Polystyrene foam product manufacturing	-	$6,657	$1,248	$7,905	-	21	4	24
Carpet and rug mills	-	$6,973	$927	$7,900	-	22	3	25
Surgical and medical instrument, laboratory and medical instrument manufacturing	-	$5,449	$2,434	$7,883	-	14	6	21
Hardware manufacturing	-	$7,297	$482	$7,780	-	25	2	27
Support activities for agriculture and forestry	-	$3,837	$3,917	$7,754	-	100	103	203
Performing arts companies	-	$876	$6,868	$7,744	-	22	175	197
Other fabricated metal manufacturing	-	$6,552	$1,092	$7,644	-	32	5	37
Museums, historical sites, zoos, and parks	-	-	$7,639	$7,639	-	-	56	56
Fruit farming	-	$150	$7,427	$7,578	-	1	29	30
Poultry processing	-	$150	$7,232	$7,382	-	1	30	31
State and local government passenger transit	-	$1,983	$5,133	$7,116	-	37	95	132
Vegetable and melon farming	-	$56	$6,960	$7,015	-	-	23	23
Cookie, cracker, and pasta manufacturing	-	$68	$6,883	$6,951	-	-	15	15
All other chemical product and preparation manufacturing	-	$4,465	$2,422	$6,886	-	8	5	13
All other food manufacturing	-	$147	$6,723	$6,870	-	-	20	21
Coated and laminated paper, packaging paper and plastics film manufacturing	-	$5,805	$1,010	$6,815	-	13	2	16
Brick, tile, and other structural clay product manufacturing	-	$6,482	$152	$6,634	-	34	1	35
Transport by pipeline	-	$3,262	$3,360	$6,622	-	4	4	7
Womens and girls cut and sew apparel manufacturing	-	$374	$6,192	$6,566	-	1	21	22
Death care services	-	-	$6,561	$6,561	-	-	58	58
Plastics material and resin manufacturing	-	$5,225	$1,327	$6,551	-	4	1	6
Prefabricated wood building manufacturing	-	$6,303	$46	$6,349	-	42	-	42
Directory, mailing list, and other publishers	-	$2,410	$3,841	$6,251	-	6	10	17
Water, sewage and other treatment and delivery systems	-	$953	$5,201	$6,154	-	3	18	21
Surgical appliance and supplies manufacturing	-	$415	$5,531	$5,946	-	1	16	17
Veneer and plywood manufacturing	-	$5,820	$88	$5,908	-	34	1	34
Cattle ranching and farming	-	$120	$5,746	$5,867	-	1	28	29
Aluminum product manufacturing from purchased aluminum	-	$3,770	$2,081	$5,852	-	7	4	10
Metal can, box, and other metal container (light gauge) manufacturing	-	$1,954	$3,781	$5,735	-	3	6	9

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Petroleum lubricating oil and grease manufacturing	-	$4,098	$1,577	$5,676	-	4	2	6
Spring and wire product manufacturing	-	$4,924	$558	$5,482	-	23	3	26
Urethane and other foam product (except polystyrene) manufacturing	-	$3,717	$1,733	$5,450	-	12	6	18
Cut stone and stone product manufacturing	-	$5,199	$220	$5,419	-	39	2	41
Turned product and screw, nut, and bolt manufacturing	-	$4,641	$679	$5,320	-	22	3	25
Forestry, forest products, and timber tract production	-	$5,016	$247	$5,263	-	25	1	27
Car washes	-	$1,074	$4,112	$5,186	-	25	97	123
Handtool manufacturing	-	$4,813	$318	$5,132	-	23	2	25
Seasoning and dressing manufacturing	-	$128	$4,848	$4,977	-	-	8	9
Dog and cat food manufacturing	-	$3	$4,862	$4,865	-	-	4	4
Flour milling and malt manufacturing	-	$79	$4,776	$4,855	-	-	4	4
Flavoring syrup and concentrate manufacturing	-	$136	$4,576	$4,712	-	-	2	2
Other information services	-	$1,035	$3,565	$4,601	-	1	5	6
All other miscellaneous manufacturing	-	$409	$4,030	$4,439	-	2	18	20
Valve and fittings other than plumbing manufacturing	-	$3,796	$610	$4,406	-	12	2	14
Upholstered household furniture manufacturing	-	$1,021	$3,314	$4,335	-	6	21	28
Other basic organic chemical manufacturing	-	$2,454	$1,753	$4,207	-	2	1	3
Metal tank (heavy gauge) manufacturing	-	$4,048	$72	$4,120	-	18	-	18
Pump and pumping equipment manufacturing	-	$3,965	$98	$4,063	-	10	-	10
In-vitro diagnostic substance manufacturing	-	$837	$3,184	$4,021	-	2	6	8
Motor and generator manufacturing	-	$3,697	$254	$3,951	-	10	1	11
Copper rolling, drawing, extruding and alloying	-	$3,658	$231	$3,889	-	5	-	5
Poultry and egg production	-	$49	$3,819	$3,868	-	-	4	4
Heating equipment (except warm air furnaces) manufacturing	-	$3,394	$413	$3,807	-	14	2	16
Plastics bottle manufacturing	-	$1,153	$2,634	$3,787	-	3	7	10
Ground or treated mineral and earth manufacturing	-	$3,616	$145	$3,761	-	6	-	6
Wood container and pallet manufacturing	-	$2,491	$1,262	$3,752	-	19	10	29
Transport by water	-	$1,754	$1,702	$3,456	-	4	3	7
Photographic services	-	$1,044	$2,321	$3,365	-	11	24	34
Ice cream and frozen dessert manufacturing	-	$178	$2,969	$3,147	-	-	7	7
Soybean and other oilseed processing	-	$219	$2,873	$3,092	-	-	1	1
Facilities support services	-	$1,515	$1,569	$3,084	-	11	12	23
Crown and closure manufacturing and metal stamping	-	$2,134	$912	$3,046	-	9	4	13
Showcase, partition, shelving, and locker manufacturing	-	$2,594	$381	$2,975	-	16	2	18
Industrial gas manufacturing	-	$1,335	$1,610	$2,944	-	1	2	3
Dry, condensed, and evaporated dairy product manufacturing	-	$73	$2,815	$2,888	-	-	3	3
Clay and nonclay refractory manufacturing	-	$2,688	$133	$2,821	-	8	-	8
Video tape and disc rental	-	-	$2,788	$2,788	-	-	29	29
All other miscellaneous wood product manufacturing	-	$2,389	$384	$2,773	-	14	2	16
Electromedical and electrotherapeutic apparatus manufacturing	-	$8	$2,694	$2,702	-	-	6	6

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Unlaminated plastics profile shape manufacturing	-	$2,308	$391	$2,699	-	9	2	11
Confectionery manufacturing from purchased chocolate	-	$9	$2,661	$2,671	-	-	7	7
Glass product manufacturing made of purchased glass	-	$1,791	$853	$2,644	-	9	4	13
Other rubber product manufacturing	-	$1,775	$836	$2,611	-	7	4	11
Ferrous metal foundries	-	$2,294	$280	$2,574	-	11	1	12
Fats and oils refining and blending	-	$73	$2,479	$2,552	-	-	2	2
Textile and fabric finishing mills	-	$875	$1,671	$2,546	-	5	9	13
Sporting and athletic goods manufacturing	-	$346	$2,181	$2,527	-	1	8	9
Coffee and tea manufacturing	-	$46	$2,469	$2,516	-	-	4	4
All other basic inorganic chemical manufacturing	-	$1,573	$761	$2,334	-	2	1	3
Breakfast cereal manufacturing	-	$8	$2,297	$2,305	-	-	2	2
Audio and video equipment manufacturing	-	$774	$1,517	$2,292	-	2	3	5
Nonferrous metal (except copper and aluminum) rolling, draw ing, extruding and alloying	-	$1,953	$307	$2,260	-	3	1	4
Wet corn milling	-	$637	$1,608	$2,245	-	-	1	1
Automatic environmental control manufacturing	-	$2,057	$129	$2,185	-	7	-	8
Mattress manufacturing	-	$131	$2,039	$2,170	-	-	6	7
Cut and sew apparel contractors	-	$959	$1,191	$2,150	-	13	16	28
Other electronic component manufacturing	-	$1,750	$397	$2,147	-	9	2	11
All other textile product mills	-	$1,414	$723	$2,137	-	8	4	12
Relay and industrial control manufacturing	-	$1,796	$318	$2,114	-	6	1	7
Computer terminals and other computer peripheral equipment manufacturing	-	$728	$1,333	$2,060	-	2	4	6
Nonchocolate confectionery manufacturing	-	$20	$2,004	$2,024	-	0	5	5
Nonferrous metal foundries	-	$1,753	$258	$2,011	-	9	1	11
Textile bag and canvas mills	-	$1,663	$338	$2,001	-	11	2	13
Dental equipment and supplies manufacturing	-	$1,097	$899	$1,996	-	4	3	7
Tortilla manufacturing	-	$8	$1,979	$1,987	-	-	9	9
Laminated plastics plate, sheet (except packaging), and shape manufacturing	-	$1,664	$248	$1,913	-	6	1	7
Industrial process variable instruments manufacturing	-	$1,367	$499	$1,866	-	5	2	6
Broom, brush, and mop manufacturing	-	$1,497	$362	$1,859	-	6	1	7
Paper mills	-	$720	$1,138	$1,857	-	1	2	3
All other forging, stamping, and sintering	-	$1,489	$347	$1,836	-	5	1	7
Biological product (except diagnostic) manufacturing	-	$77	$1,696	$1,772	-	-	2	2
Material handling equipment manufacturing	-	$1,567	$196	$1,763	-	5	1	5
Doll, toy, and game manufacturing	-	$137	$1,588	$1,725	-	-	4	4
Pottery, ceramics, and plumbing fixture manufacturing	-	$1,506	$193	$1,699	-	10	1	11
Ophthalmic goods manufacturing	-	$1	$1,668	$1,670	-	0	6	6
Printed circuit assembly (electronic assembly) manufacturing	-	$1,042	$623	$1,666	-	4	2	7
Other accommodations	-	$24	$1,619	$1,643	-	-	16	16
Paperboard Mills	-	$1,145	$466	$1,612	-	2	1	2
All other paper bag and coated and treated paper manufacturing	-	$939	$662	$1,600	-	3	2	5

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Glass container manufacturing	-	$39	$1,553	$1,592	-	-	4	4
Sanitary paper product manufacturing	-	$350	$1,239	$1,589	-	-	1	2
Motorcycle, bicycle, and parts manufacturing	-	$89	$1,469	$1,558	-	-	3	3
Grain farming	-	$173	$1,362	$1,535	-	2	16	18
Institutional furniture manufacturing	-	$1,498	$37	$1,535	-	7	-	7
Distilleries	-	$56	$1,462	$1,518	-	-	1	1
Nonupholstered wood household furniture manufacturing	-	$42	$1,427	$1,469	-	-	12	12
Synthetic rubber manufacturing	-	$1,046	$397	$1,442	-	2	1	2
Construction machinery manufacturing	-	$1,419	$12	$1,431	-	3	-	3
Sugar cane mills and refining	-	$15	$1,406	$1,421	-	-	2	2
Seafood product preparation and packaging	-	$60	$1,312	$1,372	-	-	4	4
Mining and quarrying other nonmetallic minerals	-	$1,135	$140	$1,275	-	5	1	6
Software, audio, and video media for reproduction	-	$476	$798	$1,274	-	1	2	3
Analytical laboratory instrument manufacturing	-	$607	$655	$1,261	-	1	1	3
Dental laboratories manufacturing	-	$1	$1,259	$1,259	-	-	15	15
Metal and other household furniture manufacturing	-	$208	$1,049	$1,257	-	1	5	6
Animal production, except cattle and poultry and eggs	-	$72	$1,180	$1,252	-	1	18	19
Sign manufacturing	-	$703	$521	$1,224	-	6	4	10
Support activities for oil and gas operations	-	$716	$507	$1,224	-	3	2	5
Electronic connector manufacturing	-	$1,094	$97	$1,191	-	6	1	6
Pesticide and other agricultural chemical manufacturing	-	$237	$940	$1,177	-	-	1	1
Tree nut farming	-	$48	$1,125	$1,173	-	-	9	9
Custom roll forming	-	$1,046	$112	$1,158	-	3	-	3
Chocolate and confectionery manufacturing from cacao beans	-	$6	$1,140	$1,146	-	-	2	2
Support activities for other mining	-	$1,129	$15	$1,144	-	3	0	3
Motor vehicle body manufacturing	-	$673	$431	$1,104	-	2	1	3
Synthetic dye and pigment manufacturing	-	$958	$145	$1,103	-	2	-	2
Mens and boys cut and sew apparel manufacturing	-	$39	$1,054	$1,093	-	-	7	7
Curtain and linen mills	-	$47	$1,034	$1,081	-	-	6	7
All other miscellaneous electrical equipment and component manufacturing	-	$873	$204	$1,076	-	3	1	4
Computer storage device manufacturing	-	$238	$837	$1,075	-	-	1	1
Bare printed circuit board manufacturing	-	$774	$291	$1,064	-	5	2	6
All other converted paper product manufacturing	-	$301	$756	$1,057	-	1	2	3
Medicinal and botanical manufacturing	-	$26	$1,022	$1,048	-	-	2	2
Telephone apparatus manufacturing	-	$359	$666	$1,025	-	-	1	1
Power, distribution, and specialty transformer manufacturing	-	$881	$143	$1,024	-	2	-	3
Stationery product manufacturing	-	$261	$759	$1,021	-	1	2	3
Household cooking appliance manufacturing	-	$125	$895	$1,020	-	-	2	2
Primary battery manufacturing	-	$39	$968	$1,006	-	-	1	1
Power boiler and heat exchanger manufacturing	-	$894	$96	$990	-	3	-	4

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Storage battery manufacturing	-	$382	$604	$986	-	1	2	3
Tire manufacturing	-	$520	$440	$959	-	2	1	3
Support activities for printing	-	$405	$553	$957	-	4	5	9
Electricity and signal testing instruments manufacturing	-	$839	$109	$948	-	2	-	2
Aircraft manufacturing	-	$742	$186	$928	-	1	-	1
Small electrical appliance manufacturing	-	$723	$186	$909	-	2	1	2
Broadcast and w ireless communications equipment manufacturing	-	$150	$747	$896	-	-	1	2
Blind and shade manufacturing	-	$406	$483	$888	-	3	3	6
Watch, clock, and other measuring and controlling device manufacturing	-	$319	$552	$871	-	1	2	3
Office Furniture	-	$33	$831	$864	-	-	3	4
Secondary smelting and alloying of aluminum	-	$619	$237	$856	-	1	-	1
Abrasive product manufacturing	-	$801	$53	$854	-	3	-	3
Fluid pow er process machinery manufacturing	-	$691	$152	$843	-	2	1	3
Propulsion units and parts for space vehicles and guided missiles manufacturing	-	$733	$88	$821	-	3	-	3
All other petroleum and coal products manufacturing	-	$608	$212	$820	-	1	-	1
Printing ink manufacturing	-	$466	$316	$783	-	1	1	2
Flat glass manufacturing	-	$708	$72	$780	-	2	-	3
Apparel knitting mills	-	$22	$755	$776	-	-	5	5
Ball and roller bearing manufacturing	-	$571	$203	$774	-	2	1	2
Air and gas compressor manufacturing	-	$745	$25	$770	-	1	-	2
Other cut and sew apparel manufacturing	-	$6	$752	$758	-	-	5	5
Semiconductor machinery manufacturing	-	$295	$438	$733	-	1	1	2
Railroad rolling stock manufacturing	-	$572	$120	$693	-	1	-	1
Magnetic and optical recording media manufacturing	-	$223	$445	$668	-	-	1	1
Other major household appliance manufacturing	-	$615	$44	$659	-	1	-	1
Other pressed and blow n glass and glassw are manufacturing	-	$294	$361	$654	-	1	1	3
Bow ling centers	-	$1	$641	$642	-	-	12	12
Gasket, packing, and sealing device manufacturing	-	$461	$164	$625	-	3	1	3
Farm machinery and equipment manufacturing	-	$464	$129	$593	-	1	-	1
Other industrial machinery manufacturing	-	$367	$215	$582	-	2	1	2
Travel trailer and camper manufacturing	-	$62	$482	$544	-	-	2	2
Air purification and ventilation equipment manufacturing	-	$469	$71	$540	-	2	-	3
Other aircraft parts and auxiliary equipment manufacturing	-	$253	$265	$518	-	1	1	2
Jew elry and silverw are manufacturing	-	$8	$505	$514	-	-	2	2
Other general purpose machinery manufacturing	-	$468	$43	$511	-	2	-	2
Nonw oven fabric mills	-	$345	$110	$455	-	1	-	1
Apparel accessories and other apparel manufacturing	-	$22	$432	$454	-	-	3	3
Office supplies (except paper) manufacturing	-	$87	$361	$448	-	-	2	2
Commercial Fishing	-	$43	$389	$432	-	1	6	7
Rubber and plastics hoses and belting manufacturing	-	$256	$174	$430	-	1	1	2

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
All other transportation equipment manufacturing	-	$38	$360	$398	-	-	1	1
Fabric coating mills	-	$296	$96	$392	-	1	-	1
Beet sugar manufacturing	-	$3	$382	$386	-	-	1	1
Other engine equipment manufacturing	-	$229	$152	$381	-	-	-	1
Arms, ordnance, and accessories manufacturing	-	$62	$313	$375	-	-	1	1
Totalizing fluid meters and counting devices manufacturing	-	$160	$211	$371	-	-	-	1
Household refrigerator and home freezer manufacturing	-	$36	$323	$359	-	-	1	1
Other leather and allied product manufacturing	-	$21	$333	$354	-	-	3	3
Boat building	-	$14	$326	$341	-	-	2	2
Heavy duty truck manufacturing	-	$78	$256	$335	-	-	-	-
Cutting tool and machine tool accessory manufacturing	-	$265	$65	$329	-	2	-	2
Footw ear manufacturing	-	-	$325	$325	-	-	2	2
Electric lamp bulb and part manufacturing	-	$120	$196	$317	-	-	1	1
Industrial mold manufacturing	-	$250	$62	$312	-	2	-	2
Turbine and turbine generator set units manufacturing	-	$118	$174	$292	-	-	-	-
Search, detection, and navigation instruments manufacturing	-	$167	$116	$283	-	-	-	1
Broadw oven fabric mills	-	$72	$206	$278	-	-	1	1
Musical instrument manufacturing	-	$25	$249	$274	-	-	2	2
Cutlery, utensil, pot, and pan manufacturing	-	$75	$189	$263	-	-	1	1
Plastics and rubber industry machinery manufacturing	-	$219	$36	$254	-	1	-	1
Metal cutting and forming machine tool manufacturing	-	$191	$58	$249	-	1	-	1
Pow er-driven handtool manufacturing	-	$185	$51	$237	-	1	-	1
Electron tube manufacturing	-	$102	$131	$233	-	-	-	1
Mining and oil and gas field machinery manufacturing	-	$182	$35	$217	-	-	-	-
Industrial process furnace and oven manufacturing	-	$188	$22	$211	-	1	-	1
Carbon and graphite product manufacturing	-	$130	$68	$198	-	-	-	1
Mining gold, silver, and other metal ore	-	$153	$40	$193	-	-	-	-
Mining coal	-	$105	$85	$191	-	-	-	1
Photographic and photocopying equipment manufacturing	-	$74	$114	$188	-	-	-	-
Commercial hunting and trapping	-	-	$175	$175	-	-	1	1
Alumina refining and primary aluminum production	-	$125	$48	$173	-	-	-	-
Vending, commercial, industrial, and office machinery manufacturing	-	$10	$160	$170	-	-	-	-
Primary smelting and refining of nonferrous metal (except copper and aluminum)	-	$129	$39	$168	-	-	-	-
Speed changer, industrial high-speed drive, and gear manufacturing	-	$115	$49	$165	-	-	-	-
Fiber, yarn, and thread mills	-	$99	$61	$160	-	-	-	1
Mechanical pow er transmission equipment manufacturing	-	$112	$44	$156	-	-	-	1
Electronic capacitor, resistor, coil, transformer, and other inductor manufacturing	-	$91	$62	$153	-	1	-	1
Special tool, die, jig, and fixture manufacturing	-	$104	$47	$151	-	1	-	1
Cotton farming	-	$25	$110	$135	-	-	-	-
Alkalies and chlorine manufacturing	-	$69	$55	$124	-	-	-	-

	Output Impacts (in thousands)				Employment Impacts			
Sector Name	*Direct*	*Indirect*	*Induced*	*Total*	*Direct*	*Indirect*	*Induced*	*Total*
Packaging machinery manufacturing	-	$87	$32	$119	-	-	-	1
Light truck and utility vehicle manufacturing	-	-	$94	$94	-	-	-	-
Sugarcane and sugar beet farming	-	$3	$86	$89	-	-	1	1
Guided missile and space vehicle manufacturing	-	$70	$16	$86	-	-	-	-
Manufactured home (mobile home) manufacturing	-	$78	$8	$85	-	1	-	1
Narrow fabric mills and schiffli machine embroidery	-	$40	$33	$73	-	-	-	1
Ammunition manufacturing	-	$9	$59	$68	-	-	-	-
Optical instrument and lens manufacturing	-	$21	$45	$66	-	-	-	-
Knit fabric mills	-	$24	$37	$61	-	-	-	-
Irradiation apparatus manufacturing	-	$6	$52	$58	-	-	-	-
Ship building and repairing	-	$32	$18	$50	-	-	-	-
Aircraft engine and engine parts manufacturing	-	$28	$21	$49	-	-	-	-
Military armored vehicle, tank, and tank component manufacturing	-	$37	$12	$49	-	-	-	-
Artificial and synthetic fibers and filaments manufacturing	-	$35	$8	$44	-	-	-	-
Petrochemical manufacturing	-	$31	$9	$40	-	-	-	-
Rolling mill and other metalw orking machinery manufacturing	-	$11	$26	$37	-	-	-	-
Oilseed farming	-	$3	$34	$36	-	-	-	-
Truck trailer manufacturing	-	$25	$5	$29	-	-	-	-
Household laundry equipment manufacturing	-	-	$26	$26	-	-	-	-
Pulp mills	-	$12	$12	$23	-	-	-	-
Motor home manufacturing	-	-	$20	$21	-	-	-	-
Law n and garden equipment manufacturing	-	$4	$14	$17	-	-	-	-
Leather and hide tanning and finishing	-	$3	$8	$11	-	-	-	-
Mining iron ore	-	$9	$1	$10	-	-	-	-
Tobacco farming	-	-	-	-	-	-	-	-

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, 2010 Coefficients based on United States Census Bureau information
Note: Differences due to rounding.

Appendix B—California Industry Groupings

Industry Grouping / Sector Name	*Output (in thousands)*	*Employment*
California Total Economy	**$3,176,523,531**	**19,821,474**
Housing (including Real Estate)	**$328,549,056**	**922,317**
Construct new residential permanent site single- and multi-family structures	$18,329,360	104,281
Construct other new residential structures	$27,354,913	162,309
Maint & repair construct of residential structures	$3,392,379	21,218
Imputed rental activity for owner-occupied dwellings	$162,016,362	0
70% of Real Estate	$117,456,041	634,509
Wholesale and Retail Trade	**$266,972,904**	**2,585,476**
Retail trade subtotal	$143,033,678	1,877,929
Motor vehicle and parts	$18,541,007	181,325
Furniture and home furnishing	$5,717,479	58,170
Electronics and appliances	$9,524,668	69,178
Building material and garden	$9,846,855	114,938
Food and beverage	$24,178,526	359,179
Health and personal care	$10,298,030	121,393
Gasoline stations	$8,635,223	55,441
Clothing and clothing accessories	$12,714,676	201,636
Sporting goods, hobby, book and music stores	$5,205,767	89,539
General merchandise	$17,620,199	291,551
Miscellaneous	$9,830,681	164,199
Direct and electronic sale	$10,920,567	171,379
Wholesale trade	$123,939,226	707,547
Finance and Insurance	**$263,423,755**	**1,259,757**
Monetary authorities and depository credit intermediation	$67,867,931	159,856
Nondepository credit intermediation and related activities	$47,237,931	310,722
Securities, commodity contracts, investments and related activities	$72,917,762	486,433
Insurance carriers	$40,273,506	129,585
Insurance agencies, brokerages, and related activities	$19,584,807	129,622
Funds, trusts, and other financial vehicles	$15,541,818	43,539
Professional, Scientific, and Technical Services	**$242,592,580**	**1,745,733**
Legal services	$36,976,140	217,326
Accounting, tax preparation, bookkeeping and payroll services	$19,497,243	183,410
Architectural, engineering and related services	$33,127,918	257,920
Specialized design services	$4,483,164	31,680
Custom computer programming services	$34,452,627	244,672
Computer systems design services	$11,479,271	121,902
Other computer related services, including facilities management	$6,825,027	21,782
Management, scientific and technical consulting services	$17,741,957	137,788
Environmental and other technical consulting	$12,837,877	131,169
Scientific research and development services	$36,700,647	194,561
Advertising and related services	$15,406,554	107,085
Photographic services	$1,102,531	12,010
Veterinary services	$2,539,811	43,403
All other miscellaneous professional, scientific and technical services	$9,421,813	41,025

Industry Grouping / Sector Name	Output (in thousands)	Employment
State and Local Government	**$199,301,271**	**2,218,818**
State and local government passenger transit	$1,670,745	31,873
State and local government electric utilities	$4,574,331	11,326
Other state and local government enterprises	$26,143,171	91,182
Employment and payroll for State and Local Government Non-Education	$83,088,835	920,293
Employment and payroll for State and Local Government Education	$83,824,189	1,164,145
Information	**$197,379,561**	**501,719**
Newspaper publishers	$2,633,951	21,301
Periodical publishers	$3,815,650	13,322
Book publishers	$2,382,680	7,467
Directory, mailing list, and other publishers	$1,500,250	4,310
Software publishers	$32,747,364	54,164
Motion picture and video industries	$50,445,615	163,487
Sound recording industries	$5,149,358	4,543
Radio and television broadcasting	$7,043,950	28,305
Cable and other subscription programming	$8,251,587	23,320
Internet publishing and broadcasting	$10,514,309	34,182
Telecommunications	$60,137,722	117,716
Data processing, hosting, and related services	$10,385,154	26,270
Other information services	$2,371,971	3,333
Health Care and Social Assistance	**$188,602,063**	**1,846,821**
Offices of physicians, dentists, and other health practitioners	$63,720,096	541,098
Home health care services	$4,644,849	83,426
Medical and diagnostic labs and outpatient and other ambulatory care services	$32,671,029	193,201
Private hospitals	$56,813,609	379,235
Nursing and residential care facilities	$15,367,894	265,013
Child day care services	$4,675,535	107,528
Individual and family services	$7,190,139	190,326
Community food, housing, and other relief services, including rehabilitation services	$3,518,912	86,994
Computer and Electronic Product Manufacturing	**$184,607,279**	**256,778**
Electronic computer manufacturing	$73,313,231	40,194
Computer storage device manufacturing	$4,524,881	4,168
Computer terminals and other computer peripheral equipment manufacturing	$4,628,801	9,022
Telephone apparatus manufacturing	$4,695,621	5,790
Broadcast and wireless communications equipment	$9,109,616	17,246
Other communications equipment manufacturing	$1,964,432	4,576
Audio and video equipment manufacturing	$3,138,946	6,649
Electron tube manufacturing	$921,588	2,520
Bare printed circuit board manufacturing	$2,121,856	10,379
Semiconductor and related device manufacturing	$38,976,434	45,605
Electronic capacitor, resistor, coil, transformer and other inducter manufacturing	$427,623	2,384
Electronic connector manufacturing	$1,083,617	4,650
Printed circuit assembly (electronic assembly) manufacturing	$2,480,255	7,972
Other electronic component manufacturing	$3,047,106	13,040
Search, detection, and navigation instruments manufacturing	$17,564,729	39,888
Automatic environmental control manufacturing	$350,571	1,222
Industrial process variable instruments manufacturing	$2,412,163	8,215
Totalizing fluid meters and counting devices	$402,095	912
Electricity and signal testing instruments	$5,185,053	13,240
Analytical laboratory instrument manufacturing	$3,878,910	8,878
Irradiation apparatus manufacturing	$514,759	1,142
Watch, clock, and other measuring and controlling device manufacturing	$1,058,593	3,801
Software, audio, and video media reproducing	$1,216,146	2,959
Magnetic and optical recording media manufacturing	$1,333,474	2,326

APPENDIX B—INDUSTRY GROUPINGS

Industry Grouping / Sector Name	*Output (in thousands)*	*Employment*
Agriculture and Food Processing	**$151,882,300**	**599,223**
Oilseed farming	$31,439	228
Grain farming	**$1,155,977**	**13,072**
Vegetable and melon farming	$6,998,461	21,642
Fruit farming	**$13,483,430**	**50,447**
Tree nut farming	$5,104,614	36,975
Greenhouse, nursery, and floriculture products	**$3,977,492**	**18,607**
Cotton farming	$436,817	1,254
Sugarcane and sugar beet farming	**$49,093**	**772**
All other crop farming	$3,499,057	10,051
Cattle ranching and farming	**$2,082,627**	**9,906**
Dairy cattle and milk production	$6,060,426	25,346
Poultry and egg production	**$1,417,936**	**1,583**
Animal production, except cattle and poultry	$401,682	5,948
Forestry, forest products, and timber tract products	**$351,176**	**1,831**
Commercial logging	$409,107	3,703
Commercial Fishing	**$336,385**	**5,680**
Commercial hunting and trapping	$41,860	255
Support activities for agriculture and forest	**$7,557,722**	**197,856**
Dog and cat food manufacturing	$1,466,157	1,016
Other animal food manufacturing	**$3,470,935**	**2,854**
Flour milling and malt manufacturing	$2,450,994	1,985
Wet corn milling	**$809,019**	**360**
Soybean and other oilseed processing	$1,832,754	451
Fats and oils refining and blending	**$1,064,130**	**642**
Breakfast cereal manufacturing	$803,768	780
Sugar cane mills and refining	**$812,482**	**902**
Beet sugar manufacturing	$168,350	309
Chocolate and confectionery manufacturing fro	**$516,526**	**789**
Confectionery manufacturing from purchased chocolate	$880,352	2,250
Nonchocolate confectionery manufacturing	**$767,835**	**2,009**
Frozen food manufacturing	$3,982,041	11,862
Fruit and vegetable canning, pickling, and drying	**$10,853,645**	**20,609**
Fluid milk and butter manufacturing	$5,345,882	7,947
Cheese manufacturing	**$4,608,296**	**5,913**
Dry, condensed, and evaporated dairy products	$1,006,042	907
Ice cream and frozen dessert manufacturing	**$1,103,659**	**2,529**
Animal (except poultry) slaughtering, rendering, and processing	$6,133,879	13,531
Poultry processing	**$2,142,798**	**8,874**
Seafood product preparation and packaging	$368,975	1,091
Bread and bakery product manufacturing	**$4,805,186**	**27,823**
Cookie- cracker- and pasta manufacturing	$2,103,152	4,629
Tortilla manufacturing	**$1,471,411**	**6,433**
Snack food manufacturing	$5,642,941	7,839
Coffee and tea manufacturing	**$1,003,095**	**1,474**
Flavoring syrup and concentrate manufacturing	$1,598,914	763
Seasoning and dressing manufacturing	**$1,903,001**	**3,308**
All other food manufacturing	$3,151,442	9,724
Soft drink and ice manufacturing	**$9,915,646**	**13,488**
Breweries	$3,628,941	2,983
Wineries	**$12,236,006**	**27,580**
Distilleries	$438,746	411
Non-Residential Construction	**$141,409,121**	**876,426**
Construct new nonresidential commercial and health care structures	$26,098,788	177,994
Construct new nonresidential manufacturing structures	$4,373,012	30,298
Construct other new nonresidential structures	$42,412,540	268,001
Maint & repair construct of nonresident structures	$18,186,478	128,200
30% of Real Estate	$50,338,303	271,932

Industry Grouping / Sector Name	*Output (in thousands)*	*Employment*
Leisure and Hospitality	**$133,614,707**	**1,883,849**
Performing arts companies	$2,282,264	63,242
Spectator sports companies	$3,581,693	65,173
Promoters of performing arts and sports and agents for public figures	$4,512,967	72,012
Independent artists, writers, and performers	$14,488,066	70,172
Museums, historical sites, zoos, and parks	$1,791,397	13,806
Fitness and recreational sports centers	$2,523,852	66,131
Bowling centers	$240,727	4,669
Amusement parks, arcades, and gambling industry	$10,821,998	110,164
Hotels and motels, including casino hotels	$14,823,333	134,722
Other accommodations	$1,720,509	18,286
Food services and drinking places	$73,621,070	1,213,868
Other amusement and recreation industries	$3,206,833	51,605
Management and Support	**$114,711,974**	**1,389,776**
Management of companies and enterprises	$38,051,176	197,575
Employment services	$18,991,348	466,268
Travel arrangement and reservation services	$4,147,005	28,728
Office administrative services	$11,366,274	98,789
Facilities support services	$1,282,695	10,116
Business support services	$4,357,636	71,844
Investigation and security services	$6,443,887	161,454
Services to buildings and dwellings	$17,372,039	276,744
Other support services	$3,773,369	35,292
Waste management and remediation services	$8,926,545	42,967
Other Services	**$85,133,448**	**1,192,029**
Automotive repair and maintenance, except car washes	$14,070,146	145,559
Car washes	$1,674,879	41,779
Electronic and precision equipment repair and maintenance	$5,055,886	29,813
Commercial and industrial machinery and equipment	$4,507,728	36,889
Personal and household goods repair and maintenance	$2,658,540	16,802
Personal care services	$7,185,265	109,514
Death care services	$1,821,586	17,491
Dry-cleaning and laundry services	$4,045,304	60,742
Other personal services	$10,563,287	70,145
Religious organizations	$9,028,574	69,492
Grantmaking, giving, and social advocacy organizations	$9,243,326	90,965
Civic, social, professional, and similar organizations	$11,803,428	136,351
Private household operations	$3,475,498	366,487
Transportation and Warehousing	**$78,478,504**	**622,234**
Transport by air	$11,720,040	42,331
Transport by rail	$3,388,558	10,684
Transport by water	$2,804,193	6,081
Transport by truck	$21,300,453	179,682
Transit and ground passenger transportation	$3,216,605	59,269
Transport by pipeline	$2,576,284	2,838
Scenic and sightseeing transportation and support activities for transportation	$11,531,666	89,644
Couriers and messengers	$7,718,398	83,830
Warehousing and storage	$7,167,453	79,270
US Postal Service	$7,054,853	68,605

Industry Grouping / Sector Name	*Output (in thousands)*	*Employment*
Medical Manufacturing	**$75,273,761**	**111,668**
Medicinal and botanical manufacturing	$1,170,935	2,654
Pharmaceutical preparation manufacturing	$47,346,737	33,809
In-vitro diagnostic substance manufacturing	$2,205,806	4,679
Biological product (except diagnostic) manufacturing	$1,942,279	2,745
Electromedical and electrotherapeutic apparatus manufacturing	$4,999,480	10,639
Surgical and medical instrument manufacturing	$10,014,007	26,877
Surgical appliance and supplies manufacturing	$4,332,408	12,833
Dental equipment and supplies manufacturing	$1,258,147	4,240
Ophthalmic goods manufacturing	$1,312,136	4,775
Dental laboratories manufacturing	$691,825	8,417
Federal Government	**$66,023,196**	**466,420**
Other Federal Government enterprises	$2,431,591	7,025
Employment and payroll for Federal Non-Military	$25,513,279	207,016
Employment and payroll for Federal Military	$38,078,325	252,379
Utilities	**$55,640,630**	**59,132**
Electric power generation, transmission, and distribution	$17,759,695	22,156
Natural gas distribution	$36,259,406	31,341
Water- sewage and other treatment and deliver	$1,621,529	5,635
Transportation Equipment Manufacturing	**$48,610,304**	**105,357**
Automobile manufacturing	$4,957,513	3,256
Light truck and utility vehicle manufacturing	$52,641	27
Heavy duty truck manufacturing	$1,076,159	1,246
Motor vehicle body manufacturing	$1,506,876	3,855
Truck trailer manufacturing	$168,990	666
Motor home manufacturing	$22,328	81
Travel trailer and camper manufacturing	$294,422	1,390
Motor vehicle parts manufacturing	$4,566,286	12,435
Aircraft manufacturing	$14,954,193	22,860
Aircraft engine and engine parts manufacturing	$1,411,322	2,884
Other aircraft parts and auxiliary equipment	$7,228,639	25,239
Guided missile and space vehicle manufacturing	$6,884,140	15,592
Propulsion units and parts for space vehicles	$826,884	2,986
Railroad rolling stock manufacturing	$334,209	690
Ship building and repairing	$1,823,016	7,848
Boat building	$169,926	861
Motorcycle, bicycle, and parts manufacturing	$977,069	1,772
Military armored vehicle, tank, and tank component manufacturing	$1,185,733	1,335
All other transportation equipment manufacturing	$169,957	333

Center for Strategic Economic Research, June 2012
Data Source: IMPLAN, 2010 coefficients
Note: Differences due to rounding.

Appendix C—Population Distribution of California's Counties