

The Economic Benefits of Housing in California

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Executive Summary

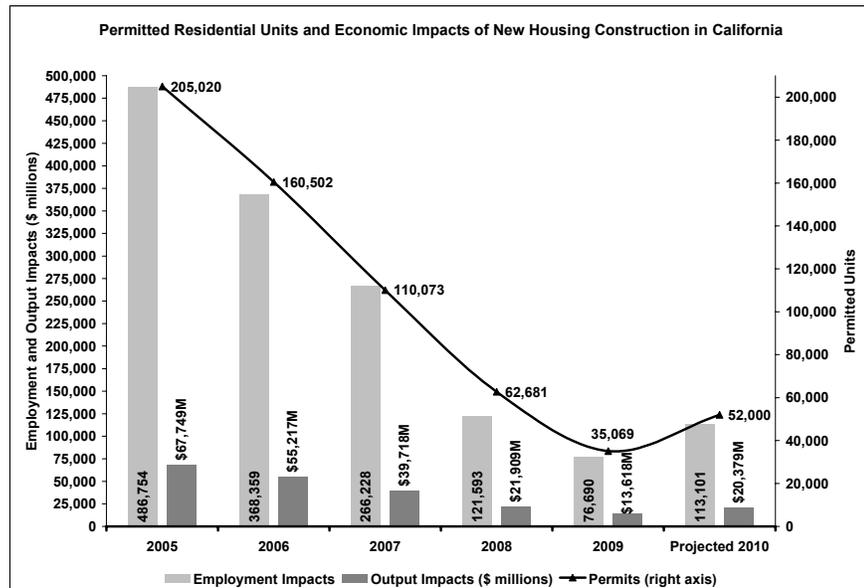
New housing construction is one of the most visible and widely dispersed industries in California. Taking into account the full range of economic impacts, new housing construction contributes over \$13.8 billion per year to the California economy and supports nearly 77,000 jobs statewide on an annual basis, based on 2009 new housing unit permit numbers. A little over one-half of the economic output (about \$7.8 billion) is directly the result of new housing construction. The balance (nearly \$6.1 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 \$0.8 in total economic activity, while each job created through residential construction supports an additional 1.2 jobs.

New housing construction:

- Contributes over \$13.8 billion to the California economy
- Supports nearly 77,000 jobs per year
- Constitutes 0.4 percent of the state's output

New housing construction is an important industry for the state's economy, accounting for 0.4 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 83 percent between 2005 and 2009, the economic benefits of new housing



construction in California have decreased considerably. In 2005, a period around the most recent peak, permit levels topped 205,000 units, generating an economic impact of over \$67.7 billion and nearly 487,000 jobs. At that time, building levels were much

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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. By 2009, permitted units dropped to around 35,000 and the economic benefits of new housing construction equated to approximately \$13.8 billion of output, nearly 77,000 jobs, and under half a percent of California's total output. This reflects a considerable decline in the impacts of new housing construction, an approximately 80 percent drop in output and 84 percent decrease in employment. Permit levels are expected to pick up slightly in 2010, leading to an increase in economic impacts—however, the forecast for 2010 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, Riverside, and San Diego Counties have seen the greatest economic benefits from new housing construction, based on 2009 new housing unit construction data each with total impacts measuring between \$1.1 and \$2.1 billion of output and 6,400 and 12,000 jobs.

The entire housing industry:

- Generates close to \$347.3 billion of output
- Supports about 1.0 million jobs
- Accounts for 11 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 close to \$347.3 billion of output and supports about 1.0 million jobs throughout the state. Close to 11 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; Professional, Scientific, & Technical Services; and Information.

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 \$35.7 and \$83.1 billion of output and 122,000 and 233,000 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 fourth 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 2006 and 2008 updates and analyzes the most recent residential construction data for 2008 and 2009 by means of the newest database and structural matrices for the econometric model utilized to calculate economic impacts. In this update, three elements have been added 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 2010 from the Construction Industry Research Board (CIRB) *California Construction Review* report series and provides historical information on new housing construction back to 2005. For the counties, estimations of the residential real estate activities were created for each local

economy to enhance the analysis the entire housing industry provided in previous updates.

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 2008 and 2009 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 2010 forecasts for similar measures in the *California Construction Review*—the March 2010 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

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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 2007 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 2007 snapshot of the economy containing unique economic activity, industry structure,

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and sector relationships, general comparisons are applicable between this report and the two previous updates, making allowances for the model differences.

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, between 55 and 75 percent of the Real Estate sector is focused on residential property transactions, management, and leasing while the remaining 25 to 45 percent is related to commercial property. Accounting for the midpoint in the range and a similar level as previous reports, at the statewide level, 65 percent of the Real Estate sector's employment and output were allocated to the entire housing industry and the remaining 35 percent to the non-residential category. A similar approach was employed for all 58 counties in the state (focusing on the average mix from 2001-2008)—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 previous 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 63,000 and 35,000 new privately-owned housing units throughout California in 2008 and 2009, respectively. Construction Industry Research Board (CIRB) forecasts for 2010 reflect an uptick to 52,000 permitted in the state. Single-family units accounted for approximately 52 percent of the permits granted in 2008 with the remaining 48 percent for multi-family construction. In 2009, the proportion shifted substantially with almost 73 percent of permits for single-family units and 27 percent issued for multi-family units. The 2010 forecast shows a slight reduction in the percent of single-family units, dropping down to 67 percent. Construction costs for the housing units permitted amounted to around \$12.3 billion in 2008 and \$7.8 billion in 2009—these costs account for labor, materials, profits, and other related expenses. This equates to an average construction valuation per unit of over \$196,000 in 2008 and approximately \$221,000 in 2009. Valuation is forecast at over \$11.4 billion for 2010 with an average cost per unit of close to \$220,000.

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 \$38 billion. The most current levels are well below the recent peak period and less than half the state's long-term annual average. The annual reductions of the past two years have been notably dramatic with a close to 76 percent drop-off in units in 2008 and another decrease of approximately 44 percent in 2009. While the 2010 forecast shows an increase in the number of permitted units (around 44 percent over 2009), the level is still significantly lower than the long-term average in California.

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

<i>Year</i>	<i>Units</i>	<i>Valuation</i>
Projected 2010	52,000	\$11,442,000
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	205,020	\$38,369,737

Center for Strategic Economic Research, June 2010
 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 next page), overall, based on 2009 values, the economic benefits of new housing construction in California equate to over \$13.8 billion of output and nearly 77,000 jobs on an annual basis. These total economic impacts are a result of the following three effects: 1) new housing construction *directly* provides about \$7.8 billion of output and 35,000 jobs to the state's economy, 2) housing construction *indirectly* supports around \$3.4 billion of output and 23,000 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 \$2.6 billion of output and 18,000 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 since with 2009 output impacts at about 20 percent of the 2005 level and employment impacts falling to close to 16 percent of this value. 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 under half a percent of state output in 2009 (0.4 percent). At over \$13.8 billion, the 2009 contribution, however, 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. While the economic downturn has had a dramatic effect on the contributions of new housing construction in the last two years, the 2010 forecast suggests that with an increase in

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building activity, impacts could increase substantially over 2009, potentially reaching over 113,000 jobs and close to \$20.4 billion of output.

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

<i>Year/Impact</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>	<i>Yr. % Change</i>
Projected 2010 Employment	51,678	34,635	26,788	113,101	42.1%
Projected 2010 Output	\$11,442,000	\$5,076,810	\$3,860,017	\$20,378,827	42.1%
2009 Employment	35,041	23,484	18,164	76,690	-58.6%
2009 Output	\$7,758,484	\$3,442,435	\$2,617,364	\$13,818,284	-58.6%
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 2010

Data Source: IMPLAN, 2007 Coefficients based on United States Census Bureau information

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 \$0.8 of output and for every employee created directly as a result of constructing new housing units, California will gain another 1.2 jobs through indirect and induced activity. The economic multiplier effect has shifted only minimally in recent years. 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; Petroleum Refineries; and Architectural, Engineering, & Related Services sectors benefit the most from the total output impacts created through new housing construction (based on the 2009 economic impact values). The largest indirect output gains are concentrated in the same three 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 Wholesale Trade; Offices of Physicians, Dentists, & Other Health Practitioners; and Real Estate sectors see the greatest induced impacts due to the direct and indirect employees' spending within these sectors.

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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 single- and multi-family units	\$7,758,484	-	-	\$7,758,484
Wholesale trade	-	\$308,734	\$159,021	\$467,755
Owner-occupied dwellings	-	-	\$284,111	\$284,111
Petroleum refineries	-	\$187,992	\$79,866	\$267,859
Architectural, engineering, and related services	-	\$246,137	\$7,435	\$253,571
Real estate	-	\$102,551	\$122,257	\$224,808
Retail - motor vehicle and parts	-	\$122,399	\$50,505	\$172,904
Food services and drinking places	-	\$30,045	\$120,835	\$150,880
Truck transportation	-	\$126,807	\$22,134	\$148,941
Monetary authorities and depository credit intermediation	-	\$87,517	\$59,208	\$146,725
Retail - food and beverage	-	\$84,927	\$42,456	\$127,383
Offices of physicians, dentists, and other health practitioners	-	\$1	\$126,804	\$126,805
Retail - general merchandise	-	\$78,608	\$38,650	\$117,259
Securities, commodity contracts, investments, and related activities	-	\$57,939	\$56,990	\$114,929
Legal services	-	\$71,468	\$38,677	\$110,145
Private hospitals	-	\$1	\$105,831	\$105,832
Telecommunications	-	\$49,619	\$44,624	\$94,243
Insurance carriers	-	\$21,379	\$72,037	\$93,416
Wood kitchen cabinet and countertop manufacturing	-	\$84,378	\$1,822	\$86,200
Management of companies and enterprises	-	\$55,594	\$29,030	\$84,624
Retail - furniture and home furnishings	-	\$63,345	\$12,511	\$75,856
Retail - building material and garden supply	-	\$47,418	\$26,326	\$73,745
Nonstore retail	-	\$46,437	\$24,422	\$70,859
Wood windows and doors and millwork	-	\$68,028	\$1,067	\$69,095
Retail - clothing and clothing accessories	-	\$40,900	\$24,966	\$65,866
Sawmills and wood preservation	-	\$63,121	\$830	\$63,951
Retail - health and personal care	-	\$42,779	\$19,967	\$62,746
Electric power generation, transmission, and distribution	-	\$29,837	\$31,549	\$61,386
Accounting, tax preparation, bookkeeping, and payroll services	-	\$44,370	\$14,709	\$59,080
Other plastics product manufacturing	-	\$53,424	\$3,722	\$57,146
Nondepository credit intermediation and related activities	-	\$22,320	\$34,766	\$57,086
Office furniture and custom architectural woodwork and millwork manufacturing	-	\$53,210	\$28	\$53,238
Retail - miscellaneous	-	\$33,441	\$15,228	\$48,668
Retail - electronics and appliances	-	\$34,576	\$12,066	\$46,642
Automotive repair and maintenance	-	\$26,434	\$19,559	\$45,993
All other miscellaneous professional, scientific, and technical services	-	\$36,331	\$9,295	\$45,626
Services to buildings and dwellings	-	\$31,532	\$13,042	\$44,574
Employment services	-	\$30,466	\$11,813	\$42,278
Management, scientific, and technical consulting services	-	\$27,677	\$13,098	\$40,775
Retail - gasoline stations	-	\$25,055	\$15,628	\$40,683
Civic, social, professional, and similar organizations	-	\$27,287	\$13,231	\$40,517
Office administrative services	-	\$29,716	\$9,050	\$38,766
Medical and diagnostic labs and outpatient and other ambulatory care services	-	\$35	\$38,554	\$38,589
Commercial and industrial machinery and equipment rental and leasing	-	\$34,550	\$3,151	\$37,701
Plastics pipe and pipe fitting manufacturing	-	\$35,115	\$889	\$36,005
Natural gas distribution	-	\$16,226	\$19,256	\$35,482
Engineered wood member and truss manufacturing	-	\$33,989	\$329	\$34,318
Maintenance and repair construction of nonresidential maintenance and repair	-	\$22,463	\$11,414	\$33,876
Cable and other subscription programming	-	\$19,832	\$13,918	\$33,750
Extraction of oil and natural gas	-	\$22,085	\$10,458	\$32,543

Center for Strategic Economic Research, June 2010

Data Source: IMPLAN, 2007 Coefficients based on United States Census Bureau information

Notes: Figure only includes the 50 sectors with the largest total impacts based on the 2009 impact values.

Differences due to rounding.

As Figure 4 (on the next page) demonstrates, Food Services & Drinking Places; Wholesale Trade; and Architectural, Engineering, & Related Services are the non-housing-related sectors that capture the largest employment gains in the state resulting from new housing construction (using the 2009 economic impact values). The Architectural, Engineering, & Related Services; Wholesale Trade; and General Merchandise Retail 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 Wholesale Trade 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.

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FIGURE 4
DETAILED EMPLOYMENT IMPACTS OF NEW
HOUSING CONSTRUCTION IN CALIFORNIA

<i>Sector</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Construction of new residential single- and multi-family units	35,041	-	-	35,041
Food services and drinking places	-	501	2,016	2,517
Wholesale trade	-	1,599	823	2,422
Architectural, engineering, and related services	-	1,944	59	2,003
Retail - general merchandise	-	1,232	606	1,838
Retail - food and beverage	-	1,098	549	1,647
Retail - motor vehicle and parts	-	1,079	445	1,524
Real estate	-	536	639	1,176
Employment services	-	822	319	1,140
Nonstore retail	-	697	367	1,063
Offices of physicians, dentists, and other health practitioners	-	-	1,059	1,059
Truck transportation	-	861	150	1,011
Retail - miscellaneous	-	630	287	917
Retail - clothing and clothing accessories	-	524	320	844
Private hospitals	-	-	778	778
Retail - building material and garden supply	-	493	274	767
Retail - health and personal care	-	504	235	739
Services to buildings and dwellings	-	499	206	705
Retail - furniture and home furnishings	-	576	114	689
Civic, social, professional, and similar organizations	-	437	212	649
Legal services	-	402	217	619
Wood kitchen cabinet and countertop manufacturing	-	579	13	591
Accounting, tax preparation, bookkeeping, and payroll services	-	437	145	582
Monetary authorities and depository credit intermediation	-	319	216	534
Private households	-	-	527	527
Retail - sporting goods, hobby, book and music	-	357	153	509
Securities, commodity contracts, investments, and related activities	-	256	252	508
Nursing and residential care facilities	-	-	481	481
Automotive repair and maintenance	-	265	196	460
Office furniture and custom architectural woodwork and millwork manufacturing	-	434	-	434
Retail - electronics and appliances	-	299	104	403
Management of companies and enterprises	-	245	128	373
Wood windows and doors and millwork	-	364	6	369
Individual and family services	-	-	330	330
Insurance carriers	-	68	228	295
Maintenance and repair construction of nonresidential maintenance and repair	-	193	98	290
Private junior colleges, colleges, universities, and professional schools	-	14	274	288
Management, scientific, and technical consulting services	-	187	89	276
Retail - gasoline stations	-	169	106	275
Other plastics product manufacturing	-	242	17	259
Investigation and security services	-	198	59	257
Hotels and motels	-	116	137	252
Nondepository credit intermediation and related activities	-	96	149	244
US Postal Service	-	141	102	243
Medical and diagnostic labs and outpatient and other ambulatory care services	-	-	235	235
Business support services	-	169	54	222
Sawmills and wood preservation	-	218	3	221
Child day care services	-	-	212	212
Personal care services	-	-	205	205
Advertising and related services	-	130	72	203

Center for Strategic Economic Research, June 2010

Data Source: IMPLAN, 2007 Coefficients based on United States Census Bureau information

Notes: Figure only includes the 50 sectors with the largest total impacts based on the 2009 impact values.

Differences due to rounding.

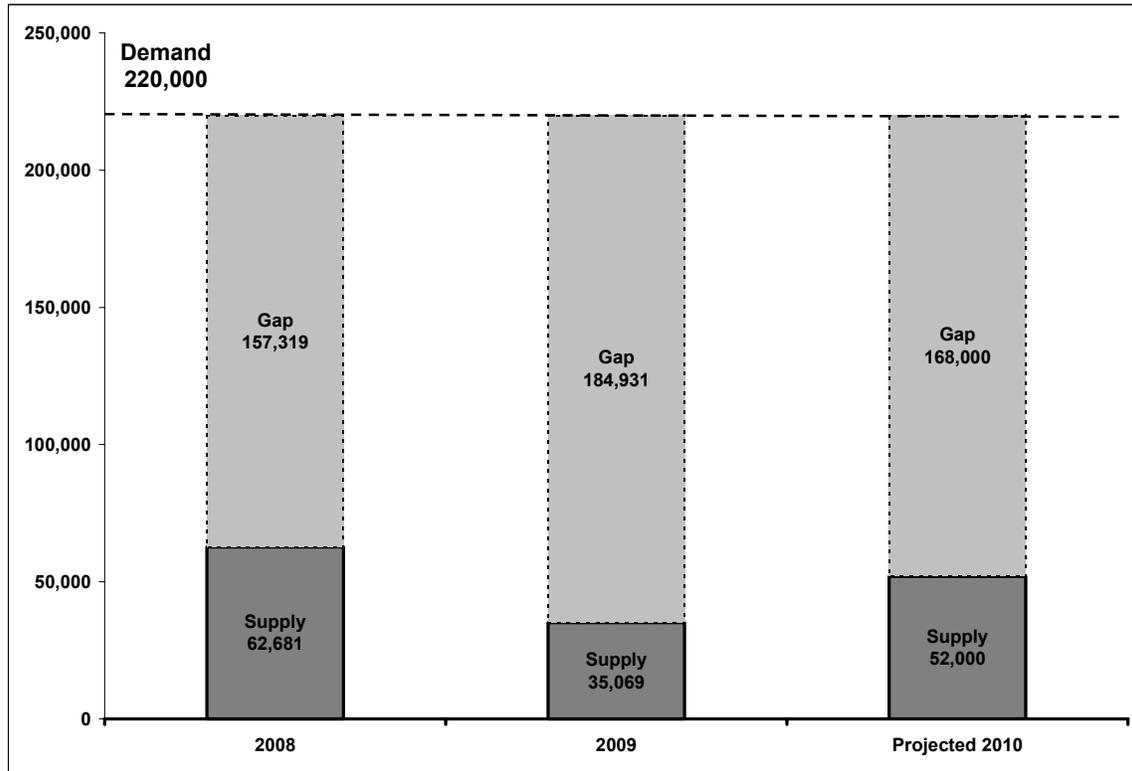
New Housing Construction's Untapped Potential

As housing production has declined, 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 next page), supply fell short of demand by over 157,000 units in 2008 with the gap widening to nearly 185,000 in 2009 (only about 16 percent of the projected need was permitted). Permit level forecasts for 2010 expect a difference of 168,000 units between supply and estimated demand.

While the 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 2009 met the estimated 220,000 housing need, the state would see an incremental increase in the total output impact of another \$72.9 billion and an additional employment impact of over 404,000 jobs. This reflects the difference in economic impact created by the actual 2009 construction of approximately 35,000 units and projected demand. Similarly, if housing construction in 2008 reached the 220,000-unit demand rather than the estimated almost 63,000 permitted, California would have seen an additional economic benefit of close to \$55.0 billion of output and 305,000 jobs including direct, indirect, and induced impacts. The gap in the 2010 permit projection and estimated demand shows a potential incremental economic impact increase of \$65.8 billion of output and 365,000 jobs if the additional 168,000 needed 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 2010

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, 65 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 nearly \$347.3 billion in output and supports over 1.0 million 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). It is also important to note that some of the detailed data for specific components of housing industry have not fully

CALIFORNIA'S HOUSING INDUSTRY

caught up with the core of the recession—these numbers reflect the front end of the downturn, likely buoying the decrease only slightly.

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 close to 11 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 (\$317.9 billion of output); Professional, Scientific, & Technical Services (\$250.8 billion of output); and Information (\$233.6 billion). 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)

<i>Leading Industry Sectors</i>	<i>Output</i>	<i>Employment</i>	<i>% of Total Output</i>
Housing*	\$347,325,023	1,026,979	10.8%
Wholesale and Retail Trade	\$317,853,933	2,832,828	9.9%
Professional, Scientific, and Technical Services	\$250,830,897	1,737,817	7.8%
Information	\$233,584,189	580,318	7.3%
Finance and Insurance	\$226,888,885	899,198	7.1%
Non-Residential Real Estate Activities*	\$186,618,394	1,204,878	5.8%
State and Local Government	\$186,531,086	2,331,347	5.8%
Health Care and Social Assistance	\$166,791,811	1,672,461	5.2%
Agriculture and Food Processing	\$140,917,480	666,628	4.4%
Management and Support	\$137,649,842	1,420,954	4.3%
Computer and Electronic Product Manufacturing	\$109,866,147	277,756	3.4%
Leisure and Hospitality	\$130,576,476	1,866,297	4.1%
Transportation and Warehousing	\$89,609,146	637,724	2.8%
Other Services	\$80,672,049	1,208,413	2.5%
Utilities	\$66,455,706	58,519	2.1%
Medical Manufacturing	\$51,998,584	108,827	1.6%
Federal Government	\$50,095,340	428,387	1.6%
Transportation Equipment Manufacturing	\$45,020,380	117,454	1.4%
California Total	\$3,202,879,233	20,375,504	-

Center for Strategic Economic Research, June 2010

Data Source: CSER estimates based on IMPLAN, 2007 coefficients

* Housing industry includes an allocation of 65 percent of the Real Estate sector; Non-Residential Real Estate Activities includes 35 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 1,200 to 3,400 people, to very large, in particular, Los Angeles with around 10.3 million residents and San Diego and Orange Counties, each with populations of around 3.1 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 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 next page), in both 2008 and 2009, the largest number of residential units permitted and highest construction valuations (based on data from the United States Census Bureau) were in the southern portion of the state within Los Angeles, Riverside, and San Diego Counties. Combined, these three counties comprised over one-third of the total construction valuation and total residential units within permits granted statewide in 2008 and in 2009. 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.

COUNTY-LEVEL HOUSING INDUSTRY

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

County	Units		Valuation	
	2008	2009	2008	2009
Alameda	1,933	1,333	\$393,733	\$328,890
Alpine	8	7	\$4,176	\$2,325
Amador	82	57	\$14,614	\$8,735
Butte	592	360	\$76,636	\$59,395
Calaveras	126	58	\$35,077	\$18,134
Colusa	17	15	\$4,754	\$3,388
Contra Costa	2,043	1,235	\$429,310	\$285,044
Del Norte	116	28	\$20,332	\$6,042
El Dorado	425	141	\$93,381	\$38,601
Fresno	2,560	2,228	\$401,957	\$364,607
Glenn	44	91	\$8,125	\$12,633
Humboldt	331	181	\$27,674	\$17,363
Imperial	511	196	\$62,297	\$33,565
Inyo	10	3	\$2,060	\$574
Kern	2,593	1,777	\$347,467	\$298,220
Kings	373	194	\$45,855	\$28,836
Lake	150	57	\$27,487	\$10,841
Lassen	47	18	\$7,483	\$4,089
Los Angeles	11,810	5,138	\$2,206,679	\$1,204,470
Madera	240	120	\$44,592	\$16,790
Marin	332	230	\$99,179	\$74,448
Mariposa	54	26	\$22,570	\$7,231
Mendocino	145	114	\$19,820	\$17,245
Merced	349	99	\$64,396	\$20,910
Modoc	9	14	\$970	\$2,005
Mono	26	19	\$8,886	\$6,709
Monterey	456	194	\$92,936	\$42,621
Napa	230	131	\$97,040	\$54,835
Nevada	199	103	\$46,792	\$23,031
Orange	3,235	2,143	\$679,083	\$528,827
Placer	1,709	1,264	\$385,035	\$281,150
Plumas	63	36	\$10,850	\$8,415
Riverside	5,763	4,072	\$1,435,764	\$947,513
Sacramento	3,053	982	\$480,831	\$220,001
San Benito	19	40	\$4,678	\$11,358
San Bernardino	3,183	2,263	\$464,693	\$373,703
San Diego	5,357	2,946	\$1,069,645	\$687,860
San Francisco	2,295	300	\$497,474	\$71,534
San Joaquin	819	792	\$174,431	\$163,265
San Luis Obispo	674	394	\$130,300	\$99,724
San Mateo	952	452	\$381,645	\$180,049
Santa Barbara	405	226	\$101,519	\$84,541
Santa Clara	3,471	1,054	\$651,218	\$305,154
Santa Cruz	317	149	\$63,373	\$33,035
Shasta	530	243	\$86,875	\$43,995
Sierra	8	5	\$3,599	\$1,620
Siskiyou	107	62	\$20,881	\$11,238
Solano	565	586	\$104,176	\$126,390
Sonoma	612	442	\$152,236	\$108,892
Stanislaus	481	364	\$87,694	\$58,221
Sutter	98	59	\$29,303	\$21,856
Tehama	156	62	\$20,721	\$12,663
Trinity	25	30	\$6,381	\$5,722
Tulare	1,487	1,097	\$238,260	\$184,131
Tuolumne	106	52	\$30,391	\$13,614
Ventura	893	352	\$195,667	\$96,256
Yolo	324	323	\$71,244	\$71,433
Yuba	163	112	\$16,852	\$14,752

Center for Strategic Economic Research, June 2010
 Data Source: United States Census Bureau

COUNTY-LEVEL HOUSING INDUSTRY

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 17 through 20) demonstrate that the largest economic impacts occur within the counties with the highest levels of units permitted and construction valuation—Los Angeles, Riverside, and San Diego. Based on 2009 values and including direct, indirect and induced impacts, the economic contributions of new housing construction in Los Angeles County reach nearly \$2.1 billion of output and 12,000 jobs; almost \$1.5 billion of output and around 9,200 jobs in Riverside County; and more than \$1.1 billion of output and 6,400 jobs in San Diego County. New housing construction is important even in the state's smallest counties like Alpine, Sierra, and Modoc, where 2009 residential building activities generate a total of between approximately \$1.8 and \$2.6 million of output and around 10 to 16 jobs.

COUNTY-LEVEL HOUSING INDUSTRY

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

County	2008				2009			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Alameda	\$393,733	\$132,431	\$109,190	\$635,354	\$328,890	\$110,622	\$91,208	\$530,720
Alpine	\$4,176	\$244	\$218	\$4,638	\$2,325	\$136	\$121	\$2,581
Amador	\$14,614	\$3,250	\$2,103	\$19,966	\$8,735	\$1,942	\$1,257	\$11,934
Butte	\$76,636	\$24,793	\$17,159	\$118,587	\$59,395	\$19,215	\$13,299	\$91,909
Calaveras	\$35,077	\$7,285	\$4,251	\$46,614	\$18,134	\$3,766	\$2,198	\$24,098
Colusa	\$4,754	\$811	\$508	\$6,073	\$3,388	\$578	\$362	\$4,328
Contra Costa	\$429,310	\$128,763	\$97,328	\$655,401	\$285,044	\$85,493	\$64,622	\$435,159
Del Norte	\$20,332	\$4,054	\$2,631	\$27,017	\$6,042	\$1,205	\$782	\$8,029
El Dorado	\$93,381	\$22,994	\$16,054	\$132,429	\$38,601	\$9,505	\$6,636	\$54,742
Fresno	\$401,957	\$154,983	\$103,981	\$660,921	\$364,607	\$140,582	\$94,319	\$599,508
Glenn	\$8,125	\$1,467	\$919	\$10,511	\$12,633	\$2,281	\$1,428	\$16,342
Humboldt	\$27,674	\$8,913	\$5,642	\$42,229	\$17,363	\$5,592	\$3,540	\$26,495
Imperial	\$62,297	\$15,599	\$8,463	\$86,359	\$33,565	\$8,405	\$4,560	\$46,529
Inyo	\$2,060	\$411	\$267	\$2,738	\$574	\$115	\$74	\$763
Kern	\$347,467	\$117,131	\$74,075	\$538,673	\$298,220	\$100,530	\$63,576	\$462,326
Kings	\$45,855	\$9,119	\$5,663	\$60,637	\$28,836	\$5,734	\$3,561	\$38,131
Lake	\$27,487	\$5,029	\$3,842	\$36,358	\$10,841	\$1,983	\$1,515	\$14,339
Lassen	\$7,483	\$1,483	\$1,003	\$9,969	\$4,089	\$810	\$548	\$5,447
Los Angeles	\$2,206,679	\$940,121	\$660,290	\$3,807,091	\$1,204,470	\$513,146	\$360,406	\$2,078,021
Madera	\$44,592	\$11,498	\$6,787	\$62,877	\$16,790	\$4,329	\$2,555	\$23,675
Marin	\$99,179	\$24,079	\$19,150	\$142,408	\$74,448	\$18,075	\$14,375	\$106,898
Mariposa	\$22,570	\$3,526	\$2,254	\$28,350	\$7,231	\$1,130	\$722	\$9,083
Mendocino	\$19,820	\$5,786	\$3,681	\$29,287	\$17,245	\$5,035	\$3,203	\$25,482
Merced	\$64,396	\$15,912	\$10,715	\$91,023	\$20,910	\$5,167	\$3,479	\$29,556
Modoc	\$970	\$158	\$84	\$1,212	\$2,005	\$327	\$174	\$2,507
Mono	\$8,886	\$1,538	\$898	\$11,322	\$6,709	\$1,161	\$678	\$8,549
Monterey	\$92,936	\$27,465	\$19,418	\$139,819	\$42,621	\$12,596	\$8,905	\$64,123
Napa	\$97,040	\$22,082	\$19,163	\$138,284	\$54,835	\$12,478	\$10,829	\$78,141
Nevada	\$46,792	\$11,227	\$8,175	\$66,194	\$23,031	\$5,526	\$4,024	\$32,580
Orange	\$679,083	\$259,221	\$195,790	\$1,134,095	\$528,827	\$201,865	\$152,469	\$883,162
Placer	\$385,035	\$129,787	\$88,410	\$603,231	\$281,150	\$94,770	\$64,556	\$440,476
Plumas	\$10,850	\$2,320	\$1,231	\$14,401	\$8,415	\$1,800	\$955	\$11,169
Riverside	\$1,435,764	\$497,217	\$319,799	\$2,252,779	\$947,513	\$328,132	\$211,047	\$1,486,692
Sacramento	\$480,831	\$169,753	\$108,835	\$759,419	\$220,001	\$77,669	\$49,797	\$347,467
San Benito	\$4,678	\$1,145	\$560	\$6,383	\$11,358	\$2,779	\$1,360	\$15,496
San Bernardino	\$464,693	\$179,565	\$118,133	\$762,392	\$373,703	\$144,405	\$95,002	\$613,109
San Diego	\$1,069,645	\$373,157	\$273,792	\$1,716,594	\$687,860	\$239,967	\$176,068	\$1,103,895
San Francisco	\$497,474	\$131,920	\$85,454	\$714,848	\$71,534	\$18,969	\$12,288	\$102,791
San Joaquin	\$174,431	\$60,041	\$41,698	\$276,170	\$163,265	\$56,197	\$39,029	\$258,490
San Luis Obispo	\$130,300	\$42,602	\$29,320	\$202,221	\$99,724	\$32,605	\$22,440	\$154,769
San Mateo	\$381,645	\$108,783	\$84,010	\$574,439	\$180,049	\$51,321	\$39,634	\$271,003
Santa Barbara	\$101,519	\$34,171	\$23,438	\$159,129	\$84,541	\$28,456	\$19,518	\$132,515
Santa Clara	\$651,218	\$189,384	\$119,824	\$960,426	\$305,154	\$88,743	\$56,148	\$450,045
Santa Cruz	\$63,373	\$19,016	\$13,861	\$96,249	\$33,035	\$9,913	\$7,225	\$50,173
Shasta	\$86,875	\$31,098	\$20,836	\$138,809	\$43,995	\$15,749	\$10,552	\$70,295
Sierra	\$3,599	\$281	\$210	\$4,090	\$1,620	\$126	\$95	\$1,841
Siskiyou	\$20,881	\$5,801	\$3,281	\$29,963	\$11,238	\$3,122	\$1,766	\$16,126
Solano	\$104,176	\$29,218	\$21,033	\$154,427	\$126,390	\$35,448	\$25,518	\$187,357
Sonoma	\$152,236	\$53,261	\$39,500	\$244,998	\$108,892	\$38,097	\$28,254	\$175,243
Stanislaus	\$87,694	\$27,918	\$18,690	\$134,303	\$58,221	\$18,535	\$12,409	\$89,164

COUNTY-LEVEL HOUSING INDUSTRY

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

County	2008				2009			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Sutter	\$29,303	\$8,771	\$5,663	\$43,737	\$21,856	\$6,542	\$4,224	\$32,621
Tehama	\$20,721	\$5,809	\$3,049	\$29,579	\$12,663	\$3,550	\$1,863	\$18,076
Trinity	\$6,381	\$884	\$544	\$7,809	\$5,722	\$793	\$488	\$7,003
Tulare	\$238,260	\$69,977	\$41,350	\$349,587	\$184,131	\$54,079	\$31,956	\$270,166
Tuolumne	\$30,391	\$7,966	\$5,112	\$43,470	\$13,614	\$3,568	\$2,290	\$19,472
Ventura	\$195,667	\$68,374	\$44,754	\$308,795	\$96,256	\$33,635	\$22,016	\$151,907
Yolo	\$71,244	\$22,060	\$11,615	\$104,919	\$71,433	\$22,118	\$11,646	\$105,197
Yuba	\$16,852	\$3,542	\$1,955	\$22,350	\$14,752	\$3,101	\$1,711	\$19,564

Center for Strategic Economic Research, June 2010

Data Source: IMPLAN, 2007 Coefficients based on United States Census Bureau information

Note: Differences due to rounding.

COUNTY-LEVEL HOUSING INDUSTRY

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

County	2008				2009			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Alameda	1,648	947	761	3,356	1,377	791	636	2,804
Alpine	21	3	2	26	12	2	1	14
Amador	69	33	19	122	41	20	12	73
Butte	367	228	161	755	285	177	124	586
Calaveras	172	71	39	281	89	37	20	145
Colusa	22	8	5	34	15	6	3	24
Contra Costa	1,809	908	679	3,395	1,201	603	451	2,254
Del Norte	105	41	26	173	31	12	8	51
El Dorado	420	210	140	770	174	87	58	318
Fresno	1,964	1,331	890	4,185	1,782	1,208	807	3,796
Glenn	40	15	9	64	62	23	14	100
Humboldt	136	86	55	277	85	54	35	174
Imperial	308	162	81	551	166	87	44	297
Inyo	10	5	3	17	3	1	1	5
Kern	1,651	968	629	3,248	1,417	831	539	2,787
Kings	232	89	51	371	146	56	32	233
Lake	137	53	36	225	54	21	14	89
Lassen	36	16	10	62	20	9	5	34
Los Angeles	9,993	6,463	4,651	21,107	5,455	3,528	2,539	11,521
Madera	221	110	60	390	83	41	23	147
Marin	428	189	135	752	322	142	101	565
Mariposa	113	40	20	173	36	13	6	55
Mendocino	94	53	34	182	82	47	30	158
Merced	322	151	97	570	104	49	32	185
Modoc	5	2	1	8	11	4	2	16
Mono	42	17	8	66	32	13	6	50
Monterey	430	226	155	811	197	104	71	372
Napa	428	194	148	769	242	109	84	435
Nevada	218	111	74	402	107	55	36	198
Orange	2,963	1,835	1,382	6,181	2,308	1,429	1,076	4,813
Placer	1,748	1,061	708	3,517	1,276	775	517	2,568
Plumas	54	21	11	86	42	16	9	67
Riverside	6,939	4,269	2,669	13,877	4,580	2,817	1,761	9,158
Sacramento	2,210	1,411	875	4,495	1,011	645	400	2,057
San Benito	24	10	5	38	58	23	11	92
San Bernardino	2,188	1,442	972	4,602	1,760	1,159	782	3,701
San Diego	4,875	2,979	2,117	9,972	3,135	1,916	1,362	6,413
San Francisco	2,009	853	536	3,397	289	123	77	489
San Joaquin	806	510	352	1,668	754	477	330	1,561
San Luis Obispo	611	379	256	1,246	468	290	196	953
San Mateo	1,556	779	558	2,893	734	367	263	1,365
Santa Barbara	469	270	186	926	391	225	155	771
Santa Clara	2,774	1,218	760	4,752	1,300	571	356	2,227
Santa Cruz	288	159	117	563	150	83	61	294
Shasta	416	277	194	887	211	140	98	449
Sierra	17	3	2	23	8	2	1	10
Siskiyou	105	57	33	194	56	30	18	104
Solano	473	245	170	888	574	297	206	1,077
Sonoma	682	431	319	1,432	488	308	228	1,025
Stanislaus	427	264	169	861	284	176	112	571

COUNTY-LEVEL HOUSING INDUSTRY

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

County	2008				2009			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Sutter	136	82	53	270	101	61	39	201
Tehama	103	52	29	185	63	32	18	113
Trinity	32	9	6	47	29	8	5	42
Tulare	1,168	659	378	2,204	903	509	292	1,704
Tuolumne	146	73	47	265	65	33	21	119
Ventura	932	558	352	1,842	459	274	173	906
Yolo	321	183	97	601	322	184	97	602
Yuba	78	30	17	125	68	27	15	109

Center for Strategic Economic Research, June 2010

Data Source: IMPLAN, 2007 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 23 counties in the state and job creation reaches in the thousands for 17 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 Wholesale Trade; Architectural, Engineering, & Related Services; and Real Estate sectors benefit the most from the total output impacts created through new housing construction while the Food Services & Drinking Places; Wholesale Trade; and Architectural, Engineering, & Related Services 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 \$9 million of output and 24 jobs from the entire housing industry. Figure 10 (on pages 21 and 22) 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 \$83.1, \$45.9, and \$35.7 billion (a combined total of about 47 percent of the state’s total housing industry output). Other areas with relatively large

COUNTY-LEVEL HOUSING INDUSTRY

housing industry output totals include Santa Clara, Riverside, and Alameda Counties, all contributing between \$14.9 and \$20.7 billion of output. In these leading counties, employment related to the entire housing industry ranges from nearly 40,000 to 232,000 (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)

<i>County</i>	<i>Output</i>	<i>Employment</i>
Alameda	\$14,919,211	39,675
Alpine	\$8,686	24
Amador	\$226,742	595
Butte	\$1,336,526	4,108
Calaveras	\$421,628	1,701
Colusa	\$81,258	121
Contra Costa	\$12,941,452	39,939
Del Norte	\$101,339	199
El Dorado	\$2,251,262	8,500
Fresno	\$5,279,505	15,529
Glenn	\$107,566	271
Humboldt	\$781,217	2,422
Imperial	\$552,005	1,095
Inyo	\$90,990	166
Kern	\$4,325,885	11,546
Kings	\$489,211	881
Lake	\$360,912	1,105
Lassen	\$151,118	490
Los Angeles	\$83,056,760	232,602
Madera	\$663,613	1,916
Marin	\$5,090,152	17,504
Mariposa	\$92,933	258
Mendocino	\$567,804	1,788
Merced	\$1,093,039	3,098
Modoc	\$40,646	91
Mono	\$271,492	1,179
Monterey	\$3,266,890	9,909
Napa	\$1,454,206	4,170
Nevada	\$1,261,547	4,700
Orange	\$45,874,141	147,474
Placer	\$4,834,462	17,903
Plumas	\$158,107	460
Riverside	\$15,518,199	52,923
Sacramento	\$13,089,733	42,235
San Benito	\$375,782	1,115
San Bernardino	\$13,069,888	41,712
San Diego	\$35,735,806	121,778
San Francisco	\$13,560,908	30,018
San Joaquin	\$4,275,948	12,674
San Luis Obispo	\$2,770,336	10,258
San Mateo	\$10,357,694	28,596
Santa Barbara	\$4,043,192	12,744
Santa Clara	\$20,705,221	54,208
Santa Cruz	\$2,654,820	8,677
Shasta	\$1,308,451	4,279
Sierra	\$14,752	37
Siskiyou	\$245,967	717
Solano	\$2,750,343	6,800
Sonoma	\$5,165,935	17,183
Stanislaus	\$3,162,194	10,040

COUNTY-LEVEL HOUSING INDUSTRY

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

<i>County</i>	<i>Output</i>	<i>Employment</i>
Sutter	\$657,457	2,362
Tehama	\$231,312	558
Trinity	\$47,775	84
Tulare	\$1,940,371	5,255
Tuolumne	\$373,714	1,171
Ventura	\$6,721,228	17,860
Yolo	\$1,428,668	3,978
Yuba	\$261,081	507

Center for Strategic Economic Research, June 2010
Data Source: CSER estimates based on IMPLAN,
2007 Coefficients

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Appendix A—2009 Detailed Economic Impacts of New Housing Construction in California

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
California Total Impacts	\$7,758,484	\$3,442,435	\$2,617,364	\$13,818,284	35,041	23,484	18,164	76,690
Construction of new residential single- and multi-family units	\$7,758,484	-	-	\$7,758,484	35,041	-	-	35,041
Wholesale trade	-	\$308,734	\$159,021	\$467,755	-	1,599	823	2,422
Owner-occupied dwellings	-	-	\$284,111	\$284,111	-	-	-	-
Petroleum refineries	-	\$187,992	\$79,866	\$267,859	-	25	11	36
Architectural, engineering, and related services	-	\$246,137	\$7,435	\$253,571	-	1,944	59	2,003
Real estate	-	\$102,551	\$122,257	\$224,808	-	536	639	1,176
Retail - motor vehicle and parts	-	\$122,399	\$50,505	\$172,904	-	1,079	445	1,524
Food services and drinking places	-	\$30,045	\$120,835	\$150,880	-	501	2,016	2,517
Truck transportation	-	\$126,807	\$22,134	\$148,941	-	861	150	1,011
Monetary authorities and depository credit intermediation	-	\$87,517	\$59,208	\$146,725	-	319	216	534
Retail - food and beverage	-	\$84,927	\$42,456	\$127,383	-	1,098	549	1,647
Offices of physicians, dentists, and other health practitioners	-	\$1	\$126,804	\$126,805	-	-	1,059	1,059
Retail - general merchandise	-	\$78,608	\$38,650	\$117,259	-	1,232	606	1,838
Securities, commodity contracts, investments, and related activities	-	\$57,939	\$56,990	\$114,929	-	256	252	508
Legal services	-	\$71,468	\$38,677	\$110,145	-	402	217	619
Private hospitals	-	\$1	\$105,831	\$105,832	-	-	778	778
Telecommunications	-	\$49,619	\$44,624	\$94,243	-	91	82	174
Insurance carriers	-	\$21,379	\$72,037	\$93,416	-	68	228	295
Wood kitchen cabinet and countertop manufacturing	-	\$84,378	\$1,822	\$86,200	-	579	13	591
Management of companies and enterprises	-	\$55,594	\$29,030	\$84,624	-	245	128	373
Retail - furniture and home furnishings	-	\$63,345	\$12,511	\$75,856	-	576	114	689
Retail - building material and garden supply	-	\$47,418	\$26,326	\$73,745	-	493	274	767
Nonstore retail	-	\$46,437	\$24,422	\$70,859	-	697	367	1,063
Wood windows and doors and millwork	-	\$68,028	\$1,067	\$69,095	-	364	6	369
Retail - clothing and clothing accessories	-	\$40,900	\$24,966	\$65,866	-	524	320	844
Sawmills and wood preservation	-	\$63,121	\$830	\$63,951	-	218	3	221
Retail - health and personal care	-	\$42,779	\$19,967	\$62,746	-	504	235	739
Electric power generation, transmission, and distribution	-	\$29,837	\$31,549	\$61,386	-	26	27	53
Accounting, tax preparation, bookkeeping, and payroll services	-	\$44,370	\$14,709	\$59,080	-	437	145	582
Other plastics product manufacturing	-	\$53,424	\$3,722	\$57,146	-	242	17	259
Nondepository credit intermediation and related activities	-	\$22,320	\$34,766	\$57,086	-	96	149	244
Office furniture and custom architectural woodwork and millwork manufacturing	-	\$53,210	\$28	\$53,238	-	434	-	434
Retail - miscellaneous	-	\$33,441	\$15,228	\$48,668	-	630	287	917
Retail - electronics and appliances	-	\$34,576	\$12,066	\$46,642	-	299	104	403
Automotive repair and maintenance	-	\$26,434	\$19,559	\$45,993	-	265	196	460
All other miscellaneous professional, scientific, and technical services	-	\$36,331	\$9,295	\$45,626	-	85	22	107
Services to buildings and dwellings	-	\$31,532	\$13,042	\$44,574	-	499	206	705

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Employment services	-	\$30,466	\$11,813	\$42,278	-	822	319	1,140
Management, scientific, and technical consulting services	-	\$27,677	\$13,098	\$40,775	-	187	89	276
Retail - gasoline stations	-	\$25,055	\$15,628	\$40,683	-	169	106	275
Civic, social, professional, and similar organizations	-	\$27,287	\$13,231	\$40,517	-	437	212	649
Office administrative services	-	\$29,716	\$9,050	\$38,766	-	117	36	153
Medical and diagnostic labs and outpatient and other ambulatory care services	-	\$35	\$38,554	\$38,589	-	-	235	235
Commercial and industrial machinery and equipment rental and leasing	-	\$34,550	\$3,151	\$37,701	-	98	9	107
Plastics pipe and pipe fitting manufacturing	-	\$35,115	\$889	\$36,005	-	70	2	72
Natural gas distribution	-	\$16,226	\$19,256	\$35,482	-	13	15	28
Engineered wood member and truss manufacturing	-	\$33,989	\$329	\$34,318	-	193	2	195
Maintenance and repair construction of nonresidential maintenance and repair	-	\$22,463	\$11,414	\$33,876	-	193	98	291
Cable and other subscription programming	-	\$19,832	\$13,918	\$33,750	-	18	12	30
Extraction of oil and gas	-	\$22,085	\$10,458	\$32,543	-	32	15	47
Other state and local government enterprises	-	\$7,529	\$24,355	\$31,884	-	30	96	126
Commercial and industrial machinery and equipment repair and maintenance	-	\$26,142	\$3,489	\$29,631	-	174	23	198
Retail - sporting goods, hobby, book and music	-	\$19,825	\$8,488	\$28,313	-	357	153	509
Postal service	-	\$15,935	\$11,566	\$27,502	-	141	102	243
Advertising and related services	-	\$17,591	\$9,759	\$27,350	-	130	72	203
Pharmaceutical preparation manufacturing	-	\$161	\$26,798	\$26,959	-	-	36	36
Nursing and residential care facilities	-	-	\$26,919	\$26,919	-	-	481	481
Hotels and motels	-	\$12,221	\$14,432	\$26,653	-	116	137	252
Computer systems design services	-	\$20,868	\$5,490	\$26,358	-	148	39	187
Logging	-	\$23,780	\$331	\$24,111	-	83	1	84
Funds, trusts, and other financial vehicles	-	\$750	\$21,388	\$22,138	-	2	49	50
Private junior colleges, colleges, universities, and professional schools	-	\$1,055	\$20,959	\$22,014	-	14	274	288
Rail transportation	-	\$17,761	\$3,817	\$21,577	-	44	10	54
Air transportation	-	\$6,756	\$13,812	\$20,567	-	22	45	67
Scenic and sightseeing transportation and support activities for transportation	-	\$14,478	\$5,902	\$20,380	-	119	49	168
Insurance agencies, brokerages, and related activities	-	\$5,244	\$15,119	\$20,363	-	34	97	130
Amusement parks, arcades, and gambling industries	-	\$11	\$18,433	\$18,444	-	-	161	161
Waste management and remediation services	-	\$11,413	\$6,877	\$18,290	-	56	34	90
Business support services	-	\$13,869	\$4,402	\$18,271	-	169	54	222
Other personal services	-	\$1,227	\$16,511	\$17,739	-	6	81	88
State and local government electric utilities	-	\$8,623	\$9,043	\$17,666	-	36	38	74
Couriers and messengers	-	\$10,701	\$5,149	\$15,850	-	126	61	187
Scientific research and development services	-	\$8,001	\$7,831	\$15,832	-	52	51	103
Communication and energy wire and cable manufacturing	-	\$15,340	\$355	\$15,695	-	24	1	25
Warehousing and storage	-	\$10,616	\$5,070	\$15,687	-	122	58	180
Other commercial and service industry machinery manufacturing	-	\$15,366	\$181	\$15,547	-	50	1	51
Specialized design services	-	\$13,350	\$2,099	\$15,449	-	84	13	97
Motion picture and video industries	-	\$3,585	\$11,367	\$14,952	-	16	52	68
Individual and family services	-	-	\$14,931	\$14,931	-	-	330	330
Other support services	-	\$9,268	\$5,361	\$14,630	-	59	34	93
Asphalt paving mixture and block manufacturing	-	\$14,530	\$96	\$14,626	-	25	-	25

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Internet publishing and broadcasting	-	\$8,706	\$5,331	\$14,037	-	13	8	20
Other computer related services, including facilities management	-	\$11,463	\$2,406	\$13,868	-	44	9	53
Reconstituted wood product manufacturing	-	\$13,255	\$115	\$13,369	-	38	-	38
Environmental and other technical consulting services	-	\$9,512	\$3,121	\$12,633	-	69	23	92
Automotive equipment rental and leasing	-	\$5,942	\$6,618	\$12,560	-	29	32	62
Radio and television broadcasting	-	\$7,710	\$4,713	\$12,423	-	30	19	49
Personal and household goods repair and maintenance	-	\$7,924	\$4,429	\$12,353	-	51	29	80
Electronic and precision equipment repair and maintenance	-	\$9,447	\$2,720	\$12,167	-	52	15	67
Other educational services	-	\$783	\$11,110	\$11,893	-	13	188	201
Lessors of nonfinancial intangible assets	-	\$8,424	\$3,382	\$11,806	-	9	4	13
Grantmaking, giving, and social advocacy organizations	-	\$5	\$11,781	\$11,786	-	-	140	140
Maintenance and repair construction of residential structures	-	\$374	\$11,362	\$11,736	-	1	15	16
Soap and cleaning compound manufacturing	-	\$1,300	\$10,399	\$11,699	-	1	9	10
Investigation and security services	-	\$8,907	\$2,667	\$11,574	-	198	59	257
Personal care services	-	-	\$10,402	\$10,402	-	0	205	205
All other crop farming	-	\$9,185	\$779	\$9,964	-	36	3	39
Home health care services	-	-	\$9,848	\$9,848	-	-	149	149
Child day care services	-	-	\$9,797	\$9,797	-	-	212	212
Private elementary and secondary schools	-	-	\$9,615	\$9,615	-	-	199	199
Animal (except poultry) slaughtering, rendering, and processing	-	\$245	\$9,152	\$9,397	-	1	21	21
Software publishers	-	\$6,561	\$2,807	\$9,368	-	14	6	21
Toilet preparation manufacturing	-	\$474	\$8,829	\$9,302	-	1	11	12
State and local government passenger transit	-	\$2,791	\$6,250	\$9,041	-	26	58	84
Adhesive manufacturing	-	\$8,269	\$519	\$8,787	-	16	1	17
Travel arrangement and reservation services	-	\$5,257	\$2,643	\$7,901	-	30	15	45
Plastics packaging materials and unlaminated film and sheet manufacturing	-	\$5,902	\$1,457	\$7,358	-	16	4	20
Bread and bakery product manufacturing	-	\$203	\$7,124	\$7,327	-	1	46	47
Fluid milk and butter manufacturing	-	\$225	\$7,001	\$7,226	-	-	11	11
Electronic computer manufacturing	-	\$1,139	\$6,054	\$7,194	-	2	11	13
Community food, housing, and other relief services, including rehabilitation services	-	-	\$7,135	\$7,135	-	-	164	164
Urethane and other foam product (except polystyrene) manufacturing	-	\$5,419	\$1,527	\$6,946	-	16	5	21
Newspaper publishers	-	\$3,526	\$3,212	\$6,738	-	25	23	48
Spectator sports	-	\$2,700	\$4,030	\$6,730	-	40	59	99
Polystyrene foam product manufacturing	-	\$5,844	\$686	\$6,530	-	21	2	23
Other amusement and recreation industries	-	\$1,203	\$5,309	\$6,512	-	20	89	109
Custom computer programming services	-	\$4,935	\$1,457	\$6,392	-	37	11	48
Veneer and plywood manufacturing	-	\$6,291	\$65	\$6,357	-	35	-	35
Semiconductor and related device manufacturing	-	\$4,387	\$1,966	\$6,352	-	12	5	18
Other communications equipment manufacturing	-	\$6,010	\$252	\$6,262	-	14	1	15
Periodical publishers	-	\$3,022	\$3,211	\$6,234	-	10	11	21
Ornamental and architectural metal products manufacturing	-	\$6,131	\$99	\$6,231	-	29	1	30
Cheese manufacturing	-	\$449	\$5,760	\$6,209	-	1	8	8
Fertilizer manufacturing	-	\$6,022	\$158	\$6,179	-	6	-	7
Dry-cleaning and laundry services	-	\$782	\$5,388	\$6,170	-	13	90	103

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Dairy cattle and milk production	-	\$340	\$5,757	\$6,097	-	2	33	35
Printing	-	\$3,358	\$2,318	\$5,675	-	30	20	50
Pipeline transportation	-	\$3,356	\$2,255	\$5,611	-	3	2	5
Transit and ground passenger transportation	-	\$1,712	\$3,834	\$5,545	-	24	53	76
Audio and video equipment manufacturing	-	\$647	\$4,843	\$5,490	-	1	6	7
Switchgear and switchboard apparatus manufacturing	-	\$5,250	\$96	\$5,346	-	16	-	17
Surgical and medical instrument manufacturing	-	\$3,368	\$1,953	\$5,321	-	10	6	15
Data processing, hosting, and related services	-	\$2,455	\$2,843	\$5,297	-	11	13	24
All other chemical product and preparation manufacturing	-	\$3,781	\$1,510	\$5,292	-	8	3	11
Surgical appliance and supplies manufacturing	-	\$335	\$4,771	\$5,106	-	1	14	15
Motor vehicle parts manufacturing	-	\$3,742	\$1,315	\$5,057	-	12	4	16
Religious organizations	-	-	-	-	-	-	86	86
Fitness and recreational sports centers	-	\$1,027	\$3,816	\$4,844	-	27	101	128
Other Federal Government enterprises	-	\$2,451	\$2,267	\$4,719	-	26	24	50
Snack food manufacturing	-	\$110	\$4,599	\$4,709	-	-	7	8
Asphalt shingle and coating materials manufacturing	-	\$4,500	\$176	\$4,676	-	11	-	12
Plumbing fixture fitting and trim manufacturing	-	\$4,488	\$69	\$4,558	-	11	-	11
Private households	-	-	-	-	-	-	527	527
Water transportation	-	\$1,999	\$2,395	\$4,395	-	3	4	7
Fabricated pipe and pipe fitting manufacturing	-	\$4,260	\$27	\$4,287	-	19	-	19
Soft drink and ice manufacturing	-	\$76	\$4,182	\$4,258	-	-	7	7
Coating, engraving, heat treating and allied activities	-	\$3,909	\$262	\$4,171	-	21	1	22
Car washes	-	\$1,353	\$2,817	\$4,170	-	23	47	70
Promoters of performing arts and sports and agents for public figures	-	\$1,294	\$2,876	\$4,170	-	23	51	74
Poultry processing	-	\$165	\$3,898	\$4,063	-	1	17	18
Sand, gravel, clay, and ceramic and refractory minerals mining and quarrying	-	\$4,016	\$14	\$4,030	-	19	-	20
General and consumer goods rental	-	\$1,210	\$2,797	\$4,007	-	15	36	51
Independent artists, writers, and performers	-	\$2,255	\$1,613	\$3,868	-	13	10	23
Sound recording industries	-	\$348	\$3,445	\$3,793	-	-	4	4
Showcase, partition, shelving, and locker manufacturing	-	\$3,159	\$558	\$3,717	-	18	3	21
Hardware manufacturing	-	\$3,529	\$154	\$3,683	-	12	1	13
Light truck and utility vehicle manufacturing	-	\$1	\$3,557	\$3,558	-	-	1	1
Printed circuit assembly (electronic assembly) manufacturing	-	\$2,370	\$1,126	\$3,495	-	5	2	8
Directory, mailing list, and other publishers	-	\$1,810	\$1,660	\$3,469	-	5	4	9
Performing arts companies	-	\$476	\$2,982	\$3,458	-	9	58	67
Other basic organic chemical manufacturing	-	\$1,764	\$1,673	\$3,437	-	1	1	2
Cookie, cracker, and pasta manufacturing	-	\$61	\$3,271	\$3,333	-	-	9	9
Machine shops	-	\$3,035	\$276	\$3,311	-	20	2	22
Death care services	-	-	-	-	-	-	34	34
Other accommodations	-	\$23	\$3,265	\$3,287	-	-	34	34
Petroleum lubricating oil and grease manufacturing	-	\$2,567	\$496	\$3,063	-	4	1	4
Laminated plastics plate, sheet (except packaging), and shape manufacturing	-	\$2,621	\$218	\$2,839	-	10	1	11
Women's and girls' cut and sew apparel manufacturing	-	\$24	\$2,814	\$2,838	-	-	9	9
Greenhouse, nursery, and floriculture production	-	\$1,011	\$1,796	\$2,807	-	6	11	18

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Other electronic component manufacturing	-	\$2,347	\$438	\$2,785	-	12	2	14
All other food manufacturing	-	\$78	\$2,692	\$2,770	-	-	10	10
Vegetable and melon farming	-	\$28	\$2,705	\$2,733	-	-	12	12
Unlaminated plastics profile shape manufacturing	-	\$2,353	\$288	\$2,641	-	8	1	9
Water, sewage and other systems	-	\$621	\$2,010	\$2,632	-	2	7	10
Veterinary services	-	\$321	\$2,311	\$2,632	-	4	29	33
Fruit and vegetable canning, pickling, and drying	-	\$74	\$2,534	\$2,609	-	-	4	4
In-vitro diagnostic substance manufacturing	-	\$771	\$1,721	\$2,492	-	1	3	4
Fruit farming	-	\$55	\$2,435	\$2,490	-	-	18	19
Upholstered household furniture manufacturing	-	\$471	\$1,970	\$2,441	-	4	15	18
Glass product manufacturing made of purchased glass	-	\$1,717	\$671	\$2,388	-	7	3	10
Computer terminals and other computer peripheral equipment manufacturing	-	\$1,135	\$1,228	\$2,363	-	2	3	5
All other miscellaneous wood product manufacturing	-	\$2,027	\$264	\$2,291	-	12	2	13
Automatic environmental control manufacturing	-	\$2,117	\$69	\$2,187	-	8	-	9
Seasoning and dressing manufacturing	-	\$100	\$2,043	\$2,143	-	-	5	5
Ophthalmic goods manufacturing	-	\$70	\$2,048	\$2,118	-	-	6	6
Plastics bottle manufacturing	-	\$985	\$1,129	\$2,114	-	3	3	6
Support activities for agriculture and forestry	-	\$1,123	\$944	\$2,067	-	41	34	75
Electromedical and electrotherapeutic apparatus manufacturing	-	\$31	\$1,968	\$1,999	-	-	4	4
Other information services	-	\$279	\$1,701	\$1,980	-	1	3	4
Video tape and disc rental	-	-	\$1,971	\$1,971	-	-	26	26
Cut and sew apparel contractors	-	\$1,204	\$722	\$1,926	-	13	8	21
Wood container and pallet manufacturing	-	\$1,319	\$570	\$1,889	-	11	5	15
Ice cream and frozen dessert manufacturing	-	\$154	\$1,721	\$1,875	-	-	3	4
Museums, historical sites, zoos, and parks	-	-	\$1,867	\$1,867	-	-	18	18
Industrial gas manufacturing	-	\$889	\$957	\$1,845	-	1	1	1
Automobile manufacturing	-	\$15	\$1,805	\$1,820	-	-	3	3
Cattle ranching and farming	-	\$55	\$1,762	\$1,817	-	-	11	11
Photographic services	-	\$521	\$1,295	\$1,816	-	6	15	21
Breweries	-	\$17	\$1,774	\$1,791	-	-	2	2
Confectionery manufacturing from purchased chocolate	-	\$15	\$1,752	\$1,766	-	-	5	5
Motor and generator manufacturing	-	\$1,681	\$75	\$1,756	-	5	-	6
Nonupholstered wood household furniture manufacturing	-	\$54	\$1,598	\$1,652	-	-	11	12
Plastics material and resin manufacturing	-	\$1,077	\$541	\$1,619	-	1	-	1
Wineries	-	\$34	\$1,563	\$1,597	-	-	4	4
Mattress manufacturing	-	\$46	\$1,549	\$1,595	-	-	5	5
Flavoring syrup and concentrate manufacturing	-	\$128	\$1,451	\$1,578	-	-	-	-
Stone mining and quarrying	-	\$1,555	\$13	\$1,568	-	7	-	7
Computer storage device manufacturing	-	\$677	\$890	\$1,567	-	1	1	2
Biological product (except diagnostic) manufacturing	-	\$149	\$1,338	\$1,487	-	-	2	2
Dental equipment and supplies manufacturing	-	\$787	\$648	\$1,435	-	3	3	6
Bare printed circuit board manufacturing	-	\$1,003	\$374	\$1,377	-	5	2	7
Lime and gypsum product manufacturing	-	\$1,319	\$12	\$1,332	-	2	-	2
Valve and fittings other than plumbing	-	\$1,175	\$135	\$1,311	-	4	-	4

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Facilities support services	-	\$555	\$748	\$1,303	-	7	9	16
Chocolate and confectionery manufacturing from cacao beans	-	\$13	\$1,232	\$1,245	-	-	2	2
Medicinal and botanical manufacturing	-	\$31	\$1,195	\$1,226	-	-	3	3
Apparel knitting mills	-	\$16	\$1,178	\$1,195	-	-	6	6
Broadcast and wireless communications equipment	-	\$218	\$977	\$1,194	-	1	3	3
Dry, condensed, and evaporated dairy product manufacturing	-	\$64	\$1,090	\$1,154	-	-	1	1
Coffee and tea manufacturing	-	\$50	\$1,090	\$1,140	-	-	2	2
All other miscellaneous electrical equipment and component manufacturing	-	\$822	\$289	\$1,111	-	3	1	4
Dental laboratories	-	\$1	\$1,095	\$1,096	-	-	12	12
Poultry and egg production	-	\$28	\$1,068	\$1,096	-	-	2	2
Flat glass manufacturing	-	\$990	\$101	\$1,091	-	3	-	3
Plate work and fabricated structural product manufacturing	-	\$1,034	\$29	\$1,063	-	4	-	4
Seafood product preparation and packaging	-	\$91	\$971	\$1,062	-	-	3	3
Analytical laboratory instrument manufacturing	-	\$557	\$493	\$1,050	-	1	1	3
Aircraft manufacturing	-	\$723	\$318	\$1,041	-	2	1	3
All other basic inorganic chemical manufacturing	-	\$661	\$369	\$1,030	-	1	1	2
Book publishers	-	\$89	\$932	\$1,021	-	1	5	5
Blind and shade manufacturing	-	\$311	\$668	\$979	-	2	4	6
Other general purpose machinery manufacturing	-	\$913	\$99	\$972	-	3	-	4
Software, audio, and video media reproducing	-	\$455	\$481	\$936	-	2	2	3
Nonchocolate confectionery manufacturing	-	\$19	\$888	\$907	-	-	3	3
Metal and other household furniture (except wood) manufacturing	-	\$102	\$771	\$873	-	-	3	4
Material handling equipment manufacturing	-	\$790	\$99	\$849	-	3	-	3
Paint and coating manufacturing	-	\$832	\$16	\$848	-	1	-	1
Sign manufacturing	-	\$577	\$242	\$819	-	4	2	6
Spring and wire product manufacturing	-	\$687	\$96	\$783	-	4	1	4
Turned product and screw, nut, and bolt manufacturing	-	\$643	\$90	\$734	-	3	-	3
Iron and steel mills and ferroalloy manufacturing	-	\$692	\$38	\$730	-	1	-	1
Watch, clock, and other measuring and controlling device manufacturing	-	\$149	\$571	\$720	-	1	2	2
Electronic connector manufacturing	-	\$611	\$109	\$719	-	3	-	3
Men's and boys' cut and sew apparel manufacturing	-	\$5	\$697	\$702	-	-	4	4
Tortilla manufacturing	-	\$34	\$641	\$676	-	-	4	4
Storage battery manufacturing	-	\$344	\$324	\$668	-	1	1	3
Propulsion units and parts for space vehicles and guided missiles	-	\$632	\$24	\$656	-	3	-	3
Institutional furniture manufacturing	-	\$639	\$14	\$653	-	5	-	5
Textile and fabric finishing mills	-	\$343	\$306	\$649	-	2	1	3
Relay and industrial control manufacturing	-	\$532	\$77	\$609	-	2	-	2
Photographic and photocopying equipment manufacturing	-	\$40	\$564	\$604	-	-	2	2
Other concrete product manufacturing	-	\$588	\$11	\$599	-	3	-	3
Tree nut farming	-	\$24	\$556	\$580	-	-	3	3
Ready-mix concrete manufacturing	-	\$566	\$2	\$569	-	2	-	2
Printing ink manufacturing	-	\$363	\$191	\$555	-	1	-	1
Industrial process variable instruments manufacturing	-	\$382	\$163	\$545	-	2	1	3
Animal production, except cattle and poultry and eggs	-	\$22	\$521	\$544	-	-	9	9

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Other industrial machinery manufacturing	-	\$286	\$256	\$543	-	1	1	2
Dog and cat food manufacturing	-	-	\$541	\$541	-	-	1	1
Metal can, box, and other metal container (light gauge) manufacturing	-	\$313	\$220	\$533	-	1	-	1
Other fabricated metal manufacturing	-	\$494	\$33	\$527	-	2	-	2
Steel product manufacturing from purchased steel	-	\$500	\$26	\$526	-	1	-	1
Prefabricated wood building manufacturing	-	\$503	\$5	\$508	-	3	-	3
Plastics and rubber industry machinery manufacturing	-	\$473	\$35	\$508	-	2	-	2
Paperboard container manufacturing	-	\$469	\$35	\$504	-	1	-	2
Pesticide and other agricultural chemical manufacturing	-	\$141	\$354	\$495	-	-	-	-
Other leather and allied product manufacturing	-	\$38	\$456	\$493	-	-	3	3
Copper rolling, drawing, extruding and alloying	-	\$466	\$18	\$484	-	-	-	-
All other paper bag and coated and treated paper manufacturing	-	\$253	\$228	\$481	-	1	1	2
Wiring device manufacturing	-	\$448	\$26	\$474	-	1	-	2
Doll, toy, and game manufacturing	-	\$244	\$228	\$472	-	-	-	1
Electron tube manufacturing	-	\$120	\$350	\$470	-	-	1	1
Flour milling and malt manufacturing	-	\$11	\$452	\$463	-	-	1	1
All other textile product mills	-	\$350	\$97	\$447	-	1	-	1
Distilleries	-	\$21	\$425	\$445	-	-	-	-
Cut stone and stone product manufacturing	-	\$430	\$11	\$442	-	4	-	4
Nonferrous metal (except copper and aluminum) rolling, drawing, extruding and alloying	-	\$401	\$35	\$436	-	1	-	1
Sugar cane mills and refining	-	\$7	\$423	\$430	-	-	1	1
Support activities for oil and gas operations	-	\$289	\$131	\$420	-	1	1	2
Other pressed and blown glass and glassware manufacturing	-	\$153	\$257	\$410	-	1	1	2
Travel trailer and camper manufacturing	-	\$31	\$364	\$395	-	-	2	2
Footwear manufacturing	-	-	\$393	\$393	-	-	3	3
Construction machinery manufacturing	-	\$388	\$2	\$390	-	1	-	1
Cutlery, utensil, pot, and pan manufacturing	-	\$117	\$254	\$372	-	-	-	-
Breakfast cereal manufacturing	-	\$4	\$364	\$369	-	-	1	1
Irradiation apparatus manufacturing	-	\$11	\$354	\$365	-	-	1	1
Glass container manufacturing	-	\$21	\$341	\$363	-	-	1	1
Metal cutting and forming machine tool manufacturing	-	\$223	\$123	\$347	-	1	-	1
Electricity and signal testing instruments manufacturing	-	\$178	\$155	\$334	-	-	-	1
Beet sugar manufacturing	-	\$6	\$323	\$329	-	-	1	1
Other aircraft parts and auxiliary equipment manufacturing	-	\$159	\$161	\$319	-	1	1	1
Primary battery manufacturing	-	\$13	\$303	\$317	-	-	1	1
Power, distribution, and specialty transformer manufacturing	-	\$266	\$46	\$312	-	1	-	1
Semiconductor machinery manufacturing	-	\$163	\$149	\$312	-	-	-	-
Other engine equipment manufacturing	-	\$199	\$112	\$310	-	-	-	-
Cutting tool and machine tool accessory manufacturing	-	\$253	\$57	\$310	-	2	-	2
Support activities for printing	-	\$194	\$114	\$308	-	2	1	3
Synthetic dye and pigment manufacturing	-	\$226	\$81	\$307	-	-	-	1
Alkalies and chlorine manufacturing	-	\$147	\$155	\$302	-	-	-	-
Other animal food manufacturing	-	\$24	\$276	\$301	-	-	-	-
Vending, commercial, industrial, and office machinery manufacturing	-	\$97	\$203	\$300	-	-	1	1

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Motor home manufacturing	-	\$1	\$297	\$298	-	-	1	1
Other cut and sew apparel manufacturing	-	\$2	\$295	\$297	-	-	2	2
Metal tank (heavy gauge) manufacturing	-	\$291	\$3	\$295	-	1	-	1
Frozen food manufacturing	-	\$12	\$282	\$294	-	-	2	2
Sporting and athletic goods manufacturing	-	\$17	\$274	\$291	-	-	1	1
Apparel accessories and other apparel manufacturing	-	\$6	\$281	\$288	-	-	2	2
Synthetic rubber manufacturing	-	\$227	\$59	\$286	-	-	-	-
Construction of other new residential structures	-	\$67	\$217	\$285	-	-	1	1
Lighting fixture manufacturing	-	\$258	\$22	\$280	-	1	-	1
All other miscellaneous manufacturing	-	\$36	\$242	\$278	-	-	1	2
Fats and oils refining and blending	-	\$14	\$256	\$270	-	-	-	-
Turbine and turbine generator set units manufacturing	-	\$128	\$138	\$266	-	-	-	-
Totalizing fluid meters and counting devices manufacturing	-	\$151	\$113	\$264	-	-	-	1
Soybean and other oilseed processing	-	\$31	\$214	\$245	-	-	-	-
Search, detection, and navigation instruments manufacturing	-	\$135	\$102	\$238	-	-	-	1
Bowling centers	-	\$2	\$227	\$229	-	-	4	4
Forest nurseries, forest products, and timber tracts	-	\$221	\$5	\$226	-	1	-	1
Coated and laminated paper, packaging paper and plastics film manufacturing	-	\$182	\$37	\$219	-	-	-	1
Electronic capacitor, resistor, coil, transformer, and other inductor manufacturing	-	\$147	\$72	\$219	-	1	-	1
Handtool manufacturing	-	\$206	\$8	\$214	-	4	-	4
Carbon and graphite product manufacturing	-	\$150	\$56	\$207	-	-	-	1
Small electrical appliance manufacturing	-	\$191	\$15	\$206	-	1	-	1
Power-driven handtool manufacturing	-	\$132	\$69	\$200	-	1	-	1
Telephone apparatus manufacturing	-	\$53	\$136	\$189	-	-	-	-
Wood television, radio, and sewing machine cabinet manufacturing	-	\$9	\$179	\$188	-	-	1	1
Optical instrument and lens manufacturing	-	\$53	\$134	\$187	-	-	1	1
Other rubber product manufacturing	-	\$146	\$25	\$172	-	-	-	1
All other petroleum and coal products manufacturing	-	\$113	\$59	\$172	-	-	-	-
Packaging machinery manufacturing	-	\$123	\$44	\$167	-	1	-	1
Jewelry and silverware manufacturing	-	\$9	\$157	\$166	-	-	1	1
Textile bag and canvas mills	-	\$141	\$23	\$163	-	1	-	1
Wet corn milling	-	\$57	\$97	\$154	-	-	-	-
All other forging, stamping, and sintering	-	\$117	\$29	\$146	-	-	-	1
Speed changer, industrial high-speed drive, and gear manufacturing	-	\$113	\$31	\$144	-	-	-	-
Carpet and rug mills	-	\$97	\$45	\$141	-	-	-	-
Mechanical power transmission equipment manufacturing	-	\$89	\$39	\$128	-	-	-	1
Magnetic and optical recording media manufacturing	-	\$57	\$69	\$126	-	-	-	-
Crown and closure manufacturing and metal stamping	-	\$90	\$32	\$123	-	-	-	1
Industrial mold manufacturing	-	\$115	\$6	\$121	-	1	-	1
Grain farming	-	\$26	\$90	\$116	-	-	1	1
Aluminum product manufacturing from purchased aluminum	-	\$93	\$22	\$115	-	-	-	-
Other nonmetallic mineral mining and quarrying	-	\$61	\$53	\$114	-	-	-	1
Broom, brush, and mop manufacturing	-	\$94	\$18	\$112	-	1	-	1
Heavy duty truck manufacturing	-	\$15	\$95	\$109	-	-	-	-

APPENDIX A—DETAILED CALIFORNIA IMPACTS

Sector Name	Output Impacts (in thousands)				Employment Impacts			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Miscellaneous nonmetallic mineral products	-	\$105	\$2	\$107	-	-	-	-
Curtain and linen mills	-	\$8	\$99	\$107	-	-	1	1
Lawn and garden equipment manufacturing	-	\$42	\$64	\$106	-	-	-	-
Guided missile and space vehicle manufacturing	-	\$95	\$6	\$101	-	-	-	-
All other converted paper product manufacturing	-	\$75	\$24	\$98	-	-	-	-
Pottery, ceramics, and plumbing fixture manufacturing	-	\$82	\$15	\$98	-	1	-	1
Farm machinery and equipment manufacturing	-	\$60	\$36	\$96	-	-	-	-
Household cooking appliance manufacturing	-	\$19	\$76	\$96	-	-	-	-
Motor vehicle body manufacturing	-	\$49	\$42	\$91	-	-	-	1
Mineral wool manufacturing	-	\$87	\$4	\$91	-	-	-	-
Sanitary paper product manufacturing	-	\$71	\$18	\$89	-	-	-	-
Ball and roller bearing manufacturing	-	\$63	\$24	\$87	-	-	-	-
Concrete pipe, brick, and block manufacturing	-	\$83	\$3	\$86	-	-	-	-
Fishing	-	\$13	\$73	\$86	-	-	1	2
Fluid power process machinery	-	\$74	\$11	\$85	-	-	-	-
Motorcycle, bicycle, and parts manufacturing	-	\$3	\$80	\$84	-	-	-	-
Hunting and trapping	-	-	\$83	\$83	-	-	1	1
Office supplies (except paper) manufacturing	-	\$50	\$33	\$82	-	-	-	1
Stationery product manufacturing	-	\$66	\$12	\$78	-	-	-	-
Fabric coating mills	-	\$61	\$15	\$77	-	-	-	-
Gasket, packing, and sealing device manufacturing	-	\$60	\$14	\$75	-	-	-	-
Petrochemical manufacturing	-	\$48	\$26	\$74	-	-	-	-
All other transportation equipment manufacturing	-	\$17	\$54	\$71	-	-	-	-
Custom roll forming	-	\$62	\$6	\$69	-	-	-	-
Broadwoven fabric mills	-	\$29	\$39	\$68	-	-	-	-
Tobacco product manufacturing	-	-	\$67	\$67	-	-	-	-
Boat building	-	\$24	\$42	\$66	-	-	-	-
Special tool, die, jig, and fixture manufacturing	-	\$44	\$22	\$65	-	-	-	1
Nonwoven fabric mills	-	\$54	\$10	\$65	-	-	-	-
Cotton farming	-	\$13	\$47	\$60	-	-	-	-
Cement manufacturing	-	\$60	-	\$60	-	-	-	-
Aircraft engine and engine parts manufacturing	-	\$37	\$22	\$60	-	-	-	-
Gold, silver, and other metal ore mining	-	\$40	\$17	\$57	-	-	-	-
Knit fabric mills	-	\$19	\$38	\$57	-	-	-	-
Musical instrument manufacturing	-	\$6	\$51	\$57	-	-	-	-
Rubber and plastics hoses and belting manufacturing	-	\$49	\$7	\$56	-	-	-	-
Power boiler and heat exchanger manufacturing	-	\$52	\$3	\$56	-	-	-	-
Industrial process furnace and oven manufacturing	-	\$41	\$8	\$49	-	-	-	-
Sugarcane and sugar beet farming	-	\$2	\$44	\$46	-	-	1	1
Other major household appliance manufacturing	-	\$36	\$3	\$39	-	-	-	-
Air and gas compressor manufacturing	-	\$28	\$6	\$34	-	-	-	-
Railroad rolling stock manufacturing	-	\$27	\$6	\$33	-	-	-	-
Narrow fabric mills and schiffii machine embroidery	-	\$15	\$18	\$32	-	-	-	-
Brick, tile, and other structural clay product manufacturing	-	\$28	-	\$29	-	-	-	-

APPENDIX A—DETAILED CALIFORNIA IMPACTS

<i>Sector Name</i>	<i>Output Impacts (in thousands)</i>				<i>Employment Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Nonferrous metal foundries	-	\$23	\$5	\$28	-	-	-	-
Pump and pumping equipment manufacturing	-	\$22	\$3	\$25	-	-	-	-
Mining and oil and gas field machinery manufacturing	-	\$20	\$4	\$24	-	-	-	-
Heating equipment (except warm air furnaces) manufacturing	-	\$21	\$3	\$24	-	-	-	-
Fiber, yarn, and thread mills	-	\$6	\$18	\$24	-	-	-	-
Abrasive product manufacturing	-	\$19	\$3	\$22	-	-	-	-
Leather and hide tanning and finishing	-	\$4	\$17	\$21	-	-	-	-
Air purification and ventilation equipment manufacturing	-	\$16	\$1	\$17	-	-	-	-
Primary smelting and refining of nonferrous metal (except copper and aluminum)	-	\$11	\$5	\$16	-	-	-	-
Alumina refining and primary aluminum production	-	\$10	\$5	\$15	-	-	-	-
Coal mining	-	\$7	\$7	\$13	-	-	-	-
Ship building and repairing	-	\$8	\$4	\$12	-	-	-	-
Arms, ordnance, and accessories manufacturing	-	\$10	\$2	\$12	-	-	-	-
Truck trailer manufacturing	-	\$9	\$2	\$11	-	-	-	-
Rolling mill and other metalworking machinery manufacturing	-	\$2	\$9	\$11	-	-	-	-
Ground or treated mineral and earth manufacturing	-	\$10	-	\$10	-	-	-	-
Secondary smelting and alloying of aluminum	-	\$6	\$2	\$9	-	-	-	-
Household refrigerator and home freezer manufacturing	-	\$1	\$7	\$8	-	-	-	-
Artificial and synthetic fibers and filaments manufacturing	-	\$4	\$4	\$8	-	-	-	-
Support activities for other mining	-	\$7	-	\$7	-	-	-	-
Ferrous metal foundries	-	\$6	-	\$7	-	-	-	-
Primary smelting and refining of copper	-	\$6	\$1	\$6	-	-	-	-
Tire manufacturing	-	\$4	\$2	\$5	-	-	-	-
Clay and nonclay refractory manufacturing	-	\$3	-	\$3	-	-	-	-
Ammunition manufacturing	-	\$2	-	\$2	-	-	-	-
Air conditioning, refrigeration, and warm air heating equipment manufacturing	-	-	\$2	\$2	-	-	-	-
Household laundry equipment manufacturing	-	-	\$2	\$2	-	-	-	-
Oilseed farming	-	-	\$1	\$1	-	-	-	-
Military armored vehicle, tank, and tank component manufacturing	-	\$1	-	\$1	-	-	-	-
Paperboard Mills	-	\$1	-	\$1	-	-	-	-
Federal electric utilities	-	-	-	\$1	-	-	-	-
Electric lamp bulb and part manufacturing	-	-	-	\$1	-	-	-	-

Center for Strategic Economic Research, June 2010

Data Source: IMPLAN, 2007 Coefficients based on United States Census Bureau information

Note: Differences due to rounding.

APPENDIX B—INDUSTRY GROUPINGS

Appendix B—California Industry Groupings

<i>Industry Grouping / Sector Name</i>	<i>Output (in thousands)</i>	<i>Employment</i>
California Total Economy	\$3,202,879,233	20,375,504
Housing (including Real Estate)	\$347,325,023	1,026,979
Construction of new residential single- and multi-family units	\$58,684,043	265,046
Construct other new residential structures	\$18,717,129	81,738
Maint & repair construct of residential structures	\$6,392,362	8,639
Owner-occupied dwellings	\$135,119,297	0
65% of Real Estate	\$128,412,192	671,556
Wholesale and Retail Trade	\$317,853,933	2,832,828
Retail trade subtotal	\$168,788,511	2,061,000
Motor vehicle and parts	\$26,090,861	229,962
Furniture and home furnishing	\$8,174,836	74,299
Electronics and appliances	\$10,076,813	87,073
Building material and garden	\$13,294,539	138,329
Food and beverage	\$28,177,230	364,269
Health and personal care	\$10,540,281	124,086
Gasoline stations	\$8,636,119	58,329
Clothing and clothing accessories	\$17,106,000	219,126
Sporting goods, hobby, book and music stores	\$5,602,575	100,793
General merchandise	\$19,680,477	308,398
Miscellaneous	\$9,134,329	172,151
Nonstore retail	\$12,274,451	184,185
Wholesale trade	\$149,065,422	771,828
Professional, Scientific, and Technical Services	\$250,830,897	1,737,817
Legal services	\$38,918,359	218,686
Accounting, tax preparation, bookkeeping and payroll services	\$19,508,764	192,285
Architectural, engineering and related services	\$35,772,078	282,507
Specialized design services	\$7,092,449	44,498
Custom computer programming services	\$31,590,760	238,367
Computer systems design services	\$16,078,579	114,037
Other computer related services, including facilities management	\$4,980,391	19,118
Management, scientific and technical consulting services	\$20,303,066	137,486
Environmental and other technical consulting	\$16,133,538	117,105
Scientific research and development services	\$26,229,615	169,853
Advertising and related services	\$15,512,528	114,900
Photographic services	\$1,181,781	13,312
Veterinary services	\$3,354,030	42,371
All other miscellaneous professional, scientific and technical services	\$14,174,959	33,292
Computer and Electronic Product Manufacturing	\$109,866,147	318,510
Electronic computer manufacturing	\$21,242,227	38,166
Computer storage device manufacturing	\$4,007,037	4,989
Computer terminals and other computer peripheral equipment manufacturing	\$4,721,385	9,550
Telephone apparatus manufacturing	\$2,963,141	5,934
Broadcast and wireless communications equipment	\$5,476,879	15,261
Other communications equipment manufacturing	\$1,668,067	4,010
Audio and video equipment manufacturing	\$6,489,395	8,270
Electron tube manufacturing	\$1,216,786	3,588
Bare printed circuit board manufacturing	\$2,966,479	14,678
Semiconductor and related device manufacturing	\$17,603,119	48,632
Electronic capacitor, resistor, coil, transformer and other inductor manufacturing	\$520,950	3,088
Electronic connector manufacturing	\$1,266,391	5,165
Printed circuit assembly (electronic assembly) manufacturing	\$3,685,624	7,871
Other electronic component manufacturing	\$3,089,661	15,448
Search, detection, and navigation instruments manufacturing	\$13,624,832	792
Automatic environmental control manufacturing	\$424,466	16,362
Industrial process variable instruments manufacturing	\$1,624,149	10,602
Totalizing fluid meters and counting devices	\$353,782	971
Electricity and signal testing instruments	\$7,979,792	4,089
Analytical laboratory instrument manufacturing	\$4,457,700	1,801
Irradiation apparatus manufacturing	\$698,356	2,624
Watch, clock, and other measuring and controlling device manufacturing	\$1,090,849	3,513
Software, audio, and video media reproducing	\$1,116,348	3,745
Magnetic and optical recording media manufacturing	\$1,578,732	2,932

APPENDIX B—INDUSTRY GROUPINGS

<i>Industry Grouping / Sector Name</i>	<i>Output (in thousands)</i>	<i>Employment</i>
Finance and Insurance	\$226,888,885	899,198
Monetary authorities and depository credit intermediation	\$54,963,453	200,156
Nondepository credit intermediation and related activities	\$30,977,223	132,502
Securities, commodity contracts, investments and related activities	\$55,310,164	244,531
Insurance carriers	\$49,145,828	155,349
Insurance agencies, brokerages, and related activities	\$20,289,916	129,880
Funds, trusts, and other financial vehicles	\$16,202,301	36,780
Information	\$233,584,189	580,318
Newspaper publishers	\$4,518,136	31,980
Periodical publishers	\$5,102,318	16,808
Book publishers	\$1,843,067	9,489
Directory, mailing list, and other publishers	\$2,534,645	6,426
Software publishers	\$22,569,369	49,600
Motion picture and video industries	\$39,635,301	180,299
Sound recording industries	\$5,196,251	5,874
Radio and television broadcasting	\$7,551,689	29,660
Cable and other subscription programming	\$26,977,506	23,951
Internet publishing and broadcasting	\$21,014,010	30,359
Telecommunications	\$73,283,844	134,968
Data processing, hosting, and related services	\$6,375,655	29,026
Other information services	\$16,982,398	31,878
State and Local Government	\$186,531,086	2,331,347
State and local government passenger transit	\$5,988,271	55,746
State and local government electric utilities	\$6,690,083	28,177
Other state and local government enterprises	\$20,399,514	80,471
Employment and payroll for State and Local Government Non-Education	\$113,202,023	1,441,141
Employment and payroll for State and Local Government Education	\$40,251,195	725,812
Health Care and Social Assistance	\$166,791,811	1,672,461
Offices of physicians, dentists, and other health practitioners	\$60,242,777	503,055
Home health care services	\$4,826,760	73,209
Medical and diagnostic labs and outpatient and other ambulatory care services	\$20,856,824	126,914
Private hospitals	\$51,729,703	380,394
Nursing and residential care facilities	\$13,225,106	236,151
Child day care services	\$4,815,988	104,373
Individual and family services	\$7,474,809	165,023
Community food, housing, and other relief services, including rehabilitation services	\$3,619,844	83,342
Non-Residential Construction	\$186,618,394	1,204,878
Construct new nonresidential commercial and health care structures	\$55,848,309	379,762
Construct new nonresidential manufacturing structures	\$7,437,056	48,482
Construct other new nonresidential structures	\$33,500,789	237,661
Maint & repair construct of nonresident structures	\$20,687,213	177,366
35% of Real Estate	\$69,145,027	361,607
Agriculture and Food Processing	\$140,917,480	666,628
Oilseed farming	\$23,856	204
Grain farming	\$706,958	8,862
Vegetable and melon farming	\$8,065,796	34,980
Fruit farming	\$8,362,318	62,102
Tree nut farming	\$3,419,926	19,239
Greenhouse, nursery, and floriculture products	\$4,247,217	26,994
Tobacco farming	\$0	0
Cotton farming	\$700,214	2,724
Sugarcane and sugar beet farming	\$64,719	1,311
All other crop farming	\$3,654,877	14,418
Cattle ranching and farming	\$1,779,454	10,874
Dairy cattle and milk production	\$7,320,605	41,662
Poultry and egg production	\$1,290,778	1,880
Animal production, except cattle and poultry	\$335,865	5,544
Forestry, forest products, and timber tract products	\$508,995	1,215
Commercial logging	\$1,416,124	4,942
Commercial Fishing	\$292,519	5,737
Commercial hunting and trapping	\$49,988	368
Support activities for agriculture and forest	\$6,241,583	225,436
Dog and cat food manufacturing	\$1,553,007	1,436
Other animal food manufacturing	\$2,016,743	2,618
Flour milling and malt manufacturing	\$1,616,534	1,966
Wet corn milling	\$296,400	221

APPENDIX B—INDUSTRY GROUPINGS

<i>Industry Grouping / Sector Name</i>	<i>Output (in thousands)</i>	<i>Employment</i>
Agriculture and Food Processing (continued)	-	-
Soybean and other oilseed processing	\$1,466,256	533
Fats and oils refining and blending	\$1,115,715	828
Breakfast cereal manufacturing	\$744,471	970
Sugar cane mills and refining	\$293,643	384
Beet sugar manufacturing	\$317,709	636
Chocolate and confectionery manufacturing fro	\$1,129,535	1,901
Confectionery manufacturing from purchased chocolate	\$1,236,800	3,357
Nonchocolate confectionery manufacturing	\$496,330	1,405
Frozen food manufacturing	\$1,583,003	11,833
Fruit and vegetable canning, pickling, and drying	\$14,830,092	22,318
Fluid milk and butter manufacturing	\$5,223,836	7,821
Cheese manufacturing	\$4,283,599	5,625
Dry, condensed, and evaporated dairy products	\$835,529	1,008
Ice cream and frozen dessert manufacturing	\$1,253,602	2,438
Animal (except poultry) slaughtering, rendering, and processing	\$5,496,315	12,358
Poultry processing	\$2,215,332	9,792
Seafood product preparation and packaging	\$692,099	2,107
Bread and bakery product manufacturing	\$4,427,356	28,443
Cookie- cracker- and pasta manufacturing	\$1,728,012	4,589
Tortilla manufacturing	\$1,075,952	6,089
Snack food manufacturing	\$4,709,532	7,461
Coffee and tea manufacturing	\$869,234	1,533
Flavoring syrup and concentrate manufacturing	\$2,504,954	767
Seasoning and dressing manufacturing	\$1,651,675	3,603
All other food manufacturing	\$2,512,295	9,128
Soft drink and ice manufacturing	\$9,056,142	14,059
Breweries	\$3,518,803	3,433
Wineries	\$11,100,794	27,063
Distilleries	\$551,774	399
Tobacco product manufacturing	\$32,615	14
Management and Support	\$137,649,842	1,420,954
Management of companies and enterprises	\$47,384,754	208,946
Employment services	\$19,675,631	530,529
Travel arrangement and reservation services	\$6,108,497	34,664
Office administrative services	\$20,584,863	81,340
Facilities support services	\$958,903	11,519
Business support services	\$5,411,054	65,732
Investigation and security services	\$6,651,323	147,498
Services to buildings and dwellings	\$16,601,104	262,632
Other support services	\$5,666,605	35,960
Waste management and remediation services	\$8,607,108	42,134
Leisure and Hospitality	\$130,576,476	1,817,840
Performing arts companies	\$2,984,633	57,556
Spectator sports companies	\$3,749,575	54,949
Promoters of performing arts and sports and agents for public figures	\$3,679,231	65,599
Independent artists, writers, and performers	\$10,714,494	63,156
Museums, historical sites, zoos, and parks	\$1,324,731	12,891
Fitness and recreational sports centers	\$2,675,583	70,668
Bowling centers	\$245,224	4,687
Amusement parks, arcades, and gambling industry	\$12,505,247	108,880
Hotels and motels	\$14,897,454	140,981
Other accommodations	\$1,771,489	18,289
Food services and drinking places	\$73,145,539	1,220,184
Other amusement and recreation industries	\$2,883,276	48,457
Transportation and Warehousing	\$89,609,146	637,724
Transport by air	\$14,404,363	46,567
Transport by rail	\$4,479,364	11,143
Transport by water	\$2,500,962	3,798
Transport by truck	\$24,262,564	164,634
Transit and ground passenger transportation	\$3,672,877	50,374
Transport by pipeline	\$3,296,853	2,727
Scenic and sightseeing transportation and support activities for transportation	\$11,202,177	92,178
Couriers and messengers	\$7,506,689	88,429
Warehousing and storage	\$6,267,161	71,861
US Postal Service	\$12,016,136	106,013

APPENDIX B—INDUSTRY GROUPINGS

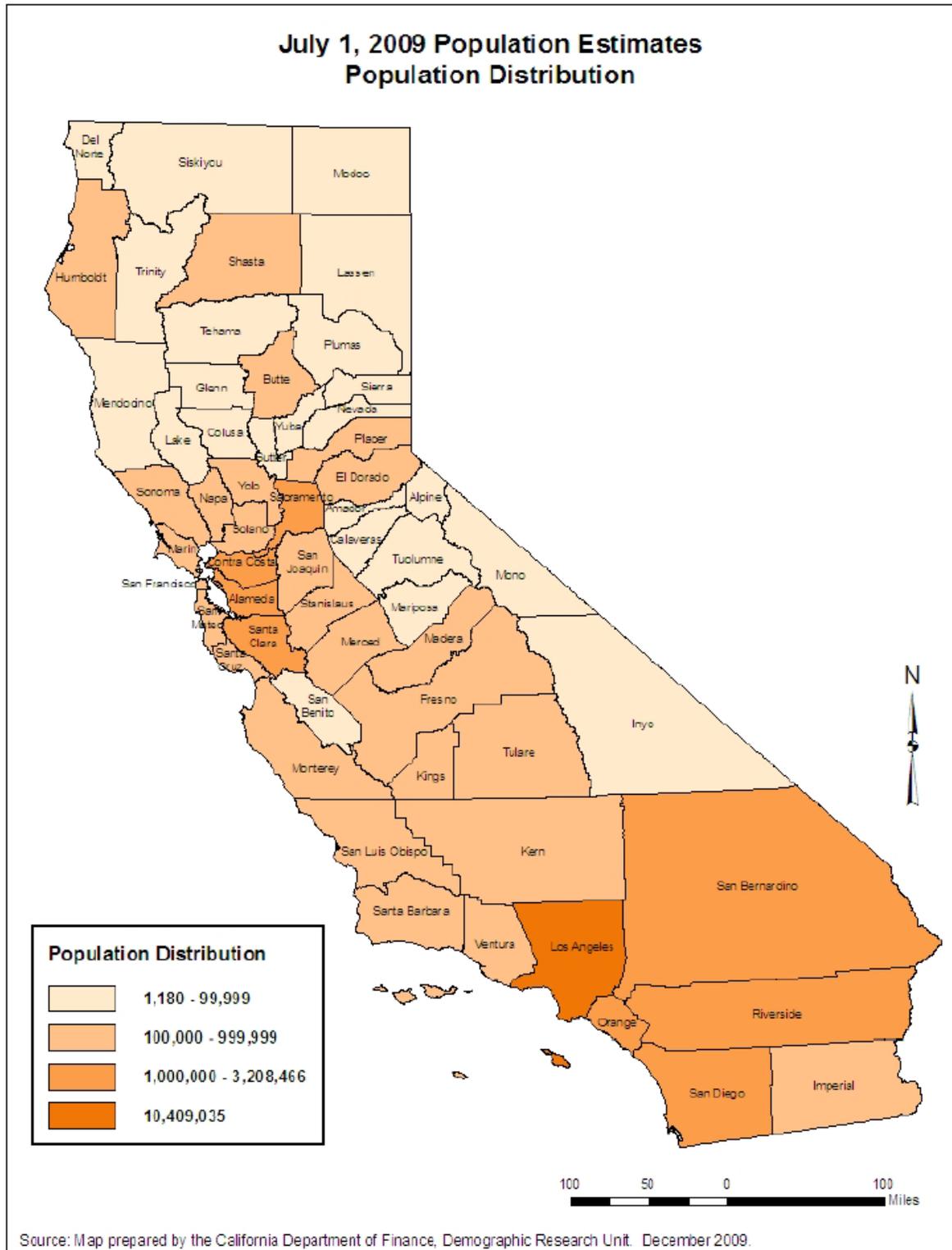
<i>Industry Grouping / Sector Name</i>	<i>Output (in thousands)</i>	<i>Employment</i>
Other Services	\$80,672,049	1,208,413
Automotive repair and maintenance	\$16,632,963	166,515
Car washes	\$2,822,835	47,395
Electronic and precision equipment repair and maintenance	\$5,358,926	29,630
Commercial and industrial machinery and equipment	\$5,889,771	39,270
Personal and household goods repair and maintenance	\$3,720,001	24,122
Personal care services	\$4,964,547	97,595
Death care services	\$1,650,942	16,708
Dry-cleaning and laundry services	\$3,950,580	65,771
Other personal services	\$13,429,771	66,247
Religious organizations	\$3,790,721	66,349
Grantmaking, giving, and social advocacy organizations	\$7,179,168	85,111
Civic, social, professional, and similar organizations	\$8,093,462	129,619
Private household operations	\$3,188,362	374,081
Utilities	\$66,455,706	58,519
Electric power generation, transmission, and distribution	\$23,962,826	20,828
Natural gas distribution	\$41,065,707	32,479
Water- sewage and other treatment and deliver	\$1,427,173	5,212
Medical Manufacturing	\$51,998,584	108,827
Medicinal and botanical manufacturing	\$1,139,447	2,524
Pharmaceutical preparation manufacturing	\$24,857,848	33,525
In-vitro diagnostic substance manufacturing	\$2,608,354	4,577
Biological product (except diagnostic) manufacturing	\$1,886,930	2,438
Electromedical and electrotherapeutic apparatus manufacturing	\$5,614,244	11,337
Surgical and medical instrument manufacturing	\$7,928,961	22,631
Surgical appliance and supplies manufacturing	\$4,565,342	13,758
Dental equipment and supplies manufacturing	\$1,234,882	4,792
Ophthalmic goods manufacturing	\$1,350,837	4,110
Dental laboratories manufacturing	\$811,739	9,135
Federal Government	\$50,095,340	428,387
Federal electric utilities	\$351	2
Other Federal Government enterprises	\$2,135,157	22,426
Employment and payroll for Federal Non-Military	\$19,167,523	163,371
Employment and payroll for Federal Military	\$28,792,309	242,588
Transportation Equipment Manufacturing	\$45,020,380	117,454
Automobile manufacturing	\$3,166,790	4,508
Light truck and utility vehicle manufacturing	\$5,899,142	2,394
Heavy duty truck manufacturing	\$1,194,849	1,036
Motor vehicle body manufacturing	\$543,463	3,015
Truck trailer manufacturing	\$263,419	1,074
Motor home manufacturing	\$433,556	1,284
Travel trailer and camper manufacturing	\$930,128	4,006
Motor vehicle parts manufacturing	\$5,226,837	16,836
Aircraft manufacturing	\$7,928,384	21,544
Aircraft engine and engine parts manufacturing	\$1,177,085	3,613
Other aircraft parts and auxiliary equipment	\$6,269,065	22,436
Guided missile and space vehicle manufacturing	\$7,614,677	18,781
Propulsion units and parts for space vehicles	\$570,823	2,424
Railroad rolling stock manufacturing	\$152,754	376
Ship building and repairing	\$1,618,146	7,923
Boat building	\$383,676	1,956
Motorcycle, bicycle, and parts manufacturing	\$833,904	2,408
Military armored vehicle, tank, and tank component manufacturing	\$171,329	411
All other transportation equipment manufacturing	\$642,353	1,429

Center for Strategic Economic Research, June 2010

Data Source: IMPLAN, 2007 coefficients

Note: Differences due to rounding.

Appendix C—Population Distribution of California’s Counties



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