The Economic Contribution of Tesla in California

plus the economies of Alameda County, Los Angeles County, Santa Clara County, San Mateo County, Sacramento County and the City of Fremont

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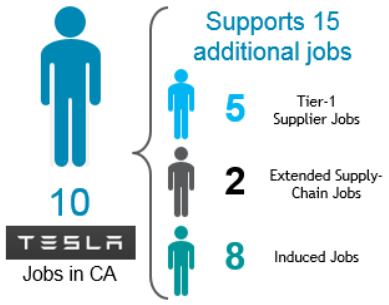
Executive Summary

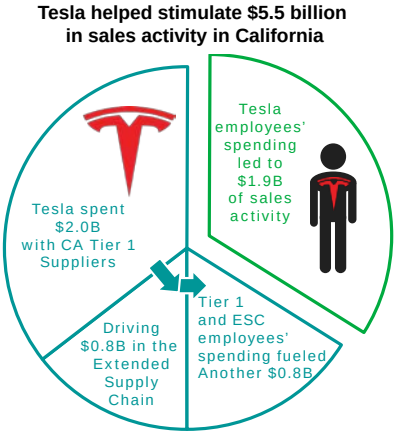
Tesla was founded in 2003 with a vision to accelerate the world's transition to sustainable energy. This has led the company to: design, develop, manufacture and sell high performance fully electric vehicles plus energy generation and storage systems; install and maintain such systems; and sell solar electricity. Seven years after its founding, Tesla became the first US automobile manufacturer to go public since Ford Motor Company in 1956. As of December 31, 2017, Tesla had a market capitalization exceeding $52 billion and a workforce of more than 37,000 employees worldwide. But California is where Tesla calls home – in addition to the company's headquarters in Palo Alto, it manufactures its vehicles and many vehicle components in Fremont. Indeed, Tesla ranks amongst the largest manufacturers in California where its Fremont plant — the only remaining factory that builds vehicles within the state — delivered over 103,000 vehicles in 2017[1].

Tesla purchased the shuttered Fremont production facility in 2010 and has invested more than $3 billion to reopen, renovate and modernize the 1960's-era facility to build premium all-electric vehicles, but also to develop a work environment that is safe for employees. The first vehicle produced in the facility was the Model S in 2012; since then, the plant has expanded operations to include production of the Model X and Model 3. These vehicles are sold through Tesla's own sales and service network, which represented $10.6 billion out of Tesla's $11.8 billion in FY2107 revenues. Over the years, Tesla has grown its workforce to over 20,000 employees in California to meet increasing demand for its vehicles.

To assess the impact of Tesla's operations in California, IHS Markit examined how the company's direct spending on inputs to production and modeled how they filtered through the state economy from the initial Tier-1 Suppliers (the California-based companies that supply parts and services directly to Tesla) through the California supply chain. The modeling also captured how consumer spending activity of Tesla employees induced additional economic contributions within the local economies. IHS Markit quantified these impacts for the economies of five counties and the City of Fremont. The findings are reported in terms of Tesla-related employment, wages and equity, stimulated sales activity, value added, and government revenue.

Not surprisingly, much of the economic contributions accrued to Alameda County (where the production facility is located) and Santa Clara County (home of Tesla headquarters). And, sizable contributions were also realized in Los Angeles County and San Mateo County. However, one of the most interesting findings was the collective 53 counties that were not the primary focus of this study (known as "Rest of California" throughout this report) accounted for over one-quarter of the combined Tier 1, Extended Supply Chain and Induced economic contributions. For FY2017, key findings include:





Employment and Wages:

- **Tesla's operations supported over 51,000 jobs in California.** Tesla directly employed 20,189 workers while another 31,424 were ultimately supported by Tesla's local supply chain purchases and its employees' consumer activity. Thus, for every Tesla employee, another 1.5 jobs were supported in California.
- **Tesla paid its employees a total of $2.1 billion in wages and equity in FY2017.** Every employee is given equity upon hire.

Sales Activity and Value Added:

- **Tesla infused approximately $4.1 billion into the California economy:** $2.0 billion in transactions with over 2,650 California Tier 1 suppliers (average spending of just over $750K per supplier); plus, Tesla paid $2.1 billion in wages and equity to its California-based employees.
- **Tesla's operations directly contributed an estimated $2.0 billion to California's gross state product (GSP) in 2017. The GSP contribution grows to $5.1 billion when the Tier 1, Extended Supply Chain and Induced effects are included.**
- **Tesla ultimately drove a total of $5.5 billion in sales activity across California (see pie chart at right).** Approximately 1/3 of the sales activity was stimulated by the spending of Tesla's employees. IHS Markit estimates that Tesla employees

[1] *Source: Tesla Fiscal Year 2017 Form 10-K*

spent about 77% of their wages and equity on consumer purchases. Much of the spending remained in the local economies, ultimately stimulating $1.9 million of sales activity.

- Every dollar Tesla spent with suppliers **generated $0.8 dollars in additional spending throughout the California economy** (the blue segments of the pie chart).
- Every dollar that Tesla paid to its California employees **led to $0.9 dollars in consumer spending across the state** (the green segment in the pie chart).

Government Revenues

- Tesla's **direct payments to state and local tax authorities in California totalled $328** million.
- The Tier 1, Extended Supply Chain and Induced consumer actives stimulated by Tesla generated close to **$345 million in California state and local taxes plus over $452 in federal taxes**.

A summary of the economic contributions Tesla makes in the key study areas are presented in the table below. The following sections provide more detailed examinations of Tesla's contribution.

Summary of Tesla's economic contribution to the State of California, key counties, and the city of Fremont

	State of California	Counties						City of Fremont
		Alameda	Santa Clara	Los Angeles	San Mateo	Sacramento	Rest of CA	
Employment (number of workers)	**51,613**	**15,677**	**11,697**	**4,575**	**2,805**	**581**	**16,277**	**3,429**
Tesla Employees at end of FY2017	20,189	5,081	5,737	1,044	735	352	7,240	1,535
Tier-1 Suppliers	10,601	4,427	2,243	1,387	767	36	1,740	1,049
Extended Supply Chain	4,108	1,248	800	691	282	13	1,074	199
Induced	16,715	4,921	2,918	1,453	1,021	179	6,223	646
Sales Activity (millions of 2017 dollars)	**16,150**	**1,539**	**1,471**	**580**	**374**	**33**	**1,510**	**308**
Tesla California Operations	10,642							
Tesla's Spending with Tier-1 Suppliers	1,994	565	787	209	145	5	283	168
Extended Supply Chain	813	217	198	130	56	2	211	36
Induced	2,700	758	486	242	173	26	1,015	104
Contribution to GSP (millions of 2017 dollars)	**5,114**	**913**	**761**	**340**	**231**	**20**	**839**	**162**
Tesla California Operations	2,010							
Tier-1 Suppliers	982	314	307	122	79	3	157	73
Extended Supply Chain	471	128	127	74	36	1	104	24
Induced	1,652	471	327	144	115	15	578	66
Labor Income (millions of 2017 dollars)	**3,995**	**1,078**	**1,106**	**296**	**387**	**35**	**1,094**	**254**
Tesla Regular Employee Wages and Equity, FY2017	2,106	481	654	91	244	24	612	146
Tier-1 Suppliers	665	250	186	77	52	2	97	57
Extended Supply Chain	301	83	80	47	25	1	66	15
Induced	923	263	185	81	66	8	319	36

Source: IHS Markit

How economic contribution assessments are reported

In this study, IHS Markit traced three levels of economic contribution that accrued throughout California and within the key study area economies due to streams of economic activity initiated by Tesla. The first level, designated as **direct contributions**, encompasses the economic contributions that resulted from the company's operations and its direct spending with Tier-1 Suppliers that were engaged either through the supply chain or as part of capex/opex projects. The second level, **indirect contributions**, captured the secondary and higher-order effects that rippled through the Extended Supply Chain (i.e., suppliers' suppliers, etc.). Finally, the third level, **induced contributions**, includes the economic contributions that accrue from consumer activity of the employees at Tesla, the Tier-1 Suppliers, and the Extended Supply Chain.

The direct, indirect and induced contributions are reported for the following economic indicators:

- **Employment**. In order to produce goods and services, companies must hire and retain employees. This indicator measures the number of jobs required to support a given level of sales activity within a given economy.
- **Sales activity (output)**. In the context of an economic contribution analysis, output represents the value of sales that occur in the economies studied that are ultimately attributable to transactions initiated by Tesla.
- **Value added contribution to gross domestic product (GDP)**. Value added is the difference between the revenue received for a product or service and its non-labor input costs. GDP is the sum of value added across the national economy, while the corresponding concept on the state level is known as gross state product (GSP). GDP/GSP is generally considered the broadest measure of the health of an economy.
- **Labor income.** A subcomponent of value added, labor income captures the total compensation paid to workers.
- **Government revenues.** The Tier 1, Extended Supply Chain and Induced firms and their employees also pay taxes. Aggregated federal plus state and local government revenues are reported for each of the key study areas.

Tesla's contribution to the California economy

In conducting this study, IHS Markit assessed the economic contributions Tesla generated in California plus the economies of six key areas where the company has significant business activity (Alameda County, Santa Clara County, Los Angeles County, San Mateo County, Sacramento County, and the City of Fremont). In addition, a significant portion of Tesla's business activity extends beyond these six regions. For example, about 15% of the company's California Tier-1 Supplier spending flowed to other California counties. In addition, 36% of Tesla's California-based employees reside outside the study area. To more accurately assess Tesla's overall contribution to the California economy, IHS Markit processed these data through an aggregate model of these other counties and reported the results as "Rest of CA."

This IHS Markit analysis looks beyond the revenues Tesla recognized within the state of California – which is ultimately a measure of how much the economy was engaged by Tesla – by quantifying how the company's transactions with local firms led to broader economic benefits. Combining vendor data provided by Tesla and our proprietary economic data, IHS Markit modeled Tesla's supplier spending by industry and by study area. This analysis served as the primary inputs to IHS Markit's economic impact models. IHS Markit developed a national model as well as individual models for each of the six key study areas.

Tesla's Direct Contribution to the California Economy

In FY2017, Tesla realized global revenues of $11.8 billion – 53 percent (or $6.22 billion) of which were in the US. These global revenues can be considered as $11.8 billion worth of inflows to Tesla's California headquarters. However, this top-line figure does not provide details on the associated outflows from Tesla to third-parties. In other words, it does not net out the value that Tesla generated in California.

Isolating the local value added component of the global revenues provides a more exact estimate of the overall direct contribution of Tesla's operations to California's Gross State Product (GSP). IHS Markit used a three-step process to derive an estimate of the contribution that Tesla's operations make to California's GSP. The first step was removing Tesla's non-California production activity, most notably the energy generation and storage components built in Gigafactory 1 (Nevada) and Gigafactory 2 (New York). Based on information contained in Tesla's 10K for FY2017, IHS Markit estimated non-California production accounted for approximately $1.1 billion. This left an estimate of $10.7 billion for Tesla's California-based production in FY2017.

The next step was deducting outflows to suppliers for the non-labor inputs required by Tesla's production activity. Based on an analysis of data provided by Tesla, IHS Markit estimated the company spent $7.7 billion with its global Tier 1 suppliers during FY2017. The final step was removing an estimated $0.9 billion in wages that Tesla paid to employees outside of California. While wages are technically a component of value added, any wages paid to employees outside of California leaked out of the state and, therefore, needed to be removed from the estimate. IHS Markit estimated the net direct contribution of Tesla's operations to California's GSP amounted to $2.1 billion in FY2017.

Tesla's operations in California: Estimated direct contribution metrics	
Global Revenues, FY2017	$11.8 billion
Less non-California production (Gigafactory 1 and 2)	$1.1 billion
A. Tesla's California-based output	**$10.7 billion**
Less purchases of non-labor inputs	$7.7 billion
Less wages paid to employees outside of California	$0.9 billion
B. Net direct contribution to California GSP (value added)	**$2.1 billion**
C. Tesla California-based employment (headcount)	**20,189**
D. Wages and equity paid to Tesla's California employees	**$2.1 billion**

Source: IHS Markit analysis of Tesla data

Another source of Tesla's direct contributions to the California economy is its spending with over 2,650 local suppliers on non-labor inputs to production. These transactions with California-based, Tier 1 Suppliers totalled about $2.0 billion (average of more than $750K per supplier) and supported 10,600 jobs during FY2017. This Tier 1 activity, in turn, initiated a cascade of secondary economic contributions from an extended network of suppliers in California, which is discussed later in this report in the section entitled *"Tesla's Indirect Contributions to the California Economy through the Extended Supply Chain."*

Tesla directly paid wages and equity to its California-based employees totalling $2.1 billion in FY2017. The Tesla employees spent a significant portion of their wages and equity locally on consumer goods and services. The resultant third-order wave of economic activity is also discussed later in this report in the section entitled *"Tesla's Induced Contributions to the California Economy."*

As summarized in the table below, Tesla infused about $4.1 billion into the California economy during FY2017: almost $2.0 billion in Tier 1 spending plus an additional $2.1 in wages and equity. IHS Markit traced how the $4.1 billion flowed across six key California counties and the City of Fremont. While Tesla's Fremont factory may be the most apparent manifestation of the company, as that is where every Tesla is assembled, it is important to note that over 90% of Tesla's direct contributions to the California economy occurs beyond the city of Fremont. Indeed, about three-quarters of the direct activity occurred outside of Alameda County where the plant is located.

Tesla's Direct Tier Spending, Headcount and Wages in California, FY2017

Region	Direct Tier 1 Spend (million $)	%	Headcount*	%	Wages* (million $)	%
California	**1,994**	**100.0%**	**20,189**	**100.0%**	**2,106**	**100.0%**
Alameda	556	27.9%	5,081	25.2%	481	22.9%
Fremont (city)	170	8.5%	1,535	7.6%	146	6.9%
Rest of Alameda county	386	19.4%	3,546	17.6%	336	15.9%
Santa Clara	772	38.7%	5,737	28.4%	654	31.1%
Los Angeles	204	10.2%	1,044	5.2%	91	4.3%
San Mateo	144	7.2%	735	3.6%	244	11.6%
Sacramento	5	0.3%	352	1.7%	24	1.1%
Rest of CA	311	15.6%	7240	35.9%	612	29.1%

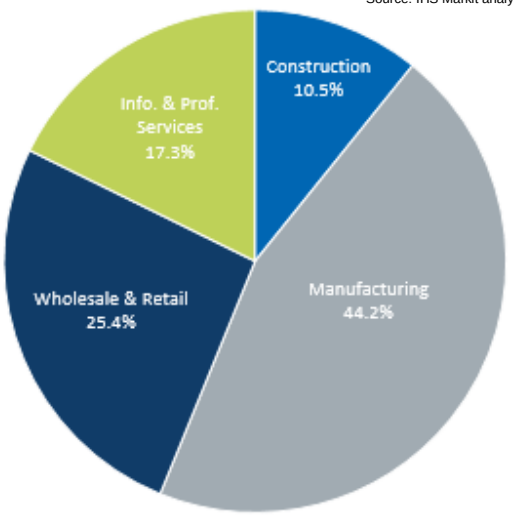
* Headcount and wage/equity data are aggregated by the regions in which employees reside

Source: IHS Markit

A closer look at the economic contributions from Tesla's Tier 1 Supplier activity

Distribution of Tesla's Direct Spend by Industry in California

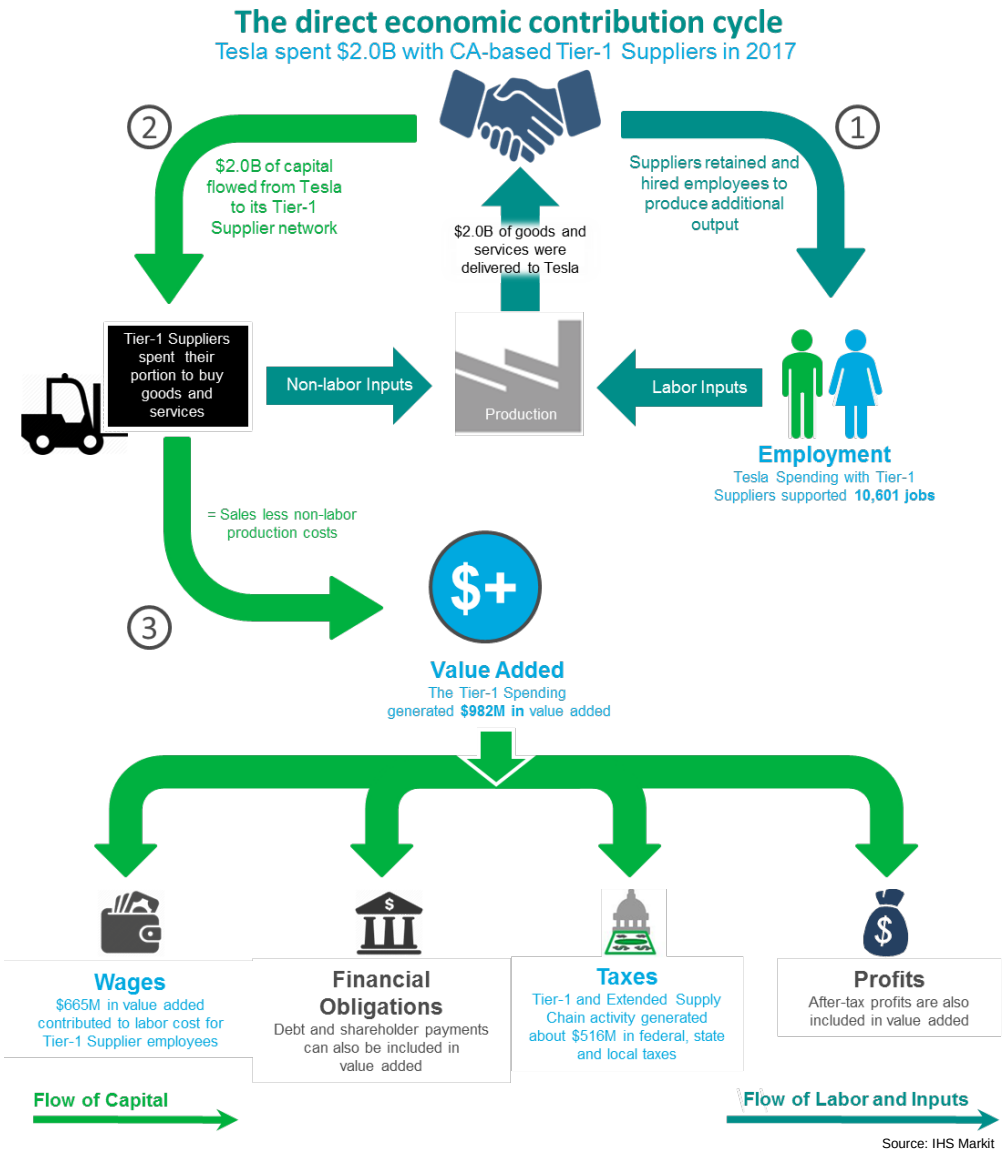
Source: IHS Markit analysis of Tesla data



Note: Not included in chart are small percentages to Leisure & Other Services (1.9%), Financial Services (0.6%) and Transportation & Warehousing (0.1%).

To the left is the breakdown of Tesla's direct spending by industry in California (the distribution for the other key study areas is displayed in Appendix A). This is an important process in properly modeling economic impacts as the spending enters the models through the industry in which it occurs. Despite Tesla operating primarily in the manufacturing industry, specifically automobile manufacturing, much of Tesla's Tier-1 spending is with vendors in various sectors within the wholesale & retail trade (25.4%), information & professional services (17.3%) and construction (10.5%) industries. The dominant sectors within each, respectively, include industrial machinery & equipment merchant wholesalers, all other professional, scientific & technical services and electrical contractors & other wiring installation contractors.

However, the economic contribution does not end with the $2.0 billion of capital that Tesla exchanged for goods and services from its Tier-1 Suppliers. The graphic below traces the transformation of Tesla's spending into value across its Tier-1 Supplier network and shows the relationships between the various economic indicator measured by IHS Markit. The initial orders from Tesla initiate two flows of activities. The green arrows show the flow of capital while the blue arrows show the flow of resources (labor and good and services).



Output: When Tesla spent $2.0 billion with its Tier-1 Suppliers, it was asking its Tier-1 Suppliers to increase their production (i.e., their output) to make and deliver the products and services that Tesla ordered.

Employment: Proceeding clockwise from the top of the graphic (Arrow 1), each Tier-1 Supplier hired and/or retained workers to produce and deliver its goods and services. Thus, Tesla's spending has the effect of supporting jobs throughout its Tier-1 Supplier network. In FY2017, Tesla's direct spending supported 10,601 Tier-1 jobs.

Value Added: Proceeding counter-clockwise from the top of the graphic (Arrow 2), each Tier-1 Supplier used its portion of the $2.0 billion from Tesla to purchase goods and services needed to fulfill the order. Subtracting those expenditures from the $2.0 billion received from Tesla (Arrow 3) leaves $982 million, which is known as value added. As this term implies, value added is a measure of how much more valuable a final product is relative to its non-labor inputs. The sum of all value added across the economy is equivalent to a state's GSP. Thus, Tesla's transactions with Tier-1 Suppliers resulted in $982 million in contribution to California's GSP in FY2017.

Labor Income. A company's value added also includes the amount that is paid to employees. In FY2017, California employees of the Tier-1 Suppliers earned $665 million in labor income.

Government Revenues. Federal, state and local taxes are also included in the value-added measure. IHS Markit estimates that Tier-1 and Extended Supply Chain activity contributed about $516 million in federal, state and local taxes during FY2017. What remains in value added after removing labor income and taxes includes some of a company's debt obligations (e.g., shareholder payments) and profits.

Tesla's $2.0 billion of Tier-1 spending appears as $2.0 billion of sales activity to Tier-1 Suppliers in the table below. As previously noted, Tesla's Tier-1 Supplier network extends well beyond the six key study areas, thereby broadly distributing its economic contributions across California. Indeed, a quarter of California Tier-1 sales activity flowed beyond the regions that were the primary focus of this study, and about 30% of the supported Tier-1 jobs were in those other regions.

Tesla's Direct (Tier 1) Economic Contribution to CA and Seven Key Study Areas
(workers and millions of $2017)

	California	Alameda	Santa Clara	Los Angeles	San Mateo	Sacramento	Rest of CA	Fremont
Tier-1 Suppliers								
Employment	10,601	4,427	2,243	1,387	767	36	1,740	1,049
Sales Activity (Output)	1,994	565	787	209	145	5	283	168
Contribution to GDP	982	314	307	122	79	3	157	73
Labor Income	665	250	186	77	52	2	97	57

Source: IHS Markit

Tesla's Indirect Contributions to the California Economy through the Extended Supply Chain

The same cycle depicted in the above chart, "The direct economic contribution cycle," is repeated throughout the Extended Supply Chain. The impacts at this level is known as indirect contributions, because they do not directly result from Tesla's spending. Rather, the catalyst for the cycle of indirect contributions is the spending of Tesla's Tier-1 Suppliers with their suppliers (that is, Tier-2 Suppliers) followed by spending with additional tiers (Tier-3 and beyond), which causes a sequence of economic contributions similar to those discussed in the previous section.

By the time all iterations are accounted for, a total of $813 million in sales transactions occurred in the California Extended Supply Chain in FY2017. This, in turn, supported 4,108 indirect jobs that took home $301 million in wages and drove $471 million in value added contribution to GSP in California alone. The table below shows the contributions within the other key study areas and more detailed tables can be found in Appendix A.

Tesla's Indirect (Extended Supply Chain) Economic Contribution to CA and Seven Key Study Areas
(workers and millions of $2017)

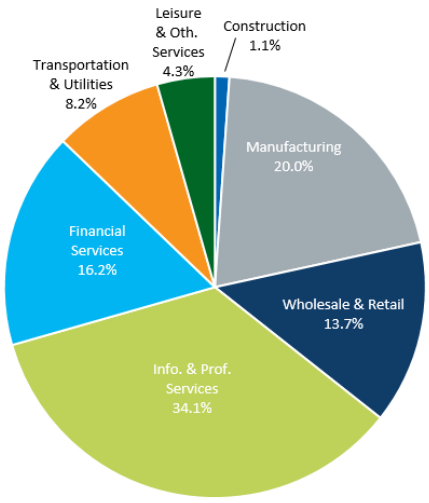
	California	Alameda	Santa Clara	Los Angeles	San Mateo	Sacramento	Rest of CA	Fremont
Extended Supply Chain								
Employment	4,108	1,248	800	691	282	13	1,074	199
Sales Activity (Output)	813	217	198	130	56	2	211	36
Contribution to GDP	471	128	127	74	36	1	104	24
Labor Income	301	83	80	47	25	1	66	15

Source: IHS Markit

The composition of spending by industry amongst the Extended Supply Chain is much more diverse than at the direct-spend level. While Tesla spent almost half of its expenditures with companies in the manufacturing sector (specifically automotive), only 20 percent of transactions occurred in this industry in the Extended Supply Chain. In addition, inputs from the construction and wholesale & retail trade industries are much less important in producing goods and service in Tesla's Extended Supply Chain. Instead, reliance on the information & professional services and financial services sectors is greater in the Extended Supply Chain and combined they are the destination for half of the Extended Supply Chain spending.

Distribution of Tesla's Extended Supply Chain Output by Industry in California

Source: IHS Markit



Note: Not included in chart are small percentages to Government (1.8%) and Natural Resources (0.6%).

Tesla's Induced Contributions to the California Economy

Induced economic contributions have somewhat different implications than those generated in the Tier 1 and Extended Supply Chain. The catalyst event for induced contribution is local spending by workers (Tesla, Tier 1 and Extended Supply Chain) on consumer goods and services. IHS Markit separately modeled the economic contributions induced by the consumer spending of Tesla employees and the combined Tier 1 and Extended Supply Chain.

The mechanics underlying induced economic contributions are similar to the direct economic contribution cycle discussed earlier in this report. The primary difference is the catalyst events that initiate either the direct or induced cycle. The direct cycle is initiated by transactions between Tesla and its Tier 1 Suppliers. In order to provide the products and services ordered by Tesla, the Tier 1 Suppliers must source inputs from the Extended Supply Chain. Thus, both Tier 1 and follow-on Extended Supply Chain activity result from Tesla's transactions with Tier 1 Suppliers.

For induced effects, the catalyst events are consumer purchases that occur when workers spend a portion of their wages in the local economy. IHS Markit considered two sources of consumer spending that initiate induced effects. The first source is Tesla's employees, who received $2.1 billion in wages and equity in 2017. The second source is the $966 million in wages paid to the Tier 1 and Extended Supply Chain workers. The combined wages of both sources is almost $3.1 billion.

The table below shows consumer expenditure patterns, as a percentage of income before taxes, for the United States and three major metropolitan areas in California. On average, one would expect about 77% of income before taxes was spent on consumer purchases in California. Thus, the $3.1 billion in wages would be expected to stimulate approximately $2.4 billion (77% of $3.1 billion) of consumer expenditures. Not all of these expenditures entered the California economy; a portion leaked to other states, other countries, online purchases, etc. The consumer purchases also had follow-on supplier effects (e.g., retailers restocking inventories, etc.). Plus, the businesses where the consumer spending occurred paid their workers wages, approximately 77% of which was spent, triggering additional rounds of consumer purchases.

Consumer Expenditures	US	San Diego	San Francisco	Los Angeles	Average of SD, SF, LA
Income before taxes	$72,156	$93,466	$118,098	$76,721	$96,095
Average annual expenditures	$56,648	$77,299	$75,380	$64,321	$72,333
Expenditures, percentage of income before taxes	78.5%	82.7%	63.8%	83.8%	76.8%
Housing	25.8%	29.0%	25.7%	30.3%	28.4%
Transportation	12.9%	11.3%	7.6%	13.1%	10.7%
Food	9.9%	9.4%	7.3%	10.4%	9.1%
Personal insurance and pensions	9.1%	10.8%	8.5%	10.1%	9.8%
Healthcare	6.2%	5.1%	4.1%	5.0%	4.7%
Entertainment	4.0%	4.8%	2.7%	3.4%	3.6%
Cash contributions	2.7%	2.2%	2.1%	1.8%	2.0%
Apparel and services	2.5%	2.6%	1.8%	3.7%	2.7%
Education	1.8%	2.9%	1.5%	2.0%	2.1%
Miscellaneous	1.3%	1.9%	0.6%	1.8%	1.5%
Personal care products and services	0.9%	1.2%	0.7%	1.1%	1.0%
Alcoholic beverages	0.7%	0.9%	1.0%	0.7%	0.8%
Tobacco products and smoking supplies	0.5%	0.2%	0.1%	0.2%	0.1%
Reading	0.2%	0.2%	0.2%	0.2%	0.2%

Source: IHS Markit analysis of US Bureau of Labor Statistics data

IHS Markit estimates the induced sales activity attributable to Tesla's Tier 1 Supplier spending; and wages paid to its employees totaled $2.7 billion and supported 16,715 jobs in FY2017. Recall that Tesla's CA-based employees brought home $2.1 billion in wages while the Tier 1 plus Extended Supply Chain workers earned $966 million. Proportionally, this indicates that the income Tesla employees put back into their local economies generated an additional $1.9 billion in sales activity amongst industries across California. The $966 million in wages earned by Tier 1 and Extended Supply Chain workers during FY2017 stimulated an additional $844 million of sales activity.

Tesla's Induced Economic Contribution to CA and Six Key Study Areas
(workers and millions of $2017)

	California	Alameda	Santa Clara	Los Angeles	San Mateo	Sacramento	Rest of CA	Fremont
By Tesla Employees' Consumer Spending								
Employment	11,504	2,992	2,015	633	785	158	4,920	430
Sales Activity (Output)	1,856	461	335	107	132	23	798	69
Contribution to GDP	1,136	287	226	64	89	14	457	44
Labor Income	635	160	128	36	50	7	252	24
By Supply Chain Employees' Consumer Spending								
Employment	5,211	1,929	903	820	236	21	1,303	216
Sales Activity (Output)	844	297	151	135	40	3	218	35
Contribution to GDP	516	184	101	80	27	2	122	22
Labor Income	288	103	57	45	15	1	67	12
Total Induced								
Employment	16,715	4,921	2,918	1,453	1,021	179	6,223	646
Sales Activity (Output)	2,700	758	486	242	173	26	1,015	104
Contribution to GDP	1,652	471	327	144	115	15	578	66
Labor Income	923	263	185	81	66	8	319	36

Source: IHS Markit

Taxes

The money that Tesla spent with Tier-1 Suppliers or that it paid to its employees in FY2017 initiated a series of cascading economic activities across a far-reaching network of suppliers and service providers who, in turn, were subject to the payment of federal and state & local taxes. As summarized in the table below, IHS Markit estimates the federal, state and local taxes generated in the Tier 1, Extended Supply Chain and Induced categories totaled almost $800 million in FY2017 – $345 million in state and local taxes and another $452 in federal taxes. Including the $328 million in state and local taxes Tesla directly paid (combined total of sales, payroll and property taxes), the total revenues flowing to tax authorities in California totaled $673 million in FY2017.

Region	Capital Tesla infuses into the local economy ($M)			Tax Revenue Generated in the Tier 1, Extended Supply Chain and Induced Categories ($M)		
	Tier-1 Spending	Tesla Wages*	Total	State & Local	Federal	Total
California	**1,994**	**2,106**	**4,100**	**345**	**452**	**797**
Alameda	556	481	1,037	97	140	237
Fremont (city)	170	146	315	16	24	40
Rest of Alameda County	386	336	722	80	117	197
Santa Clara	772	654	1,427	73	107	179
Los Angeles	204	91	295	46	50	96
San Mateo	144	244	388	26	34	60
Sacramento	5.3	23.6	28.9	2	3	5
Rest of CA	311	612	924	101	118	220

*Wage/equity data are aggregated by the regions in which employees reside
Source: IHS Markit

The federal taxes listed for a given region, such as the $140 million in Alameda County, represent federal taxes generated as a result of economic activity within that county. Simply put, the combined Tier-1 Suppliers, Extended Supply Chain and Induced economic activity attributable to Tesla in Alameda County generated $140 million of federal taxes in FY2017.

The table also summarizes the total capital that Tesla infused into the State of California and each of the key study area economies. On the regional level, the sum of wages paid to Tesla employees plus Tier-1 Supplier spending totaled almost $4.1 billion. This acted as a catalyst that – once the Tier-1 Suppliers, Extended Supply Chain and Induced activities had taken place. This means that, on average, every $1 billion that Tesla either spent with Tier-1 Suppliers or paid to its employees leveraged over $84 million in state and local taxes and $110 million in federal taxes in FY2017.

Appendix A: Economic Contribution Results by Key Study Area

The Economic Contribution of Tesla in California (FY2017)

Tesla Employees in California	**20,189**
Spending with CA-based suppliers	**$2.0 billion**
Wages and equity paid to Tesla employees:	**$2.1 billion**

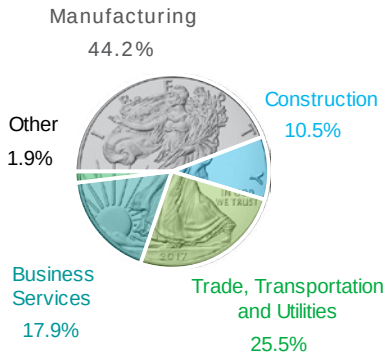
The combination of Tesla's spending $2 billion with CA-based suppliers and its CA employees spending much of their $2.1 billion in wages and equity within local communities stimulates significant economic contributions to the CA economy.

How Tesla stimulates contributions to the California economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations	20,189	$10,642	$2,010	$2,106
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	10,601	$1,994	$982	$665
Extended Supply Chain	4,108	$813	$471	$301
Consumer (Induced) Activity				
Due to Tesla employees' spending	11,504	$1,856	$1,136	$635
Due to Suppliers' employees' spending	5,211	$844	$516	$288
Total Contributions	51,613	$16,150	$5,114	$3,995
This is equivalent to:	0.3% of CA employment	$44.2M sales activity	0.2% of CA GSP	0.3% of CA Wages

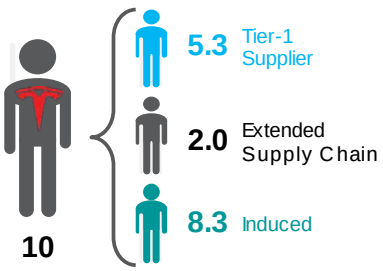
* Tesla employees living in the California and their wages and equity

A closer look at how Tesla contributes to the CA economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in CA Support an additional 15.6 Jobs



Government Revenues*

State & Local	$345M
Federal	$452M

* Tesla, Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: California

Employment Contribution (number of workers)

Tesla's California-based Employees **20,189**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	1,372	50	54	120	1,597
Financial Services	46	468	571	1,272	2,356
Information & Professional Services	4,046	1,733	714	1,577	8,070
Leisure & Other Services	382	398	2,526	5,570	8,876
Manufacturing	2,201	440	131	280	3,052
Natural Resources	0	24	38	84	147
Transportation & Utilities	13	407	185	406	1,011
Wholesale & Retail Trade	2,542	505	928	2,052	6,027
Government	0	83	64	142	289
Subtotal: T1, ESC, Induced Emp.	**10,601**	**4,108**	**5,211**	**11,504**	**31,424**
Grand Total, Employment					**51,613**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	209.6	8.7	10.8	23.6	252.7
Financial Services	12.7	131.9	245.6	540.5	930.8
Information & Professional Services	344.3	277.3	126.5	278.3	1,026.4
Leisure & Other Services	37.5	35.1	215.4	473.8	761.9
Manufacturing	880.9	162.6	72.4	159.6	1,275.3
Natural Resources	0.0	4.5	6.5	14.3	25.3
Transportation & Utilities	2.2	66.6	34.0	74.1	176.9
Wholesale & Retail Trade	506.6	111.7	115.8	255.3	989.4
Government	0.0	15.0	16.7	36.8	68.5
Total	**1,993.7**	**813.4**	**843.6**	**1,856.4**	**5,507.2**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	126.0	4.7	5.1	11.2	147.0
Financial Services	10.0	89.5	157.4	346.3	603.3
Information & Professional Services	202.8	176.0	77.7	170.6	627.1
Leisure & Other Services	27.0	23.7	141.5	311.4	503.6
Manufacturing	271.9	54.8	25.9	57.1	409.6
Natural Resources	0.0	2.4	3.2	7.0	12.6
Transportation & Utilities	1.0	35.3	17.8	38.8	92.8
Wholesale & Retail Trade	342.9	75.5	79.8	176.4	674.6
Government	0.0	8.8	7.6	16.8	33.2
Total	**981.5**	**470.8**	**516.0**	**1,135.5**	**3,103.8**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla's California-based employees **2,106.3**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	91.1	3.3	3.7	8.0	106.1
Financial Services	1.9	32.3	38.4	85.3	157.9
Information & Professional Services	199.7	140.4	52.5	115.1	507.7
Leisure & Other Services	20.7	17.7	118.0	259.7	416.0
Manufacturing	169.1	34.4	10.6	23.5	237.6
Natural Resources	0.0	1.5	2.4	5.2	9.0
Transportation & Utilities	0.9	24.7	11.3	24.6	61.4
Wholesale & Retail Trade	182.1	38.1	44.4	98.2	362.8
Government	0.0	8.4	6.9	15.3	30.6
Subtotal: T1, ESC, Induced Wages	**665.4**	**300.8**	**288.1**	**634.8**	**1,889.2**
Grand Total, Labor Income					**3,995.4**

Source: IHS Markit

The Economic Contribution of Tesla in Alameda County (FY2017)

Tesla Employees in Alameda County (AC)	5,081
Spending with AC-based suppliers	$565 million
Wages and equity paid to Tesla employees:	$481 million

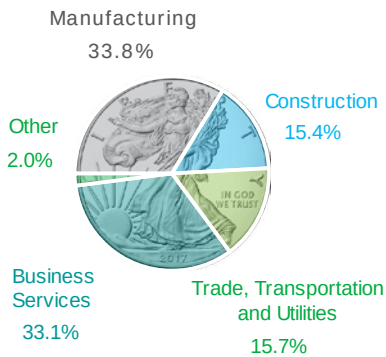
The combination of Tesla's spending $565 million with AC-based suppliers and its employees who live in AC spending much of their $481 million of wages and equity within the county stimulates significant economic contributions in Alameda County.

How Tesla stimulates contributions to the Alameda County economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	5,081			$481
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	4,427	$565	$314	$250
Extended Supply Chain	1,248	$217	$128	$83
Consumer (Induced) Activity				
Due to Tesla employees' spending	2,992	$461	$287	$160
Due to Suppliers' employees' spending	1,929	$297	$184	$103
Total Contributions	15,677	$1,539	$913	$1,078
This is equivalent to:	2.0% of AC employment	$4.2M sales activity	0.7% of AC GCP	1.8% of AC Wages

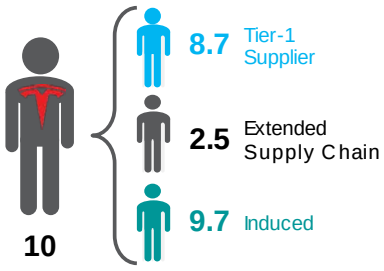
* Tesla employees living in the county and their wages and equity

A closer look at how Tesla contributes to the AC economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in AC Support an additional 20.9 Jobs



Government Revenues**

State & Local	$97M
Federal	$140M

* * Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

IHS Markit

Tesla's Economic Contribution by Industry and Economic Activity Class: Alameda County

Employment Contribution (number of workers)

Tesla employees living in this county **5,081**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	558	18	20	32	628
Financial Services	46	151	212	331	740
Information & Professional Services	2,378	607	266	409	3,660
Leisure & Other Services	174	125	949	1,472	2,720
Manufacturing	749	66	20	26	861
Natural Resources	0	1	2	2	5
Transportation & Utilities	10	118	77	120	325
Wholesale & Retail Trade	513	137	359	558	1,567
Government	0	25	25	40	90
Subtotal: T1, ESC, Induced Emp.	**4,427**	**1,248**	**1,929**	**2,992**	**10,596**
Grand Total, Employment					**15,677**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	86.8	3.2	3.9	6.0	99.8
Financial Services	12.7	41.2	92.3	143.7	290.0
Information & Professional Services	174.2	86.9	43.8	67.2	372.2
Leisure & Other Services	11.4	11.0	80.0	124.3	226.7
Manufacturing	190.7	23.3	11.7	18.2	243.9
Natural Resources	0.0	0.3	0.2	0.3	0.9
Transportation & Utilities	1.6	20.5	14.0	21.6	57.6
Wholesale & Retail Trade	87.3	26.4	45.2	70.5	229.4
Government	0.0	3.9	5.8	9.2	19.0
Total	**564.8**	**216.8**	**297.0**	**460.9**	**1,539.5**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	52.5	1.8	2.1	3.2	59.6
Financial Services	10.0	27.3	57.9	90.2	185.5
Information & Professional Services	106.0	53.3	26.0	39.8	225.1
Leisure & Other Services	8.1	7.4	52.7	82.1	150.2
Manufacturing	76.7	7.8	4.1	6.2	94.8
Natural Resources	0.0	0.2	0.1	0.2	0.5
Transportation & Utilities	0.7	11.0	7.5	11.6	30.8
Wholesale & Retail Trade	59.8	17.2	31.2	48.9	157.2
Government	0.0	2.4	2.8	4.5	9.7
Total	**313.8**	**128.4**	**184.4**	**286.7**	**913.4**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in this county **481.4**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	38.4	1.3	1.5	2.3	43.5
Financial Services	1.9	8.1	11.6	18.0	39.5
Information & Professional Services	110.1	43.5	18.5	28.5	200.6
Leisure & Other Services	7.1	5.5	44.0	68.6	125.2
Manufacturing	58.1	5.2	1.7	2.6	67.4
Natural Resources	0.0	0.1	0.1	0.1	0.2
Transportation & Utilities	0.6	7.9	4.9	7.6	20.9
Wholesale & Retail Trade	34.4	8.6	17.6	27.7	88.3
Government	0.0	2.6	3.0	5.0	10.6
Subtotal: T1, ESC, Induced Wages	**250.5**	**82.6**	**102.9**	**160.3**	**596.3**
Grand Total, Labor Income					**1,077.7**

Source: IHS Markit

The Economic Contribution of Tesla in Santa Clara County (FY2017)

Tesla Employees in Santa Clara County (SC)	5,737
Spending with SC-based suppliers	$787 million
Wages and equity paid to Tesla employees:	$654 million

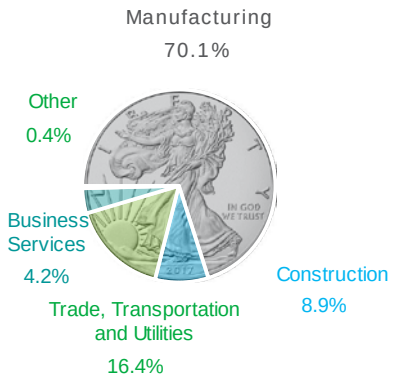
The combination of Tesla's spending $787 million with SC-based suppliers and its employees who live in SC spending much of their $654 million of wages and equity within the county stimulates significant economic contributions in Santa Clara County.

How Tesla stimulates contributions to the Santa Clara County economy	Employment	Sales Activity (output, $millions)	GDP / GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	5,737			$654
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	2,243	$787	$307	$186
Extended Supply Chain	800	$198	$127	$80
Consumer (Induced) Activity				
Due to Tesla employees' spending	2,015	$335	$226	$128
Due to Suppliers' employees' spending	903	$151	$101	$57
Total Contributions	11,697	$1,471	$761	$1,106
This is equivalent to:	1.1% of SC employment	$4M sales activity	0.3% of SC GCP	0.8% of SC Wages

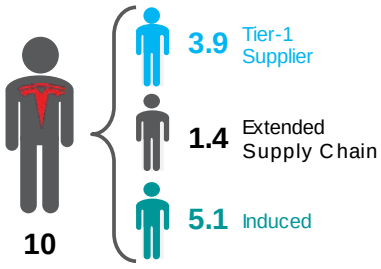
* Tesla employees living in the county and their wages and equity

A closer look at how Tesla contributes to the SC economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in SC Support an additional 10.4 Jobs



Government Revenues**

State & Local	$73M
Federal	$107M

** Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: Santa Clara County

Employment Contribution (number of workers)

Tesla employees living in this county **5,737**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	439	10	9	20	479
Financial Services	0	77	89	200	366
Information & Professional Services	329	272	108	240	949
Leisure & Other Services	32	60	503	1,126	1,720
Manufacturing	901	101	7	10	1,018
Natural Resources	0	1	1	2	4
Transportation & Utilities	3	61	17	39	120
Wholesale & Retail Trade	539	208	162	364	1,272
Government	0	11	6	15	32
Subtotal: T1, ESC, Induced Emp.	**2,243**	**800**	**903**	**2,015**	**5,960**
Grand Total, Employment					**11,697**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	70.2	1.9	1.7	3.8	77.6
Financial Services	0.0	24.4	46.2	102.6	173.2
Information & Professional Services	33.2	61.2	24.7	54.4	173.5
Leisure & Other Services	3.2	5.7	47.3	105.8	162.0
Manufacturing	551.5	35.9	3.9	7.9	599.2
Natural Resources	0.0	0.1	0.1	0.2	0.4
Transportation & Utilities	0.6	9.8	2.8	6.1	19.2
Wholesale & Retail Trade	128.5	56.8	22.4	50.6	258.3
Government	0.0	2.1	1.8	4.0	7.9
Total	**787.2**	**197.8**	**150.9**	**335.4**	**1,471.3**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	43.1	1.1	0.9	2.1	47.3
Financial Services	0.0	17.7	30.7	68.1	116.5
Information & Professional Services	22.9	42.6	16.9	36.9	119.3
Leisure & Other Services	2.3	3.9	32.2	72.2	110.7
Manufacturing	143.9	14.5	1.8	3.7	163.9
Natural Resources	0.0	0.0	0.0	0.1	0.2
Transportation & Utilities	0.3	4.9	1.5	3.3	9.9
Wholesale & Retail Trade	94.5	40.5	16.4	37.2	188.7
Government	0.0	1.3	1.0	2.1	4.4
Total	**307.0**	**126.6**	**101.5**	**225.8**	**760.8**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in this county **654.3**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	31.4	0.8	0.7	1.5	34.4
Financial Services	0.0	6.9	7.1	15.4	29.4
Information & Professional Services	24.6	34.1	10.8	23.7	93.2
Leisure & Other Services	1.7	2.9	26.9	60.2	91.7
Manufacturing	72.8	9.8	0.9	1.9	85.3
Natural Resources	0.0	0.0	0.0	0.1	0.1
Transportation & Utilities	0.2	3.7	1.0	2.2	7.1
Wholesale & Retail Trade	55.5	21.0	9.2	20.8	106.4
Government	0.0	1.2	0.8	2.0	4.1
Subtotal: T1, ESC, Induced Wages	**186.3**	**80.3**	**57.5**	**127.7**	**451.7**
Grand Total, Labor Income					**1,106.0**

Source: IHS Markit

The Economic Contribution of Tesla in Los Angeles County (FY2017)

Tesla Employees in Los Angeles County (LA)	1,044
Spending with LA-based suppliers	$209 million
Wages and equity paid to Tesla employees:	$91 million

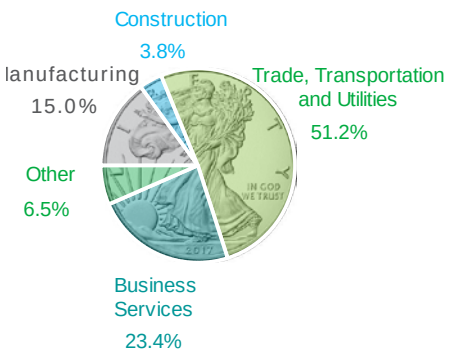
The combination of Tesla's spending $209 million with LA-based suppliers and its employees who live in LA spending much of their $91 million of wages and equity within the county stimulates significant economic contributions in Los Angeles County.

How Tesla stimulates contributions to the Los Angeles County economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	1,044			$91
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	1,387	$209	$122	$77
Extended Supply Chain	691	$130	$74	$47
Consumer (Induced) Activity				
Due to Tesla employees' spending	633	$107	$64	$36
Due to Suppliers' employees' spending	820	$135	$80	$45
Total Contributions	4,575	$580	$340	$296
This is equivalent to:	0.1% of LA employment	$1.6M sales activity	0.04% of LA GCP	0.1% of LA Wages

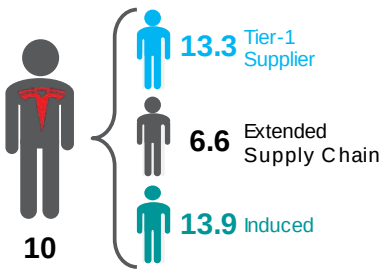
* Tesla employees living in the county and their wages and equity

A closer look at how Tesla contributes to the LA economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in LA Support an additional 33.8 Jobs



Government Revenues**

State & Local	$46M
Federal	$50M

** Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: Los Angeles County

Employment Contribution (number of workers)

Tesla employees living in this county **1,044**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	63	7	7	5	82
Financial Services	0	88	97	75	259
Information & Professional Services	420	324	122	95	961
Leisure & Other Services	96	78	384	305	863
Manufacturing	100	52	27	12	191
Natural Resources	0	3	2	1	7
Transportation & Utilities	0	78	34	29	142
Wholesale & Retail Trade	709	44	135	103	991
Government	0	16	10	8	34
Subtotal: T1, ESC, Induced Emp.	**1,387**	**691**	**820**	**633**	**3,531**
Grand Total, Employment					**4,575**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	8.0	1.1	1.2	0.9	11.1
Financial Services	0.0	25.3	37.4	29.1	91.9
Information & Professional Services	48.9	47.8	22.1	17.9	136.6
Leisure & Other Services	13.7	7.0	31.7	25.4	77.7
Manufacturing	31.3	22.2	14.9	10.5	78.9
Natural Resources	0.0	0.9	0.6	0.5	2.0
Transportation & Utilities	0.0	13.7	7.4	7.2	28.3
Wholesale & Retail Trade	106.9	7.7	16.0	12.3	142.9
Government	0.0	3.9	3.7	3.4	11.0
Total	**208.7**	**129.6**	**134.9**	**107.2**	**580.4**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	4.2	0.5	0.5	0.4	5.7
Financial Services	0.0	16.9	24.1	18.7	59.6
Information & Professional Services	28.2	29.5	13.1	11.1	81.9
Leisure & Other Services	10.0	4.9	20.4	16.5	51.7
Manufacturing	11.0	7.6	4.9	3.5	26.9
Natural Resources	0.0	0.7	0.5	0.4	1.6
Transportation & Utilities	0.0	7.5	3.8	3.8	15.1
Wholesale & Retail Trade	68.2	4.7	10.6	8.3	91.8
Government	0.0	2.2	1.7	1.7	5.6
Total	**121.5**	**74.4**	**79.6**	**64.4**	**339.9**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in this county **90.8**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	3.1	0.4	0.4	0.3	4.2
Financial Services	0.0	6.2	7.1	5.5	18.8
Information & Professional Services	25.0	23.1	8.8	7.4	64.3
Leisure & Other Services	6.6	3.6	16.7	13.5	40.4
Manufacturing	7.8	4.1	2.1	1.5	15.5
Natural Resources	0.0	0.4	0.3	0.3	1.0
Transportation & Utilities	0.0	4.9	2.2	2.1	9.3
Wholesale & Retail Trade	34.7	2.2	5.8	4.6	47.3
Government	0.0	1.8	1.3	1.3	4.3
Subtotal: T1, ESC, Induced Wages	**77.3**	**46.7**	**44.7**	**36.4**	**205.0**
Grand Total, Labor Income					**295.9**

Source: IHS Markit

The Economic Contribution of Tesla in San Mateo County (FY2017)

Tesla Employees in San Mateo County (SM)	735
Spending with SM-based suppliers	$145 million
Wages and equity paid to Tesla employees:	$244 million

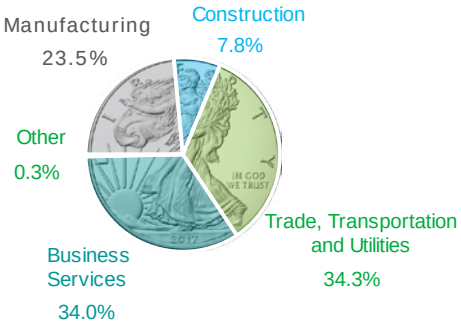
The combination of Tesla's spending $145 million with SM-based suppliers and its employees who live in SM spending much of their $244 million of wages and equity within the county stimulates significant economic contributions in San Mateo County.

How Tesla stimulates contributions to the San Mateo County economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	735			$244
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	767	$145	$79	$52
Extended Supply Chain	282	$56	$36	$25
Consumer (Induced) Activity				
Due to Tesla employees' spending	785	$132	$89	$50
Due to Suppliers' employees' spending	236	$40	$27	$15
Total Contributions	2,805	$374	$231	$387
This is equivalent to:	0.7% of SM employment	$1M sales activity	0.2% of SM GCP	0.8% of SM Wages

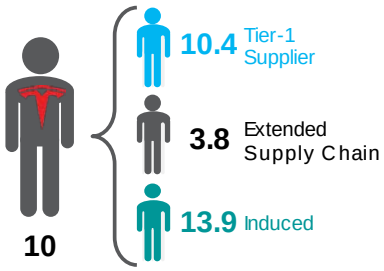
* Tesla employees living in the county and their wages and equity

A closer look at how Tesla contributes to the SM economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in SM Support an additional 28.2 Jobs



Government Revenues**

State & Local	$26M
Federal	$34M

* * Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: San Mateo County

Employment Contribution (number of workers)

Tesla employees living in this county **735**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	66	3	2	8	80
Financial Services	0	40	24	81	146
Information & Professional Services	348	131	29	94	602
Leisure & Other Services	4	44	125	418	590
Manufacturing	166	5	1	3	175
Natural Resources	0	1	1	2	3
Transportation & Utilities	0	29	7	24	61
Wholesale & Retail Trade	184	22	44	148	398
Government	0	6	2	7	15
Subtotal: T1, ESC, Induced Emp.	**767**	**282**	**236**	**785**	**2,070**
Grand Total, Employment					**2,805**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	11.3	0.6	0.5	1.6	14.1
Financial Services	0.0	11.8	12.9	42.8	67.5
Information & Professional Services	49.5	27.3	5.7	18.7	101.1
Leisure & Other Services	0.5	3.5	10.8	36.2	51.0
Manufacturing	34.1	2.1	2.0	5.9	44.2
Natural Resources	0.0	0.2	0.1	0.2	0.4
Transportation & Utilities	0.0	4.7	1.5	4.9	11.1
Wholesale & Retail Trade	49.9	4.4	6.1	20.3	80.7
Government	0.0	1.0	0.5	1.8	3.4
Total	**145.3**	**55.7**	**40.1**	**132.5**	**373.6**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	7.3	0.4	0.3	0.9	8.9
Financial Services	0.0	8.4	8.8	28.8	46.0
Information & Professional Services	23.6	18.1	3.8	12.3	57.8
Leisure & Other Services	0.4	2.3	7.3	24.6	34.7
Manufacturing	13.3	0.7	1.2	3.4	18.6
Natural Resources	0.0	0.1	0.0	0.1	0.3
Transportation & Utilities	0.0	2.6	0.8	2.7	6.0
Wholesale & Retail Trade	34.8	3.0	4.4	14.7	56.9
Government	0.0	0.7	0.3	1.0	2.0
Total	**79.4**	**36.4**	**26.8**	**88.5**	**231.1**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in this county **243.6**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	4.2	0.3	0.2	0.7	5.3
Financial Services	0.0	3.8	2.4	7.7	13.9
Information & Professional Services	19.3	14.6	2.6	8.4	44.8
Leisure & Other Services	0.3	2.0	6.5	21.8	30.6
Manufacturing	10.7	0.4	0.2	0.7	12.0
Natural Resources	0.0	0.0	0.0	0.1	0.1
Transportation & Utilities	0.0	1.7	0.5	1.6	3.8
Wholesale & Retail Trade	17.7	1.6	2.6	8.7	30.6
Government	0.0	0.7	0.2	0.8	1.7
Subtotal: T1, ESC, Induced Wages	**52.2**	**25.0**	**15.3**	**50.5**	**142.9**
Grand Total, Labor Income					**386.5**

Source: IHS Markit

The Economic Contribution of Tesla in Sacramento County (FY2017)

Tesla Employees in Sacramento County (ST)	352
Spending with ST-based suppliers	$5 million
Wages and equity paid to Tesla employees:	$24 million

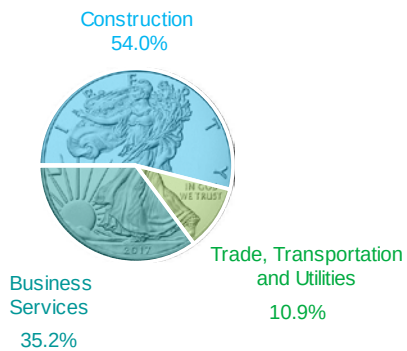
The combination of Tesla's spending $5 million with ST-based suppliers and its employees who live in ST spending much of their $24 million of wages and equity within the county stimulates significant economic contributions in Sacramento County.

How Tesla stimulates contributions to the Sacramento County economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	352			$23.6
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	36	$4.9	$3.0	$2.4
Extended Supply Chain	13	$2.0	$1.1	$0.7
Consumer (Induced) Activity				
Due to Tesla employees' spending	158	$22.8	$13.6	$7.4
Due to Suppliers' employees' spending	21	$3.1	$1.9	$1.0
Total Contributions	581	$32.8	$19.6	$35.2
This is equivalent to:	0.1% of ST employment	$0.1M sales activity	0.0% of ST GCP	0.1% of ST Wages

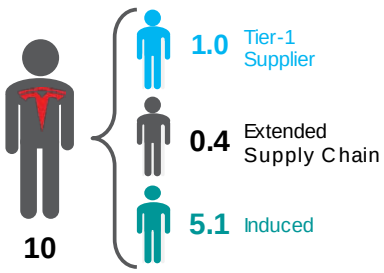
* Tesla employees living in the county and their wages and equity

A closer look at how Tesla contributes to the ST economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in ST Support an additional 6.5 Jobs



Government Revenues**

State & Local	$2M
Federal	$3M

** Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: Sacramento County

Employment Contribution (number of workers)

Tesla employees living in this county **352**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	19	0	0	2	21
Financial Services	0	2	3	20	24
Information & Professional Services	14	7	3	24	48
Leisure & Other Services	0	1	10	74	85
Manufacturing	0	0	0	0	1
Natural Resources	0	0	0	0	0
Transportation & Utilities	0	1	1	6	7
Wholesale & Retail Trade	3	2	4	30	38
Government	0	0	0	3	3
Subtotal: T1, ESC, Induced Emp.	**36**	**13**	**21**	**158**	**229**
Grand Total, Employment					**581**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	2.7	0.0	0.0	0.3	3.0
Financial Services	0.0	0.4	1.0	7.4	8.8
Information & Professional Services	1.7	0.8	0.5	3.3	6.3
Leisure & Other Services	0.0	0.1	0.8	6.1	7.0
Manufacturing	0.0	0.2	0.1	0.4	0.7
Natural Resources	0.0	0.0	0.0	0.0	0.0
Transportation & Utilities	0.0	0.2	0.2	1.1	1.4
Wholesale & Retail Trade	0.5	0.2	0.4	3.1	4.3
Government	0.0	0.1	0.2	1.0	1.2
Total	**4.9**	**2.0**	**3.1**	**22.8**	**32.8**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	1.6	0.0	0.0	0.1	1.8
Financial Services	0.0	0.3	0.6	4.5	5.4
Information & Professional Services	1.1	0.5	0.3	1.9	3.7
Leisure & Other Services	0.0	0.1	0.5	3.9	4.5
Manufacturing	0.0	0.1	0.0	0.1	0.2
Natural Resources	0.0	0.0	0.0	0.0	0.0
Transportation & Utilities	0.0	0.1	0.1	0.5	0.7
Wholesale & Retail Trade	0.3	0.1	0.3	2.0	2.7
Government	0.0	0.0	0.1	0.4	0.6
Total	**3.0**	**1.1**	**1.9**	**13.6**	**19.6**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in this county **23.6**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	1.2	0.0	0.0	0.1	1.3
Financial Services	0.0	0.1	0.1	1.0	1.2
Information & Professional Services	1.1	0.4	0.2	1.3	3.0
Leisure & Other Services	0.0	0.0	0.4	3.2	3.7
Manufacturing	0.0	0.0	0.0	0.1	0.1
Natural Resources	0.0	0.0	0.0	0.0	0.0
Transportation & Utilities	0.0	0.1	0.0	0.3	0.4
Wholesale & Retail Trade	0.2	0.1	0.1	1.1	1.5
Government	0.0	0.0	0.1	0.3	0.4
Total	**2.4**	**0.7**	**1.0**	**7.4**	**11.6**
Grand Total, Labor Income					**35.2**

Source: IHS Markit

The Economic Contribution of Tesla in the City of Fremont (FY2017)

Tesla Employees in the City of Fremont (FM)	1,535
Spending with FM-based suppliers	$168 million
Wages and equity paid to Tesla employees:	$146 million

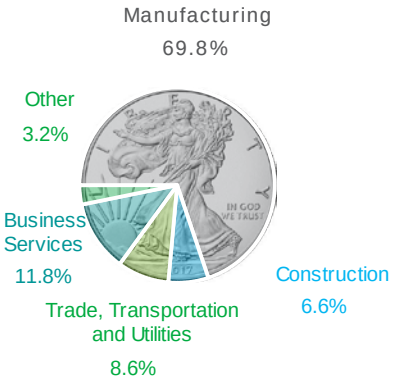
The combination of Tesla's spending $168 million with FM-based suppliers and its employees who live in FM spending much of their $146 million of wages and equity locally stimulates significant economic contributions in the City of Fremont.

How Tesla stimulates contributions to the the City of Fremont economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	1,535			$146
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	1,049	$168	$73	$57
Extended Supply Chain	199	$36	$24	$15
Consumer (Induced) Activity				
Due to Tesla employees' spending	430	$69	$44	$24
Due to Suppliers' employees' spending	216	$35	$22	$12
Total Contributions	3,429	$308	$162	$254

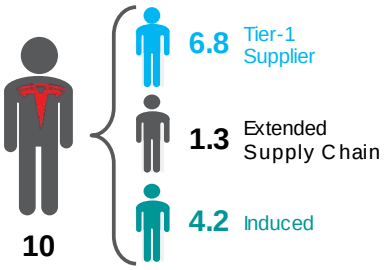
* Tesla employees living in the City of Fremont and their wages and equity

A closer look at how Tesla contributes to the FM economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in FM Support an additional 12.3 Jobs



Government Revenues**

State & Local	$16M
Federal	$24M

** Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: The City of Fremont

Employment Contribution (number of workers)

Tesla employees living in Fremont **1,535**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	62	5	3	5	75
Financial Services	0	16	18	35	69
Information & Professional Services	370	68	20	40	498
Leisure & Other Services	117	17	115	228	476
Manufacturing	360	35	4	7	407
Natural Resources	0	0	0	0	0
Transportation & Utilities	0	14	4	9	28
Wholesale & Retail Trade	140	39	49	97	324
Government	0	5	4	8	16
Subtotal: T1, ESC, Induced Emp.	**1,049**	**199**	**216**	**430**	**1,894**
Grand Total, Employment					**3,429**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	11.1	0.9	0.5	1.0	13.6
Financial Services	0.0	3.8	10.9	21.5	36.2
Information & Professional Services	19.8	9.4	3.0	5.9	38.2
Leisure & Other Services	5.4	1.7	9.6	19.0	35.7
Manufacturing	117.2	6.9	2.6	5.3	132.1
Natural Resources	0.0	0.0	0.0	0.0	0.1
Transportation & Utilities	0.0	2.3	0.6	1.2	4.1
Wholesale & Retail Trade	14.4	9.9	6.7	13.3	44.3
Government	0.0	1.0	0.8	1.6	3.3
Total	**167.9**	**36.0**	**34.8**	**68.9**	**307.6**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	7.1	0.6	0.3	0.6	8.5
Financial Services	0.0	2.6	7.0	13.8	23.4
Information & Professional Services	12.2	6.1	1.8	3.5	23.6
Leisure & Other Services	3.7	1.2	6.5	12.9	24.3
Manufacturing	39.8	4.8	1.0	2.1	47.7
Natural Resources	0.0	0.0	0.0	0.0	0.0
Transportation & Utilities	0.0	1.2	0.3	0.6	2.2
Wholesale & Retail Trade	9.8	7.0	4.8	9.5	31.0
Government	0.0	0.6	0.4	0.7	1.7
Total	**72.6**	**24.0**	**22.1**	**43.8**	**162.5**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in Fremont **145.7**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	5.1	0.4	0.2	0.4	6.1
Financial Services	0.0	0.8	0.9	1.9	3.7
Information & Professional Services	10.9	5.0	1.3	2.6	19.8
Leisure & Other Services	3.6	0.9	5.6	11.0	21.1
Manufacturing	28.7	3.1	0.4	0.8	33.1
Natural Resources	0.0	0.0	0.0	0.0	0.0
Transportation & Utilities	0.0	1.0	0.3	0.5	1.7
Wholesale & Retail Trade	9.0	3.6	2.7	5.4	20.7
Government	0.0	0.6	0.5	1.1	2.2
Subtotal: T1, ESC, Induced Wages	**57.3**	**15.4**	**11.9**	**23.7**	**108.4**
Grand Total, Labor Income					**254.1**

Source: IHS Markit

The Economic Contribution of Tesla in the Rest of California (FY2017)

Tesla Employees in the Rest of California (RC)	7,240
Spending with RC-based suppliers	$283 million
Wages and equity paid to Tesla employees:	$612 million

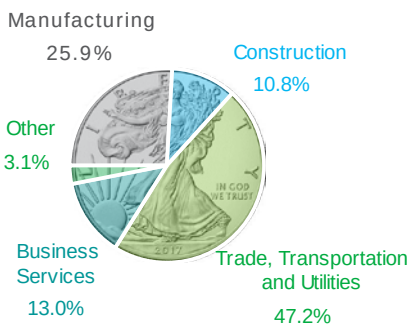
The combination of Tesla's spending $283 million with RC-based suppliers and its employees who live in RC spending much of their $612 million of wages and equity within the county stimulates significant economic contributions in the Rest of California.

How Tesla stimulates contributions to the the Rest of California economy	Employment	Sales Activity (output, $millions)	GDP/GSP (value added, $millions)	Wages ($millions)
Tesla's Operations*	7,240			$612
Local Supply Chain Activity				
Direct (Tier 1) Suppliers	1,740	$283	$157	$97
Extended Supply Chain	1,074	$211	$104	$66
Consumer (Induced) Activity				
Due to Tesla employees' spending	4,920	$798	$457	$252
Due to Suppliers' employees' spending	1,303	$218	$122	$67
Total Contributions	16,277	$1,510	$839	$1,094
This is equivalent to:	0.2% of RC employment	$4.1M sales activity	0.1% of RC GCP	0.2% of RC Wages

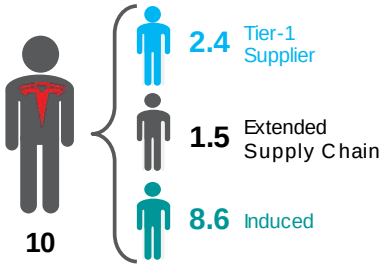
* Tesla employees living in the remaining California counties and their wages and equity

A closer look at how Tesla contributes to the RC economy

How Tesla spends with local Tier 1 Suppliers



10 Tesla Jobs in RC Support an additional 12.5 Jobs



Government Revenues**

State & Local	$101M
Federal	$118M

* * Tier 1, Extended Supply Chain and Induced

Source: *The Economic Contribution of Tesla in California,* April 2018

Tesla's Economic Contribution by Industry and Economic Activity Class: Rest of CA

Employment Contribution (number of workers)

Tesla employees living in the remaining CA counties **7,240**

T1, ESC, Induced Employment	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	227	11	15	53	306
Financial Services	0	110	147	564	821
Information & Professional Services	556	391	187	715	1,848
Leisure & Other Services	77	90	555	2,176	2,898
Manufacturing	286	216	75	229	807
Natural Resources	0	19	32	76	128
Transportation & Utilities	0	120	48	187	355
Wholesale & Retail Trade	594	92	224	849	1,760
Government	0	24	20	70	114
Subtotal: T1, ESC, Induced Emp.	**1,740**	**1,074**	**1,303**	**4,920**	**9,037**
Grand Total, Employment					**16,277**

Sales Activity (Output) Contribution (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	30.6	1.9	3.4	11.0	47.0
Financial Services	0.0	28.7	55.8	214.9	299.4
Information & Professional Services	36.8	53.3	29.8	116.8	236.7
Leisure & Other Services	8.7	7.8	44.8	176.1	237.4
Manufacturing	73.2	78.8	39.8	116.5	308.4
Natural Resources	0.0	3.1	5.5	13.1	21.7
Transportation & Utilities	0.0	17.7	8.2	33.3	59.2
Wholesale & Retail Trade	133.4	16.2	25.7	98.5	273.8
Government	0.0	4.0	4.7	17.4	26.0
Total	**282.8**	**211.5**	**217.6**	**797.6**	**1,509.5**

Value Added Contribution to GDP (millions of $2017)

Industry Sector	Tier-1 Suppliers	Extended Supply Chain	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	Total
Construction	17.2	0.9	1.3	4.4	23.8
Financial Services	0.0	18.9	35.3	136.0	190.2
Information & Professional Services	21.0	32.1	17.6	68.6	139.3
Leisure & Other Services	6.2	5.1	28.4	112.1	151.8
Manufacturing	27.1	24.1	13.9	40.0	105.2
Natural Resources	0.0	1.4	2.5	6.2	10.2
Transportation & Utilities	0.0	9.2	4.2	16.9	30.3
Wholesale & Retail Trade	85.2	10.0	16.8	65.2	177.3
Government	0.0	2.2	1.7	7.0	10.9
Total	**156.8**	**104.0**	**121.8**	**456.5**	**839.1**

Labor Income Contribution (millions of $2017)

Wages and equity paid to Tesla employees living in the remaining CA counties **612.5**

T1, ESC, Induced wages	Tier-1 Suppliers (T1)	Extended Supply Chain (ESC)	Induced by Tesla's Capex and Opex	Induced By Tesla Employees' Wages	
Construction	12.8	0.6	0.9	3.1	17.4
Financial Services	0.0	7.3	10.0	37.8	55.1
Information & Professional Services	19.7	24.8	11.6	45.7	101.7
Leisure & Other Services	5.0	3.7	23.4	92.4	124.5
Manufacturing	19.8	15.0	5.7	16.8	57.3
Natural Resources	0.0	0.9	1.9	4.6	7.5
Transportation & Utilities	0.0	6.5	2.7	10.8	19.9
Wholesale & Retail Trade	39.6	4.7	9.1	35.4	88.8
Government	0.0	2.0	1.5	6.0	9.5
Subtotal: T1, ESC, Induced Wages	**96.8**	**65.5**	**66.8**	**252.4**	**481.6**
Grand Total, Labor Income					**1,094.1**

Source: IHS Markit

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