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A Profile of the Timber Industry in 3 County Study Area

Tulare California, Kern California, and Fresno California

Produced by the
Economic Profile System Analyst (EPSA)

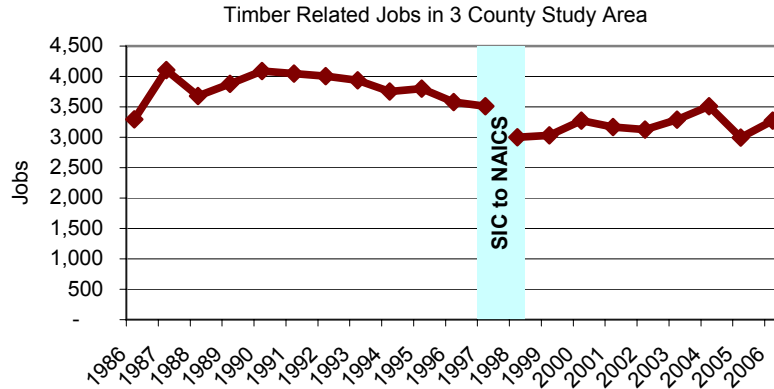
October 10, 2008

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Timber Related Jobs Over Time

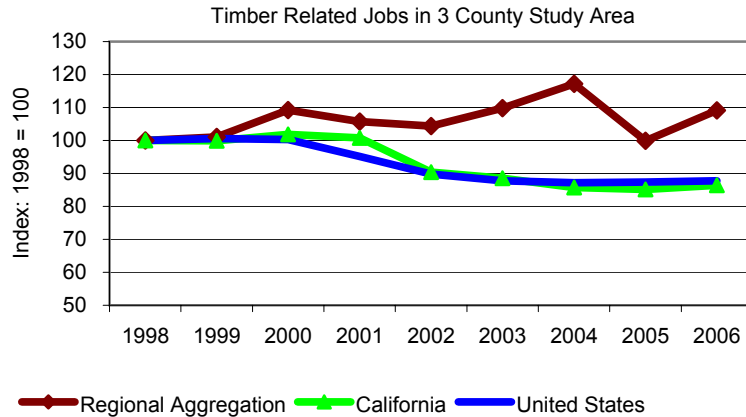
Timber Related Jobs

- In 2006, the 3 county region employed 3,271 people in the timber industry or 0.6% of total jobs.
- By comparison, timber related jobs in the US accounted for 0.9% of the national economy.



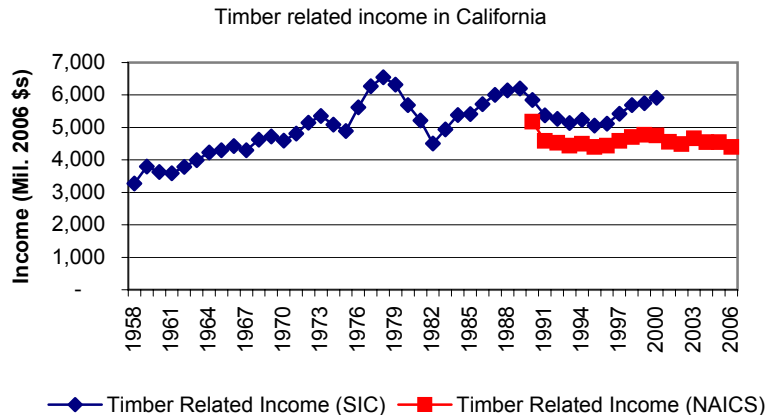
Timber Related Jobs Relative to the State (Indexed)

- Over the last 8 years timber employment in the region has grown by 9.1%, which is faster than the state and faster than the nation.
- Data is indexed by dividing by the value in 1998 times 100. A value of 100 indicates that it has not changed since 1998.



Long-term State Trends in Timber Related Personal Income

- This chart provides a longer term perspective at the state level. Note that unlike the other charts, these data includes the self-employed and includes more recent history.
- The BEA provides data for both SIC and NAICS from 1990 to 2000, allowing us to see the effect of the change in classification methods.



Note: In 1998, the Census changed how it classified sectors to the data before 1998 is not strictly comparable.

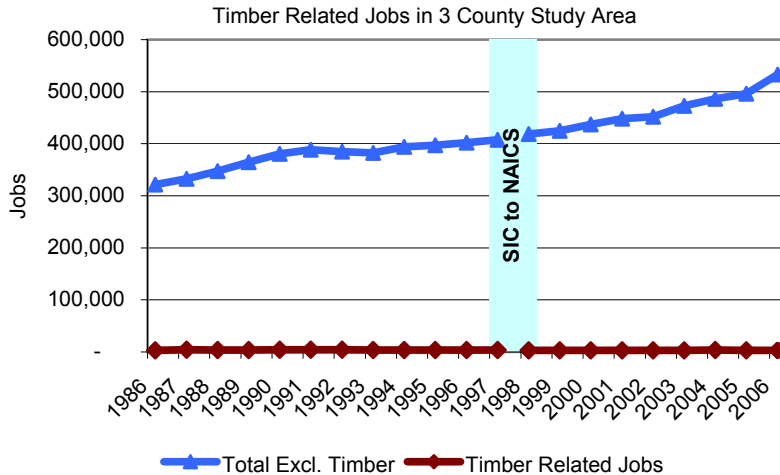
Source: BEA SPI 2007 and CBP 2006.

What portion of the economy is directly related to timber jobs?

Timber Jobs in Relation to Total

It is important to put the scale of these sectors into perspective based on the total size of the economy. This chart is the same as on the previous page, but it includes total employment (not including proprietors and government).

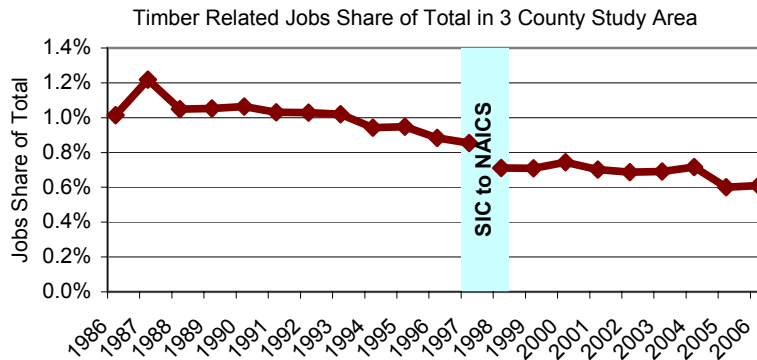
- From 1986 to 1997, when the data used the SIC method, timber related jobs grew by 216 while all private jobs excluding timber grew by 85,873.
- From 1989 to 2006, when the data used the NAICS method, timber related jobs grew by 273 while all private jobs excluding timber grew by 114,528.



Share of Total

These charts track the size of the timber related jobs as a share of the total private employment in the region.

- Since 1986, the share of timber related jobs varied from a low of 0.6% in 2005 to a high of 1.2% in 1987
- In the latest year (2006), timber related jobs accounted for 0.6% of the total private economy.



Note that these charts are using County Business Patterns data that does not include proprietors or government employment.

Sources: BEA REIS 2008, CBP 2008

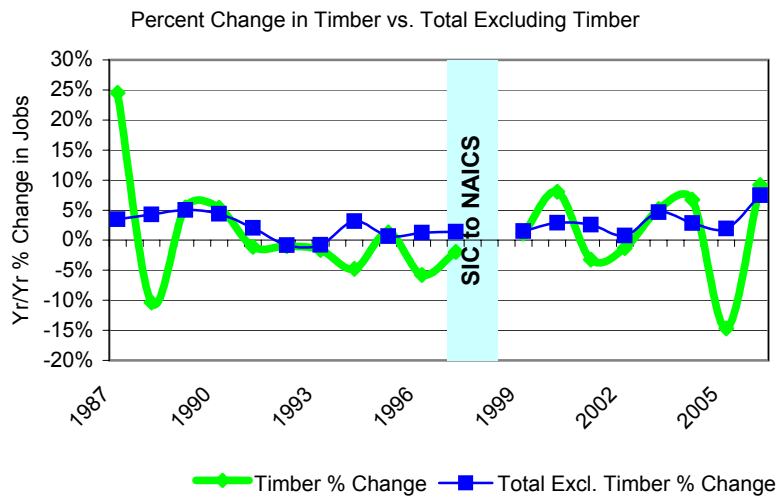
What is the relationship between the timber sector and the rest of the economy?

- From 1986 to 1997, when the data used the SIC method, timber related jobs grew by 6.5% while all private jobs excluding timber grew by 26.7%.
- From 1989 to 2006, when the data used the NAICS method, timber related jobs grew by 9.1% while all private jobs excluding timber grew by 27.4%.



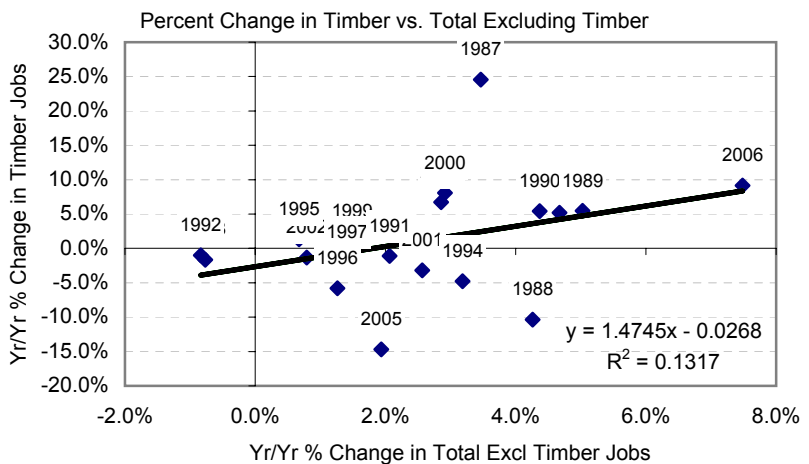
Year to Year Changes

- These two charts explore how year to year changes in timber related jobs relate to changes in all jobs in the private sector.



Scatter Plot

- This scatter charts plots the percent change in timber jobs versus the percent change in total jobs excluding timber. When there is a strong relationship, the dots should cluster along a line (straight or perhaps curved).
- Each observation (dot) is labeled with the year that it represents.
- A linear relationship between timber jobs and total jobs excluding timber is extremely weak ($RSQ = 0.13$).

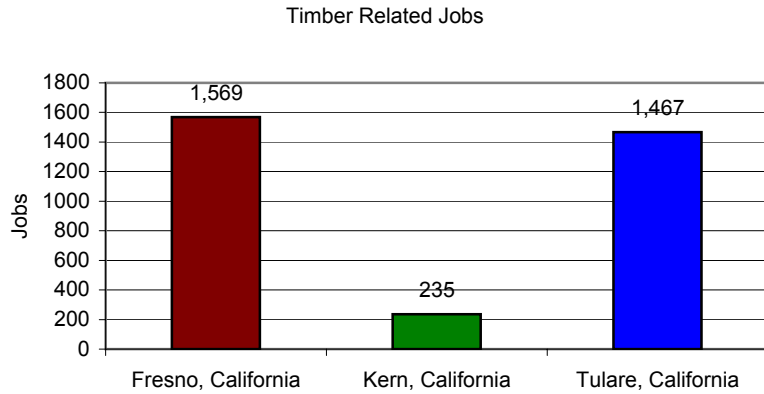


Sources: BEA REIS 2008, CBP 2008.

Where are the timber jobs? Are they spread evenly across the region?

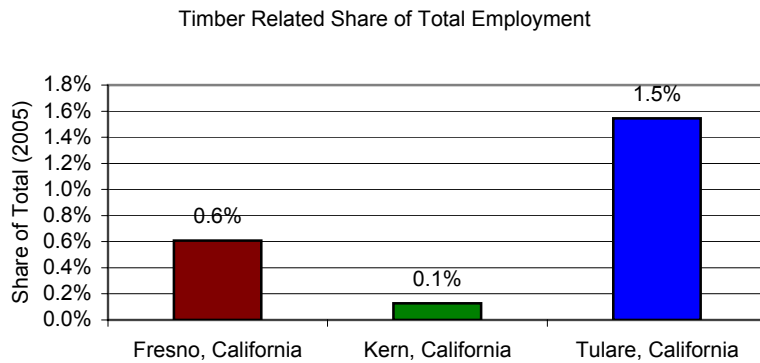
Jobs

- Within the region, Fresno, California employs the most workers in Total Timber Related (1,569). The least are employed in Kern, California (235). Together, the region employs 4.6% of the state's total timber related jobs.



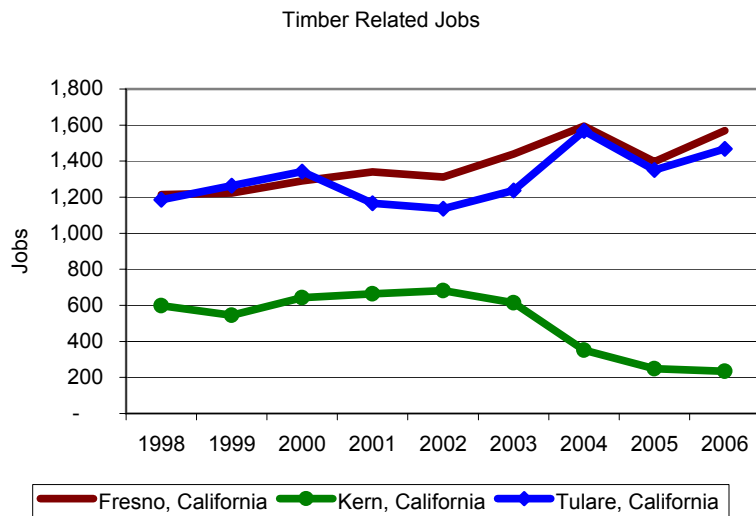
Share of Total

- Within the region, Tulare, California employees the greatest share of workers in Total Timber Related (1.5%). The least are employed in Kern, California (0.1%). Together, the region's share is 0.6%, roughly the same as the state's share of total (0.5%).



Growth Comparisons

- From 1998 to 2006, 2 counties gained Timber jobs (Fresno, California, Tulare, California).
- From 1998 to 2006, 1 county lost Timber jobs (Kern, California).
- From 1998 to 2006, Fresno, California gained the most Timber jobs (355).
- From 1998 to 2006, Kern, California lost the most Timber jobs (-363).



Sources: CBP 2008, with estimates by Headwaters Economics.

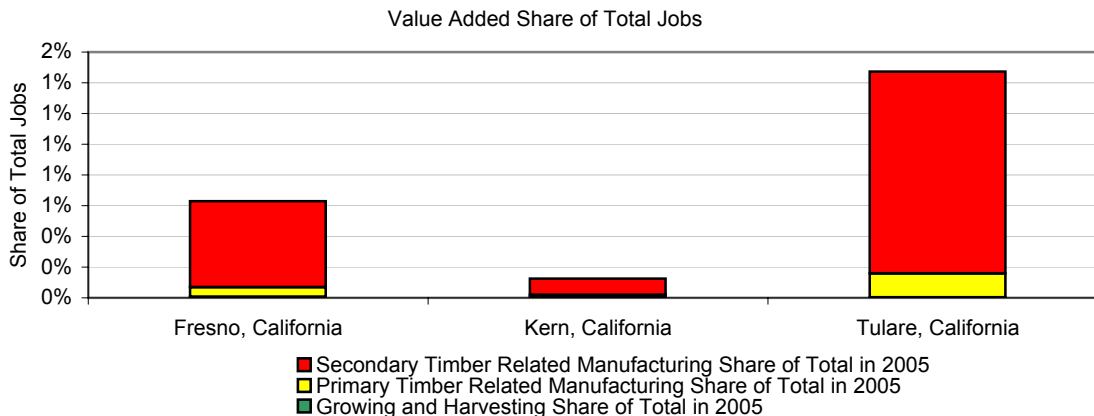
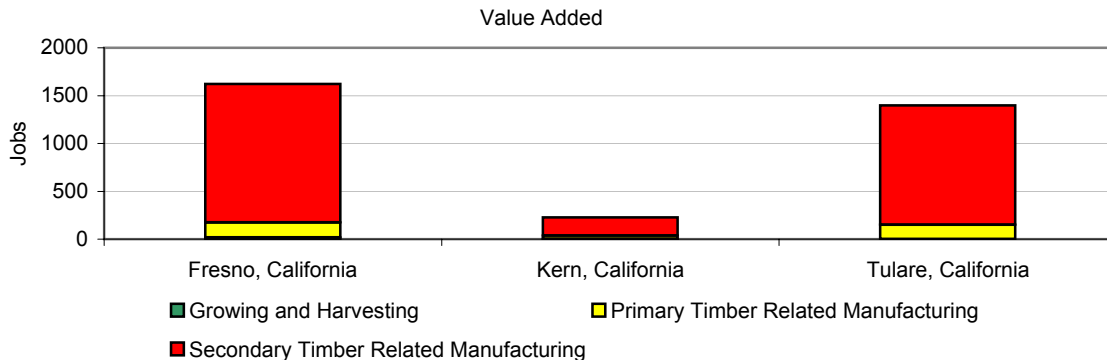
How well is the region capturing the maximum value from the timber?

In order to track how well the region has been able to capture the maximum value from the harvested timber, this report breaks timber related employment into three categories. 1) **"Growing and Harvesting"** are jobs directly related to logging and forestry. These jobs typically are in the forest. 2) **"Primary manufacturing"** includes the manufacturing that generally takes raw logs and does the first stage of processing (e.g. sawmills and paper mills). 3) **"Secondary manufacturing"** includes manufacturing that generally takes the output from the primary manufacturing and produces finished products. These jobs tend to yield the most income per log and are often located far from the source of the logs. For more information about how these sector breakouts are defined, see the detailed table at the end of this profile or the appendix.

Component of Timber Industry	Fresno, California Kern, California		Tulare, California	California	United States
Direct (Growing and Harvesting)	18	5	1	2,740	79,795
Primary Manufacturing	157	32	149	8,345	257,239
Secondary Manufacturing	1,448	191	1,249	59,705	787,494
Total Timber Related Jobs	1,569	235	1,467	70,790	1,124,528
Valued Added Ratios					
(Primary + Secondary / Direct)	90.2	48.6	1,067.2	24.8	13.1
(Primary / Direct)	8.8	6.9	113.9	3.0	3.2

The value added ratio ranges from 48.6 in Kern, California to 1067.2 in Tulare, California. By Comparison, the ratio is 24.8 in California and 13.1 in the United States. Where this ratio is low, there may be opportunities for more value added manufacturing.

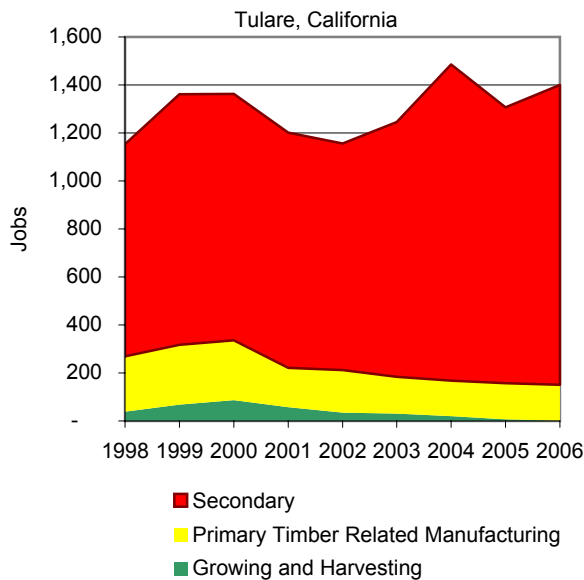
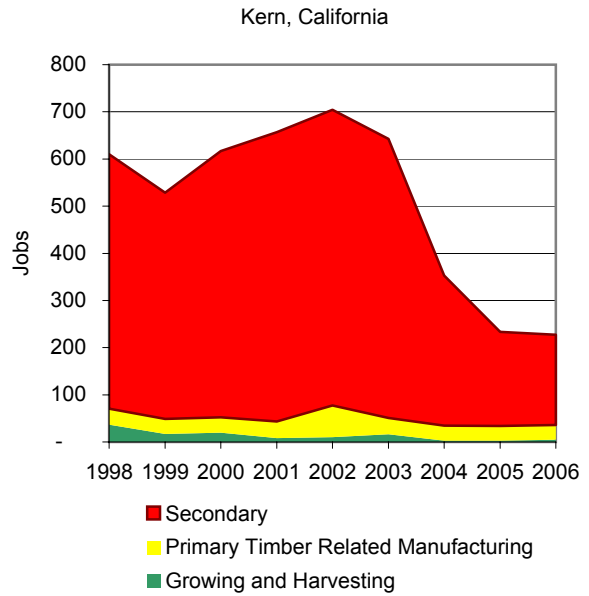
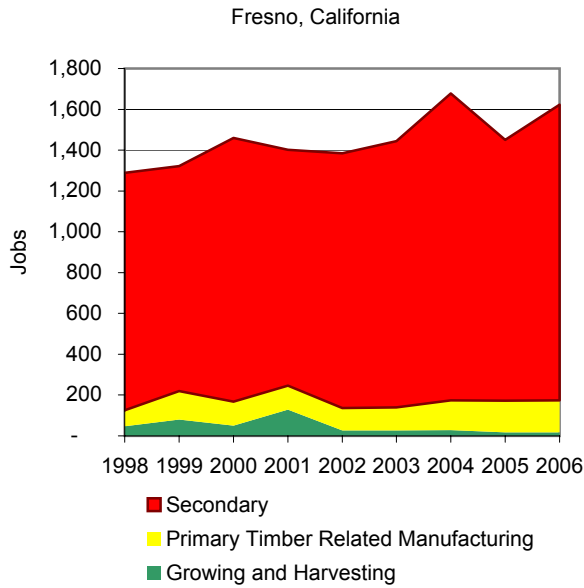
Communities that are maximizing the value of the timber output will have a lot of primary (in yellow) and secondary (in red) employment.



Source: Census County Business Patterns 2006 with Estimates by Headwaters Economics

Timber Jobs by Stage of Processing Over Time

Lines are stacked to sum to total timber related jobs.



Sources: CBP 2008, with estimates by Headwaters Economics.

Tulare, California

Total timber jobs in Tulare, California were high (1.7 standard deviations from the median). 1467 people were employed which accounts for 1.0% of the economy. Nationwide, its share had a rank of 183 which puts it in the top 6.0% of all counties. The largest number of jobs were in secondary timber related employment (1249 jobs or 100.0% of timber related employment in the county).

Kern, California

Total timber jobs in Kern, California were roughly average (0.2 standard deviations from the median). 235 people were employed which accounts for 0.1% of the economy. Nationwide, its share had a rank of 1057 which puts it in the top 34.0% of all counties. The largest number of jobs were in secondary timber related employment (191 jobs or 100.0% of timber related employment in the county).

Fresno, California

Total timber jobs in Fresno, California were high (1.9 standard deviations from the median). 1569 people were employed which accounts for 0.6% of the economy. Nationwide, its share had a rank of 161 which puts it in the top 6.0% of all counties. The largest number of jobs were in secondary timber related employment (1448 jobs or 100.0% of timber related employment in the county).

3 County Study Area

Ranking

This table shows ranking in two ways, one using total jobs and the other using timber jobs as a share of total to illustrate how the counties in the study area are doing relative to the top counties in the nation. Timber jobs are also broken out by stage of processing. Note that the counties with the largest number of timber jobs tend to be due to secondary timber related manufacturing and are often in the nation's largest cities.

	Shares		Jobs				Rank Timber Jobs (in US*)
	Timber Share of Total (in US*)	Rank	Direct Jobs	Primary Jobs	Secondary Jobs	All Timber Jobs	

Study Area

Fresno, California	0.6%	1,748	18	157	1,448	1,569	161
Kern, California	0.1%	2,309	5	32	191	235	1,057
Tulare, California	1.0%	1,200	1	149	1,249	1,467	183

Top Timber Counties - Sorted by Timber Share of Total (in Yellow)

1 Choctaw, Alabama	61.6%	1	206	1,891	-	2,100	92
2 Southampton County, Virginia	57.7%	2	22	2,005	38	2,090	95
3 Covington city, Virginia	46.3%	3	4	1,905	-	1,909	114
4 Webster, Georgia	45.7%	4	15	153	-	169	1,284
5 Amite, Mississippi	44.2%	5	183	127	343	674	462
6 Jefferson, Oregon	44.1%	6	37	2	1,899	1,938	111
7 Lawrence, Mississippi	43.4%	7	83	860	-	945	321
8 Wilcox, Alabama	42.3%	8	220	544	209	999	299
9 Perry, Mississippi	42.1%	9	143	531	136	862	353
10 Atkinson, Georgia	41.2%	10	22	-	544	562	569

Top Timber Counties - Sorted by Timber Jobs (in Yellow)

1 Los Angeles, California	0.4%	1,933	25	946	15,269	16,240	1
2 Maricopa, Arizona	0.7%	1,660	8	80	11,347	11,339	2
3 Cook, Illinois	0.5%	1,880	30	301	10,743	11,074	3
4 Lane, Oregon	5.9%	445	1,450	1,929	4,076	7,471	4
5 Dallas, Texas	0.6%	1,783	15	262	7,285	7,431	5
6 Winnebago, Wisconsin	8.3%	309	7	2,795	4,287	6,964	6
7 Brown, Wisconsin	4.9%	532	-	3,999	2,763	6,738	7
8 Marathon, Wisconsin	9.9%	257	60	1,153	5,117	6,467	8
9 Elkhart, Indiana	4.8%	542	-	206	6,147	6,369	9
10 Cowlitz, Washington	19.3%	83	731	4,700	785	6,300	10

* Ranks are out of 3,138 counties in the United States.

Sources: CBP 2008, with estimates by Headwaters Economics.

County Business Patterns exclude proprietors and government.

How significant is this omission?

Most of the data in this report relies on County Business Patterns which does not include proprietors (the self employed) or government employment. This page attempts to estimate the extent of the omission. Looking at the number of jobs, excluding proprietors will yield lower numbers but some sectors rely on proprietors more than others. The effect that the inclusion of proprietors has on jobs as a share of total are more complicated. At the US level, the share of proprietors who are in the timber sector is lower than the share of employees (wage earners) who are in the timber sector. As a result, including the proprietors lowers shares a little.

Also note that county business patterns data excludes government employment so our share of total calculations are of total private employment, which tends to make the shares a little higher than if we used a data source that included government employment.

Proprietors

NAICS Sector	Fresno, California	Kern, California	Tulare, California	California	United States
Forestry and Logging	28	18	18	1,811	53,827
Support Activities for Forestry	16	5	9	833	13,085
Wood Product Manufacturing	30	28	-	2,007	26,109
Paper Manufacturing	3	4	#N/A	186	1,653
Timber Related Subtotal	77	55	27	4,837	94,674
All Sectors	42,537	40,124	18,120	2,645,260	20,768,600
Timber Share of Total	0.2%	0.1%	0.1%	0.2%	0.5%

Employees (Not Counting Proprietors)

Timber Related Jobs	1,569	235	1,467	70,790	1,124,528
All Jobs	257,975	183,412	94,949	13,834,300	119,917,000
Timber Share of Total	0.6%	0.1%	1.5%	0.5%	0.9%

Proprietors plus Employees

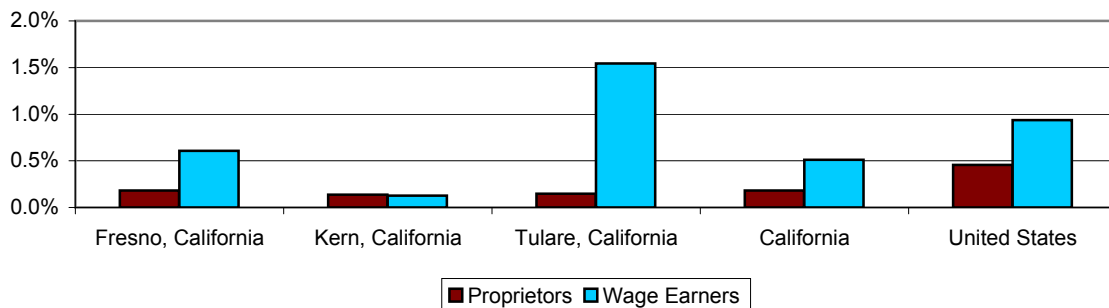
Timber Related Jobs	1,646	290	1,494	75,627	1,219,202
All Jobs	300,512	223,536	113,069	16,479,560	140,685,600
Timber Share of Total	0.5%	0.1%	1.3%	0.5%	0.9%

Difference in Share of Total

Is the omission of proprietors by using County Business Patterns data significant?

Difference (Both Share - CBP Share)	-0.1%	0.0%	-0.2%	-0.1%	-0.1%
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Comparing Proprietors to Wage Earners (Timber Share of Total)



Sources: Employees are from CBP 2008, with estimates by Headwaters Economics and Proprietors are from "NonEmployer Statistics" from the U.S. Bureau of the Census.

Which sectors is the region specializing in?

Comparing each sector's share of total in the region to its share in the US shows which sectors the region is specializing in.

Specializing In (Greatest Positive Difference between the Region's Share vs. the US)		United States		3 County Aggregation			
NAICS	Sector	Jobs	Share	Jobs	Share	Share / US Share	Difference in Share vs. US
							Sorted By
11----	Forestry, Fishing, Hunting, & Ag. Support **	165,661	0.14%	7,427	1.38%	10.0	1.25%
32221/	Paperboard Container Mfg.	174,302	0.15%	1,210 *	0.23%	1.6	0.08%
322211	Corrugated & Solid Fiber Box Mfg.	115,231	0.10%	887 *	0.17%	1.7	0.07%
32192/	Wood Container & Pallet Mfg.	55,019	0.05%	535 *	0.10%	2.2	0.05%
321920	Wood Container & Pallet Mfg.	55,019	0.05%	535 *	0.10%	2.2	0.05%
321214	Truss Mfg.	51,270	0.04%	414 *	0.08%	1.8	0.03%
322215	Nonfolding Sanitary Food Container Mfg.	11,404	0.01%	149 *	0.03%	2.9	0.02%
322233	Stationery, Tablet, & Related Prod. Mfg.	4,209	0.00%	69 *	0.01%	3.7	0.01%
337129	Wood TV, Radio, & Sew. M. Cabinet Mfg.	1,847	0.00%	27 *	0.00%	3.2	0.00%

Sources: Employees are from CBP 2008, with estimates by Headwaters Economics.

NAICS Sector	United States			California			3 County Aggregation			
	Jobs	Share		Jobs	Share	Shr /	Jobs	Share	Shr /	Difference in
----- Total (All Sectors)	119,917,000	100.00%		13,834,300	100.00%	1.0	536,336	100.0%	1.0	0.00%
11---- Forestry, Fishing, Hunting, & Ag. Support **	165,661	0.14%		23,820	0.17%	1.2	7,427	1.4%	10.0	1.25%
Growing and Harvesting										
113/// Forestry & Logging	66,304	0.06%		1,899	0.01%	0.2	20 *	0.0%	0.1	-0.05%
1131// Timber Tract Operations	2,806	0.00%		180	0.00%	0.6	- *	0.0%	-	0.00%
11311/ Timber Tract Operations	2,806	0.00%		180	0.00%	0.6	- *	0.0%	-	0.00%
113110 Timber Tract Operations	2,806	0.00%		180	0.00%	0.6	- *	0.0%	-	0.00%
1132// Forest Nurseries & Gathering of For. Prod.	2,098	0.00%		74	0.00%	0.3	1 *	0.0%	0.1	0.00%
11321/ Forest Nurseries & Gathering of For. Prod.	2,098	0.00%		74	0.00%	0.3	1 *	0.0%	0.1	0.00%
113210 Forest Nurseries & Gathering of For. Prod.	2,098	0.00%		74	0.00%	0.3	1 *	0.0%	0.1	0.00%
1133// Logging	61,400	0.05%		1,645	0.01%	0.2	18 *	0.0%	0.1	-0.05%
11331/ Logging	61,400	0.05%		1,645	0.01%	0.2	18 *	0.0%	0.1	-0.05%
113310 Logging	61,400	0.05%		1,645	0.01%	0.2	18 *	0.0%	0.1	-0.05%
1153// Support Activities for Forestry	13,491	0.01%		841	0.01%	0.5	4 *	0.0%	0.1	-0.01%
11531/ Support Activities for Forestry	13,491	0.01%		841	0.01%	0.5	4 *	0.0%	0.1	-0.01%
115310 Support Activities for Forestry	13,491	0.01%		841	0.01%	0.5	4 *	0.0%	0.1	-0.01%
Growing and Harvesting Subtotal	79,795	0.07%		2,740	0.02%	0.3	24	0.0%	0.1	-0.06%
321/// Wood Prod. Mfg. (Part in Primary, part in Second.)	576,506	0.48%		38,643	0.28%	0.6	1,754 *	0.3%	0.7	-0.15%
Primary Timber Related Manufacturing										
3211// Sawmills & Wood Preservation	118,483	0.10%		5,598	0.04%	0.4	191 *	0.0%	0.4	-0.06%
32111/ Sawmills & Wood Preservation	118,483	0.10%		5,598	0.04%	0.4	191 *	0.0%	0.4	-0.06%
321113 Sawmills	104,666	0.09%		5,193	0.04%	0.4	157 *	0.0%	0.3	-0.06%
321114 Wood Preservation	13,817	0.01%		405	0.00%	0.3	35 *	0.0%	0.6	0.00%
322/// Paper Mfg.	441,430	0.37%		26,703	0.19%	0.5	1,465 *	0.3%	0.7	-0.10%
3221// Pulp, Paper, & Paperboard Mills	138,756	0.12%		2,747	0.02%	0.2	147 *	0.0%	0.2	-0.09%
32211/ Pulp Mills	7,394	0.01%		149 C	0.00%	0.2	-	0.0%	-	-0.01%
322110 Pulp Mills	7,394	0.01%		149 C	0.00%	0.2	-	0.0%	-	-0.01%
32212/ Paper Mills	93,662	0.08%		1,388	0.01%	0.1	76 *	0.0%	0.2	-0.06%
322121 Paper (except Newsprint) Mills	88,141	0.07%		1,261 G	0.01%	0.1	71 *	0.0%	0.2	-0.06%
322122 Newsprint Mills	5,521	0.00%		71 C	0.00%	0.1	-	0.0%	-	0.00%
32213/ Paperboard Mills	37,700	0.03%		1,230 G	0.01%	0.3	71 *	0.0%	0.4	-0.02%
322130 Paperboard Mills	37,700	0.03%		1,230 G	0.01%	0.3	71 *	0.0%	0.4	-0.02%
Primary Timber Related Manufacturing Subtotal	257,239	0.21%		8,345	0.06%	0.3	338	0.1%	0.3	-0.15%
Secondary Timber Related Manufacturing										
3212// Veneer, Plywood, & Engin. Wood Prod. Mfg.	124,472	0.10%		7,055	0.05%	0.5	437 *	0.1%	0.8	-0.02%
32121/ Veneer, Plywood, & Engin. Wood Prod. Mfg.	124,472	0.10%		7,055	0.05%	0.5	437 *	0.1%	0.8	-0.02%
321211 Hardwood Veneer & Plywood Mfg.	18,891	0.02%		516	0.00%	0.2	21 *	0.0%	0.2	-0.01%
321212 Softwood Veneer & Plywood Mfg.	23,622	0.02%		648	0.00%	0.2	-	0.0%	-	-0.02%
321213 Engin. Wood Member (except Truss) Mfg.	8,499	0.01%		497	0.00%	0.5	-	0.0%	-	-0.01%
321214 Truss Mfg.	51,270	0.04%		4,520	0.03%	0.8	414 *	0.1%	1.8	0.03%
321219 Reconstituted Wood Prod. Mfg.	22,190	0.02%		874	0.01%	0.3	-	0.0%	-	-0.02%
3219// Other Wood Prod. Mfg.	333,551	0.28%		25,990	0.19%	0.7	1,114 *	0.2%	0.7	-0.07%
32191/ Millwork	164,938	0.14%		12,916	0.09%	0.7	176 *	0.0%	0.2	-0.10%
321911 Wood Window & Door Mfg.	85,323	0.07%		6,834	0.05%	0.7	114 *	0.0%	0.3	-0.05%
321912 Cut Stock, Resawing Lumber, & Planing	31,656	0.03%		2,064	0.01%	0.6	14 *	0.0%	0.1	-0.02%
321918 Other Millwork (including Flooring)	47,959	0.04%		4,018	0.03%	0.7	25 *	0.0%	0.1	-0.04%

Continued on next page. Not included in Timber Total.

NAICS Sector	United States		California			3 County Aggregation			
	Jobs	Share	Jobs	Share	Shr /	Jobs	Share	Shr /	Difference in
Secondary Timber Related Manufacturing (Continued)									
32192/ Wood Container & Pallet Mfg.	55,019	0.05%	4,724	0.03%	0.7	535 *	0.1%	2.2	0.05%
321920 Wood Container & Pallet Mfg.	55,019	0.05%	4,724	0.03%	0.7	535 *	0.1%	2.2	0.05%
32199/ All Other Wood Prod. Mfg.	113,594	0.09%	8,350	0.06%	0.6	401 *	0.1%	0.8	-0.02%
321991 Manufactured Home (Mobile Home) Mfg.	49,443	0.04%	4,421	0.03%	0.8	200 *	0.0%	0.9	0.00%
321992 Prefabricated Wood Building Mfg.	28,176	0.02%	1,380	0.01%	0.4	60 *	0.0%	0.5	-0.01%
321999 All Other Miscellaneous Wood Prod. Mfg.	35,975	0.03%	2,549	0.02%	0.6	90 *	0.0%	0.6	-0.01%
3222// Converted Paper Prod. Mfg.	302,674	0.25%	23,956	0.17%	0.7	1,308 *	0.2%	1.0	-0.01%
32221/ Paperboard Container Mfg.	174,302	0.15%	16,044	0.12%	0.8	1,210 *	0.2%	1.6	0.08%
322211 Corrugated & Solid Fiber Box Mfg.	115,231	0.10%	12,635	0.09%	1.0	887 *	0.2%	1.7	0.07%
322212 Folding Paperboard Box Mfg.	35,209	0.03%	2,247	0.02%	0.6	137 *	0.0%	0.9	0.00%
322213 Setup Paperboard Box Mfg.	4,131	0.00%	121	0.00%	0.3	-	0.0%	-	0.00%
322214 Fiber Can, Tube, Drum, & Similar Prod. Mfg.	8,327	0.01%	410	0.00%	0.4	7 *	0.0%	0.2	-0.01%
322215 Nonfolding Sanitary Food Container Mfg.	11,404	0.01%	537	0.00%	0.4	149 *	0.0%	2.9	0.02%
32222/ Paper Bag & Coated & Treated Paper Mfg.	58,768	0.05%	3,047	0.02%	0.4	19 *	0.0%	0.1	-0.05%
322221 Coated & Lamin. Pack. Paper & Plastics Film Mfg.	4,699	0.00%	364	0.00%	0.7	13	0.0%	0.6	0.00%
322222 Coated & Laminated Paper Mfg.	32,956	0.03%	1,599	0.01%	0.4	7 *	0.0%	0.0	-0.03%
322223 Plastics, Foil, & Coated Paper Bag Mfg.	2,943	0.00%	392	0.00%	1.2	-	0.0%	-	0.00%
322224 Uncoated Paper & Multiwall Bag Mfg.	12,366	0.01%	458	0.00%	0.3	-	0.0%	-	-0.01%
322225 Laminated Alum. Foil Mfg. for Flexible Packaging	3,498	0.00%	138 C	0.00%	0.3	-	0.0%	-	0.00%
322226 Surface-Coated Paperboard Mfg.	2,306	0.00%	82 B	0.00%	0.3	-	0.0%	-	0.00%
32223/ Stationery Prod. Mfg.	32,473	0.03%	2,531	0.02%	0.7	65 *	0.0%	0.4	-0.02%
322231 Die-Cut Paper & Paperboard Office Supplies	9,545	0.01%	644	0.00%	0.6	-	0.0%	-	-0.01%
322232 Envelope Mfg.	18,719	0.02%	1,503	0.01%	0.7	-	0.0%	-	-0.02%
322233 Stationery, Tablet, & Related Prod. Mfg.	4,209	0.00%	384	0.00%	0.8	69 *	0.0%	3.7	0.01%
32229/ Other Converted Paper Prod. Mfg.	37,131	0.03%	2,334	0.02%	0.5	79 *	0.0%	0.5	-0.02%
322291 Sanitary Paper Prod. Mfg.	17,372	0.01%	303	0.00%	0.2	-	0.0%	-	-0.01%
322299 All Other Converted Paper Prod. Mfg.	19,759	0.02%	2,031	0.01%	0.9	77 *	0.0%	0.9	0.00%
325191 Gum & Wood Chemical Mfg.	2,057	0.00%	15 A	0.00%	0.1	-	0.0%	-	0.00%
337129 Wood TV, Radio, & Sew. M. Cabinet Mfg.	1,847	0.00%	246	0.00%	1.2	27 *	0.0%	3.2	0.00%
337211 Wood Office Furniture Mfg.	22,893	0.02%	2,443	0.02%	0.9	2 *	0.0%	0.0	-0.02%
Secondary Timber Related Manufacturing Subtotal	787,494	0.66%	59,705	0.43%	0.7	2,888	0.5%	0.8	-0.12%
Total Timber Related	1,124,528	0.94%	70,790	0.51%	0.5	3,271	0.6%	0.7	-0.33%
Value Added Ratios									
Primary Timber Mfg. Jobs Per Harvester	3.2		3.0			14.3			
Timber Mfg. Jobs Per Harvester	13.1		24.8			136.1			
Data Suppression Flag Ranges									
A 0-19	H 2,500-4,999		Shaded green when share of total exceeds that for the US by over 20%, red when by less than -20%. * Estimated data. Source did not disclose data to protect confidentiality of individual businesses. Source: Census County Business Patterns 2006 with Estimates by Headwaters Economics						
B 20-99	I 5,000-9,999								
C 100-249	J 10,000-24,999								
E 250-499	K 25,000-49,999								
F 500-999	L 50,000-99,999								
G 1000-2499 M 100,000 or More									

		United States		California			3 County Aggregation			
NAICS Sector		Jobs	Share	Jobs	Share	Shr /	Jobs	Share	Shr /	Difference in
Specializing In (Greatest Positive Difference between the Region's Share vs. the US)										
11----	Forestry, Fishing, Hunting, & Ag. Support **	165,661	0.14%	23,820	0.17%	1.2	7,427	1.4%	10.0	1.25%
32221/	Paperboard Container Mfg.	174,302	0.15%	16,044	0.12%	0.8	1,210 *	0.2%	1.6	0.08%
322211	Corrugated & Solid Fiber Box Mfg.	115,231	0.10%	12,635	0.09%	1.0	887 *	0.2%	1.7	0.07%
32192/	Wood Container & Pallet Mfg.	55,019	0.05%	4,724	0.03%	0.7	535 *	0.1%	2.2	0.05%
321920	Wood Container & Pallet Mfg.	55,019	0.05%	4,724	0.03%	0.7	535 *	0.1%	2.2	0.05%
321214	Truss Mfg.	51,270	0.04%	4,520	0.03%	0.8	414 *	0.1%	1.8	0.03%
322215	Nonfolding Sanitary Food Container Mfg.	11,404	0.01%	537	0.00%	0.4	149 *	0.0%	2.9	0.02%
322233	Stationery, Tablet, & Related Prod. Mfg.	4,209	0.00%	384	0.00%	0.8	69 *	0.0%	3.7	0.01%
337129	Wood TV, Radio, & Sew. M. Cabinet Mfg.	1,847	0.00%	246	0.00%	1.2	27 *	0.0%	3.2	0.00%
-----	Total (All Sectors)	119,917,000	100.00%	13,834,300	100.00%	1.0	536,336	100.0%	1.0	0.00%
#N/A	#N/A	#N/A #	#N/A	#N/A #	#N/A	#N/A	#N/A #	#N/A	#N/A	#N/A
1132//	Forest Nurseries & Gathering of For. Prod.	2,098	0.00%	74	0.00%	0.3	1 *	0.0%	0.1	0.00%
11321/	Forest Nurseries & Gathering of For. Prod.	2,098	0.00%	74	0.00%	0.3	1 *	0.0%	0.1	0.00%
113210	Forest Nurseries & Gathering of For. Prod.	2,098	0.00%	74	0.00%	0.3	1 *	0.0%	0.1	0.00%
322221	Coated & Lamin. Pack. Paper & Plastics Film Mfg.	4,699	0.00%	364	0.00%	0.7	13	0.0%	0.6	0.00%
325191	Gum & Wood Chemical Mfg.	2,057	0.00%	15 A	0.00%	0.1	-	0.0%	-	0.00%
322226	Surface-Coated Paperboard Mfg.	2,306	0.00%	82 B	0.00%	0.3	-	0.0%	-	0.00%
322299	All Other Converted Paper Prod. Mfg.	19,759	0.02%	2,031	0.01%	0.9	77 *	0.0%	0.9	0.00%
1131//	Timber Tract Operations	2,806	0.00%	180	0.00%	0.6	- *	0.0%	-	0.00%
11311/	Timber Tract Operations	2,806	0.00%	180	0.00%	0.6	- *	0.0%	-	0.00%
113110	Timber Tract Operations	2,806	0.00%	180	0.00%	0.6	- *	0.0%	-	0.00%
322223	Plastics, Foil, & Coated Paper Bag Mfg.	2,943	0.00%	392	0.00%	1.2	-	0.0%	-	0.00%
322225	Laminated Alum. Foil Mfg. for Flexible Packaging	3,498	0.00%	138 C	0.00%	0.3	-	0.0%	-	0.00%
322213	Setup Paperboard Box Mfg.	4,131	0.00%	121	0.00%	0.3	-	0.0%	-	0.00%
322212	Folding Paperboard Box Mfg.	35,209	0.03%	2,247	0.02%	0.6	137 *	0.0%	0.9	0.00%
Lacking In (Greatest Negative Difference between the Region's Share vs. the US)										
3211//	Wood Prod. Mfg. (Part in Primary, part in Second.)	576,506	0.48%	38,643	0.28%	0.6	1,754 *	0.3%	0.7	-0.15%
32191/	Millwork	164,938	0.14%	12,916	0.09%	0.7	176 *	0.0%	0.2	-0.10%
3221//	Paper Mfg.	441,430	0.37%	26,703	0.19%	0.5	1,465 *	0.3%	0.7	-0.10%
3221//	Pulp, Paper, & Paperboard Mills	138,756	0.12%	2,747	0.02%	0.2	147 *	0.0%	0.2	-0.09%
3219//	Other Wood Prod. Mfg.	333,551	0.28%	25,990	0.19%	0.7	1,114 *	0.2%	0.7	-0.07%
32212/	Paper Mills	93,662	0.08%	1,388	0.01%	0.1	76 *	0.0%	0.2	-0.06%
32111/	Sawmills & Wood Preservation	118,483	0.10%	5,598	0.04%	0.4	191 *	0.0%	0.4	-0.06%
3211//	Sawmills & Wood Preservation	118,483	0.10%	5,598	0.04%	0.4	191 *	0.0%	0.4	-0.06%
322121	Paper (except Newsprint) Mills	88,141	0.07%	1,261 G	0.01%	0.1	71 *	0.0%	0.2	-0.06%
321113	Sawmills	104,666	0.09%	5,193	0.04%	0.4	157 *	0.0%	0.3	-0.06%
1131//	Forestry & Logging	66,304	0.06%	1,899	0.01%	0.2	20 *	0.0%	0.1	-0.05%
321911	Wood Window & Door Mfg.	85,323	0.07%	6,834	0.05%	0.7	114 *	0.0%	0.3	-0.05%
113310	Logging	61,400	0.05%	1,645	0.01%	0.2	18 *	0.0%	0.1	-0.05%
11331/	Logging	61,400	0.05%	1,645	0.01%	0.2	18 *	0.0%	0.1	-0.05%
1133//	Logging	61,400	0.05%	1,645	0.01%	0.2	18 *	0.0%	0.1	-0.05%
32222/	Paper Bag & Coated & Treated Paper Mfg.	58,768	0.05%	3,047	0.02%	0.4	19 *	0.0%	0.1	-0.05%

Shaded green when share of total exceeds that for the US by over 20%, red when by less than -20%.

* Estimated data. Source did not disclose data to protect confidentiality of individual businesses.

Source: Census County Business Patterns 2006 with Estimates by Headwaters Economics

NAICS Sector	Fresno, California			Kern, California			Tulare, California		
	Jobs	Share	Shr /	Jobs	Share	Shr /	Jobs	Share	Shr /
----- Total (All Sectors)	#####	100.0%	1.0	#####	100.0%	1.0	94,949	100.0%	1.0
11---- Forestry, Fishing, Hunting, & Ag. Support **	2,831	1.1%	7.9	3,073	1.7%	12.1	1,523	1.6%	11.6
Growing and Harvesting									
113// Forestry & Logging	16 B	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
1131// Timber Tract Operations	-	0.0%	-	-	0.0%	-	- A	0.0%	-
11311/ Timber Tract Operations	-	0.0%	-	-	0.0%	-	- A	0.0%	-
113110 Timber Tract Operations	-	0.0%	-	-	0.0%	-	- A	0.0%	-
1132// Forest Nurseries & Gathering of For. Prod.	1 A	0.0%	0.3	-	0.0%	-	-	0.0%	-
11321/ Forest Nurseries & Gathering of For. Prod.	1 A	0.0%	0.3	-	0.0%	-	-	0.0%	-
113210 Forest Nurseries & Gathering of For. Prod.	1 A	0.0%	0.3	-	0.0%	-	-	0.0%	-
1133// Logging	15	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
11331/ Logging	15	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
113310 Logging	15	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
1153// Support Activities for Forestry	1 A	0.0%	0.0	1 A	0.0%	0.1	1 A	0.0%	0.1
11531/ Support Activities for Forestry	1 A	0.0%	0.0	1 A	0.0%	0.1	1 A	0.0%	0.1
115310 Support Activities for Forestry	1 A	0.0%	0.0	1 A	0.0%	0.1	1 A	0.0%	0.1
Growing and Harvesting Subtotal	18	0.0%	0.1	5	0.0%	0.0	1	0.0%	0.0
321/// Wood Prod. Mfg. (Part in Primary, part in Second.)	807	0.3%	0.7	131 C	0.1%	0.1	816	0.9%	1.8
Primary Timber Related Manufacturing									
3211// Sawmills & Wood Preservation	12 A	0.0%	0.0	32 B	0.0%	0.2	148 C	0.2%	1.6
32111/ Sawmills & Wood Preservation	12 A	0.0%	0.0	32 B	0.0%	0.2	148 C	0.2%	1.6
321113 Sawmills	9 A	0.0%	0.0	-	0.0%	-	148 C	0.2%	1.8
321114 Wood Preservation	2	0.0%	0.1	34 B	0.0%	1.6	-	0.0%	-
322/// Paper Mfg.	742	0.3%	0.8	73 B	0.0%	0.1	650	0.7%	1.9
3221// Pulp, Paper, & Paperboard Mills	145 C	0.1%	0.5	-	0.0%	-	2 A	0.0%	0.0
32211/ Pulp Mills	-	0.0%	-	-	0.0%	-	-	0.0%	-
322110 Pulp Mills	-	0.0%	-	-	0.0%	-	-	0.0%	-
32212/ Paper Mills	74 B	0.0%	0.4	-	0.0%	-	2 A	0.0%	0.0
322121 Paper (except Newsprint) Mills	69 B	0.0%	0.4	-	0.0%	-	2 A	0.0%	0.0
322122 Newsprint Mills	-	0.0%	-	-	0.0%	-	-	0.0%	-
32213/ Paperboard Mills	71 B	0.0%	0.9	-	0.0%	-	-	0.0%	-
322130 Paperboard Mills	71 B	0.0%	0.9	-	0.0%	-	-	0.0%	-
Primary Timber Related Manufacturing Subtotal	157	0.1%	0.3	32	0.0%	0.1	149	0.2%	0.7
Secondary Timber Related Manufacturing									
3212// Veneer, Plywood, & Engin. Wood Prod. Mfg.	180 C	0.1%	0.7	7 A	0.0%	0.0	250	0.3%	2.5
32121/ Veneer, Plywood, & Engin. Wood Prod. Mfg.	180 C	0.1%	0.7	7 A	0.0%	0.0	250	0.3%	2.5
321211 Hardwood Veneer & Plywood Mfg.	14 A	0.0%	0.3	-	0.0%	-	7 A	0.0%	0.5
321212 Softwood Veneer & Plywood Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
321213 Engin. Wood Member (except Truss) Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
321214 Truss Mfg.	157 C	0.1%	1.4	7 A	0.0%	0.1	250 C	0.3%	6.2
321219 Reconstituted Wood Prod. Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
3219// Other Wood Prod. Mfg.	615	0.2%	0.9	85 C	0.0%	0.2	414 E	0.4%	1.6
32191/ Millwork	125 C	0.0%	0.4	20 B	0.0%	0.1	30 B	0.0%	0.2
321911 Wood Window & Door Mfg.	100	0.0%	0.5	-	0.0%	-	14 A	0.0%	0.2
321912 Cut Stock, Resawing Lumber, & Planing	-	0.0%	-	14 A	0.0%	0.3	-	0.0%	-
321918 Other Millwork (including Flooring)	2 B	0.0%	0.0	7 A	0.0%	0.1	17 B	0.0%	0.4

Continued on next page. Not included in Timber Total.

NAICS Sector	Fresno, California			Kern, California			Tulare, California		
	Jobs	Share	Shr /	Jobs	Share	Shr /	Jobs	Share	Shr /
Secondary Timber Related Manufacturing (Continued)									
32192/ Wood Container & Pallet Mfg.	371	0.1%	3.1	34 A	0.0%	0.4	130	0.1%	3.0
321920 Wood Container & Pallet Mfg.	371	0.1%	3.1	34 A	0.0%	0.4	130	0.1%	3.0
32199/ All Other Wood Prod. Mfg.	119 C	0.0%	0.5	32 C	0.0%	0.2	250 C	0.3%	2.8
321991 Manufactured Home (Mobile Home) Mfg.	4 A	0.0%	0.0	2	0.0%	0.0	194 C	0.2%	5.0
321992 Prefabricated Wood Building Mfg.	30 B	0.0%	0.5	30 C	0.0%	0.7	-	0.0%	-
321999 All Other Miscellaneous Wood Prod. Mfg.	76 B	0.0%	1.0	-	0.0%	-	14 B	0.0%	0.5
3222// Converted Paper Prod. Mfg.	651 F	0.3%	1.0	73 B	0.0%	0.2	585 F	0.6%	2.4
32221/ Paperboard Container Mfg.	657 F	0.3%	1.8	74 B	0.0%	0.3	479	0.5%	3.5
322211 Corrugated & Solid Fiber Box Mfg.	582 F	0.2%	2.3	2	0.0%	0.0	304 C	0.3%	3.3
322212 Folding Paperboard Box Mfg.	68 C	0.0%	0.9	68 B	0.0%	1.3	-	0.0%	-
322213 Setup Paperboard Box Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322214 Fiber Can, Tube, Drum, & Similar Prod. Mfg.	7 A	0.0%	0.4	-	0.0%	-	-	0.0%	-
322215 Nonfolding Sanitary Food Container Mfg.	-	0.0%	-	-	0.0%	-	149 C	0.2%	16.5
32222/ Paper Bag & Coated & Treated Paper Mfg.	-	0.0%	-	-	0.0%	-	19 A	0.0%	0.4
322221 Coated & Lamin. Pack. Paper & Plastics Film Mfg.	-	0.0%	-	-	0.0%	-	13	0.0%	3.4
322222 Coated & Laminated Paper Mfg.	-	0.0%	-	-	0.0%	-	7 A	0.0%	0.3
322223 Plastics, Foil, & Coated Paper Bag Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322224 Uncoated Paper & Multiwall Bag Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322225 Laminated Alum. Foil Mfg. for Flexible Packaging	-	0.0%	-	-	0.0%	-	-	0.0%	-
322226 Surface-Coated Paperboard Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
32223/ Stationery Prod. Mfg.	-	0.0%	-	-	0.0%	-	65 C	0.1%	2.5
322231 Die-Cut Paper & Paperboard Office Supplies	-	0.0%	-	-	0.0%	-	-	0.0%	-
322232 Envelope Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322233 Stationery, Tablet, & Related Prod. Mfg.	-	0.0%	-	-	0.0%	-	69 C	0.1%	20.7
32229/ Other Converted Paper Prod. Mfg.	7 A	0.0%	0.1	-	0.0%	-	73 B	0.1%	2.5
322291 Sanitary Paper Prod. Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322299 All Other Converted Paper Prod. Mfg.	7 A	0.0%	0.2	-	0.0%	-	71 B	0.1%	4.5
325191 Gum & Wood Chemical Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
337129 Wood TV, Radio, & Sew. M. Cabinet Mfg.	-	0.0%	-	27 B	0.0%	9.4	- A	0.0%	-
337211 Wood Office Furniture Mfg.	2 B	0.0%	0.0	-	0.0%	-	-	0.0%	-
Secondary Timber Related Manufacturing Subtotal	1,448	0.6%	0.9	191	0.1%	0.2	1,249	1.3%	2.0
Total Timber Related	1,569	0.6%	0.6	235	0.1%	0.1	1,467	1.5%	1.6
Value Added Ratios									
Primary Timber Mfg. Jobs Per Harvester	8.8			6.9			113.9		
Timber Mfg. Jobs Per Harvester	90.2			48.6			1,067.2		
Data Suppression Flag Ranges									
A 0-19 H 2,500-4,999									
B 20-99 I 5,000-9,999									
C 100-249 J 10,000-24,999									
E 250-499 K 25,000-49,999									
F 500-999 L 50,000-99,999									
G 1000-2499 M 100,000 or More									

		Fresno, California			Kern, California			Tulare, California		
NAICS	Sector	Jobs	Share	Shr /	Jobs	Share	Shr /	Jobs	Share	Shr /
Specializing In (Greatest Positive Difference between the Regions)										
11----	Forestry, Fishing, Hunting, & Ag. Support **	2,831	1.1%	7.9	3,073	1.7%	12.1	1,523	1.6%	11.6
32221/	Paperboard Container Mfg.	657 F	0.3%	1.8	74 B	0.0%	0.3	479	0.5%	3.5
322211	Corrugated & Solid Fiber Box Mfg.	582 F	0.2%	2.3	2	0.0%	0.0	304 C	0.3%	3.3
32192/	Wood Container & Pallet Mfg.	371	0.1%	3.1	34 A	0.0%	0.4	130	0.1%	3.0
321920	Wood Container & Pallet Mfg.	371	0.1%	3.1	34 A	0.0%	0.4	130	0.1%	3.0
321214	Truss Mfg.	157 C	0.1%	1.4	7 A	0.0%	0.1	250 C	0.3%	6.2
322215	Nonfolding Sanitary Food Container Mfg.	-	0.0%	-	-	0.0%	-	149 C	0.2%	16.5
322233	Stationery, Tablet, & Related Prod. Mfg.	-	0.0%	-	-	0.0%	-	69 C	0.1%	20.7
337129	Wood TV, Radio, & Sew. M. Cabinet Mfg.	-	0.0%	-	27 B	0.0%	9.4	- A	0.0%	-
-----	Total (All Sectors)	#####	100.0%	1.0	#####	100.0%	1.0	94,949	100.0%	1.0
#N/A	#N/A	#N/A #	#N/A	#N/A	#N/A #	#N/A	#N/A	#N/A #	#N/A	#N/A
1132//	Forest Nurseries & Gathering of For. Prod.	1 A	0.0%	0.3	-	0.0%	-	-	0.0%	-
11321/	Forest Nurseries & Gathering of For. Prod.	1 A	0.0%	0.3	-	0.0%	-	-	0.0%	-
113210	Forest Nurseries & Gathering of For. Prod.	1 A	0.0%	0.3	-	0.0%	-	-	0.0%	-
322221	Coated & Lamin. Pack. Paper & Plastics Film Mfg.	-	0.0%	-	-	0.0%	-	13	0.0%	3.4
325191	Gum & Wood Chemical Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322226	Surface-Coated Paperboard Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322299	All Other Converted Paper Prod. Mfg.	7 A	0.0%	0.2	-	0.0%	-	71 B	0.1%	4.5
1131//	Timber Tract Operations	-	0.0%	-	-	0.0%	-	- A	0.0%	-
11311/	Timber Tract Operations	-	0.0%	-	-	0.0%	-	- A	0.0%	-
113110	Timber Tract Operations	-	0.0%	-	-	0.0%	-	- A	0.0%	-
322223	Plastics, Foil, & Coated Paper Bag Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322225	Laminated Alum. Foil Mfg. for Flexible Packaging	-	0.0%	-	-	0.0%	-	-	0.0%	-
322213	Setup Paperboard Box Mfg.	-	0.0%	-	-	0.0%	-	-	0.0%	-
322212	Folding Paperboard Box Mfg.	68 C	0.0%	0.9	68 B	0.0%	1.3	-	0.0%	-
Lacking In (Greatest Negative Difference between the Regions)										
321///	Wood Prod. Mfg. (Part in Primary, part in Second.)	807	0.3%	0.7	131 C	0.1%	0.1	816	0.9%	1.8
32191/	Millwork	125 C	0.0%	0.4	20 B	0.0%	0.1	30 B	0.0%	0.2
322///	Paper Mfg.	742	0.3%	0.8	73 B	0.0%	0.1	650	0.7%	1.9
3221//	Pulp, Paper, & Paperboard Mills	145 C	0.1%	0.5	-	0.0%	-	2 A	0.0%	0.0
3219//	Other Wood Prod. Mfg.	615	0.2%	0.9	85 C	0.0%	0.2	414 E	0.4%	1.6
32212/	Paper Mills	74 B	0.0%	0.4	-	0.0%	-	2 A	0.0%	0.0
32111/	Sawmills & Wood Preservation	12 A	0.0%	0.0	32 B	0.0%	0.2	148 C	0.2%	1.6
3211//	Sawmills & Wood Preservation	12 A	0.0%	0.0	32 B	0.0%	0.2	148 C	0.2%	1.6
322121	Paper (except Newsprint) Mills	69 B	0.0%	0.4	-	0.0%	-	2 A	0.0%	0.0
321113	Sawmills	9 A	0.0%	0.0	-	0.0%	-	148 C	0.2%	1.8
113///	Forestry & Logging	16 B	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
321911	Wood Window & Door Mfg.	100	0.0%	0.5	-	0.0%	-	14 A	0.0%	0.2
113310	Logging	15	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
11331/	Logging	15	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
1133//	Logging	15	0.0%	0.1	3 A	0.0%	0.0	- A	0.0%	-
32222/	Paper Bag & Coated & Treated Paper Mfg.	-	0.0%	-	-	0.0%	-	19 A	0.0%	0.4