



# The Contribution of Working Forests to the Economy of the State of Washington, by County, 2014



**FOREST2MARKET**

Global Wood & Fiber Supply Chain Experts

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*Our commitment to deliver the most accurate, credible and quantitative market insight to our customers has never wavered. Our customers make better-informed decisions and thrive because they have credible and consistent measures of their performance compared to the broader market.*





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## OVERVIEW

In Washington State, there are 23 million acres of forest, of which nearly 11 million acres (or 47%) are working forests. According to the Washington Forest Protection Association (WFPA), the vast majority of timber harvested in Washington (70%) in 2014 originated from privately-owned timberlands. By contrast, 19 percent was harvested from state and county lands, 8 percent from tribal lands and the remaining 3 percent from federal lands.

When timber is harvested, it becomes an economic engine that drives activity, including employment, wages and revenue for both state and local governments. The WFPA engaged Forest2Market to quantify the economic impacts of these working forests that benefit the state of Washington and its citizens. This report demonstrates our findings for 2014, the most current year of data available.

## DATA SOURCES

Forest2Market pulled the necessary raw data from both state and federal sources. These were:

1. 2014 County Business Patterns Data by county and NAICS code, U.S. Census Bureau (CBP)
2. 2014 State Quarterly Census of Employment and Wages by county and NAICS code, Bureau of Labor Statistics (QCEW)
3. 2014 U.S. Import and Export Merchandise trade statistics by port and commodity, U.S. Census Bureau
4. Regional Input-Output Modeling System (RIMS II), Bureau of Economic Analysis
5. 2014 Public and Private Harvest Statistics, Washington State Department of Revenue
6. 2014 Gross Business Income, Washington State Department of Revenue
7. 2014 Valuation of Privately-Owned Designated Forestland, Washington State Department of Revenue
8. Comparison of Average Levy Rates by Year Due, Washington State Department of Revenue

These sources are referred to by number in the methodology section.

## METHODOLOGY

### Step One:

Forest2Market reviewed the publicly available data on both the state and federal level to understand the most recent year that complete data sets had been released. Calendar year 2014 was chosen as the study year for the update.

### Step Two:

Forest2Market included all 39 counties in the state of Washington in the study.

### Step Three:

Forest2Market and the WFPA determined the *North American Industry Classification System (NAICS) codes* that were used to quantify the economic contribution of working forests. NAICS codes are the standard used by Federal agencies to classify business establishments for the purpose of collecting, analyzing and publishing statistical data related to the US business economy. Data for the following NAICS codes were aggregated:



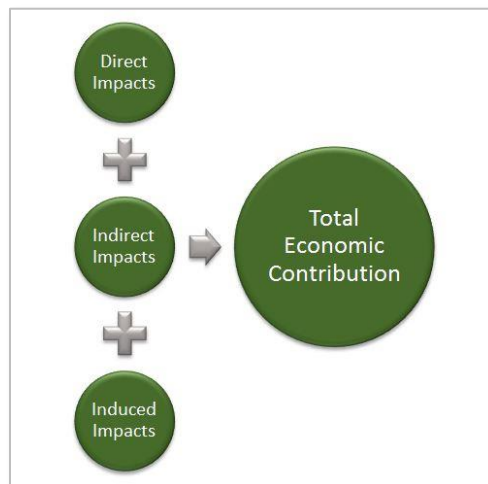
NAICS Code	Meaning
113	Forestry and logging
1153	Support activities for forestry
321	Wood product manufacturing
322	Paper manufacturing
42331	Lumber, plywood, millwork, and wood panel merchant wholesalers
4241	Paper and paper product merchant wholesalers
33711	Wood kitchen cabinet and countertop manufacturing
337122	Nonupholstered wood household furniture manufacturing
337211	Wood office furniture manufacturing
337212	Custom architectural woodwork and millwork manufacturing
4883	Support activities for water transportation
483111	Deep sea freight transportation

#### Step Four: Data Collection

Employment and wage data for all industries except the port-related industries of 4883 and 483111 are either actual or estimated totals sourced from the CBP (Source 1) or the QCEW (Source 2). In order to determine the amount of port-related jobs and wages associated with forestry, Forest2Market used U.S. Import and Export Merchandise trade statistics published by the U.S. Census Bureau (Source 3) as a starting point. First, Forest2Market determined a list of forestry-related commodities to incorporate in the analysis. Second, Forest2Market determined the vessel weight of the forestry-related commodities compared to the total vessel weight of all commodities shipped through each port. Third, Forest2Market applied this proportion to the number of jobs and wages in industry 4883 and 483111 for each county containing a port to determine the number of port jobs and wages attributable to forestry-related industries.

#### Step Five:

One form of economic activity leads to others. When a person is paid a salary, for instance, he or she spends that salary on a variety of goods and services. That expenditure then supports other jobs. As a result, total economic activity that results from an event (such as a factory opening or closure, or an increase or decrease in activity spurred by government incentives or regulations) includes more than just direct impacts. The following graphic illustrates the three types of impacts that comprise total economic contribution.





*Direct impacts* include wages and spending on goods and services by all entities operating in a single NAICS code. A sawmill, for instance, pays wages to its employees, buys timber from local landowners and pays various types of taxes to state and local governments.

*Indirect impacts* are the production, employment and income changes occurring in other businesses in the community that supply inputs to the industry under consideration. For instance, if the manufacturing facility sourced \$75,000 worth of timber from a local landowner and \$5,000 in office supplies from a local retailer; these expenditures produce additional spending in the community as landowners replant trees and the office supply store stocks the office supplies being used.

*Induced impacts* are the effects of spending by the households in the local economy as the result of direct and indirect effects. The induced effects arise when employees who are working for the manufacturing plant spend their incomes in the community. This in turn sets off a new round of spending, as the employees in the movie theaters, restaurants and grocery stores go out and spend their own wages.

The sum of the direct, indirect and induced activity associated is the *total economic activity* associated with any individual NAICS code.

In order to calculate total economic activity, a multiplier is applied to the direct impact figures. Forest2Market used RIMS II multipliers from the Bureau of Economic Analysis to determine total economic contribution for employment and wages.

In addition, because forestry-related industries that rely on working forests are interrelated, often providing inputs to each other, Forest2Market used the Washington input/output table (2007 Washington Input-Output Table created by William B. Beyers and Dr. Ta-Win Lin) to estimate overcount and ensure that direct jobs in one industry were not counted as indirect jobs in another. Total jobs and wages in this report exclude overcount.



## RESULTS

### By State

The following table shows the statewide results of this study. In 2014, forestry-related industries in Washington directly employed 41,912 people. Total compensation for these jobs was nearly \$2.4 billion.

Washington State, 2014 Economic Impact of Forestry-Related Activities	
Stumpage Sales	\$1,023,131,964
Direct Jobs	41,912
Total Direct, Indirect, and Induced Jobs	105,848
Direct Wages	\$2,366,515,170
Total Direct, Indirect, and Induced Wages	\$5,244,586,540
Total Revenue	\$28,612,695,904
Total Taxes	\$213,580,489

The total direct, indirect and induced impact of forestry-related industries included 105,848 jobs paying over \$5.2 billion in wages. Annual sales in forestry-related industries totaled \$28.6 billion, and these industries paid over \$213 million in taxes in 2014. On a statewide basis, approximately 13 direct jobs and approximately \$728 thousand in direct wages are maintained or created for each million board feet (MMBF) of timber harvested; in total, 33 direct, indirect and induced jobs and approximately \$1.6 million in direct, indirect and induced wages are maintained or created for each MMBF harvested.<sup>1</sup> Finally, each MMBF of harvest is associated with approximately \$65.7 thousand of taxes paid.<sup>2</sup>

The table below shows the breakdown of jobs and wages by industry sector. In 2014, there were over 13,900 direct wood product manufacturing jobs, nearly 9,700 direct paper manufacturing jobs and over 4,900 wood furniture manufacturing jobs in the state. Forestry, logging and support activities contributed over 5,700 direct jobs, and wholesaling contributed over 6,100 direct jobs. Approximately 1,500 port jobs are related to the forest products industry.

Industry Sector	Direct Jobs	Direct, Indirect, Induced Jobs	Direct Wages	Direct, Indirect, Induced Wages
Forestry, Logging and Support Activity	5,718	9,709	\$315,779,107	\$571,446,962
Wood Product Manufacturing	13,942	38,166	\$680,616,603	\$1,846,668,344
Paper Manufacturing	9,699	28,421	\$666,079,453	\$1,421,208,353
Wood Furniture Manufacturing	4,906	8,718	\$197,736,509	\$365,126,573
Paper and Lumber Wholesaling	6,123	14,092	\$390,363,851	\$686,729,222
Forestry-Related Port Activity	1,524	6,742	\$115,939,646	\$353,407,087
<b>Total</b>	<b>41,912</b>	<b>105,848</b>	<b>\$2,366,515,170</b>	<b>\$5,244,586,540</b>

<sup>1</sup> Refer to the Appendix.

<sup>2</sup> Ibid.





## Employment and Wages by County

This table shows a breakout of direct and total employment and wages in 2014 by county.

County	Direct, Indirect, Induced Jobs		Direct, Indirect, Induced Wages	
	Direct Jobs	Induced Jobs	Direct Wages	Induced Wages
Adams	23	47	\$1,135,486	\$2,225,600
Asotin	75	132	\$2,860,006	\$5,202,758
Benton	249	481	\$12,970,116	\$21,796,119
Chelan	362	611	\$20,592,985	\$29,412,646
Clallam	1,131	2,699	\$63,451,415	\$140,356,221
Clark	2,596	7,615	\$147,619,413	\$348,416,552
Columbia	97	217	\$6,424,533	\$11,547,880
Cowlitz	4,302	13,325	\$319,590,869	\$785,159,692
Douglas	60	99	\$3,022,901	\$4,650,138
Ferry	244	616	\$10,065,844	\$25,911,667
Franklin	152	325	\$9,237,975	\$16,479,538
Garfield	10	17	\$377,833	\$649,117
Grant	143	263	\$8,380,082	\$13,344,360
Grays Harbor	1,778	4,410	\$101,460,283	\$238,420,590
Island	200	493	\$12,428,500	\$24,544,282
Jefferson	489	1,314	\$28,671,011	\$59,147,280
King	6,865	18,137	\$462,750,066	\$974,323,735
Kitsap	340	694	\$14,418,963	\$28,543,685
Kittitas	219	449	\$7,263,451	\$15,528,311
Klickitat	610	1,660	\$28,829,322	\$74,627,671
Lewis	2,444	5,708	\$126,106,838	\$303,396,632
Lincoln	23	66	\$1,135,486	\$3,126,530
Mason	1,263	3,136	\$67,009,265	\$162,697,763
Okanogan	362	656	\$14,851,076	\$25,501,472
Pacific	435	990	\$22,389,980	\$48,391,645
Pend Oreille	310	773	\$16,942,733	\$34,684,565
Pierce	5,071	13,205	\$281,207,350	\$630,350,218
San Juan	60	140	\$2,614,044	\$5,769,440
Skagit	992	2,464	\$50,277,282	\$126,302,612
Skamania	323	947	\$17,253,432	\$44,703,778
Snohomish	2,578	5,996	\$126,606,464	\$279,507,922
Spokane	2,194	4,751	\$84,629,049	\$158,909,393
Stevens	766	1,932	\$37,435,490	\$94,755,758
Thurston	999	2,185	\$53,910,110	\$106,277,741
Wahkiakum	174	358	\$7,893,188	\$16,847,311
Walla Walla	888	1,996	\$54,576,022	\$94,768,205
Whatcom	1,643	4,066	\$69,746,052	\$168,552,097
Whitman	46	112	\$2,388,452	\$5,287,652
Yakima	1,396	2,763	\$67,991,799	\$114,467,962
<b>Total</b>	<b>41,912</b>	<b>105,848</b>	<b>\$2,366,515,170</b>	<b>\$5,244,586,540</b>





## Revenue by County

*Annual revenue* is the Gross Business Income for each NAICS code as reported by the Washington Department of Revenue. This table breaks out estimated revenue generated by forestry-related industries in 2014 by county. Annual revenue data are allocated to each county using the ratio of the county's direct wages to the state total wages.

County	Annual Revenues
Adams	\$13,728,758
Asotin	\$34,579,324
Benton	\$156,817,073
Chelan	\$248,982,481
Clallam	\$767,168,562
Clark	\$1,784,813,985
Columbia	\$77,676,752
Cowlitz	\$3,864,059,895
Douglas	\$36,548,819
Ferry	\$121,702,549
Franklin	\$111,693,077
Garfield	\$4,568,247
Grant	\$101,320,598
Grays Harbor	\$1,226,720,316
Island	\$150,268,591
Jefferson	\$346,651,031
King	\$5,594,946,991
Kitsap	\$174,334,575
Kittitas	\$87,819,805
Klickitat	\$348,565,117
Lewis	\$1,524,713,070
Lincoln	\$13,728,758
Mason	\$810,185,271
Okanogan	\$179,559,098
Pacific	\$270,709,315
Pend Oreille	\$204,848,583
Pierce	\$3,399,978,374
San Juan	\$31,605,484
Skagit	\$607,884,787
Skamania	\$208,605,125
Snohomish	\$1,530,753,870
Spokane	\$1,023,219,825
Stevens	\$452,619,242
Thurston	\$651,808,030
Wahkiakum	\$95,433,738
Walla Walla	\$659,859,333
Whatcom	\$843,274,791
Whitman	\$28,877,931
Yakima	\$822,064,733
<b>Total</b>	<b>\$28,612,695,904</b>



## Taxes by County

This table breaks out, by county, the value of stumpage sales, stumpage taxes (i.e. forest harvest excise taxes that are paid in lieu of property taxes) and property taxes paid by forest landowners in 2014.

County	Stumpage Sales	Stumpage Taxes	Property Taxes	Total Actual Taxes
Adams	\$0	\$0	\$0	\$0
Asotin	\$607,041	\$30,352	\$0	\$30,352
Benton	\$0	\$0	\$0	\$0
Chelan	\$4,879,524	\$243,976	\$18,986	\$262,962
Clallam	\$68,121,607	\$3,406,080	\$323,989	\$3,730,069
Clark	\$38,262,834	\$1,913,140	\$132,123	\$2,045,263
Columbia	\$112,110	\$5,606	\$9,526	\$15,132
Cowlitz	\$83,934,080	\$4,196,703	\$759,137	\$4,955,840
Douglas	\$0	\$0	\$372	\$372
Ferry	\$5,806,428	\$290,321	\$116,651	\$406,972
Franklin	\$0	\$0	\$0	\$0
Garfield	\$0	\$0	\$409	\$409
Grant	\$0	\$0	\$0	\$0
Grays Harbor	\$93,026,043	\$4,651,302	\$1,257,231	\$5,908,533
Island	\$2,111,169	\$105,558	\$8,298	\$113,856
Jefferson	\$37,521,955	\$1,876,097	\$165,686	\$2,041,783
King	\$37,784,561	\$1,889,228	\$285,849	\$2,175,077
Kitsap	\$10,239,513	\$511,975	\$64,896	\$576,871
Kittitas	\$1,358,856	\$67,943	\$24,796	\$92,739
Klickitat	\$23,471,187	\$1,173,559	\$131,516	\$1,305,075
Lewis	\$155,439,289	\$7,771,963	\$976,315	\$8,748,277
Lincoln	\$104,165	\$5,208	\$0	\$5,208
Mason	\$44,530,636	\$2,226,531	\$452,936	\$2,679,467
Okanogan	\$3,932,357	\$196,618	\$16,555	\$213,173
Pacific	\$117,215,620	\$5,860,781	\$730,366	\$6,591,147
Pend Oreille	\$15,701,524	\$785,075	\$76,853	\$861,928
Pierce	\$48,519,168	\$2,425,957	\$602,618	\$3,028,576
San Juan	\$266,694	\$13,335	\$7,310	\$20,645
Skagit	\$42,108,082	\$2,105,403	\$268,025	\$2,373,428
Skamania	\$25,129,028	\$1,256,451	\$101,205	\$1,357,656
Snohomish	\$44,440,357	\$2,222,017	\$154,579	\$2,376,596
Spokane	\$6,019,336	\$300,966	\$69,046	\$370,013
Stevens	\$29,581,582	\$1,479,077	\$178,733	\$1,657,810
Thurston	\$34,752,003	\$1,737,600	\$197,549	\$1,935,148
Wahkiakum	\$25,881,867	\$1,294,093	\$146,785	\$1,440,878
Walla Walla	\$0	\$0	\$76	\$76
Whatcom	\$21,041,810	\$1,052,090	\$135,126	\$1,187,216
Whitman	\$0	\$0	\$0	\$0
Yakima	\$1,231,541	\$61,577	\$20,706	\$82,283
<b>Total</b>	<b>\$1,023,131,964</b>	<b>\$51,156,581</b>	<b>\$7,434,250</b>	<b>\$58,590,831</b>



This table breaks out, by county, the other taxes paid to state and county governments as the result of forestry-related activities in 2014. Statewide totals are allocated to each county using the same process as annual revenues.

County	Retail Sales		PUT	Other Fees/ Assessments*	Fire Protection	Total Est. Taxes
	B&O Taxes	Taxes				
Adams	\$33,212	\$34,642	\$684	\$733	\$5,095	\$74,366
Asotin	\$83,653	\$87,255	\$1,722	\$1,846	\$12,833	\$187,310
Benton	\$379,366	\$395,703	\$7,810	\$8,371	\$58,199	\$849,449
Chelan	\$602,328	\$628,268	\$12,400	\$13,291	\$92,405	\$1,348,692
Clallam	\$1,855,903	\$1,935,828	\$38,207	\$40,953	\$284,718	\$4,155,610
Clark	\$4,317,750	\$4,503,694	\$88,890	\$95,276	\$662,396	\$9,668,006
Columbia	\$187,912	\$196,005	\$3,869	\$4,147	\$28,828	\$420,761
Cowlitz	\$9,347,779	\$9,750,339	\$192,443	\$206,269	\$1,434,064	\$20,930,895
Douglas	\$88,417	\$92,225	\$1,820	\$1,951	\$13,564	\$197,978
Ferry	\$294,418	\$307,097	\$6,061	\$6,497	\$45,167	\$659,240
Franklin	\$270,203	\$281,840	\$5,563	\$5,962	\$41,453	\$605,021
Garfield	\$11,051	\$11,527	\$228	\$244	\$1,695	\$24,745
Grant	\$245,111	\$255,666	\$5,046	\$5,409	\$37,603	\$548,835
Grays Harbor	\$2,967,633	\$3,095,433	\$61,095	\$65,484	\$455,271	\$6,644,916
Island	\$363,524	\$379,179	\$7,484	\$8,022	\$55,769	\$813,977
Jefferson	\$838,604	\$874,719	\$17,264	\$18,505	\$128,652	\$1,877,744
King	\$13,535,071	\$14,117,957	\$278,646	\$298,667	\$2,076,447	\$30,306,788
Kitsap	\$421,743	\$439,906	\$8,682	\$9,306	\$64,701	\$944,338
Kittitas	\$212,450	\$221,599	\$4,374	\$4,688	\$32,592	\$475,704
Klickitat	\$843,235	\$879,549	\$17,360	\$18,607	\$129,363	\$1,888,112
Lewis	\$3,688,525	\$3,847,370	\$75,936	\$81,391	\$565,865	\$8,259,087
Lincoln	\$33,212	\$34,642	\$684	\$733	\$5,095	\$74,366
Mason	\$1,959,968	\$2,044,373	\$40,350	\$43,249	\$300,683	\$4,388,623
Okanogan	\$434,382	\$453,089	\$8,943	\$9,585	\$66,640	\$972,638
Pacific	\$654,889	\$683,092	\$13,482	\$14,451	\$100,468	\$1,466,382
Pend Oreille	\$495,561	\$516,903	\$10,202	\$10,935	\$76,025	\$1,109,627
Pierce	\$8,225,091	\$8,579,304	\$169,330	\$181,496	\$1,261,830	\$18,417,051
San Juan	\$76,459	\$79,751	\$1,574	\$1,687	\$11,730	\$171,201
Skagit	\$1,470,570	\$1,533,900	\$30,275	\$32,450	\$225,604	\$3,292,799
Skamania	\$504,649	\$526,382	\$10,389	\$11,136	\$77,419	\$1,129,975
Snohomish	\$3,703,138	\$3,862,613	\$76,237	\$81,714	\$568,107	\$8,291,809
Spokane	\$2,475,332	\$2,581,932	\$50,960	\$54,621	\$379,746	\$5,542,592
Stevens	\$1,094,958	\$1,142,113	\$22,542	\$24,161	\$167,980	\$2,451,754
Thurston	\$1,576,828	\$1,644,734	\$32,462	\$34,794	\$241,905	\$3,530,723
Wahkiakum	\$230,869	\$240,812	\$4,753	\$5,094	\$35,418	\$516,947
Walla Walla	\$1,596,305	\$1,665,050	\$32,863	\$35,224	\$244,893	\$3,574,335
Whatcom	\$2,040,017	\$2,127,870	\$41,998	\$45,015	\$312,964	\$4,567,863
Whitman	\$69,860	\$72,869	\$1,438	\$1,542	\$10,717	\$156,426
Yakima	\$1,988,706	\$2,074,349	\$40,941	\$43,883	\$305,092	\$4,452,972
<b>Total</b>	<b>\$69,218,686</b>	<b>\$72,199,579</b>	<b>\$1,425,005</b>	<b>\$1,527,389</b>	<b>\$10,618,999</b>	<b>\$154,989,658</b>

\*Includes Forest Practices Application Fee, Silviculture Burning Permits, and O/tax (litter, motor vehicle, hazardous substance, etc.).





The total of both actual and estimated taxes paid by industry participants totaled over \$213 million in 2014.

County	Total Actual Taxes	Total Est. Taxes	Total Actual & Est. Taxes
Adams	\$0	\$74,366	\$74,366
Asotin	\$30,352	\$187,310	\$217,662
Benton	\$0	\$849,449	\$849,449
Chelan	\$262,962	\$1,348,692	\$1,611,654
Clallam	\$3,730,069	\$4,155,610	\$7,885,678
Clark	\$2,045,263	\$9,668,006	\$11,713,269
Columbia	\$15,132	\$420,761	\$435,892
Cowlitz	\$4,955,840	\$20,930,895	\$25,886,735
Douglas	\$372	\$197,978	\$198,351
Ferry	\$406,972	\$659,240	\$1,066,212
Franklin	\$0	\$605,021	\$605,021
Garfield	\$409	\$24,745	\$25,154
Grant	\$0	\$548,835	\$548,835
Grays Harbor	\$5,908,533	\$6,644,916	\$12,553,449
Island	\$113,856	\$813,977	\$927,834
Jefferson	\$2,041,783	\$1,877,744	\$3,919,528
King	\$2,175,077	\$30,306,788	\$32,481,865
Kitsap	\$576,871	\$944,338	\$1,521,209
Kittitas	\$92,739	\$475,704	\$568,442
Klickitat	\$1,305,075	\$1,888,112	\$3,193,188
Lewis	\$8,748,277	\$8,259,087	\$17,007,365
Lincoln	\$5,208	\$74,366	\$79,574
Mason	\$2,679,467	\$4,388,623	\$7,068,090
Okanogan	\$213,173	\$972,638	\$1,185,811
Pacific	\$6,591,147	\$1,466,382	\$8,057,529
Pend Oreille	\$861,928	\$1,109,627	\$1,971,555
Pierce	\$3,028,576	\$18,417,051	\$21,445,627
San Juan	\$20,645	\$171,201	\$191,846
Skagit	\$2,373,428	\$3,292,799	\$5,666,227
Skamania	\$1,357,656	\$1,129,975	\$2,487,631
Snohomish	\$2,376,596	\$8,291,809	\$10,668,406
Spokane	\$370,013	\$5,542,592	\$5,912,604
Stevens	\$1,657,810	\$2,451,754	\$4,109,564
Thurston	\$1,935,148	\$3,530,723	\$5,465,871
Wahkiakum	\$1,440,878	\$516,947	\$1,957,825
Walla Walla	\$76	\$3,574,335	\$3,574,411
Whatcom	\$1,187,216	\$4,567,863	\$5,755,079
Whitman	\$0	\$156,426	\$156,426
Yakima	\$82,283	\$4,452,972	\$4,535,255
<b>Total</b>	<b>\$58,590,831</b>	<b>\$154,989,658</b>	<b>\$213,580,489</b>



## APPENDIX: JOBS, WAGES AND TOTAL TAXES PER MMBF HARVESTED

County	Total Harvest (MMBF)	Direct Jobs / MMBF	Direct, Indirect, Induced Jobs / MMBF	Direct Wages / MMBF	Direct, Indirect, Induced Wages / MMBF	Total Taxes / MMBF
Adams	0	*	*	*	*	*
Asotin	3	27	47	\$1,011,675	\$1,840,381	\$76,994
Benton	0	*	*	*	*	*
Chelan	29	12	21	\$709,320	\$1,013,111	\$55,513
Clallam	236	5	11	\$269,392	\$595,901	\$33,480
Clark	132	20	58	\$1,116,240	\$2,634,589	\$88,571
Columbia	1	124	278	\$8,236,581	\$14,804,974	\$558,836
Cowlitz	239	18	56	\$1,336,932	\$3,284,527	\$108,291
Douglas	0	*	*	*	*	*
Ferry	34	7	18	\$300,034	\$772,353	\$31,781
Franklin	0	*	*	*	*	*
Garfield	0	*	*	*	*	*
Grant	0	*	*	*	*	*
Grays Harbor	288	6	15	\$352,018	\$827,203	\$43,554
Island	7	31	75	\$1,902,419	\$3,756,970	\$142,023
Jefferson	137	4	10	\$209,659	\$432,518	\$28,662
King	115	60	158	\$4,031,872	\$8,489,137	\$283,010
Kitsap	27	13	26	\$543,640	\$1,076,186	\$57,354
Kittitas	9	23	48	\$778,588	\$1,664,520	\$60,933
Klickitat	73	8	23	\$396,481	\$1,026,332	\$43,915
Lewis	415	6	14	\$303,632	\$730,499	\$40,949
Lincoln	1	21	61	\$1,056,266	\$2,908,400	\$74,023
Mason	115	11	27	\$580,499	\$1,409,444	\$61,231
Okanogan	26	14	26	\$580,755	\$997,242	\$46,371
Pacific	344	1	3	\$65,063	\$140,621	\$23,414
Pend Oreille	75	4	10	\$225,674	\$461,993	\$26,261
Pierce	141	36	93	\$1,988,891	\$4,458,269	\$151,678
San Juan	2	36	83	\$1,556,906	\$3,436,236	\$114,262
Skagit	125	8	20	\$401,428	\$1,008,436	\$45,241
Skamania	85	4	11	\$203,640	\$527,634	\$29,361
Snohomish	140	18	43	\$904,254	\$1,996,314	\$76,196
Spokane	37	59	128	\$2,288,571	\$4,297,287	\$159,891
Stevens	160	5	12	\$234,673	\$593,998	\$25,762
Thurston	92	11	24	\$585,369	\$1,153,989	\$59,350
Wahkiakum	82	2	4	\$95,827	\$204,535	\$23,769
Walla Walla	0	*	*	*	*	*
Whatcom	69	24	59	\$1,010,871	\$2,442,926	\$83,412
Whitman	0	*	*	*	*	*
Yakima	13	105	209	\$5,131,844	\$8,639,744	\$342,309
<b>Total</b>	<b>3,251</b>	<b>13</b>	<b>33</b>	<b>\$727,993</b>	<b>\$1,613,351</b>	<b>\$65,702</b>



## FOREST2MARKET PROFILE

At Forest2Market, we believe high-quality market information improves business performance, and we are dedicated to providing that quality on a consistent basis. With solid data, industry experience and third-party independence, Forest2Market provides participants in the wood, lumber, paper and bioenergy and biochemicals supply chains with business solutions that support fact-based decision-making and planning.

Forest2Market uses a unique business model:

**Data:** We possess an exclusive, current and proprietary database of delivered wood raw material transactions and the extensive data collection infrastructure necessary to collect millions of market transactions every year.

**Staff:** Our statisticians, forest economists and supply chain experts possess extensive industry knowledge and experience.

**Neutrality:** As a neutral third party, Forest2Market does not buy or sell timberland, timber or wood fiber of any kind; it does not manage timberland or provide credit wraps. Forest2Market is an independent source of wood and fiber supply chain expertise.



## FOREST2MARKET SERVICES

Forest2Market has provided timber market data and solutions to global participants in the forest products industry since 2000. Forest2Market's services include timber and lumber price reports, timber price forecasts, delivered raw material cost benchmarks, economic impact analyses and construction and acquisition due diligence studies. Forest2Market also provides a range of advisement services, including fact-based market analyses to inform policy discussions, education of potential investors and financiers about regulatory regimes and global market outlooks and contract advisement to developers and equity and debt providers.

FOREST2MARKET TIMELINE	Year	Service
	2001	Stumpage Price Database Reports: US South
	2005	Price Forecasts: US South
	2006	Wood Raw Material Benchmarks & Supply Chain Analytics: US South
	2006	Analytics and Advisement Services for Forest Products Companies & Timberland Investors
	2007	Wood Raw Material Benchmarks and Supply Chain Analytics: Western US & Canada
	2008	Analytics and Advisement Services for Bioenergy, Biofuels and Biochemical Producers & Investors
	2009	Southern Yellow Pine Lumber Market Price Report & Benchmarks
	2012	Benchmarks and Supply Chain Analytics: Great Lakes Region of US & Canada
	2013	Benchmarks and Supply Chain Analytics: Eastern US & Canada
	2013	Benchmarks and Supply Chain Analytics: Forest2Market do Brasil
	2016	Benchmarks and Supply Chain Analytics: Scandinavia, Baltic States, Russia & Uruguay

Forest2Market's proprietary database of transactional records and broad industry reach uniquely positions the company within the marketplace, and the financial community has come to recognize the value of these services in providing more reliable results. In this capacity, Forest2Market serves as a valuable knowledge base, as well as a trusted business partner and advisor.





FOREST2MARKET

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