

Oregon's Forest Sector

Board of Forestry

September 4, 2019

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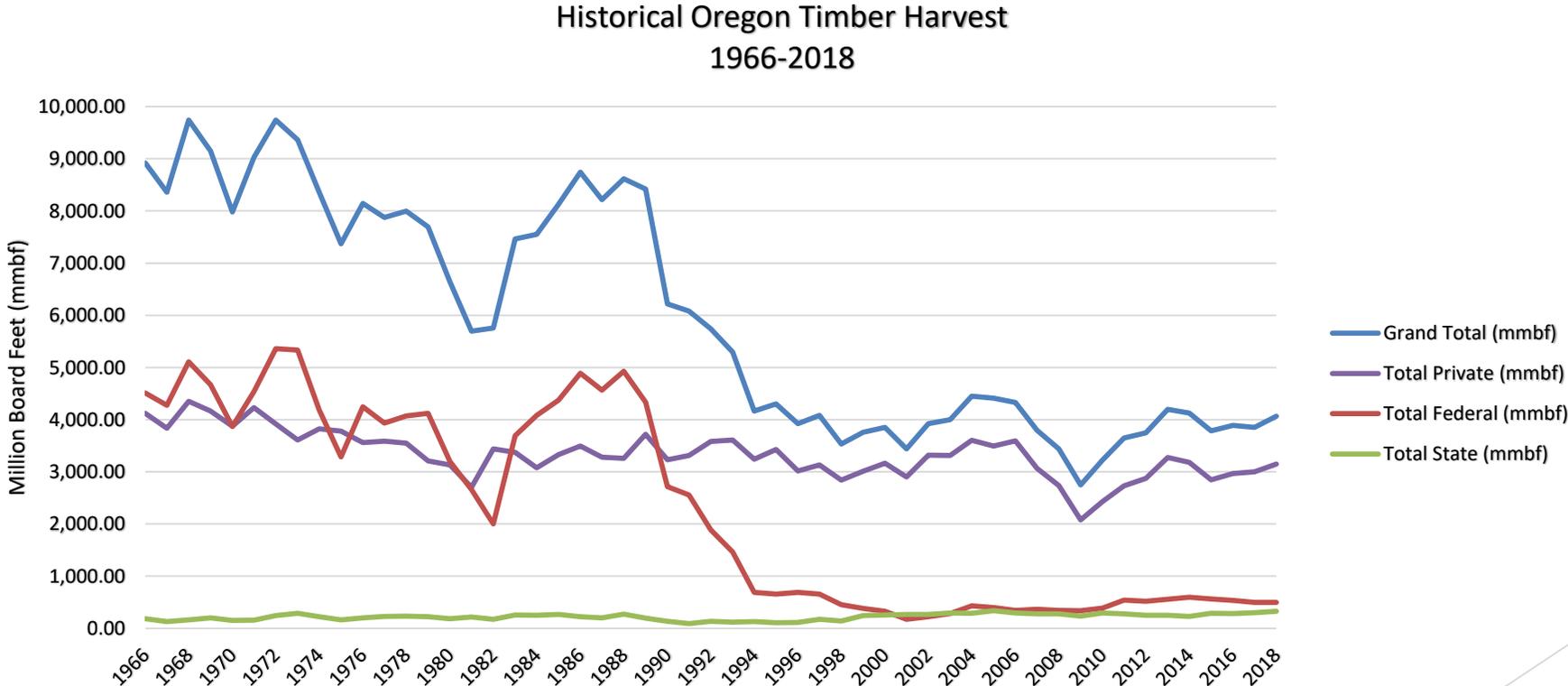
Principal Forest Economist

Overview

- ▶ 2018 Timber Harvest Report
- ▶ Where does this timber end up?
 - ▶ Facilities/Mills
 - ▶ Exports
- ▶ Forest Sector Contributions
 - ▶ Employment
 - ▶ Wages
 - ▶ Revenues to Counties/State

Oregon Timber Harvest

Oregon Timber Harvest (1962-2018)



25 Year Harvest History

For Oregon in Million Board Feet (Scribner Log Scale)

Year	Industry	Other Private	Native American	State	BLM	USFS	Other Public	TOTAL
1994	2,471	773	80	130	92	596	25	4,167
1995	2,736	696	79	109	139	515	30	4,304
1996	2,463	555	71	114	289	401	29	3,922
1997	2,653	480	79	176	136	523	35	4,081
1998	2,470	370	71	141	122	333	25	3,532
1999	2,555	459	68	246	150	233	49	3,759
2000	2,712	455	62	255	83	245	42	3,854
2001	2,624	281	63	268	38	135	30	3,440
2002	2,985	333	71	269	55	166	42	3,922
2003	2,949	364	63	293	78	203	52	4,002
2004	3,032	574	79	291	96	337	42	4,451
2005	2,970	525	61	341	121	332	61	4,411
2006	3,174	422	56	296	131	216	34	4,328
2007	2,830	240	61	276	141	223	29	3,799
2008	2,583	156	58	278	117	206	43	3,441
2009	1,986	93	65	235	147	192	31	2,748
2010	2,205	228	79	297	133	254	32	3,227
2011	2,455	278	52	280	165	374	44	3,649
2012	2,555	318	63	251	148	369	44	3,749
2013	2,762	511	66	252	165	392	50	4,199
2014	2,625	558	57	230	209	387	61	4,126
2015	2,391	454	52	290	193	368	40	3,788
2016	2,459	507	59	284	182	352	44	3,888
2017	2,535	466	9	302	160	335	44	3,851
2018	2,533	615	18	327	158	337	76	4,064

1999 and 2000 Industry and TOTAL were revised on 9/19/01.

All above data derived from ODF annual reports.

BLM Western Oregon volumes adjusted from short log to long log after 1974 by a conversion factor of .81.

Other public includes county, municipal and other government agencies.

Totals may not equal column sums due to rounding.

Timber Harvest History

Timber Harvest remains “stable”

Around 4bbf has been the trend since the NWFP

The only recent downturn was during the recession (2008, 2009, 2010 being the lowest)

We are currently looking at the relative importance of Exports in supporting the Forest Sector during these periods (OSU)

2018 Timber Harvest

Eastern Oregon Harvests

CALENDAR YEAR 2018

VOLUME REMOVED IN 1,000S OF BOARD FEET- SCRIBNER LOG SCALE

County	Industry	Other Private	Native American	State	BLM	USFS	Other Public	TOTAL
BAKER	7032	5205	0	69	0	3697	9	16012
CROOK	53	518	0	0	0	5186	0	5757
DESCHUT	3904	383	0	0	0	32742	0	37029
GILLIAM	0	0	0	0	0	0	0	0
GRANT	16	3251	0	1701	0	27377	9	32345
HARNEY	0	0	0	0	0	4091	0	4091
JEFFERSO	0	0	0	0	0	1430	0	1430
KLAMATH	41765	6015	0	12712	30086	37484	0	128062
LAKE	16961	4677	0	0	0	15484	0	37122
MALHEUR	0	0	0	0	0	0	0	0
MORROW	0	5585	0	0	0	0	0	5585
SHERMAN	0	0	0	0	0	0	0	0
UMATILL	795	5728	656	0	0	5329	269	12777
UNION	27597	11501	0	0	0	3650	0	42748
WALLOW	35722	6730	0	15	0	1692	5	44164
WASCO	1412	4959	0	0	0	443	0	6814
WHEELER	2895	785	0	0	0	3268	0	6948
TOTAL	138152	55337	656	14497	30086	141873	283	380884

Forest industry, Other Private and Other Public harvests were compiled by the Department of Revenue and are subject to revision.

Native American harvests were compiled from five Confederated Indian tribes by ODF.

BLM harvests were compiled by the U.S. Bureau of Land Management.

USFS harvests were compiled by the United States Forest Service.

07/23/2019

Western Oregon Harvests

CALENDAR YEAR 2018

VOLUME REMOVED IN 1,000S OF BOARD FEET- SCRIBNER LOG SCALE

	Industry	Other Private	Native American	State	BLM	USFS	Other Public	TOTAL
BENTON	81480	26256	0	8131	1665	3997	6	121535
CLACKAMAS	68441	77958	0	1960	449	13278	45	162131
CLATSOP	169049	5183	0	56393	0	0	734	231359
COLUMBIA	110742	28648	0	4358	5912	0	6646	156306
COOS	157008	39963	6722	0	14499	13912	21878	253982
CURRY	90415	10054	0	29	3701	8171	6	112376
DOUGLAS	507207	89383	0	917	25696	22582	8246	654031
HOOD RIVER	12366	8600	0	0	0	5403	12679	39048
JACKSON	66367	8043	0	0	10951	13327	1499	100187
JOSEPHINE	8890	9628	0	982	1262	0	12220	32982
LANE	366698	79926	0	10369	34574	60514	3437	555518
LINCOLN	122608	19305	2453	7958	0	27490	11	179825
LINN	244402	35964	0	6096	13592	8812	63	308929
MARION	30398	28047	0	3666	324	5771	0	68206
MULTNOMAH	8892	5270	0	1	0	554	0	14717
POLK	101016	14887	0	0	10531	0	0	126434
TILLAMOOK	79490	6439	2892	58276	140	5611	1179	154027
WASHINGTON	67982	39231	0	15654	3740	0	2201	128808
YAMHILL	101329	27316	5639	21	1004	5459	4901	145669
TOTAL	2394780	560101	17706	174811	128040	194881	75751	3546070

Forest industry, Other Private and Other Public harvests were compiled by the Department of Revenue and are subject to revision.

Native American harvests were compiled from five Confederated Indian tribes by ODF.

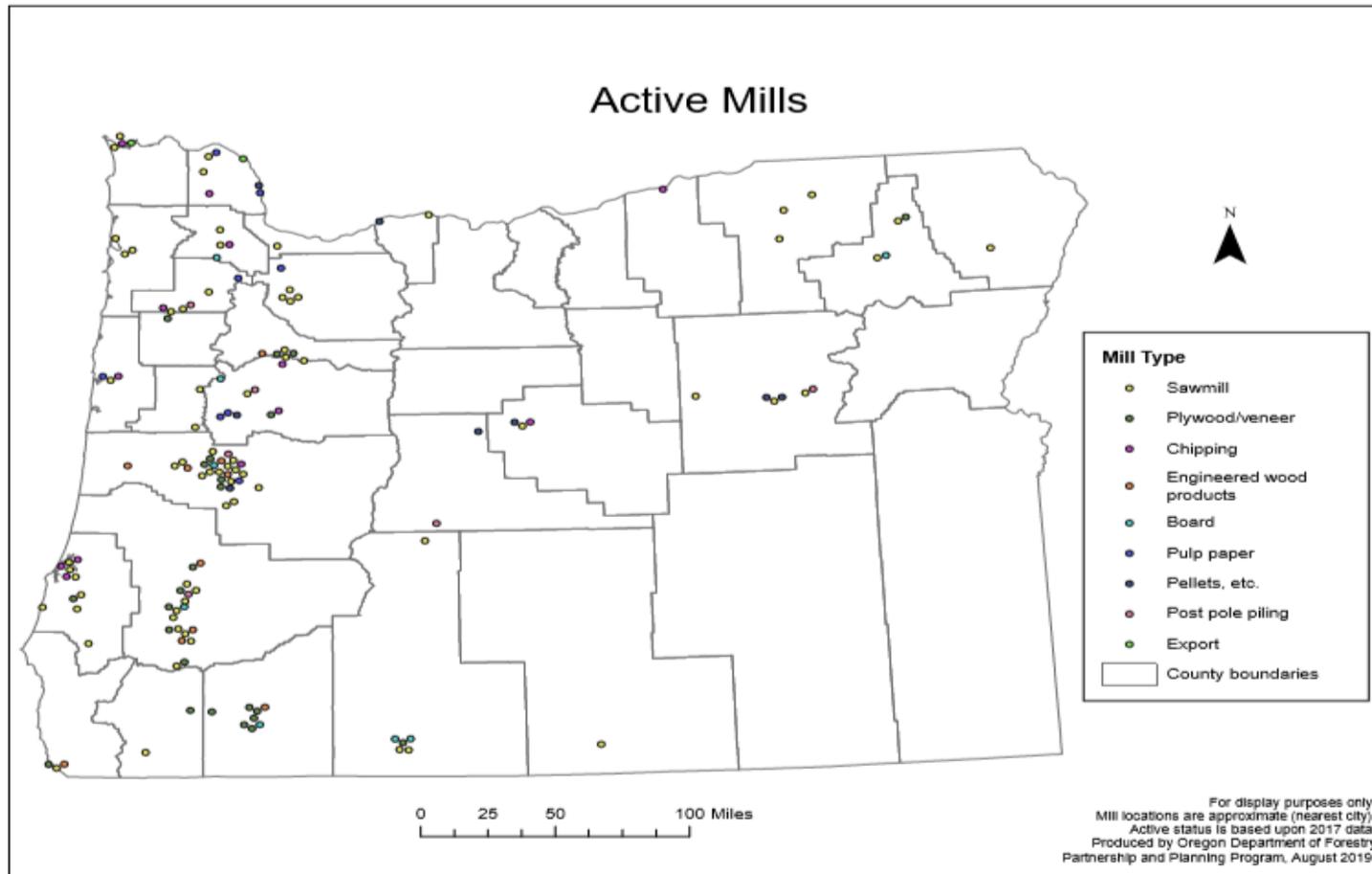
BLM harvests were compiled by the U.S. Bureau of Land Management. A West Side short/long conifer log conversion of .81 was used.

USFS harvests were compiled by the United States Forest Service.

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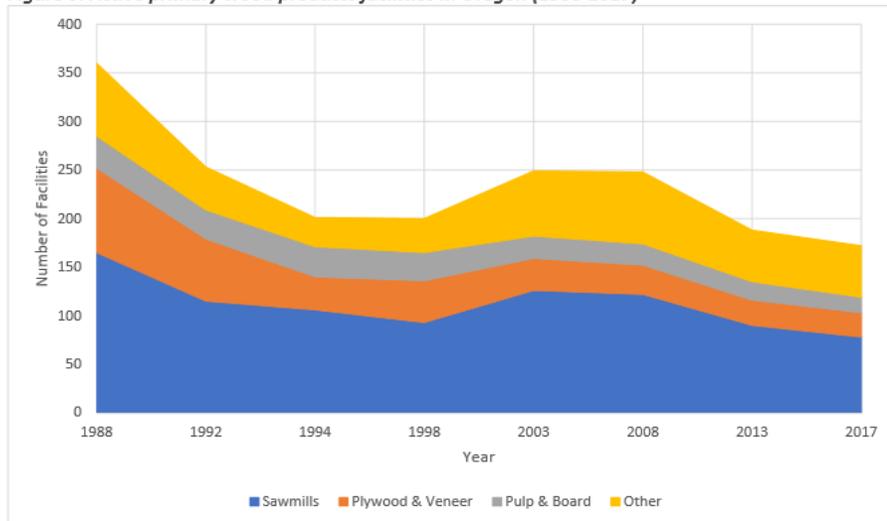
What becomes of Oregon's Harvested Timber?

Forest Sector Facilities



Forest Sector Facilities

Figure 5. Active primary wood products facilities in Oregon (1988-2017)



Sources: Simmons et al. (2019); Forest Econ Inc. Field Surveys (2012); Gale et al. (2012); Brandt et al. (2006); Latta (2018).

Table 6. Number of wood processing facilities in Oregon, 1988-2017.

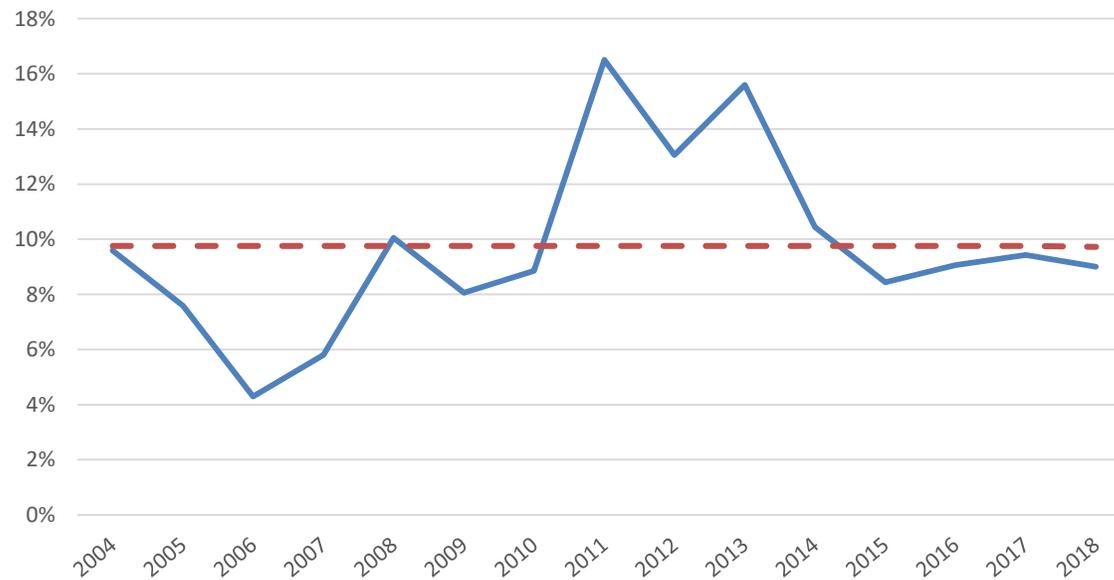
Survey Year	Sawmills	Plywood & Veneer	Pulp & Board	Other/Export	Total
1988	165	87	33	75	360
1992	115	64	30	44	253
1994	106	34	31	30	201
1998	93	43	29	35	200
2003	126	33	23	67	249
2008	122	30	22	57	248
2013	90	26	19	53	188
2017	78	25	16	53	172

Sources: Simmons et al. (2019); Forest Econ Inc. Field Surveys (2012); Gale et al. (2012); Brandt et al. (2006); Latta (2018).

Source: OFRI 2019 Forest Report

Oregon Timber Exports (Logs)

Percent of Oregon Timber Harvest Exported
2004-2018, Actual Average



Sources: Oregon Timber Harvest Reports, Simons et al. 2016, Washington Department of Natural Resources, Oregon's Ports, U.S. Department of Commerce

Forest Sector Contributions

Forest Sector Employment

2017 - 61,051 (source: OED/OFRI)

2015 - 61,010 (source: OED/OFRI)

Average Wage for Forest Sector

2017 - \$54,200 (\$51,000 for all jobs)

2015 - \$50,027 (\$48,323 for all jobs)

An array of jobs

Oregon's forest sector includes a wide variety of employment, from forestry, logging, millwork and cabinet-making to engineering, hydrology, business management and academic research. Economists estimate that each million board feet of timber harvest creates or retains about 11 forest sector jobs.

Here's a rundown of Oregon's forest sector jobs by type of employment in 2017.



Oregon Forest Resources Institute

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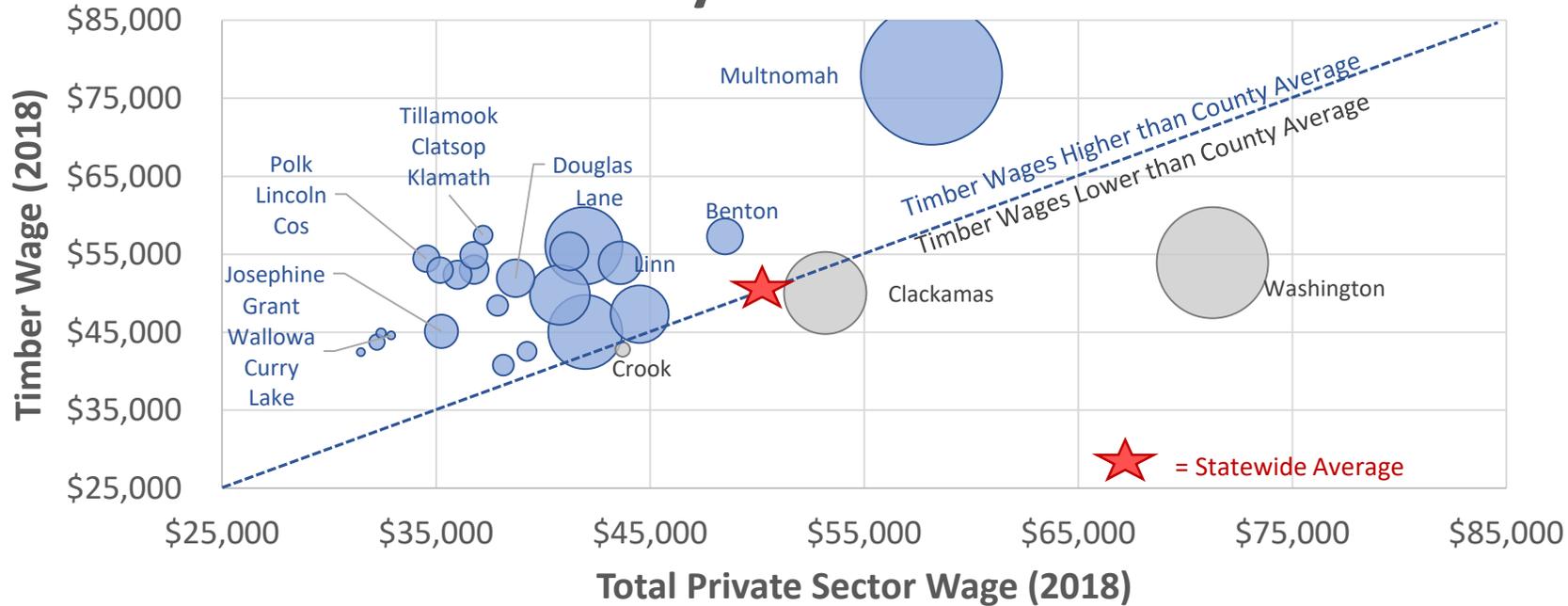
Oregon's forest sector jobs - 2017 ⁹

Forest Management	
Company management	1,125
Forestry and environmental consultants, researchers, academics	274
Bureau of Land Management	1,567
State of Oregon	858
U.S. Forest Service	3,128
Subtotal	6,952
Forestry Support	
Forestry support (nurseries, machinery manufacturing, firefighting)	6,001
Logging	7,238
Subtotal	13,239
Primary Forest Products	
Pulp and paper manufacturing	4,163
Sawmills and wood preservation	6,391
Veneer, plywood and engineered wood	9,334
Subtotal	19,888
Secondary Forest Products	
Millwork (doors, windows, custom)	5,762
Wood kitchen cabinets and countertops	3,614
Other (manufactured homes, wood buildings, pallets, furniture, etc.)	2,821
Subtotal	12,197
Distribution, Transportation and Other	
Wood products wholesalers	2,364
Paper products wholesalers	774
Transportation of logs, chips, goods	4,974
Other (biomass electric power, airport operations, marine cargo handling, etc.)	663
Subtotal	8,775
TOTAL	61,051

Source: Oregon Forest Facts 2019-20 Edition

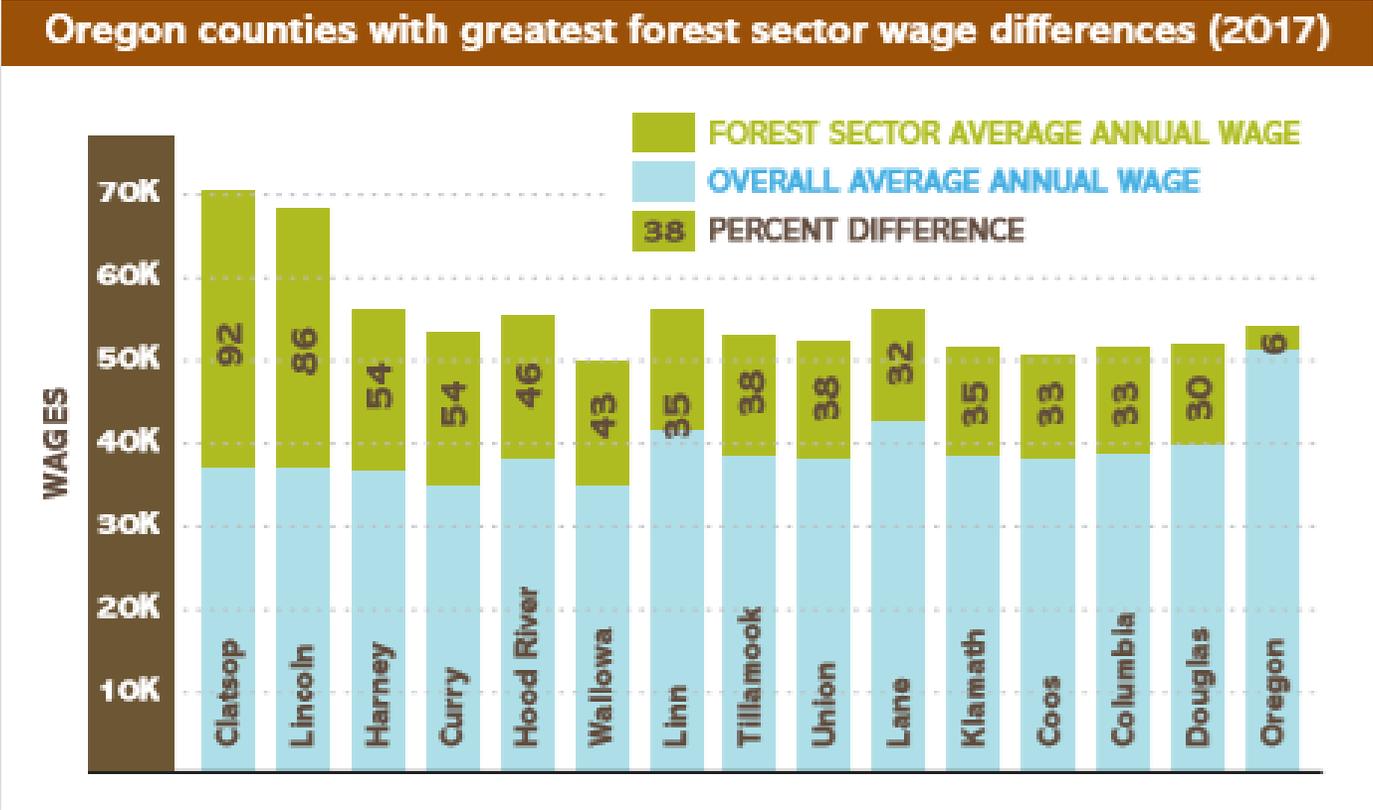
Relative Importance of Forest Sector Wages

Timber Wages Still Higher than Average in Many Counties



Data: 2018 QCEW | Source: BLS, Oregon Office of Economic Analysis

Relative Importance of Forest Sector Wages



Source: Oregon Forest Facts 2019-20 Edition

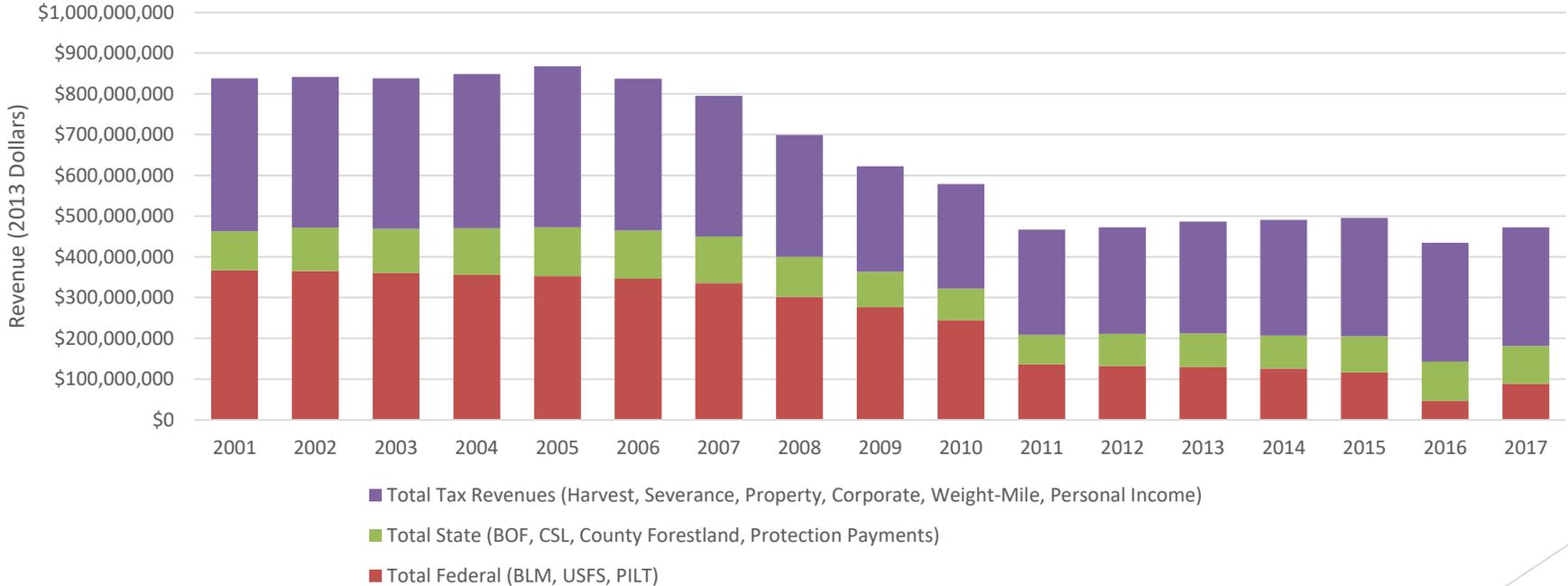
Economic Contributions of Forest Sector

- ▶ >\$18 billion in output
- ▶ >71,000 jobs (direct, indirect, induced)
- ▶ Translates to 4.7% of Total State Output and 3.7% of State GDP

Economic Contributions of Forest Sector

Oregon Forest Revenues to State and Local Governments

2001-2017



Forecast

- ▶ As mentioned earlier, harvest tends to hover around 4bbf. However, there are caveats:
 - ▶ Housing is a major driver of our forecast - Housing starts have leveled out and our underlying data providers show conservative revisions in their forecasts
 - ▶ General fear of recession and interest rates
 - ▶ Log Prices have dropped but remain high - too high?
- ▶ The Agency Forecast is different than the actual harvest as reported in our Timber Harvest Report. I am forecasting the amount of harvest that we expect the Forest Harvest Tax to be paid on. This trend is different and has varied over the years.
 - ▶ The forecast for the biennium has an average of 3.62bbf/year (this is the amount we expect the Harvest Tax to be paid on)

Questions?