## Tax contributions of Oregon's Forest Industry

### February 2021

Analysis performed by EY's Quantitative Economics and Statistics Team (EY QUEST)



### **Executive Summary**

### Findings

**Oregon's Forest Industry pays local and state taxes and assessments that include** taxes on local property, timber harvest and severance, corporate excise and income, Corporate Activity Tax (CAT), individual income taxes, and fire assessments. In 2022 the industry will pay a payroll tax to fund the state Paid Family Medical Leave (PFML) program.

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Oregon Forest Industry taxes are 5.6% of the industry's gross valueadded (GDP) and 6.8% if fire assessments are included. This includes Corporate Activity Tax and Paid Family Medical Leave payroll taxes at full-year values on FY19 financials.

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**Oregon's Forest Industry's tax burdens are greater than other Oregon industries,** including agriculture (including forestry) and manufacturing (including wood products) sectors, and the overall (total) Oregon business tax burden.

**Forest Industry tax contributions and fire assessments total \$15.91 per acre of private forestland.** Taxes per acre include full-year amounts for the Corporate Activity Tax and employer portion of PFML payroll taxes (on FY19 financials). Private forestland acres total 10.2 million.

#### Industry effective tax rates for currently-enacted taxes in Oregon (State taxes plus local property taxes divided by industry gross value added)



Notes: The analysis includes currently enacted state taxes at full-year levels based on FY19 financials and tax payments (most recent data available). The Corporate Activity Tax (effective Jan. 2020) and employer portion of the Paid Family Medical Leave payroll tax (effective Jan. 2022) are included in this analysis

Gross value added is the measure of goods and services produced in an area and industry/sector of the economy in 2019. Gross value added is shown for the Forest Industry (NAICS 113 and 321), Oregon Agriculture (NAICS 11), Oregon Manufacturing (NAICS 31-33) and All Oregon businesses

See page 10 for study limitations

### Overview of approach

### Estimate OR Forest Industry taxes

- Oregon's Forest Industry includes forestry, logging, and wood product manufacturers (NAICS industries 113 and 321)
- The analysis estimated state taxes paid by the industry, local property taxes, and fire assessments contributed by private owners

#### Approach

Using a variety of publicly-available tax and economic data sources, including reports from the Oregon Department of Revenue, Oregon Office of Economic Analysis and Legislative Fiscal Office, IRS Statistics of Income, IMPLAN Oregon economic model data, and the US Bureau of Economic Analysis, the analysis estimated taxes for the Forest Industry in FY19

Certain tax amounts reported in state data reports are entirely attributable to the Forest Industry, such as timber severance taxes and property taxes on specially assessed forestland, but other tax amounts reported in state sources had to be apportioned to the Forest Industry. See specific tax slides in the Appendix for the estimation methodology for each tax

#### Benchmark tax burdens

- Effective tax rates were calculated for the Forest Industry as taxes divided by industry gross value added (GDP)
- Effective tax rates were also calculated for other Oregon industry sectors

#### Approach

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EY divided Forest Industry taxes by industry gross value-added, which a measure of goods and services produced by the industry in Oregon

EY performed similar tax calculations for the entire Agriculture industry (NAICS 11, which includes forestry) and the Manufacturing Industry (NAICS 31-33, which include wood product manufacturing) in Oregon and compared tax burdens with the Forest Industry

### Forecast Forest Industry taxes

 Oregon's Forest Industry taxes were estimated through FY22 to incorporate the timing of new taxes (CAT and PFML) and to capture the effects of COVID on industry operations

### Approach

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Using tax revenue forecasts by the Oregon Office of Economic Analysis, the analysis projected changes in tax levels between FY20 and FY22 for the Oregon Forest Industry

The analysis also phased in the new taxes, including the Corporate Activity Tax in FY20 and the payroll tax funding PFML in FY22. In the first fiscal year of these taxes the impact is 50% since they become effective in January of each year

## Tax burdens



# Oregon Forest Industry taxes are estimated at \$113 million in FY19. Private landowners provided an estimated \$29 million in fire funding

### Estimated Forest Industry state taxes, local property taxes, and fire assessments in FY 2019<sup>1</sup> (Amounts in millions)

Tax type	Forestry and logging (NAICS 113)	Wood products manufacturing (NAICS 321)	Total Oregon Forest Industry
Property taxes	\$36.7	\$21.6	\$58.3
Forest Products Harvest Tax	\$16.4	\$0.0	\$16.4
Small Tract Forestland	\$1.2	\$0.0	\$1.2
Corporate income and excise tax	\$0.7	\$1.9	\$2.6
Individual income tax <sup>2</sup>	\$4.2	\$30.5	\$34.6
Total Industry without fire assessments	\$59.3	\$54.0	\$113.2
Assessments for fire protection <sup>3</sup>	\$28.9	\$0.0	\$28.9
Total industry with fire assessments	\$88.1	\$54.0	\$142.1

<sup>1</sup>Does not include Corporate Activity Tax (effective in January 2020) or Paid Family Medical Leave payroll tax (effective January 2022) as these taxes were not in effect in FY 2019

<sup>2</sup> Individual income taxes only include taxes paid on income reported as pass-through business income. The amount of income from timber sales reported as a non-business capital asset can not be estimated and we have not included taxes on this income in this analysis

<sup>3</sup> This includes an estimate of fire assessments and taxes paid by private landowners. It includes local Forest Protection District assessments and assessments that provide revenue for the state's Oregon Forest Land Protection Fund (OFLPF). Note that funding from the Forest Product Harvest Tax that is directed into the OFLPF has been subtracted to avoid double-counting since it is included as a severance tax. This estimate does not include in-kind contributions and resources for fighting fires by private landowners. \*Figures may not appear to sum due to rounding

Forestry and leading businesses grow and baryest timber on a long produc

- Forestry and logging businesses grow and harvest timber on a long production cycle. Wood product manufacturers develop wood products such as lumber, plywood, veneers, wood containers, wood flooring, and manufactured homes
- Forest Industry businesses paid local property taxes on forestland, personal property taxes on equipment and machinery, timber severance taxes (Forest Products Harvest Tax and STF severance tax), and income taxes (corporate and individual income taxes on pass-through business income) in FY2019
- Fire assessments, which include funding for local Forest Protection Districts and large fire protection via contributions to the Oregon Forest Land Protection Fund (OFLPF), are estimated as nearly \$29 million from private landowners in FY19

## Forest Industry effective tax rates were 4.8% without fire assessments and 6.0% with fire assessments in FY19

- The figure below shows the FY 2019 tax burden for the Oregon Forest Industry, and tax burdens for the Oregon agriculture and manufacturing industries and all Oregon businesses
- Tax burden is shown both with and without the fire assessments. As shown below, the Forest Industry is estimated to have the highest tax burden of these industries



### Tax burden as a percentage of industry gross value added in FY 2019

Notes: The tax burden measure shown for "Oregon all businesses" includes state taxes paid by business in 2019 (before CAT and PFML) plus local property taxes contributed by businesses statewide. It does not include other local taxes so that the measure can be compared to the same set of taxes estimated for the Oregon Forest Industry and other sectors. Taxes are divided by gross value added using IMPLAN economic model data for the state of Oregon

# Forest Industry tax burdens are greater than agriculture and manufacturing sector tax burdens (analysis includes CAT and PFML payroll tax)

- The table below shows estimated tax amounts and effective tax rates for the Oregon Forest Industry once all currently-enacted state taxes have fully phased in. Corporate Activity Tax (effective in 2020) and PFML payroll tax (effective in 2022) are shown for a full-year and on a FY19 economic base so that it could be added to the most recent data for other taxes (FY19 data)
- Oregon's Forest Industry's effective tax rate at 5.6% (without fire assessments) is higher than effective tax rates for the total Oregon agricultural sector and the Oregon manufacturing sector. Tax contributions and fire assessments are \$15.91 per acre of private forestland.

(All currently enacted taxes, full year estimates, fifty baseline, Allounts in minions				
Tax type	OR Forest Industry <sup>1</sup>	OR agricultural industry	OR manufacturing industry	
Property taxes	\$58.3	\$98.6	\$302.2	
Forest Products Harvest Tax	\$16.4	\$16.4	\$0.0	
Small Tract Forestland	\$1.2	\$1.2	\$0.0	
Corporate income and excise tax	\$2.6	\$7.7	\$96.3	
Individual income tax <sup>3</sup>	\$34.6	\$9.1	\$179.6	
Total without fire assessments	\$113.2	\$133.0	\$578.1	
Per-fire assessments	\$28.9	\$28.9	\$0.0	
Total with fire assessments	\$142.1	\$161.9	\$578.1	
Value-added by industry	\$2,368.7	\$3,732.3	\$30,741.1	
Tax burden (without fire assessments)	4.8%	3.6%	1.9%	
Tax burden (with fire assessments)	6.0%	4.3%	1.9%	
Corporate activity tax <sup>2</sup>	\$13.0	\$32.2	\$497.2	
Paid Family Medical Leave <sup>2</sup>	\$7.0	\$2.4	\$57.9	
Total without fire assessments	\$133.2	\$167.5	\$1,133.2	
Total with fire assessment	\$162.1	\$196.4	\$1,133.2	
Tax burden (full yr. phased in)	5.6%	4.5%	3.7%	
Tax burden (full yr. phased in) with fire assessment	6.8%	5.3%	3.7%	
Tax and fire assessments per acre (10.2m acres)	\$15.91			

### Estimated tax amounts and effective tax rates by industry (All currently-enacted taxes, full-year estimates, FY19 baseline, Amounts in millions

<sup>1</sup> The Forest Industry includes NAICS 113: Forestry and Logging and NAICS 321: Wood Product Manufacturing. NAICS 113 is included within the agricultural industry (NAICS 11), while NAICS 321 is included within the manufacturing industry (NAICS 31-33)

<sup>2</sup>Corporate Activity Tax and Paid Family Medical Leave payroll were not in effect for FY 2019 but are included on FY19 economic activity

<sup>3</sup> Individual income taxes only include taxes paid on income reported as pass-through business income. The amount of income from timber sales reported as a non-business capital asset can not be estimated and we have not included taxes on this income in this analysis.

\*Figures may not appear to sum due to rounding

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\*The tax burden is calculated as taxes divided by gross value added for each industry

## Oregon Forest Industry tax forecast from FY19 through FY22

- Tax forecasts for the Oregon Forest Industry are shown in the table below. The timing of state taxes becoming effective (e.g., CAT and PFML) are incorporated into the analysis, as well as the projected effects of COVID-19 on the industry's sales and taxable income
- This analysis incorporates results from a recent survey of OFIC members. This data was used to keep income taxes at FY19 levels given the increase in sales that the industry experienced between 2019 and 2020
- CAT taxes are shown to increase in FY21 due to a full-year of the tax and timber severance taxes are estimated based on OEA's forecasted timber harvests.

Tax type	FY 2019	FY 2020	FY 2021	FY 2022
Property taxes	\$58.3	\$60.9	\$65.7	\$70.9
Timber harvest and severance taxes	\$17.7	\$18.0	\$18.4	\$19.8
Corporate income and excise tax	\$2.6	\$2.6	\$2.6	\$2.8
Individual income tax	\$34.6	\$34.6	\$34.6	\$36.4
Corporate Activity Tax <sup>1</sup>	\$0.0	\$6.5	\$13.0	\$13.9
Paid Family Medical Leave <sup>2</sup>	\$0.0	\$0.0	\$0.0	\$3.5
Total tax amounts	\$113.2	\$122.7	\$134.4	\$147.3
Tax burden	4.8%	5.3%	5.4%	5.7%
Tax burden percentage change		10.4%	3.0%	4.5%

### Forest Industry tax forecast and phase-in of currently passed state taxes, FY19-22 Amounts in millions

<sup>1</sup> Tax effective as of 1/1/2020. Therefore, tax is only estimated for the second half of FY 2020

<sup>2</sup> Tax effective as of 1/1/2022. Therefore, tax is only estimated for the second half of FY 2022

\*Figures may not appear to sum due to rounding

Note: Analysis uses Oregon's Office of Economic Analysis revenue forecast from December 2020 and results from a survey of OFIC members

## Limitations

- The analysis relies upon publicly-available tax data published by government agencies and other third parties. The most comprehensive state tax data is for fiscal year 2019
- Most state tax revenue data is not published at an industry level, so we had to apportion tax amounts to the Forest Industry using several estimation methodologies. For example, the Oregon Department of Revenue publishes corporate excise and income tax receipts for the Agriculture, Forestry, Fishing and Hunting sector (NAICS 11). We then estimated forestry's share (NAICS 113) of this amount using IRS Statistics of Income data at the national level that provides federal income taxes paid by forestry corporate tax payers compared to other sectors of the agricultural sector. A second example is that Bureau of Economic Analysis fixed asset data by NAICS industry at the national level was used to estimate the likely value of wood product manufacturing real and personal property. We used wood product manufacturing's share of taxable fixed assets to apportion commercial and industrial real and personal property taxes to the wood products manufacturing sector
- We relied on state reports of assessed forestland to estimate real property taxes for the forestry industry. We did not estimate any non-forestland property taxes paid by these landowners on structures situated on the land. We would expect very few structures subject to real property taxes on forestland
- We used 2018 IMPLAN economic data to estimate Oregon in-state sales for the Corporate Activity Tax for the industry. It is possible that the industry currently has more or less Oregon-sourced sales than this data suggests and therefore the CAT amounts, which are levied on sales to only Oregon customers, would be different from tax estimates presented in this report
- Tax burdens in this report are shown as taxes divided by gross value added. Other measures of tax burden could be calculated, such as taxes per sales in the industry (e.g., gross economic output). Most effective tax rates are shown as taxes per economic activity as measured by value added (or GDP). For this reason, we selected to estimate the effective tax rates using gross value added by industry due to the availability of this data by industry via IMPLAN and since this measure allowed us to compare the Forest Industry's tax burden to other estimates of business tax burdens in the state that use GDP as the denominator

## Appendix: Oregon Forest Industry taxes



## Overview of taxes and methodology

Tax	Description	Data source	Methodology
Property taxes	Local tax on land and structures (real property) and equipment and machinery (personal property)	Oregon Department of Revenue (DOR) report on property assessed values and collections by property class and county; US Bureau of Economic Analysis (BEA) for fixed asset value and GDP data	OR DOR state reports used to calculate forestland taxes from assessed values and tax revenue. BEA fixed asset data and GDP was used to apportion commercial and industrial real and personal total property tax revenue to the Forest Industry
Timber severance taxes	Forest Products Harvest Tax and Small Tract Forestland Severance Tax levied on harvested timber per 1,000 board feet	Oregon Legislative Revenue Office (LRO) for timber severance taxes paid	OR LRO reports the timber severance taxes paid each year by tax type
Corporate Activity Tax (CAT)	Gross receipts tax on sourced Oregon sales and calculated as \$250 plus 0.57% times taxable commercial income greater than \$1 million	IMPLAN data used to estimate in-state sales for the Forest Industry and Census' County Business Patterns (CBP) to estimate industry payroll deduction	Estimated in-state sales from IMPLAN data. The in-state sales were decreased to account for sales qualifying for an exemption or the payer not having economic nexus in Oregon. Estimated the payroll deduction using CBP data and then multiplied the result by 0.57% to estimate the CAT
Corporate excise and income tax	Tax on Oregon taxable income and calculated as 6.6% of taxable income \$1 million or less and 7.6% on taxable income greater than \$1 million	OR DOR report for corporate income and excise tax paid, IRS Statistics of Income (SOI) data on income taxes paid by industry, and BEA GDP data for Oregon and the US	Estimated the share of income taxes paid by the Forest Industry in Oregon using IRS SOI data on income taxes paid by industry and GDP data. Used the estimated share to apportion OR DOR data on corporate income and excise taxes to estimate the taxes paid by the Forest Industry
Individual income taxes	Individual income tax on pass-through business income from Forestry Industry non-corporate businesses. Taxable income is subject to tax rates of 7.0% to 9.9%	OR DOR report for total pass-through income, IRS SOI data on pass-through income by industry and by income bracket, and CBP data on payroll in partnerships	OR DOR reports used to estimate total pass-through income. IRS SOI data on pass-through income and CBP payroll data was used to apportion the pass-through income to the Forest Industry. Multiplied the estimated Forest Industry pass-through income by an estimated effective tax rate calculated from IRS SOI data
Paid Family Medical Leave (PFML)	Payroll tax effective in January of 2022 and calculated as up to 1% of employee wages. Employers will contribute 40% of the tax. Employers with less than 25 employees will not be required to pay the tax	OR LRO revenue impact report for revenue from the PFML tax and CBP data on payroll by employee size class and industry	Leveraged the OR LRO revenue impact report to estimate the total annual revenue from the PFML payroll tax. Used CBP data to estimate the Forest Industry share of applicable payroll subject to the tax. Multiplied the estimated share from the Forest Industry by the estimated annual revenue from the PFML payroll tax
Fire assessments	Per-acre and lot assessments that fund base fire protection through local Forest Protection Districts and state large fire protection	Oregon Legislative Fiscal Office (LFO) report on Forestry Protection from Fire Funding (September 2020)	OR LFO report shows the share of base protection funding provided by private landowners. The report also includes a breakdown of large fire funding. Per acre and lot assessments were allocated as paid by private landowners. The harvest tax funding was subtracted since it is included in severance taxes

## Forestland property taxes are estimated at \$34.2 million (FY19 baseline)

- Property in Oregon is taxed on assessed value. Forestland is specially assessed if the landowner is managing the property primarily for growing and harvesting timber
  - Forestland in the Forestland Program is assessed at a special rate based on the typical price paid for land managed for the production of harvestable timber. This value is less than the real market value used for taxing other properties
- Forestland in the Small Tract Forestland Program is pay taxes based on an assessed value equal to 20% of the specially assessed forestland value
- Property taxes paid on forestland were estimated using the following approach:
  - Assembled the specially assessed values for forestland in each county as reported by the Oregon Department of Revenue for FY 2019
  - Calculated each county's effective tax rate (ETR) by dividing total property tax revenue in each county by the total assessed value in each county
  - Estimated forestland property taxes paid by multiplying each county's specially assessed forestland value by that county's ETR
- The analysis did not estimate real property taxes from any structures situated on specially assessed forestland

# The remainder of Forest Industry property taxes is estimated at \$24.1 million, totaling \$58.3 million in local property taxes for the Forest Industry

- In addition to forestland, local property taxes were estimated for:
  - Wood products manufacturing real property (i.e. land and buildings)
  - Total Forest Industry personal property (i.e. machinery and equipment for forestry, logging, and wood products manufacturers)
- Property taxes for the remainder of the Forest Industry were estimated using the following approach:
  - Multiplied the assessed value by county in each property class reported by the OR Department of Revenue by the ETR (described on the previous slide) to determine total taxes paid by property class
  - Rebalanced the total private US fixed asset value from the Bureau of Economic Analysis by US and Oregon GDP data to determine the estimated share of property value within each Oregon industry
  - Multiplied the percent of taxable asset value in the Forest industry by the total estimated property tax collected in relevant property classes to estimate real property taxes paid by wood product manufactures and personal property taxes paid by the Forest Industry

## Timber severance taxes are estimated at \$17.7 million

- Oregon harvested timber is subject to the Forest Products Harvest Tax (FPHT)
  - After excluding the first 25,000 board feet (25 MBF) of timber harvested from the total harvest volume reported on the FPHT return, the tax is calculated by multiplying each additional MBF by the FPHT rate. The rate was set at \$4.2811 per MBF in 2019
- Taxpayers participating in the Small Tract Forestland program for property tax purposes must also pay a severance tax upon harvest
  - The severance tax rates for calendar year 2019 were \$5.98 and \$4.65 per 1,000 board feet harvested in Western Oregon and Eastern Oregon, respectively
  - Rates for the severance taxes are indexed annually in proportion to the increase in value of forestland in the program in each area (Eastern or Western Oregon)<sup>1</sup>
- The Oregon Legislative Revenue Office provides a yearly report detailing the amount of Timber tax revenue by each tax, which was used to provide estimates of timber severance taxes paid

<sup>1</sup> Oregon privilege taxes have been sunset, but there are still small amounts of Eastern Oregon Privilege Taxes being collected on prior assessments

## Corporate Activity Tax is estimated at \$13.0 million for the Forest Industry

- The Corporate Activity Tax (CAT) is a gross receipts tax on sourced Oregon sales above \$1 million. The tax is calculated as follows: \$250 plus 0.57% times taxable commercial income greater than \$1 million
- The tax for the Forest Industry was estimated using the following approach:
  - 2018 IMPLAN data for the state of Oregon was used to estimate in-state sales for the Forest Industry as:
    - Total Output Exports + Imports = Oregon industry in-state sales (\$6.0 billion - \$3.7 billion + \$0.8 billion = \$3.1 billion)
    - In-state sales were multiplied by 90% to account for some sales qualifying for an exemption or the payer not having economic nexus in Oregon
  - A deduction equal to 35% times industry payroll, which was calculated using County Business Pattern payroll data for the industry NAICS codes, was taken to lower the CAT tax base. Three methods can be used and the payroll method was used given data availability. This deduction was \$1.5 billion for the Forest Industry
  - ▶ The CAT tax base was then multiplied by 0.57% to estimate CAT revenue

## Corporate excise and income taxes are estimated at \$2.6 million

- All corporations in Oregon are subject to the corporate income and excise tax, which is calculated by multiplying Oregon taxable income by 6.6% for taxable income of \$1 million or less, and 7.6% for taxable income greater than \$1 million
- The corporate income and excise tax on the Forest industry was estimated using the following approach:
  - Obtained corporate tax receipts for the Agriculture, Forestry, Fishing, and Hunting industry (NAICS 11) in FY19 as reported by the Oregon Department of Revenue in "Oregon Corporate Excise and Income Tax Characteristics of Corporate Taxpayers"
  - Apportioned tax receipts to the Forest industry based on data from the IRS Statistics of Income (SOI) and GDP data from the Bureau of Economic Analysis
    - IRS SOI data on income taxes paid by detailed industry within NAICS 11 in the U.S. was rebalanced by Oregon GDP to estimate the share of income taxes paid by each Oregon sector within NAICS 11
    - The share of income taxes estimated for the Forest Industry was multiplied by the corporate income and excise tax collected to estimate total corporate income taxes for the Forest Industry

## Individual income taxes is estimated at \$34.6 million

- Individual income tax attributed to the Forest Industry was calculated recognizing certain business structures (e.g., partnerships, LLCs) pass taxable income from the business to the individual owners
- Individual income tax on business pass-through income in the Forest Industry was estimated using the following approach:
  - Estimated total pass-through income for 2019 by multiplying total pass-through income in 2018 reported by the Oregon Department of Revenue by the percentage change in total individual income taxes in Oregon between 2018 and 2019
  - Estimated the percentage of total pass-through income in Oregon within the Forest Industry using IRS SOI data on pass-through income by industry in the US and payroll data on partnerships in Oregon from Census County Business Patterns
  - Estimated an average ETR on pass-through income using IRS SOI data on pass-through income by income brackets in Oregon
  - Multiplied the average ETR by the estimated pass-through income in the Forest Industry to estimate total individual income taxes in the Forest Industry

## Paid Family Medical Leave program payroll tax is estimated at \$7.0 million

- In 2022, the Oregon Paid Family Medical Leave (PFML) payroll tax will take effect. The PFML tax will be calculated as up to 1% of employee wages up to \$132,900. Employees will contribute 60% of the tax, while employers will contribute 40% of the tax
  - Employers with less than 25 employees will not be required to pay the payroll tax
- The PFML tax was estimated using the following approach:
  - Leveraged the Oregon Legislative Revenue Office revenue impact report to estimate the total annual revenue from the PFML payroll tax paid by employers
  - Estimated the share of the Forest Industry payroll subject to the total statewide PFML payroll tax using Census County Business Patterns data by employee size class and industry
  - Multiplied the estimated share of the Forest Industry payroll by the projected annual revenue from the PFML payroll tax to estimate the Forest Industry's PFML employer payroll tax contributions

### Fire assessments

- Fire protection funding comes from several sources: private landowners, state government, federal government, and insurance payments
- Base fire protection is delivered through local Forest Protection districts. The amount that private landowners contributed is taken from state government reports, including the Legislative Fiscal Office Budget Information Report on Forestry Protection from Fire Funding
- Large fire protection is funded through the state's General Fund, catastrophic fire insurance, federal funds, and public and private landowners through the Oregon Forest Land Protection Fund (OFLPF)
  - A portion of harvest tax revenues are deposited in this fund and we subtracted these amounts from the fire assessment totals since the harvest tax revenue is included in the timber severance tax category
  - Acreage and lot assessments were mostly allocated as paid by private landowners since the Bureau of Land Management is not participating in OFLPF funding