

ECONOMIC ANALYSIS OF OUTDOOR RECREATION IN OREGON



EXECUTIVE SUMMARY

Across all of Oregon, there are thousands of recreation sites and opportunities where one can hike, camp, bike, picnic, hunt, kite surf, and more; and every year, billions of dollars are spent by folks enjoying Oregon's outdoors. Recognizing that outdoor recreation is a major contributor to the state's economy, Travel Oregon, the Oregon Office of Outdoor Recreation (OREC), and Oregon Department of Fish and Wildlife (ODFW) came together to commission a study on the impacts of the outdoor recreation economy.

The study found that **in 2019, outdoor recreation in Oregon supported \$15.6 billion in spending.** Consumer spending on outdoor recreation supports businesses and jobs throughout the state, and then ripples throughout Oregon's economy as business income and wages are re-spent, causing economic effects in sectors not directly tied to outdoor recreation. Total consumer spending on outdoor recreation in 2019 **supported 224,000 full and part-time jobs in Oregon**, associated with \$9.3 billion in wages and other compensation.

The analysis further categorized spending by locals and visitors, where local recreation is defined as Oregonians who travel fewer than 50 miles to reach their recreation destination and visitors includes both Oregonians who travel 50 or more miles and out-of-state visitors. This distinction allows us to understand how much new money is entering a regional economy. In 2019, visitors in Oregon spent \$7.3 billion in trip-related spending, which supports 115,700 full and part-time jobs. Local recreation amenities also proved to be important to our economy. Local recreation, such as the spending effects associated with picnicking at a park near your home, supported \$5.1 billion in spending in 2019.

The results presented here bring greater awareness to the meaningful contributions of economic impacts generated by Oregonians and visitors that are recreating in our vast and abundant outdoors. This information will assist local leaders to pursue well-informed policies that maintain the quality of life for residents and that provide sustainable access to locals and visitors alike. Results of the analysis are made available at the county, legislative, and tourism region level. Activity-specific estimates are provided at the state level.

One of the many goals of this project was to develop a reliable, scalable framework to monitor outdoor recreation participation and spending. The framework used in this analysis can be shared across land management agencies to align data sets with the goal of standardizing data collection, filling in data gaps and supporting the comparison of economic estimates across jurisdictional and agency lines.

HOW THIS COMPARES TO OTHER ANALYSES

This analysis is consistent with findings from other research conducted on Oregon's outdoor recreation economy. In 2017, the Outdoor Industry Association estimated that \$16.4 billion was spent on outdoor recreation trips and gear purchases in Oregon, an estimate slightly higher than the one presented here. The U.S. Bureau of Economic Analysis (BEA) estimated that spending on outdoor recreation in Oregon in 2019 contributed \$7.2 billion to Oregon's GDP and supported 88,000 jobs. While these estimates vary from the findings of this analysis, it is important to understand that the BEA analysis does not consider local recreation in their analysis, making the results more comparable to the visitor expenditure estimate presented earlier.

BENEFITS NOT INCLUDED IN THIS STUDY

While this report estimates the significant economic contribution of outdoor recreation in Oregon, it does not present the full suite of benefits that outdoor recreation and natural spaces used for outdoor recreation provide, including consumer surplus, health benefits, and environmental benefits. Over the years, Oregon has devoted funding to further the understanding to these benefits. In 2018, the Oregon Parks and Recreation Department (OPRD) estimated the consumer surplus, or total net economic value, for recreation participation in Oregon by Oregonians to be \$54.2 billion annually, based on 2017 use levels. Consumer surplus (i.e., total economic value net of the costs) is a measure of the contribution to societal welfare.

Regarding health benefits, parks and natural spaces promote physical and mental health. Those who participate in outdoor recreation are shown to have lower medical and insurance costs than their non-active counterparts. Researchers from Oregon State University estimated the economic value of this physical activity to be \$1.4 billion in insurance savings. These savings reduce total health care expenditures by 2-3.6% statewide.

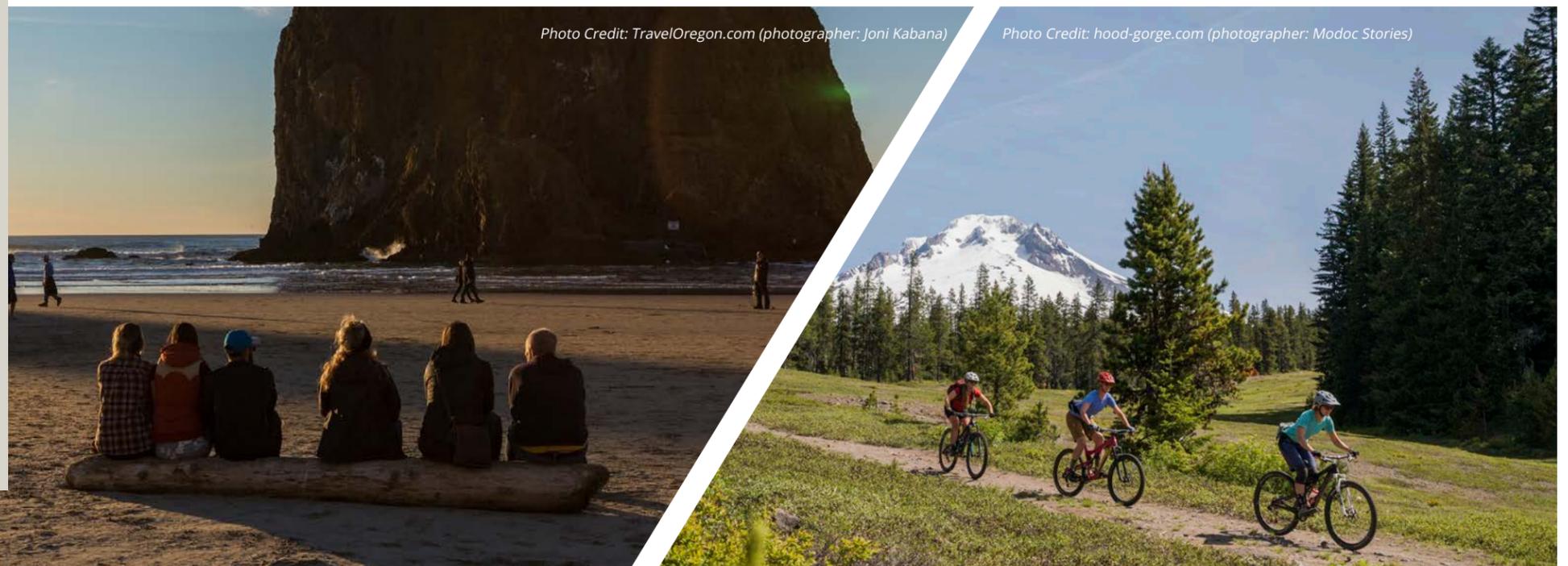
Another omission from this study are the environmental benefits provided by parks and green spaces. Among other benefits, natural lands in Oregon provide clean, drinkable water (thus reducing filtration costs); sequester carbon (avoided economic impacts associated with increased CO2); provide scenic beauty (increasing home values); and provide habitat for plants and animals (strengthening our food webs). These benefits can be monetized to show the value of stewarding these lands for a resilient future.

Finally, it is important to remember that this study uses data from 2019 and does not include impacts due to COVID-19 or the 2020 wildfires. The results of this study provide a strong baseline of where the recreation economy stood, which can then be used to inform how these events have altered the landscape. It is worth noting that outdoor recreation participation to date has been greater than in previous years.

OREGON OUTDOOR RECREATION SPENDING

TOTALLED
\$15.6 BILLION

AND SUPPORTED **224,000**
FULL- AND PART-TIME JOBS



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INTRODUCTION

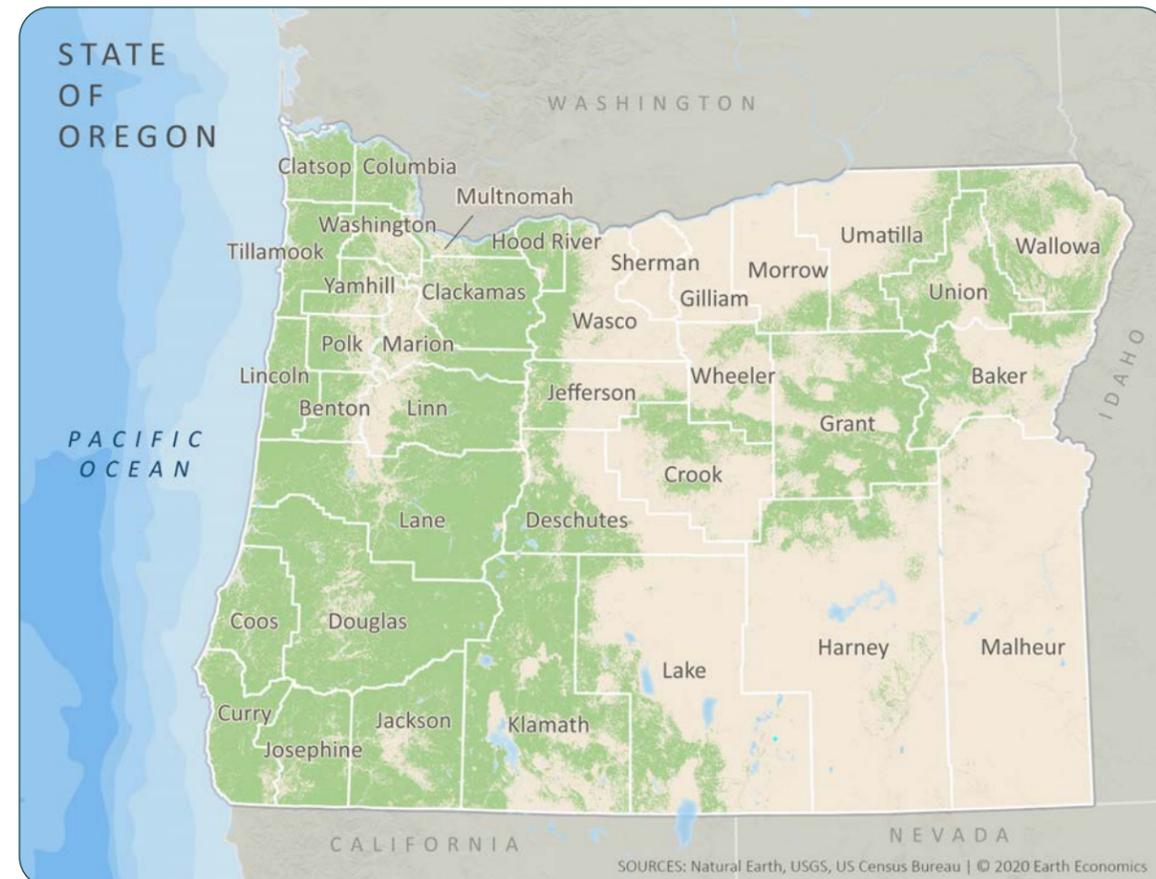
Oregon is home to scenic wonders and abundant natural resources. Many of these areas, and the activities they support carry national name recognition: windsurfing in the Columbia River Gorge, hiking in the Cascades, camping at Crater Lake, fishing the Oregon Coast, and jet boat tours in Hells Canyon. Yet there are many locations in Oregon that hold a lower degree of fame, special places that are less traveled. Oregon's impressive landscapes – well known or not – lend themselves to boundless outdoor recreation opportunities.

Outdoor recreation is an important part of Oregon's identity. An overwhelming majority of Oregonians participate in outdoor recreation (95%), while scenic beauty and outdoor recreation are primary drivers of visitation to and around the state. However, less understood are the quantifiable benefits that outdoor recreation participants have on Oregon's economy.

This report quantifies the economic benefits of outdoor recreation, including the trip length, consumer spending, and economic effects associated with engaging in outdoor recreation activities in Oregon by residents and out-of-state visitors.

As Oregon's population increases, visitation grows, and as the popularity of outdoor recreation expands, it is necessary to understand the role of outdoor recreation in the state's economy. Understanding how outdoor recreation fits within Oregon's present economy also provides us with insights into economic development opportunities for the future. Recognizing this, Travel Oregon, the Oregon Office of Outdoor Recreation (OREC), and Oregon Department of Fish and Wildlife (ODFW) came together to commission this study. Our goal is to accurately understand the impact of outdoor recreation on Oregon's economy, present the information in a digestible and usable format, and provide resources that can help inform effective decision and policymaking.

FIGURE 1. STATE OF OREGON



INDIGENOUS PEOPLES LAND ACKNOWLEDGEMENT

More than 60 tribes and bands of Indigenous peoples have lived in the northwest region since time immemorial. The people survived season to season on their sacred foods and environments, providing them with a strong sense of identity, culture and spirituality. After the treaties of 1855, only nine tribes were federally recognized in what is now Oregon, while other treaties went unratified and unrecognized. Today, these nine tribes work extensively to manage the resources throughout their original territories playing active roles in their regions, counties, states, and communities, leveraging their extensive knowledge and history of the area. In 1996, for example, Governor John Kitzhaber signed Executive Order (EO) 96-30, directing state agencies to develop working relationships with Oregon's nine federally-recognized Indian Tribes. Outdoor recreation occurs on the ancestral lands of these original peoples and caretakers.

FIGURE 2. INDIGENOUS TERRITORIES, OREGON



REPORT OVERVIEW

This report on Oregon's outdoor recreation economy is organized as follows:

- The current chapter, Chapter 1, introduces the outdoor recreation environment in Oregon and provides a brief summary of Oregon's long history of natural resource richness. This section recognizes the ancestral stewardship of Oregon's native tribes.
- Chapter 2 reviews the concepts and methods used to estimate total spending associated with outdoor recreation in Oregon.
- Chapter 3 quantifies recreation participation, trip-related spending, and equipment-related spending.
- Chapter 4 estimates the economic contribution and impact of the spending calculated in Chapter 3, offering readers estimates on jobs, wages, taxes, Gross Domestic Product (GDP) contributions, and total spending associated with outdoor recreation.
- Chapter 5 focuses on the spending and economic impacts made by visitors (Oregonians traveling 50 or more miles and out-of-state visitors).
- Chapter 6 summarizes the results of the economic analysis and the opportunities to use outdoor recreation for economic development, as well as suggestions on how to improve outdoor recreation data and industry information.
- The appendices include a list of lands included in this study; breakout data by jurisdictional boundaries, agencies, and activity type; input-output sector mapping; and references.

OUTDOOR RECREATION IN THE CONTEXT OF COVID-19 AND THE 2020 WILDFIRES

The COVID-19 pandemic has wrought major impacts on economies around the world, and Oregon's economy is no exception. In the late summer of 2020, historic wildfires wreaked havoc on a portion of Oregon's landscape. As this report is written, we are still experiencing and learning about the specific local economic effects of COVID-19 in Oregon and elsewhere, and the wildfires have impacted many of the areas commonly used for outdoor recreation. The authors would like to offer the following considerations:

1. This report gathers and interprets recreation participation data from 2019 and does not reflect the impacts of COVID-19 or the 2020 wildfires. The estimates presented in this report can be used as a baseline for future analyses to better understand the impacts that these events have had on Oregon's outdoor recreation economy in 2020 and beyond.
2. In June 2019, the seasonally adjusted unemployment rate in Oregon was 4%, and by June 2020 had climbed by a staggering 7 percentage points to 11.3%. Early in the pandemic, as travel came to a virtual halt, the industries and jobs associated with the recreation economy, including leisure and hospitality, retail trade, and government, have been among the hardest hit, so the impacts on unemployment for these sectors may be even higher than the statewide average. As detailed in this report, outdoor recreation directly benefits these industries, and therefore employment estimates may not be representative of the current state of affairs.

That said, given that most outdoor recreational activities are relatively "safer" in terms of virus transmission potential, outdoor recreation may be an important tool for rebuilding local economies. While spending estimates have not been analyzed, personal communication with recreation agencies suggest that participation in recreation is near historic levels of use, a likely result of this "safe haven" (perceived or real) provided by outdoor recreation spaces. These conversations are supported by preliminary data showing increased visitation to Crater Lake National Park, increased boater and RV registrations, and increased fishing license sales. Gear and equipment sales are also booming; for instance, RV sales are up 49% year-over-year and 55% of those sales are driven by first-time buyers; bike sales saw colossal increases in comparison to 2019, upwards of 800%.

Photo Credit: Noel Dong



Photo Credit: Travel Oregon (photographer: Joni Kabana)

KEY CONCEPTS AND METHODS

DEFINING OUTDOOR RECREATION

This report defines outdoor recreation as activities participated in for personal pleasure and health that occur in nature-based environments outdoors. Oregon's landscapes allow recreationists to off-road vehicle (ORV) throughout the openness of Eastern Oregon; head to the Columbia River Gorge for world-class windsurfing; take epic rafting trips down the Rogue River; hike through the Cascade Mountains and depart on one of many charter boats for ocean sport fishing.

In 2017, the Oregon Parks and Recreation Department (OPRD) identified 56 recreation activities known to occur in Oregon, which they group into eight categories:

- a. non-motorized trail or related activities
- b. motorized activities
- c. non-motorized snow activities
- d. outdoor leisure and sporting activities
- e. nature study activities
- f. vehicle-based camping activities
- g. hunting and fishing
- h. non-motorized water-based and beach activities

Because each of the 56 unique activities could not be directly tied to recreational trips where monetary transactions occurred, Appendix E of this report provides participation and spending estimates for 32 of these recreation activities.

ESTIMATING RECREATION PARTICIPATION AND SPENDING

When Oregonians and out-of-state visitors participate in outdoor recreation, they spend money – \$10 here, \$60 there – and it adds up to billions of dollars in spending throughout local economies in Oregon. Local residents stop in at coffee shops on their way to the park; residents from Portland take weekend trips to the Oregon Coast and spend money at boutique retailers and restaurants; and out-of-state visitors soak up all that Oregon has to offer while spending money at hotels, retail stores, and on guide services. These expenditures are referred to **trip-related spending** – spending that occurs while participating in, or traveling to participate in, an outdoor recreation activity. An outdoor recreation trip is not dependent on how far the participant travels from their home – both close to home and travel-related recreation are considered in this analysis.

A second form of spending valued in this report is **equipment-related spending** – spending on outdoor recreation gear, equipment, and apparel (e.g., bikes, fishing rods, binoculars, jackets, backpacks, and seasonal rentals). These expenditures are not directly tied to any specific outdoor recreation trip, but are purchased for their use in outdoor recreation.

Participants were classified as **local**, those travelling fewer than 50 miles to participate in recreation, and **visitors**, which includes both Oregonians who travel 50 or more miles and out-of-state visitors. This distinction is important for several reasons— in-state travelers and out-of-state visitors inject “new” money into a local community, and different visitor types contribute differing levels of spending across varying industries. For instance, an out-of-state recreationist is more likely to spend money at a hotel than a local participant, while both may be just as likely to stop at a local brewery. Spending by visitor types is collected and organized into spending profiles – or average expenditures by a unique visitor group.

In addition to classifying recreation participants by visitor type, recreation participation and expenditure data is further categorized by land manager. We categorize land managers into two groups: 1) public agencies, and 2) private landholders who allow for recreational access on their property. For example, the U.S. Forest Service, OPRD, and the Bend Park and Recreation District are examples of federal, state, and local agencies that manage recreation lands; while land trust-owned conservation lands, Weyerhaeuser-owned timberlands, private campgrounds, and private hunting lands are all managed by private landholders, representing the wide range of land owners considered in this analysis.

To estimate the total spending associated with outdoor recreation, we documented the total days of outdoor recreation participation across different recreation agencies and recreation activities. Next, we collected spending profile data for the various agencies and activities. With the addition of spending on equipment, gear and apparel, the product of these two components – recreation days and average daily spending – is used to calculate total recreation spending (i.e., **trip-related spending plus equipment-related spending equals total spending on outdoor recreation**). The data collected is visitor type and site specific, aggregated, and presented at jurisdictional geographies: counties, legislative districts, tourism districts, and state-level.

CALCULATING ECONOMIC CONTRIBUTIONS AND IMPACTS

Measuring the magnitude of outdoor recreation's contribution to the economy provides meaningful insight to those tasked with budgetary and policy decisions that may affect the access to and quality of outdoor recreational opportunities. Critical economic indicators include total spending on outdoor recreation trips and equipment, job creation, incomes, and tax revenues. Other useful indicators of economic health include economic output (or the total spending associated with outdoor recreation, including secondary effects) and the contribution outdoor recreation spending makes to the state's Gross Domestic Product (GDP).



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Photo Credit: TravelOregon.com (photographer: Joni Kabana)

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Photo Credit: Aly Nicklas

Total economic effects resulting from consumer spending are called economic contributions and are described in detail in Figure 3. Each of the contribution types identified in Figure 4 can be broken out into direct, indirect, and induced effects. **Direct effects** are the immediate impacts that occur from the expenditure – impacts at hotels, campsites, restaurants, gas stations, and outdoor recreation gear retailers. The impacts of direct effects ripple out to the businesses and employees which support the operation of the directly impacted businesses, classified as secondary effects. Secondary effects are further broken out into indirect and induced effects. **Indirect effects** are the impacts that are driven by business-to-business transactions. For instance, hotels need fresh linens, restaurant owners purchase meat, dairy and vegetables, and river fishing charters buy fishing gear. This secondary spending creates additional economic contributions and impacts. **Induced effects** are the additional economic effects resulting from employees spending their earnings, such as on rent, food, and leisure in Oregon. Secondary effects continue to push money through Oregon's economy until it is either placed into savings or used to purchase goods and services from outside the state (leakage). The longer money circulates within the regional economy, the larger the economic impacts are (often called multiplier effects).

The impacts in Figure 3 can be calculated through an economic contribution analysis. An economic contribution analysis demonstrates the contribution of a given industry to the surrounding economy, at current levels of production. Contribution analyses can be useful in demonstrating the relative size of an industry – in this case recreation – within the larger economy.

To conduct the economic contribution analysis, input-output (IO) modeling is used, which characterizes the financial linkages between industries within a regional economy. Simply put, it shows how spending in one industry ripples throughout the economy. This analysis used a multi-region IO model, allowing us to measure how spending in one region not only contributes to the immediate regional economy (such as a county or legislative district), but also how these economic effects ripple throughout the rest of the state. This analysis used an industry standard IO modeling software called IMPLAN V3.1, and uses IMPLAN economic data from 2018.

FIGURE 3. ECONOMIC CONTRIBUTION TYPES

JOBS

Spending on outdoor recreation supports full and part-time employment in counties throughout Oregon. Employees of hotels, gas stations, guide services, and specialty retailers all directly benefit from recreation expenditures. These expenditures also indirectly support jobs in industries that provide necessary services to these sectors, such as greenspace maintenance, government services, real estate and medicine.

LABOR INCOME

In addition to the number of jobs supported, the IO model estimates the wages paid to workers (salary plus benefits) who are supported by outdoor recreation spending. As employees of directly impacted businesses pay for necessities such as food and housing, the wages of workers in other industries are supported. Additionally, directly impacted businesses use recreation income to purchase the goods and services they need to function as businesses.

TAX REVENUE

While Oregon does not have a statewide sales tax, outdoor recreation spending generates local and state tax revenues through income and property taxes paid by recreation supported businesses and their employees. Other taxes and assessments on people participating in outdoor recreation may include items such as: transient lodging, rental cars, fuel, airports, alcohol, and marijuana.

ECONOMIC OUTPUT

The initial spending on outdoor recreation leads to additional spending within Oregon – classified as economic activity. The total economic activity by industries directly and indirectly supported by outdoor recreation expenditures can be understood as the total economic output of that investment. In essence, economic output is a measure of all spending that results from the initial expenditure.

VALUE ADDED

Value added, often referred to as GDP, is a subset of total economic output, calculated by removing the value of intermediate inputs (e.g., raw materials, semi-finished goods, and business-to-business services) from the total economic output to better represent the value of final goods and services added to the regional economy.

ECONOMIC CONTRIBUTIONS IN ACTION

DESTINATION PROFILE 1 LOCAL PARK RECREATIONIST

A Portland resident gets off work, immediately hops on his recently-acquired bike and meets up with his friend for a ride around Forest Park – a Wednesday tradition. More often than not, tradition holds that they have an after-ride beer when they get back to the city. Stopping by the brewery, they spend five bucks on beer and hit the nearby food truck. While these purchases seem small and insignificant, adding up to a little less than \$15 by each, the cumulative impacts of thousands of individuals taking part in similar traditions add up to real income for the brewer and the food truck operator. The food truck worker and brewery server earn wages which are then re-spent on living expenses. Further, the hop farmer in the mid-Willamette Valley relies on brewers in Portland selling their beer so they continue to place orders. What all started as a simple evening tradition sets off a chain reaction of economic effects.

DESTINATION PROFILE 2 OREGON COAST VISITOR

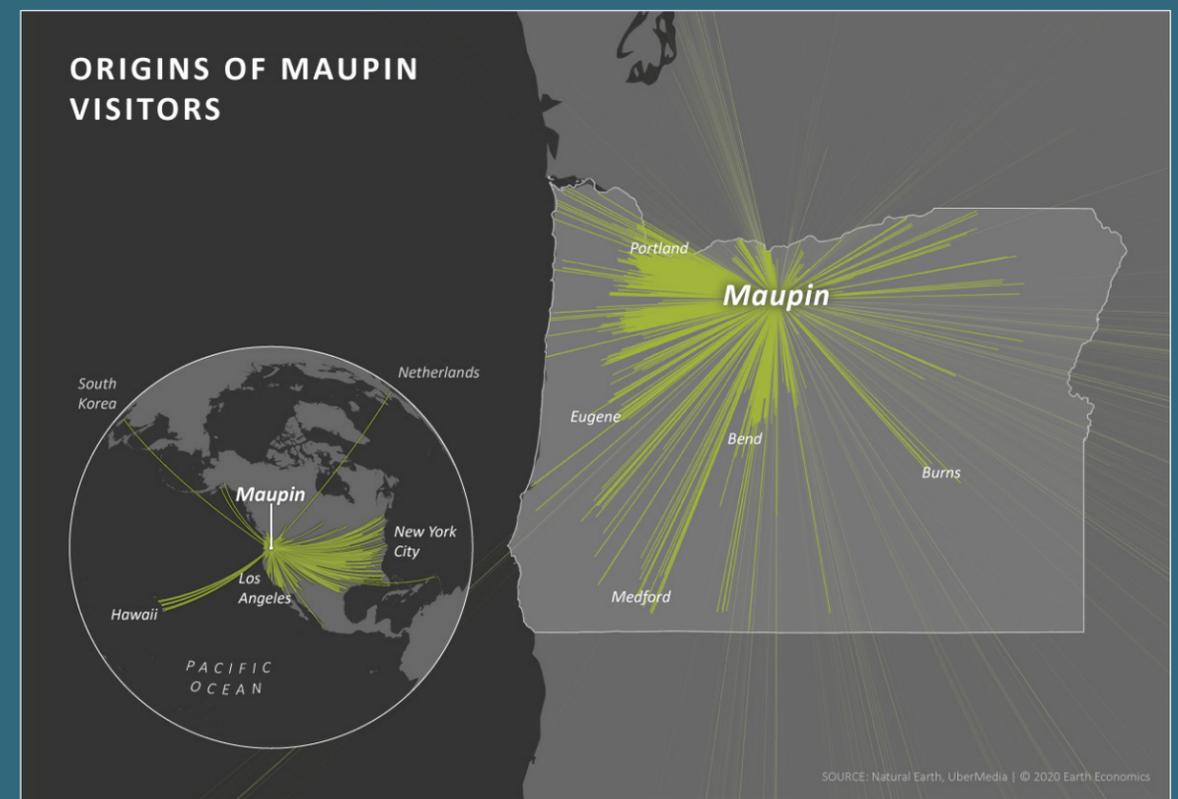
A family of four from Springfield heads to Coos Bay for a beach vacation. About halfway there, they pass through the town of Elkton and decide it's a good spot to fuel up on gas and grab a snack at the general store before walking over to a town park along the Umpqua River. Their long weekend in Coos Bay is filled with fond memories, all of which injected money into the local economy. Mom went deep sea fishing and dad took the kids mountain biking. Some meals were cooked at the hotel, while others were prepared by local chefs. The kids all took home matching shirts. Towns such as Coos Bay benefit greatly from having unique and beautiful natural landscapes that lend themselves to adventure. Dollars from visitors oftentimes present a transfer of dollars from Oregon's urban cores to some of the state's more rural areas. The economies of these towns are heavily dependent on successfully attracting visitors from Oregon's urban cores, as well as visitors from around the world.

DESTINATION PROFILE 3 CITY OF MAUPIN

The city of Maupin, Oregon is located in north-central Oregon, and the Deschutes River runs straight through the middle of it. Just two hours outside of Portland, Maupin is an attractive destination for recreators – particularly fly fishers and river paddlers. A local river hotel and river guide company enjoys the business of a significant portions of their customers coming from across the county, even some internationally (Figure 5). Visitors often stay in the nearby hotel, prior to a guided river floating trip. These river visitors allow the business owners to pay their mortgage, purchase new recreation equipment, pay the utility bills, and cover personal expenses. The regular influx of these visitors allows the shop owner to employ a group of river guides that spend much of their free time in the community, whether it be participating in other recreation activities or frequenting local establishments – their actions perpetuate the flow of dollars within the community's economy. Visitors to Maupin are essential to its economic health. Visitors from out-of-state bring new money into Oregon's economy, while in-state travelers are recirculating money within Oregon's own economy. Through an analysis of visitor spending, the scale of economic contributions supported – direct, indirect, and induced – can be measured with an economic contribution analysis.

Through an analysis of recreation participant data, we can determine where participants come from (local recreationists vs. visitors), how long they stay in the area for, and how often they visit. Breaking out visitor types allows us to better understand how the different visitor segments contribute to the local economy. Figure 4 shows the home locations of recreation visitors to Maupin in 2019.

FIGURE 4. ORIGINS OF MAUPIN RECREATIONISTS



RESULTS

PARTICIPATION AND SPENDING

Throughout 2019, Oregonians and out-of-state visitors participated in 167 million days of recreation. Most of this recreation occurred on public lands, such as national forests, state parks, and local parks, but private recreation was also an important provider of recreation, specifically land conservancies and private hunting lands. Through trip-related spending and equipment-related spending, total outdoor recreation spending is estimated to be \$15.6 billion in 2019.

Trip-related spending (both by local recreationists and visitors) totaled \$12.4 billion in 2019. Oregon's beaches carry national prominence, attracting visitors from throughout the state and around the world. For this reason, Oregon's coastal counties, such as Coos, Lane, and Lincoln, lead the state in consumer spending by county.

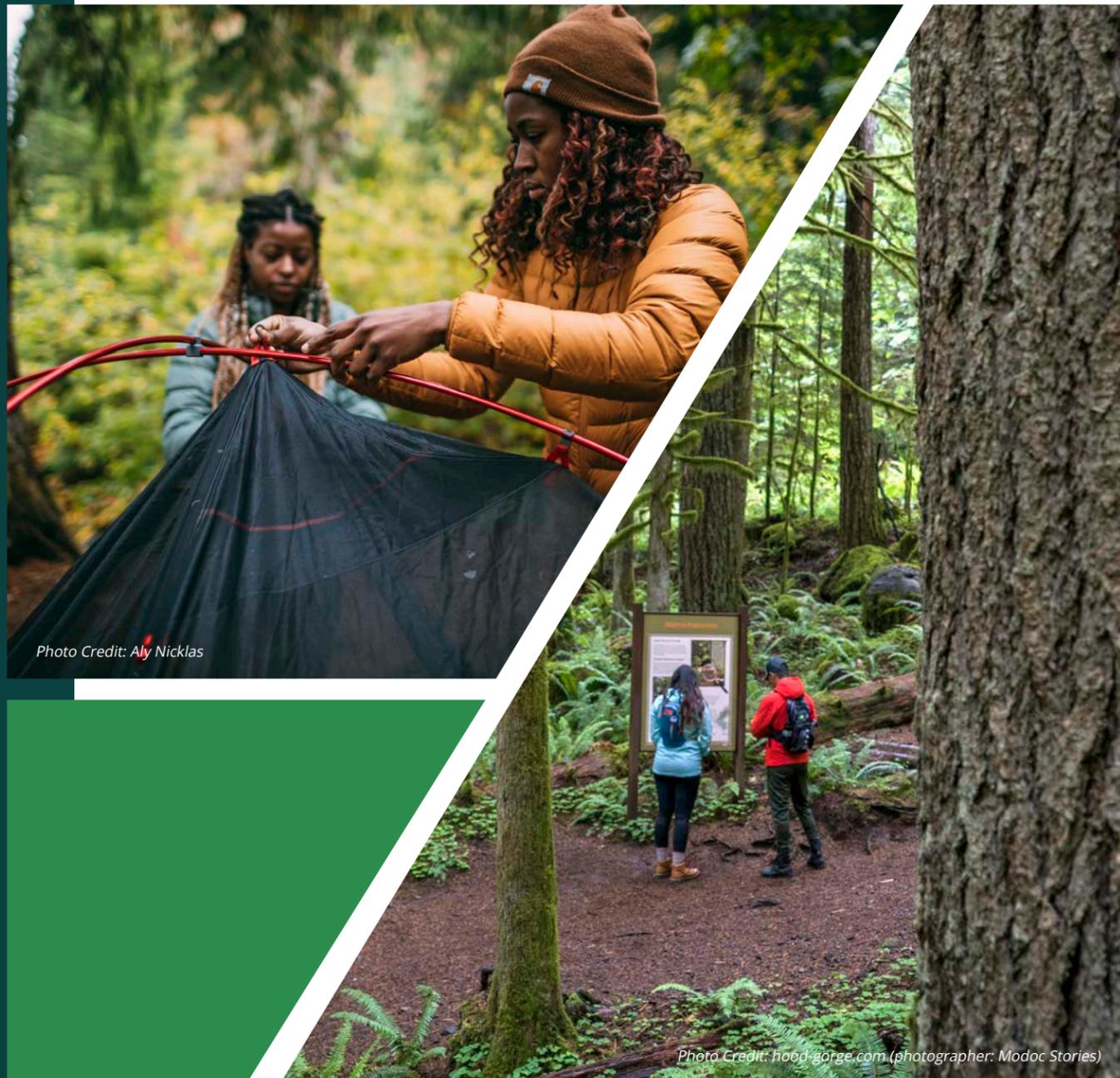


Photo Credit: Aly Nicklas

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FIGURE 5. TRIP-RELATED SPENDING BY COUNTY

County	Trip-Related Spending (000s)
Baker	\$124,847
Benton	\$79,975
Clackamas	\$628,307
Clatsop	\$785,485
Columbia	\$37,085
Coos	\$1,267,023
Crook	\$85,516
Curry	\$611,819
Deschutes	\$744,279
Douglas	\$375,005
Gilliam	\$6,645
Grant	\$74,955
Harney	\$172,662
Hood River	\$283,142
Jackson	\$310,974
Jefferson	\$138,255
Josephine	\$174,794
Klamath	\$384,217
Lake	\$109,581
Lane	\$1,289,630
Lincoln	\$2,077,683
Linn	\$204,072
Malheur	\$82,215
Marion	\$316,326
Morrow	\$22,405
Multnomah	\$426,210
Polk	\$64,793
Sherman	\$6,710
Tillamook	\$737,143
Umatilla	\$115,689
Union	\$81,331
Wallowa	\$62,528
Wasco	\$288,737
Washington	\$163,550
Wheeler	\$20,955
Yamhill	\$68,677
Grand Total	\$12,423,222

This analysis found that outdoor recreation at Oregon's 12 national forests supported the largest share of trip-related expenditures at \$3.4 billion; Mt. Hood National Forest contributed \$823 million to Oregon's economy on its own. Looking solely at state-owned lands, recreation at OPRD lands (e.g., state parks, state natural areas) was the lead driver of consumer spending, supporting \$1.4 billion in annual consumer spending. The iconic Silver Falls State Park outside of Salem supported nearly \$60 million in annual spending.

The purchase of gear, equipment, and apparel within Oregon by residents and nonresidents totaled \$3.2 billion in 2019. A large portion of equipment-related expenditures were associated with the purchase of motor vehicles and parts, followed by sporting goods and apparel. Though these expenditures are not directly tied to Oregon's well-known history of designing and manufacturing quality outdoor equipment and accessories, and estimating this relationship is outside the scope of this analysis, some of these purchases are associated with products made in Oregon and/or by Oregon-based companies, for which the dollars remain local and lead to higher multiplier effects.

FIGURE 6. EQUIPMENT-RELATED SPENDING BY INDUSTRY

Industry	Equipment Expenditures (000s)
Retail - Motor vehicle and parts	\$1,183,429
Retail - Electronics and appliances	\$447,783
Personal and household goods repair and maintenance	\$127,939
Retail - Sporting goods, hobby, books, and music	\$767,629
Retail - Clothing and clothing accessories stores	\$671,676
TOTAL	\$3,198,456

ECONOMIC CONTRIBUTIONS

Expenditures on outdoor recreation trips and equipment were analyzed for their effects at the state level and in regional economies within Oregon, including the following geo-political boundaries: counties, legislative districts, and tourism regions.

Statewide, it was found that recreation trips and equipment purchases supported \$15.6 billion in expenditures in 2019. These recreation expenditures supported 224,000 full and part-time jobs in Oregon. 122,000 of these jobs were a direct result of recreation expenditures, and the remaining 102,000 jobs resulted from indirect and induced effects.

These results clearly demonstrate how jobs directly supported by outdoor recreation have immense ripple effects throughout Oregon's economy. The industries with the highest employment were sit-down restaurants, the amusement and recreation industry, such as golf courses and ski facilities, and hotels (top 15 industries are provided in Figure 7). Total compensation for employees of outdoor recreation related industries was \$9.1 billion. The average annual salary of employees in these industries is \$41,000.

FIGURE 7. OUTDOOR RECREATION RELATED EMPLOYMENT BY INDUSTRY - TOP 15 INDUSTRIES

Sector	Employment*	Compensation	Average Compensation
Full-service restaurants	34,396	\$1,022,043,543	\$29,714
Other amusement and recreation industries	20,271	\$525,913,454	\$25,944
Hotels and motels, including casino hotels	15,573	\$601,467,194	\$38,623
Retail - Miscellaneous store retailers	11,538	\$313,658,806	\$27,185
Retail - Food and beverage stores	11,039	\$409,429,369	\$37,090
Transit and ground passenger transportation	7,748	\$155,291,680	\$20,044
Other accommodations	4,731	\$215,758,177	\$45,609
Retail - Sporting goods, hobby, musical instrument, and bookstores	11,356	\$314,906,148	\$27,730
Other federal government enterprises	4,441	\$479,325,705	\$107,942
Other real estate	4,925	\$146,237,424	\$29,691
Retail - Clothing and clothing accessories stores	4,119	\$128,102,365	\$31,103
Retail - Electronics and appliance stores	2,521	\$124,647,358	\$49,451
Personal and household goods repair and maintenance	1,979	\$126,871,540	\$64,112
Wholesale - Motor vehicle and motor vehicle parts and supplies	657	\$45,567,200	\$69,367
Management of companies and enterprises	313	\$43,348,923	\$138,318

*Employment data is generated based on spending activity and may not align with other datasets. Appendix F details how spending was attributed to industry sectors for analysis in IMPLAN.



Photo Credit: Travel Oregon

Photo Credit: Daniel Sharp

Outdoor recreation also generates revenue for the state. Oftentimes, the impact that outdoor recreation has on the state's budget is viewed only as the revenue generated by entrance fees and license sales. A more comprehensive picture is gained by also looking at the tax contributions generated by consumer spending on gas, hotel/lodging/camping, car rental, and airport taxes, and from employment gains through payroll and personal income taxes. In 2019, \$1.1 billion in state and local tax revenues were generated through outdoor recreation spending. Trip-related spending produced 60% of these revenues, with the remaining 40% resulting from equipment-related spending.

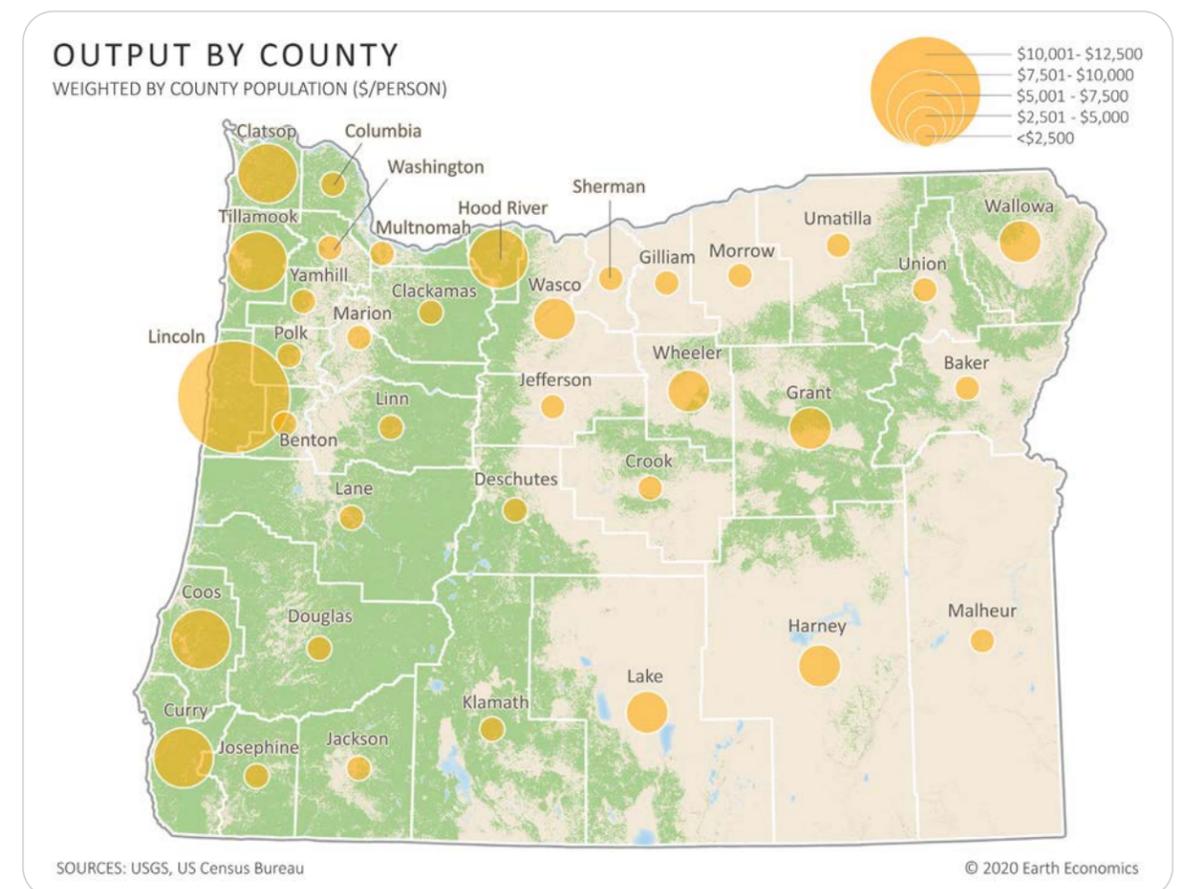
The economic output of outdoor recreation expenditures totaled \$24.6 billion. Economic output represents the total spending associated with an initial expenditure plus secondary spending effects made by businesses and employees. Industries with the highest direct economic output include restaurants, hotels, grocery stores, and sporting goods and apparel retailers. Economic output of \$24.6 billion can also be interpreted as every \$1 spent on outdoor recreation, an additional \$0.52 of revenue is generated for a total economic effect of \$1.52 per \$1.

Finally, a standard measure of economic productivity for an industry is its contribution to the region's GDP. Outdoor recreation contributed \$13.1 billion to Oregon's GDP, equaling 6% of Oregon's \$227 billion GDP. This estimate represents the monetary value of finished products. The U.S. Bureau of Economic Analysis (BEA) estimated that spending on outdoor recreation in Oregon in 2019 contributed \$7.2 billion to Oregon's GDP and supported 88,000 jobs. The primary difference between the data presented here and BEA data is the inclusion of local recreation, which accounts for approximately 40% trip-related spending.

FIGURE 8. ECONOMIC CONTRIBUTION OF OUTDOOR RECREATION IN OREGON

Impact Type	Employment	Labor Income (000s)	Output (000s)	Value Added (000s)
Direct Effect	122,164	\$4,040,363	\$8,950,746	\$4,346,014
Indirect Effect	58,419	\$3,141,293	\$9,245,128	\$4,921,822
Induced Effect	43,527	\$2,144,972	\$6,391,280	\$3,840,207
Total Effect	224,110	\$9,326,627	\$24,587,154	\$13,108,043

FIGURE 9. POPULATION WEIGHTED ECONOMIC OUTPUT



ECONOMIC IMPACT OF OUTDOOR RECREATION-BASED TOURISM

Outdoor recreation-based tourism brings dollars from outside the region into the local economy. The injection of new dollars into an economy supports jobs and incomes in the regional economy and provides an additional revenue stream for government agencies through tax contributions. Recreation visitors are defined as Oregonians who travel 50 or more miles and out-of-state visitors.

Visitors bring dollars into communities from outside the region. Visitors also spend more than their local counterparts. For instance, across all state parks in Oregon, overnight visitors spend 66% more than local overnight visitors (\$296.51 vs. \$178.78 per party, per trip), and day visitors spend 165% more than local day visitors (\$93.15 vs. \$35.62 per party, per trip). When Oregonians take trips within Oregon, it keeps the money local and reduces economic leakages.

In 2019, visitors spent an estimated \$7.3 billion participating in outdoor recreation in Oregon. Visitors account for 60% of all recreation spending in Oregon. Dollars such as these provide an economic development opportunity for communities with rich recreation opportunities to capture.

The \$7.3 billion spent on outdoor recreation by visitors generated substantial economic activity in Oregon. 115,700 jobs are associated with this spending, 63,200 of which are direct jobs, with the remaining 52,500 stemming from indirect and induced spending effects. Industry sectors most benefiting from visitors are accommodations, restaurants, and amusement and recreation industries, similar to the statewide observations. Economic output, or total spending associated with direct expenditures of \$7.3 billion is estimated to be \$12.7 billion, meaning for every \$1 spent on outdoor recreation by out-of-state visitors, \$0.74 is re-spent with Oregon's economy for a total spending impact of \$1.74

Further breaking visitors down, the economic impact exclusively by of out-of-state visitors represents *new* money flowing into the state. This estimate allows us to understand the loss in economic benefits that would occur in the event the visitors did not come to Oregon. It is assumed that these visitors would travel elsewhere or stay at home, and the revenue flows from their visit would go with them. Out-of-state visitors brought \$3.8 billion into Oregon's economy, supporting 60,800 jobs throughout the state.

FIGURE 10. ECONOMIC CONTRIBUTION OF OUTDOOR RECREATION VISITORS IN OREGON

Visitor Type	Consumer Spending (000s)	Employment	Labor Income (000s)	Output (000s)	Value Added (000s)
In-state Traveler	\$3,481,544	54,947	\$2,148,654	\$5,802,931	\$3,315,259
Out-of-state Visitor	\$3,800,602	60,814	\$2,537,137	\$6,880,321	\$3,560,540
All Visitors	\$7,282,146	115,761	\$4,685,790	\$12,683,252	\$6,875,799

Photo Credit: traveloregon.com



Photo Credit: Austin Shepard

CONCLUSION AND DISCUSSION

Outdoor recreation is an important and significant part of Oregon's overall economy. Spending on outdoor recreation in Oregon totaled \$15.6 billion in 2019 and had GDP contributions equal to 6% of Oregon's economy. Outdoor recreation also supported 8.6% of all employment in Oregon at 224,000 full and part time jobs. The average wage – including benefits – was estimated to be \$41,000 per year.

Spending by in-state travelers and out-of-state visitors (\$7.3 billion) made up approximately 60% of trip-related spending. The continued investment in stewardship of lands, development of recreation amenities, and promotion of outdoor recreation by state and regional tourism agencies ensures these dollars continue to flow into the state.

The analysis also found that coastal Oregon counties – specifically, Lincoln, Tillamook, and Curry – had the highest percent of the labor force employed by outdoor recreation spending. This emphasizes the importance of outdoor recreation in these communities, particularly because a large share of these dollars come from outside the region (67-77% of all recreation spending within the county). Policies that strengthen and promote outdoor recreation will have important implications for these economies. In 2020 outdoor recreation stakeholders, including the agencies that commissioned this study, developed recommendations through the Governor's Task Force on the Outdoors: 2020 Framework for Action. That report details several consensus policies to support economic development in rural and urban areas, increase outdoor recreation participation among traditionally underserved communities, and balance improved outdoor recreation access with resource protection.

The estimates above provide a strong baseline of Oregon's outdoor recreation economy, providing a benchmark for future studies. The importance for agencies to collect visitation data, and in a consistent way, has also been realized, which can help reveal the value of their presence and relationship with local communities.

It also presents the challenges that agencies face when doing so. Due to the dispersed nature of outdoor recreation, accurately counting recreation visitors can be a challenging task at facilities with little or no access control. This report recognizes these challenges exist and used best available science to estimate visitation. New opportunities to monitor use are emerging, such as social media and anonymized cell phone data, and should be emphasized in future studies.

Other common concerns with the data presented are the double counting of park visitors, double counting of people who engage in multiple types of recreation on a given day, and differences in methods for estimation used by various facilities and management agencies. To adjust for double counting, nonprimary visitors (or visitors whose primary trip purpose was not recreation at the site) were treated as local day visitors, limiting their spending impacts.

While this report estimates the significant economic contribution of outdoor recreation in Oregon, it does not represent the full suite of economic benefits that outdoor recreational spaces and activities generate, for example:

- **CONSUMER SURPLUS**

An economic concept that refers to the value people get from recreation over and above what they pay, consumer surplus is an important measure of societal welfare. In 2018, the OPRD estimated the consumer surplus, or total net economic value, for recreation participation in Oregon by Oregonians to be \$54.2 billion (2018 USD) annually.

- **PUBLIC HEALTH**

Parks and natural spaces promote physical and mental health. Those who participate in outdoor recreation are shown to have lower medical and insurance costs than their non-active counterparts. Oregon State University has estimated the economic value of this physical activity to be \$1.4 billion in insurance savings per year. These savings are equivalent to 2-3.6% of total health care expenditures in the states.

- **ENVIRONMENTAL BENEFITS**

Among other public benefits, recreational spaces in Oregon provide clean, drinkable water (thus reducing filtration costs); carbon sequestration (avoiding economic impacts associated with increased CO2); scenic beauty (increasing home values); and habitat for plants and animals (strengthening food webs). While these benefits have not been quantified or valued across all outdoor recreation spaces in Oregon, nearby studies suggest this value can be immense. For example, Earth Economics estimated that each year, Washington state's public lands provide between \$216 billion and \$264 billion in environmental benefits.

The findings presented in this report provide a baseline of the outdoor recreation economy in Oregon. The analysis also provides a structure for collecting and organizing

visitation and spending data. Using this approach allows for future updates to be directly comparable. As Oregon's population continues to grow, and preferences and demand for outdoor recreation evolves, this study should be updated every five years, on a parallel planning track with the Statewide Comprehensive Outdoor Recreation Plan. Important future studies should also increase our understanding of:

- **EQUITABLE ACCESS**

The equitable access to outdoor recreation has not been studied in this analysis. The authors recognize that not all populations have equal access to and/or feel comfortable in outdoor spaces, notably, people of color are underrepresented within the outdoor space.

- **OVERCROWDING**

This report does not discuss the impact that outdoor recreation has on our landscapes. Park agencies are tasked with weighing visitor demand with ecosystem needs. Economic contribution analysis and other benefit analyses (as highlighted above) can highlight the importance of investment in our natural spaces.

- **CLIMATE CHANGE**

Oregon's susceptibility to natural disasters impacting recreational landscapes is heightened through climate change. Wildfires, excessive heat, and warmer winters have a noticeable impact on recreation use. Rising sea levels, invasive species, and water temperatures may result in long-term impacts to use. Of recent relevance, wildfires are not only dangerous to the immediate population, but wildfire smoke can make recreation unhealthy to engage in throughout the state. Wildfires can later cause drought by not allowing water to recharge aquifers in burned areas, further impacting water-based recreation.



Photo Credit: traveloregon.com



Photo Credit: Carter Reschke (unsplash.com)

APPENDIX A

RECREATIONAL LANDS INCLUDED IN THIS STUDY

NATIONAL PARK SERVICE

Crater Lake National Park, John Day Fossil Beds National Monument, Lewis And Clark National Historical Park, Oregon Caves National Monument and Preserve

U.S. FISH AND WILDLIFE SERVICE

Bear Valley National Wildlife Refuge, Malheur National Wildlife Refuge, Bandon Marsh National Wildlife Refuge, Lewis and Clark National Wildlife Refuge, Nestucca Bay National Wildlife Refuge, William L. Finley National Wildlife Refuge, Cold Springs National Wildlife Refuge, McKay Creek National Wildlife Refuge, Umatilla National Wildlife Refuge, Klamath Marsh National Wildlife Refuge, Upper Klamath National Wildlife Refuge, Tualatin River National Wildlife Refuge, Siletz Bay National Wildlife Refuge, Lower Klamath National Wildlife Refuge, Oregon Islands National Wildlife Refuge, Ankeny National Wildlife Refuge, Baskett Slough National Wildlife Refuge, Cape Meares National Wildlife Refuge, Three Arch Rocks National Wildlife Refuge

OREGON PARKS AND RECREATION DEPARTMENT

Arizona Beach State Recreation Site, Ellmaker State Wayside, Emigrant Springs State Heritage Area, Face Rock State Scenic Viewpoint, Farewell Bend State Recreation Area, Fogarty Creek State Recreation Area, Fort Rock State Natural Area, Fort Stevens State Park, Fort Yamhill State Heritage Site, Bald Peak State Scenic Viewpoint, Geisel Monument State Heritage Site, Gleneden Beach State Recreation Site, Golden And Silver Falls State Natural Area, Bandon State Natural Area, Governor Patterson Memorial State Recreation Site, Guy W. Talbot State Park, H.B. Van Duzer Forest State Scenic Corridor, Harris Beach State Park, Hat Rock State Park, Heceta Head Lighthouse State Scenic Viewpoint, Hilgard Junction State Park, Bates State Park, Hug Point State Recreation Site, Humbug Mountain State Park, Illinois River Forks State Park, Iwetemlaykin State Heritage Site, Battle Mountain Forest State Scenic Corridor, Jackson F. Kimball State Recreation Site, Jasper State Recreation Site, Jessie M. Honeyman Memorial State Park, Beachside State Recreation Site, Joseph H. Stewart State Recreation Area, Koberg Beach State Recreation Site, L.L. "Stub" Stewart State Park, Lake Owyhee State Park, Lapine State Park, Lewis And Clark State Recreation Site, Lost Creek State Recreation Site, Lowell State Recreation Site, Luckiamute State Natural Area, Manhattan Beach State Recreation Site, Maud Williamson State Recreation Site, Mayer State Park, Agate Beach State Recreation Site, Mcvay Rock State Recreation Site, Memaloose State Park, Milo Mciver State Park, Minam State Recreation Area, Molalla River State Park, Munson Creek State Natural Area, Benson State Recreation Area, Nehalem Bay State Park, Neptune State Scenic Viewpoint, Neskowin Beach State Recreation Site, North Santiam State Recreation Area, Oceanside Beach State Recreation Site, Ochoco State Scenic Viewpoint, Ontario State Recreation Site, Beverly Beach State Park, Oswald West State Park, Otter Crest State Scenic Viewpoint, Otter Point State Recreation Site, Paradise Point State Recreation Site, Peter Skene Ogden State Scenic Viewpoint, Pilot Butte State Scenic Viewpoint, Pistol River State Scenic Viewpoint, Port Orford Heads State Park, Portland Women's Forum State Scenic Viewpoint, Prineville Reservoir State Park, Roads End State Recreation Site, Rocky Creek State Scenic Viewpoint, Rooster Rock State Park, Saddle Mountain State Natural Area, Samuel H. Boardman State Scenic Corridor, Sarah Helmick State Recreation Site, Seal Rock State Recreation Site, Seneca Fouts Memorial State Natural Area, Seven Devils State Recreation Site, Bob Straub State Park, Shore Acres State Park, Silver Falls State Park, Siuslaw North Jetty, Boiler Bay State Scenic Viewpoint, Smelt Sands State Recreation Site, Smith Rock State Park, South Beach State Park, Starvation Creek State Park, Ainsworth State Park, Sumpter Valley Dredge State Heritage Area, Sunset Bay State Park, Sunset Beach State Recreation Site, The Cove Palisades State Park, Tolovana Beach State Recreation Site, Tou Velle State Recreation Site, Tseriadun State Recreation Area, Tumalo State Park, Ukiah-Dale Forest State Scenic Corridor, Umpqua Lighthouse State Park, Umpqua State Scenic Corridor, Unity Lake State Recreation Site, Valley Of The Rogue State Park, Viento State Park, W.B. Nelson State Recreation Site, Wallowa Lake State Park, Booth State Scenic Corridor, Warm Springs State Recreation Site, White River Falls State Park, Willamette Mission State Park, William M. Tugman State Park, Winchuck State Recreation Site, Yachats Ocean Road State Natural Site, Yachats State Recreation Area, Yaquina Bay State Recreation Site, Bradley State Scenic Viewpoint, Brian Booth State Park, Bridal Veil Falls State Scenic Viewpoint, Bullards Beach State Park, Cape Arago State Park, Cape Blanco State Park, Cape Lookout State Park, Cape Meares State Scenic Viewpoint, Cape Sebastian State Scenic Corridor, Carl G. Washburne Memorial State Park,

Cascadia State Park, Catherine Creek State Park, Champoeg State Heritage Area, Alfred A. Loeb State Park, Clay Myers State Natural Area, Cline Falls State Scenic Viewpoint, Clyde Holliday State Recreation Site, Collier Memorial State Park, Cottonwood Canyon State Park, Crissey Field State Recreation Site, Crown Point State Scenic Corridor, D River State Recreation Site, Dabney State Recreation Area, Dalton Point Recreation Site, Del Rey Beach State Recreation Site, Deschutes River State Recreation Area, Detroit Lake State Recreation Area, Devil's Lake State Recreation Area, Devil's Punch Bowl State Natural Area, Arcadia Beach State Recreation Site, Dexter State Recreation Site, Driftwood Beach State Recreation Site, Ecola State Park, Elijah Bristow State Park

OREGON DEPARTEMENT OF FORESTRY

Clatsop State Forest, Santiam State Forest, Tillamook State Forest, Coos District, Klamath-Lake District

UNITED STATES ARMY CORPS OF ENGINEERS

Blue River Lake, Bonneville Lock and Dam, Cottage Grove Lake, Detroit Lake, Dexter Lake, Dorena Lake, Fall Creek Lake, Fern Ridge Lake, Foster Lake, Green Peter Lake, Hills Creek Lake, John Day Lock And Dam, Lake Umatilla, Lookout Point Lake, Lost Creek Lake, McNary Lock And Dam, Willow Creek

U.S. FOREST SERVICE

Columbia River Gorge National Scenic Area, Deschutes National Forest, Fremont-Winema National Forest, Malheur National Forest, Mt. Hood National Forest, Ochoco National Forest, Rogue River-Siskiyou National Forests, Siuslaw National Forest, Umatilla National Forest, Umpqua National Forest, Wallowa-Whitman National Forest, Willamette National Forest

GOLF COURSES

Counties with golf courses; specific courses not included to protect privacy.

Baker County Golf Course, Benton County Golf Course, Clackamas County Golf Course, Clatsop County Golf Course, Columbia County Golf Course, Coos County Golf Course, Crook County Golf Course, Curry County Golf Course, Deschutes County Golf Course, Douglas County Golf Course, Grant County Golf Course, Harney County Golf Course, Hood River County Golf Course, Jackson County Golf Course, Jefferson County Golf Course, Josephine County Golf Course, Klamath County Golf Course, Lake County Golf Course, Lane County Golf Course, Lincoln County Golf Course, Linn County Golf Course, Malheur County Golf Course, Marion County Golf Course, Morrow County Golf Course, Multnomah County Golf Course, Polk County Golf Course, Tillamook County Golf Course, Umatilla County Golf Course, Union County Golf Course, Wallowa County Golf Course, Wasco County Golf Course, Washington

County Golf Course

LOCAL PARKS

Baker City, Baker County, Benton, Benton County, Benton County Fairgrounds, City Of Unity And Baker County, Clackamas, Clackamas County, Clackamas County Historical Society, Clatsop, Clatsop County, Columbia, Columbia County, Coos, Coos County, Crook County Parks And Recreation District, Curry, Curry County, Deschutes, Douglas, Douglas County, Douglas County Fairgrounds, Gilliam, Gilliam County, Grant, Grant County, Harney, Harney County, Harney County Little League, Hood River, Hood River County, Jackson, Jackson County, Jefferson, Jefferson County, Josephine, Josephine County, Klamath, Klamath County, Lake, Lake County, Lane, Lane County, Lincoln, Lincoln County, Linn, Linn County, Malheur, Malheur County, Marion, Marion County, Morrow, Morrow County, Multnomah, North County Recreation District, Northern Wasco County Parks And Recreation District, Polk, Polk County, Sherman, Sherman County, Tillamook, Tillamook County, Tillamook County - Disavowed, Tillamook County Pioneer Museum, Umatilla, Umatilla County, Union, Union County, Wallowa, Wallowa County, Wasco, Wasco County, Washington, Washington County, Wheeler, Wheeler County, Yamhill, Yamhill County

PRIVATE LAND TRUST PROPERTIES

Andrew Reasoner Wildlife Preserve, Bald Hill, Boneyard Ridge, Borax Lake, Camassia Preserve, Cascade Head, Cascade-Siskiyou, Cedar Mill Preserve, Circle Creek, Clear Lake Ridge, Cogswell Foster, Colwood Park, Creep and Crawl Lake, Deer Creek - Illinois River, Doris Davis Beaver Marsh, Drift Creek - Alsea River, Elk Meadows Nature Park, Estella Matilda Happ Preserve, Finn Rock Reach - East, Fishers Point, Fitton Green, Five Mile - Bell Creeks, Forest Dell, Fourmile Wetlands, Gilchrist, Hayden Island, Hood River - Punch Bowl Falls, Jackson-Frazier, Jacksonville Woodlands, Jacksonville Woodlands, Beekman Woods, Jacksonville Woodlands, Britt Woods, Jacksonville Woodlands, The Quarry, John Day River, Murtha Ranch, Juniper Hills, Kingston Prairie, Lewis and Clark National Historical Park, Lincoln County Conservation Easement, Lindsay Prairie, McKenzie Camp, Miami Wetlands, Mill Creek, Miller Tree Farm Community Forest, Minthorn Springs, Neal's Fen, Neawanna Point, North Umpqua, Nyberg Wetland, Old Siskiyou Sheep Trail, Reed Ranch, Sandy & Little Sandy Rivers, Slide Creek, Snake River/Cache Creek Ranch, Sutton Lake Swamp, Sycan Marsh, Table Rocks Fee, Thompson Falls, Tom McCall at Rowena, Whetstone Savanna, Willamette - Luckimute Landing, Willamette Confluence, Williamson River Delta, Williamson River Delta - Goose Bay, Wolf Bay Twilight Eagle Sanctuary, Woolfolk, Yeon Easement

APPENDIX B

COUNTY LEVEL RESULTS

County level results are estimated for trip-related spending and do not include expenditures on equipment (outdoor recreation gear, apparel, equipment, and repair), which are measured at the state-level. Trip-related spending occurs while participating in, or traveling to participate in, an outdoor recreation activity. The results below show the economic effects associated with direct spending and their secondary effects **occurring within the county**. Secondary effects measure how direct spending ripples out to the businesses and employees which support the operation of directly impacted businesses. County results do not include state-wide economic effects resulting from direct spending.

FIGURE 11. OREGON COUNTIES

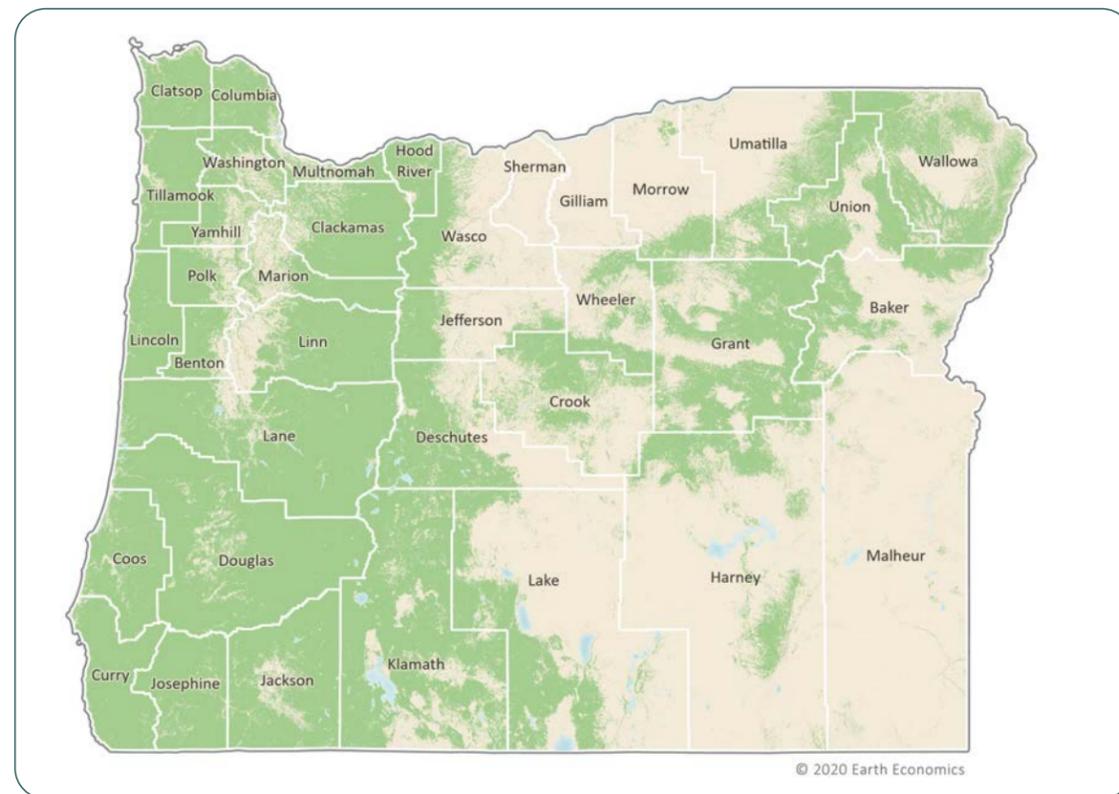


FIGURE 12. ECONOMIC CONTRIBUTION OF OUTDOOR RECREATION IN OREGON – COUNTY-LEVEL RESULTS

County	Trip-Related Spending (000s)	Employment	Labor Income (000s)	Output (000s)	GDP Contributions (000s)	State and Local Tax (000s)
Baker	\$124,847	1,060	\$26,648	\$73,834	\$31,701	\$3,959
Benton	\$79,975	765	\$24,497	\$63,848	\$34,694	\$4,383
Clackamas	\$628,307	7,455	\$312,218	\$683,446	\$356,266	\$36,835
Clatsop	\$785,485	5,784	\$215,710	\$554,435	\$325,603	\$26,095
Columbia	\$37,085	271	\$8,785	\$22,726	\$10,789	\$1,477
Coos	\$1,267,023	13,385	\$446,408	\$1,058,855	\$80,683	\$49,207
Crook	\$85,516	841	\$26,058	\$74,226	\$35,006	\$3,974
Curry	\$611,819	5,137	\$151,929	\$418,400	\$203,470	\$17,017
Deschutes	\$744,279	9,424	\$370,650	\$863,301	\$432,902	\$43,791
Douglas	\$375,005	3,821	\$124,538	\$304,117	\$137,531	\$18,959
Gilliam	\$6,645	36	\$1,048	\$2,539	\$1,306	\$139
Grant	\$74,955	909	\$21,311	\$55,783	\$16,319	\$4,369
Harney	\$172,662	1,065	\$34,881	\$82,538	\$33,144	\$6,833
Hood River	\$283,142	3,468	\$131,692	\$281,252	\$119,835	\$15,901
Jackson	\$310,974	3,225	\$120,626	\$307,924	\$163,486	\$16,156
Jefferson	\$138,255	1,396	\$45,791	\$114,943	\$47,229	\$5,982
Josephine	\$174,794	1,701	\$65,084	\$150,161	\$74,463	\$8,011
Klamath	\$384,217	4,396	\$143,566	\$345,049	\$150,652	\$21,275
Lake	\$109,581	1,412	\$32,449	\$82,022	\$21,994	\$6,259
Lane	\$1,289,630	12,689	\$492,165	\$1,201,642	\$654,169	\$67,056
Lincoln	\$2,077,683	16,195	\$523,094	\$1,444,388	\$821,526	\$71,230
Linn	\$204,072	1,789	\$67,440	\$153,240	\$76,134	\$8,638
Malheur	\$82,215	609	\$18,304	\$50,752	\$25,408	\$3,478
Marion	\$316,326	2,939	\$116,914	\$300,358	\$163,326	\$15,555
Morrow	\$22,405	171	\$4,922	\$11,953	\$6,062	\$988
Multnomah	\$426,210	4,285	\$198,537	\$473,529	\$287,961	\$23,219
Polk	\$64,793	453	\$14,075	\$35,502	\$19,327	\$2,055
Sherman	\$6,710	41	\$1,419	\$3,849	\$2,148	\$143
Tillamook	\$737,143	5,459	\$167,967	\$484,088	\$260,165	\$29,049
Umatilla	\$115,689	968	\$28,881	\$75,329	\$39,573	\$5,263
Union	\$81,331	792	\$23,172	\$66,841	\$28,713	\$3,223
Wallowa	\$62,528	748	\$19,837	\$50,269	\$16,602	\$2,809
Wasco	\$288,737	3,746	\$133,389	\$307,916	\$145,060	\$19,153
Washington	\$163,550	1,267	\$54,666	\$135,914	\$83,425	\$6,400
Wheeler	\$20,955	192	\$4,360	\$12,001	\$3,107	\$548
Yamhill	\$68,677	529	\$18,896	\$48,224	\$25,784	\$2,651
Total County Effects	-	118,421	\$4,191,928	\$10,395,196	\$4,935,564	\$552,081
Secondary State Effect	-	105,689	5,134,700	14,191,958	8,172,478	-
State-Wide Total	\$12,423,222	224,110	\$9,326,627	\$24,587,154	\$13,108,043	552,081



APPENDIX C

STATE SENATE DISTRICT RESULTS

State Senate District results are estimated for trip-related spending and do not include expenditures on equipment (outdoor recreation gear, apparel, equipment, and repair), which are measured at the state-level. Trip-related spending occurs while participating in, or traveling to participate in, an outdoor recreation activity. The results below show the economic effects associated with direct spending and their secondary effects occurring in the region. Secondary effects measure how direct spending ripples out to the businesses and employees which support the operation of directly impacted businesses.

FIGURE 13. OREGON STATE SENATE DISTRICTS

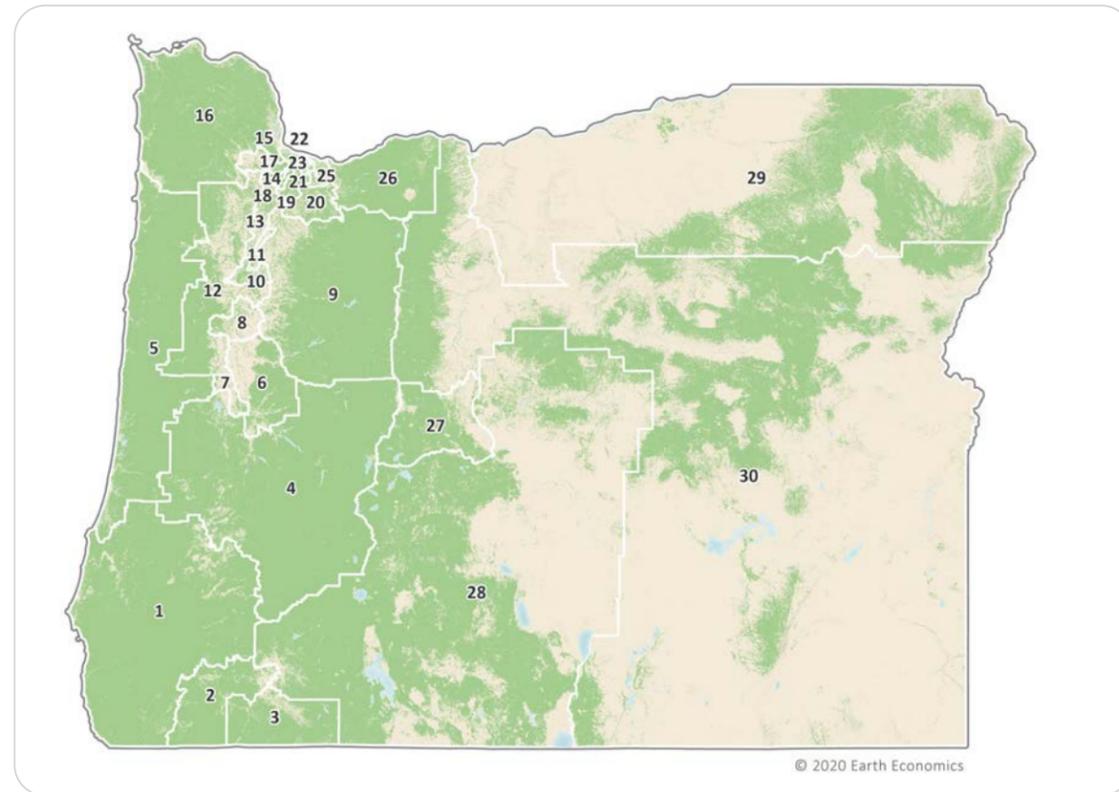


FIGURE 14. ECONOMIC CONTRIBUTION OF OUTDOOR RECREATION IN OREGON – STATE SENATE DISTRICT RESULTS

State Senate District	Trip-Related Spending (000s)	Employment	Labor Income (000s)	Output (000s)	Value Added (000s)	State and Local Taxes (000s)
1	\$1,078,480	9,984	\$313,170	\$804,484	\$294,565	\$37,368
2	\$217,112	2,155	\$81,823	\$194,798	\$98,789	\$10,337
3	\$224,227	2,328	\$86,977	\$222,028	\$117,881	\$11,650
4	\$406,845	4,057	\$148,197	\$361,851	\$186,326	\$20,949
5	\$3,466,710	30,161	\$993,314	\$2,583,916	\$1,046,249	\$127,769
6	\$386,237	3,789	\$146,589	\$357,017	\$193,792	\$19,930
7	\$500,777	4,934	\$191,113	\$466,611	\$254,021	\$26,039
8	\$157,664	1,450	\$50,311	\$121,912	\$63,327	\$7,599
9	\$190,308	1,770	\$68,611	\$162,474	\$84,201	\$8,817
10	\$96,238	836	\$31,072	\$79,527	\$43,254	\$4,217
11	\$149,603	1,401	\$55,293	\$142,051	\$77,243	\$7,357
12	\$64,476	523	\$17,956	\$45,885	\$24,724	\$2,580
13	\$125,259	1,286	\$51,725	\$120,344	\$64,287	\$6,398
14	\$18,666	159	\$6,246	\$15,526	\$9,530	\$731
15	\$48,574	391	\$16,235	\$40,366	\$24,777	\$1,901
16	\$1,409,570	10,423	\$358,836	\$963,722	\$544,381	\$50,730
17	\$64,289	555	\$23,775	\$58,291	\$35,670	\$2,782
18	\$82,097	782	\$34,713	\$83,691	\$51,010	\$4,061
19	\$104,549	1,187	\$49,722	\$111,353	\$60,399	\$5,855
20	\$190,410	2,279	\$94,618	\$207,120	\$107,967	\$11,163
21	\$82,132	927	\$39,644	\$90,214	\$50,652	\$4,659
22	\$109,188	1,120	\$50,862	\$121,310	\$73,771	\$5,948
23	\$56,412	590	\$26,278	\$62,676	\$38,114	\$3,073
24	\$121,241	1,408	\$59,319	\$132,575	\$71,987	\$6,984
25	\$80,688	836	\$37,586	\$89,646	\$54,515	\$4,396
26	\$446,360	5,390	\$212,104	\$459,313	\$214,808	\$25,377
27	\$603,137	7,664	\$300,361	\$699,587	\$350,808	\$35,487
28	\$692,836	8,060	\$257,293	\$631,584	\$274,782	\$38,036
29	\$354,254	3,550	\$106,510	\$273,639	\$124,018	\$16,474
30	\$894,884	8,891	\$281,670	\$691,685	\$299,717	\$43,415

Photo Credit: hood-gorge.com (photographer: Modoc Stories)



Photo Credit: Kamrin Nielsen



APPENDIX D

TOURISM REGION RESULTS

Tourism Region results are estimated for trip-related spending and do not include expenditures on equipment (outdoor recreation gear, apparel, equipment, and repair), which are measured at the state-level. Trip-related spending occurs while participating in, or traveling to participate in, an outdoor recreation activity. The results below show the economic effects associated with direct spending and their secondary effects. Secondary effects measure how direct spending ripples out to the businesses and employees which support the operation of directly impacted businesses.

FIGURE 15. OREGON TOURISM REGIONS*

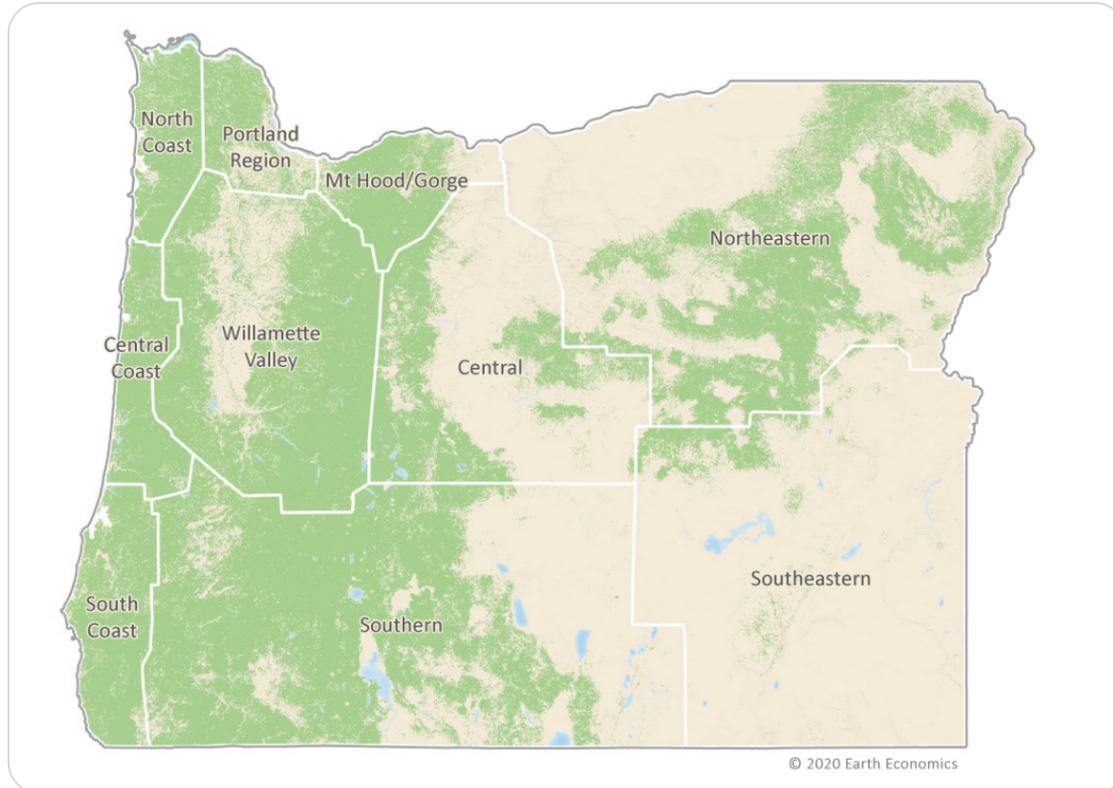


FIGURE 16. ECONOMIC CONTRIBUTION OF OUTDOOR RECREATION IN OREGON – TOURISM REGION RESULTS*

Tourism Region	Trip-Related Spending (000s)	Employment	Labor Income (000s)	Output (000s)	Value Added (000s)	State and Local Taxes (000s)
Central	\$1,057,497	12,821	\$483,821	\$1,147,857	\$560,074	\$59,680
Central Coast	\$2,290,546	18,310	\$601,247	\$1,635,250	\$920,862	\$82,213
Mt Hood/Gorge	\$601,761	7,377	\$281,465	\$624,772	\$293,175	\$35,905
North Coast	\$1,441,094	10,643	\$361,286	\$980,972	\$551,970	\$52,435
Northeastern	\$516,067	4,916	\$131,599	\$352,398	\$145,532	\$21,441
Portland Region	\$1,100,234	11,165	\$480,690	\$1,114,774	\$632,609	\$56,990
South Coast	\$1,878,842	18,522	\$598,337	\$1,477,255	\$284,153	\$66,224
Southeastern	\$252,637	1,660	\$52,733	\$132,219	\$58,123	\$10,223
Southern	\$1,287,992	13,867	\$463,861	\$1,134,535	\$523,317	\$67,270
Willamette Valley	\$1,996,551	19,139	\$736,889	\$1,795,164	\$965,748	\$99,702

*The Oregon Coast and Eastern Oregon regions have been subdivided to better illustrate the regions unique recreational aspects and geography



APPENDIX E

SPENDING BY OUTDOOR RECREATION ACTIVITY

In 2017, the Oregon Parks and Recreation Department (OPRD) categorized outdoor recreation into 56 unique activity types. Because each of the 56 unique activities could not be directly tied to recreational trips where monetary transactions occurred, Figure 16 of this report provides the average spending associated with each recreation trip, and the total trip-related spending for 32 of these recreation activities. Additionally, because recreation activities are oftentimes combined in the same trip (e.g., hiking and camping), the estimates in Figure 16 represent the participants primary activity to avoid double counting.



Photo Credit: Anthony Smith, courtesy of Bike Magazine

FIGURE 17. SPENDING BY OUTDOOR RECREATION ACTIVITY

Recreation Activity	Activity Days	\$/Activity Day	Total Spending (000's)
Attending outdoor concerts / fairs / festivals / other organized events	1,931,316	\$44	\$85,322
Beach activities – lakes / reservoirs / rivers	5,610,906	\$108	\$605,978
Beach activities – ocean	24,624,271	\$131	\$3,220,328
Bicycling on roads / streets / sidewalks / paved trails	10,871,377	\$119	\$1,291,540
Bicycling on unpaved trails	2,717,844	\$77	\$209,582
Car camping with a tent	3,409,968	\$103	\$352,502
Collecting (rocks / plants / mushrooms / berries)	2,407,339	\$52	\$125,171
Cross-country / Nordic skiing / skijoring on ungroomed trails / off designated trails	232,129	\$151	\$35,048
Dog walking / going to dog parks / off-leash areas	9,391,614	\$31	\$288,571
Downhill (alpine) skiing / snowboarding	677,753	\$179	\$121,579
Fishing	3,571,222	\$111	\$396,866
Flat-water canoeing / sea kayaking / rowing / stand-up paddling / tubing / floating	652,034	\$60	\$39,028
Golf	7,128,000	\$91	\$645,227
Hunting	1,679,129	\$96	\$161,853
Kite boarding	382,004	\$275	\$105,042
Long-distance hiking (backpacking)	1,826,024	\$112	\$204,497
Motorized trail activity	2,535,568	\$152	\$385,373
Nature / wildlife / forest / wildflower observation	10,680,000	\$88	\$939,758
Outdoor photography / painting / drawing	3,158,893	\$157	\$497,274
Personal water craft – jet ski	501,537	\$90	\$45,168
Playing sports at parks	27,813,224	\$22	\$619,347D22
Power boating (cruising / water skiing)	6,850,931	\$90	\$616,984
Primitive camping	938,050	\$58	\$54,402
Picnicking / relaxing / hanging out / escaping heat / noise / etc.	14,642,010	\$22	\$322,096
Rock climbing / Mountaineering	3,560,000	\$102	\$362,427
Shellfishing / clamming	321,410	\$82	\$26,511
Sightseeing / driving or motorcycling for pleasure	509,897	\$131	\$66,741
Snowmobiling	160,301	\$205	\$32,859
Swimming / playing in outdoor pools / spray parks	2,513,786	\$40	\$100,543
Visiting historic sites / history- themed parks	2,862,645	\$96	\$275,451
Visiting nature centers	2,175,584	\$77	\$168,137
White-water canoeing / kayaking/ rafting	460,607	\$48	\$22,017
Total	156,797,374	\$79	\$12,423,222

APPENDIX F

INPUT-OUTPUT SECTOR MAPPING

SPENDING CATEGORY	2018 CODE	IMPLAN DESCRIPTION
Gas & Oil	154	Petroleum refineries
Gas and oil	154	Petroleum refineries
Gas_and_oil	154	Petroleum refineries
Gasoline	154	Petroleum refineries
Gasoline/diesel	154	Petroleum refineries
Groceries	406	Retail - Food and beverage stores
Groceries and takeout food	406	Retail - Food and beverage stores
Groceries, take-out food/drinks	406	Retail - Food and beverage stores
Grocery Stores/liquor stores	406	Retail - Food and beverage stores
Gear	410	Retail - Sporting goods, hobby, musical instrument and book stores
Sporting goods	410	Retail - Sporting goods, hobby, musical instrument and book stores
Sporting goods and boat equipment	410	Retail - Sporting goods, hobby, musical instrument and book stores
Sporting_goods	410	Retail - Sporting goods, hobby, musical instrument and book stores
Gift shop (NP)	412	Retail - Miscellaneous store retailers
Other	412	Retail - Miscellaneous store retailers
Other expenses	412	Retail - Miscellaneous store retailers
Souvenirs and other expenses	412	Retail - Miscellaneous store retailers
Souvenirs and other expenses	412	Retail - Miscellaneous store retailers
Souvenirs/other	412	Retail - Miscellaneous store retailers
Souvenirs_and_other_expenses	412	Retail - Miscellaneous store retailers
Local Transportation	418	Transit and ground passenger transportation
Local transportation	418	Transit and ground passenger transportation
Other auto expenses	418	Transit and ground passenger transportation
Other_transportation	418	Transit and ground passenger transportation
Transport	418	Transit and ground passenger transportation
Transportation	418	Transit and ground passenger transportation
Parking	420	Scenic and sightseeing transportation and support activities for transportation
Private land use fees	447	Other real estate
Rental Vehicles	450	Automotive equipment rental and leasing
Attractions/Entertainment and recreation fees	504	Other amusement and recreation industries
Entertainment and recreation fees	504	Other amusement and recreation industries
Guide fees	504	Other amusement and recreation industries
Guide fees	504	Other amusement and recreation industries
Recreation and entertainment	504	Other amusement and recreation industries
Recreation_and_entertainment	504	Other amusement and recreation industries
Hotel	507	Hotels and motels, including casino hotels
Hotel, motels, cabins, BnB, rental homes	507	Hotels and motels, including casino hotels
Hotels	507	Hotels and motels, including casino hotels

Hotels/Motels	507	Hotels and motels, including casino hotels
Lodging	507	Hotels and motels, including casino hotels
Motel	507	Hotels and motels, including casino hotels
Motel, hotel cabin or B&B	507	Hotels and motels, including casino hotels
AirBNB	508	Other accommodations
Airbnb/Homeaway/etc.	508	Other accommodations
Camping	508	Other accommodations
Camping	508	Other accommodations
Camping fee	508	Other accommodations
Camping Fees	508	Other accommodations
Food/Drink	509	Full-service restaurants
Restaurant	509	Full-service restaurants
Restaurants	509	Full-service restaurants
Restaurants	509	Full-service restaurants
Restaurants & bars	509	Full-service restaurants
Restaurants and bars	509	Full-service restaurants
Restaurants, bars, etc	509	Full-service restaurants
Other auto expenses	512	Automotive repair and maintenance, except car washes
Other boat expenses	516	Personal and household goods repair and maintenance
Donations	522	Grantmaking, giving, and social advocacy organizations
Donations (NP)	522	Grantmaking, giving, and social advocacy organizations
Admissions & Fees_Federal	528	Other federal government enterprises
Entry_fees_Federal	528	Other federal government enterprises
Entry_fees_State	531	Other state government enterprises
Entry_fees_Local	534	Other local government enterprises
Admissions	5XX	VARIABLE BY ADMINISTRATIVE LEVEL
Entry fees	5XX	VARIABLE BY ADMINISTRATIVE LEVEL
Entry_fees_federal-state	5XX	VARIABLE BY ADMINISTRATIVE LEVEL

Photo Credit: hood-gorge.com (photographer: Modoc Stories)



Photo Credit: Justin Myers Photography



REFERENCES

- ⁱ Oregon Parks and Recreation Department, 2018. Outdoor Recreation in Oregon: Responding to Demographic and Societal Change.
- ⁱⁱ Tourism Economics, 2019. Oregon's International Visitors. Analysis of Trip Motivations and Characteristics. Prepared for Travel Oregon.
- ⁱⁱⁱ State of Oregon Employment Security Department, 2020. June 2020 Employment and Unemployment in Oregon's Counties. Available at: <https://www.qualityinfo.org/documents/10182/73818/Labor+Force+and+Unemployment+by+Area?version=1.81>
- ^{iv} Repanshek, K., 2020. Outdoor Rec Industry Struggling to Rebound from Coronavirus Pandemic. National Parks Traveler. Available at: <https://www.nationalparkstraveler.org/2020/09/outdoor-rec-industry-struggling-rebound-coronavirus-pandemic>
- ^v People for Bikes, 2020. Business Intelligence Hub, IBD Ecommerce Index: U.S. Bike Sales. Accessed September 26, 2020. Available at: <http://peopleforbikes.org/business-intelligence-hub/>



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