# Oregon Outdoor Recreation Metrics: Health, Physical Activity, and Value 

2019-2023 Oregon Statewide Comprehensive Outdoor Recreation Plan Supporting Documentation

Part B:

# Total Net Economic Value from Residents’ Outdoor Recreation Participation in Oregon 

FINAL REPORT (Revised)

19 November, 2018

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This research was funded through Agreement No. 7938 between Oregon Parks and Recreation Department, State of Oregon, and Oregon State University.

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## Executive Summary

## Introduction

Outdoor recreation participation is the source of many benefits to individuals, communities, and society. It has been the subject of numerous assessments on participation, trends, impacts, and benefits conducted at various scales. This report estimates the total net economic value associated with outdoor recreation participation in Oregon by Oregonians.

Total net economic values may be used to compare the relative worth of different assets, in this case, outdoor recreation resources and facilities based on resident participation. They also may be used in benefit-cost analysis that compares net benefits from outdoor recreation with investments in expanding outdoor recreation resources and opportunity sets.

## Methods

Total economic value was derived by combining information from the Oregon SCORP 2017 statewide outdoor recreation participation survey that estimated total annual user occasions for 56 outdoor recreation activity types. User occasions were then converted into activity days units to be consistent with how economic values are expressed in the Recreation Use Values Database.

A meta-regression analysis model was estimated on 2,908 estimates of outdoor recreation use values in the US and across 30 activity types. Controlling for activity type and region, among other attributes, the estimated meta-regression model was used to predict values per person per activity day for 30 activity types. These activity types were then paired with the 56 SCORP activity types, some with a one-to-one correspondence, and others as a proxy for value. Total net economic value was calculated for all 56 SCORP activity types. Total net economic value estimated for each activity is apportioned to the county-level in an appendix.

## Results

The total net economic value for recreation participation in Oregon by Oregonians is estimated to be $\$ 54.2$ billion (2018 USD) annually based on 2017 use levels. The top ten SCORP activities with the largest total net economic values, in descending order, are:

- Walking on local streets / sidewalks = \$4.5 billion
- Walking / day hiking on non-local trails / paths $=\$ 3.9$ billion
- Other nature / wildlife / forest / wildflower observation = \$3.5 billion
- Sightseeing / driving or motorcycling for pleasure $=\$ 3.1$ billion
- Relaxing / hanging out / escaping heat / noise, etc. = \$3.0 billion
- Bicycling on roads $/$ streets $/$ sidewalks $=\$ 3.0$ billion
- Jogging / running on streets / sidewalks = $\$ 2.6$ billion
- Bird watching $=\$ 2.4$ billion
- Fishing $=\$ 2.2$ billion
- Beach activities - ocean $=\$ 2.0$ billion

The total economic value by SCORP recreation category based on 2017 outdoor recreation participation by Oregonians in Oregon, in descending order, are:

- Non-motorized Trail Activities $=\$ 20.2$ billion
- Outdoor Leisure / Sporting Activities $=\$ 11.8$ billion
- Nature Study Activities $=\$ 10.8$ billion
- Non-motorized Water-based and Beach Activities $=\$ 3.8$ billion
- Hunting and Fishing Activities = $\$ 3.5$ billion
- Vehicle-based Camping Activities $=\$ 1.8$ billion
- Motorized Activities = $\$ 1.4$ billion
- Non-motorized Snow Activities = $\$ 0.9$ billion


## Introduction

Outdoor recreation participation is the source of many benefits to individuals, communities, and society (California State Parks, 2005). It has been the subject of numerous assessments on participation, trends, impacts, and benefits conducted at various scales (Cordell, 2012; Oregon Parks and Recreation Department, 2018; Rosenberger, 2016a; Rosenberger and Dunn, 2018; Rosenberger, et al., 2017). This report estimates the total net economic value associated with outdoor recreation participation in Oregon by Oregonians.

Total net economic value or benefits (i.e., total economic value net of the costs) is a measure of the contribution to societal welfare for use in cost-benefit analyses. Nonmarket valuation techniques, such as travel cost and contingent valuation methods, are economic tools used to estimate the economic value associated with goods not traditionally traded in formal markets, such as outdoor recreation and ecosystem services (Champ, et al., 2017). These tools have been in wide use since the 1950s and applied to a variety of nonmarket goods and services, including outdoor recreation (Rosenberger, 2016a, b).

Economic impacts (or contributions) assessment is another common tool used to measure economic outcomes associated with outdoor recreation (Outdoor Industry Association, 2017, 2018; White, et al., 2016; White, 2018). Economic impact measures are often referred to as economic benefits or values; however, this is not conceptually correct and conflates economic terms and meanings. Economic impact (or contribution) assessments measure how spending by recreationists (often defined as non-resident or non-local visitors / tourists) affects economies within a given geography (e.g., community, region, state, or nation). Economic impacts or outcomes are typically associated with changes in sales, tax revenues, income and jobs due to spending on outdoor recreation activity.

By contrast, economic value for outdoor recreation is a monetary measure of the benefits received by an individual or group who participates in outdoor recreation. At the individual level, the net economic value of a recreation activity is measured as the maximum amount the individual is willing to pay to participate in the activity minus the costs incurred in participating. In economic terms, this monetary measure is also known as consumer surplus. Consumer
surplus is the economic value of a recreation activity above what must be paid by the recreationist to enjoy it (Figure 1). Looking at conditions when demand is D0, consumer surplus is the area below the demand function (D0) and above the price or expenditure line (B), or area BCD. Consumer surplus is, therefore, net willingness to pay, or willingness to pay in excess of the cost of the good. Total economic use value is consumer surplus plus the costs of participation, or area 0ACD in Figure 1 when demand is D0 and A is the number of days of participation. By extension, the costs of participating are defined as area 0ACB.


Figure 1: Consumer surplus in demand

However, participation costs are not equivalent to consumer spending amounts used in economic impact analyses. Recreation costs used in travel cost models typically only include out-of-pocket costs (e.g., gasoline, entrance fees, and equipment rentals) and opportunity costs of time while traveling for the purpose of or engaging in an activity on site. Recreation spending in economic impact analyses, by contrast, includes spending on lodging, food, souvenirs, and other expenses as well as gasoline, entrance fees, and equipment rentals, but not opportunity costs of time. Economic impact analyses may also restrict the region within which spending occurs, whereas costs of participating in outdoor recreation may occur anywhere. Another contrast between
economic value and economic impact may be shown through the role of costs in each model. An increase in the costs of participating in outdoor recreation (e.g., increase in gasoline prices or entrance fees) would result in smaller net benefits, and larger economic impacts, ceteris paribus.

## Methods

Consumer surplus is generally estimated in primary research by inferring it from revealed preference data (i.e., generate the demand function and then calculate consumer surplus), or directly estimated using stated preference data (i.e., people state their maximum net willingness to pay within constructed market conditions via surveys). However, when resources are not available (e.g., funds and time), consumer surplus may be inferred from existing information provided by prior studies conducted elsewhere. This approach is called benefit transfer, and it applies benefit estimates obtained through primary research for one location to other unstudied locations of interest (Rosenberger and Loomis, 2017). Benefit transfer has been used for decades in estimating economic values for nonmarket goods and services (Johnston and Rosenberger, 2010; Johnston, et al., 2015; Rosenberger, et al., 2017).

Benefit transfer methods include two primary types: value transfer and function transfer. Value transfer is the use of a single estimate of value or a weighted average of multiple estimates of value obtained from previously published studies. Value transfer can be an attractive method for estimating recreation economic benefits when time, funding, and expertise are insufficient to conduct an original study. Moreover, new estimates of economic value based on original or primary research are not needed if resulting value estimates do not statistically differ from estimates derived from benefit transfer methods. However, original or primary research may provide additional information that is necessary to evaluating or assessing management implications at a site; e.g., how values relate to changes in resource or site quality, proposed management options, or other attributes held constant in the benefit transfer estimation process.

Function transfer is the use of a statistical model to derive recreation economic values. The model is estimated from participant or survey data available from one or more previously published studies and is adjusted for characteristics of the site or collection of sites being considered. Function transfers can also rely on data summarizing value estimates reported in a
body of literature (such as the Recreation Use Values Database (2016)), using a technique known as meta-analysis. Function transfer using meta-analysis can be a more statistically rigorous and robust method for conducting benefit transfer, but is dependent on the availability of information about the characteristics of a specific site, or collection of sites, being considered. Conceptual backgrounds and issues / advantages of these benefit transfer methods may be found in Johnston and Rosenberger (2010), Johnston et al. (2015), Rosenberger, et al. (2017), and Rosenberger and Loomis (2017).

Many research studies have tested the validity and reliability of benefit transfer methods, and all methods generally do well. Function transfers typically outperform value transfers in terms of validity and reliability. A summary of related literature shows median benefit transfer error for function transfers at $36 \%$ compared to value transfers at $45 \%$ (Rosenberger, 2015). This study uses the meta-regression analysis (MRA) benefit function transfer approach to estimate the value of outdoor recreation participation in Oregon by Oregonians.

## Meta-regression analysis benefit function transfer

Meta regression analysis is the statistical summarizing of relationships between benefit measures and quantifiable characteristics of studies. The data for a meta-analysis are generally summary statistics from study site reports and includes quantified characteristics of the user population, study sites' environmental resources, and valuation methodology used. Coding of the studies included in the literature review lends itself directly to the estimation of a MRA benefit transfer function. However, interpretation of original study results can be a source of error in metaanalysis databases (Rosenberger and Johnston, 2009).

MRA has been traditionally concerned with understanding the influence of methodological- and study-specific factors on research outcomes and providing summaries and syntheses of past research. A more recent use of MRA is the systematic utilization of the existing value estimates from the literature for the purpose of benefit transfer. Essentially, MRA models can be used to construct benefits at policy sites. MRA has several conceptual advantages over other benefit transfer methods such as point estimate and demand function transfers, which generally revolve
around the advantages of broader and more diverse data for adapting MRA models to specific policy site valuation needs.

Ordinary least squares (OLS) linear regression is a widely used method for relating the distribution of a dependent variable, here the estimates of use value in the Recreation Use Values Database (RUVD), with the variation in one or more independent variables. Conventional OLS assumes the dependent variable has similar variance across the range of independent variable values; observations of the dependent variable are independent from one another; and the explanatory variables have no linear relationship. In this application, the OLS model uses a linear-linear functional form to relate the dependent and independent variables as follows.

Equation (1): Value per person per activity day $=\sum \beta \mathrm{Xik}=\beta 1 \mathrm{Xi} 1+\beta 2 \mathrm{Xi} 2+\ldots \beta \mathrm{JXiK}+\varepsilon \mathrm{i}$ where there are i estimates, j individual studies and k explanatory variables ( $\mathrm{k}=1 \ldots \mathrm{~K}$ ).

## Data

## Oregon SCORP Data

In preparation for the 2019-2023 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP), the Oregon Parks and Recreation Department (OPRD) conducted a statewide survey of Oregon residents regarding their 2017 outdoor recreation participation in Oregon, as well as their opinions about park and recreation management (Bergerson, 2018). The survey was conducted using a random sample of Oregon households. In order to generate sufficient responses for each demographic group, the sample was stratified to differentiate between those residing in urban, suburban, and rural areas of the state for the general population and for the demographic groups. There were two versions of the survey: 1) participants - those who engaged in outdoor recreation in Oregon in 2017; and 2) non-participants - everyone else.

Surveying Oregonians consisted of 17,016 mail outs, with 15,351 surveys deliverable (90\%). Of those delivered, 3,069 completed surveys were obtained, for an overall response rate of $20 \%$. With respect to format, $74 \%$ of the surveys were completed online and $26 \%$ in paper format. Due to variable sampling intensity and response rates across target demographic groups, the probability sample was complemented by an online research sample administered by Qualtrics.

A total of 481 respondents completed a survey (50\% response rate) through the Qualtrics online sample. In total, most (94\%) of the surveys were by participants, with the remainder (6\%) by non-participants.

Based on previous SCORP outdoor recreation activity lists and recommended by the SCORP advisory committee comprised of parks and recreation managers across Oregon, fifty six (56) recreation activities were identified as important recreation activity types. These activities were grouped into eight (8) categories including Non-motorized Trail or Related Activities, Motorized Activities, Non-motorized Snow Activities, Outdoor Leisure and Sporting Activities, Nature Study Activities, Vehicle-based Camping Activities, Hunting and Fishing Activities, and Nonmotorized Water-based and Beach Activities.

Total user occasions for all outdoor recreation activities were estimated using populationweighted sample data adjusted by household members participating in each activity over a oneyear period. User occasions are the number of times individuals, in aggregated, participated in outdoor recreation activities in 2017.

## Recreation Use Values Database (RUVD)

The RUVD (Recreation Use Values Database, 2016) summarizes recreation economic value estimates from more than 50 years of published economic research (1958-2015) characterizing the value of outdoor recreation in the US and Canada (Rosenberger, 2016b). The RUVD includes all documented estimates of recreation economic values whether they are published in journal articles, technical reports, book chapters, working papers, conference proceedings, or graduate theses. Included studies encompass a variety of methods, regional and activity foci, sample sizes, and site characteristics. The RUVD contains 3,194 use value estimates derived from 422 published studies.

Primary studies were included if 1) they estimated access values (i.e., with vs. without access to the resource or activity); 2) they followed well-established economic practices for stated or revealed preference, or mixed estimation models (e.g., Champ et al., 2017); 3) they were conducted in the US or Canada: and 4) they reported an economic value that could be converted into a standardized consumer surplus dollar value per person per activity day. The RUVD
includes the standardized economic value as well as identified information on the document source and study, site, activity, and methodology attributes of each study. It was developed following recommended best-practices for meta-analysis practitioners (Stanley et al. 2013).

## Results

## User Occasions - Activity Days

Table 1 lists the SCORP Activities grouped by category and the 2017 total user occasions derived from the Oregon SCORP statewide survey (Bergerson, 2018, Table 2.2). Estimates range from a high of 313 million user occasions for Walking on local streets / sidewalks, to 0.4 million user occasions for playing Futsal. User occasions estimates are based, in part, on the question about how many times the respondent participated in the outdoor recreation activity during the past 12-months. For some activities, this could mean more than one user occasion per day (e.g., Walking on local streets / sidewalks) to multiple days per user occasion (e.g., Hunting). In the case of Vehicle-based Camping Activities, the questions asked for number of trips and average number of nights for a typical trip.

The RUVD reports economic values per activity day, where an activity day might differ from a user occasion. An activity day is defined as one person recreating for some portion of a day. For example, one person Walking on local streets / sidewalks for 30-minutes twice in one day would be one activity day but two user occasions. Backpacking or overnight hiking trips, by definition, span more than one day. For a backpacking trip that lasts one night would be equal to two activity days. Therefore, user occasions were adjusted to activity days as identified in Table 1, column 4.

Sixteen activities were identified in which user occasion $\neq$ activity day. Activities with multiple user occasions per day are Walking on local streets / sidewalks; Walking on local trails / paths; Bicycling on roads / streets / sidewalks; and Dog walking / going to dog parks / off-leash areas. The adjustment factor for these activities was derived by dividing total reported user occasions by total reported user occasions censored at 365 times in a year. This adjustment only captures those individuals who reported more than 365 user occasions in a year.

Activities with multiple activity days per user occasion included Long-distance hiking (backpacking); Bird watching; Whale watching; Exploring tidepools; Other nature / wildlife / forest / wildflower observation; RV / motorhome / trailer camping; Car camping with a tent; Yurts / camper cabins; Hunting; Fishing; Crabbing; and Shellfishing / clamming. In the case of Vehicle-based Camping Activities were adjusted by [(number of trips * number of nights) + 1] = activity days, using information provided in the Oregon SCORP statewide survey. Longdistance hiking (backpacking) adjustment factor (i.e., number of days per user occasion) was derived from McCollum, et al. (1990) for the Pacific Northwest Region and verified by the average number of days per trip for backpacking as recorded in the RUVD. Average activity days per user occasion for Hunting; Fishing; Crabbing; Shellfishing / clamming; Bird watching; Whale watching; Exploring tidepools; and Other nature / wildlife / forest / wildflower observation were derived from Dean Runyan Associates (2009) study. All other activities assume that one user occasion = one activity day.

Table 1 reports activity days by SCORP activity and activity category. For example, Nature Study Activities were estimated to contain 119 million user occasions, or 192 million activity days; and Vehicle-based Camping Activities were estimated to contain 15 million user occasions, or 58 million activity days.

## Economic Value per Activity Day

Data for estimating recreation economic values for SCORP outdoor recreation activities were drawn from the RUVD. The current version of the RUVD contains 3,194 individual recreation economic value estimates from 422 individual studies and numerous outdoor recreation activities. The RUVD activities were clustered or segregated to match the SCORP activities, resulting in 30 RUVD outdoor recreation activities. The data were reduced by 1) eliminating 180 estimates for Canada, and 2) removing 106 outlier estimates (i.e., unreasonably small or large, which significantly affects average values) as less than $\$ 5$ or greater than $\$ 450$ per person per activity day, resulting in 2,908 estimates from 395 studies.

Appendix A Table A1 reports average value per RUVD activity and number of estimates for the entire database and for those studies conducted in the Pacific Northwest Region (i.e., Oregon and

Washington). All economic values have been adjusted to 2018 USD. The activity with the largest activity day value is Mountain biking at $\$ 142.70$, and the smallest activity day value is Walking at $\$ 13.63$. The numbers of estimates per activity type range from over 1,000 for Fishing to one estimate each for Nature study; Photography; and Shellfishing.

About five percent of the total number of estimates (158 out of 2,908 ) is reported for the Pacific Northwest Region (Oregon and / or Washington) from primary studies that evaluated recreation demand within this spatial scale. This is one of the reasons a meta-regression analysis on the broader RUVD data is used to project recreation use value estimates for Oregon—information on recreation use values and their distributions informs values for Oregon that otherwise are not available.

## Meta-Regression Analysis

Appendix A Table A2 reports summary statistics for the RUVD data used in this analysis. The dependent variable is the value per person per activity day in 2018 USD with a mean value of $\$ 73.46$ and range from $\$ 5.03$ to $\$ 440.58$. Dummy variables (binary 0,1 coding) identify the RUVD activity, where the mean is its representation in the underlying data and consistent with Table A1's number of studies per recreation activity. To capture variations in value estimates, dummy variables are created for each USFS region. The variable of interest is the Pacific
Northwest Region. Each underlying primary study is based on a random sample of participants for the activity / location being evaluated. These samples may include only residents, only nonresidents, or a mix of both residents and non-residents. Given the SCORP analysis is based on residents only, a dummy variable identifying those underlying primary studies that estimated residents' values is included in the model. Value estimates that are based on resident-only samples are about $34 \%$ of the data. Substitute price is a key variable in recreation demand analyses and reflects a switching point in which recreationists would choose to go to a different location if the price of the destination was too high. Substitute price exerts a downward pressure on willingness to pay. Primary studies that directly incorporated substitute price are about $27 \%$ of the data. Trend is a variable defined as the year the primary data for each study was collected minus 1955 (the earliest year data was collected). This variable captures changes in methods and values over time.

Table 1. User occasions, activity days, and total net economic value.

| SCORP Activity | RUVD Activity | 2017 SCORP User Occasions (million) | Activity Days per User Occasion | 2017 Activity Days (million) | MRA RUVD Value / Person / Activity Day (\$; 2018 USD) | Total Net Economic Value (\$million; 2018 USD) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Non-motorized Trail Activities |  |  |  |  |  |  |
| Walking on local streets / sidewalks | Walking | 312.726 | 0.993 | 310.586 | \$14.47 | \$4,493.226 |
| Walking on local trails / paths | Walking | 113.083 | 0.998 | 112.843 | \$14.47 | \$1,632.495 |
| Walking / day hiking on nonlocal trails / paths | Hiking | 44.035 | 1 | 44.035 | \$87.66 | \$3,860.354 |
| Long-distance hiking (backpacking) | Backpacking | 4.915 | 2.080 | 10.222 | \$23.33 | \$238.470 |
| Jogging / running on streets / sidewalks | Jogging / running | 37.224 | 1 | 37.224 | \$69.29 | \$2,579.240 |
| Jogging / running on trails / paths | Jogging / running | 17.284 | 1 | 17.284 | \$69.29 | \$1,197.586 |
| Horseback riding | General other recreation | 2.626 | 1 | 2.626 | \$72.00 | \$189.074 |
| Bicycling on unpaved trails | Mountain biking | 11.403 | 1 | 11.403 | \$131.03 | \$1,494.086 |
| Bicycling on paved trails | Leisure biking | 26.105 | 1 | 26.105 | \$58.14 | \$1,517.812 |
| Bicycling on roads / streets / sidewalks | Leisure biking | 51.251 | 0.996 | 51.061 | \$58.14 | \$2,968.863 |
| Sub-total - Non-motorized Trail Activities |  | 620.651 | --- | 623.390 | --- | \$20,171.206 |
|  |  |  |  |  |  |  |
| Motorized Activities |  |  |  |  |  |  |
| Class I - All-terrain vehicle riding ( $3 \& 4$ wheel ATVs, straddle seat and handle bars) | Off-road vehicle driving | 5.746 | 1 | 5.746 | \$50.38 | \$289.475 |
| Class II - Off-road 4-wheel driving (jeeps / pick-ups / dune buggies / SUVs) | Off-road vehicle driving | 8.895 | 1 | 8.895 | \$50.38 | \$448.157 |
| Class III - Off-road motorcycling | Off-road vehicle driving | 2.038 | 1 | 2.038 | \$50.38 | \$102.672 |


| SCORP Activity | RUVD Activity | 2017 SCORP User Occasions (million) | Activity Days per User Occasion | $\begin{aligned} & 2017 \text { Activity } \\ & \text { Days } \\ & \text { (million) } \end{aligned}$ | MRA RUVD <br> Value / Person / Activity Day (\$; 2018 USD) | Total Net Economic Value (\$million; 2018 USD) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class IV - Riding UTVs / side-by-side ATVs (non-straddle seat in the vehicle, steering wheel for steering control) | Off-road vehicle driving | 2.734 | 1 | 2.734 | \$50.38 | \$137.761 |
| Snowmobiling | Snowmobiling | 1.000 | 1 | 1.000 | \$36.82 | \$36.832 |
| Personal water craft - jet ski | Motorboating / jet skiing / water skiing | 3.139 | 1 | 3.139 | \$38.65 | \$121.320 |
| Power boating (cruising / water skiing) | Motorboating / jet skiing / water skiing | 6.949 | 1 | 6.949 | \$38.65 | \$268.587 |
| Sub-total - Motorized Activities |  | 30.502 | --- | 30.502 | --- | \$1,404.804 |
| Non-motorized Snow Activities |  |  |  |  |  |  |
| Downhill (alpine) skiing / snowboarding | Downhill skiing / snowboarding | 4.228 | 1 | 4.228 | \$83.20 | \$351.771 |
| Cross-country / Nordic skiing / skijoring on groomed trails | Cross- country skiing | 1.235 | 1 | 1.235 | \$57.21 | \$70.651 |
| Cross-country / Nordic skiing / skijoring on ungroomed trails / off designated trails | Cross- country skiing | 0.582 | 1 | 0.582 | \$57.21 | \$33.317 |
| Snowshoeing | Cross- country skiing | 1.278 | 1 | 1.278 | \$57.21 | \$73.142 |
| Sledding / tubing / general snow play | Cross- country skiing | 6.435 | 1 | 6.435 | \$57.21 | \$368.124 |
| Sub-total - Non-motorized Snow Activities |  | 13.759 | --- | 13.759 | --- | \$897.006 |
| Outdoor Leisure / Sporting Activities |  |  |  |  |  |  |
| Sightseeing / driving or motorcycling for pleasure | Sightseeing | 54.803 | 1 | 54.803 | \$56.01 | \$3,069.288 |
| Picnicking | Picnicking | 21.673 | 1 | 21.673 | \$39.62 | \$858.584 |


| SCORP Activity | RUVD Activity | 2017 SCORP User Occasions (million) | Activity Days per User Occasion | 2017 Activity <br> Days (million) | MRA RUVD Value / Person / Activity Day (\$; 2018 USD) | Total Net Economic Value (\$million; 2018 USD) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Taking your children / grandchildren to a playground | Nature study | 57.312 | 1 | 57.312 | \$32.48 | \$1,861.386 |
| Dog walking / going to dog parks / off-leash areas | Walking | 77.872 | 0.992 | 77.292 | \$14.47 | \$1,118.174 |
| Relaxing / hanging out / escaping heat / noise / etc. | Nature study | 92.609 | 1 | 92.609 | \$32.48 | \$3,007.729 |
| Attending outdoor concerts / fairs / festivals | Visiting nature centers / arboretums / historic sites / aquariums | 11.840 | 1 | 11.840 | \$41.83 | \$495.249 |
| Tennis (played outdoors) | Walking | 2.526 | 1 | 2.526 | \$14.47 | \$36.539 |
| Pickleball (played outdoors) | Walking | 1.423 | 1 | 1.423 | \$14.47 | \$20.589 |
| Outdoor court games other than tennis (basketball / beach volleyball / badminton / etc.) | Walking | 11.148 | 1 | 11.148 | \$14.47 | \$161.271 |
| Soccer | Walking | 10.928 | 1 | 10.928 | \$14.47 | \$158.101 |
| Futsal | Walking | 0.444 | 1 | 0.444 | \$14.47 | \$6.418 |
| Golf | Walking | 6.592 | 1 | 6.592 | \$14.47 | \$95.367 |
| Orienteering / geocaching | Hiking | 2.944 | 1 | 2.944 | \$87.66 | \$258.048 |
| Visiting historic sites / historythemed parks (history-oriented museums / outdoor displays / visitor centers / etc.) | Visiting nature centers / arboretums / historic sites / aquariums | 15.018 | 1 | 15.018 | \$41.83 | \$628.173 |
| Sub-total - Outdoor Leisure / Sporting Activities |  | 367.131 | --- | 366.552 | --- | \$11,774.917 |
| Nature Study Activities |  |  |  |  |  |  |
| Bird watching | Wildlife viewing - birds | 18.697 | 2.182 | 40.797 | \$58.04 | \$2,368.014 |


| SCORP Activity | RUVD Activity | 2017 SCORP User Occasions (million) | Activity Days per User Occasion | $\begin{aligned} & 2017 \text { Activity } \\ & \text { Days } \\ & \text { (million) } \end{aligned}$ | MRA RUVD <br> Value / Person <br> / Activity Day <br> (\$; 2018 USD) | Total Net Economic Value (\$million; 2018 USD) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Whale watching | Wildlife viewing <br> - whales | 3.430 | 2.939 | 10.081 | \$80.65 | \$813.057 |
| Exploring tidepools | Wildlife viewing - other | 5.542 | 3.145 | 17.430 | \$60.88 | \$1,061.212 |
| Other nature / wildlife / forest / wildflower observation | Wildlife viewing - other | 24.718 | 2.323 | 57.421 | \$60.88 | \$3,495.959 |
| Taking your children / grandchildren to nature settings | Nature study | 24.355 | 1 | 24.355 | \$32.48 | \$790.982 |
| Visiting nature centers | Visiting nature centers / arboretums / historic sites / aquariums | 5.569 | 1 | 5.569 | \$41.83 | \$232.943 |
| Outdoor photography / painting / drawing | Photography | 19.706 | 1 | 19.706 | \$34.16 | \$673.080 |
| Collecting (rocks / plants / mushrooms / berries) | Gathering forest products (nontimber but includes firewood) | 16.872 | 1 | 16.872 | \$83.34 | \$1,406.139 |
| Sub-total - Nature Study Activities |  | 118.890 | --- | 192.233 | --- | \$10,841.387 |
|  |  |  |  |  |  |  |
| Vehicle-based Camping Activities |  |  |  |  |  |  |
| RV / motorhome / trailer camping | Developed camping | 6.493 | 4.662 | 30.271 | \$30.63 | \$927.148 |
| Car camping with a tent | Developed camping | 7.548 | 3.262 | 24.616 | \$30.63 | \$753.963 |
| Yurts / camper cabins | Developed camping | 0.966 | 3.498 | 3.380 | \$30.63 | \$103.526 |
| Sub-total - Vehicle-based Camping Activities |  | 15.007 | --- | 58.267 | --- | \$1,784.636 |


| SCORP Activity | RUVD Activity | 2017 SCORP User Occasions (million) | Activity Days per User Occasion | $\begin{aligned} & 2017 \text { Activity } \\ & \text { Days } \\ & \text { (million) } \end{aligned}$ | MRA RUVD <br> Value / Person / Activity Day (\$; 2018 USD) | Total Net Economic Value (\$million; 2018 USD) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hunting and Fishing Activities |  |  |  |  |  |  |
| Hunting | Hunting (big game / small game / waterfowl) | 4.981 | 2.225 | 11.083 | \$82.36 | \$912.809 |
| Fishing | Fishing (freshwater / saltwater) | 12.399 | 2.195 | 27.216 | \$81.37 | \$2,214.657 |
| Crabbing | Shellfishing | 1.858 | 2.496 | 4.638 | \$49.88 | \$231.324 |
| Shellfishing / clamming | Shellfishing | 1.012 | 2.496 | 2.527 | \$49.88 | \$126.057 |
| Sub-total - Hunting and Fishing Activities |  | 20.251 | --- | 45.464 | --- | \$3,484.846 |
|  |  |  |  |  |  |  |
| Non-motorized Water-based and Beach Activities |  |  |  |  |  |  |
| White-water canoeing / kayaking / rafting | Whitewater kayaking / canoeing / rafting | 2.614 | 1 | 2.614 | \$128.87 | \$336.920 |
| Flat-water canoeing / sea kayaking / rowing / stand-up paddling / tubing / floating | Flatwater kayaking / canoeing / rafting | 3.703 | 1 | 3.703 | \$49.98 | \$185.063 |
| Beach activities - ocean | Beach - ocean | 22.536 | 1 | 22.536 | \$91.23 | \$2,056.037 |
| Beach activities - lakes / reservoirs / rivers | Beach - lake / reservoir / river | 22.008 | 1 | 22.008 | \$31.48 | \$692.789 |
| Swimming / playing in outdoor pools / spray parks | Swimming | 13.993 | 1 | 13.993 | \$41.10 | \$575.132 |
| Sub-total - Non-motorized Water-based and Beach Activities |  | 64.855 | --- | 64.855 | --- | \$3,845.941 |
| GRAND TOTAL |  | 1,251.047 | --- | 1,395.022 | --- | \$54,204.743 |

It is common for a single primary study to contain multiple value estimates, which is reflected in the numbers of estimates ( $\mathrm{n}=2,908$ ) and studies ( $\mathrm{n}=395$ ). The distribution of study numbers across the 30 RUVD activity sets reflects the relative volume of scientific studies and does not reflect the relative popularity or importance of each activity set. Wildlife-related activities, such as fishing and hunting, have historically been the focus of much recreation benefit research. Conversely, downhill skiing and backpacking have received less attention in the research literature. And SCORP activities such as Outdoor Sporting Activities (i.e., tennis, soccer, golf, etc.) have not been the target of nonmarket valuation research, lacking estimates of the value per person per activity day.

There are wide ranges of recreation value estimates across most activities (Rosenberger, 2016b). The range of value estimates reflects variation across individual study sites (e.g., site quality, attributes and recreation facilities) and study participants, as well as differences in study methods. Accounting for this variation is one reason why an MRA benefit transfer function is especially attractive for developing economic estimates of recreation values.

An MRA statistical model is fit to the value estimates for RUVD activities, and associated data contained in the RUVD. The regression measures the effect or relationship of select independent variables from the RUVD to the Value per activity day data characterizing the standardized consumer surplus per person per activity day as defined in Equation (1). The $\beta$ 's measure the statistical relationship between the variation in the independent variable to the variation in the value estimates, also known as partial effects.

Appendix A Table A3 provides results of the MRA model fit to the data and used in predicting the MRA RUVD Value per person per activity day estimates in Table 1. The MRA follows the simple equation (1) where $\mathrm{i}=2,908, \mathrm{j}=395$ and $\mathrm{K}=42$, and region and activity comprised 38 of the independent variables. Standard errors for each estimated partial effect are based on cluster robust covariance estimates. This corrects for the potential non-independence among multiple estimates per study by accounting for the panel data structure of the data (Nelson, 2015;

Rosenberger and Loomis, 2000).

Theoretically, when a variable is correlated with the variation in recreation benefit values, its partial effect will measure the magnitude and direction of this relationship. Combining these variables in a multivariate model provides a transparent and consistent way to estimate average values based on a policy site's specific characteristics. Given the large sample size, the overall model performance has a grand mean -that is, the mean of the sample means- with $\pm 2.5 \%$ margin of error. Thus, the MRA model provides more robust estimates than an average value transfer (Rosenberger, 2015). It has also been shown that there are information gains from including broader recreation valuation data to predict value estimates for activities and regions (Moeltner and Rosenberger, 2008, 2014).

The estimated model's goodness-of-fit metric (i.e., how well the model accounts for variation in the dependent variable) is adjusted $-\mathrm{R}^{2}=0.11$; or approximately $11 \%$ of the variation in the dependent variable is accounted for by the independent variables (Table A3). This is a reasonable goodness-of-fit for MRA models for a diverse dataset and consistent with prior MRA models on recreation use value data. The estimated parameters show the partial effect of each variable on the variation in the dependent variable—value per person per actvity day. Given this is an OLS linear-linear specified model, the partial effects are the relative change in value per person per activity day based on the independent variable. For example, as noted previously, including substitute price in the primary study model is expected to result in lower value estimates. The estimated partial effect in the MRA model shows a statistically significant effect of $-\$ 15.69$ relative to the Constant in the model. The Constant is a composite measure that is the weighted mean of the data when the partial effects of the remaining explanatory variables are measured, and includes all omitted variables such as unmeasured effects; general other recreation; multi-regional / national studies; non-residents included in primary study sample; and no substitute price included in the primary study's model. Thus, the estimated Constant in the MRA model is $\$ 53.34$ per person per activity day for those composite attributes noted above; the remaining estimated partial effects are increments or decrements to it.

RUVD activities that are statistically significant include Walking (-); Backpacking (-); Mountain biking (+); Snowmobiling (-); Motorboating / jetskiing / waterskiing (-); Picnicking (-); Nature study (-); Visiting nature centers / arboretums / historic sites / aquariums (-); Photography (-);

Developed camping (-); Beach - lake, reservoir, river (-); and Swimming (-). The remaining RUVD activities are not statistically significant; however, their estimated partial effects do provide information that will be used when predicting MRA RUVD values per person per activity day. Other statistically significant variables in the MRA model include Substitute prices included in model (-); Trend (+); and the Constant (+).

## Meta-Regression Analysis Predicted Values

The MRA RUVD value per person activity day estimates for all RUVD recreation activities (Table 1) are predicted by weighting the measured partial effect of variables relevant for the target activity. Given the MRA model was constructed to enable prediction of value estimates for recreation participation in Oregon by Oregonians, the predictions will reflect relevant adjustments to the model. Appendix A Table A4 provides an example application of the MRA benefit transfer prediction of the value per person per activity for Walking. Beginning with the composite Constant partial effect, add the full partial effects (multiply partial effect by 1 ) for Walking; Pacific Northwest region; Resident participants; and Substitute price included in model, and 62 * Trend (this predicts a value for 2017 data year) $=\$ 14.47$. The same procedure is iterated for all other recreation activities by including the partial effect of the activity of interest and removing (i.e., setting them to zero) the effects of all other activity partial effects.

Table 1 reports the MRA RUVD predicted Value per Activity Day in the $6^{\text {th }}$ column. The predicted values per activity day range from a high of $\$ 131.03$ for Mountain biking and $\$ 128.87$ for Whitewater kayaking / canoeing / rafting, to $\$ 14.47$ for Walking and $\$ 23.33$ for Backpacking. These estimates reflect the average values of consumer surplus per person per activity day. The MRA RUVD predicted values are constant measures (i.e., each activity day is worth exactly the same amount regardless of differences in time, location and site attributes).

These estimates of value per person per activity day should not be interpreted as being indicative of which activities are best to promote through management. For example, even though the value for Mountain biking is much larger on a per person per activity day basis than Walking, there are many more people who engage in walking activities than mountain biking activities. The total
net economic value for a recreation activity is the value per activity day times the number of activity days.

## Total Net Economic Values

Table 1 identifies the RUVD activity that is paired with each SCORP activity. SCORP includes 56 activity types, whereas only 30 activity types were identified in the RUVD. In most cases there is a one-to-one correspondence; for example, hunting and fishing directly correspond to each other in both activity sets. In other cases, some assumptions were made in order to match the RUVD activity predicted values with SCORP activities. The primary assumptions used include:

- Walking, and Jogging / Running are not differentiated by activity attributes;
- Long-distance hiking (backpacking) = Backpacking (i.e., all are overnight trips);
- Horseback riding is proxied by General other recreation;
- Bicycling on unpaved trails = Mountain biking, otherwise bicycling is not differentiated by activity attributes;
- Class I-IV motorized riding = Off-road vehicle driving;
- Personal water craft and Power boating = Motorboating / jetskiing / waterskiing;
- Cross-country skiing value estimate is used for all Non-motorized Snow Activities except Downhill skiing;
- All Outdoor Sports and Court Games Activities use the predicted activity value for Walking; and
- All Vehicle-based Camping Activities use the Developed camping activity day value.

These assumptions may lead to under- or over-estimation for some activities. For example, the Walking activity day value was used for outdoor sports activities because it was the lowest estimate provided by the MRA model, and not because Walking activity best reflects the magnitude of value derived from participating in outdoor sports. Given it is expected that this value is a lower bound to the actual value for outdoor sports participation, this assumption leads to conservative total economic value estimates. A primary study that estimates the value for
these types of activities would confirm whether using the Walking value as a proxy is conservative or not.

Total net economic value (= \$value per activity day * \#activity days) is reported in Table 1, last column, for each activity type, as well as for the sub-total by activity category. The total net economic value for recreation participation in Oregon by Oregonians is estimated to be \$54.2 billion (2018 USD) annually based on 2017 use levels. Figure 2 reports the ten SCORP activities with the largest total net economic values, in descending order. And Figure 3 reports the total economic value by SCORP recreation category, in descending order. These are all measures of the value of access, or with versus without access to a site or activity.

| SCORP Activity | Total Net <br> Economic Value |
| :--- | :---: |
| Walking on local streets / sidewalks | $\$ 4.5$ billion |
| Walking / day hiking on non-local trails / paths | $\$ 3.9$ billion |
| Other nature / wildlife / forest / wildflower observation | $\$ 3.5$ billion |
| Sightseeing / driving or motorcycling for pleasure | $\$ 3.1$ billion |
| Relaxing / hanging out / escaping heat / noise, etc. | $\$ 3.0$ billion |
| Bicycling on roads / streets / sidewalks | $\$ 3.0$ billion |
| Jogging / running on streets / sidewalks | $\$ 2.6$ billion |
| Bird watching | $\$ 2.4$ billion |
| Fishing | $\$ 2.2$ billion |
| Beach activities - ocean | $\$ 2.0$ billion |

Figure 2. Top ten SCORP activities by total net economic value

| SCORP Activity | Total Net <br> Economic Value |
| :--- | :---: |
| Non-motorized Trail Activities | $\$ 20.2$ billion |
| Outdoor Leisure / Sporting Activities | $\$ 11.8$ billion |
| Nature Study Activities | $\$ 10.8$ billion |
| Non-motorized Water-based and Beach Activities | $\$ 3.8$ billion |
| Hunting and Fishing Activities | $\$ 3.5$ billion |
| Vehicle-based Camping Activities | $\$ 1.8$ billion |
| Motorized Activities | $\$ 1.4$ billion |
| Non-motorized Snow Activities | $\$ 0.9$ billion |

Figure 3. SCORP activity categories by total net economic value

## County-Level Estimation

The statewide survey of Oregon residents conducted in 2017 was not designed to obtain representative data at the county-level. However, a previous statewide survey conducted in 2011 was designed to obtain county-level outdoor recreation participation data (Rosenberger and Lindberg, 2013). These 2011 survey results are used to apportion the total net economic value estimate by activity reported in Table 1 to the county-level (Appendix B Table B1) using the following methods.

1) Align recreation activities - most of the outdoor recreation activities align between the 2017 and 2011 statewide surveys with the following exceptions and alignment used, respectively.
a. 2017 Taking your children or grandchildren to a playground \& 2017 Taking your children or grandchildren to nature settings - 2011 General play at a neighborhood park / playground
b. 2017 Pickleball (played outdoors) - 2011 Outdoor court games other than tennis (basketball, beach volleyball, badminton, etc.)
c. 2017 Soccer \& 2017 Futsal - 2011 Football, soccer, lacrosse, rugby, ultimate frisbee
d. 2017 Hunting - 2011 average of Hunting big game with a gun; Hunting big game with a bow; Waterfowl hunting; Upland bird or small game hunting
e. 2017 Fishing - 2011 average of Fly fishing; Fishing from a boat; Fishing from a bank or shore
2) Calculate county proportions of total user occasions by activity from the 2011 statewide survey. These proportions are provided in Appendix B Table B2.
3) Apportion total net economic value by activity to the county-level using Table B2 proportions. County-level estimates are provided in Appendix B Table B1.

## Conclusions

This project estimates that the total net economic value associated with outdoor recreation participation in Oregon by Oregonians is $\$ 54.2$ billion (2018 USD) annually, based on 2017 use levels. This total economic value was derived by combining information from the Oregon SCORP 2017 statewide outdoor recreation participation survey that estimated total annual user occasions for 56 outdoor recreation activity types. User occasions were then converted into activity days units to be consistent with how economic values are expressed in the Recreation Use Values Database (2016).

A meta-regression analysis model was estimated on 2,908 estimates of outdoor recreation use values in the US and across 30 activity types. Controlling for activity type and region, among other attributes, the estimated meta-regression model was used to predict values per person per activity day for 30 activity types. These activity types were then paired with the 56 SCORP activity types, some with a one-to-one correspondence, and others as a proxy for value. Total net economic value was calculated for all 56 SCORP activity types, and apportioned to the countylevel.

Total net economic values may be used to compare the relative worth of different assets, in this case, outdoor recreation resources and facilities based on resident participation. They also may be used in benefit-cost analysis that compares net benefits from outdoor recreation with investments in expanding outdoor recreation resources and opportunity sets. This is because nonmarket values are those that are not addressed or represented in typical market transactions and can include things such as the value someone has for the opportunity to view nature or the loss of well-being from residents who must endure more traffic from users of recreation opportunities. This project focused on the computation of recreation economic values by developing "direct use values" representing the benefits to individual recreationists directly engaged in outdoor recreation activities. These values represent "access" to a particular site or to an activity relative to that location or activity not being available or accessible to recreationists. Thus, these economic values measure the total net benefits of recreation and not marginal changes in site or activity access and quality.

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Appendix A - Meta-Regression Analysis Benefit Transfer Function Tables

Table A1. Recreation Use Values Database (RUVD) Summary: All (US) vs PNW.

| RUVD Activity | $\begin{array}{c}\text { Recreation Use Values } \\ \text { Database - US }\end{array}$ |  | $\begin{array}{c}\text { Pacific Northwest } \\ \text { (USFS Region 6) }\end{array}$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c}\text { Average Value per } \\ \text { Activity Day (2018 } \\ \text { USD) }\end{array}$ | $\mathbf{N}$ | $\begin{array}{c}\text { Average Value per } \\ \text { Activity Day (2018 } \\ \text { USD) }\end{array}$ | N |$]$

Table A2. Summary Statistics, RUVD data ( $\mathrm{N}=2908$ ).

| RUVD Variable | Mean | Standard Error | Min | Max |
| :---: | :---: | :---: | :---: | :---: |
| Value per activity day (2018 USD) | \$73.46 | 70.78 | \$5.03 | \$440.58 |
| Walking | 0.0031 | 0.0556 | 0 | 1 |
| Hiking | 0.0312 | 0.1741 | 0 | 1 |
| Backpacking | 0.0141 | 0.1179 | 0 | 1 |
| Jogging / running | 0.0045 | 0.0667 | 0 | 1 |
| Mountain biking | 0.0055 | 0.0740 | 0 | 1 |
| Leisure biking | 0.0058 | 0.0762 | 0 | 1 |
| Off-road vehicle driving | 0.0138 | 0.1165 | 0 | 1 |
| Snowmobiling | 0.0028 | 0.0524 | 0 | 1 |
| Motorboating / jetskiing / waterskiing | 0.0289 | 0.1675 | 0 | 1 |
| Downhill skiing / snowboarding | 0.0045 | 0.0667 | 0 | 1 |
| Cross-country skiing | 0.0017 | 0.0414 | 0 | 1 |
| Sightseeing | 0.0113 | 0.1059 | 0 | 1 |
| Picnicking | 0.0082 | 0.0905 | 0 | 1 |
| Nature study | 0.0003 | 0.0185 | 0 | 1 |
| Visiting nature centers / arboretums / historic sites / aquariums | 0.0028 | 0.0524 | 0 | 1 |
| Wildlife viewing - birds | 0.0072 | 0.0847 | 0 | 1 |
| Wildlife viewing - whales | 0.0007 | 0.0262 | 0 | 1 |
| Wildlife viewing - other | 0.1248 | 0.3306 | 0 | 1 |
| Photography | 0.0003 | 0.0185 | 0 | 1 |
| Gathering forest products | 0.0048 | 0.0692 | 0 | 1 |
| Developed camping | 0.0282 | 0.1656 | 0 | 1 |
| Hunting (big / small game / waterfowl) | 0.2129 | 0.4094 | 0 | 1 |
| Fishing (freshwater / saltwater) | 0.3542 | 0.4784 | 0 | 1 |
| Shellfishing | 0.0003 | 0.0185 | 0 | 1 |
| Whitewater kayaking / canoeing / rafting | 0.0224 | 0.1478 | 0 | 1 |
| Flatwater kayaking / canoeing / rafting | 0.0055 | 0.0740 | 0 | 1 |
| Beach - ocean | 0.0248 | 0.1554 | 0 | 1 |
| Beach - lake, reservoir, river | 0.0010 | 0.0321 | 0 | 1 |
| Swimming | 0.0048 | 0.0692 | 0 | 1 |
| General other recreation | 0.0695 | 0.2543 | 0 | 1 |
| Northern (USFS Region 1) | 0.0392 | 0.1941 | 0 | 1 |
| Rocky Mountain (USFS Region 2) | 0.0849 | 0.2788 | 0 | 1 |
| Southwestern (USFS Region 3) | 0.0650 | 0.2466 | 0 | 1 |
| Intermountain (USFS Region 4) | 0.0860 | 0.2804 | 0 | 1 |
| Pacific Southwest (USFS Region 5) | 0.530 | 0.2240 | 0 | 1 |
| Pacific Northwest (USFS Region 6) | 0.0543 | 0.2267 | 0 | 1 |
| Southern (USFS Region 8) | 0.2050 | 0.4037 | 0 | 1 |
| Eastern (USFS Region 9) | 0.3016 | 0.4590 | 0 | 1 |
| Alaska (USFS Region 10) | 0.0344 | 0.1822 | 0 | 1 |
| Residents surveyed | 0.3363 | 0.4725 | 0 | 1 |
| Substitute prices included in model | 0.2699 | 0.4440 | 0 | 1 |
| Trend | 35.21 | 10.33 | 1 | 56 |

Table A3. Estimated meta-regression analysis model.

| Variable | Estimated <br> Coefficient | Cluster Robust <br> Standard Error |
| :--- | :---: | :---: |
| Walking | $-57.53^{\dagger}$ | 14.51 |
| Hiking | 15.66 | 17.08 |
| Backpacking | $-48.67^{\dagger}$ | 14.91 |
| Jogging / running | -2.71 | 15.39 |
| Mountain biking | $59.03^{\dagger}$ | 35.71 |
| Leisure biking | -13.86 | 14.52 |
| Off-road vehicle driving | -21.62 | 15.33 |
| Snowmobiling | $-35.18^{\dagger}$ | 18.05 |
| Motorboating / jetskiing / waterskiing | $-33.35^{\dagger}$ | 18.78 |
| Downhill skiing / snowboarding | 11.20 | 33.61 |
| Cross-country skiing | -14.79 | 14.15 |
| Sightseeing | -15.99 | 15.79 |
| Picnicking | $-32.38^{\dagger}$ | 12.33 |
| Nature study | $-39.52^{\dagger}$ | 15.75 |
| Visiting nature centers / arboretums / historic sites / aquariums | $-30.17^{\dagger}$ | 13.77 |
| Wildlife viewing - birds | -13.96 | 17.87 |
| Wildlife viewing - whales | 8.65 | 15.48 |
| Wildlife viewing - other | -11.12 | 13.29 |
| Photography | $-37.84^{\dagger}$ | 15.75 |
| Gathering forest products | 11.34 | 36.67 |
| Developed camping | $-41.37^{\dagger}$ | 12.83 |
| Hunting (big / small game / waterfowl) | 10.36 | 13.73 |
| Fishing (ffeshwater / saltwater) | 9.37 | 13.50 |
| Shellfishing | -22.12 | 15.51 |
| Whitewater kayaking / canoeing / rafting | 56.86 | 37.78 |
| Flatwater kayaking / canoeing / rafting | -22.02 | 14.03 |
| Beach - ocean | 19.23 | 22.32 |
| Beach - lake, reservoir, river | $-40.52^{\dagger}$ | 19.01 |
| Swimming | $-30.90^{\dagger}$ | 13.66 |
| Northern (USFS Region 1) | 1.71 | 14.80 |
| Rocky Mountain (USFS Region 2) | -3.50 | 12.39 |
| Southwestern (USFS Region 3) | -1.81 | 15.98 |
| Intermountain (USFS Region 4) | 7.44 | 14.76 |
| Pacific Southwest (USFS Region 5) | 0.89 | 15.67 |
| Pacific Northwest (USFS Region 6) | -4.99 | 14.48 |
| Southern (USFS Region 8) | -0.59 | 12.18 |
| Eastern (USFS Region 9) | -10.46 | 12.34 |
| Alaska (USFS Region 10) | 42.80 | 27.52 |
| Residents surveyed | -6.11 | 8.06 |
| Substitute prices included in model | $-15.69^{\dagger}$ | 7.86 |
| Trend | $0.73^{\dagger}$ | 0.33 |
| Constant | $53.34^{\dagger}$ | 20.83 |
|  | 0.1 | 1 |

Notes: dependent variable is Value per activity day (2018 USD); $N=2,908$, adjusted $\mathrm{R}^{2}=0.11$; root mean squared error $=67.19$; and Constant is composite variable measuring all omitted variables, including General Other Recreation; Multi-region;
Nonresidents; and No Substitutes. Cluster robust standard error computed using individual study as cluster ( $\mathrm{n}=395$ ).
${ }^{\dagger}$ Variable is statistically significant at the $\mathrm{p}<0.10$ level or better. Overall margin of error is $\pm 2.5$ percent.

Table A4. Example adaptation of meta-regression analysis benefit function for Walking

| Variable | Estimated Coefficient | Adaption value | Partial Value |
| :---: | :---: | :---: | :---: |
| Walking | -57.53 | 1 | -57.53 |
| Hiking | 15.66 | 0 | 0 |
| Backpacking | -48.67 | 0 | 0 |
| Jogging / running | -2.71 | 0 | 0 |
| Mountain biking | 59.03 | 0 | 0 |
| Leisure biking | -13.86 | 0 | 0 |
| Off-road vehicle driving | -21.62 | 0 | 0 |
| Snowmobiling | -35.18 | 0 | 0 |
| Motorboating / jetskiing / waterskiing | -33.35 | 0 | 0 |
| Downhill skiing / snowboarding | 11.20 | 0 | 0 |
| Cross-country skiing | -14.79 | 0 | 0 |
| Sightseeing | -15.99 | 0 | 0 |
| Picnicking | -32.38 | 0 | 0 |
| Nature study | -39.52 | 0 | 0 |
| Visiting nature centers / arboretums / historic sites / aquariums | -30.17 | 0 | 0 |
| Wildlife viewing - birds | -13.96 | 0 | 0 |
| Wildlife viewing - whales | 8.65 | 0 | 0 |
| Wildlife viewing - other | -11.12 | 0 | 0 |
| Photography | -37.84 | 0 | 0 |
| Gathering forest products | 11.34 | 0 | 0 |
| Developed camping | -41.37 | 0 | 0 |
| Hunting (big / small game / waterfowl) | 10.36 | 0 | 0 |
| Fishing (freshwater / saltwater) | 9.37 | 0 | 0 |
| Shellfishing | -22.12 | 0 | 0 |
| Whitewater kayaking / canoeing / rafting | 56.86 | 0 | 0 |
| Flatwater kayaking / canoeing / rafting | -22.02 | 0 | 0 |
| Beach - ocean | 19.23 | 0 | 0 |
| Beach - lake, reservoir, river | -40.52 | 0 | 0 |
| Swimming | -30.90 | 0 | 0 |
| Northern (USFS Region 1) | 1.71 | 0 | 0 |
| Rocky Mountain (USFS Region 2) | -3.50 | 0 | 0 |
| Southwestern (USFS Region 3) | -1.81 | 0 | 0 |
| Intermountain (USFS Region 4) | 7.44 | 0 | 0 |
| Pacific Southwest (USFS Region 5) | 0.89 | 0 | 0 |
| Pacific Northwest (USFS Region 6) | -4.99 | 1 | -4.99 |
| Southern (USFS Region 8) | -0.59 | 0 | 0 |
| Eastern (USFS Region 9) | -10.46 | 0 | 0 |
| Alaska (USFS Region 10) | 42.80 | 0 | 0 |
| Residents surveyed | -6.11 | 1 | -6.11 |
| Substitute prices included in model | -15.69 | 1 | -15.69 |
| Trend | 0.73 | 62 | 45.26 |
| Constant | 53.34 | 1 | 53.34 |
| Predicted Value / Person / Activity Day | --- | --- | \$14.47* |

[^0]Appendix B - County-Level Total Net Economic Value Estimates

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD

| Oregon County | Walking on local streets / sidewalks | Walking on local trails / paths | Walking / day hiking on non-local trails / paths | Long-distance hiking (backpacking) | Jogging / running on streets / sidewalks | Jogging / running on trails / paths |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$18,467,862 | \$8,988,571 | \$27,708,676 | \$1,894,857 | \$8,553,339 | \$3,646,954 |
| Benton | \$128,004,195 | \$53,198,042 | \$101,378,540 | \$9,607,423 | \$81,270,224 | \$42,371,410 |
| Clackamas | \$346,976,644 | \$132,188,925 | \$458,225,187 | \$9,945,254 | \$206,911,990 | \$59,205,977 |
| Clatsop | \$52,958,595 | \$24,793,092 | \$53,250,899 | \$8,838,804 | \$20,053,314 | \$15,909,737 |
| Columbia | \$48,578,950 | \$16,991,959 | \$22,926,389 | \$1,038,786 | \$17,008,581 | \$11,563,857 |
| Coos | \$64,142,712 | \$23,558,832 | \$54,927,213 | \$4,978,610 | \$24,582,535 | \$9,911,371 |
| Crook | \$17,511,407 | \$6,908,280 | \$18,346,090 | \$708,016 | \$9,972,405 | \$2,732,287 |
| Curry | \$24,643,309 | \$11,320,181 | \$37,035,926 | \$777,729 | \$8,742,523 | \$3,124,755 |
| Deschutes | \$208,509,414 | \$132,112,863 | \$407,879,716 | \$14,201,638 | \$174,341,270 | \$150,479,405 |
| Douglas | \$94,861,262 | \$35,395,299 | \$74,389,379 | \$5,059,069 | \$30,761,385 | \$19,658,600 |
| Gilliam | \$3,690,148 | \$771,923 | \$1,524,251 | \$25,650 | \$2,293,421 | \$642,916 |
| Grant | \$10,408,379 | \$2,853,256 | \$7,490,001 | \$382,779 | \$5,008,367 | \$2,193,472 |
| Harney | \$6,826,467 | \$2,472,695 | \$18,395,507 | \$720,677 | \$1,973,961 | \$914,521 |
| Hood River | \$23,872,685 | \$10,183,108 | \$28,804,277 | \$1,163,678 | \$11,155,297 | \$8,174,734 |
| Jackson | \$222,013,558 | \$77,610,777 | \$162,815,117 | \$21,968,067 | \$112,232,052 | \$48,729,561 |
| Jefferson | \$14,909,846 | \$6,927,265 | \$12,496,067 | \$477,148 | \$10,186,981 | \$6,129,444 |
| Josephine | \$96,595,813 | \$26,719,267 | \$54,926,604 | \$3,091,748 | \$53,614,938 | \$23,384,715 |
| Klamath | \$62,445,411 | \$38,272,161 | \$115,608,189 | \$41,796,186 | \$29,976,337 | \$33,371,452 |
| Lake | \$7,740,682 | \$4,530,790 | \$14,051,387 | \$4,674,999 | \$3,726,587 | \$3,842,936 |
| Lane | \$366,186,464 | \$145,887,407 | \$356,052,820 | \$18,844,258 | \$142,067,658 | \$78,526,065 |
| Lincoln | \$47,570,174 | \$18,504,301 | \$30,631,140 | \$1,254,505 | \$23,393,102 | \$8,326,776 |
| Linn | \$136,790,690 | \$44,955,185 | \$84,695,019 | \$10,539,274 | \$24,973,156 | \$15,835,664 |
| Malheur | \$21,049,334 | \$4,855,162 | \$12,722,806 | \$410,361 | \$15,371,001 | \$5,212,677 |
| Marion | \$254,616,575 | \$87,460,053 | \$256,404,601 | \$7,454,202 | \$100,123,604 | \$22,598,577 |
| Morrow | \$7,799,340 | \$1,645,176 | \$4,560,642 | \$239,070 | \$3,665,621 | \$1,226,371 |
| Multnomah | \$1,153,477,778 | \$372,931,811 | \$699,256,902 | \$22,419,514 | \$793,615,215 | \$373,814,559 |
| Polk | \$70,292,187 | \$23,252,513 | \$62,078,204 | \$2,171,536 | \$30,073,063 | \$10,400,912 |
| Sherman | \$2,030,609 | \$598,049 | \$2,299,607 | \$18,181 | \$519,284 | \$66,205 |
| Tillamook | \$23,861,595 | \$13,033,606 | \$29,935,893 | \$511,835 | \$2,950,951 | \$1,873,134 |
| Umatilla | \$74,257,889 | \$18,191,740 | \$36,347,772 | \$1,444,711 | \$46,926,365 | \$5,978,242 |
| Union | \$39,920,966 | \$9,727,518 | \$27,323,056 | \$2,106,050 | \$18,420,710 | \$3,695,250 |
| Wallowa | \$10,959,691 | \$2,898,046 | \$7,558,882 | \$1,000,790 | \$4,672,300 | \$1,295,977 |
| Wasco | \$28,927,484 | \$7,904,489 | \$25,828,275 | \$1,228,783 | \$7,982,030 | \$3,536,061 |
| Washington | \$704,612,571 | \$232,760,903 | \$471,975,657 | \$34,576,061 | \$513,012,576 | \$208,772,651 |
| Wheeler | \$2,101,839 | \$620,517 | \$1,014,795 | \$82,517 | \$1,338,788 | \$241,877 |
| Yamhill | \$95,613,310 | \$31,471,255 | \$79,488,934 | \$2,817,081 | \$37,769,316 | \$10,196,540 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Horseback riding | Bicycling on unpaved trails | Bicycling on paved trails | Bicycling on roads / streets / sidewalks | Class I - All-terrain vehicle riding ( 3 \& 4 wheel ATVs, straddle seat and handle bars) | Class II - Off-road 4-wheel driving (jeeps / pick-ups / dune buggies / SUVs) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$4,283,611 | \$5,631,875 | \$6,631,354 | \$17,352,999 | \$7,821,713 | \$22,883,638 |
| Benton | \$2,242,534 | \$57,348,560 | \$70,011,909 | \$142,495,742 | \$3,045,153 | \$4,576,410 |
| Clackamas | \$22,481,679 | \$27,744,889 | \$87,721,248 | \$130,115,534 | \$22,622,790 | \$34,368,494 |
| Clatsop | \$1,981,487 | \$5,859,365 | \$16,577,074 | \$24,961,360 | \$3,832,876 | \$4,614,717 |
| Columbia | \$2,229,957 | \$9,529,802 | \$11,361,572 | \$29,014,079 | \$5,751,787 | \$6,286,602 |
| Coos | \$4,203,969 | \$25,686,761 | \$19,227,456 | \$36,178,260 | \$24,512,704 | \$34,902,815 |
| Crook | \$2,183,060 | \$7,564,911 | \$3,348,098 | \$9,986,641 | \$2,059,074 | \$3,310,434 |
| Curry | \$1,938,160 | \$6,264,067 | \$3,449,614 | \$16,912,447 | \$6,394,024 | \$6,993,391 |
| Deschutes | \$3,840,539 | \$116,641,676 | \$60,738,790 | \$140,840,146 | \$13,559,473 | \$11,145,619 |
| Douglas | \$6,268,475 | \$8,227,807 | \$21,808,600 | \$60,290,314 | \$10,713,917 | \$30,569,298 |
| Gilliam | \$124,413 | \$245,146 | \$306,493 | \$2,173,262 | \$258,651 | \$506,823 |
| Grant | \$571,330 | \$613,364 | \$787,412 | \$3,431,190 | \$3,683,811 | \$6,814,480 |
| Harney | \$2,071,567 | \$4,760,590 | \$846,037 | \$3,086,955 | \$3,796,246 | \$4,257,561 |
| Hood River | \$664,003 | \$26,520,424 | \$8,617,613 | \$15,310,007 | \$1,487,474 | \$1,529,044 |
| Jackson | \$7,364,028 | \$72,564,927 | \$101,725,009 | \$140,715,415 | \$18,762,794 | \$18,076,558 |
| Jefferson | \$1,634,827 | \$7,145,225 | \$3,548,166 | \$6,886,161 | \$2,096,046 | \$2,574,948 |
| Josephine | \$509,912 | \$31,634,188 | \$25,169,474 | \$48,645,244 | \$15,060,022 | \$21,139,369 |
| Klamath | \$3,041,673 | \$44,617,798 | \$18,123,996 | \$31,112,718 | \$11,018,288 | \$26,150,178 |
| Lake | \$442,261 | \$5,371,724 | \$2,120,411 | \$3,872,174 | \$1,519,158 | \$3,576,296 |
| Lane | \$3,917,402 | \$128,913,178 | \$205,840,028 | \$298,594,524 | \$10,315,717 | \$34,256,228 |
| Lincoln | \$1,077,170 | \$9,957,988 | \$3,050,614 | \$16,363,038 | \$3,756,426 | \$3,248,053 |
| Linn | \$1,644,862 | \$23,187,329 | \$34,243,869 | \$102,113,296 | \$12,263,940 | \$15,891,608 |
| Malheur | \$12,212,644 | \$4,349,796 | \$1,090,224 | \$13,525,302 | \$12,827,164 | \$12,192,186 |
| Marion | \$7,024,964 | \$31,359,191 | \$44,430,118 | \$134,576,402 | \$26,765,606 | \$20,441,732 |
| Morrow | \$704,280 | \$585,610 | \$1,220,688 | \$5,057,399 | \$2,019,591 | \$2,456,770 |
| Multnomah | \$1,506,650 | \$244,330,497 | \$375,759,915 | \$865,566,491 | \$3,377,412 | \$11,034,215 |
| Polk | \$550,813 | \$8,453,118 | \$10,653,775 | \$35,709,203 | \$3,524,657 | \$3,901,378 |
| Sherman | \$661,850 | \$788,328 | \$386,921 | \$1,011,279 | \$470,709 | \$581,573 |
| Tillamook | \$1,370,289 | \$3,772,782 | \$1,463,417 | \$5,137,492 | \$2,972,038 | \$5,858,852 |
| Umatilla | \$4,477,536 | \$15,847,924 | \$10,054,672 | \$53,019,785 | \$14,668,311 | \$9,184,076 |
| Union | \$4,543,590 | \$17,236,334 | \$16,842,195 | \$38,472,815 | \$9,441,072 | \$33,503,937 |
| Wallowa | \$1,273,132 | \$1,216,107 | \$439,316 | \$3,813,212 | \$7,357,997 | \$11,338,038 |
| Wasco | \$1,602,765 | \$11,883,584 | \$8,744,936 | \$12,114,148 | \$2,693,097 | \$4,141,491 |
| Washington | \$71,635,911 | \$499,574,107 | \$309,852,172 | \$447,047,258 | \$15,318,121 | \$29,098,663 |
| Wheeler | \$47,979 | \$100,290 | \$22,250 | \$518,129 | \$622,843 | \$127,409 |
| Yamhill | \$6,744,640 | \$28,556,640 | \$31,596,690 | \$72,842,286 | \$3,084,264 | \$6,624,107 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Class III - Off-road motorcycling | Class IV - Riding UTVs / side-by-side ATVs (non-straddle seat / steering wheel) | Snowmobiling | Personal water craft - jet ski | Power boating (cruising / water skiing) | Downhill (alpine) skiing / snowboarding |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$809,828 | \$2,595,068 | \$2,528,750 | \$886,665 | \$1,994,979 | \$1,640,376 |
| Benton | \$2,198,756 | \$1,059,780 | \$585,334 | \$2,497,905 | \$6,029,386 | \$5,315,223 |
| Clackamas | \$6,894,601 | \$5,688,172 | \$665,036 | \$2,797,324 | \$32,535,729 | \$27,336,191 |
| Clatsop | \$169,577 | \$2,178,930 | \$572,025 | \$1,797,246 | \$6,514,751 | \$997,919 |
| Columbia | \$537,170 | \$1,376,016 | \$267,372 | \$14,323,716 | \$13,780,918 | \$960,976 |
| Coos | \$6,619,990 | \$28,276,882 | \$520,221 | \$6,887,546 | \$8,034,470 | \$2,502,179 |
| Crook | \$168,530 | \$1,306,938 | \$291,247 | \$222,520 | \$3,460,694 | \$916,788 |
| Curry | \$804,847 | \$1,115,549 | \$150,523 | \$546,351 | \$1,441,752 | \$225,707 |
| Deschutes | \$4,211,579 | \$8,312,871 | \$6,417,794 | \$5,265,860 | \$8,063,280 | \$73,527,791 |
| Douglas | \$2,673,115 | \$20,392,988 | \$1,066,695 | \$2,155,025 | \$10,953,278 | \$2,762,239 |
| Gilliam | \$0 | \$100,058 | \$15,895 | \$0 | \$21,471 | \$14,103 |
| Grant | \$689,913 | \$663,408 | \$208,833 | \$317,661 | \$334,952 | \$151,223 |
| Harney | \$980,011 | \$1,897,781 | \$537,676 | \$66,764 | \$183,142 | \$103,555 |
| Hood River | \$152,716 | \$311,663 | \$116,570 | \$837,054 | \$1,821,967 | \$11,363,154 |
| Jackson | \$12,051,184 | \$364,305 | \$727,353 | \$2,585,087 | \$12,296,905 | \$15,428,929 |
| Jefferson | \$499,888 | \$347,874 | \$172,837 | \$219,464 | \$1,841,103 | \$819,923 |
| Josephine | \$5,612,992 | \$2,854,932 | \$197,061 | \$29,529,459 | \$9,767,283 | \$1,649,884 |
| Klamath | \$1,126,871 | \$6,190,435 | \$3,844,689 | \$4,722,739 | \$8,255,903 | \$2,934,802 |
| Lake | \$166,005 | \$728,590 | \$456,289 | \$527,336 | \$930,046 | \$436,711 |
| Lane | \$34,496,949 | \$8,011,168 | \$630,095 | \$3,862,077 | \$43,013,536 | \$18,646,075 |
| Lincoln | \$1,120,925 | \$2,233,443 | \$80,178 | \$3,890,113 | \$3,229,585 | \$563,158 |
| Linn | \$1,458,188 | \$5,069,477 | \$943,074 | \$9,102,149 | \$13,984,244 | \$6,478,368 |
| Malheur | \$3,902,899 | \$5,802,837 | \$728,233 | \$569,783 | \$2,510,423 | \$1,651,037 |
| Marion | \$1,020,510 | \$2,565,159 | \$2,499,817 | \$6,274,274 | \$14,064,690 | \$7,386,223 |
| Morrow | \$281,235 | \$3,917,355 | \$351,012 | \$106,497 | \$1,165,995 | \$304,671 |
| Multnomah | \$896,309 | \$0 | \$1,224,316 | \$2,851,522 | \$11,979,281 | \$70,958,055 |
| Polk | \$217,682 | \$299,147 | \$250,846 | \$2,690,405 | \$6,934,353 | \$2,597,765 |
| Sherman | \$82,469 | \$310,116 | \$0 | \$16,457 | \$274,817 | \$30,013 |
| Tillamook | \$1,845,034 | \$561,735 | \$21,174 | \$60,364 | \$2,129,475 | \$400,297 |
| Umatilla | \$1,825,007 | \$8,084,648 | \$3,930,021 | \$1,999,725 | \$3,217,253 | \$1,862,270 |
| Union | \$1,065,473 | \$1,155,601 | \$1,879,710 | \$1,841,073 | \$3,856,310 | \$4,748,519 |
| Wallowa | \$1,875,330 | \$2,481,110 | \$3,349,025 | \$138,209 | \$3,678,271 | \$950,815 |
| Wasco | \$789,963 | \$2,600,526 | \$125,816 | \$586,387 | \$2,637,504 | \$1,176,855 |
| Washington | \$4,732,378 | \$1,462,405 | \$1,258,598 | \$9,825,491 | \$23,755,773 | \$81,092,388 |
| Wheeler | \$150,167 | \$0 | \$0 | \$0 | \$33,435 | \$30,970 |
| Yamhill | \$543,955 | \$7,444,368 | \$217,476 | \$1,319,826 | \$3,860,419 | \$3,806,196 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Cross-country / Nordic skiing / skijoring on groomed trails | Cross-country / Nordic skiing / skijoring on ungroomed trails / off designated trails | Snowshoeing | Sledding / tubing / general snow play | Sightseeing / driving or motorcycling for pleasure | Picnicking |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$244,412 | \$283,637 | \$1,546,272 | \$7,049,512 | \$22,491,996 | \$8,075,203 |
| Benton | \$2,059,581 | \$1,016,356 | \$1,550,712 | \$9,651,168 | \$61,475,492 | \$15,793,282 |
| Clackamas | \$3,378,685 | \$1,048,644 | \$5,076,181 | \$32,447,655 | \$262,340,930 | \$106,966,912 |
| Clatsop | \$195,405 | \$144,490 | \$187,426 | \$3,477,606 | \$50,411,510 | \$8,719,538 |
| Columbia | \$361,562 | \$30,234 | \$258,547 | \$4,719,889 | \$40,611,196 | \$6,876,340 |
| Coos | \$236,394 | \$398,616 | \$523,268 | \$4,621,170 | \$72,873,582 | \$17,559,556 |
| Crook | \$615,395 | \$388,671 | \$308,278 | \$1,221,816 | \$17,341,197 | \$2,725,860 |
| Curry | \$73,954 | \$111,455 | \$147,224 | \$1,578,199 | \$28,733,474 | \$8,367,143 |
| Deschutes | \$17,016,382 | \$4,692,628 | \$7,872,680 | \$27,586,757 | \$128,259,186 | \$26,195,186 |
| Douglas | \$107,798 | \$80,409 | \$265,643 | \$10,267,754 | \$99,205,640 | \$23,564,694 |
| Gilliam | \$34,458 | \$0 | \$52,718 | \$256,745 | \$1,256,654 | \$339,273 |
| Grant | \$29,946 | \$70,160 | \$42,031 | \$2,592,346 | \$10,622,159 | \$2,426,195 |
| Harney | \$28,935 | \$146,442 | \$137,023 | \$2,140,615 | \$16,141,824 | \$3,576,829 |
| Hood River | \$3,499,251 | \$740,542 | \$1,519,176 | \$3,117,320 | \$8,758,207 | \$2,358,039 |
| Jackson | \$5,528,126 | \$3,363,908 | \$3,454,268 | \$10,460,336 | \$140,498,981 | \$44,727,275 |
| Jefferson | \$245,120 | \$195,871 | \$104,941 | \$2,459,605 | \$16,055,396 | \$5,192,650 |
| Josephine | \$108,890 | \$249,742 | \$184,164 | \$10,962,247 | \$99,871,519 | \$29,416,598 |
| Klamath | \$886,283 | \$848,367 | \$4,101,988 | \$11,933,783 | \$49,699,752 | \$21,547,737 |
| Lake | \$105,912 | \$101,898 | \$476,342 | \$1,525,202 | \$7,451,653 | \$2,785,931 |
| Lane | \$8,870,377 | \$5,591,747 | \$12,876,618 | \$30,374,025 | \$408,939,196 | \$118,626,383 |
| Lincoln | \$245,575 | \$101,416 | \$173,429 | \$2,049,862 | \$47,275,827 | \$7,271,608 |
| Linn | \$270,272 | \$150,737 | \$1,352,361 | \$13,819,568 | \$107,517,438 | \$19,368,083 |
| Malheur | \$44,727 | \$7,076 | \$28,337 | \$8,531,367 | \$20,132,693 | \$5,365,667 |
| Marion | \$742,008 | \$401,396 | \$4,708,504 | \$23,041,636 | \$214,575,149 | \$61,562,530 |
| Morrow | \$30,156 | \$81,351 | \$73,738 | \$1,630,464 | \$8,470,077 | \$2,180,345 |
| Multnomah | \$14,088,605 | \$6,821,106 | \$13,116,420 | \$50,906,576 | \$383,630,958 | \$102,304,505 |
| Polk | \$494,068 | \$87,439 | \$777,683 | \$6,951,049 | \$49,168,386 | \$13,393,042 |
| Sherman | \$77,036 | \$0 | \$990 | \$207,873 | \$3,729,654 | \$515,668 |
| Tillamook | \$50,252 | \$13,389 | \$75,297 | \$1,415,053 | \$22,324,656 | \$5,502,455 |
| Umatilla | \$248,237 | \$158,983 | \$993,923 | \$12,977,159 | \$74,688,149 | \$21,736,042 |
| Union | \$1,977,885 | \$651,355 | \$2,005,337 | \$12,193,971 | \$59,560,958 | \$13,660,176 |
| Wallowa | \$83,775 | \$314,959 | \$377,600 | \$9,458,950 | \$14,734,876 | \$2,579,435 |
| Wasco | \$419,798 | \$52,695 | \$406,308 | \$5,809,231 | \$31,373,896 | \$5,803,065 |
| Washington | \$7,599,289 | \$4,800,673 | \$7,477,242 | \$33,776,128 | \$411,443,456 | \$124,923,179 |
| Wheeler | \$4,022 | \$14,860 | \$50,128 | \$104,902 | \$190,831 | \$176,547 |
| Yamhill | \$648,499 | \$155,460 | \$839,547 | \$6,806,494 | \$77,431,946 | \$16,401,546 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Taking your children / grandchildren to a playground | Dog walking / going to dog parks / offleash areas | Relaxing / hanging out / escaping heat / noise / etc. | Attending outdoor concerts / fairs / festivals | Tennis (played outdoors) | Pickleball (played outdoors) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$5,114,304 | \$6,325,349 | \$17,831,936 | \$1,414,946 | \$67,424 | \$79,842 |
| Benton | \$38,497,766 | \$37,055,870 | \$84,548,134 | \$10,797,221 | \$580,203 | \$356,631 |
| Clackamas | \$188,831,384 | \$91,609,566 | \$254,619,175 | \$51,795,601 | \$1,137,846 | \$1,257,568 |
| Clatsop | \$14,486,485 | \$14,729,648 | \$46,373,552 | \$6,558,179 | \$207,566 | \$95,435 |
| Columbia | \$31,946,098 | \$12,335,382 | \$39,128,171 | \$7,302,107 | \$88,601 | \$25,315 |
| Coos | \$26,846,945 | \$15,565,898 | \$57,614,582 | \$5,674,779 | \$262,646 | \$114,971 |
| Crook | \$3,878,409 | \$3,170,405 | \$16,495,865 | \$3,042,575 | \$69,539 | \$27,304 |
| Curry | \$8,396,480 | \$8,748,637 | \$40,586,939 | \$2,849,531 | \$350,795 | \$90,935 |
| Deschutes | \$40,515,706 | \$38,790,501 | \$143,313,067 | \$36,071,445 | \$1,570,405 | \$499,633 |
| Douglas | \$22,213,517 | \$23,752,511 | \$87,307,727 | \$15,240,792 | \$836,494 | \$130,136 |
| Gilliam | \$1,199,091 | \$53,770 | \$3,142,490 | \$219,968 | \$17,038 | \$22,516 |
| Grant | \$8,396,552 | \$2,727,546 | \$10,986,838 | \$543,938 | \$24,790 | \$115,417 |
| Harney | \$3,218,630 | \$1,755,811 | \$11,710,910 | \$890,442 | \$115,581 | \$85,055 |
| Hood River | \$6,152,620 | \$6,114,151 | \$14,428,552 | \$2,445,144 | \$429,200 | \$26,117 |
| Jackson | \$79,103,481 | \$31,347,455 | \$138,739,770 | \$24,732,925 | \$2,116,139 | \$667,047 |
| Jefferson | \$4,097,487 | \$2,628,536 | \$18,473,662 | \$1,685,014 | \$160,333 | \$45,807 |
| Josephine | \$43,294,668 | \$11,806,545 | \$128,656,565 | \$17,080,272 | \$2,059,044 | \$790,474 |
| Klamath | \$25,725,548 | \$17,184,997 | \$76,055,496 | \$5,983,818 | \$1,212,987 | \$633,120 |
| Lake | \$2,994,203 | \$2,077,231 | \$9,503,366 | \$728,639 | \$139,544 | \$73,590 |
| Lane | \$192,277,004 | \$105,496,262 | \$348,066,186 | \$51,372,720 | \$4,206,078 | \$3,624,356 |
| Lincoln | \$11,367,491 | \$9,804,577 | \$47,589,019 | \$4,014,745 | \$158,902 | \$132,059 |
| Linn | \$49,900,407 | \$34,483,305 | \$139,877,427 | \$14,127,264 | \$600,259 | \$444,864 |
| Malheur | \$9,436,485 | \$3,708,688 | \$19,311,213 | \$2,061,309 | \$151,592 | \$152,067 |
| Marion | \$109,476,936 | \$74,166,772 | \$184,409,734 | \$22,995,480 | \$2,468,827 | \$2,993,566 |
| Morrow | \$3,227,504 | \$1,610,610 | \$6,814,340 | \$693,060 | \$33,945 | \$74,059 |
| Multnomah | \$430,026,985 | \$354,623,740 | \$395,334,691 | \$116,651,872 | \$10,279,892 | \$4,025,297 |
| Polk | \$32,604,265 | \$16,964,136 | \$68,154,457 | \$8,508,891 | \$510,662 | \$422,050 |
| Sherman | \$1,364,662 | \$656,271 | \$2,771,837 | \$290,706 | \$20,097 | \$1,914 |
| Tillamook | \$7,475,133 | \$7,302,428 | \$25,500,741 | \$1,929,326 | \$90,816 | \$41,531 |
| Umatilla | \$32,306,221 | \$12,473,391 | \$63,287,612 | \$7,465,017 | \$1,122,890 | \$394,491 |
| Union | \$19,842,984 | \$9,330,045 | \$49,635,796 | \$3,456,814 | \$167,051 | \$298,930 |
| Wallowa | \$1,537,070 | \$2,562,774 | \$8,958,921 | \$1,012,765 | \$14,415 | \$26,819 |
| Wasco | \$15,630,813 | \$6,075,628 | \$31,254,710 | \$2,421,120 | \$111,073 | \$55,845 |
| Washington | \$345,443,575 | \$133,975,922 | \$334,655,813 | \$54,449,464 | \$4,781,756 | \$2,610,115 |
| Wheeler | \$44,764 | \$1,142,781 | \$1,916,217 | \$322,875 | \$4,929 | \$559 |
| Yamhill | \$44,514,474 | \$16,017,322 | \$80,673,246 | \$8,418,596 | \$369,893 | \$153,515 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Outdoor court games other than tennis (basketball / beach volleyball / badminton) | Soccer | Futsal | Golf | Orienteering / geocaching | ```Visiting historic sites / history- themed parks (museums / outdoor displays / visitor centers)``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$625,395 | \$535,018 | \$21,718 | \$245,197 | \$469,275 | \$2,938,952 |
| Benton | \$2,793,451 | \$7,889,769 | \$320,271 | \$2,112,760 | \$11,487,355 | \$14,476,480 |
| Clackamas | \$9,850,387 | \$15,507,793 | \$629,511 | \$9,288,692 | \$22,337,424 | \$52,836,602 |
| Clatsop | \$747,532 | \$601,690 | \$24,425 | \$874,016 | \$1,281,717 | \$16,562,378 |
| Columbia | \$198,288 | \$868,546 | \$35,257 | \$1,067,268 | \$16,823,677 | \$16,467,249 |
| Coos | \$900,558 | \$983,459 | \$39,922 | \$1,329,005 | \$5,860,440 | \$6,630,309 |
| Crook | \$213,872 | \$275,397 | \$11,179 | \$475,769 | \$4,347,781 | \$2,783,502 |
| Curry | \$712,285 | \$976,092 | \$39,623 | \$539,231 | \$504,135 | \$6,445,555 |
| Deschutes | \$3,913,568 | \$4,740,857 | \$192,447 | \$8,919,894 | \$26,205,917 | \$22,478,637 |
| Douglas | \$1,019,338 | \$4,627,844 | \$187,859 | \$1,873,106 | \$2,109,549 | \$15,383,957 |
| Gilliam | \$176,365 | \$82,115 | \$3,333 | \$228,887 | \$365,970 | \$315,145 |
| Grant | \$904,052 | \$405,600 | \$16,465 | \$225,429 | \$695,665 | \$1,291,646 |
| Harney | \$666,228 | \$470,119 | \$19,084 | \$264,968 | \$359,022 | \$1,166,166 |
| Hood River | \$204,575 | \$793,268 | \$32,201 | \$400,722 | \$606,442 | \$2,450,055 |
| Jackson | \$5,224,907 | \$5,058,049 | \$205,323 | \$7,539,105 | \$6,489,200 | \$30,191,108 |
| Jefferson | \$358,803 | \$897,828 | \$36,446 | \$1,004,560 | \$545,111 | \$2,499,077 |
| Josephine | \$6,191,696 | \$5,092,558 | \$206,723 | \$2,913,535 | \$5,790,108 | \$21,194,262 |
| Klamath | \$4,959,158 | \$789,059 | \$32,030 | \$1,286,498 | \$13,328,491 | \$13,636,239 |
| Lake | \$576,421 | \$173,297 | \$7,035 | \$153,616 | \$1,663,902 | \$1,677,272 |
| Lane | \$28,389,168 | \$6,128,513 | \$248,776 | \$8,351,567 | \$19,939,238 | \$53,176,767 |
| Lincoln | \$1,034,407 | \$1,729,501 | \$70,206 | \$1,278,788 | \$2,323,512 | \$8,600,599 |
| Linn | \$3,484,569 | \$2,190,853 | \$88,934 | \$2,995,280 | \$18,797,927 | \$19,604,154 |
| Malheur | \$1,191,121 | \$956,874 | \$38,843 | \$899,240 | \$381,259 | \$12,669,306 |
| Marion | \$23,448,265 | \$18,501,018 | \$751,016 | \$2,891,748 | \$1,893,654 | \$44,556,696 |
| Morrow | \$580,094 | \$663,955 | \$26,952 | \$550,439 | \$138,075 | \$1,687,334 |
| Multnomah | \$31,529,691 | \$20,652,001 | \$838,331 | \$11,899,249 | \$46,482,215 | \$103,590,810 |
| Polk | \$3,305,868 | \$1,551,562 | \$62,983 | \$1,114,497 | \$12,683,215 | \$12,350,236 |
| Sherman | \$14,989 | \$37,148 | \$1,508 | \$40,187 | \$0 | \$1,230,788 |
| Tillamook | \$325,310 | \$184,905 | \$7,506 | \$462,869 | \$874,870 | \$4,258,932 |
| Umatilla | \$3,090,001 | \$3,474,598 | \$141,045 | \$1,327,871 | \$6,791,110 | \$11,088,311 |
| Union | \$2,341,484 | \$2,431,913 | \$98,719 | \$854,263 | \$599,594 | \$5,879,051 |
| Wallowa | \$210,070 | \$153,023 | \$6,212 | \$162,686 | \$749,444 | \$1,203,749 |
| Wasco | \$437,427 | \$1,316,415 | \$53,438 | \$696,719 | \$1,205,435 | \$4,846,472 |
| Washington | \$20,444,733 | \$42,575,112 | \$1,728,261 | \$19,056,316 | \$19,629,701 | \$96,691,636 |
| Wheeler | \$4,382 | \$4,734 | \$192 | \$32,793 | \$48,968 | \$85,356 |
| Yamhill | \$1,202,465 | \$4,780,351 | \$194,050 | \$2,009,965 | \$4,238,505 | \$15,228,012 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon <br> County | Bird watching | Whale watching | Exploring tidepools | Other nature / wildlife / forest / wildflower observation | Taking your children / grandchildren to nature settings | Visiting nature centers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$17,938,077 | \$308,698 | \$1,205,542 | \$46,641,600 | \$2,173,286 | \$180,384 |
| Benton | \$53,814,295 | \$24,674,766 | \$26,103,897 | \$118,525,131 | \$16,359,341 | \$4,735,629 |
| Clackamas | \$117,217,013 | \$96,090,240 | \$65,622,122 | \$261,608,317 | \$80,242,502 | \$19,421,159 |
| Clatsop | \$50,757,719 | \$24,578,388 | \$19,864,812 | \$55,379,783 | \$6,155,925 | \$3,822,338 |
| Columbia | \$49,851,410 | \$5,834,555 | \$16,187,666 | \$95,552,578 | \$13,575,258 | \$3,171,584 |
| Coos | \$53,224,264 | \$55,331,310 | \$36,855,898 | \$65,412,195 | \$11,408,411 | \$3,019,152 |
| Crook | \$31,519,629 | \$2,147,314 | \$3,204,327 | \$22,619,093 | \$1,648,101 | \$302,906 |
| Curry | \$42,125,556 | \$63,690,268 | \$27,315,471 | \$56,888,324 | \$3,568,022 | \$2,468,695 |
| Deschutes | \$120,639,451 | \$12,702,330 | \$19,658,951 | \$147,553,689 | \$17,216,850 | \$8,155,968 |
| Douglas | \$118,819,949 | \$17,304,344 | \$19,578,652 | \$81,712,262 | \$9,439,470 | \$2,658,686 |
| Gilliam | \$227,165 | \$201,707 | \$333,220 | \$996,873 | \$509,545 | \$23,302 |
| Grant | \$10,220,682 | \$257,987 | \$335,029 | \$17,585,207 | \$3,568,053 | \$163,907 |
| Harney | \$5,843,631 | \$285,535 | \$389,345 | \$14,810,492 | \$1,367,733 | \$90,720 |
| Hood River | \$9,161,149 | \$1,660,363 | \$3,467,774 | \$21,109,976 | \$2,614,511 | \$551,399 |
| Jackson | \$191,473,967 | \$24,271,766 | \$53,610,556 | \$199,109,325 | \$33,614,440 | \$12,779,950 |
| Jefferson | \$25,491,321 | \$1,444,827 | \$1,248,333 | \$17,830,503 | \$1,741,197 | \$1,652,302 |
| Josephine | \$135,341,499 | \$26,463,711 | \$29,089,656 | \$121,370,814 | \$18,397,750 | \$5,225,753 |
| Klamath | \$140,747,637 | \$10,822,427 | \$9,856,201 | \$181,802,802 | \$10,931,882 | \$2,769,858 |
| Lake | \$15,965,190 | \$1,223,283 | \$1,136,484 | \$21,302,184 | \$1,272,365 | \$312,569 |
| Lane | \$273,966,383 | \$70,957,795 | \$94,797,259 | \$399,889,571 | \$81,706,693 | \$21,792,753 |
| Lincoln | \$90,946,407 | \$81,506,737 | \$54,191,966 | \$73,726,214 | \$4,830,531 | \$2,417,406 |
| Linn | \$115,716,040 | \$19,323,945 | \$47,293,363 | \$110,933,599 | \$21,204,809 | \$8,201,540 |
| Malheur | \$13,988,316 | \$2,591,008 | \$2,531,834 | \$21,034,072 | \$4,009,965 | \$938,561 |
| Marion | \$111,195,076 | \$48,985,807 | \$51,268,234 | \$236,713,552 | \$46,521,415 | \$17,092,517 |
| Morrow | \$5,804,455 | \$1,011,955 | \$1,109,677 | \$11,712,991 | \$1,371,504 | \$141,587 |
| Multnomah | \$155,467,045 | \$78,815,713 | \$167,012,435 | \$412,371,164 | \$182,736,791 | \$51,857,315 |
| Polk | \$49,487,444 | \$19,574,594 | \$22,011,096 | \$73,480,072 | \$13,854,941 | \$3,576,707 |
| Sherman | \$1,744,169 | \$236,523 | \$148,917 | \$2,101,562 | \$579,903 | \$87,630 |
| Tillamook | \$35,986,894 | \$19,646,612 | \$20,381,489 | \$41,523,490 | \$3,176,502 | \$1,433,330 |
| Umatilla | \$36,916,635 | \$6,472,469 | \$8,981,969 | \$43,257,071 | \$13,728,290 | \$1,478,493 |
| Union | \$22,172,595 | \$2,719,956 | \$4,608,974 | \$34,204,852 | \$8,432,129 | \$1,108,159 |
| Wallowa | \$10,195,760 | \$663,577 | \$471,034 | \$22,506,677 | \$653,167 | \$180,869 |
| Wasco | \$22,813,384 | \$2,922,081 | \$3,981,317 | \$22,938,447 | \$6,642,199 | \$483,514 |
| Washington | \$157,807,711 | \$61,487,218 | \$201,688,768 | \$375,942,854 | \$146,793,695 | \$45,091,287 |
| Wheeler | \$2,319,041 | \$0 | \$82,120 | \$1,350,939 | \$19,022 | \$21,819 |
| Yamhill | \$71,106,759 | \$26,847,444 | \$45,587,998 | \$64,460,703 | \$18,916,097 | \$5,533,328 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Outdoor photography / painting / drawing | Collecting (rocks / plants / mushrooms / berries) | RV / motorhome / trailer camping | Car camping with a tent | Yurts / camper cabins | Hunting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$7,355,120 | \$31,835,594 | \$9,103,698 | \$6,774,051 | \$630,916 | \$16,617,130 |
| Benton | \$14,516,808 | \$64,270,559 | \$15,709,567 | \$22,355,800 | \$2,673,219 | \$11,587,251 |
| Clackamas | \$45,346,860 | \$96,610,026 | \$103,319,373 | \$81,718,458 | \$12,297,962 | \$38,907,271 |
| Clatsop | \$13,364,785 | \$28,432,080 | \$16,743,011 | \$5,530,723 | \$762,148 | \$17,469,230 |
| Columbia | \$18,134,451 | \$28,929,315 | \$27,965,596 | \$13,272,535 | \$1,450,238 | \$18,324,916 |
| Coos | \$10,262,581 | \$52,146,239 | \$26,501,535 | \$11,713,970 | \$1,288,110 | \$34,339,693 |
| Crook | \$2,444,025 | \$3,877,250 | \$12,124,604 | \$2,215,026 | \$140,782 | \$6,074,419 |
| Curry | \$9,341,244 | \$26,246,138 | \$12,556,000 | \$3,109,375 | \$728,203 | \$9,281,981 |
| Deschutes | \$20,003,073 | \$47,452,567 | \$51,700,030 | \$55,755,948 | \$3,693,045 | \$21,393,158 |
| Douglas | \$32,128,232 | \$75,684,169 | \$35,929,674 | \$16,344,701 | \$2,404,563 | \$46,902,763 |
| Gilliam | \$299,060 | \$199,682 | \$427,331 | \$547,482 | \$42,980 | \$654,014 |
| Grant | \$2,198,966 | \$5,267,763 | \$7,403,216 | \$750,621 | \$92,131 | \$6,334,761 |
| Harney | \$1,312,328 | \$2,520,210 | \$3,901,471 | \$1,400,459 | \$57,707 | \$4,824,117 |
| Hood River | \$3,999,073 | \$3,908,527 | \$4,863,394 | \$3,172,143 | \$458,939 | \$5,232,607 |
| Jackson | \$38,585,920 | \$61,612,099 | \$26,651,296 | \$33,818,414 | \$6,320,548 | \$58,941,813 |
| Jefferson | \$4,662,073 | \$7,189,060 | \$11,736,343 | \$1,313,588 | \$479,620 | \$4,286,534 |
| Josephine | \$20,672,591 | \$39,670,253 | \$45,453,639 | \$19,088,419 | \$5,141,109 | \$32,961,515 |
| Klamath | \$47,016,871 | \$113,027,783 | \$40,789,848 | \$15,789,823 | \$1,968,408 | \$90,923,634 |
| Lake | \$5,395,266 | \$12,840,594 | \$4,797,880 | \$2,060,902 | \$228,047 | \$10,681,961 |
| Lane | \$41,509,773 | \$126,994,107 | \$116,748,270 | \$68,666,487 | \$6,505,092 | \$111,949,392 |
| Lincoln | \$11,080,179 | \$41,555,020 | \$9,548,444 | \$4,553,691 | \$460,437 | \$10,744,353 |
| Linn | \$30,510,322 | \$73,947,628 | \$49,542,608 | \$20,140,360 | \$3,427,857 | \$61,887,943 |
| Malheur | \$7,177,015 | \$10,857,891 | \$6,026,837 | \$4,520,132 | \$991,871 | \$28,011,431 |
| Marion | \$61,083,606 | \$51,732,437 | \$56,907,148 | \$31,734,635 | \$17,494,698 | \$24,072,342 |
| Morrow | \$2,003,498 | \$4,047,370 | \$6,462,966 | \$1,650,670 | \$1,534,510 | \$7,288,048 |
| Multnomah | \$88,593,515 | \$152,239,953 | \$54,684,679 | \$120,685,307 | \$13,491,417 | \$57,084,264 |
| Polk | \$13,695,404 | \$31,274,745 | \$14,763,479 | \$15,429,556 | \$1,552,705 | \$17,055,892 |
| Sherman | \$108,265 | \$106,487 | \$2,023,786 | \$142,456 | \$51,157 | \$264,306 |
| Tillamook | \$13,149,750 | \$18,716,378 | \$6,454,390 | \$3,414,967 | \$382,463 | \$7,192,352 |
| Umatilla | \$11,120,743 | \$43,499,284 | \$33,471,229 | \$10,312,224 | \$2,547,379 | \$17,983,263 |
| Union | \$7,829,556 | \$38,705,557 | \$14,689,866 | \$7,308,021 | \$447,749 | \$38,264,576 |
| Wallowa | \$3,823,445 | \$4,869,136 | \$6,544,525 | \$934,007 | \$135,320 | \$5,276,423 |
| Wasco | \$7,845,284 | \$15,597,538 | \$8,027,470 | \$4,034,324 | \$609,484 | \$6,779,289 |
| Washington | \$53,223,154 | \$65,250,338 | \$49,231,094 | \$148,454,220 | \$9,506,901 | \$54,508,036 |
| Wheeler | \$321,036 | \$295,511 | \$740,325 | \$97,627 | \$11,247 | \$829,287 |
| Yamhill | \$22,965,960 | \$24,730,173 | \$33,603,064 | \$15,151,576 | \$3,516,729 | \$27,878,764 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon County | Fishing | Crabbing | Shellfishing / clamming | White-water canoeing / kayaking / rafting | Flat-water canoeing / sea kayaking / rowing / stand-up paddling / tubing / floating | Beach activities ocean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | \$26,147,514 | \$164,030 | \$93,324 | \$434,530 | \$387,121 | \$1,286,528 |
| Benton | \$28,728,456 | \$2,712,403 | \$841,364 | \$2,556,404 | \$2,204,860 | \$59,913,270 |
| Clackamas | \$150,944,988 | \$17,186,268 | \$12,805,057 | \$10,448,970 | \$24,664,976 | \$158,258,845 |
| Clatsop | \$33,900,421 | \$8,798,370 | \$8,255,716 | \$1,412,609 | \$1,758,174 | \$117,681,617 |
| Columbia | \$68,156,615 | \$3,666,481 | \$2,683,432 | \$2,040,950 | \$1,704,632 | \$24,485,957 |
| Coos | \$78,245,564 | \$19,316,778 | \$7,052,564 | \$9,458,724 | \$7,645,275 | \$107,806,996 |
| Crook | \$10,983,819 | \$313,463 | \$80,752 | \$1,373,307 | \$984,690 | \$2,559,328 |
| Curry | \$22,867,680 | \$4,340,590 | \$1,339,066 | \$2,026,507 | \$1,988,065 | \$59,739,971 |
| Deschutes | \$90,760,645 | \$4,381,970 | \$664,434 | \$45,204,273 | \$15,552,695 | \$37,163,853 |
| Douglas | \$66,525,354 | \$20,955,923 | \$4,669,970 | \$5,343,267 | \$4,812,526 | \$42,604,642 |
| Gilliam | \$1,460,481 | \$118,691 | \$73,581 | \$60,174 | \$28,948 | \$257,349 |
| Grant | \$11,159,265 | \$93,333 | \$6,674 | \$209,838 | \$139,338 | \$671,772 |
| Harney | \$5,552,655 | \$61,848 | \$68,758 | \$155,036 | \$31,406 | \$926,196 |
| Hood River | \$10,033,038 | \$298,221 | \$237,375 | \$1,718,847 | \$1,583,476 | \$4,658,922 |
| Jackson | \$126,462,861 | \$7,258,672 | \$1,823,467 | \$22,070,557 | \$8,676,104 | \$56,789,304 |
| Jefferson | \$17,992,667 | \$297,584 | \$45,185 | \$413,742 | \$663,477 | \$2,799,793 |
| Josephine | \$83,896,578 | \$4,023,534 | \$1,022,225 | \$14,296,585 | \$3,417,082 | \$45,795,864 |
| Klamath | \$196,171,248 | \$9,405,848 | \$3,731,637 | \$3,726,321 | \$3,843,832 | \$13,533,009 |
| Lake | \$22,846,456 | \$1,058,185 | \$417,258 | \$419,378 | \$522,337 | \$1,564,569 |
| Lane | \$245,127,626 | \$28,415,063 | \$5,523,396 | \$18,893,052 | \$13,164,129 | \$145,210,147 |
| Lincoln | \$29,595,808 | \$7,660,035 | \$1,748,988 | \$4,480,588 | \$2,326,690 | \$109,423,675 |
| Linn | \$109,990,527 | \$8,968,649 | \$1,040,916 | \$2,436,145 | \$2,855,932 | \$91,782,597 |
| Malheur | \$32,875,387 | \$267,525 | \$92,262 | \$583,483 | \$102,029 | \$2,214,323 |
| Marion | \$75,080,703 | \$10,074,743 | \$602,335 | \$4,574,438 | \$3,379,549 | \$103,052,566 |
| Morrow | \$15,172,710 | \$396,816 | \$83,242 | \$50,951 | \$151,626 | \$1,432,203 |
| Multnomah | \$175,626,120 | \$25,901,546 | \$7,100,479 | \$36,790,074 | \$45,115,696 | \$275,891,348 |
| Polk | \$34,056,900 | \$5,035,972 | \$773,791 | \$1,899,057 | \$967,025 | \$42,224,970 |
| Sherman | \$1,451,786 | \$232,609 | \$119,660 | \$11,128 | \$1,790 | \$172,679 |
| Tillamook | \$22,196,750 | \$8,002,256 | \$2,767,539 | \$644,878 | \$454,217 | \$62,706,890 |
| Umatilla | \$57,561,512 | \$2,311,948 | \$666,585 | \$1,100,441 | \$2,764,721 | \$10,616,124 |
| Union | \$50,760,501 | \$1,069,143 | \$372,152 | \$1,871,765 | \$1,032,150 | \$4,041,487 |
| Wallowa | \$5,714,463 | \$36,085 | \$19,096 | \$359,319 | \$386,586 | \$864,529 |
| Wasco | \$24,164,939 | \$668,224 | \$320,645 | \$3,308,145 | \$607,266 | \$5,876,606 |
| Washington | \$255,751,601 | \$24,146,678 | \$57,300,591 | \$132,070,679 | \$29,418,915 | \$407,520,594 |
| Wheeler | \$1,124,862 | \$2,576 | \$0 | \$34,582 | \$23,264 | \$92,279 |
| Yamhill | \$25,568,113 | \$3,681,523 | \$1,613,265 | \$4,441,194 | \$1,702,678 | \$54,416,374 |

Table B1. Total Net Economic Value by Activity by Oregon County, 2018 USD (continued)

| Oregon <br> County | Beach activities - <br> lakes / reservoirs / <br> rivers | Swimming / playing <br> in outdoor pools / <br> spray parks | County Total Net <br> Economic Value |
| :--- | ---: | ---: | ---: |
| Baker | $\$ 1,799,488$ | $\$ 1,600,971$ | $\$ 392,359,106$ |
| Benton | $\$ 10,547,532$ | $\$ 9,104,680$ | $\$ 1,507,634,261$ |
| Clackamas | $\$ 68,526,488$ | $\$ 48,523,949$ | $\$ 4,235,147,063$ |
| Clatsop | $\$ 13,602,694$ | $\$ 5,678,058$ | $\$ 845,488,965$ |
| Columbia | $\$ 10,988,236$ | $\$ 4,206,559$ | $\$ 802,855,181$ |
| Coos | $\$ 20,355,736$ | $\$ 8,132,138$ | $\$ 1,217,207,761$ |
| Crook | $\$ 3,010,262$ | $\$ 589,749$ | $\$ 256,603,083$ |
| Curry | $\$ 9,389,490$ | $\$ 1,999,781$ | $\$ 602,142,971$ |
| Deschutes | $\$ 42,731,840$ | $\$ 26,593,729$ | $\$ 2,867,903,116$ |
| Douglas | $\$ 20,772,753$ | $\$ 13,985,110$ | $\$ 1,384,758,523$ |
| Gilliam | $\$ 60,116$ | $\$ 747,746$ | $\$ 27,750,607$ |
| Grant | $\$ 408,476$ | $\$ 1,094,762$ | $\$ 157,373,547$ |
| Harney | $\$ 5,217,513$ | $\$ 1,234,228$ | $\$ 142,027,748$ |
| Hood River | $\$ 53,466,339$ | $\$ 1,323,929$ | $\$ 291,432,225$ |
| Jackson | $\$ 3,131,823$ | $\$ 30,132,314$ | $\$ 2,634,948,739$ |
| Jefferson | $\$ 28,747,182$ | $\$ 4,419,882$ | $\$ 244,439,310$ |
| Josephine | $\$ 13,480,156$ | $\$ 26,355,441$ | $\$ 1,542,403,720$ |
| Klamath | $\$ 1,643,976$ | $\$ 9,540,555$ | $\$ 1,652,334,954$ |
| Lake | $\$ 105,441,139$ | $\$ 1,271,585$ | $\$ 197,889,908$ |
| Lane | $\$ 11,393,283$ | $\$ 2,032,998$ | $\$ 3,149,983$ |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey

| Oregon <br> County | Walking on local streets / sidewalks | Walking on local trails / paths | Walking / day hiking on non-local trails / paths | Long-distance hiking (backpacking) | Jogging / running on streets / sidewalks | Jogging / running on trails / paths |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 0.41\% | 0.55\% | 0.72\% | 0.79\% | 0.33\% | 0.30\% |
| Benton | 2.85\% | 3.26\% | 2.63\% | 4.03\% | 3.15\% | 3.54\% |
| Clackamas | 7.72\% | 8.10\% | 11.87\% | 4.17\% | 8.02\% | 4.94\% |
| Clatsop | 1.18\% | 1.52\% | 1.38\% | 3.71\% | 0.78\% | 1.33\% |
| Columbia | 1.08\% | 1.04\% | 0.59\% | 0.44\% | 0.66\% | 0.97\% |
| Coos | 1.43\% | 1.44\% | 1.42\% | 2.09\% | 0.95\% | 0.83\% |
| Crook | 0.39\% | 0.42\% | 0.48\% | 0.30\% | 0.39\% | 0.23\% |
| Curry | 0.55\% | 0.69\% | 0.96\% | 0.33\% | 0.34\% | 0.26\% |
| Deschutes | 4.64\% | 8.09\% | 10.57\% | 5.96\% | 6.76\% | 12.57\% |
| Douglas | 2.11\% | 2.17\% | 1.93\% | 2.12\% | 1.19\% | 1.64\% |
| Gilliam | 0.08\% | 0.05\% | 0.04\% | 0.01\% | 0.09\% | 0.05\% |
| Grant | 0.23\% | 0.17\% | 0.19\% | 0.16\% | 0.19\% | 0.18\% |
| Harney | 0.15\% | 0.15\% | 0.48\% | 0.30\% | 0.08\% | 0.08\% |
| Hood River | 0.53\% | 0.62\% | 0.75\% | 0.49\% | 0.43\% | 0.68\% |
| Jackson | 4.94\% | 4.75\% | 4.22\% | 9.21\% | 4.35\% | 4.07\% |
| Jefferson | 0.33\% | 0.42\% | 0.32\% | 0.20\% | 0.39\% | 0.51\% |
| Josephine | 2.15\% | 1.64\% | 1.42\% | 1.30\% | 2.08\% | 1.95\% |
| Klamath | 1.39\% | 2.34\% | 2.99\% | 17.53\% | 1.16\% | 2.79\% |
| Lake | 0.17\% | 0.28\% | 0.36\% | 1.96\% | 0.14\% | 0.32\% |
| Lane | 8.15\% | 8.94\% | 9.22\% | 7.90\% | 5.51\% | 6.56\% |
| Lincoln | 1.06\% | 1.13\% | 0.79\% | 0.53\% | 0.91\% | 0.70\% |
| Linn | 3.04\% | 2.75\% | 2.19\% | 4.42\% | 0.97\% | 1.32\% |
| Malheur | 0.47\% | 0.30\% | 0.33\% | 0.17\% | 0.60\% | 0.44\% |
| Marion | 5.67\% | 5.36\% | 6.64\% | 3.13\% | 3.88\% | 1.89\% |
| Morrow | 0.17\% | 0.10\% | 0.12\% | 0.10\% | 0.14\% | 0.10\% |
| Multnomah | 25.67\% | 22.84\% | 18.11\% | 9.40\% | 30.77\% | 31.21\% |
| Polk | 1.56\% | 1.42\% | 1.61\% | 0.91\% | 1.17\% | 0.87\% |
| Sherman | 0.05\% | 0.04\% | 0.06\% | 0.01\% | 0.02\% | 0.01\% |
| Tillamook | 0.53\% | 0.80\% | 0.78\% | 0.21\% | 0.11\% | 0.16\% |
| Umatilla | 1.65\% | 1.11\% | 0.94\% | 0.61\% | 1.82\% | 0.50\% |
| Union | 0.89\% | 0.60\% | 0.71\% | 0.88\% | 0.71\% | 0.31\% |
| Wallowa | 0.24\% | 0.18\% | 0.20\% | 0.42\% | 0.18\% | 0.11\% |
| Wasco | 0.64\% | 0.48\% | 0.67\% | 0.52\% | 0.31\% | 0.30\% |
| Washington | 15.68\% | 14.26\% | 12.23\% | 14.50\% | 19.89\% | 17.43\% |
| Wheeler | 0.05\% | 0.04\% | 0.03\% | 0.03\% | 0.05\% | 0.02\% |
| Yamhill | 2.13\% | 1.93\% | 2.06\% | 1.18\% | 1.46\% | 0.85\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Horseback riding | Bicycling on unpaved trails | Bicycling on paved trails | Bicycling on roads / streets / sidewalks | Class I - All-terrain vehicle riding ( 3 \& 4 wheel ATVs, straddle seat and handle bars) | Class II - Off-road 4wheel driving (jeeps / pick-ups / dune buggies / SUVs) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 2.27\% | 0.38\% | 0.44\% | 0.58\% | 2.70\% | 5.11\% |
| Benton | 1.19\% | 3.84\% | 4.61\% | 4.80\% | 1.05\% | 1.02\% |
| Clackamas | 11.89\% | 1.86\% | 5.78\% | 4.38\% | 7.82\% | 7.67\% |
| Clatsop | 1.05\% | 0.39\% | 1.09\% | 0.84\% | 1.32\% | 1.03\% |
| Columbia | 1.18\% | 0.64\% | 0.75\% | 0.98\% | 1.99\% | 1.40\% |
| Coos | 2.22\% | 1.72\% | 1.27\% | 1.22\% | 8.47\% | 7.79\% |
| Crook | 1.15\% | 0.51\% | 0.22\% | 0.34\% | 0.71\% | 0.74\% |
| Curry | 1.03\% | 0.42\% | 0.23\% | 0.57\% | 2.21\% | 1.56\% |
| Deschutes | 2.03\% | 7.81\% | 4.00\% | 4.74\% | 4.68\% | 2.49\% |
| Douglas | 3.32\% | 0.55\% | 1.44\% | 2.03\% | 3.70\% | 6.82\% |
| Gilliam | 0.07\% | 0.02\% | 0.02\% | 0.07\% | 0.09\% | 0.11\% |
| Grant | 0.30\% | 0.04\% | 0.05\% | 0.12\% | 1.27\% | 1.52\% |
| Harney | 1.10\% | 0.32\% | 0.06\% | 0.10\% | 1.31\% | 0.95\% |
| Hood River | 0.35\% | 1.78\% | 0.57\% | 0.52\% | 0.51\% | 0.34\% |
| Jackson | 3.89\% | 4.86\% | 6.70\% | 4.74\% | 6.48\% | 4.03\% |
| Jefferson | 0.86\% | 0.48\% | 0.23\% | 0.23\% | 0.72\% | 0.57\% |
| Josephine | 0.27\% | 2.12\% | 1.66\% | 1.64\% | 5.20\% | 4.72\% |
| Klamath | 1.61\% | 2.99\% | 1.19\% | 1.05\% | 3.81\% | 5.84\% |
| Lake | 0.23\% | 0.36\% | 0.14\% | 0.13\% | 0.52\% | 0.80\% |
| Lane | 2.07\% | 8.63\% | 13.56\% | 10.06\% | 3.56\% | 7.64\% |
| Lincoln | 0.57\% | 0.67\% | 0.20\% | 0.55\% | 1.30\% | 0.72\% |
| Linn | 0.87\% | 1.55\% | 2.26\% | 3.44\% | 4.24\% | 3.55\% |
| Malheur | 6.46\% | 0.29\% | 0.07\% | 0.46\% | 4.43\% | 2.72\% |
| Marion | 3.72\% | 2.10\% | 2.93\% | 4.53\% | 9.25\% | 4.56\% |
| Morrow | 0.37\% | 0.04\% | 0.08\% | 0.17\% | 0.70\% | 0.55\% |
| Multnomah | 0.80\% | 16.35\% | 24.76\% | 29.15\% | 1.17\% | 2.46\% |
| Polk | 0.29\% | 0.57\% | 0.70\% | 1.20\% | 1.22\% | 0.87\% |
| Sherman | 0.35\% | 0.05\% | 0.03\% | 0.03\% | 0.16\% | 0.13\% |
| Tillamook | 0.72\% | 0.25\% | 0.10\% | 0.17\% | 1.03\% | 1.31\% |
| Umatilla | 2.37\% | 1.06\% | 0.66\% | 1.79\% | 5.07\% | 2.05\% |
| Union | 2.40\% | 1.15\% | 1.11\% | 1.30\% | 3.26\% | 7.48\% |
| Wallowa | 0.67\% | 0.08\% | 0.03\% | 0.13\% | 2.54\% | 2.53\% |
| Wasco | 0.85\% | 0.80\% | 0.58\% | 0.41\% | 0.93\% | 0.92\% |
| Washington | 37.89\% | 33.44\% | 20.41\% | 15.06\% | 5.29\% | 6.49\% |
| Wheeler | 0.03\% | 0.01\% | 0.00\% | 0.02\% | 0.22\% | 0.03\% |
| Yamhill | 3.57\% | 1.91\% | 2.08\% | 2.45\% | 1.07\% | 1.48\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Class III - Off-road motorcycling | Class IV - Riding UTVs / side-by-side ATVs (non-straddle seat / steering wheel) | Snowmobiling | Personal water craft jet ski | Power boating (cruising / water skiing) | Downhill (alpine) skiing / snowboarding |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 0.79\% | 1.88\% | 6.87\% | 0.73\% | 0.74\% | 0.47\% |
| Benton | 2.14\% | 0.77\% | 1.59\% | 2.06\% | 2.24\% | 1.51\% |
| Clackamas | 6.72\% | 4.13\% | 1.81\% | 2.31\% | 12.11\% | 7.77\% |
| Clatsop | 0.17\% | 1.58\% | 1.55\% | 1.48\% | 2.43\% | 0.28\% |
| Columbia | 0.52\% | 1.00\% | 0.73\% | 11.81\% | 5.13\% | 0.27\% |
| Coos | 6.45\% | 20.53\% | 1.41\% | 5.68\% | 2.99\% | 0.71\% |
| Crook | 0.16\% | 0.95\% | 0.79\% | 0.18\% | 1.29\% | 0.26\% |
| Curry | 0.78\% | 0.81\% | 0.41\% | 0.45\% | 0.54\% | 0.06\% |
| Deschutes | 4.10\% | 6.03\% | 17.42\% | 4.34\% | 3.00\% | 20.90\% |
| Douglas | 2.60\% | 14.80\% | 2.90\% | 1.78\% | 4.08\% | 0.79\% |
| Gilliam | 0.00\% | 0.07\% | 0.04\% | 0.00\% | 0.01\% | 0.00\% |
| Grant | 0.67\% | 0.48\% | 0.57\% | 0.26\% | 0.12\% | 0.04\% |
| Harney | 0.95\% | 1.38\% | 1.46\% | 0.06\% | 0.07\% | 0.03\% |
| Hood River | 0.15\% | 0.23\% | 0.32\% | 0.69\% | 0.68\% | 3.23\% |
| Jackson | 11.74\% | 0.26\% | 1.97\% | 2.13\% | 4.58\% | 4.39\% |
| Jefferson | 0.49\% | 0.25\% | 0.47\% | 0.18\% | 0.69\% | 0.23\% |
| Josephine | 5.47\% | 2.07\% | 0.54\% | 24.34\% | 3.64\% | 0.47\% |
| Klamath | 1.10\% | 4.49\% | 10.44\% | 3.89\% | 3.07\% | 0.83\% |
| Lake | 0.16\% | 0.53\% | 1.24\% | 0.43\% | 0.35\% | 0.12\% |
| Lane | 33.60\% | 5.82\% | 1.71\% | 3.18\% | 16.01\% | 5.30\% |
| Lincoln | 1.09\% | 1.62\% | 0.22\% | 3.21\% | 1.20\% | 0.16\% |
| Linn | 1.42\% | 3.68\% | 2.56\% | 7.50\% | 5.21\% | 1.84\% |
| Malheur | 3.80\% | 4.21\% | 1.98\% | 0.47\% | 0.93\% | 0.47\% |
| Marion | 0.99\% | 1.86\% | 6.79\% | 5.17\% | 5.24\% | 2.10\% |
| Morrow | 0.27\% | 2.84\% | 0.95\% | 0.09\% | 0.43\% | 0.09\% |
| Multnomah | 0.87\% | 0.00\% | 3.32\% | 2.35\% | 4.46\% | 20.17\% |
| Polk | 0.21\% | 0.22\% | 0.68\% | 2.22\% | 2.58\% | 0.74\% |
| Sherman | 0.08\% | 0.23\% | 0.00\% | 0.01\% | 0.10\% | 0.01\% |
| Tillamook | 1.80\% | 0.41\% | 0.06\% | 0.05\% | 0.79\% | 0.11\% |
| Umatilla | 1.78\% | 5.87\% | 10.67\% | 1.65\% | 1.20\% | 0.53\% |
| Union | 1.04\% | 0.84\% | 5.10\% | 1.52\% | 1.44\% | 1.35\% |
| Wallowa | 1.83\% | 1.80\% | 9.09\% | 0.11\% | 1.37\% | 0.27\% |
| Wasco | 0.77\% | 1.89\% | 0.34\% | 0.48\% | 0.98\% | 0.33\% |
| Washington | 4.61\% | 1.06\% | 3.42\% | 8.10\% | 8.84\% | 23.05\% |
| Wheeler | 0.15\% | 0.00\% | 0.00\% | 0.00\% | 0.01\% | 0.01\% |
| Yamhill | 0.53\% | 5.40\% | 0.59\% | 1.09\% | 1.44\% | 1.08\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Cross-country / Nordic skiing / skijoring on groomed trails | Cross-country / Nordic skiing / skijoring on ungroomed trails / off designated trails | Snowshoeing | Sledding / tubing / general snow play | Sightseeing / driving or motorcycling for pleasure | Picnicking |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 0.35\% | 0.85\% | 2.11\% | 1.91\% | 0.73\% | 0.94\% |
| Benton | 2.92\% | 3.05\% | 2.12\% | 2.62\% | 2.00\% | 1.84\% |
| Clackamas | 4.78\% | 3.15\% | 6.94\% | 8.81\% | 8.55\% | 12.46\% |
| Clatsop | 0.28\% | 0.43\% | 0.26\% | 0.94\% | 1.64\% | 1.02\% |
| Columbia | 0.51\% | 0.09\% | 0.35\% | 1.28\% | 1.32\% | 0.80\% |
| Coos | 0.33\% | 1.20\% | 0.72\% | 1.26\% | 2.37\% | 2.05\% |
| Crook | 0.87\% | 1.17\% | 0.42\% | 0.33\% | 0.56\% | 0.32\% |
| Curry | 0.10\% | 0.33\% | 0.20\% | 0.43\% | 0.94\% | 0.97\% |
| Deschutes | 24.09\% | 14.08\% | 10.76\% | 7.49\% | 4.18\% | 3.05\% |
| Douglas | 0.15\% | 0.24\% | 0.36\% | 2.79\% | 3.23\% | 2.74\% |
| Gilliam | 0.05\% | 0.00\% | 0.07\% | 0.07\% | 0.04\% | 0.04\% |
| Grant | 0.04\% | 0.21\% | 0.06\% | 0.70\% | 0.35\% | 0.28\% |
| Harney | 0.04\% | 0.44\% | 0.19\% | 0.58\% | 0.53\% | 0.42\% |
| Hood River | 4.95\% | 2.22\% | 2.08\% | 0.85\% | 0.29\% | 0.27\% |
| Jackson | 7.82\% | 10.10\% | 4.72\% | 2.84\% | 4.58\% | 5.21\% |
| Jefferson | 0.35\% | 0.59\% | 0.14\% | 0.67\% | 0.52\% | 0.60\% |
| Josephine | 0.15\% | 0.75\% | 0.25\% | 2.98\% | 3.25\% | 3.43\% |
| Klamath | 1.25\% | 2.55\% | 5.61\% | 3.24\% | 1.62\% | 2.51\% |
| Lake | 0.15\% | 0.31\% | 0.65\% | 0.41\% | 0.24\% | 0.32\% |
| Lane | 12.56\% | 16.78\% | 17.60\% | 8.25\% | 13.32\% | 13.82\% |
| Lincoln | 0.35\% | 0.30\% | 0.24\% | 0.56\% | 1.54\% | 0.85\% |
| Linn | 0.38\% | 0.45\% | 1.85\% | 3.75\% | 3.50\% | 2.26\% |
| Malheur | 0.06\% | 0.02\% | 0.04\% | 2.32\% | 0.66\% | 0.62\% |
| Marion | 1.05\% | 1.20\% | 6.44\% | 6.26\% | 6.99\% | 7.17\% |
| Morrow | 0.04\% | 0.24\% | 0.10\% | 0.44\% | 0.28\% | 0.25\% |
| Multnomah | 19.94\% | 20.47\% | 17.93\% | 13.83\% | 12.50\% | 11.92\% |
| Polk | 0.70\% | 0.26\% | 1.06\% | 1.89\% | 1.60\% | 1.56\% |
| Sherman | 0.11\% | 0.00\% | 0.00\% | 0.06\% | 0.12\% | 0.06\% |
| Tillamook | 0.07\% | 0.04\% | 0.10\% | 0.38\% | 0.73\% | 0.64\% |
| Umatilla | 0.35\% | 0.48\% | 1.36\% | 3.53\% | 2.43\% | 2.53\% |
| Union | 2.80\% | 1.96\% | 2.74\% | 3.31\% | 1.94\% | 1.59\% |
| Wallowa | 0.12\% | 0.95\% | 0.52\% | 2.57\% | 0.48\% | 0.30\% |
| Wasco | 0.59\% | 0.16\% | 0.56\% | 1.58\% | 1.02\% | 0.68\% |
| Washington | 10.76\% | 14.41\% | 10.22\% | 9.18\% | 13.41\% | 14.55\% |
| Wheeler | 0.01\% | 0.04\% | 0.07\% | 0.03\% | 0.01\% | 0.02\% |
| Yamhill | 0.92\% | 0.47\% | 1.15\% | 1.85\% | 2.52\% | 1.91\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Taking your children / grandchildren to a playground | Dog walking / going to dog parks / off-leash areas | Relaxing / hanging out / escaping heat / noise / etc. | Attending outdoor concerts / fairs / festivals | Tennis (played outdoors) | Pickleball (played outdoors) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 0.27\% | 0.57\% | 0.59\% | 0.29\% | 0.18\% | 0.39\% |
| Benton | 2.07\% | 3.31\% | 2.81\% | 2.18\% | 1.59\% | 1.73\% |
| Clackamas | 10.14\% | 8.19\% | 8.47\% | 10.46\% | 3.11\% | 6.11\% |
| Clatsop | 0.78\% | 1.32\% | 1.54\% | 1.32\% | 0.57\% | 0.46\% |
| Columbia | 1.72\% | 1.10\% | 1.30\% | 1.47\% | 0.24\% | 0.12\% |
| Coos | 1.44\% | 1.39\% | 1.92\% | 1.15\% | 0.72\% | 0.56\% |
| Crook | 0.21\% | 0.28\% | 0.55\% | 0.61\% | 0.19\% | 0.13\% |
| Curry | 0.45\% | 0.78\% | 1.35\% | 0.58\% | 0.96\% | 0.44\% |
| Deschutes | 2.18\% | 3.47\% | 4.76\% | 7.28\% | 4.30\% | 2.43\% |
| Douglas | 1.19\% | 2.12\% | 2.90\% | 3.08\% | 2.29\% | 0.63\% |
| Gilliam | 0.06\% | 0.00\% | 0.10\% | 0.04\% | 0.05\% | 0.11\% |
| Grant | 0.45\% | 0.24\% | 0.37\% | 0.11\% | 0.07\% | 0.56\% |
| Harney | 0.17\% | 0.16\% | 0.39\% | 0.18\% | 0.32\% | 0.41\% |
| Hood River | 0.33\% | 0.55\% | 0.48\% | 0.49\% | 1.17\% | 0.13\% |
| Jackson | 4.25\% | 2.80\% | 4.61\% | 4.99\% | 5.79\% | 3.24\% |
| Jefferson | 0.22\% | 0.24\% | 0.61\% | 0.34\% | 0.44\% | 0.22\% |
| Josephine | 2.33\% | 1.06\% | 4.28\% | 3.45\% | 5.64\% | 3.84\% |
| Klamath | 1.38\% | 1.54\% | 2.53\% | 1.21\% | 3.32\% | 3.08\% |
| Lake | 0.16\% | 0.19\% | 0.32\% | 0.15\% | 0.38\% | 0.36\% |
| Lane | 10.33\% | 9.43\% | 11.57\% | 10.37\% | 11.51\% | 17.60\% |
| Lincoln | 0.61\% | 0.88\% | 1.58\% | 0.81\% | 0.43\% | 0.64\% |
| Linn | 2.68\% | 3.08\% | 4.65\% | 2.85\% | 1.64\% | 2.16\% |
| Malheur | 0.51\% | 0.33\% | 0.64\% | 0.42\% | 0.41\% | 0.74\% |
| Marion | 5.88\% | 6.63\% | 6.13\% | 4.64\% | 6.76\% | 14.54\% |
| Morrow | 0.17\% | 0.14\% | 0.23\% | 0.14\% | 0.09\% | 0.36\% |
| Multnomah | 23.10\% | 31.71\% | 13.14\% | 23.55\% | 28.13\% | 19.55\% |
| Polk | 1.75\% | 1.52\% | 2.27\% | 1.72\% | 1.40\% | 2.05\% |
| Sherman | 0.07\% | 0.06\% | 0.09\% | 0.06\% | 0.06\% | 0.01\% |
| Tillamook | 0.40\% | 0.65\% | 0.85\% | 0.39\% | 0.25\% | 0.20\% |
| Umatilla | 1.74\% | 1.12\% | 2.10\% | 1.51\% | 3.07\% | 1.92\% |
| Union | 1.07\% | 0.83\% | 1.65\% | 0.70\% | 0.46\% | 1.45\% |
| Wallowa | 0.08\% | 0.23\% | 0.30\% | 0.20\% | 0.04\% | 0.13\% |
| Wasco | 0.84\% | 0.54\% | 1.04\% | 0.49\% | 0.30\% | 0.27\% |
| Washington | 18.56\% | 11.98\% | 11.13\% | 10.99\% | 13.09\% | 12.68\% |
| Wheeler | 0.00\% | 0.10\% | 0.06\% | 0.07\% | 0.01\% | 0.00\% |
| Yamhill | 2.39\% | 1.43\% | 2.68\% | 1.70\% | 1.01\% | 0.75\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Outdoor court games other than tennis (basketball / beach volleyball / badminton) | Soccer | Futsal | Golf | Orienteering / geocaching | Visiting historic sites / history-themed parks (museums / outdoor displays / visitor centers) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 0.39\% | 0.34\% | 0.34\% | 0.26\% | 0.18\% | 0.47\% |
| Benton | 1.73\% | 4.99\% | 4.99\% | 2.22\% | 4.45\% | 2.30\% |
| Clackamas | 6.11\% | 9.81\% | 9.81\% | 9.74\% | 8.66\% | 8.41\% |
| Clatsop | 0.46\% | 0.38\% | 0.38\% | 0.92\% | 0.50\% | 2.64\% |
| Columbia | 0.12\% | 0.55\% | 0.55\% | 1.12\% | 6.52\% | 2.62\% |
| Coos | 0.56\% | 0.62\% | 0.62\% | 1.39\% | 2.27\% | 1.06\% |
| Crook | 0.13\% | 0.17\% | 0.17\% | 0.50\% | 1.68\% | 0.44\% |
| Curry | 0.44\% | 0.62\% | 0.62\% | 0.57\% | 0.20\% | 1.03\% |
| Deschutes | 2.43\% | 3.00\% | 3.00\% | 9.35\% | 10.16\% | 3.58\% |
| Douglas | 0.63\% | 2.93\% | 2.93\% | 1.96\% | 0.82\% | 2.45\% |
| Gilliam | 0.11\% | 0.05\% | 0.05\% | 0.24\% | 0.14\% | 0.05\% |
| Grant | 0.56\% | 0.26\% | 0.26\% | 0.24\% | 0.27\% | 0.21\% |
| Harney | 0.41\% | 0.30\% | 0.30\% | 0.28\% | 0.14\% | 0.19\% |
| Hood River | 0.13\% | 0.50\% | 0.50\% | 0.42\% | 0.24\% | 0.39\% |
| Jackson | 3.24\% | 3.20\% | 3.20\% | 7.91\% | 2.51\% | 4.81\% |
| Jefferson | 0.22\% | 0.57\% | 0.57\% | 1.05\% | 0.21\% | 0.40\% |
| Josephine | 3.84\% | 3.22\% | 3.22\% | 3.06\% | 2.24\% | 3.37\% |
| Klamath | 3.08\% | 0.50\% | 0.50\% | 1.35\% | 5.17\% | 2.17\% |
| Lake | 0.36\% | 0.11\% | 0.11\% | 0.16\% | 0.64\% | 0.27\% |
| Lane | 17.60\% | 3.88\% | 3.88\% | 8.76\% | 7.73\% | 8.47\% |
| Lincoln | 0.64\% | 1.09\% | 1.09\% | 1.34\% | 0.90\% | 1.37\% |
| Linn | 2.16\% | 1.39\% | 1.39\% | 3.14\% | 7.28\% | 3.12\% |
| Malheur | 0.74\% | 0.61\% | 0.61\% | 0.94\% | 0.15\% | 2.02\% |
| Marion | 14.54\% | 11.70\% | 11.70\% | 3.03\% | 0.73\% | 7.09\% |
| Morrow | 0.36\% | 0.42\% | 0.42\% | 0.58\% | 0.05\% | 0.27\% |
| Multnomah | 19.55\% | 13.06\% | 13.06\% | 12.48\% | 18.01\% | 16.49\% |
| Polk | 2.05\% | 0.98\% | 0.98\% | 1.17\% | 4.92\% | 1.97\% |
| Sherman | 0.01\% | 0.02\% | 0.02\% | 0.04\% | 0.00\% | 0.20\% |
| Tillamook | 0.20\% | 0.12\% | 0.12\% | 0.49\% | 0.34\% | 0.68\% |
| Umatilla | 1.92\% | 2.20\% | 2.20\% | 1.39\% | 2.63\% | 1.77\% |
| Union | 1.45\% | 1.54\% | 1.54\% | 0.90\% | 0.23\% | 0.94\% |
| Wallowa | 0.13\% | 0.10\% | 0.10\% | 0.17\% | 0.29\% | 0.19\% |
| Wasco | 0.27\% | 0.83\% | 0.83\% | 0.73\% | 0.47\% | 0.77\% |
| Washington | 12.68\% | 26.93\% | 26.93\% | 19.98\% | 7.61\% | 15.39\% |
| Wheeler | 0.00\% | 0.00\% | 0.00\% | 0.03\% | 0.02\% | 0.01\% |
| Yamhill | 0.75\% | 3.02\% | 3.02\% | 2.11\% | 1.64\% | 2.42\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Bird watching | Whale watching | Exploring tidepools | Other nature / wildlife / forest / wildflower observation | Taking your children / grandchildren to nature settings | Visiting nature centers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 0.76\% | 0.04\% | 0.11\% | 1.33\% | 0.27\% | 0.08\% |
| Benton | 2.27\% | 3.03\% | 2.46\% | 3.39\% | 2.07\% | 2.03\% |
| Clackamas | 4.95\% | 11.82\% | 6.18\% | 7.48\% | 10.14\% | 8.34\% |
| Clatsop | 2.14\% | 3.02\% | 1.87\% | 1.58\% | 0.78\% | 1.64\% |
| Columbia | 2.11\% | 0.72\% | 1.53\% | 2.73\% | 1.72\% | 1.36\% |
| Coos | 2.25\% | 6.81\% | 3.47\% | 1.87\% | 1.44\% | 1.30\% |
| Crook | 1.33\% | 0.26\% | 0.30\% | 0.65\% | 0.21\% | 0.13\% |
| Curry | 1.78\% | 7.83\% | 2.57\% | 1.63\% | 0.45\% | 1.06\% |
| Deschutes | 5.09\% | 1.56\% | 1.85\% | 4.22\% | 2.18\% | 3.50\% |
| Douglas | 5.02\% | 2.13\% | 1.84\% | 2.34\% | 1.19\% | 1.14\% |
| Gilliam | 0.01\% | 0.02\% | 0.03\% | 0.03\% | 0.06\% | 0.01\% |
| Grant | 0.43\% | 0.03\% | 0.03\% | 0.50\% | 0.45\% | 0.07\% |
| Harney | 0.25\% | 0.04\% | 0.04\% | 0.42\% | 0.17\% | 0.04\% |
| Hood River | 0.39\% | 0.20\% | 0.33\% | 0.60\% | 0.33\% | 0.24\% |
| Jackson | 8.09\% | 2.99\% | 5.05\% | 5.70\% | 4.25\% | 5.49\% |
| Jefferson | 1.08\% | 0.18\% | 0.12\% | 0.51\% | 0.22\% | 0.71\% |
| Josephine | 5.72\% | 3.25\% | 2.74\% | 3.47\% | 2.33\% | 2.24\% |
| Klamath | 5.94\% | 1.33\% | 0.93\% | 5.20\% | 1.38\% | 1.19\% |
| Lake | 0.67\% | 0.15\% | 0.11\% | 0.61\% | 0.16\% | 0.13\% |
| Lane | 11.57\% | 8.73\% | 8.93\% | 11.44\% | 10.33\% | 9.36\% |
| Lincoln | 3.84\% | 10.02\% | 5.11\% | 2.11\% | 0.61\% | 1.04\% |
| Linn | 4.89\% | 2.38\% | 4.46\% | 3.17\% | 2.68\% | 3.52\% |
| Malheur | 0.59\% | 0.32\% | 0.24\% | 0.60\% | 0.51\% | 0.40\% |
| Marion | 4.70\% | 6.02\% | 4.83\% | 6.77\% | 5.88\% | 7.34\% |
| Morrow | 0.25\% | 0.12\% | 0.10\% | 0.34\% | 0.17\% | 0.06\% |
| Multnomah | 6.57\% | 9.69\% | 15.74\% | 11.80\% | 23.10\% | 22.26\% |
| Polk | 2.09\% | 2.41\% | 2.07\% | 2.10\% | 1.75\% | 1.54\% |
| Sherman | 0.07\% | 0.03\% | 0.01\% | 0.06\% | 0.07\% | 0.04\% |
| Tillamook | 1.52\% | 2.42\% | 1.92\% | 1.19\% | 0.40\% | 0.62\% |
| Umatilla | 1.56\% | 0.80\% | 0.85\% | 1.24\% | 1.74\% | 0.63\% |
| Union | 0.94\% | 0.33\% | 0.43\% | 0.98\% | 1.07\% | 0.48\% |
| Wallowa | 0.43\% | 0.08\% | 0.04\% | 0.64\% | 0.08\% | 0.08\% |
| Wasco | 0.96\% | 0.36\% | 0.38\% | 0.66\% | 0.84\% | 0.21\% |
| Washington | 6.66\% | 7.56\% | 19.01\% | 10.75\% | 18.56\% | 19.36\% |
| Wheeler | 0.10\% | 0.00\% | 0.01\% | 0.04\% | 0.00\% | 0.01\% |
| Yamhill | 3.00\% | 3.30\% | 4.30\% | 1.84\% | 2.39\% | 2.38\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Outdoor photography / painting / drawing | Collecting (rocks / plants / mushrooms / berries) | RV / motorhome / trailer camping | Car camping with a tent | Yurts / camper cabins | Hunting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 1.09\% | 2.26\% | 0.98\% | 0.90\% | 0.61\% | 1.82\% |
| Benton | 2.16\% | 4.57\% | 1.69\% | 2.97\% | 2.58\% | 1.27\% |
| Clackamas | 6.74\% | 6.87\% | 11.14\% | 10.84\% | 11.88\% | 4.26\% |
| Clatsop | 1.99\% | 2.02\% | 1.81\% | 0.73\% | 0.74\% | 1.91\% |
| Columbia | 2.69\% | 2.06\% | 3.02\% | 1.76\% | 1.40\% | 2.01\% |
| Coos | 1.52\% | 3.71\% | 2.86\% | 1.55\% | 1.24\% | 3.76\% |
| Crook | 0.36\% | 0.28\% | 1.31\% | 0.29\% | 0.14\% | 0.67\% |
| Curry | 1.39\% | 1.87\% | 1.35\% | 0.41\% | 0.70\% | 1.02\% |
| Deschutes | 2.97\% | 3.37\% | 5.58\% | 7.40\% | 3.57\% | 2.34\% |
| Douglas | 4.77\% | 5.38\% | 3.88\% | 2.17\% | 2.32\% | 5.14\% |
| Gilliam | 0.04\% | 0.01\% | 0.05\% | 0.07\% | 0.04\% | 0.07\% |
| Grant | 0.33\% | 0.37\% | 0.80\% | 0.10\% | 0.09\% | 0.69\% |
| Harney | 0.19\% | 0.18\% | 0.42\% | 0.19\% | 0.06\% | 0.53\% |
| Hood River | 0.59\% | 0.28\% | 0.52\% | 0.42\% | 0.44\% | 0.57\% |
| Jackson | 5.73\% | 4.38\% | 2.87\% | 4.49\% | 6.11\% | 6.46\% |
| Jefferson | 0.69\% | 0.51\% | 1.27\% | 0.17\% | 0.46\% | 0.47\% |
| Josephine | 3.07\% | 2.82\% | 4.90\% | 2.53\% | 4.97\% | 3.61\% |
| Klamath | 6.99\% | 8.04\% | 4.40\% | 2.09\% | 1.90\% | 9.96\% |
| Lake | 0.80\% | 0.91\% | 0.52\% | 0.27\% | 0.22\% | 1.17\% |
| Lane | 6.17\% | 9.03\% | 12.59\% | 9.11\% | 6.28\% | 12.26\% |
| Lincoln | 1.65\% | 2.96\% | 1.03\% | 0.60\% | 0.44\% | 1.18\% |
| Linn | 4.53\% | 5.26\% | 5.34\% | 2.67\% | 3.31\% | 6.78\% |
| Malheur | 1.07\% | 0.77\% | 0.65\% | 0.60\% | 0.96\% | 3.07\% |
| Marion | 9.08\% | 3.68\% | 6.14\% | 4.21\% | 16.90\% | 2.64\% |
| Morrow | 0.30\% | 0.29\% | 0.70\% | 0.22\% | 1.48\% | 0.80\% |
| Multnomah | 13.16\% | 10.83\% | 5.90\% | 16.01\% | 13.03\% | 6.25\% |
| Polk | 2.03\% | 2.22\% | 1.59\% | 2.05\% | 1.50\% | 1.87\% |
| Sherman | 0.02\% | 0.01\% | 0.22\% | 0.02\% | 0.05\% | 0.03\% |
| Tillamook | 1.95\% | 1.33\% | 0.70\% | 0.45\% | 0.37\% | 0.79\% |
| Umatilla | 1.65\% | 3.09\% | 3.61\% | 1.37\% | 2.46\% | 1.97\% |
| Union | 1.16\% | 2.75\% | 1.58\% | 0.97\% | 0.43\% | 4.19\% |
| Wallowa | 0.57\% | 0.35\% | 0.71\% | 0.12\% | 0.13\% | 0.58\% |
| Wasco | 1.17\% | 1.11\% | 0.87\% | 0.54\% | 0.59\% | 0.74\% |
| Washington | 7.91\% | 4.64\% | 5.31\% | 19.69\% | 9.18\% | 5.97\% |
| Wheeler | 0.05\% | 0.02\% | 0.08\% | 0.01\% | 0.01\% | 0.09\% |
| Yamhill | 3.41\% | 1.76\% | 3.62\% | 2.01\% | 3.40\% | 3.05\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Fishing | Crabbing | Shellfishing / clamming | White-water canoeing / kayaking / rafting | Flat-water canoeing / sea kayaking / rowing / stand-up paddling / tubing / floating | Beach activities - ocean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baker | 1.18\% | 0.07\% | 0.07\% | 0.13\% | 0.21\% | 0.06\% |
| Benton | 1.30\% | 1.17\% | 0.67\% | 0.76\% | 1.19\% | 2.91\% |
| Clackamas | 6.82\% | 7.43\% | 10.16\% | 3.10\% | 13.33\% | 7.70\% |
| Clatsop | 1.53\% | 3.80\% | 6.55\% | 0.42\% | 0.95\% | 5.72\% |
| Columbia | 3.08\% | 1.59\% | 2.13\% | 0.61\% | 0.92\% | 1.19\% |
| Coos | 3.53\% | 8.35\% | 5.59\% | 2.81\% | 4.13\% | 5.24\% |
| Crook | 0.50\% | 0.14\% | 0.06\% | 0.41\% | 0.53\% | 0.12\% |
| Curry | 1.03\% | 1.88\% | 1.06\% | 0.60\% | 1.07\% | 2.91\% |
| Deschutes | 4.10\% | 1.89\% | 0.53\% | 13.42\% | 8.40\% | 1.81\% |
| Douglas | 3.00\% | 9.06\% | 3.70\% | 1.59\% | 2.60\% | 2.07\% |
| Gilliam | 0.07\% | 0.05\% | 0.06\% | 0.02\% | 0.02\% | 0.01\% |
| Grant | 0.50\% | 0.04\% | 0.01\% | 0.06\% | 0.08\% | 0.03\% |
| Harney | 0.25\% | 0.03\% | 0.05\% | 0.05\% | 0.02\% | 0.05\% |
| Hood River | 0.45\% | 0.13\% | 0.19\% | 0.51\% | 0.86\% | 0.23\% |
| Jackson | 5.71\% | 3.14\% | 1.45\% | 6.55\% | 4.69\% | 2.76\% |
| Jefferson | 0.81\% | 0.13\% | 0.04\% | 0.12\% | 0.36\% | 0.14\% |
| Josephine | 3.79\% | 1.74\% | 0.81\% | 4.24\% | 1.85\% | 2.23\% |
| Klamath | 8.86\% | 4.07\% | 2.96\% | 1.11\% | 2.08\% | 0.66\% |
| Lake | 1.03\% | 0.46\% | 0.33\% | 0.12\% | 0.28\% | 0.08\% |
| Lane | 11.07\% | 12.28\% | 4.38\% | 5.61\% | 7.11\% | 7.06\% |
| Lincoln | 1.34\% | 3.31\% | 1.39\% | 1.33\% | 1.26\% | 5.32\% |
| Linn | 4.97\% | 3.88\% | 0.83\% | 0.72\% | 1.54\% | 4.46\% |
| Malheur | 1.48\% | 0.12\% | 0.07\% | 0.17\% | 0.06\% | 0.11\% |
| Marion | 3.39\% | 4.36\% | 0.48\% | 1.36\% | 1.83\% | 5.01\% |
| Morrow | 0.69\% | 0.17\% | 0.07\% | 0.02\% | 0.08\% | 0.07\% |
| Multnomah | 7.93\% | 11.20\% | 5.63\% | 10.92\% | 24.38\% | 13.42\% |
| Polk | 1.54\% | 2.18\% | 0.61\% | 0.56\% | 0.52\% | 2.05\% |
| Sherman | 0.07\% | 0.10\% | 0.09\% | 0.00\% | 0.00\% | 0.01\% |
| Tillamook | 1.00\% | 3.46\% | 2.20\% | 0.19\% | 0.25\% | 3.05\% |
| Umatilla | 2.60\% | 1.00\% | 0.53\% | 0.33\% | 1.49\% | 0.52\% |
| Union | 2.29\% | 0.46\% | 0.30\% | 0.56\% | 0.56\% | 0.20\% |
| Wallowa | 0.26\% | 0.02\% | 0.02\% | 0.11\% | 0.21\% | 0.04\% |
| Wasco | 1.09\% | 0.29\% | 0.25\% | 0.98\% | 0.33\% | 0.29\% |
| Washington | 11.55\% | 10.44\% | 45.46\% | 39.20\% | 15.90\% | 19.82\% |
| Wheeler | 0.05\% | 0.00\% | 0.00\% | 0.01\% | 0.01\% | 0.00\% |
| Yamhill | 1.15\% | 1.59\% | 1.28\% | 1.32\% | 0.92\% | 2.65\% |

Table B2. Proportion of User Occasions by Activity by Oregon County, 2011 SCORP Survey (continued)

| Oregon County | Beach activities - lakes <br> / reservoirs / rivers | Swimming / playing in outdoor pools / spray parks |
| :---: | :---: | :---: |
| Baker | 0.26\% | 0.28\% |
| Benton | 1.52\% | 1.58\% |
| Clackamas | 9.89\% | 8.44\% |
| Clatsop | 1.96\% | 0.99\% |
| Columbia | 1.59\% | 0.73\% |
| Coos | 2.94\% | 1.41\% |
| Crook | 0.43\% | 0.10\% |
| Curry | 1.36\% | 0.35\% |
| Deschutes | 6.17\% | 4.62\% |
| Douglas | 3.00\% | 2.43\% |
| Gilliam | 0.01\% | 0.13\% |
| Grant | 0.16\% | 0.19\% |
| Harney | 0.06\% | 0.21\% |
| Hood River | 0.75\% | 0.23\% |
| Jackson | 7.72\% | 5.24\% |
| Jefferson | 0.45\% | 0.77\% |
| Josephine | 4.15\% | 4.58\% |
| Klamath | 1.95\% | 1.66\% |
| Lake | 0.24\% | 0.22\% |
| Lane | 15.22\% | 8.89\% |
| Lincoln | 1.64\% | 0.65\% |
| Linn | 3.61\% | 3.48\% |
| Malheur | 0.36\% | 0.66\% |
| Marion | 3.61\% | 5.32\% |
| Morrow | 0.39\% | 0.29\% |
| Multnomah | 12.00\% | 12.19\% |
| Polk | 0.99\% | 1.64\% |
| Sherman | 0.03\% | 0.05\% |
| Tillamook | 1.39\% | 0.08\% |
| Umatilla | 1.43\% | 2.68\% |
| Union | 0.55\% | 0.81\% |
| Wallowa | 0.67\% | 0.33\% |
| Wasco | 0.44\% | 1.39\% |
| Washington | 11.72\% | 25.37\% |
| Wheeler | 0.03\% | 0.01\% |
| Yamhill | 1.30\% | 1.99\% |


[^0]:    *Total sums to $\$ 14.28$, but due to rounding the estimate is actually $\$ 14.47$ (Table 1 ).

