OREGON SCORP & STATE PARK PLANNING

An Innovative Research Collaboration between Oregon State Parks and Oregon State University

OSU Oregon State University

OREGON STATE PARKS

Nature HISTORY Discovery

Collaborative Planning Projects

- State Park Survey Project & Economic Impact Analysis
- SCORP In-State Outdoor Recreation Survey
- In-State Trail User Survey

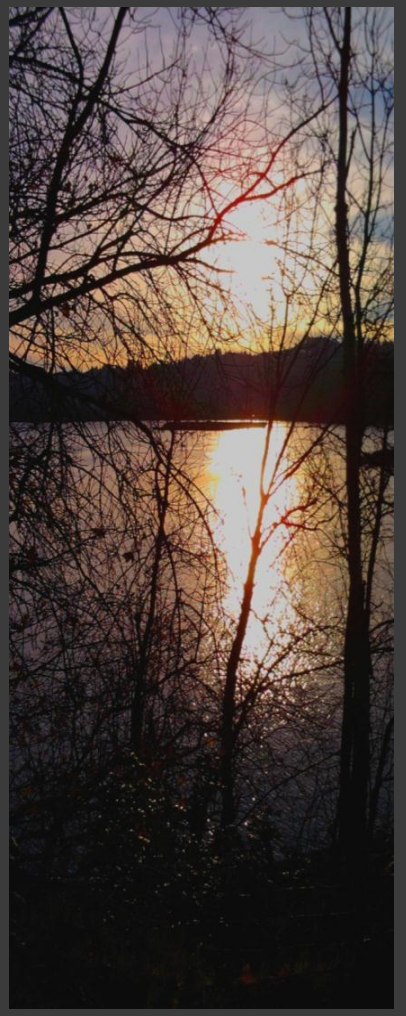
Early Visitor Survey Project Work

- In 2009, OPRD worked with a university research team to develop an ongoing visitor survey project.
- Project purpose to improve understanding of visitors to better provide appropriate facilities, programs and services which they desire.
- Proposal included 5 day-use and 5 overnight parks per year for 4 years (450 completions per park).
- Total cost of $304,000 ($76,000 per year) or $7,600 per park report.
- Not a sustainable model.

2010 Champoeg Pilot Test

Background:

- In the summer of 2010, OSU conducted a visitor survey at Champoeg State Heritage Area
- Purpose was to test multiple survey approaches to inform future survey efforts for the entire state park system.
- Compared survey modes (onsite, internet, mail, phone)
- Recommendations included final survey instruments & survey methods



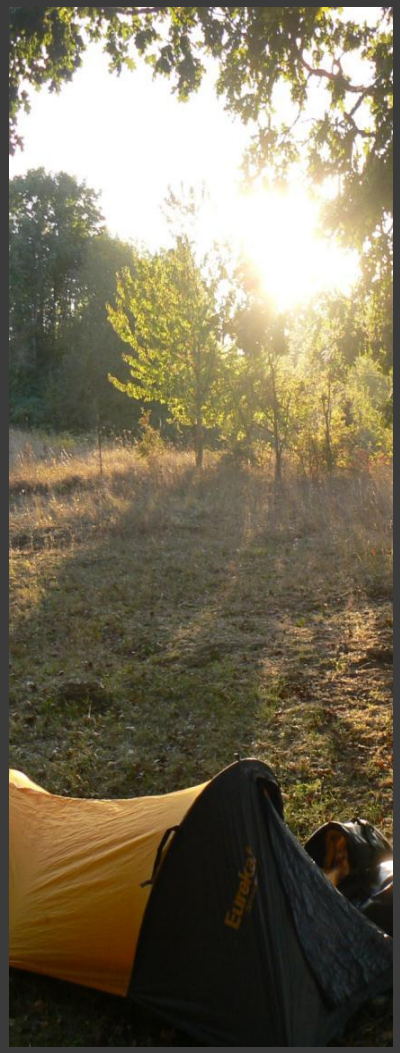
Methodology

Day Users

- Onsite full survey (volunteers/ Camp Hosts)
- Onsite short survey (contacts for full surveys)
- Telephone full survey (Reservations NW)
- Mail full survey (OSU)
- Internet full survey (OSU)

Overnight Users

- Contacts from reservation system information
- Telephone full survey (Reservations NW)
- Mail full survey (OSU)
- Internet full survey (OSU)



Methodology

	Completed surveys (n)	Response rate (%)
Day Users		
Onsite	251	71
Mail	156	55
Internet	104	40
Telephone	56	29
Subtotal	567	52
Overnight Users		
Mail	298	60
Internet	265	52
Telephone	176	29
Subtotal	739	45
Total	1,306	47

2010 Champoeg Pilot Test

Recommendations:

- Onsite best for day users, use of camp hosts can reduce cost
- Mail best for overnight, but internet similar in results

Ongoing Visitor Survey Project

Project Objectives:

Develop a cost-effective visitor survey system which can be applied on an ongoing basis across the Oregon State Park System using Champoeg pilot study findings.

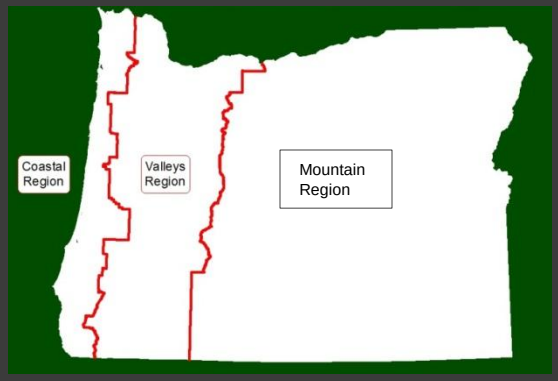
- OPRD survey administration (with limited OSU involvement)
- Use of volunteer camp hosts for on-site day-use survey work
- Use of RNW staff for day-use data entry
- Web-based method for overnight survey
- Include economic impact analysis

Ongoing Visitor Survey Project

Project Objectives:

Provide valid, reliable survey data to make informed management decisions at the:

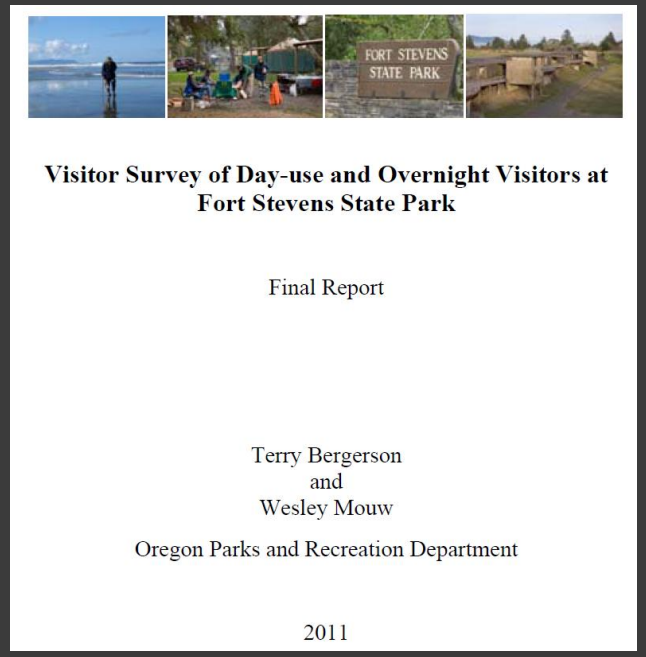
- State Park;
- Regional; and
- System-wide Levels



Ongoing Visitor Survey Project

Following pilot study OPRD developed a number of templates:

- Survey volunteer training procedures
- Questionnaires (paper & online)
- Data input spreadsheets (Excel)
- Statistical datasets (SPSS)
- Reporting

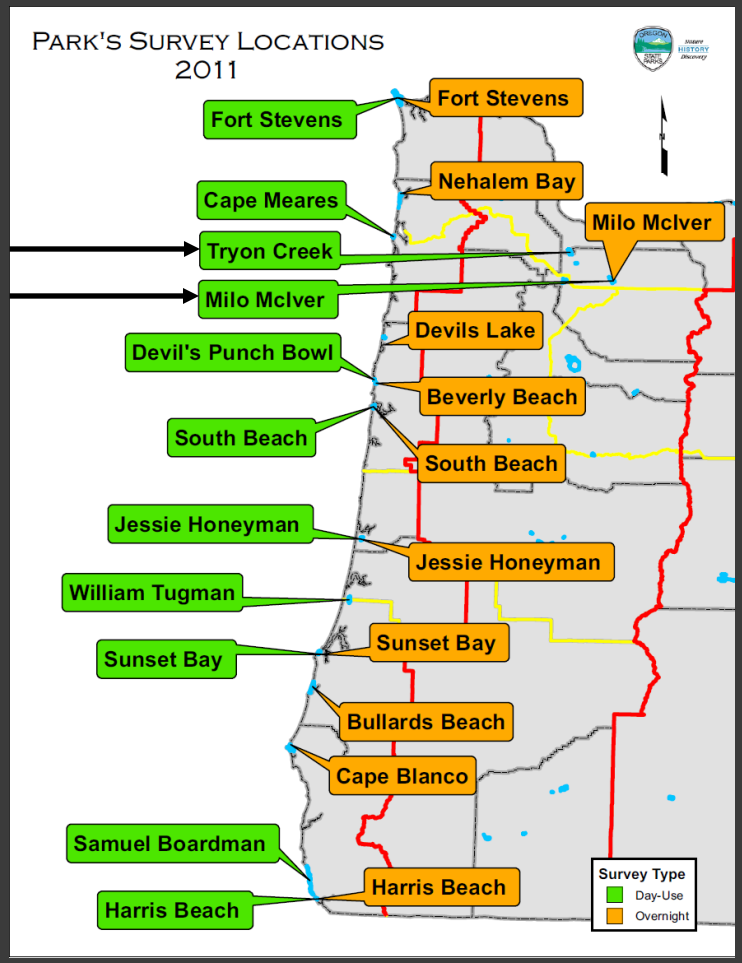


Ongoing Visitor Survey Project Schedule

Summer	Location	# Day Use Parks	# Over night Parks
2011	Coastal Region (Plus Tryon & Milo McIver)	11	11
2012	Valleys Region – Columbia River Gorge	10	2
2013	Valleys Region - Continued	12	3
2014	Complete Valleys Region & Start Mountain Region	12	2
2015	Mountain Region	9	5
2016	Mountain Region	7	6

2011 Summer Season – Oregon Coast

To support master plan



Surveys completed at 11 day-use and 11 overnight parks

Coastal Park Sample Sizes & Response Rates

	Initial Contacts	Completed Surveys	Response Rate (%)	Champoeg Pilot Response Rate (%)
Day Users	4,491	3,359	75	71
Overnight Users	10,278	5,646	55	52
Total	14,769	9,005	61	

Park	Overnight Completions	Day Completions
Beverly Beach	589	
Bullards Beach	649	
Cape Lookout	538	
Devils Lake	509	
Nehalem Bay	611	
Fort Stevens	611	338
Harris Beach	527	379
Honeyman	538	352
South Beach	573	336
Sunset Bay	559	375
Milo McIver	534	356
Cape Meares		401
Devils Punchbowl		405
Sam Boardman		403
William Tugman		370
Tryon Creek		401

2011-2014 Oregon State Park Survey

	2011-2014 Initial Contacts	2011-2014 Completed Surveys	Response Rate (%)	Champoeg Pilot Response Rate (%)
Day Users	16,301	11,725	72	71
Overnight Users	15,639	9,383	60	52
Total	31,940	21,108	66	

Low visitation survey challenges

Park	Day	Conf Interval		Overnight	Conf Interval
Detroit Lake	280	±5.8%		533	±4.2%
Silver Falls	405	±4.9%		574	±4.1%
L.L. Stub Stewart	445	±4.6%		646	±3.8%
Fort Yamhill	146	±8.1%			
Luckiamute Landing	161	±7.7%			
Mary S. Young	404	±4.9%			
Maud Williamson	191	±7.1%			
Molalla River	151	±8.8%			
Sarah Helmick	227	±6.5%			
Thompson's Mills	140	±8.1%			
Willamette Mission	198	±7.0%			
Koberg Beach	400	±4.9%			

Satisfaction With Facilities & Services

(% very satisfied or satisfied)

Park	% Satisfied
Ainsworth	95%
Vista House	93%
Starvation Creek	93%
Memaloose	86%
Rooster Rock	85%
Bridal Veil Falls	85%
Dabney	83%
Benson	83%
Mayer	80%
Koberg Beach	73%
Lewis & Clark	66%

HOW CAN WE IMPROVE THE PARK?

Park	Most mentioned	2nd	3rd
Ainsworth	Reduce train noise	More privacy between campsites	Reservations for camping
Memaloose	River swim beach	Reduce freeway noise	Both direction access I-84
Benson	Cash day-use payment	Better access to lake	More picnic tables
Bridal Veil Falls	Drinking fountains	Repair restrooms	More paved trails
Dabney	Additional parking	Allow dogs in park	Too much litter
Lewis & Clark	Additional parking	Recycling receptacles	More restrooms
Mayer	More picnic tables	Better irrigation-grass	Improve restrooms
Rooster Rock	Improve trail system	More restrooms	Better swim beach
Starvation Creek	Trail markers & directional signs	Trail maintenance – Mt. Defiance Trail	Trail distance & difficulty information
Vista House	Change nothing	Keep park clean	Longer hours

Perceived Crowding

(% reported being slightly, moderately, or extremely crowded)

Park	% Crowded	Capacity Judgment
Vista House	82%	Greatly overcapacity
Lewis & Clark	70%	Overcapacity
Dabney	66%	Overcapacity
Bridal Veil Falls	66%	Overcapacity
Ainsworth	64%	High normal
Benson	58%	High normal
Mayer	57%	High normal
Koberg Beach	56%	High normal
Rooster Rock	55%	High normal
Memaloose	49%	Suppressed crowding
Starvation Creek	32%	Suppressed crowding

Project Costs – Summer 2014 (13 day-use 2 overnight)

2014 Project Expense Items	$
Survey printing	$1,350
Fieldwork - Temp. Salary & Benefits	$3,800
Car	$800
Volunteer Mileage Reimbursements	$700
Reporting – Temp. Salary & Benefits	$12,000
Total Expenses	$18,650

- Oregon State Parks cost per completed park report: $1,245
- Initial research proposal cost per completed park report: $7,600
- OSU Economic Impact Analysis: $8,800 per year.

Economic effects analysis—conclusions

- The average spending of visitors is fairly stable over time and across sites located near one another
- Investing in reliable monitoring systems to estimate recreation use and visitor characteristics is key to good estimates of economic effects
- Understanding visit type (trip type) of visitors is a requirement
- (Don't use the term "economic benefit" for these analyses)

What is economic effects analysis?

- A description of how recreation visitor spending changes the economy
  - Often reported as jobs, income, and business output
- Often called “economic impact” analysis
- Economic effects can be reported at many scales
  - around units
  - for regions or states
  - nationally
- When describing how visitor spending affects local economies, do not use the term “economic benefit”

Trip type is of paramount importance

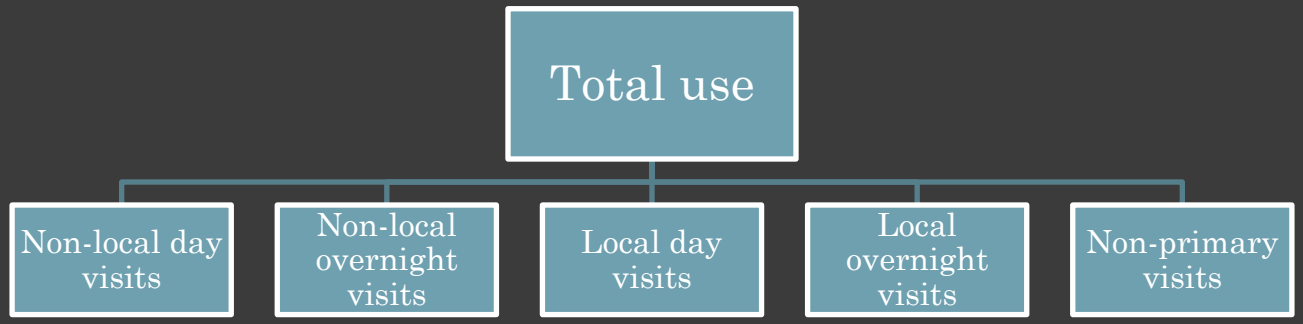
- The type of recreation visit (trip) is the primary factor in determining what visitors spend while recreating
  - A day trip or an overnight trip
  - A trip near or far from home
  - A trip that has multiple destinations
- After accounting for trip type, recreation activity has only limited influence on trip spending
  - Some exceptions:
    - Downhill skiing, off-highway vehicle use, backcountry camping
- The greatest local economic effects come when towns can attract visitors on overnight trips

What is needed to complete economic effects analysis for parks?

1. An estimate of the amount of recreation use
2. An estimate of what visitors spend on a recreation visit, on average
3. A model of the economy of the local area (or state, or Nation)

The amount of recreation use at Oregon State Parks (need 1)

- Use existing Oregon State Parks systems to determine park unit visitation
- Use information from the visitor surveys to allocate total use into different trip types



The average spending of visitors to Oregon State Parks (need 2)

- Split the survey sample of visitors into their trip types
- Estimate average spending for each trip type using data from groups of nearby units
  - Reduces the number of surveys needed at any one unit
  - Recognizes that visitor spending is similar at nearby park units (after accounting for trip type)

Table 1—Average spending of visitors to Oregon State Parks Valleys Region, Willamette District, $ per party per trip

Spending categories	Non-local Day	Non-local OVN	Local Day	Local OVN	Non-primary
Lodging	0.00	56.14	0.00	20.80	30.37
Camping	0.00	33.81	0.00	33.46	16.96
Restaurant	12.79	49.91	5.36	17.61	25.00
Groceries	12.04	57.54	6.66	49.74	24.97
Gasoline	20.33	38.79	9.11	25.64	26.18
Entry Fees	5.76	14.32	3.05	9.15	5.03
Recreation & entertainment	3.61	7.55	0.40	5.97	2.26
Souvenirs and other expenses	1.88	4.78	1.03	7.33	6.51
Total	**56.41**	**262.84**	**25.61**	**169.69**	**137.28**
N	198	569	307	61	352
Std. Dev. Of Total	73	243	39	144	183

Key considerations for estimating average spending

- What spending to count
  - Only near the unit? Spending at home or enroute?
  - Spending for equipment and durable goods (trailers, backpacks, binoculars) is typically not included in these analyses
- Minimum reasonable sample sizes
  - 30 people (after excluding outliers) in each trip type is a minimum sample to estimate spending
  - It is often better to group units to achieve large samples than to try to estimate spending for individual units
- Excluding survey outliers
  - Big spenders included in survey samples can unduly influence average spending estimates—exclude them from the analysis

A model of the economy (need 3)

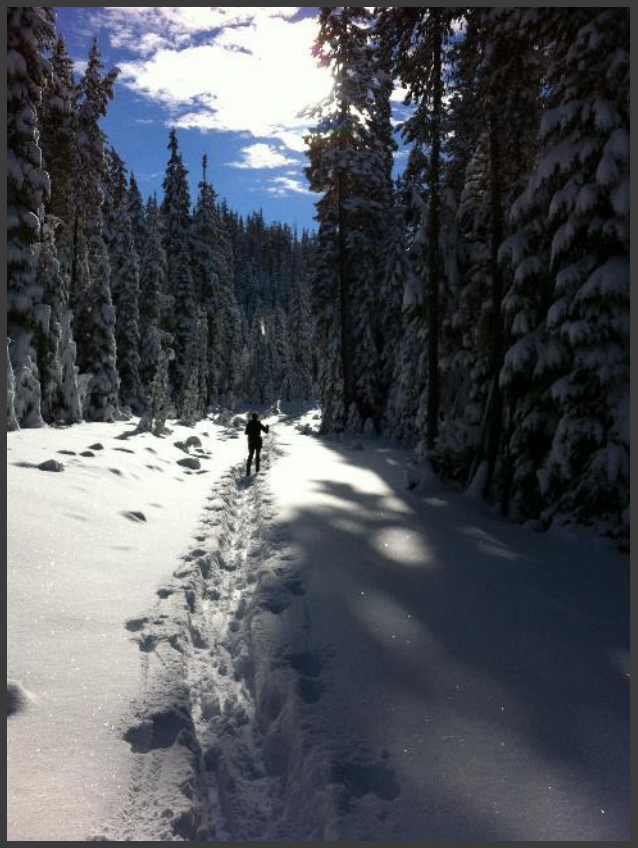
- Use the economic model IMPLAN to describe the economy
- Complete final calculations in a spreadsheet tool, allowing managers to update the analysis with new information

Options to reduce costs

- Take advantage of average spending stability
  - Use existing, reliable, well-documented spending averages from others
    - USDA Forest Service, National Park Service, Corps of Engineers, other state park systems
  - Don't estimate average spending at each individual unit
  - Update visitor spending averages with surveys completed every 5 years or so (not every year)
- Use response coefficients in the final step of economic impact estimation
  - This allows for cost-effective updates when new visit estimates are available

Options to reduce costs (continued)

- Use inflation adjusters to update average or total spending estimates from previous years
- Use "generic multipliers" to estimate the economic "ripple effects" of visitor spending rather than a custom IMPLAN model
- Build robust monitoring systems to estimate recreation use and describe visitor characteristics



SCORP Statewide Population Survey

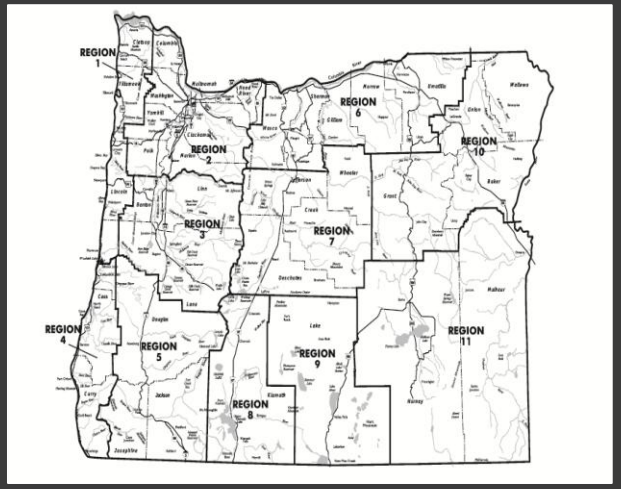
From past SCORP planning surveys we know that:

- Many Oregon communities need assistance with park system planning.
- Many communities (30% of responding communities) do not have a recreation, open space, or management plan to identify recreation need.
- Of those with existing plans, many (54%) were more than 5 years old.

SCORP In-State Outdoor Recreation Survey

- In 2002, data was gathered at the state and regional levels (11 planning regions)
- Local recreation providers stated that region scale results were too broad for local planning.
- A decision was made to invest in collecting results at the county level.

SCORP Planning Regions



36 Oregon Counties

Survey Goals

- Estimate current recreation participation (70 activities).
- Evaluate opportunities to increase participation.
- Provide recreation planners across the state with statistically reliable results for use in local and regional planning.

Project Budget

Funding Source	Percent	Funds
LWCF grant	40%	$108,800
OPRD planning	30%	$81,600
State ATV grant program	15%	$40,800
State local grant program	15%	$40,800
Total		$272,000

Project Timeline

Task	Duration
Develop survey methods & questionnaires	2 months
Pre-test survey and methods	2 months
Data collection & data entry	4 months
Report writing	6 months
Total project	14 months

LWCF Grant Criteria (Local Needs & Benefits): County-level analysis

MULTNOMAH COUNTY NEED					
Public Recreation Provider Survey				Oregon Resident Survey	
Close-To-Home Priorities	Score	Dispersed-Area Priorities	Score		Score
Off-leash dog areas	4.8	Marinas	5.0	Dirt / other soft surface walking trails and paths	3.7
Acquisition of trail corridors & ROWs	4.5	Non-motorized boat launches	4.0	Nature and other wildlife viewing areas	3.5
Community trail systems	4.3	Motorized boat launches & support facilities	4.0	Public assess sites to waterways	3.5
				Children's playgrounds and play areas made of natural materials (Natural Play Areas)	3.4
				Off-street bicycle trails and pathways	3.4
				Picnic areas and shelters for small visitor groups	3.3
				Off-leash dog areas	3.1
				Designated paddling routes for canoes, kayaks, rafts, driftboats	3.0

A GUIDE TO

COMMUNITY PARK AND RECREATION PLANNING

FOR OREGON COMMUNITIES

March 2013

OREGON STATE PARKS

Nature HISTORY Discovery

Updated the planning guide with instructions for using survey results in local park system planning.

OREGON SCORP AND STATE PARK PLANNING

Survey results included in appendices of community planning guide.

Appendix E: Percent of Population Participating in Outdoor Recreation Activities, Oregon Counties, 2011.

Activity	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes
Non-motorized Trail Activities									
Walking on local streets / sidewalks	79.7	72.8	58.0	64.2	62.9	64.6	58.5	59.1	74.5
Walking on local trails / paths	74.1	69.7	56.3	61.7	49.0	57.8	50.7	61.2	69.6
Walking / day hiking on non-local trails / paths	53.9	53.8	45.0	42.5	34.6	39.6	40.0	38.4	53.2
Long-distance hiking (back packing)	38.5	18.3	7.9	9.5	7.9	9.8	9.4	5.9	21.8
Jogging / running on streets / sidewalks	26.9	22.4	15.8	10.6	12.5	10.2	14.2	5.6	22.3
Jogging / running on trails / paths	25.1	20.0	9.3	10.6	10.3	10.1	11.4	3.6	20.0
Horseback riding	16.2	4.0	5.7	4.5	7.3	5.5	6.5	4.4	4.1
Bicycling on unpaved trails	16.0	17.0	6.6	10.2	6.0	10.6	11.7	7.5	25.0
Bicycling on paved trails	17.9	32.9	20.9	28.0	15.2	15.0	15.2	10.1	31.0
Bicycling on roads, streets / sidewalks	45.8	42.7	22.3	28.0	26.2	21.1	25.4	18.6	36.7
Bicycle touring on paved roads / paths (long day / multi-day rides)	5.9	18.1	14.6	11.7	12.9	3.3	9.8	6.4	22.4
Motorized Activities									
Class I – All-terrain vehicle riding (3 & 4 wheel ATVs, straddle seat and handle bars)	32.1	9.6	8.8	11.1	17.6	29.4	18.3	15.0	12.9
Class II – Off-road 4-wheel driving (jeeps, pick-ups, dune buggies, SUVs)	37.2	9.7	8.4	8.8	16.4	30.7	13.8	17.5	12.9
Class III – Off-road motorcycling	5.9	2.5	4.1	2.3	4.6	8.7	3.4	3.5	6.2
Class IV – Riding UTVs / side-by-side ATVs (non-straddle seat, driver and passenger sit side-by-side in the vehicle, steering wheel for steering control)	6.5	1.3	1.2	1.1	5.6	7.5	5.4	1.2	3.3
Snowmobiling	17.3	3.2	1.5	1.7	3.9	1.8	2.2	1.9	10.0
Personal water craft – jet ski	4.7	3.4	3.3	2.1	6.3	4.9	1.4	3.1	11.3
Power boating (cruising / water skiing)	19.7	17.5	16.2	17.5	26.0	24.7	26.4	16.7	23.1
Non-motorized Snow Activities									
Downhill (alpine) skiing / snowboarding	16.6	23.0	14.7	9.7	10.4	9.5	7.8	2.8	20.2
Cross-country / Nordic skiing / skijoring on groomed trails	4.8	6.2	4.3	1.9	2.4	1.7	2.5	1.3	14.4
Cross-country / Nordic skiing / skijoring on ungroomed trails / off designated trails	6.2	6.1	2.1	3.2	<1.0	1.6	4.9	1.1	7.9
Snowshoeing	14.6	9.4	5.5	3.6	4.6	4.3	8.6	1.1	19.0
Sledding, tubing, or general snow play	45.6	29.5	24.6	21.4	24.0	17.8	18.9	16.1	35.4
Outdoor Leisure / Sporting Activities									
Sightseeing / driving or motorcycling for pleasure	69.4	55.3	52.9	61.6	64.7	61.4	64.7	57.8	59.8
Picnicking	66.6	52.0	46.1	50.4	51.6	50.3	37.3	46.7	53.4
General play at a neighborhood park / playground	41.9	46.3	39.2	35.6	48.6	44.9	37.6	35.2	46.6
Dog walking / going to dog parks / off-leash areas	36.2	31.7	27.4	32.3	26.4	28.5	24.4	32.5	41.1

Appendix J: Priorities For The Future By Oregon County.

Priorities for the future, what park and forest agencies should invest in, Oregon Counties—mean for 5-point Likert (1 = "Lowest priority need" to 5 = "Highest priority need"). Items with priority scores of 3.0 and higher are highlighted in grey.

Item	Baker	Benton	Clackamas	Clatsop	Columbia	Coos	Crook	Curry	Deschutes
Children's playgrounds and play areas made of natural materials (logs, water, sand, boulders, hills, trees)	3.0	3.1	3.3	3.3	3.4	3.3	3.0	3.2	3.2
Children's playgrounds and play areas built with manufactured structures like swing sets, slides, and climbing apparatuses	2.3	2.7	2.8	2.8	2.9	2.9	2.5	2.5	2.7
Picnic areas and shelters for small visitor groups	3.2	3.3	3.4	3.4	3.3	3.4	3.0	3.3	3.2
Picnic areas and shelters for large visitor groups	2.7	2.7	2.9	2.9	2.9	3.2	2.7	2.7	2.7
Paved / hard surface walking trails and paths	2.7	2.9	3.1	3.1	2.9	2.9	2.7	2.7	2.8
Dirt / other soft surface walking trails and paths	3.4	3.9	3.8	3.7	3.7	3.6	3.4	3.7	3.6
Off-street bicycle trails and pathways	2.9	3.6	3.2	3.4	3.1	3.3	2.8	3.0	3.3
Community gardens	2.6	3.0	2.8	2.9	3.1	2.9	2.7	2.8	3.0
Nature and wildlife viewing areas	3.0	3.4	3.2	3.4	3.4	3.2	3.1	3.4	3.1
Multi-use fields for soccer, football, lacrosse, etc.	2.2	2.7	2.8	2.4	2.6	2.6	2.4	2.4	2.7
Baseball / softball fields	2.2	2.3	2.6	2.3	2.3	2.5	2.2	2.3	2.4
Outdoor tennis courts	1.9	2.2	2.2	2.0	2.1	2.2	2.0	1.9	2.2
Basketball courts	2.1	2.4	2.4	2.3	2.2	2.4	2.2	2.2	2.3
Off-leash dog areas	2.9	2.8	3.0	2.9	3.1	3.1	2.7	3.1	3.0
Designated paddling routes for canoes, kayaks, rafts, driftboats	2.4	2.9	2.9	2.7	2.8	2.8	2.5	2.7	2.9
Public access sites to waterways	3.6	3.4	3.5	3.7	3.8	3.8	3.4	3.6	3.5
Off-highway vehicle trails / areas	3.3	2.2	2.6	2.6	2.7	3.2	2.9	2.8	2.5

OREGON SCORP AND STATE PARK PLANNING

Forms and instructions included to assist planners in using survey results in park planning.

Form 12:
Participation in Outdoor Recreation Activities

Region and county-level survey summary reports are available online at:
http://www.oregon.gov/oprd/PLANS/Pages/ORORDA.aspx

Activity	% of Population Participation in Your County[2]	User Occasions in Your County[3]	% of Population Participation in Your SCORP Planning Region[4]	User Occasions in Your SCORP Planning Region[5]
Baseball/softball				
Outdoor court games other than tennis (basketball, beach volleyball, badminton)				
Football, soccer, lacrosse, rugby, ultimate frisbee				
Golf				
Horseback riding				
Swimming/ playing in outdoor pools/ spray parks				
Beach activities – lake, reservoirs, rivers				
Tennis (played outdoors)				
Picnicking				
General play at a neighborhood park/ playground				
Skateboarding, inline skating, roller skating, roller skiing				
Dog walking/ going to dog parks/ off-leash areas				
Visiting nature centers				
Attending outdoor concerts, fairs, festivals				
Disc golf				
Walking on local trails/ paths				
Jogging/ running on trails/ paths				
Bicycling on paved trails				
Power boating (cruising/ water skiing)				
Fishing from a boat (other than fly fishing)				
Flat-water canoeing, sea kayaking, rowing, stand-up paddling, tubing / floating				
Car camping with a tent				
RV/ motorhome/ trailer camping				

[2] Please record county population participation percentage from Appendix E.
[3] Please record county user occasions from Appendix F.
[4] Please record region population participation percentage from Appendix G.
[5] Please record region user occasions from Appendix H.

Form 13:
Priorities For The Future

Region and county-level survey summary reports are available online at:
http://www.oregon.gov/oprd/PLANS/Pages/ORORDA.aspx

Mean For 5-Point Likert (1="Lowest priority need" and 5= "Highest priority need")

Item	Statewide	Your SCORP Region[6]	Your County[7]
Children's playgrounds and play areas made of natural materials (logs, water, sand, boulders, hills, trees)	3.3		
Children's playgrounds and play areas built with manufactured structures like swing sets, slides, and climbing apparatuses	2.8		
Picnic areas and shelters for small visitor groups	3.3		
Picnic areas and shelters for large visitor groups	2.8		
Paved / hard surface walking trails and paths	3.0		
Dirt / other soft surface walking trails and paths	3.8		
Off-street bicycle trails and pathways	3.3		
Community gardens	3.0		
Nature and wildlife viewing areas	3.4		
Multi-use fields for soccer, football, lacrosse, etc.	2.7		
Baseball / softball fields	2.4		
Outdoor tennis courts	2.2		
Basketball courts	2.4		
Off-leash dog areas	3.0		
Designated paddling routes for canoes, kayaks, rafts, driftboats	2.8		
Public access sites to waterways	3.5		
Off-highway vehicle trails / areas	2.5		

[6] Please record region scores from Appendix K.
[7] Please record county scores from Appendix J.

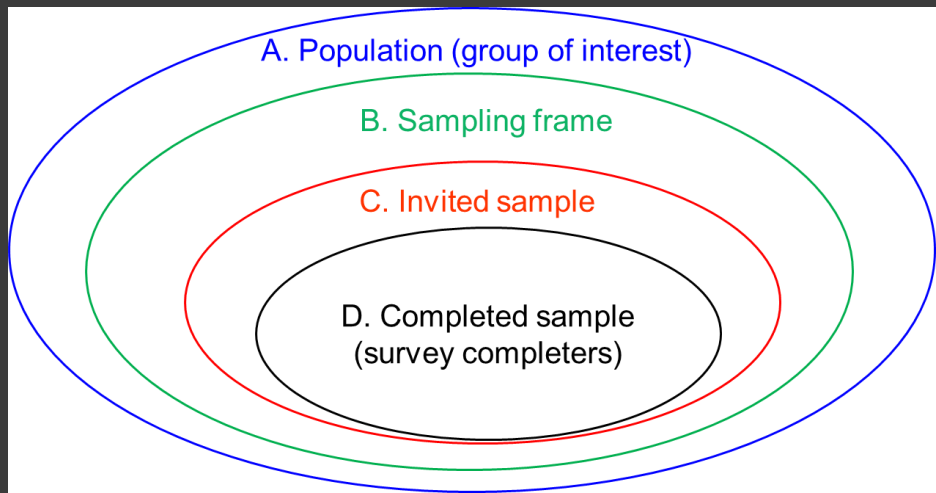
Outline – SCORP and Trail Surveys

- Universities as information providers
- Response rates
- Survey administration
- Cost
- Sample SCORP results

- Probability vs. convenience samples
- Trail survey samples
- Mail vs. online surveys, including walk-through
- Sample trail results
- Final thoughts

Universities as information providers

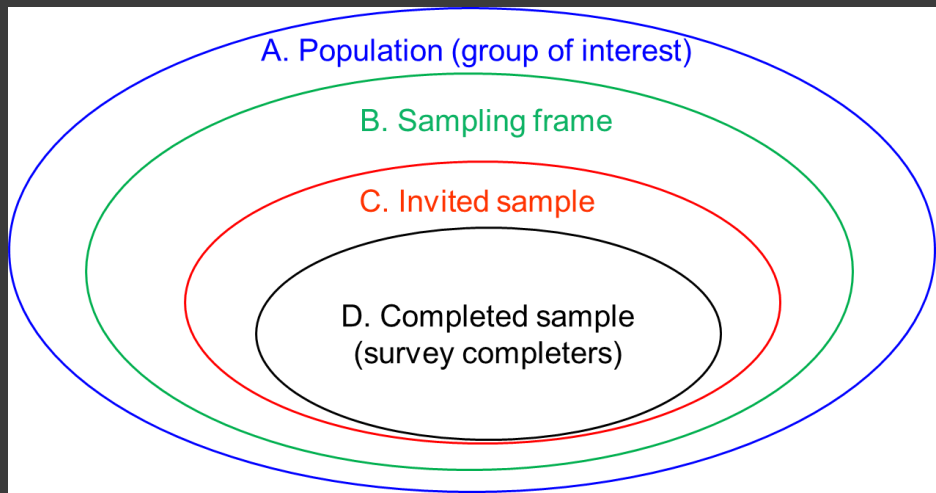
- Quality vs. speed, but also less obvious considerations.
- Access to high quality sampling frames to reduce coverage error (B approaches A with DMV records)
  - sampling error (due to D < A) may be least important
- Access to more advanced online survey software (Survey Monkey vs. Qualtrics).
- Postage at non-profit rates.
- Training future agency staff?



Response rates

- Response rate has implications for project cost and data quality (non-response error due to gap between C and D).
- Oregon SCORP rate was 19%, in line with other general population SCORP surveys (CO 23%, UT 15%, PA 21%).
- User group surveys in trail project range from 25% to 45%.
- Onsite surveys higher.

- Beware response rates!
- Calculation + reporting.



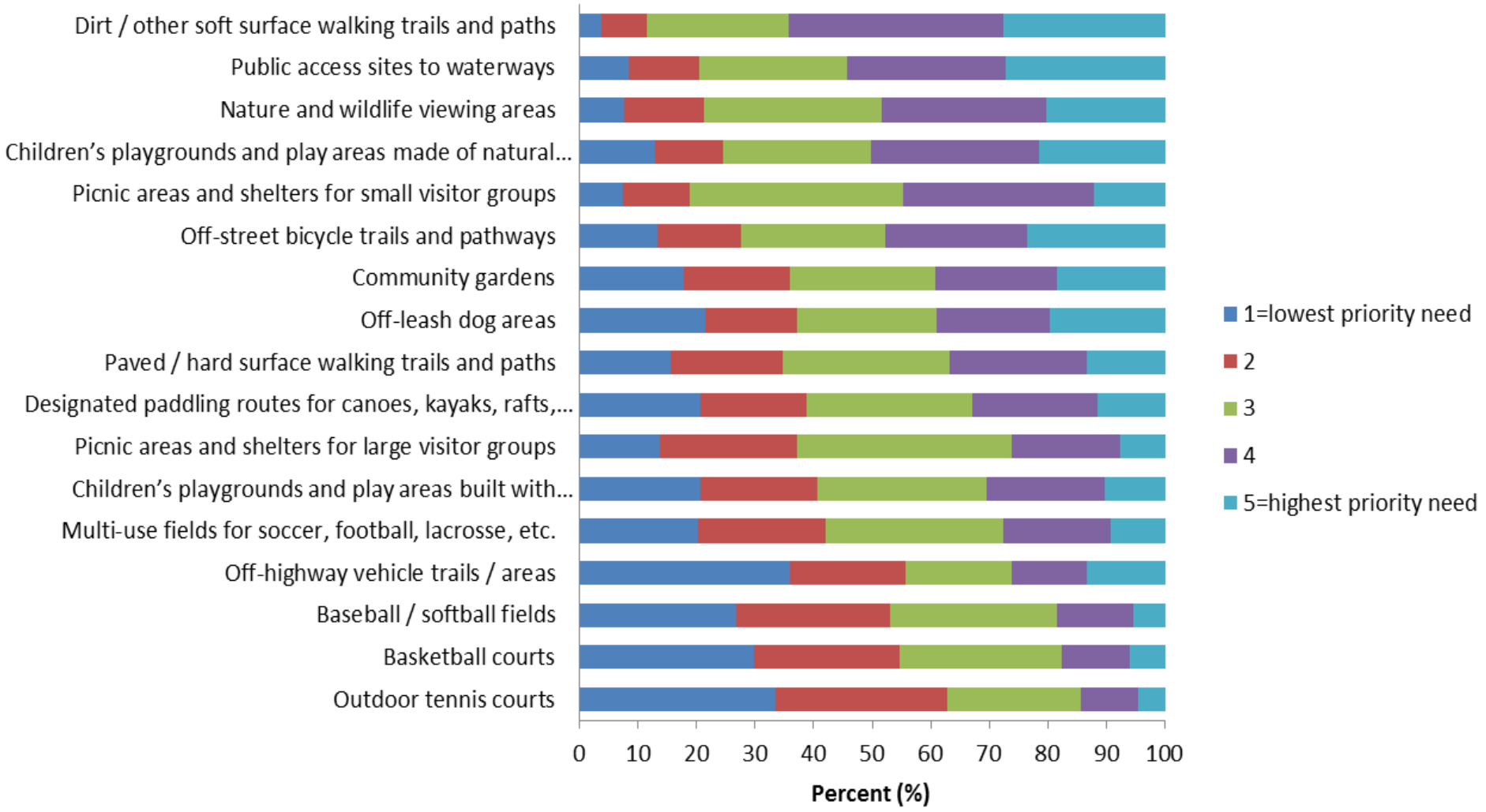
Survey administration

- Multiple mailings, known broadly as a "Dillman approach."
- Notification letter from Oregon State Parks.
- Invitation letter with URL and reply postcard (send mail survey, did not participate, etc.).
- One-week reminder (like invitation).
- Three-week reminder with mail survey.
- Mechanism to indicate non-participation.

Marginal cost per complete

- Following reflects printing, postage, and data entry cost; excludes overhead and fixed costs (labor, travel, etc.).
- For the SCORP survey (9 pages, 370 variables, 19% response rate, 50% complete online), the cost per complete was $15.
- The trail surveys are similar in length, but with higher response rates and higher proportions completed online.
- Savings in cost-per-survey used to increase sample.
- Trail survey included separate OHV (Class I and III) email sampling frame, with online-only cost-per-survey essentially $0.

OREGON SCORP AND STATE PARK PLANNING



Why do a trails plan?

U.S. Department of Transportation
Federal Highway Administration

- 2005-2014 Oregon statewide trails plan is at end of 10-year planning horizon.
- RTP regulations require states to have a plan in place to remain eligible.
- Need for an administrative framework to identify and determine level of assistance for trails of regional significance.
- Need for developing a designated structure for water trail development.
- Need to establish a review process to identify potential Scenic Waterway corridor additions.
- Need to update ATV and RTP grant program evaluation criteria.

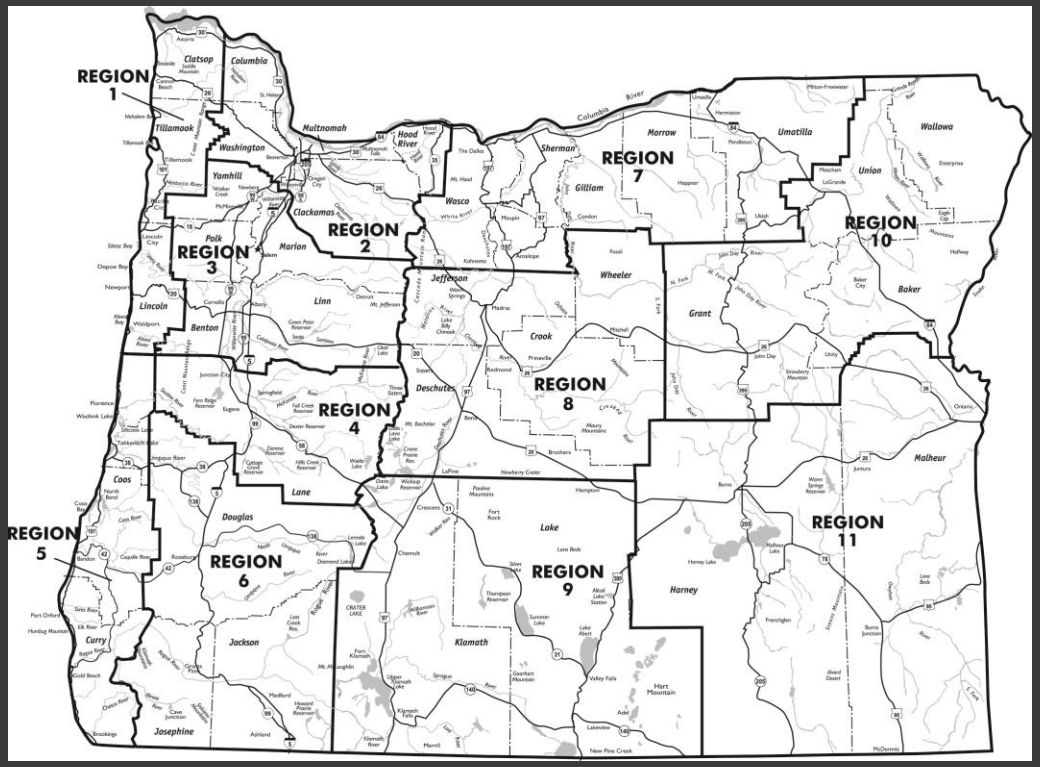
Separate, but concurrent planning components:

- OHV trails
- Snowmobile trails
- Non-motorized trails
- Water trails
- State Scenic Waterways




Oregon Statewide Trails Plan:

11 Trail Planning Regions:



Primary information gathering methods:

- Trail provider internet survey
- In-state trail user surveys
- Trail provider public workshops (issues & need)
- General public workshops (issues & need)




In-State Trail User Surveys

Include questions related to:

- Trail issue priorities
- Grant funding priorities
- Level of satisfaction with current facilities & services
- Trail type and construction preferences
- Barriers to participation

In-State Trail User Surveys

Economic Impacts To Local Communities:

- Motorized trail use (Class I-IV)
- Snowmobiles use
- Dispersed-setting non-motorized trail use (hiking, bicycling, mountain biking, equestrian, cross-country skiing)
- Non-motorized boating (flat-water and white-water)





OREGON SCORP AND STATE PARK PLANNING

Four Separate Survey Questionnaires:

Oregon All-Terrain Vehicle Recreation

Please Complete This Survey and Return It As Soon As Possible

Your Input Helps Inform Future Trail Opportunities

Thank You for Your Participation

OSU Oregon State University

Cascades

This research survey, and each question in it, is voluntary. Your responses will be anonymous – responses will only be reported as part of larger groups. We do not anticipate any direct risks or benefits in completing the survey, but your responses may enhance future riding opportunities for you and other riders. The survey takes approximately 15 to 20 minutes to complete, depending on your riding patterns.

If you have any questions about the survey, please contact Principal Investigator Kreg Lindberg at 541-322-3126 or by e-mail at kreg.lindberg@osucascades.edu. If you have any questions about your rights as a survey participant, please contact the OSU Institutional Review Board (IRB) Human Protections Administrator at 541-737-8008 or by e-mail at IRB@oregonstate.edu

V1

Snowmobiling in Oregon

Please Complete This Survey and Return It As Soon As Possible

Your Input Helps Inform Future Trail Opportunities

Thank You for Your Participation

OSU Oregon State University

Cascades

This research survey, and each question in it, is voluntary. Your responses will be confidential – responses will only be reported as part of larger groups. We do not anticipate any direct risks or benefits in completing the survey, but your responses may enhance future opportunities for you and other riders. The survey takes approximately 15 to 20 minutes to complete, depending on your riding patterns.

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Oregon Non-motorized Boater Recreation

Please Complete This Survey and Return It As Soon As Possible

Your Input Helps Inform Future Boating Opportunities

Thank You for Your Participation

OSU Oregon State University

Cascades

This research survey, and each question in it, is voluntary. Your responses will be confidential – responses will only be reported as part of larger groups. We do not anticipate any direct risks or benefits in completing the survey, but your responses may enhance future opportunities for you and other boaters. The survey takes approximately 15 to 25 minutes to complete, depending on your boating patterns.

If you have any questions about the survey, please contact Principal Investigator Kreg Lindberg at 541-322-3126 or by e-mail at kreg.lindberg@osucascades.edu. If you have any questions about your rights as a survey participant, please contact the OSU Institutional Review Board (IRB) Human Protections Administrator at 541-737-8008 or by e-mail at IRB@oregonstate.edu

V2E

What are your priorities for Oregon non-motorized trails?

Please Complete This Survey and Return It As Soon As Possible

Your Input Helps Inform Future Trail Opportunities

Thank You for Your Participation

OSU Oregon State University

Cascades

This research survey, and each question in it, is voluntary. Your responses will be confidential – they will only be reported as part of larger groups. We do not anticipate any direct risks or benefits in completing the survey. The survey takes approximately 15 to 30 minutes to complete, depending on your recreation patterns.

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Project Budget

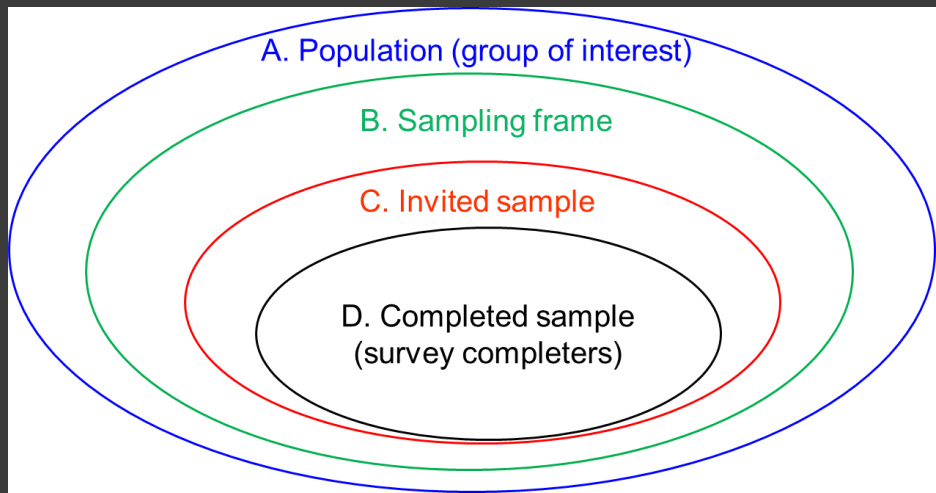
Funding Source	Percent	Funds
State ATV grant program	46%	$74,000
Natural Resources	5%	$8,000
RTP grant program	21%	$32,500
Integrated Park Services	9%	$14,000
Communications & Research	9%	$13,500
Oregon State Marine Board	10%	$16,000
Total		$158,000

Project Timeline

Task	Duration
Develop survey methods & questionnaires	3 months
Pre-test survey and methods	2 months
Data collection & data entry	5 months
Report writing	4 months
Total project	14 months

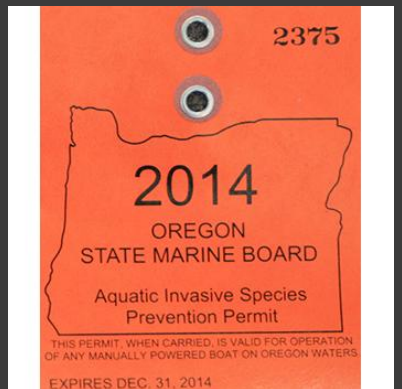
Probability vs. convenience samples

- Are the sampling frame and completed sample (B, C, D) representative of the population (A)?
- Probability sampling, such as random sample from DMV records, increases the likelihood of representativeness.
- Non-probability sampling (convenience, snowball, etc.), such as via trail clubs or agency website, can provide valuable complementary data.
- But the data are less likely to be representative of the population.



Trail survey samples

- Probability samples for each of four groups.
- OHV permits, snowmobile DMV registrations, SCORP trail respondents, SCORP water respondents and aquatic invasive species permits.
- Convenience samples (clubs) for each.



Mail versus online

- There is a role for phone surveys, but there are several challenges (cell-only HHs + migrant area codes, no visuals, duration, etc.).

- We used mail recruitment into online, with mail survey option.
  - Allows benefits of online while using mail sampling frame and including respondents who prefer mail surveys.

- Online benefits:
  - avoid cost of printing, mailing, and data entry
  - efficient presentation and reporting – carry forwards, branching (if / go to), drop down menus, etc.

Mail versus online

- SCORP: bit.ly/OSUsurveyA
- Trail, boater: bit.ly/boatersurvey

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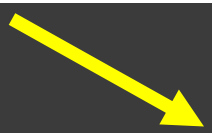
Did you or any member of your household participate in any of the following non-motorized trail or related activities in Oregon in 2011?

Check the box for each activity you or others in your household participated in, then click the arrow at the bottom of the page. If you or others in your household did not participate in any of these, click the arrow without checking any boxes.

- ☐ Walking on local streets or sidewalks
- ☐ Walking on local trails or paths
- ☐ Walking / day hiking on non-local trails or paths
- ☐ Long-distance hiking (back packing)
- ☐ Jogging or running on streets or sidewalks
- ☐ Jogging or running on trails or paths
- ☐ Horseback riding
- ☐ Bicycling on unpaved trails
- ☐ Bicycling on paved trails
- ☐ Bicycling on roads, streets or sidewalks



For each of the following activities, please enter the requested information in each of the three columns.

	Approximate number of times participated in OR in 2011	Average number of household members that participated each time	Name of county or nearest city where **most** times occurred
Walking on local streets or sidewalks			
Horseback riding			

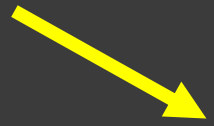
OREGON SCORP AND STATE PARK PLANNING

Next, please click the box for each region in which you engaged in recreational non-motorized boating in Oregon in the past 12 months (August 2013 through July 2014).

Include even very short trips close to home, such as boating on a lake or river near your house.

Also include trips that were commercially guided or that involved borrowed or rented boats -- not just trips using your own boats.

- [x] Region 1
- [ ] Region 2
- [ ] Region 3
- [ ] Region 4
- [ ] Region 5
- [ ] Region 6
- [ ] Region 7
- [ ] Region 8
- [ ] Region 9
- [ ] Region 10
- [ ] Region 11



For each waterbody in Region 1 that you boated in the past 12 months, please:

1. **In the 1st column, use the drop-down list to select the river stretch if it is shown on the map below.**
2. **In the 2nd column, type in the name if it is not in the list / shown on the map.**
3. **In the 3rd column, type the number of days you boated there in the past 12 months. Any portion of a day spent boating counts as a full day.**

Let's start with rivers.

If you boated on more than 6 river stretches in the region in the past 12 months, please list information for the 6 where you spent the most days.

	Select river from drop-down list	Type in river name if not in list	Type number of days
1st river boated			
2nd river boated			
3rd river boated			
4th river boated			
5th river boated			
6th river boated			

R1 Youngs River
R2 Lewis and Clark River
R3 Klaskanine River
R4 Necanicum River
R5 Nehalem River
R6 North Fork Nehalem River
R7 Salmonberry River
R8 Kilchis River
R9 Wilson River
R10 Trask River
R11 Nestucca River (mouth up to RM 7, near Cloverdale)
R12 Nestucca River (RM 7 to RM 15, near Beaver)
R13 Nestucca River (RM 15 to RM 26, above confluence of Limestone Creek and Blaine)
R14 Nestucca River (RM 26 to RM 35, near USFS boundary)
R15 Nestucca River (RM 35 to RM 47, near the lower end of Old Meadow Lake)
R16 Little Nestucca River
R17 Siletz River (Mainstem from confluence of North and South Forks to Siletz Bay)
R18 Yaquina River
R19 Elk Creek

Now let's co

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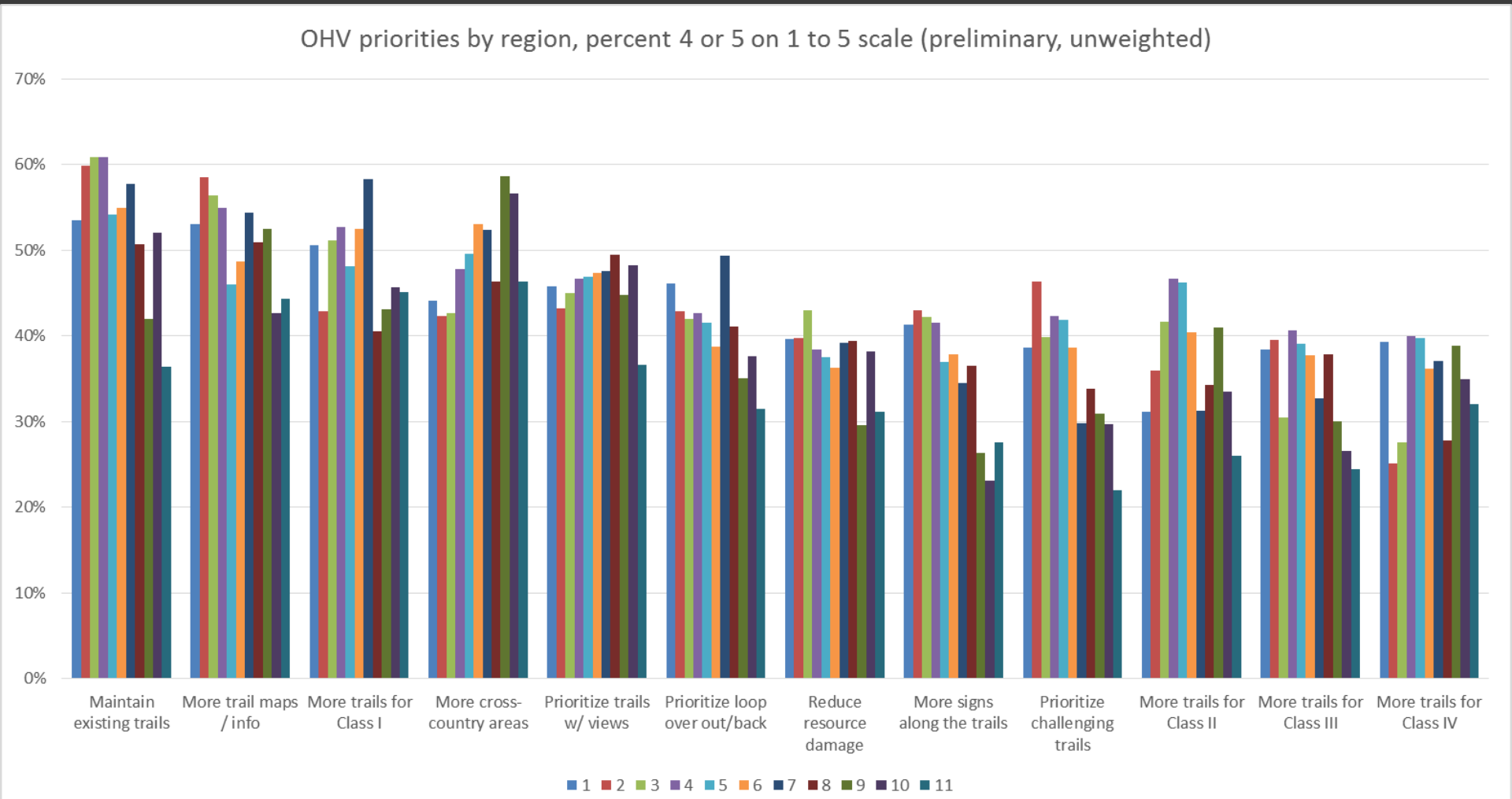

Final thoughts

- Perennial trade-off between length and response rate.
  - Many people are willing to spend 20+ minutes doing recreation surveys, but representativeness is a concern.

- Participation and expenditure reporting is challenging, especially when part of a larger survey.
  - Expenditure variation by trip type increases challenge.
  - View such data – indeed, most survey data – as approximations. Goal is to generate the best approximation.

- Online is a blessing, but continue to use mail recruitment for representativeness and mail complete option as alternative.

- Convenience samples are not replacements for probability samples.

OREGON SCORP & STATE PARK PLANNING

An Innovative Research Collaboration between Oregon State Parks and Oregon State University

OSU Oregon State University

OREGON STATE PARKS

Nature HISTORY Discovery