

Economic Impact Study
2009 USA Cycling Junior/U23/Elite National Road Cycling Championships
Bend, Oregon

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Prepared for Visit Bend

September 30, 2009

Introduction

Visit Bend is an economic development organization that contracts with the City of Bend, Oregon to enhance the local economy through the promotion of tourism. One of the strategies employed by Visit Bend to enhance the tourism industry is to attract major events to the city. One of these events is the USA Cycling Junior/U23/Elite National Road Cycling Championships (*hereinafter referred to as the "Championships"*). Visit Bend contracted with USA Cycling to host this event in Bend in July of 2009 and June of 2010.

To measure the economic impact that this event generated in Bend's economy, Visit Bend commissioned Kreg Lindberg, Oregon State University-Cascades professor and proprietor of Central Oregon Research Services, to conduct an economic impact study of the 2009 Championships held in Bend from July 28 through August 2, 2009.

The following report reflects the results of this economic impact study.

Research Methodology

The data for this report was gathered from Championships participants and spectators through two separate surveys, both designed by Professor Lindberg. The first survey was a written survey conducted in-person with attendees during the event. The second survey was a post-event online survey that was emailed to all participants following their visit to Bend.

A total of 443 written surveys were completed in person during the event, resulting in a research sample representing over 50% of event participants. The post-event online survey was completed by 260 event participants, resulting in a research sample representing 37% of the event participant email addresses.

These sample sizes are very good for an event of this magnitude. Sampling error varies across questions. For the expenditure estimate, the 95% confidence interval is +/- 7%. Reported expenditure typically is highly variable; this interval is sufficiently narrow to have confidence in the estimates.

Executive Summary & Research Highlights

The primary purpose of this study was to measure the economic impact generated by the Championships and to identify the various segments of Bend's economy that were impacted. The secondary purpose of this study was to compare the tourist behavior generated by this event with the tourist behavior generated by Bend's standard non-event tourist traffic, as measured through Visit Bend's ongoing research partnership with Boulder-based research firm RRC. Throughout the report the non-event tourism data is referred to as "RRC" data.

This report begins with a general overview of the highlights from the study, then moves to more detailed data. At the end of the report, the Appendix includes data tables and other granular level data.

Research Highlights

- The economic impact generated by the Championships equaled \$1.44 million in direct tourist spending.
- A total of 2,840 people visited Bend specifically for the Championships and stayed in the area for an average of 6.9 nights, resulting in 19,600 “tourist nights.”¹
- The 6.9 night average length-of-stay generated by the Championships was more than twice as long as Bend’s non-event length-of-stay of 3.3 nights as measured in the RRC research.
- In terms of geographic origin, the Championships were attended by visitors from all 50 U.S. states, with only 5% of the attendees coming from within the state of Oregon. By contrast, the geographic origin of Bend’s standard non-event tourism includes 40% of all visitors coming from within Oregon.
- The Championships generated a total of 3,500 paid lodging nights during the event (excluding host housing and stays in own or friend/relative home). 83% of all respondents lodged (paid and unpaid) within the city limits of Bend, 13% in Sunriver, 1% in Sisters, 1% in Redmond and 2% in other locations.
- 35% of all respondents stayed in hotels and motels, 33% in rented townhomes and houses, 4% in RVs, and 3% in tents. The 33% for rented townhomes and houses is nearly double the percentage for this lodging type generated by Bend’s standard non-event tourism, presumably reflecting the longer length of stay for this event.
- On a percentage basis, people who visited Bend for the Championships were twice as likely as Americans as a whole to have household incomes in the \$100,000 to \$199,000 range, and they were four times as likely to have household incomes in the over \$200,000 range. This socio-economic profile is substantially more affluent than that of Bend’s non-event visitor.
- 44% of the attendees of the Championships traveled by airplane at some point during their travels to Bend. Of those who travelled by air, 70% used Portland (PDX) as their final airport.
- Perhaps the most surprising result related to the event attendees’ interest in purchasing real estate in Bend as a result of their visit. 9% of event attendees answered “definitely yes” to the question of whether they would consider moving or buying real estate in Bend as a result of their visit for the Championships. 45% answered “possibly yes” to the same question. By attracting new visitors, from origins untapped by non-event tourism, the Championships may have a disproportionately large impact on new in-migration and real estate purchases.

¹ Calculations are rounded to three significant digits.

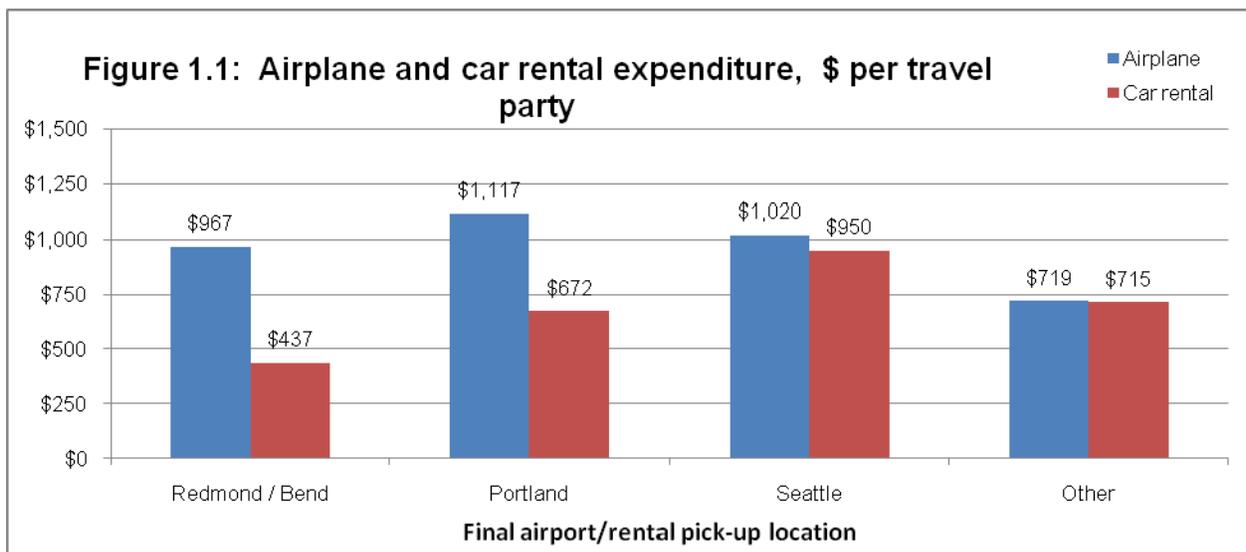
- 44% of event attendees used the Visit Bend website as a source of information to plan their visit for the Championships. Of the other websites used, USA Cycling’s site was by far the most common – representing 46% of the other websites used. The Official Bend Visitor Guide was the most common brochure mentioned by event attendees as a travel planning source.
- Relative to Bend’s standard non-event related tourism, the Championships attracted a much higher percentage of first-time visitors to Bend. More than half (59%) of Championships attendees had never been to Bend before the event. Perhaps more noteworthy is that, when West Coast residents were excluded from this question, 70% of the Championships attendees were first-time visitors to Bend.

Section 1. Expenditure and Economic Impact

This section presents expenditure and economic impact results, within the Deschutes County study area. Surveyed visitors who were in Bend for reasons other than to compete in, or watch, the Championships were excluded from the expenditure analysis. These visitors are known as “casuals,” and their spending would have occurred even without the event. Likewise, expenditure by local residents participating in the event as contestants or spectators is not included.

Respondents reported how much they spent on airplane tickets and car rentals. Figure 1.1 shows expenditure on airplane tickets, by final airport, for the 44% of Championships visitors that flew by plane. Some airplane spending will benefit the local economy, as airlines that fly into Redmond/Bend pay ground staff, lodging for overnight flight crews, and so on. The percentage that stays locally is unknown, but assume it is 10%. Across all respondents, an average of \$65 was spent on flights to Redmond/Bend, of which \$6.50 would stay in the local region. This amount is in addition to expenditure and economic impact analysis reported below.

Figure 1.1 also shows average car rental costs, by pick-up location, for the 39% of Championships visitors that rented a car.



Turning to expenditure for all items, the average expenditure per person per day for Championships visitors was \$63.20. This is approximately two-thirds the per person per day expenditure of non-event summer visitors (\$96) as reported in the RRC research. However, because Championships visitors stayed in Bend longer, their total spending was almost twice that of the average non-event visitor (\$1,934 versus \$1,021).

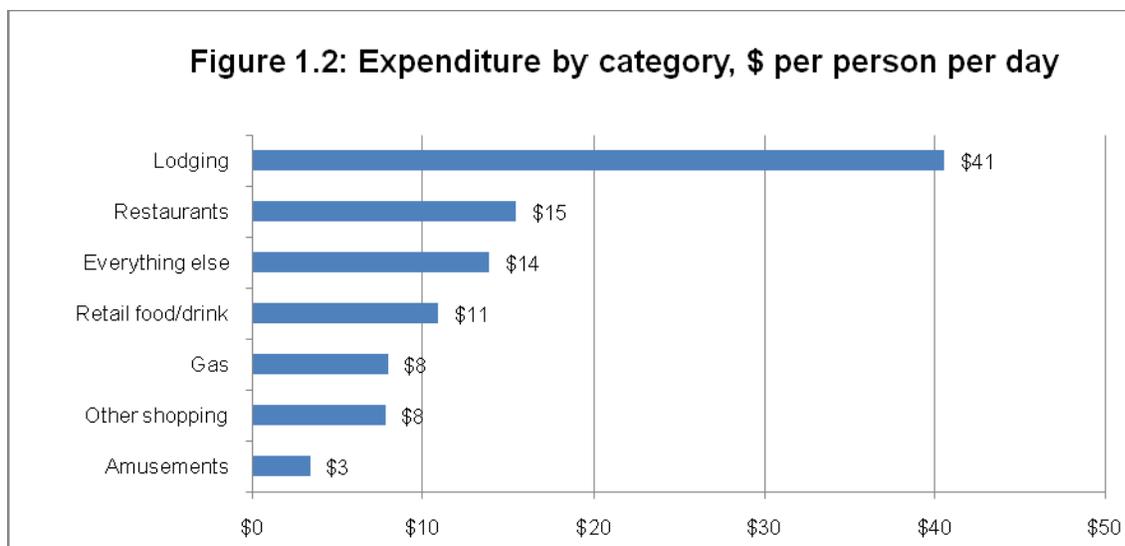
With respect to overall expenditure, several issues should be considered. First, this event occurred during a recession, and the same event held in a normal economy likely would generate more expenditure. The recession likely reduced the number of participants and/or average spending per participant. As an example, some respondents noted that they prepared their own meals rather than dining out as a result of economic conditions.

Second, expenditure per household or travel party is the accepted reporting approach because large items, such as lodging and fuel, are paid at the household or travel party level and are not easily divisible by respondents to a per-person basis. Nonetheless, persons in a travel party may make additional purchases unbeknownst to the respondent. These expenditures brought economic benefit to Central Oregon, but were not captured by the survey.

Third, respondents were asked to report both actual and anticipated expenditures. Unanticipated expenditures made after survey completion were not included.

The above factors may lead to underestimates.

Figure 1.2 shows expenditure by category. Lodging is clearly the largest budget item. Restaurants are separated from retail food and drink, as the expenditures enter the economic impact model in different sectors. Because different sectors are used, these Championships results are not directly comparable to the RRC breakdown by category. However, proportions are broadly similar, especially with respect to lodging and food/drink.



Total expenditure and associated economic impacts are a function of the number of Championships visitors. There were 840 contestants in this event, and they represent an estimated 709 travel parties (groups with a common expenditure).²

Local spectators are not included in the impact estimates. Of the rest, survey responses indicate that contestant households represented 93% of travel parties participating in the event. Another 5% were spectator travel parties whose visit is attributable to the event. The remaining 2% are casuals, which are not included in the estimates.

This leads to an estimate of 709 contestant travel parties and 38 spectator travel parties. The average travel party involved 30.6 person days in the area with spending of \$63.20 per person per day. This totals \$1.44 million in expenditure, also referred to as “direct tourist spending.”

Championships visitor expenditure was “run” through the IMPLAN input-output model to estimate “multiplier effects” of money flowing through the local economy. For example, assume that a Championships attendee eats lunch at Restaurant X. In order to provide the lunch, Restaurant X hires (and pays) employees and purchases food that is then prepared for customers. Food is an input purchased from another business, and this process generates indirect effects. Wages paid to employees generate induced effects, because those employees spend a portion of their income in the local economy (perhaps by eating at Restaurant Y or shopping at Supermarket Z).

Expenditure by attendees of the Championships generated the following economic impact within Deschutes County:

- \$1.44 million in direct tourist spending
- \$1.7 million in sales.³
- \$600,000 in labor income. This includes employee compensation (including wages, salaries, and benefits) and proprietary income (including self-employment income).
- 22 jobs (full-time or part-time).

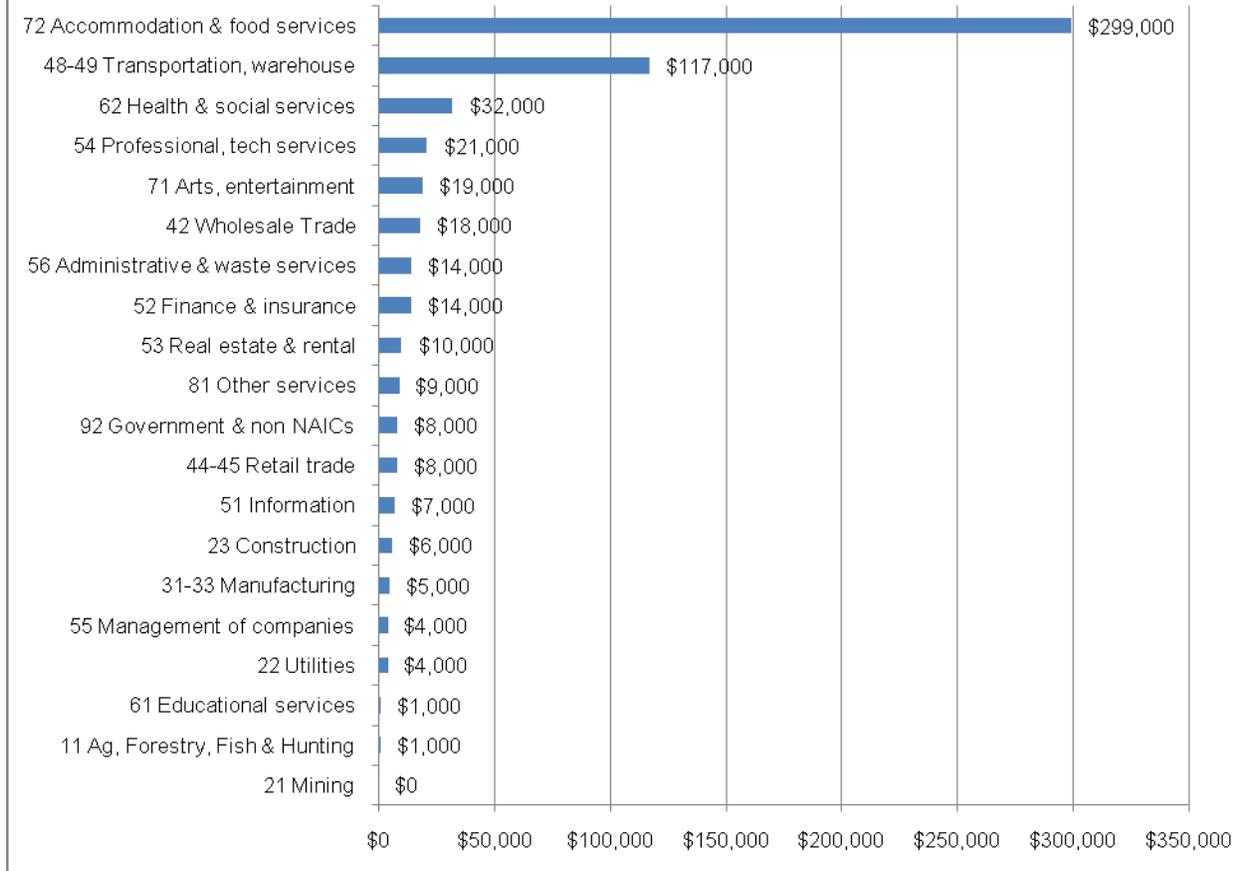
Table A.1 in the appendix details the impact by sector within the county; Figure 1.3 graphically shows income by sector, measured to the nearest \$1,000. The appendix also provides details on analysis steps and input-output analysis assumptions.

IMPLAN breaks the economy into 509 sectors, covering everything from cattle ranching to semiconductor manufacturing. Within Deschutes County, there is at least one business in 253 of these sectors. Through the multiplier effect, Championships visitor expenditure generates sales in 232 (92%) of these sectors. It generates at least \$1,000 in sales from 99 (39%) of the sectors. It is not just hotels and restaurants that benefit from events such as the Championships.

² The online survey included questions on travel party composition, but responses indicate that the questions were not interpreted as intended – travel parties with a common expenditure. Therefore, registration data, notably the pattern of email addresses, was used to estimate number of contestant travel parties. The number of completed surveys and data from previous Championships events indicate that this estimate is reasonable. In addition, officials and vendors were not included, and the number of spectator travel parties likely is underestimated.

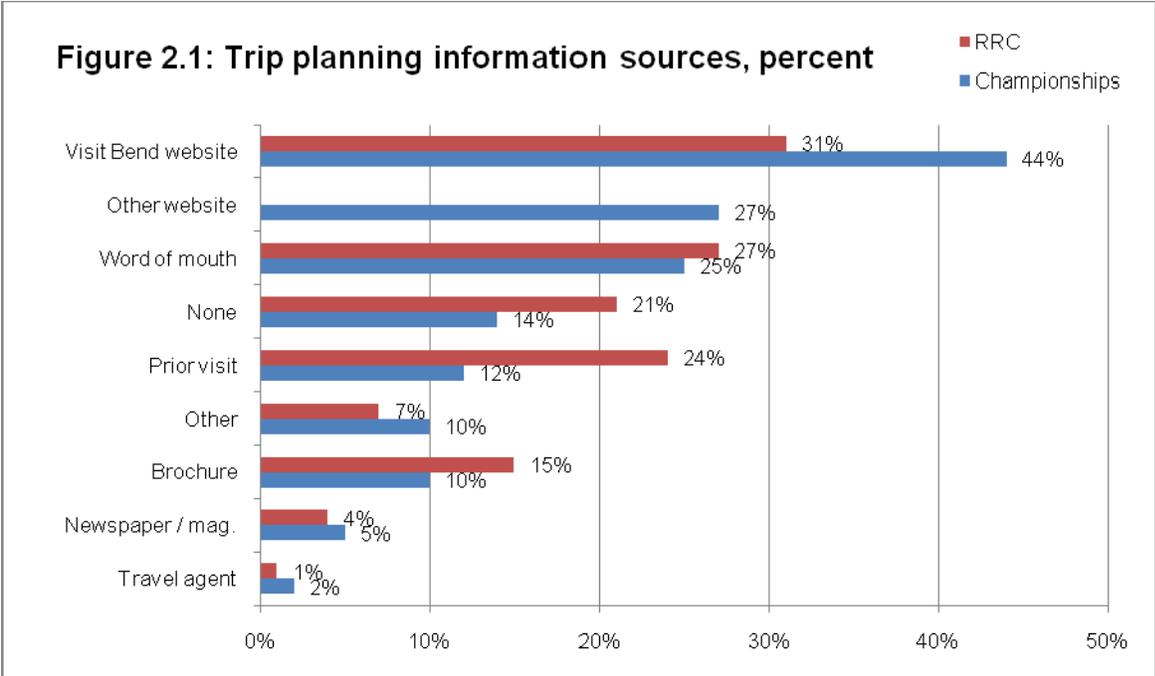
³ This amount only includes the margin portion of retail sales; the wholesale cost of retail products is not included, as that is quickly “lost” by the region to pay for products manufactured elsewhere.

Figure 1.3: Championships-generated labor income by broad economic sector

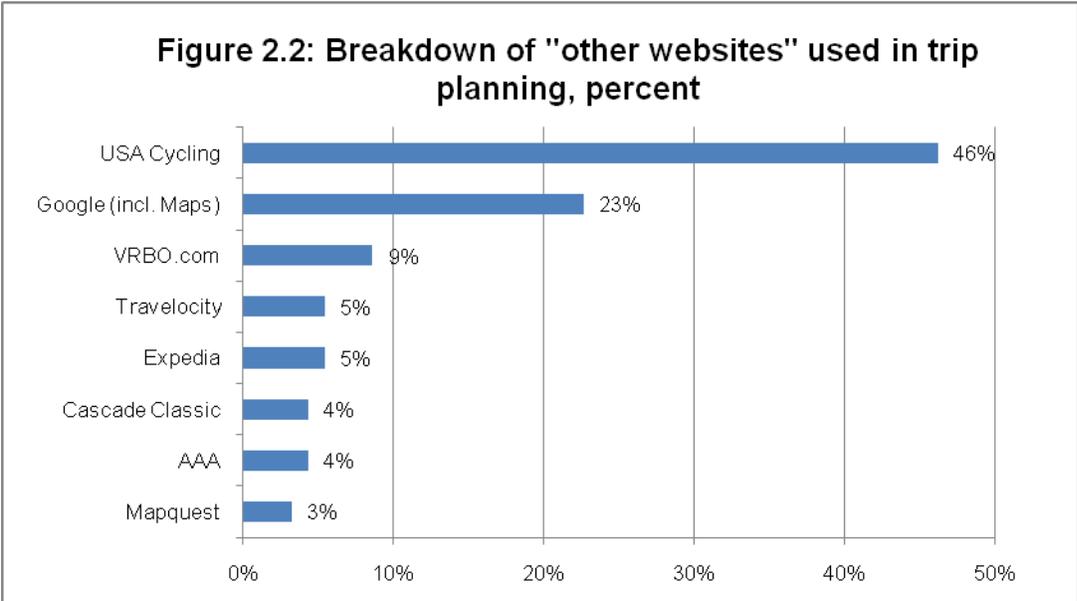


Section 2. Trip and Travel Party Characteristics

With respect to information sources used in trip planning, websites were by far the most common source (Figure 2.1). A plurality (44%) of Championships visitors used the Visit Bend site, with another 27% using other websites. Amongst RRC non-event visitors, 31% used any website, with Visit Bend’s site being the most common (those results do not separate Visit Bend and other websites). Aside from website usage, the other primary difference is that non-event visitors rely more heavily on prior visits. This is consistent with the higher proportion of previous visits by non-event visitors.

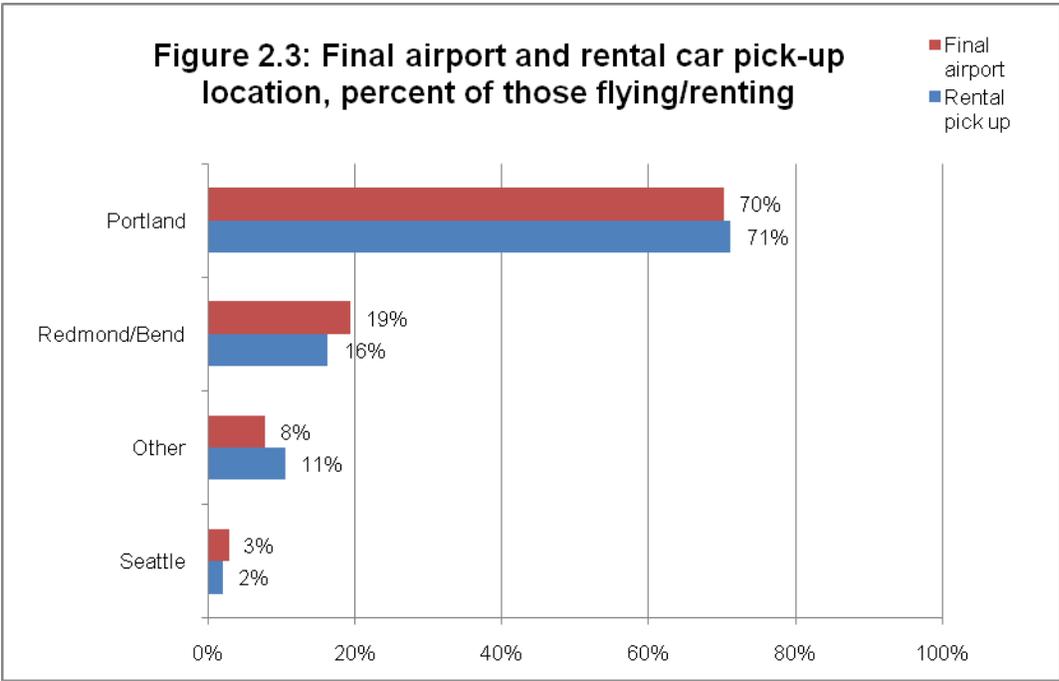


Of the specific websites reported (other than Visit Bend's), USA Cycling was by far the most common. Figure 2.2 shows all websites mentioned by at least three respondents.

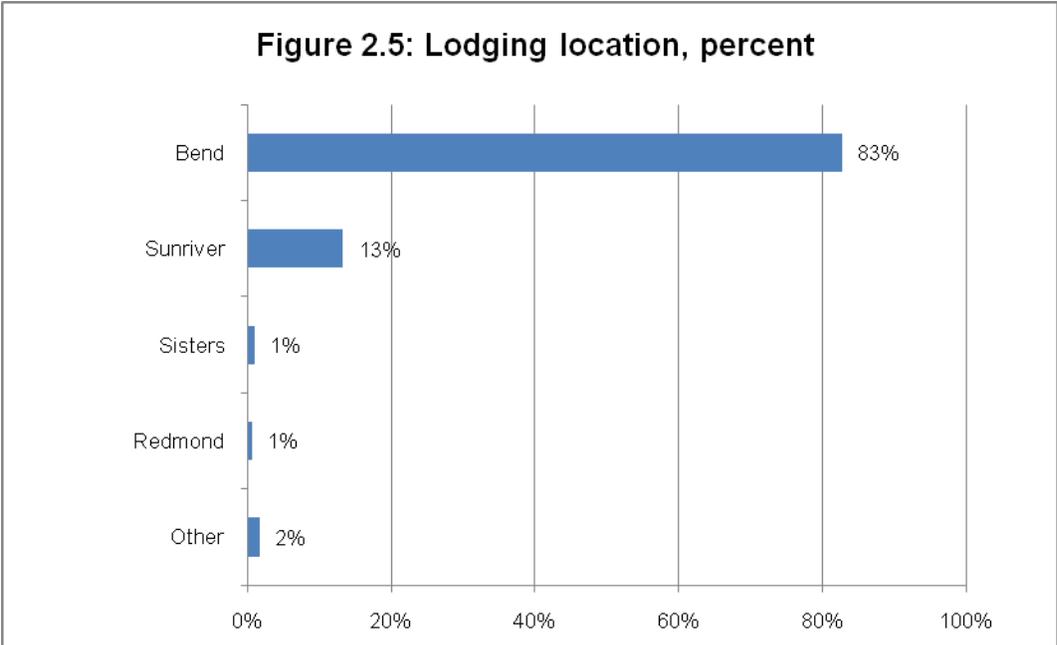
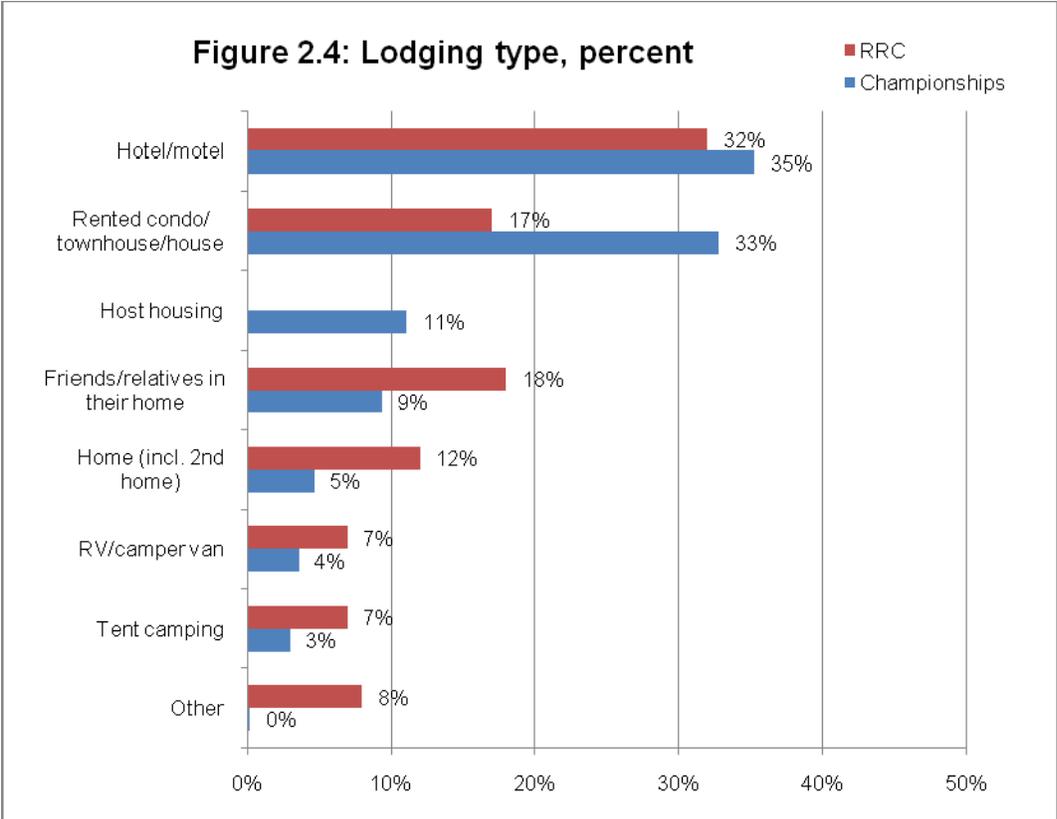


Visit Bend's visitor guide was by far the most common brochure mentioned. Amongst "other" responses, the most common were friends/family and team (including team mates, team director, and coach).

Almost half (44%) of the Championships visitors flew by plane during their travel to Bend, and 39% rented a car. Figure 2.3 shows the location of each.



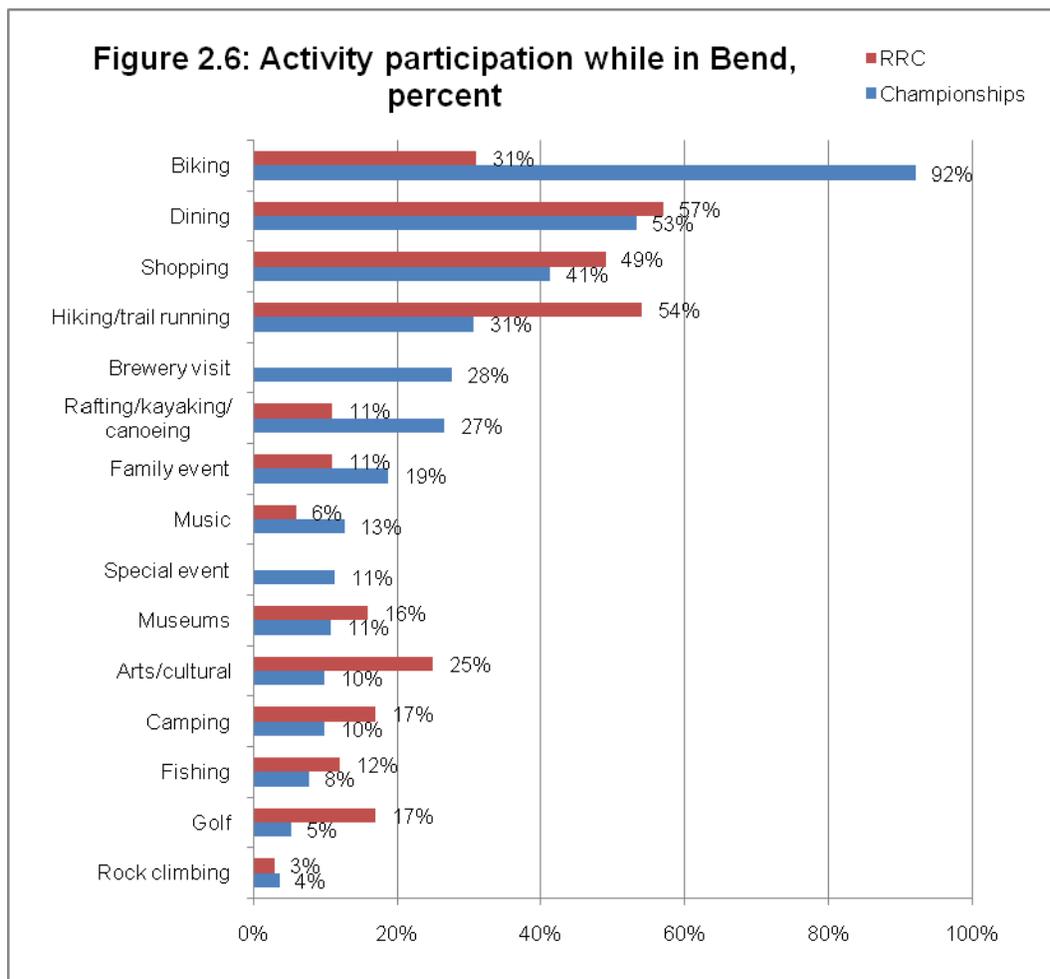
While in Central Oregon, Championships visitors used a variety of accommodation, mainly in Bend and Sunriver (Figures 2.4 and 2.5). Roughly one third of both Championships and non-event visitors used hotels/motels. Championships visitors were much more likely to use rented condos/houses or, predictably, host housing. They were less likely to use the remaining forms of lodging. Though some Championships visitors stayed at Sunriver, the vast majority stayed in Bend (Figure 2.5).



Championships visitors engaged in a number of activities while they were in Bend (Figure 2.6). Guided tours, motor sports, and bird watching are not shown, as they are not in the RRC results and were reported by fewer than 5% of Championships respondents. Activities lacking RRC

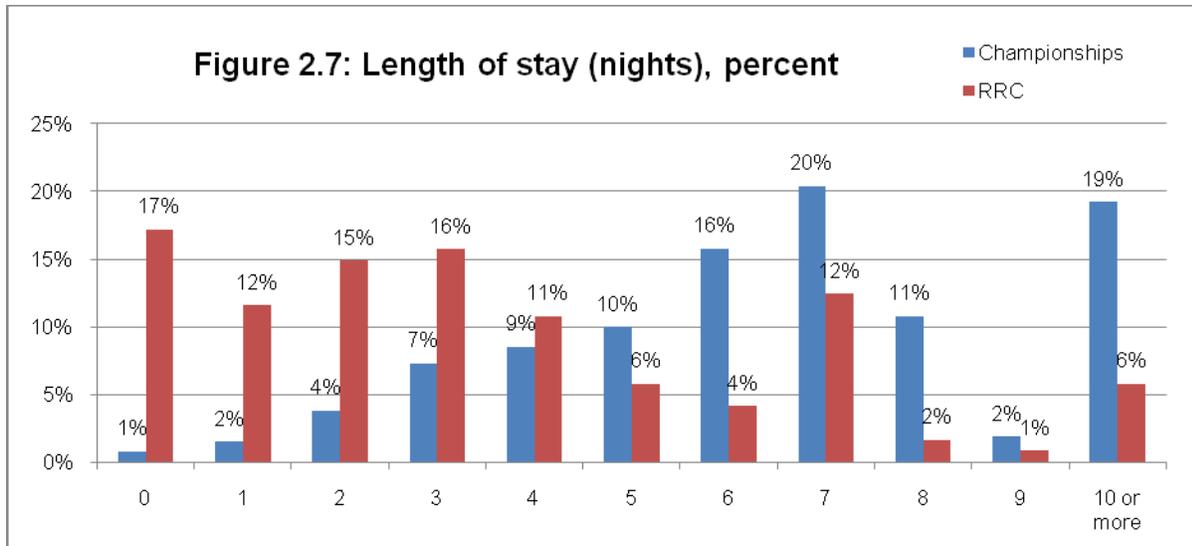
(red) bars were not included in the RRC analysis. Various activities were reported in the “other” category, with the most common being floating/tubing and visiting parks (including Crater Lake).

As expected, the vast majority of Championships respondents engaged in biking, keeping in mind that the survey was completed not just by contestants. Relative to non-event visitors, Championships visitors were more likely to participate in family events and to engage in rafting/kayaking/canoeing. They were less likely to golf or go hiking/trail running.



Length of stay, in nights, is shown in Figure 2.7. Championships visitors stay more than twice as long as non-event visitors, on average, with a mean of 6.9 compared to 3.3 nights.⁴ The large percentage of Championships visitors staying 10 or more nights presumably reflects the back-to-back events of the Cascade Cycling Classic and the Championships.

⁴ This differs from the 4.0 nights in the RRC report. That is the average amongst those staying overnight and does not account for day visitors. The following includes day visitors, which represent 17% of the non-seasonal-resident trips: 17%*0 nights + 83%*4.0 nights = 3.3 nights.

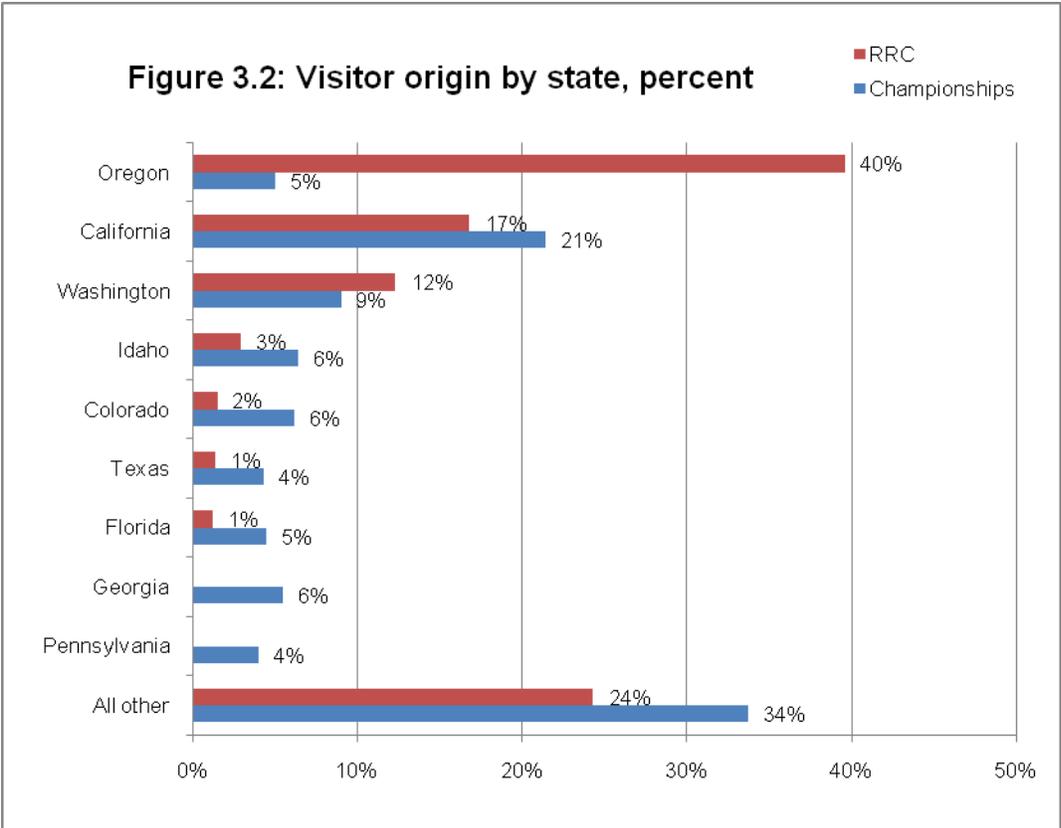
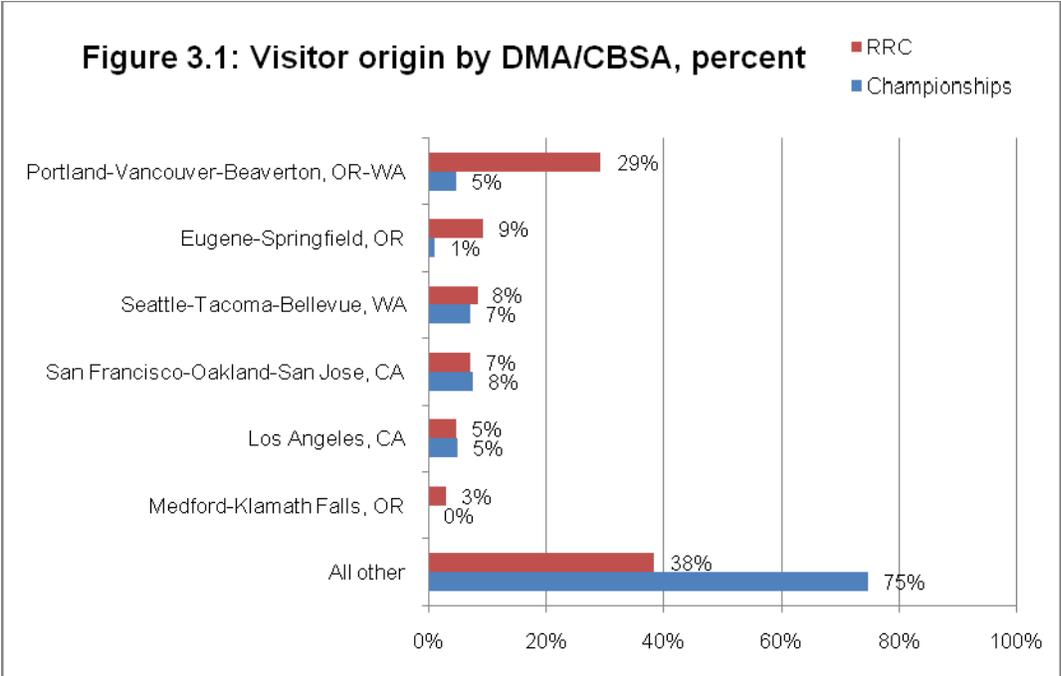


With respect to party size, Championships travel parties include an average of 3.8 persons, while non-event travel parties include a similar average of 3.7.

Section 3. Geographic Origin and Demographic Characteristics

Although Bend has received some coverage in national media, its marketing as a tourist destination is focused on the West Coast and, especially, the Pacific Northwest. The RRC analysis of Bend summer visitors indicates that 40% come from Oregon, 17% from California, and 12% from Washington. Individually, other states represent 3% or less of Bend's standard non-event visitors as reported in the RRC research. On the other hand, Championships visitors came from all 50 states. Figures 3.1 and 3.2 show how visitor origins differ between Bend's non-event traffic and this event.⁵

⁵ For Figure 3.1, note that RRC visitors are classified using the designated market area (DMA) approach while Championships visitors are classified using the core based statistical area (CBSA) approach. DMAs and CBSAs do not match perfectly, so Figure 3.1 should be viewed as a broad comparison. For Figure 3.2, Georgia and Pennsylvania are not presented in the RRC results and are assumed to represent less than 1% of non-event visitors.



Bend is clearly dependent on Oregon visitors in its normal non-event market, while Championships visitor origins are spread much more widely across the country. As a result, the Championships exposed Bend to visitors who otherwise may not have visited.

Likewise, the Championships is more likely to attract visitors who had not previously been to Bend – though this effect was not as great as expected. Fewer than half (44%) of Bend’s non-event respondents were first-time summer visitors. More than half (59%) of Championships respondents were first-time visitors. These percentages varied by residence, with 39% of West Coast (Oregon, Washington, and California) and 70% of all other Championships respondents being first-time visitors.

Championships visitors also may differ from non-event visitors with respect to demographic characteristics. Figure 3.3 shows differences in respondent age distribution across the two groups. The green columns are percentages of the US population 20 and older.⁶ Looking first at the RRC visitors and the US as a whole, there is a reasonably close match, allowing for lower travel rates amongst the elderly.

The Championships visitors are noticeably younger. The Championships races were for Junior, Under 23, and Elite classes, so the high percentage in 18 to 24 is not surprising. Because of the presence of juniors, the high percentages in the mid 30s to mid 50s also is not surprising; these respondents presumably are parents of the junior competitors. In any case, the Championships clearly attracted a younger age range than is found amongst Bend’s non-event visitors.

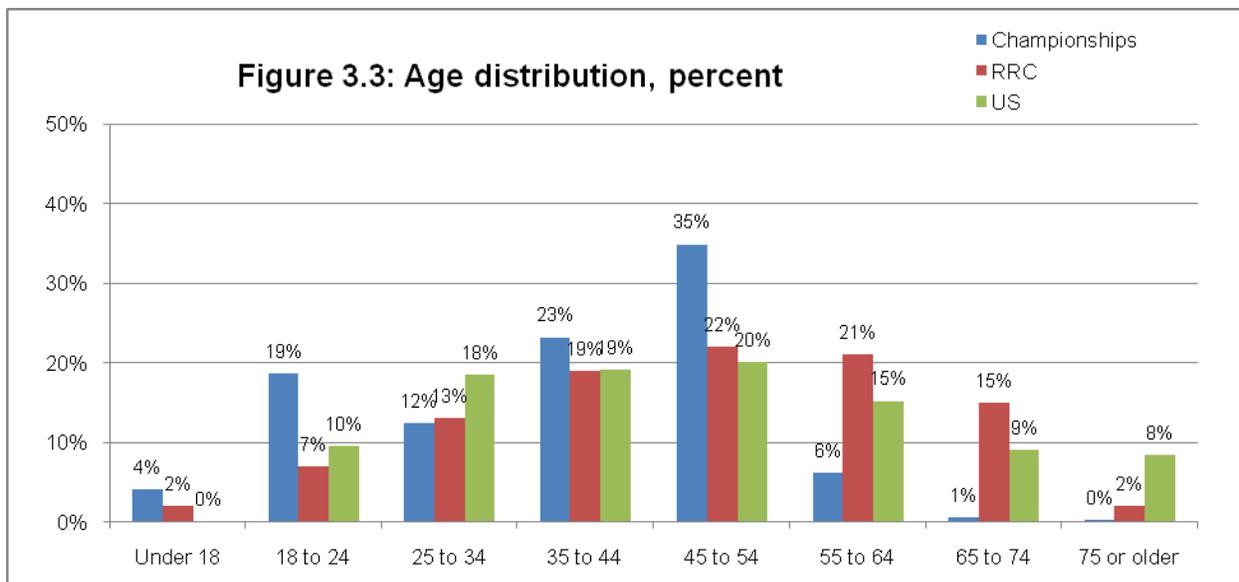
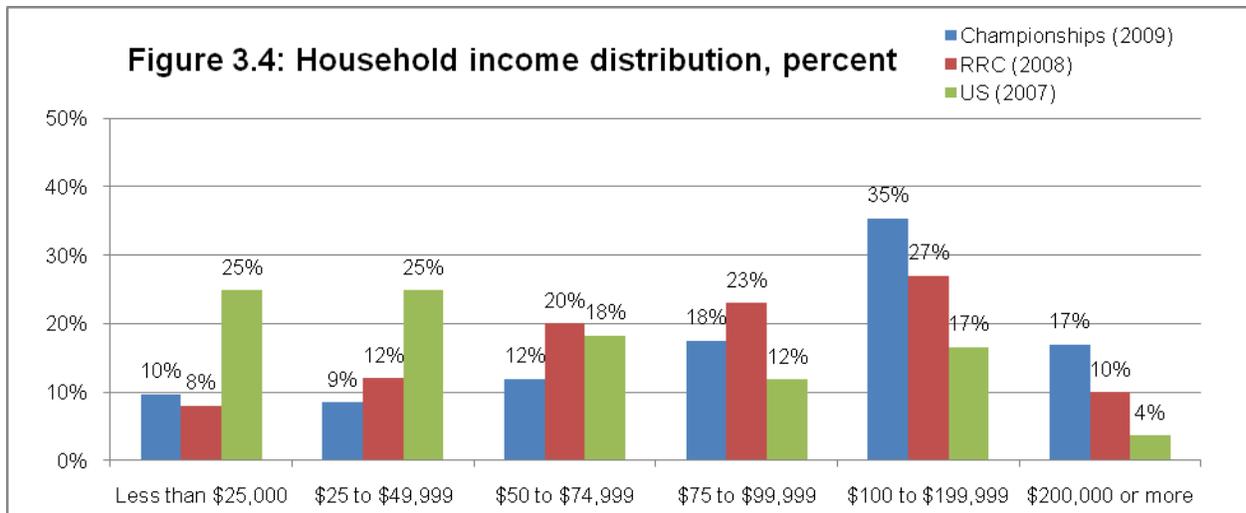


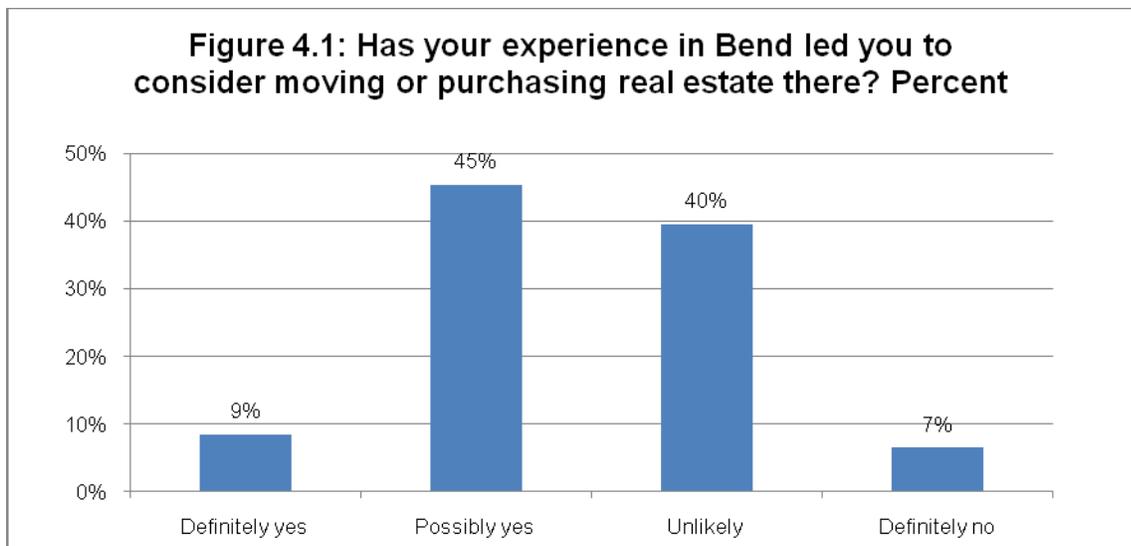
Figure 3.4 shows the equivalent distributions for household income. Bend’s non-event visitors are clearly above national averages, but this is even more true for Championships visitors. On a percentage basis, Championships visitors are twice as likely as Americans as a whole to have income in the \$100,000 to \$199,999 range. They are more than four times as likely to have income in the \$200,000 or more range.

⁶ The US Census uses 5-year categories, so the break is at 20 rather than 18.



Section 4. Real Estate

Championships respondents also reported the effect of their visit on potential in-migration or real estate purchase. Question wording was: “Sometimes people visit a place and like it so much they decide to move or purchase real estate there. Has your experience in Bend led you to consider moving or purchasing real estate there?” As shown in Figure 4.1, more than half (54%) indicated they definitely or possibly would consider moving to or purchasing real estate in Bend.



Tourist visits are known to catalyze in-migration to destination regions, in general and specifically amongst entrepreneurs.⁷ By attracting *new* visitors to the region, from origins

⁷ Lindberg, K., R.L. Johnson, and B. Rettig. 1994. Attitudes, concerns and priorities of Oregon Coast residents regarding tourism and economic development. Oregon Sea Grant, Corvallis, OR.

untapped by non-event tourism, the Championships may have a disproportionately large impact on new in-migration and real estate purchases.

There is inevitable uncertainty in survey reporting of behavioral intentions, especially for behavior of such magnitude. The income distribution of Championships visitors (Figure 3.4) suggests that relocation or purchase of second homes is realistic for many in this group. However, Central Oregon has high unemployment and narrow job opportunities relative to large urban areas, and the nation is in the middle of a housing crisis. The specific numbers in Figure 4.1 should be treated with some caution, but they reflect the strongly positive experience that many Championships visitors had in Bend. Even if only a portion of this 54% follows through on their stated intention, it will have a noticeable economic impact in Central Oregon.

Section 5. Promoters v. Detractors/Likelihood of Returning

All tourism may generate return visits and recommendations to others. Are special events different in the magnitude of these benefits? The RRC survey provides a reference point for recommendations to others. That survey asked how likely it was that each respondent would recommend Bend to a friend, family member, or colleague.

Two-thirds (66%) of Bend's non-event visitors gave rating scores of 9 or 10. As the RRC report notes, these people tend to be "promoters" of the destination. About one quarter (26%) gave scores of 7 or 8, with these respondents tending to be more impartial or passively satisfied. Lastly, 8% gave ratings of 6 or below. These are "detractors." RRC calculates Bend's "net promoter score" (percentage of promoters minus percentage of detractors) as 58% for non-event visitors.

Figure 5.1 shows results for RRC and Championships visitors. For the latter, 63% were promoters and 16% detractors, for a net promoter score (NPS) of 46%. This is lower than the RRC non-event visitor NPS, and it may reflect the obligatory nature of the event. That is, the Championships attracted people who otherwise would not visit Bend, but this includes some people who do not seek the visitor experience that Bend offers. The weather was unusually hot during the event, and this may have negatively affected some visitors.

Snepenger, D., J. Johnson, and R. Rasker. 1995. Travel stimulated entrepreneurial migration. *Journal of Travel Research* 34(1):40-44.

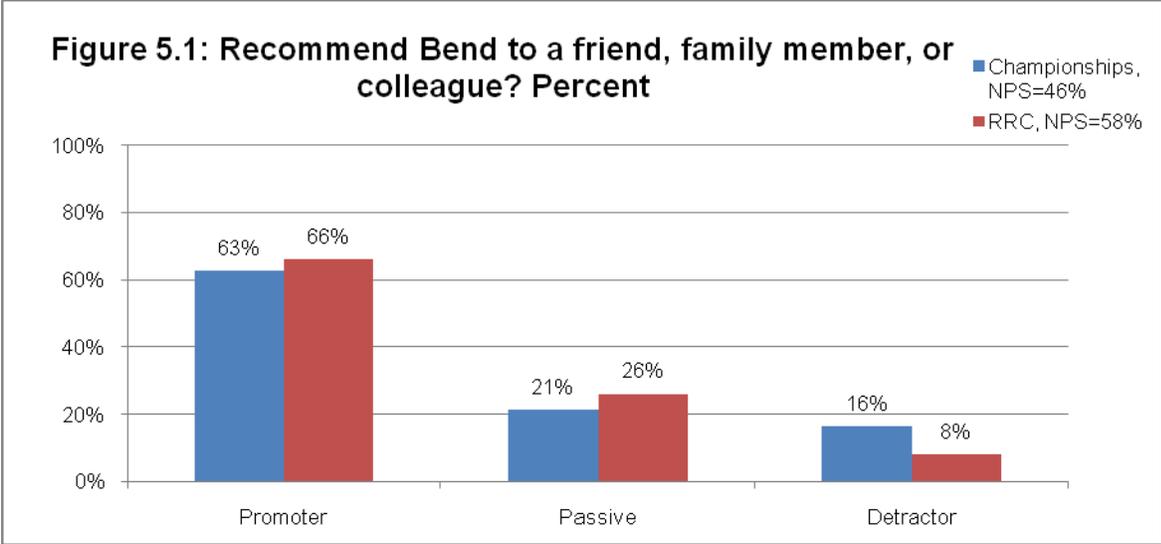
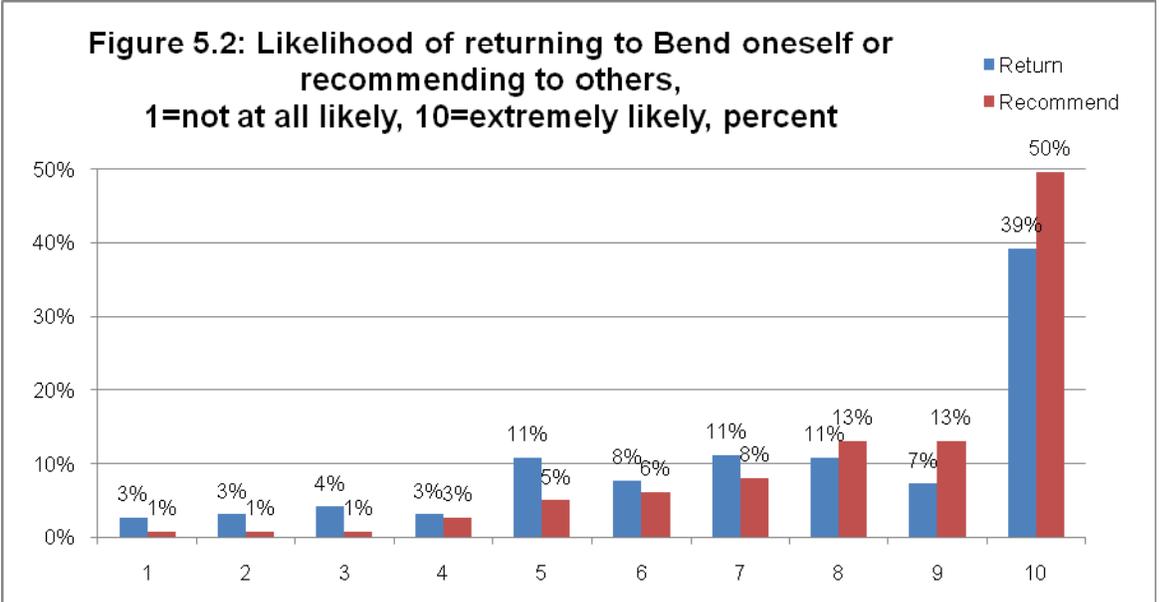


Figure 5.2 shows the full distribution of Championships “recommend to others” responses and responses to the question: “How likely are you to return to Bend for a future visit – other than the 2010 Road Championships?” Respondents are less likely to return themselves than to recommend to others. However, it is important to keep in mind that respondents had made one visit and would visit again in 2010 if they were to compete in the National Championships that year. Figure 5.2 shows the intention of making *additional* trips to Bend. Though likelihoods were lower for both of these measures than for the non-event visitor measure, they are impressive when one considers the obligatory nature of the Championships event.



Appendix

The following steps were used in estimating the multiplier effects of Championships visitor expenditure.

1. An IMPLAN model was created for Deschutes County, with 2006 economic structure data.
2. IMPLAN default values were used and Type SAM multipliers were created. These multipliers treat households as endogenous and thus include induced effects.
3. An impact scenario was created by allocating visitor expenditure into relevant IMPLAN categories (bridging). Spending in the retail food/drink, other shopping, gas, and everything else categories was treated as retail expenditure and margined (everything else included rental cars, but local rentals represented less than 10% of the total in this category; therefore, it was allocated to a general retail sector).
4. Impact estimates were generated. Championships expenditure data are in 2009 dollars, which were adjusted in IMPLAN to 2006 dollars to match the model data file. Impact results are shown in 2009 dollars using the IMPLAN deflators to convert back from 2006 to 2009. The IMPLAN model was estimated in disaggregated form with all 509 IMPLAN sectors, but results are grouped into broad sectors based on the 2-digit NAICS classification.⁸

Table A.1 shows economic impact across broad sectors in Deschutes County.

Table A.1: Total economic impact of the Championships in Deschutes County, thousands of 2009 dollars (employment in jobs)			
	Sales	Labor income	Employment
11 Ag, Forestry, Fish & Hunting	3	1	0.1
21 Mining	3	0	0
22 Utilities	20	4	0
23 Construction	14	6	0.1
31-33 Manufacturing	25	5	0.1
42 Wholesale Trade	47	18	0.3
44-45 Retail trade	17	8	0.2
48-49 Transportation, warehouse	249	117	5.7
51 Information	36	7	0.2
52 Finance & insurance	50	14	0.3
53 Real estate & rental	64	10	0.5
54 Professional, tech services	54	21	0.5
55 Management of companies	9	4	0

⁸ See <http://www.naics.com/naics2-6page.htm> for category descriptions. NAICS is the North American Industry Classification System, a system for classifying economic activity into categories.

56 Administrative & waste services	32	14	0.5
61 Educational services	3	1	0.1
62 Health & social services	61	32	0.7
71 Arts, entertainment	57	19	0.8
72 Accommodation & food services	839	299	11.4
81 Other services	23	9	0.4
92 Government & non NAICs Institutions	62 61	8 0	0.1 0
Total	\$1,728	\$598	22

As one would expect, most of the economic impact accrues to the accommodation and food services sector. However, the multiplier process means that initial spending in a relatively narrow range of sectors (hotel, restaurants, retail, etc.) generates impacts throughout the economy. For example, the Championships generated 11 jobs in the accommodation and food services sector, but it also generated \$14,000 of sales in the construction sector.

Input-output analysis assumptions

IMPLAN is based on input-output (IO) analysis and is widely used to estimate the economic significance of tourism, recreation, and other activities. The IO approach involves several assumptions. These assumptions generally are not met in their entirety, but IO (and IMPLAN in particular) provides a good balance between practicality and accuracy. That is particularly true in cases, such as the present, in which the impact being evaluated is a small proportion of the overall study area economy. In such cases, non-linearities can be reasonably approximated with the linear relationships inherent in IO. IO assumptions include the following.

1. All businesses within each sector produce a single, homogeneous product or service; the input procedures used in the production process are identical.
2. An increase of production will lead to purchase of inputs in the proportions shown in the technical coefficients matrix. In technical terms, the production function is linear and homogeneous. This assumption restricts economies of scale; IO analysis assumes a business always will use the same proportion of inputs regardless of how much it grows.
3. When households are included in the analysis (as is done for this analysis), their spending patterns (consumption functions) also are assumed to be linear and homogeneous.
4. The structure of the economy will not change. Many input-output models, including the one used here, are static in nature. They are based on data from a single year (in this case 2006) and yet are used to estimate significance in other years. Dramatic structural changes in the economy would invalidate this assumption. The project area, and the nation as a whole, has been in recession, but this is assumed to be a temporary phenomenon that does not involve a substantial structural change to the Deschutes County economy.
5. When IO is used to estimate the effect of changes in final demand (as in the present case), there must be unemployed resources available to be brought into the sector as inputs.

About the Author

Professor Kreg Lindberg is the author of this report. Lindberg has 20 years experience in the field of tourism and outdoor recreation, including extensive work in economic valuation and impact. Lindberg has published multiple articles in leading academic/research journals, including *Annals of Tourism Research*, *Journal of Leisure Research*, and *Forest Science*.

Lindberg has a Ph.D. in forestry from Oregon State University (OSU), with a focus on tourism and recreation and a minor in economics. He is an associate professor in the Tourism and Outdoor Leadership program at the OSU Cascades Campus in Bend. He teaches courses in eco and adventure tourism, research methods, data analysis, and park management.