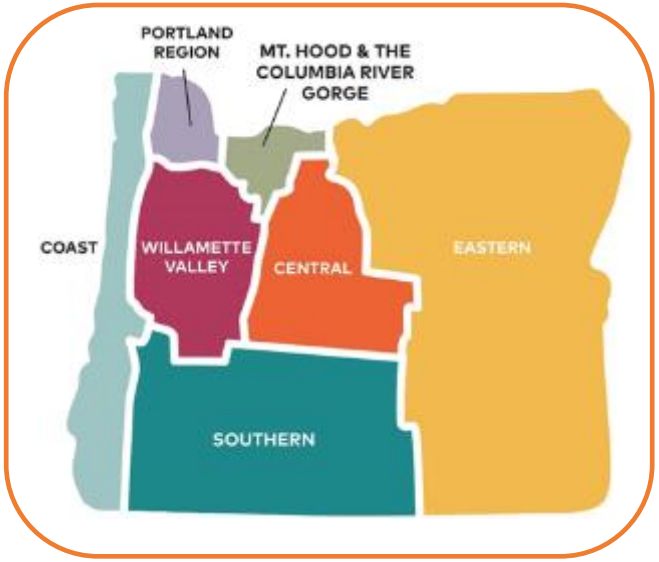
Oregon Resident Perspectives about Tourism:

Final Report from a 2018 Survey

January 2019



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TRAVEL OREGON

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All photos in this report were taken in Oregon by Chad Kooistra and they belong to him.

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Executive Summary

This report presents the findings from a survey of Oregon residents conducted in 2018 by researchers at Oregon State University (OSU). The intent was to help the Oregon Tourism Commission (doing business as Travel Oregon) understand Oregon residents' attitudes toward tourism.

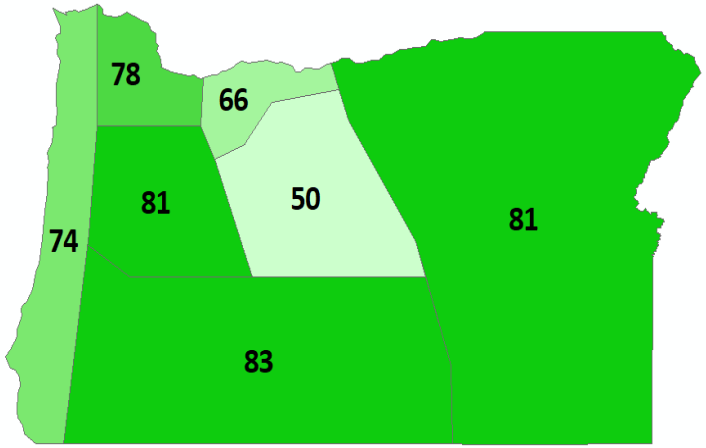
Our study aimed to accomplish three overall goals:

1) Characterize Oregon residents' attitudes toward tourism across the seven tourism regions in Oregon.
2) Identify Oregon residents' perceptions of tourism's contribution to their quality of life.
3) Evaluate panel and mixed-mode survey methods to help inform future research by Travel Oregon.

To address these goals, we designed a questionnaire administered to Oregon residents using two different survey modes (opt-in panel and mixed-mode survey) in the summer of 2018. We compared results across survey mode and across each of the seven regions. We received a total of 1,447 completed questionnaires, with slightly fewer than half coming from the panel survey [728] and slightly more than half from the mixed-mode survey [749]. The data were weighted according to statewide and regional demographics based on the most recent Census information to improve the representativeness of the findings at the statewide and regional levels.

Overall, our findings show that Oregon residents are generally supportive of tourism. For example, 75% of all respondents indicated that they would vote for more tourism promotion in their community (see figure to the right for the percentage of 'yes' votes for each region). However, respondents in the Central and Mt. Hood Regions were less supportive of tourism and noticed more negative effects of tourism in their community compared to respondents in other regions.

The percentage of respondents who would vote for more tourism promotion in their community



A hypothetical 20% increase in tourism in respondents' communities would lead to a slight decrease in overall satisfaction with life (one measure of quality of life) in the Central and Mt. Hood Regions and a slight increase in other regions.

Mixed-mode surveys with a random sample of the population are likely to be more representative of the general population, but they will cost more money and be more labor intensive compared to online panel surveys. Panel surveys may be best suited for initial pilot tests of questionnaires or specific scales or constructs, marketing or communication tests, or experiments. Weighting responses from any survey according to population characteristics is important when using either survey mode to improve the representativeness of that sample

Overview

The Oregon Tourism Commission (doing business as Travel Oregon) wanted to understand Oregon residents' attitudes toward tourism in the state. As a result, researchers at Oregon State University surveyed Oregon residents across Travel Oregon's seven tourism regions in the state (Figure 1). Results will help Travel Oregon accomplish their mandates of enhancing Oregonians' quality of life and the economic potential of statewide tourism activities through planning and promotional strategies.

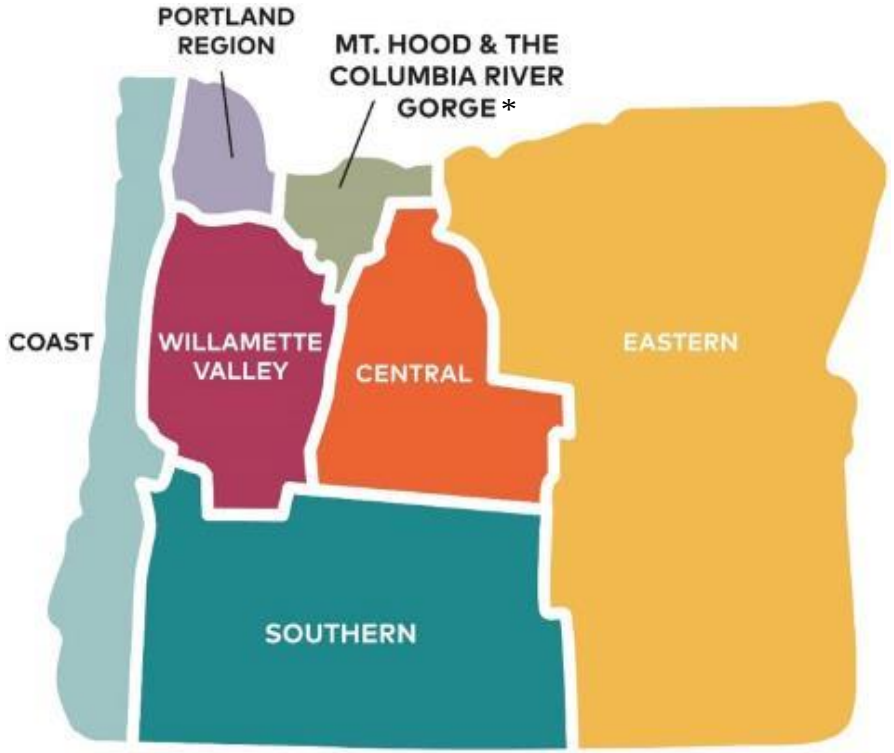
The study aimed to accomplish three overall goals:

1) Characterize Oregon resident attitudes toward tourism across the seven tourism regions.
2) Identify Oregon residents' perceptions of tourism's contribution to their quality of life.
3) Evaluate panel and mixed-mode survey methods to help inform future research by Travel Oregon.

To address the project goals, we designed a questionnaire administered to Oregon residents using two different survey modes (opt-in panel and mixed-mode survey) in the summer of 2018. We compared results across each of the seven tourism regions in the state and across survey mode.

In this summary report, we present an overview of the main findings. Future manuscripts will use more in-depth statistical analysis to examine relationships among tourism attitudes and factors influencing those attitudes.

Figure 1. Travel Oregon's seven tourism regions in Oregon (*Source: Travel Oregon*)



**Note, throughout this report we refer to the Mt. Hood and the Columbia River Gorge Region as the Mt. Hood Region for better fit in the tables and figures.*

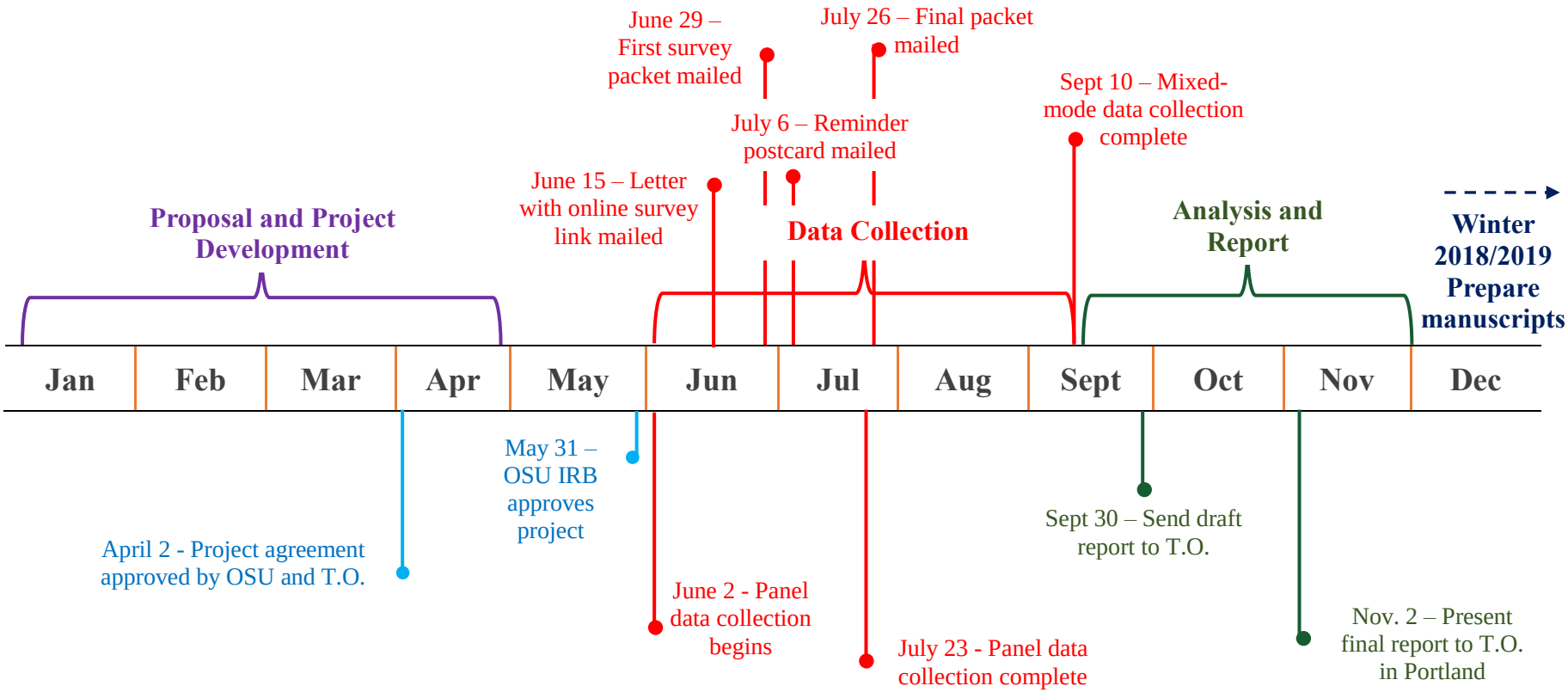
Methodology

The following is an overview of our methodological approach. A more detailed description is in Appendix A.

Data Collection and Sampling Strategy

We administered a questionnaire using two main survey modes for this project. One mode was a Qualtrics panel survey of Oregon residents (a purposive sample of residents who are paid by Qualtrics to complete questionnaires online) and the other was a mixed-mode (mail with the option to complete online) survey of Oregon residents (sampled randomly using rigorous survey methodology). They both occurred concurrently in the summer of 2018. Both survey efforts involved sample stratification across the seven regions of Oregon as shown in Figure 1 with a target sample size of 200 total completed questionnaires for each region. Figure 2 shows a timeline of the project.

Figure 2. Project timeline (2018)



Qualtrics online panel survey

Opt-in online survey panels are an increasingly popular, easy to use, and relatively cost-effective option for collecting survey data. However, panel respondents come from a purposive (self-opt-in) sample that is paid for their efforts, so they may not be representative of a population. Therefore, we compared data from panel participants to the data from the mixed-mode survey to evaluate the potential to use panel data for future Travel Oregon research needs. We aimed for 100 responses per region from the panel survey. Qualtrics project managers handled all data collection efforts, with regular input from the OSU researchers. Attention and quality filters were included to minimize measurement bias.

Mixed-mode mail survey

The second effort was a mixed-mode (paper with the option to complete online) mail survey. We purchased a stratified (by region) random sample of 4,550 names and addresses from Marketing Systems Group. For each region, 650 addresses were selected to achieve the targeted 100 responses per region (15% response rate). Individuals in this sample received a letter in the mail informing them of the project and asking them to complete the questionnaire online. Two weeks later, those who had not yet completed an online questionnaire received a packet that included a cover letter, a paper copy of the questionnaire, and postage-paid return envelope. This was followed by a postcard reminder one week later and another full packet mailing two weeks after the postcard was sent.

Questionnaire Design

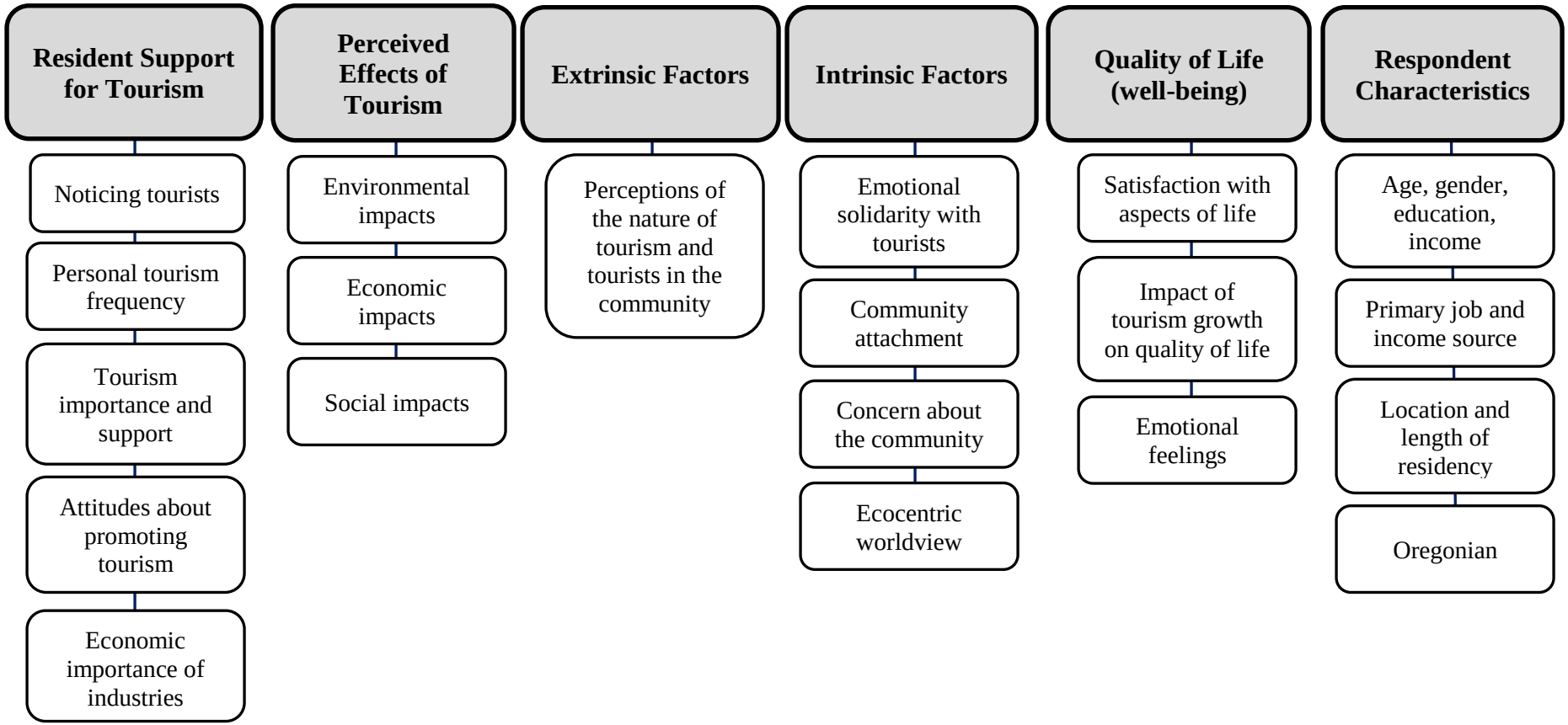
The research team designed the questionnaire based on literature reviews and feedback from Travel Oregon. Table A.1 in Appendix B shows more information about the constructs and corresponding questionnaire items (see the actual formatting of the questionnaire in the Appendix C). The main goal was to include constructs and variables (question items) to measure respondent attitudes toward tourism and the factors that may affect those attitudes. Figure 3 below shows the six main constructs measured in the questionnaire and the variables for each construct. Appendix D shows the questionnaire with un-collapsed percentages across the entire sample (i.e., both survey modes and all regions combined, weighted with statewide weights).

Data Analysis

Percentages reported here and in the appendices are valid percentages that reflect the removal of missing values. We tested for statistically significant differences in responses between survey mode (panel or mixed-mode) and between regions. We ran post-hoc tests to identify the significant differences in more detail. We also reported the effect sizes for these differences, which describe the strength of any relationships across region or survey mode. We used factor analysis to identify dimensions within each construct and to reduce the number of variables for each construct. We report scale reliability with the Cronbach's alpha (α) statistic. An $\alpha \geq 0.60$ is generally considered to indicate a reliable scale (i.e., strong internal consistency in patterns of responses to items in the scale to measure a construct). Future analysis efforts in manuscripts will use structural equation modelling and multiple regression to examine relationships among constructs.

Panel and mixed-mode responses were combined for data presented in this report (except when comparing modes). To enhance the representativeness of the sample to the state and regional populations, we weighted the combined data using Census information for gender, age, and education level. Statewide weights were created and used for statewide analysis, and regional weights were created and used for analysis and comparisons across regions. More specifically, the statewide data is weighted according to statewide demographics and the regional data is weighted according to that region's demographics (using county and zip code demographic information). All data presented specifically for modes comparison (Goal 3) is unweighted. A more detailed description of the analysis process is in Appendix A. Additional tables are found in Appendices E, F, G, H, and I, and are referenced in this report with the letter 'A' after 'Table' (e.g., Table A.1).

Figure 3. The six main constructs measured in the questionnaire (in the shaded boxes at the top) and the respective variables



Findings

We received a total of 1,447 completed questionnaires, with 728 coming from the panel survey and 749 from the mixed-mode survey. See Appendix E for more information about response rates and the number of completed questionnaires received for each mode.

Respondent Characteristics

Table 1 shows the Census estimates of key demographic characteristics of Oregon residents in 2016 and the characteristics of respondents (weighted and unweighted). The categories reflect the weighting strategy of collapsing education levels with different age categories for each gender. Eleven cases were removed from analysis due to non-binary gender identification in the questionnaire, which is not a category in Census data.

Respondents were generally older, more likely to be female, reported similar income levels, and had achieved higher levels of education compared to all Oregon residents. Table A.4 in Appendix F shows more information about the median, mean, and standard deviation of respondents' ages before and after weighting for the entire sample, by region, and by survey mode.

Weighting aligned key respondent demographic characteristics with resident characteristics (statewide and regionally), though some discrepancy remains (e.g., income levels shown in Table 2).

Table 1. Demographic characteristics of Oregon residents and survey respondents reflecting collapsed categories of gender by age by education used for weighting

	Oregon population %	Sample % (unweighted)	Sample % (weighted)
Female			
18 to 44 years			
High school or less	7%	4%	7%
Some college, Associates, tech. degree	9	7	9
Bachelor's degree	5	5	5
Graduate or professional degree	2	3	2
45 to 64 years			
High school or less	5	4	5
Some college, Associates, tech. degree	7	11	7
Bachelor's degree	3	5	3
Graduate or professional degree	2	2	2
65 years and over			
High school or less	5	3	5
Some college, Associates, tech. degree	4	7	4
Bachelor's degree	2	4	2
Graduate or professional degree	1	3	1
Male			
18 to 44 years			
High school or less	9	2	9
Some college, Associates, tech. degree	8	4	8
Bachelor's degree	4	3	4
Graduate or professional degree	2	2	2
45 to 64 years			
High school or less	6	1	6
Some college, Associates, tech. degree	6	5	6
Bachelor's degree	3	4	3
Graduate or professional degree	2	2	2
65 years and over			
High school or less	3	1	3
Some college, Associates, tech. degree	3	6	3
Bachelor's degree	2	6	2
Graduate or professional degree	1	5	1

The remainder of this section describes the sample and does not refer to evaluation of the representativeness of the sample.

The average number of years that respondents have lived in their current county of residence was statistically different across regions (F=4.53, p<.001, see Table A.6 for more information). Figure 4 shows the percent of all respondents, weighted at the state level, who lived in the county for different periods of time. Figure 5 shows the average number of years (with regional weights for each region and statewide weights for statewide average). Respondents from the Central Region had lived in their county for significantly shorter periods compared to respondents from the Eastern and Southern Regions. Respondents from the Coast and Mt. Hood regions had lived there significantly less compared to Eastern Region respondents.

Overall, after weighting according to statewide demographics, 14% of respondents were employed in tourism-related industries (industries in which revenue is at least partly due to visitor spending), 43% were employed but not in any industry directly related to tourism, and 43% of all respondents were not in paid employment (see Table A.7). The unemployment rate among respondents in our study was particularly high, especially compared to the statewide rate (~4%). This discrepancy may be contributed to a large number of respondents in the sample who are retired and no longer the labor force (as reflected by unweighted median age of 59 years).

Two percent of respondents reported that another member of their household is employed in a tourism-related industry, 46% reported that another member of their household is employed but not in a tourism-related industry, and 52% of all respondents reported that no other member of their household was in paid employment (Table A.8).

Table 2. Income levels for Oregon residents, the unweighted sample, and the statewide weighted sample

	Census %*	Sample % unweighted	Sample % weighted
Less than $25,000	20	19	23
$25,000 to $49,999	23	26	29
$50,000 to $74,999	19	20	19
$75,000 to $99,999	13	15	13
$100,000 - $149,999	14	13	10
More than $150,000	11	7	5

**In 2016 inflation adjusted dollars*

Figure 4. The percentage of respondents who have lived in their current county for different periods of time

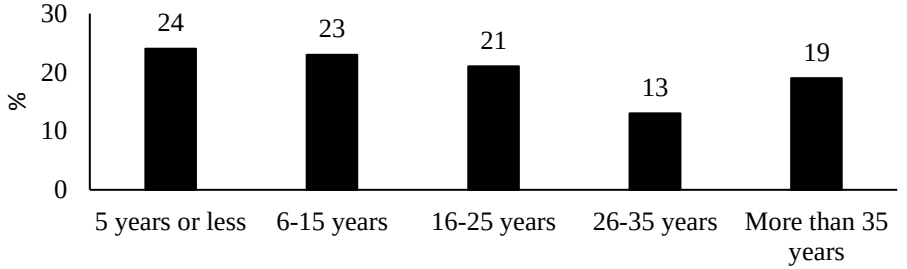
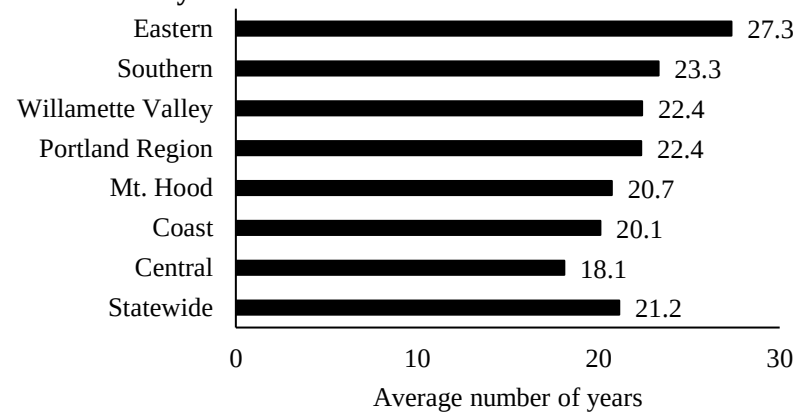


Figure 5. The average number of years respondents lived in their current county

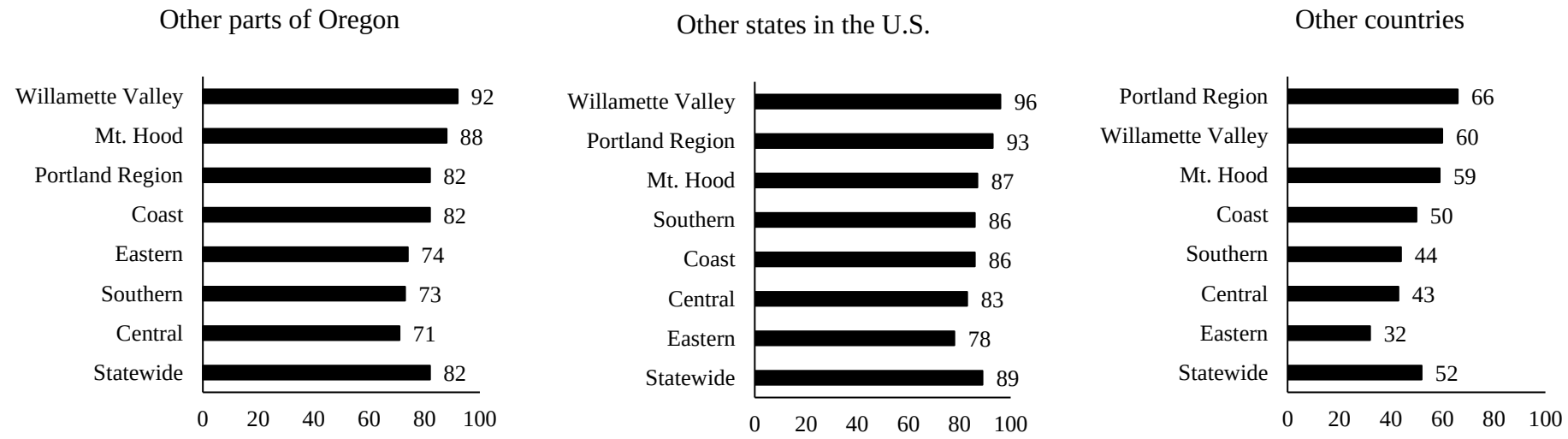


Findings: Goal 1 - Characterize Oregon Residents' Attitudes Toward Tourism

Respondent's Knowledge of Tourism

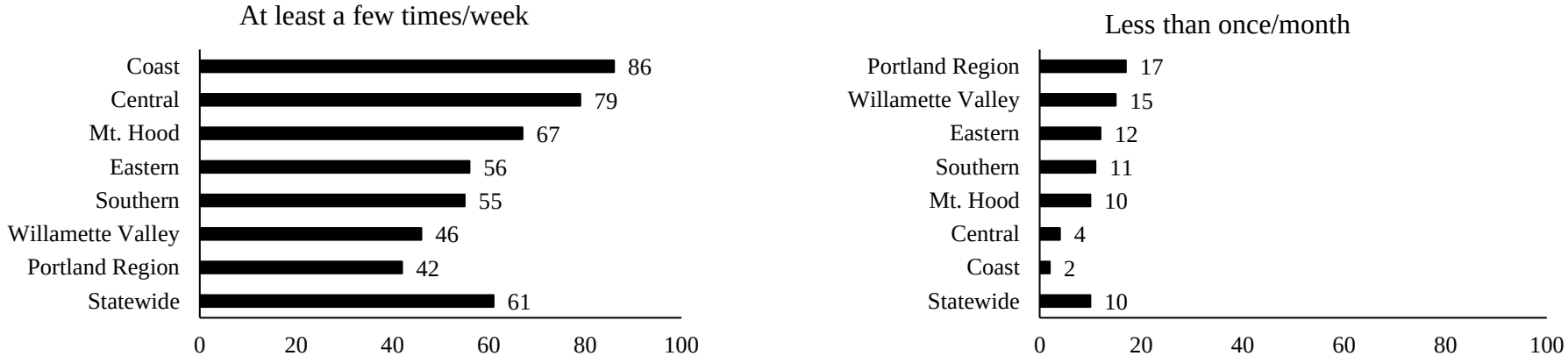
Before asking respondents about their attitudes toward tourism and tourists in Oregon, we aimed to learn more about their understanding of tourism by exploring their own tourist behaviors and how often they notice tourists in their community. We asked respondents if they had travelled to other parts of Oregon (and how many times in the past 12 months), to other states, and to other countries as a tourist (Figure 6). The majority of all respondents had travelled to other parts of Oregon and other states, and 52% had travelled to other countries. Among respondents who have travelled to other parts of Oregon, they did so an average of five times in the past 12 months (four times for panel respondents and six times for mixed-mode respondents). See Table A.9 in Appendix G.

Figure 6. The percentage of respondents who have travelled to other parts of Oregon, other states, and other countries



Respondents also reported how often they see people in their community who appear to be tourists, on average across the year. Figure 7 shows the percentage of respondents who reported seeing tourists in their community at least a few times per week and less than once per month (including never). See Table A.10 in Appendix G for responses across more intervals of frequencies of seeing tourists. Respondents in the Central and Coast Regions reported seeing tourists in their community more often than any other region, and respondents in the Portland Region and the Willamette Valley Region reported seeing tourists least often.

Figure 7. The percentage of respondents who reported seeing tourists in their community at least a few times per week and less than once per month



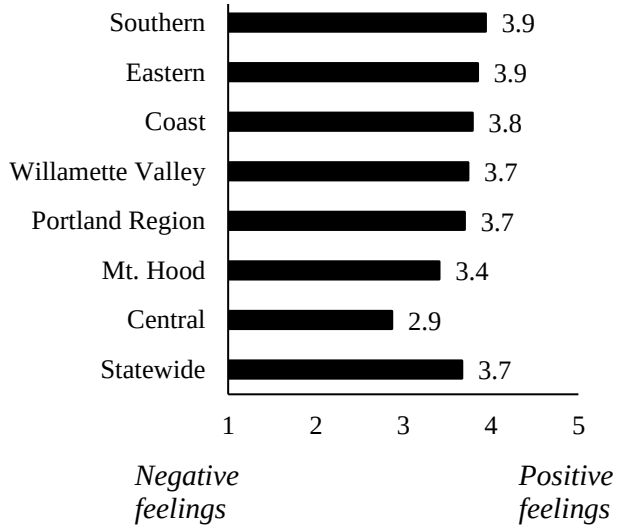
Support for Tourism

Support for promoting tourism in the community

We asked respondents a series of questions to understand their levels of support for promoting tourism in their community. One set of questions asked them to indicate on a 5-point scale how they feel about promoting more tourism in their community in terms of four different feelings (dislike/like, bad/good, negative/positive, and harmful/beneficial). Table A.11 shows the results for each feeling across regions. Responses for the four feelings loaded well (Cronbach's alpha reliability, α, =.96) onto one factor that reflects overall feelings toward more tourism promotion in respondents' communities (Table A.12). Figure 8 shows the average overall rating among respondents, based on this factor, across regions.

On average, respondents' feelings varied significantly across regions (F=20.16, p<.001) (Table A.13). Central Region respondents' feelings toward more tourism promotion were significantly less positive compared to respondents from all other regions. Mt. Hood Region respondents' feelings toward more tourism promotion were relatively positive compared to the Central Region, but less positive than respondents from other regions. Overall, feelings among respondents about promoting more tourism in their communities were slightly positive, although they were slightly negative in the Central Region.

Figure 8. Average degree of feelings about more tourism promotion



Voting to promote more tourism in the community

The level of resident support for tourism has potential to vary. We therefore asked residents if they would vote for or against promoting more tourism in their community, and how certain they feel about voting that way. These questions have the potential to reveal respondents' level of support for tourism promotion. Figure 9 shows the percentage of respondents who would vote for more tourism promotion in their community. There was a significant association between region and the vote, and the effect size was small to medium (Table A.14). Respondents in the Southern, Willamette Valley, Portland, Coast, and Eastern Regions were more likely to vote for tourism promotion compared to respondents in the Central and Mt. Hood Regions.

Vote certainty did vary by region in that Portland Region respondents were, on average, less certain about their vote compared to respondents in the Central, Coast, and Mt. Hood Regions (F =3.35, p=.003; Figure 10).

Figure 9. The percentage of respondents who would vote for more tourism promotion in their community

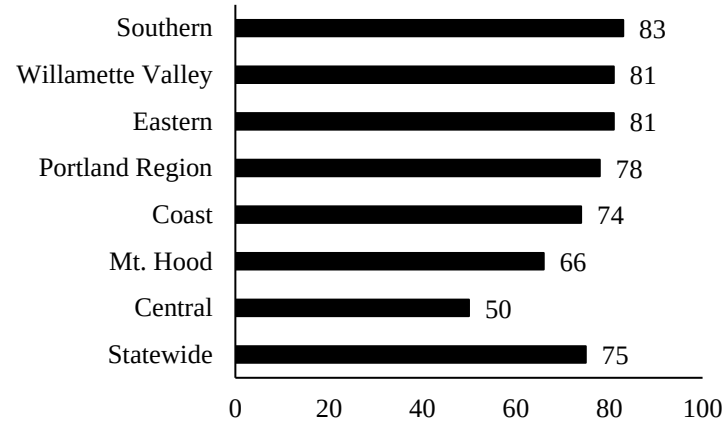
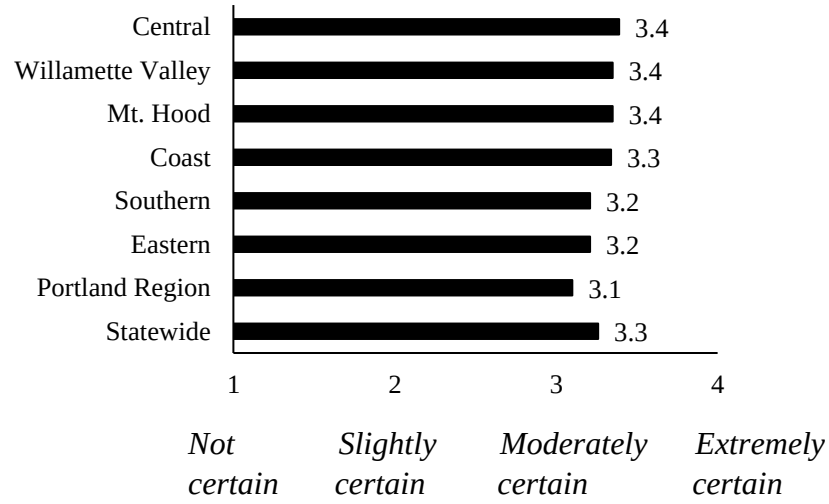


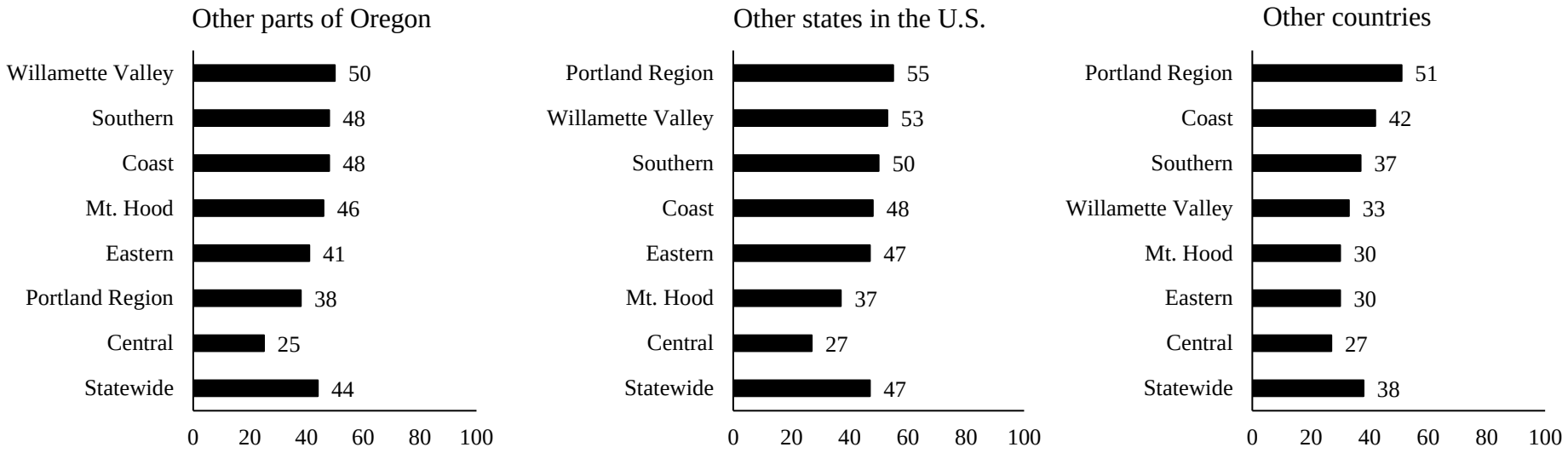
Figure 10. Average level of respondents' certainty regarding their vote for or against tourism promotion in their community



Support for investment of resources to attract more tourists

We asked respondents if they supported the State of Oregon investing resources to attract more tourists to their community from other parts of the state, the U.S., and other countries, respectively. Figure 11 shows the percentage of respondents who answered yes for each area (the remaining percentage was accounted for by no votes and 'don't know' responses). See Tables A.15-A.17 in Appendix G for responses from each region for these three different questions. Statewide, fewer than half of the respondents supported investing more resources to attract tourists to their community. Approximately 1/4th to 1/3rd of respondents for each question selected 'I don't know,' indicating that many respondents did not have a strong or informed opinion. There was a significant association between region and responses (Tables A.15-A.17). Respondents in the Central Region were less supportive compared to respondents in all other regions. Respondents were generally less supportive of investing resources to attract tourists from other countries compared to other parts of Oregon and the U.S.

Figure 11. The percentage of respondents who support the state of Oregon investing resources to attract more tourists to their community from other parts of Oregon, other states in the U.S., and other countries



Respondents were also given space to explain their responses to the three questions about investing resources to attract more tourists from different areas. The most common reasons among respondents who supported attracting more tourists to their communities were related to the perceived economic benefits of tourism (e.g., more jobs, higher incomes, increased standards of living, better economy overall, more funding for improved infrastructure). Other common reasons given were that increased tourism leads to greater environmental protection, promotes diversity, and offers a chance to share cultural experiences and natural beauty

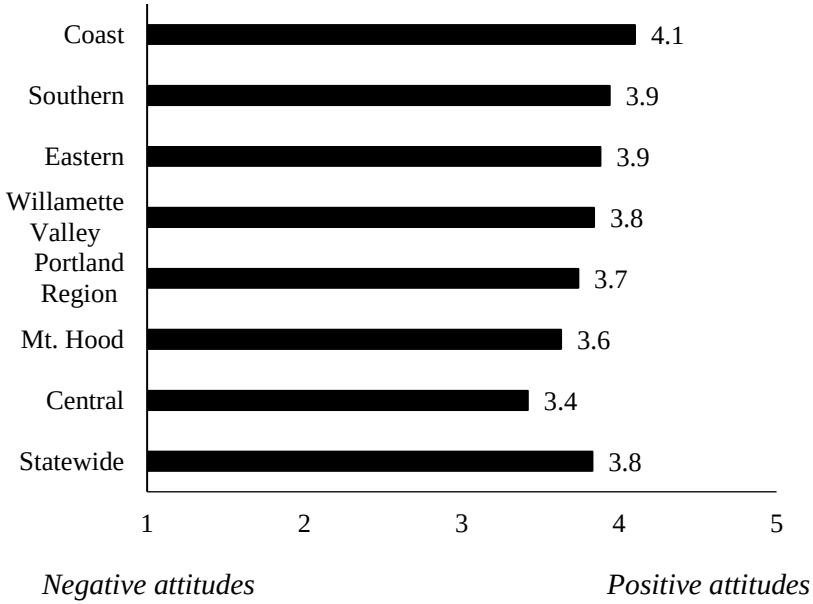
The most common reasons among respondents who opposed attracting more tourists to their communities from different areas were related to capacity issues (e.g., too many tourists already, too much overcrowding, increased traffic) and other perceived negative effects such as increased crime, negative environmental impacts, higher taxes, and increased costs of living. Many of these respondents felt the state would be better off making other economic investments. A few respondents also noted that more tourism would negatively affect their ‘small-town lifestyles’ and change their local culture.

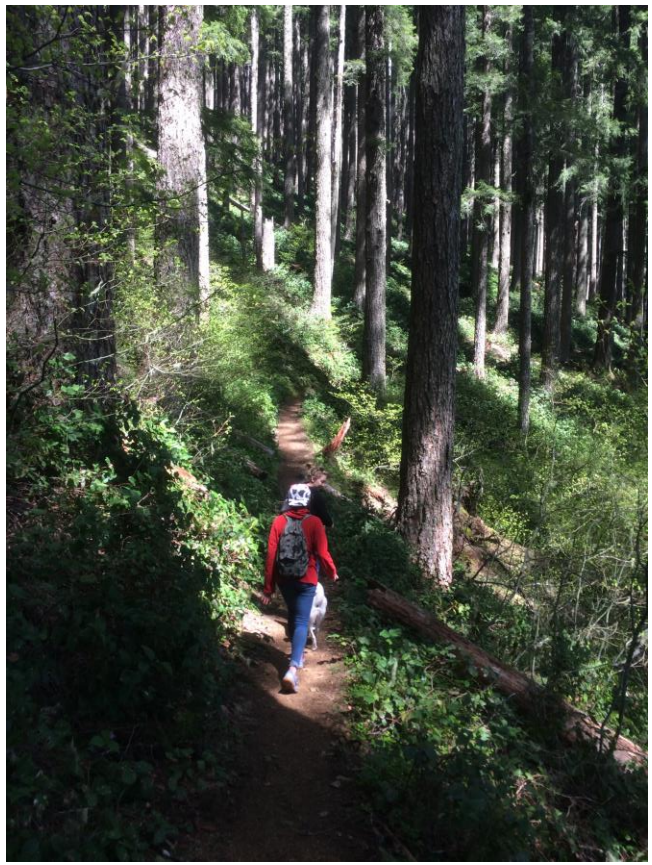
Overall attitudes toward tourism

We asked respondents about their level of agreement with eight statements, typically used for measuring perceived resident support for tourism. Again, statewide, respondents were generally supportive of tourism and promoting it in their community. See Table A.18 in Appendix G for more information about responses to each statement. We removed one item to improve construct reliability. The seven remaining items loaded well (α=.90) onto one factor, which generally suggests that the items represent a coherent measure of support for tourism (Table A.19). Figure 12 below shows the average rating on the factor for tourism support across regions.

Responses varied significantly across region and the effect size was medium (F=13.75, p<.001, Table A.20). Respondents in the Coast and Southern Region had more positive overall attitudes toward tourism in their community compared to all other regions (Figure 12). Respondents in the Central and Mt. Hood Regions had the least positive overall attitudes toward tourism in their community.

Figure 12. Average degree of overall attitudes about tourism





Perceived importance of tourism to Oregon's economic success

We asked respondents to rate the level of importance of different sectors to Oregon's economic success. Figure 13 shows that respondents, statewide and in each region, perceive tourism as moderately to very important to Oregon's economic success.

Table A. 21 shows the average ratings of ten different sectors statewide and across regions. However, our goal was not to assess detailed importance ratings of sectors and the factors that may affect those perceptions. Therefore, we recommend caution in making any substantial inferences about the perceived level of importance of different sectors statewide and across regions. That level of analysis was beyond the scope of our study and likely involves complex interactions between many different factors.

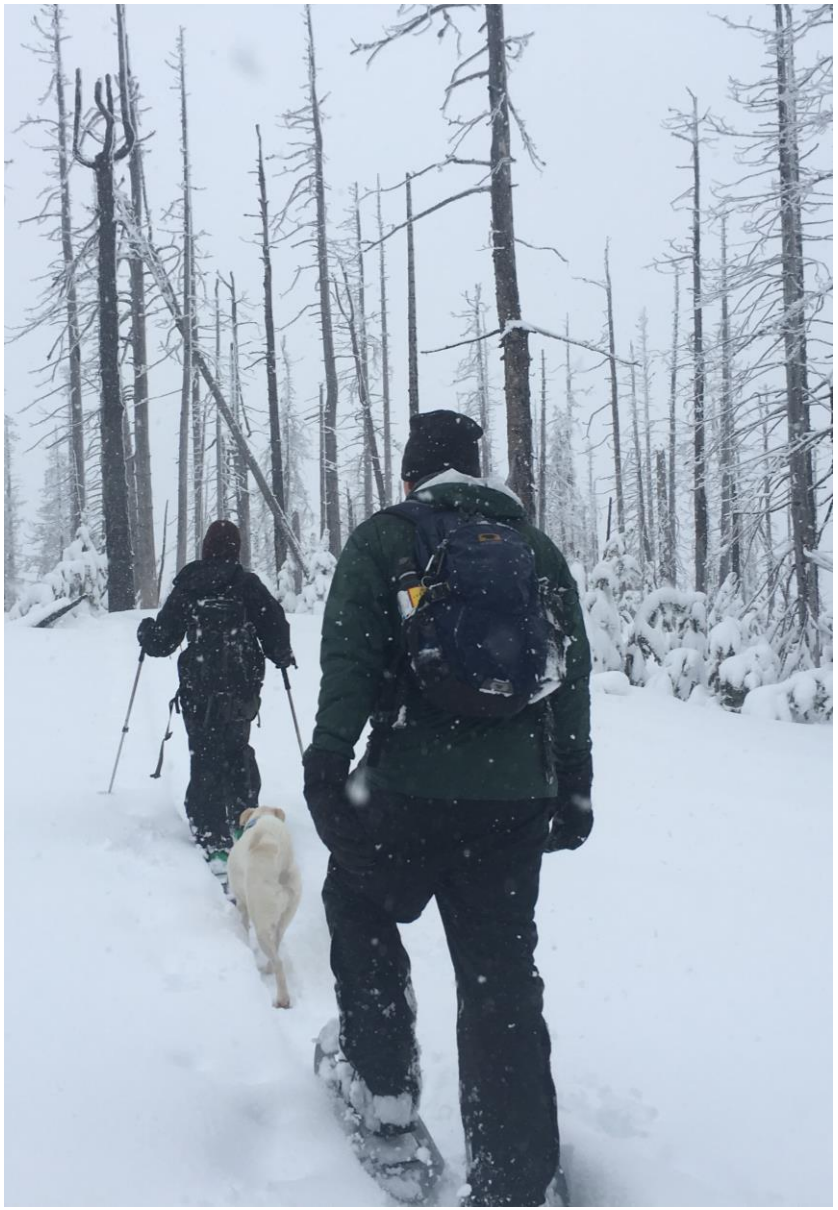
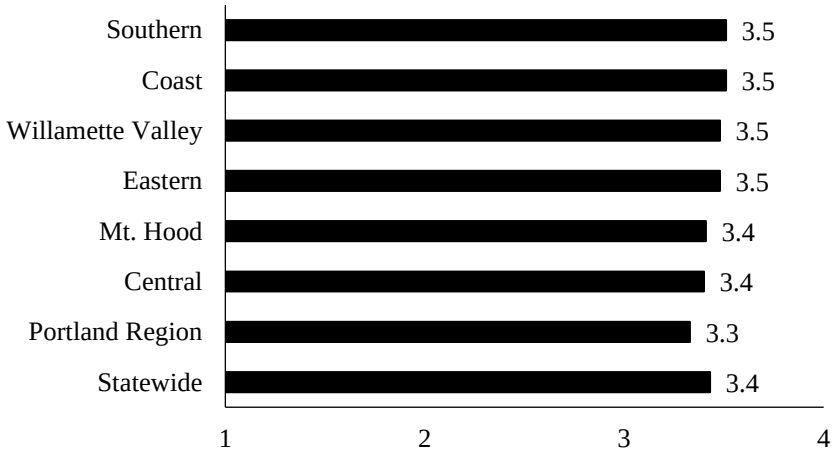


Figure 13. Average rating of the importance of the tourism sector to Oregon's economic success



Scale: 1=Not important at all, 2=Slightly important, 3=Moderately important, 4=Very important

Perceived Effects of Tourism

We asked respondents about their perceptions of different potential environmental, economic, and social effects from tourism in their community.

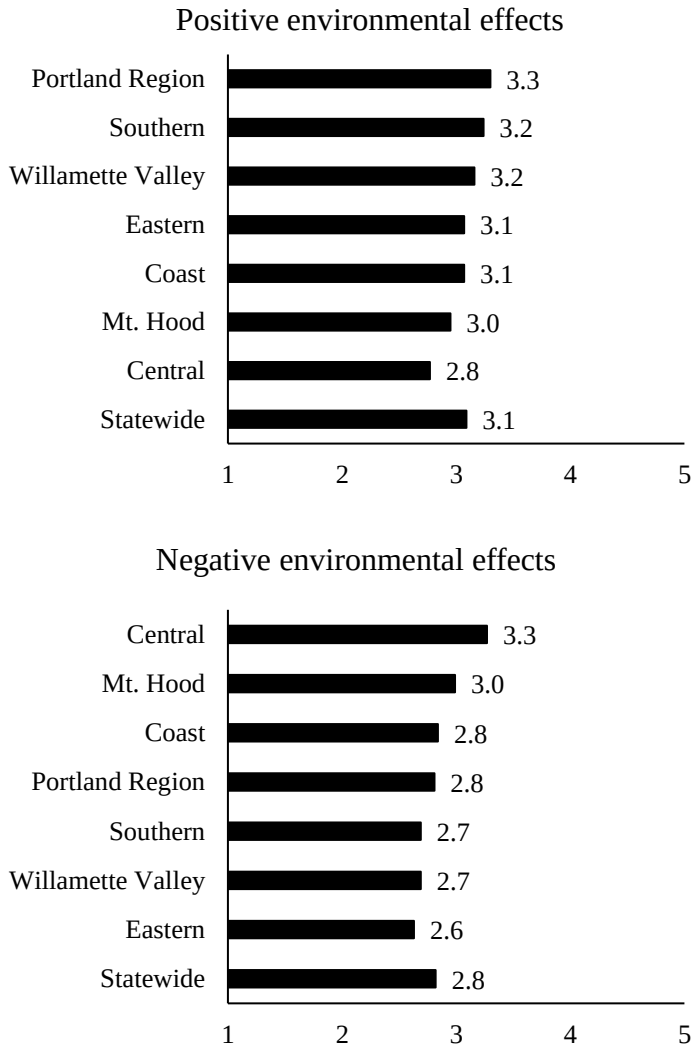
Perceived environmental effects of tourism

Respondents rated their level of agreement with seven different statements about potential environmental effects of tourism in their community. Factor analysis revealed two distinct and reliable dimensions of the perceived environmental effects of tourism (Table A.22). The first dimension, positive environmental effects (α=.89), included perceptions that tourism contributed to greater protection of the natural environment in their community and improving the natural appearance of their community. The second dimension, negative environmental effects (α=.84), encompassed negative environmental impacts, including increased litter, degraded wildlife habitat, air and water pollution, and water shortages in the respondents' communities. Figure 14 shows the average level of agreement for these two dimensions. Tables A.22 and A.23 in Appendix G show more information about these dimensions and the average levels of agreement that tourism has contributed to either positive or negative environmental effects across regions.

Statewide, respondents slightly agreed that tourism has positive environmental effects and they slightly disagreed that tourism has negative environmental effects in their community. Fewer than 15% of respondents had neutral attitudes about negative environmental effects, whereas slightly more than 20% of respondents had neutral attitudes about positive environmental effects. This suggests that, statewide, residents have slightly more polarized attitudes about the negative environmental effects than they do about the positive environmental effects of tourism in their community.

Responses varied significantly across regions for perceptions of positive (F=6.13, p<.001) and negative (F=11.53, p<.001) environmental effects (Table A.23). Respondents in the Central Region perceived positive environmental effects of tourism less compared to respondents from the Portland, Southern, and Willamette regions. Respondents from the Portland Region perceived positive environmental effects more compared to respondents from the Mt. Hood region. Effect sizes across region for

Figure 14. Average level of agreement that tourism has positive and negative environmental effects



Scale: 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly agree

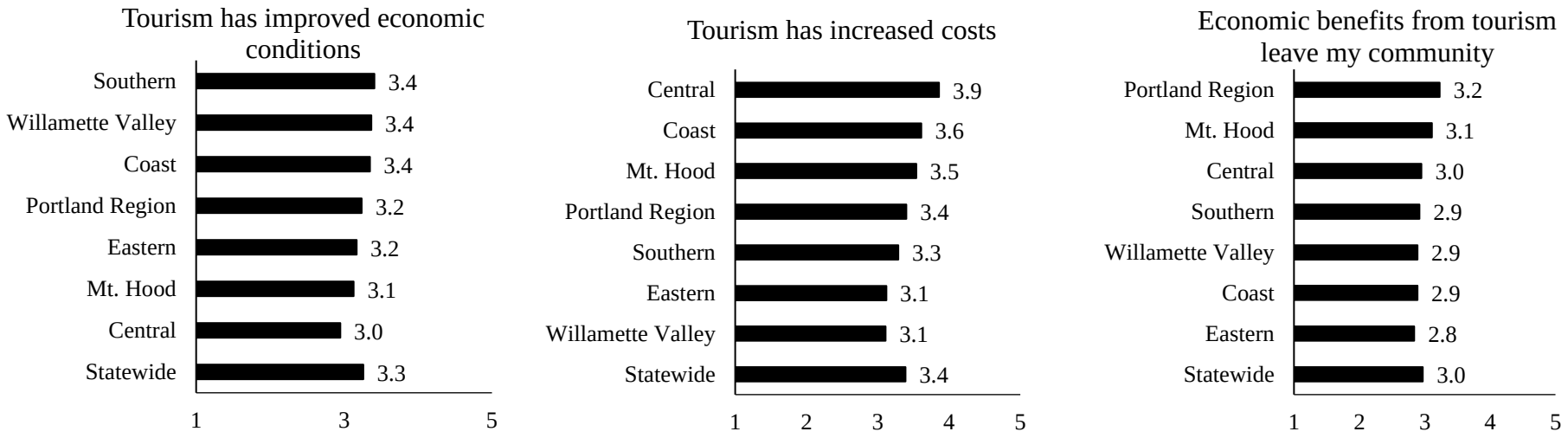
positive environmental effects were small to medium. Respondents in the Central Region perceived negative environmental effects of tourism more compared to respondents in every other region except Mt. Hood. Mt. Hood Region respondents perceived negative environmental effects of tourism more compared to respondents in the Eastern, Southern, and Willamette Valley Regions. Effect sizes across regions for perceptions of negative environmental effects were medium.

An important trend to note is that, on average, Central Region respondents perceived more negative environmental effects than positive effects and Mt. Hood Region respondents perceived the same average level of positive and negative environmental effects. All other regions, on average, perceived more positive environmental effects of tourism than negative environmental effects.

Perceived economic effects of tourism

We asked respondents about their level of agreement with statements about potential economic effects of tourism in their community. Three distinct dimensions of this construct from the scale were revealed (Table A.24). One dimension reflected perceptions of negative economic effects (α=.92), indicating tourism has generally increased costs in the community (increased taxes, house prices, costs of living, prices of goods and services). Another dimension (α=.90) reflected perceptions that economic benefits from tourism end up with people or companies outside of the community. The final dimension, positive economic benefits of tourism (α=.84), reflected perceptions that tourism has had positive economic benefits in the community (better infrastructure, more employment opportunities, improved incomes and living standards, and that investments to attract more tourists to the community are good).

Figure 15. Average level of agreement with statements about economic effects from tourism



Scale: 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly agree

Statewide, on average, respondents slightly agreed that tourism had improved economic conditions and increased costs in their communities and that economic benefits from tourism leave their community (Figure 15). Nearly 25% of respondents selected 'neither' for whether economic benefits from tourism leave their community, compared to fewer than 10% of respondents who selected 'neither' for the other two dimensions. This suggests that residents, statewide, are somewhat polarized about the positive and negative economic effects of tourism in their community and are more ambivalent about economic benefits from tourism leaving their community.

All three dimensions of the economic impacts of tourism varied significantly across regions and effect sizes were small to medium (Table A.25). Respondents in the Central region, on average, were less likely to agree that tourism has improved economic conditions in their community compared to respondents in the Coast, Portland, Southern, Willamette Valley Regions. Respondents in the Southern Region were more likely to agree that tourism has improved economic conditions compared to respondents in the Central, Eastern, and Mt. Hood Regions. Respondents in the Central Region, on average, were more likely to agree that tourism has increased costs of living in their communities more compared to respondents in every region except the Coast Region. Respondents in the Coast Region were more likely to agree that tourism has increased costs in their community compared to respondents in the Eastern, Southern, and Willamette Valley Regions. Respondents in the Mt. Hood Region agreed with this more than Eastern and Willamette Valley Region respondents. Respondents in the Portland Region agreed more strongly that economic benefits from tourism leave their community compared to all other regions except the Central and Mt. Hood Regions.

Respondents in the Central, Coast, Mt. Hood, and Portland Regions perceived that tourism has increased costs in their community more strongly than they perceived that tourism has improved economic conditions in their community. Respondents in the Southern, Eastern, and Willamette Valley Regions agreed more strongly that tourism has improved economic conditions in their community than they agreed that tourism has increased the costs in their community. Respondents in the Portland, Mt. Hood, and Central regions perceived, on average, that economic benefits from tourism leave their community to the same degree as they did that tourism has improved economic conditions. Respondents in all other regions perceived that economic benefits from tourism leave their community to the same degree that they perceived that tourism has improved economic conditions in their community. Respondents in every region perceived that tourism has increased costs in their community more than they perceived that economic benefits from tourism leave their community.

Perceived social effects of tourism

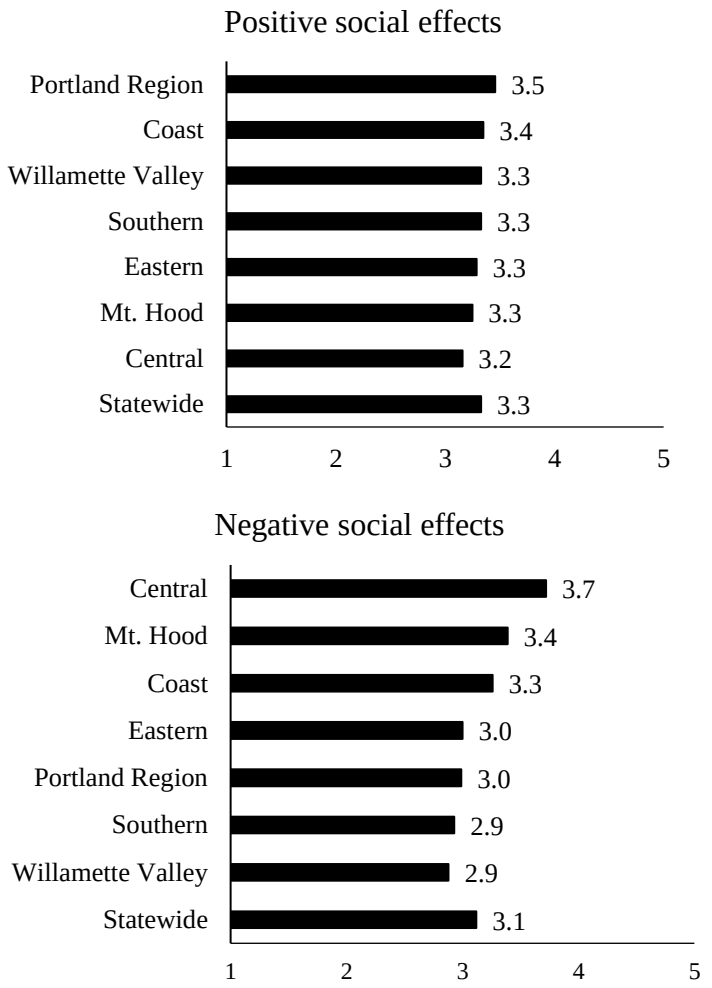
Respondents indicated their level of agreement with 18 statements about potential social impacts from tourism in their community. The items loaded well into two dimensions (Table A.26). One dimension, positive social effects (α=.92), encompassed positive social effects of tourism (more outdoor recreation opportunities, greater knowledge of other cultures, increased opportunities for cultural activities, greater demand for outdoor recreation activities, improved quality of restaurants, lodging, transportation, law enforcement, and retail services, improved standard of living, and greater support for preserving historic buildings and monuments). The other dimension, negative social effects (α=.90), encompassed perceived negative social effects of tourism (increased traffic and crime, reduced public safety, problems sharing resources, loss of tranquility, and overcrowding).

Statewide, respondents agreed that tourism has positive and negative social effects in their community. However, they agreed more strongly that tourism had positive social effects in their community than they did that tourism has negative social effects in their community (Figure 16). More specifically, based on closer analysis of the distribution of responses, residents appear to be more polarized about perceiving negative social effects (a lot of people both agreed and disagreed) and in more agreement about perceiving positive social effects.

There were significant differences across regions for perceptions of positive (F=3.33, p=.003) and negative (F=24.02, p<.001) social effects of tourism in their community. The most notable differences across regions were that respondents in the Central Region were more likely to perceive negative social effects from tourism compared to respondents in all other regions (see Table A.27 for more details).

Another important trend that we noticed is that Central and Mt. Hood Region respondents perceived more negative social effects compared to positive social effects of tourism. All of the other regions perceived more positive social effects compared to negative social effects.

Figure 16. Average level of agreement with statements that tourism has contributed to positive and negative social effects

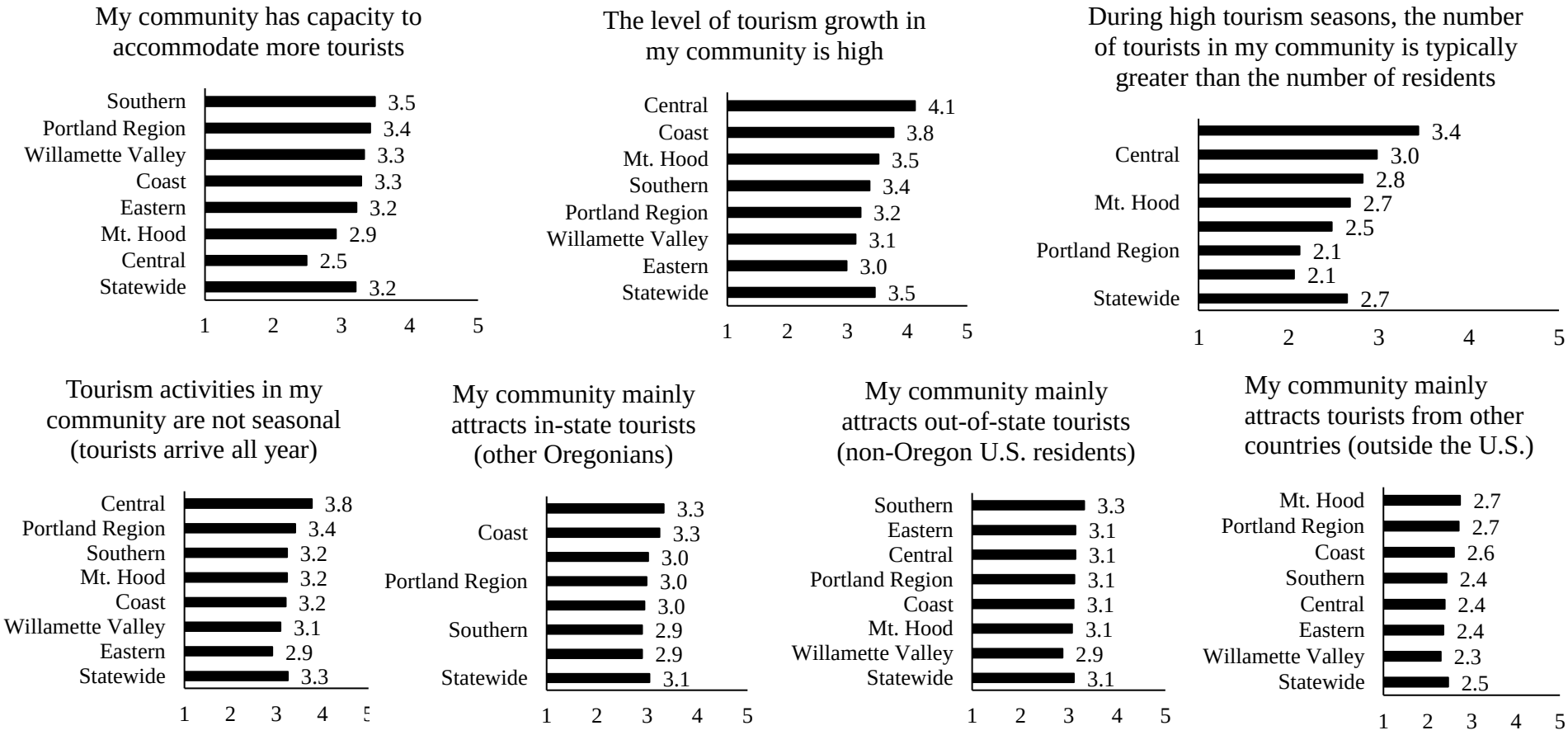


Scale: 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly agree

Extrinsic Variables with Potential to Influence Tourism Attitudes

Tourism attitudes may be influenced by extrinsic variables, such as the nature of tourists and tourism in one's community. Respondents indicated their level of agreement with several statements suggested as potential extrinsic variables in tourism literature (Figure 17). Responses varied significantly across regions for each extrinsic variable (see Table A.28). The most notable findings were that Central Region respondents were significantly less likely to agree, compared to respondents from all other regions, that their community has the capacity to accommodate more tourists and were more likely to agree compared to all other regions that the level of tourism growth in their community is high.

Figure 17. Average level of agreement with statements about the nature of tourists and tourism



Scale: 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly agree

Intrinsic Variables with Potential to Influence Tourism Attitudes

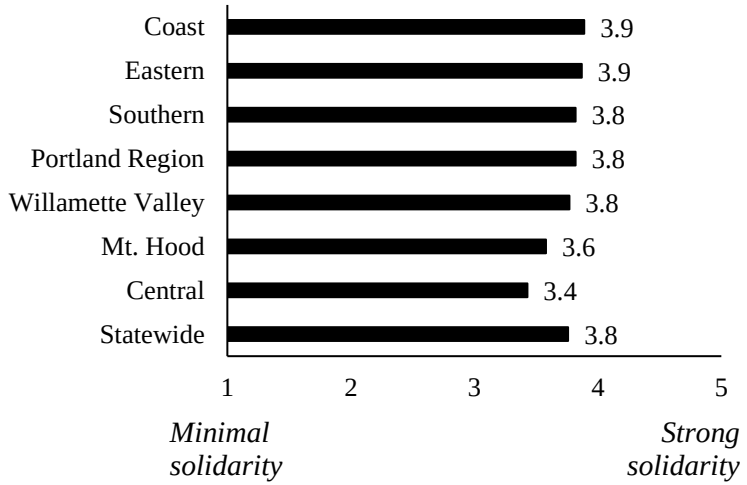
Tourism attitudes may also be influenced by individual, value-based variables. Referred to as intrinsic factors, we included four different sets of items to measure the overall construct of intrinsic factors. The item sets measured respondents' emotional solidarity with tourists, their level of community attachment, community concern, and ecocentric attitudes.

Emotional solidarity with tourists

We asked respondents about their level of agreement with statements designed to measure their degree of emotional solidarity with tourists in their community. The items loaded well onto one dimension that represents emotional solidarity with tourists (α=.91, see Table A.29). Overall, respondents expressed fairly high levels of emotional solidarity with tourists in their community (Figure 18).

The degree of emotional solidarity with tourists varied significantly across region (F=14.18, p<.001, Table A.30). Respondents in the Central Region expressed a significantly lower degree of emotional solidarity with tourists compared to respondents in all other regions except Mt. Hood. Respondents in the Mt. Hood Region expressed a lower degree of emotional solidarity with tourists compared to respondents in all other regions except the Central and Willamette Valley Regions.

Figure 18. Average level of emotional solidarity with tourists

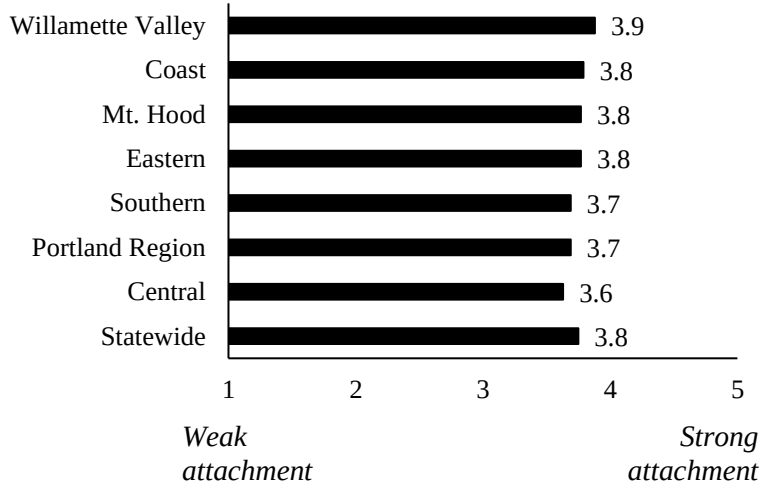


Community attachment

Respondents indicated their level of agreement with five statements assessing their degree of community attachment or bond with their community. Responses loaded well onto a reliable factor (α=.73, Table A.31). We combined those items into one factor or variable to represent community attachment. Overall, respondents reported fairly strong levels of community attachment (Figure 19).

Responses varied significantly across regions (F=2.36, p=.03, Table A.32). The only significant difference identified in post-hoc tests was that Willamette Valley Region respondents reported significantly higher levels of community attachment compared to respondents in the Central Region, although the effect size was small.

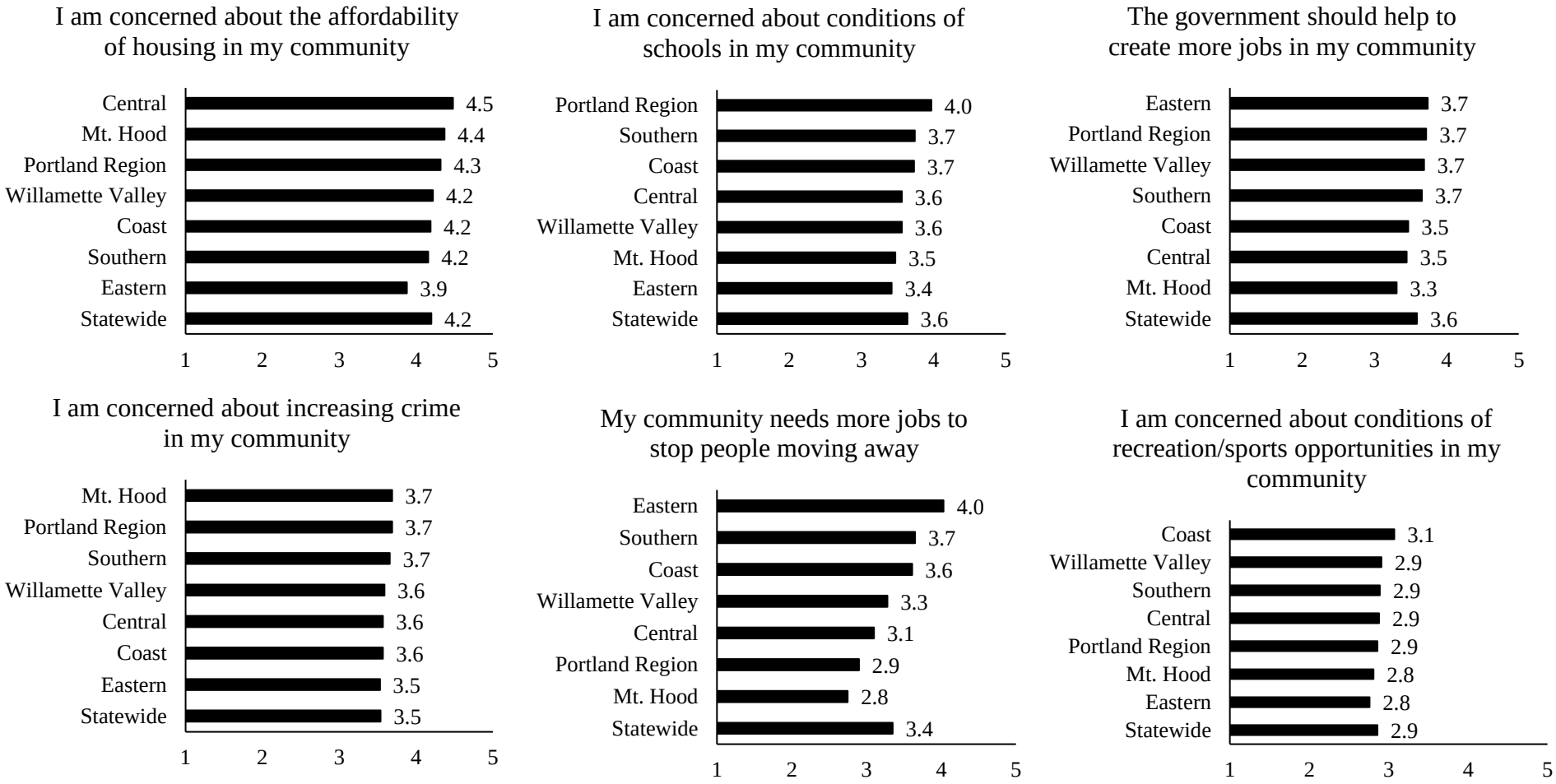
Figure 19. Average level of community attachment



Community concern

We asked respondents about their level of concern with different aspects of their community. Scale reliability was low (α=.52), so we kept the items separate for analysis. Overall, respondents were most concerned about the affordability of housing in their community and the least concerned about the conditions of sports and recreation opportunities (Figure 20). Responses significantly varied across regions for all aspects, except being concerned about increasing crime and the conditions of recreation/sports opportunities. See Table A.33 for more details.

Figure 20. Average level of concern about different community aspects

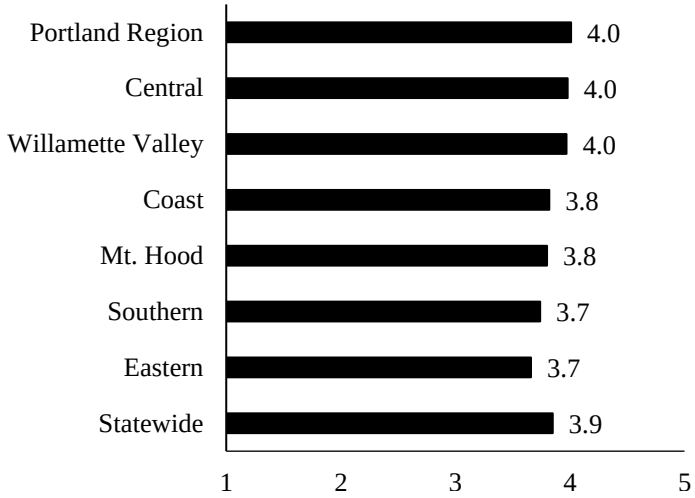


Scale: 1=Strongly disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly agree

Environmental worldview

The New Ecological Paradigm (NEP) (also referred to as the New Environmental Paradigm) was used in this study as a measure of respondents' environmental worldview, which may affect perceptions of environmental impacts and, ultimately, tourism attitudes. Respondents indicated their level of agreement with a series of statements about humans' relationship with the environment. Higher values on the NEP scale indicate a more ecocentric or pro-environmental worldview. The scale has been refined over several decades and is used frequently in many different contexts. The NEP items in our questionnaire loaded well (α=.85) onto one factor after removing one item (Table A.34).

Figure 21. Average rating on the NEP factor scale to measure respondents' ecocentric attitudes



Scale: Values closer to 5 indicate a more ecocentric or pro-environmental worldview

Overall, respondents have fairly ecocentric or pro-environmental worldviews (Figure 21). Average NEP scores varied significantly across regions, although the effect sizes were rather small (F=5.52, p<.001, Table A.35). Respondents from the Central and Portland Regions had a higher average NEP score compared to respondents in the Eastern and Southern regions, and respondents in Willamette Valley Region had higher average scores than did respondents in the Eastern Region.

Findings: Goal 2 - Identify Oregon Residents' Perceptions of Tourism's Contribution to Quality of Life

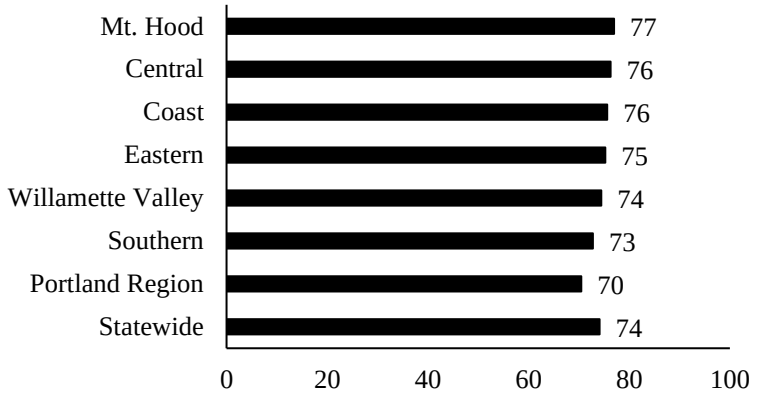
Quality of Life

We measured respondents' self-reported quality of life via well-being. The most common metric for well-being is evaluative (life satisfaction), but we also measured well-being in its affective (emotional) and eudaimonic (flourishing or life meaning) forms. Respondents reported their current level of satisfaction with their life overall and six domains or aspects of their life. Then, they indicated the degree of change in satisfaction with their life overall and each of the six aspects of their life under a scenario involving a hypothetical 20% increase in the number of tourists in their community.

Figure 22 shows the average level of current satisfaction with life overall and Figure 23 shows the average degree of change in satisfaction with life overall after a 20% increase in tourism. Tables A.36 and A.37 in Appendix H show the average responses for life overall and the six domains for each of the two components of this section (current and degree of change).

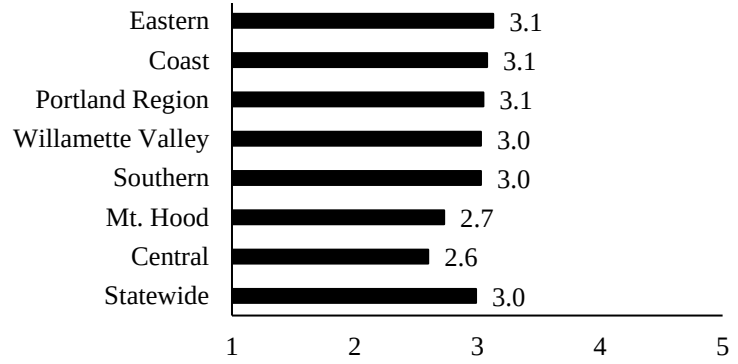
Figure 24 below shows the average level of current satisfaction with six different aspects of life across regions. Figure 25 shows the average degree of change in satisfaction with different aspects of life under a hypothetical 20% increase in the number of tourists in one's community across regions. In Figures 23 and 25, average values above 3 indicate increases in aspects of well-being due to increases in tourist numbers, whereas mean values below 3 indicate decreases, on average across respondents.

Figure 22. Average level of current satisfaction with life overall



Scale: 0=Not satisfied, 100=Completely satisfied

Figure 23. Average degree of change in satisfaction with life overall in response to hypothetical 20% increase in the number of tourists



Scale: 1=Decrease a lot, 2=Decrease a little, 3=No effect, 4=Increase a little, 5=Increase a lot

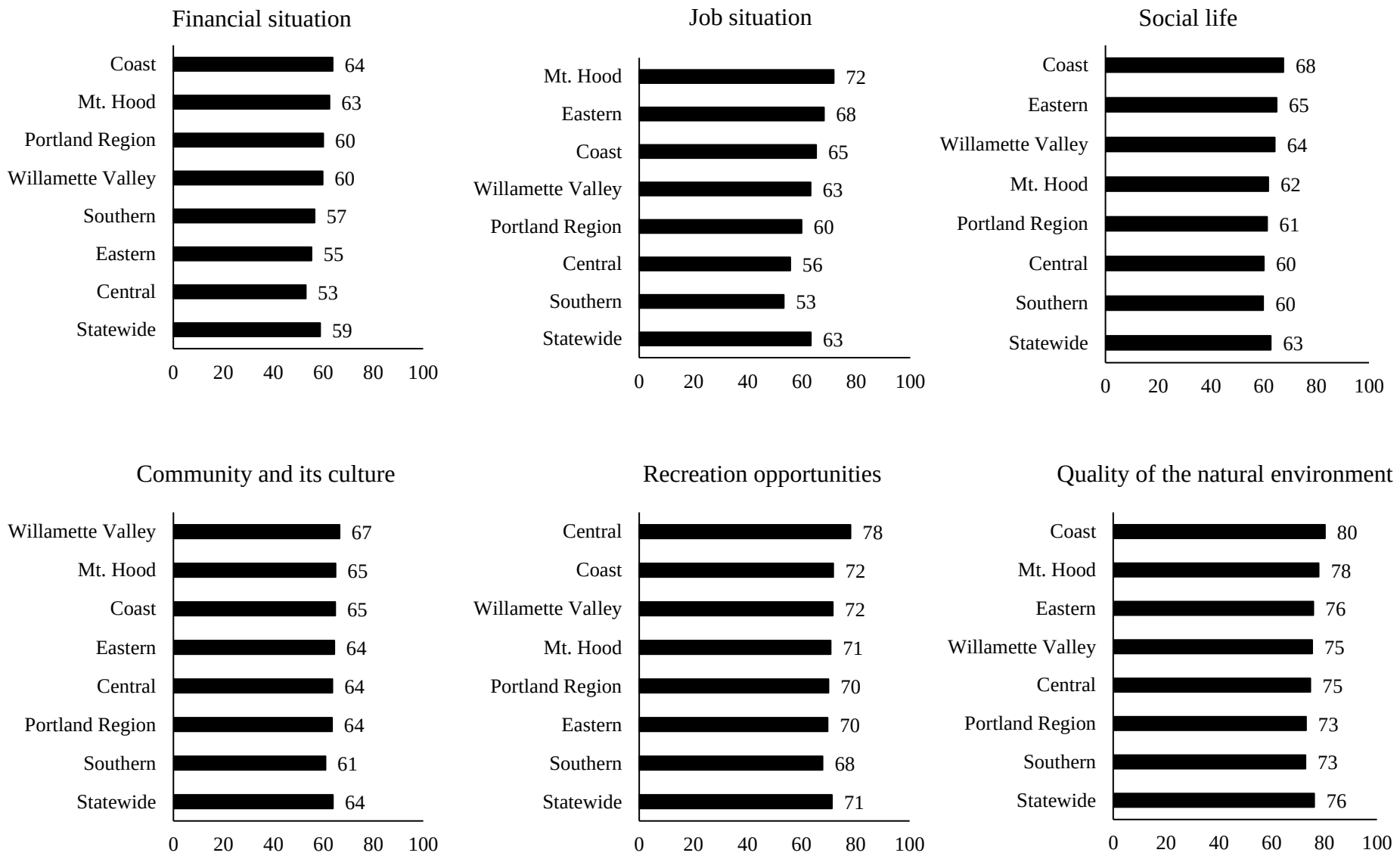
Several important trends emerge about respondent quality of life and the potential impacts of tourism to it. Statewide, respondents reported moderately high levels of satisfaction with their life overall. They were most satisfied with the quality of the natural environment and lease satisfied with financial aspects of their life. Statewide, the most positive effects from a hypothetical 20% increase in tourism were in the community (and its culture) and recreation domains, whereas the most negative effect was in the quality of the natural environment.

Current levels of satisfaction with life overall varied significantly across regions. For example, Portland Region respondents reported significantly lower levels of satisfaction with their life overall compared to Central, Coast, Eastern, and Mt. Hood Regions. Current levels of satisfaction for several aspects of life also varied significantly across regions (see Table. A.36 in Appendix H for more details). For example, Central Region respondents were more satisfied with recreation opportunities compared to respondents in all other regions and Coast Region respondents were more satisfied with the quality of the natural environment compared to respondents in all other regions except Mt. Hood. Current levels of satisfaction with social and community or cultural aspects of life were moderate (~65 on a scale of 0-100) and did not vary significantly across regions.

The average degree of change in satisfaction with life overall and with all six different aspects of life given a hypothetical 20% increase in the number of tourists in their community also varied significantly across regions (see Table A.37 in Appendix H for more details). For example, Central and Mt. Hood Region respondents reported a more negative impact in satisfaction with life overall, recreation opportunities, and with the quality of the natural environment compared to respondents from all other regions. They also reported a more negative impact in satisfaction with financial aspects of their life compared to all other regions except Mt. Hood and Willamette Valley. Respondents from the Coast and Eastern regions reported more positive impact in satisfaction with social aspects of their life compared to respondents in all other regions.

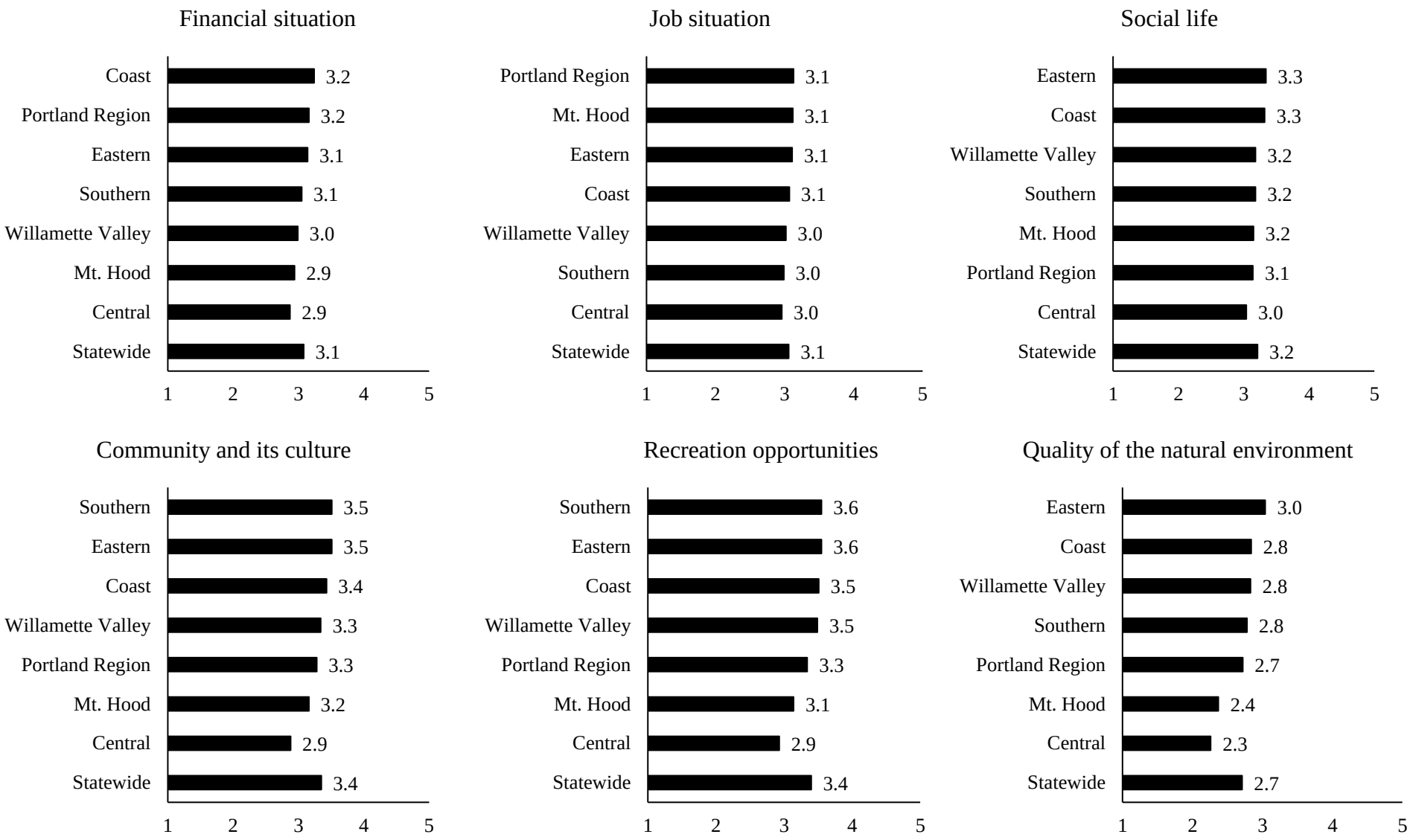
In the Conclusion of this report, we summarize these findings about quality of life in the context of other key findings presented throughout.

Figure 24. Average level of current satisfaction with different domains or aspects of well-being



Scale: 0=Not satisfied, 100=Completely satisfied

Figure 25. Average degree of change in satisfaction with different aspects of well-being in response to a 20% increase in tourists



Scale: 1=Decrease a lot, 2=Decrease a little, 3=No effect, 4=Increase a little, 5=Increase a lot

Findings: Goal 3 - Comparing Panel and Mixed-Mode Survey Methods

The final goal of our project was to evaluate two different methods of survey administration, online opt-in panel surveys mixed-mode surveys. Mixed-mode surveys are more traditional and typically include a sample selected randomly from a general population (i.e., mixed-mode survey respondents tend to be from a general population, which typically leads to the set of respondents being more representative of the general population). Online opt-in panel surveys are increasingly common, but they are not random and rely on individuals who typically receive a small payment for completing different questionnaires. There are many considerations when comparing different survey modes. Here, we focus on representativeness, response differences, and cost and other administrative issues.

We received a similar number of completed questionnaires from panel [728] and mixed-mode [749] respondents. The findings in this report prior to this section reflect combined panel and mixed-mode responses. The combined data were weighted according to Census data to improve the representativeness of the sample. However, when examining the unweighted data for each mode separately, several important insights emerge.

Table 3. Comparing Oregon population demographics with panel and mixed-mode respondent demographics

	Census	Panel	Mixed-mode
Gender			
Female	51%	59%	56%
Male	49	40	44
Other	n/a	1	<1
Age			
18-24	11	9	<1
25-44	34	34	16
45-64	32	35	34
65 and older	23	22	50
Education			
Less than high school graduate	10	3	3
High school graduate	25	18	8
Some college or Associates	36	44	36
Bachelor's degree or higher	29	35	52
Income			
Less than $25,000	23	24	13
$25,000 - $49,999	24	31	21
$50,000 - $74,999	18	19	22
$75,000 - $99,999	13	13	18
$100,000 - $149,999	13	11	15
At least $150,000	9	4	11

Table 3 shows the demographics of the Oregon statewide population from the Census estimates compared to the unweighted characteristics of the panel and mixed-mode respondents. Both modes received a higher portion of responses from females than males compared to the statewide distribution. Panel respondents were much closer in age to the statewide population. Panel respondents were also, on average, significantly younger than mixed-mode respondents (t=14,84, p<.001) and the effect size was large (r_{pb}=.365) at 48 years compared to 64 years.

Respondents from both the mixed-mode and panel surveys had reported achieving higher levels of education compared to the statewide population. Panel respondents were closer to the statewide population but were still more educated. Panel respondents also reported household income levels more similar to mixed-mode respondents. However, fewer panel respondents reported income levels above $100,000 than did the

statewide population and mixed-mode respondents, and more mixed-mode respondents reported income levels above $100,000 than the population. That is, the statewide population has income levels higher than panel respondents yet lower than mixed-mode respondents.

Thus, there were differences in demographics of respondents between both modes compared to the OR population. Combining responses from both modes was most appropriate and our weighting scheme (gender x age x education) improved the representativeness of the sample at statewide and regional levels.

Next, we compared *unweighted* responses from panel and mixed-mode respondents for all questionnaire items. See Appendix I for tables with statistics from most questionnaire items compared across mode. We highlight the comparisons most relevant to this project in Table 4 below. The mean comparison column shows the test statistic (*t*) and the significance of that test (*p*) where $p<.05$ indicates a significant difference in average response between the two modes. The effect size column describes the strength of that difference (i.e., the strength of the relationship between mode and response).

There were statistically significant differences in responses between survey modes for many variables or items. However, the effect size was usually small or medium. Moreover, differences in responses across modes may be due at least partly to differences in demographic characteristics across modes.

Compared to mixed-mode respondents, panel respondents:

- were younger, reported shorter residency, and lesser degrees of community attachment,
- had more positive attitudes about tourism and tourists in their community,

Table 4. Comparisons of key questionnaire items across panel and mixed-mode survey respondents

	Mean[a]		Mean comparison		Effect size[b]
	Panel	**Mixed-mode**	***t***	***p***	r_{pb}[c]
Satisfaction with life overall (0-100)	72.00	82.00	9.33	<.001	.239
Feelings about tourism	3.88	3.48	6.76	<.001	.176
Degree of change in satisfaction with life overall	3.10	2.80	6.64	<.001	.174
Years lived in current county (0-90)	19.00	25.00	6.07	<.001	.157
Community attachment	3.73	3.93	5.32	<.001	.138
Community has capacity to accommodate more tourists	3.38	3.07	4.75	<.001	.129
Tourism has negative social effects	3.01	3.22	4.44	<.001	.117
Tourism has negative environmental effects	2.74	2.93	4.14	<.001	.110
Tourism has positive social effects	3.39	3.24	4.07	<.001	.107
Overall attitudes toward tourism	3.96	3.81	3.61	<.001	.090
Tourism has positive environmental effects	3.17	2.98	3.32	<.001	.090
Tourism has improved economic conditions	3.36	3.22	3.22	<.001	.085
Emotional solidarity with tourists	3.83	3.74	2.92	.004	.076
Tourism has increased costs in the community	3.32	3.41	1.72	.090	n/a
Economic benefits from tourism leave the community	2.95	2.90	0.96	.340	n/a
NEP (Environmental worldview)	3.87	3.82	0.93	.354	n/a
The level of tourism growth in my community is high	3.46	3.51	0.81	.420	n/a

[a] *Unless otherwise noted, all scales are 1-5 with 1 being more negative and 5 being more positive.*
[b] *Relationship strength: .10 = minimal, .243 = medium, .37 = strong*
[c] *Absolute value* r_{pb}

- were more likely to perceive positive effects of tourism and less likely to perceive negative effects of tourism, and
- reported lower levels of satisfaction with their life overall and a more positive degree of change in satisfaction with life overall after a hypothetical 20% increase in tourism.

The other considerations between survey modes relate to cost and other administrative issues. The mixed-mode (mail with option to complete online) survey was approximately six times more expensive than the panel survey. We conducted our panel survey using the Qualtrics panel service. We worked closely with them through questionnaire design and survey administration. This included embedding quality control checks (e.g., asking attention-check questions, removing respondents who completed the questionnaire in less than one-third the median completion time) to remove careless responses and setting quotas based on demographic characteristics to help better align respondent characteristics with statewide demographics. Qualtrics personnel handled all solicitations with respondents. At our request following daily check-ins, they also adjusted their sampling approach to account for low response rates in some regions among some demographics. Another advantage of the panel surveys is that all questionnaire data are automatically entered into an electronic database for future analysis.

All aspects of the mixed-mode survey were handled by OSU personnel, and thus were more labor-intensive on our end. We purchased a random sample of postal addresses for residents. Expecting low response rates from mail surveys, we purchased approximately five times more addresses than the number of completed questionnaires desired. With oversight from OSU researchers, the sample provider ensured an equal number of addresses from each of the seven Travel Oregon regions. We then coordinated all mailings with OSU Printing and Mailing Services. Completed paper copies of the questionnaire received from the mixed-mode mail survey also need to be manually entered into the database.

There are several key aspects to consider when comparing online panels and traditional mixed-mode surveys. Arguably the most important aspect is the representativeness of a given sample to the larger population as defined in a study. Mail or mixed-mode surveys typically involve a random sample of the population. This is an immensely important and often overlooked aspect of survey research. Opt-in online panels are purposive and self-selected, so they are not randomly selected samples. Weighting the data according to Census information is an important step toward improving the representativeness of a sample, for both panel and mixed-mode surveys. However, starting with a random sample of the general population is often considered to be the safest and most reliable approach for capturing representative data. As online panels become more popular and sophisticated, their ability to represent a population could improve. For now, it is still generally recommended to use a more traditional mixed-mode (e.g., mail with option to complete online) survey with a random sample of the general population to enhance the representative nature of the sample and the data.

Online panels are a valuable tool, however, and could be used in many different ways as their features continue to be developed and refined. For example, combining panel data with mixed-mode data (and weighting according to population characteristics) is one approach for obtaining more data at less cost and effort than solely with mixed-mode surveys. Panel data are also useful for initial pilot tests of a questionnaire to check for issues related to clarity, scale reliability, and construct validity. Another use of panel surveys could be for marketing tests, communication or message framing experiments, or to gain an initial assessment of perspectives of residents in a particular region and/or of particular demographics who can be directly selected in panel surveys.

Future Work

Resident attitudes toward tourists and tourism can be influenced by underlying extrinsic and intrinsic characteristics. Examples of the extrinsic characteristics of tourism include tourism seasonality and the type of tourists, whereas intrinsic characteristics may include the residents' community attachment perceptions and environmental worldview. There are limited empirical studies examining the influence of both intrinsic and extrinsic characteristics on tourism attitudes. The OSU research team will perform additional analyses to understand and communicate the potential influence of different characteristics of tourism (e.g., tourism intensity and seasonality) in Oregon and key characteristics of residents on resident attitudes toward tourism in Oregon.

Similarly, limited empirical studies have examined the potential influence different aspects of human well-being on tourism attitudes. This study presents an opportunity to explore these relationships in more detail. Further studies are needed to explore the links between well-being of Oregon residents, tourism attitudes, and tourism opportunities available in the state.

Our findings also revealed the Central Region and Mt. Hood Region to be relatively less supportive of tourism compared to other regions in almost all aspects of tourism attitudes. Further research and evaluation, including qualitative inquiries that can add more depth, is needed to understand the cause of negative attitudes toward tourism in these regions.

There are also additional opportunities for more research about survey modes. For example, the mixed-mode survey in our study cost about six times more than the panel survey. Variability of the average responses between mixed-mode and panel surveys notwithstanding, the higher cost of the mixed-mode survey warrants further investigation to determine the scope of merits and demerits of using only online panel surveys when resources are limited. We will explore additional analyses in a manuscript to understand and communicate the merits and demerits of using panel and mixed-mode surveys.

Conclusion

In this report, we provided Travel Oregon with a systematic assessment of Oregon residents' perspectives about tourism across the state, including their perceptions of tourism impacts, support for tourism promotion, and potential impacts of tourism on different aspects of their quality of life. Several important insights emerged from our research.

Overall, residents across Oregon are supportive of tourism in their communities, and they report that tourism generates positive economic, environmental, and social impacts. Coast Region and Southern Region residents appear to be most supportive of tourism. Central Region and Mt. Hood Region residents are less supportive and also have stronger perceptions of negative environmental, social, and economic impacts relative to those living in other regions. Central Region and Mt. Hood Region residents report high levels of satisfaction with life overall, but they also report the greatest declines in quality of life if tourism were to increase in their communities. By comparison, residents in other regions feel more positively about tourism, are more supportive of increased tourism promotion, and feel that many aspects of their quality of life would be improved if the number of tourists in their community increased.

We also examined different survey modes for assessing resident perspectives toward tourism. Mixed-mode surveys with a random sample of the population are likely to be more representative of the general population, but they cost more money and will be more labor intensive than online panel surveys. Panel surveys may be best suited for initial pilot tests of questionnaires or specific scales or constructs, marketing or communication tests, or experiments. Weighting responses from any survey according to population characteristics, as we did in our dataset, is important when using either survey mode to improve the representativeness of that sample.

Further analysis of our data and future research efforts will provide additional insights into these important findings.