Outdoor Recreation in Oregon:
The Changing Face of the Future

SCORP

The 2008-2012 Oregon Statewide Comprehensive Outdoor Recreation Plan

February 2008

Oregon Parks and Recreation Department

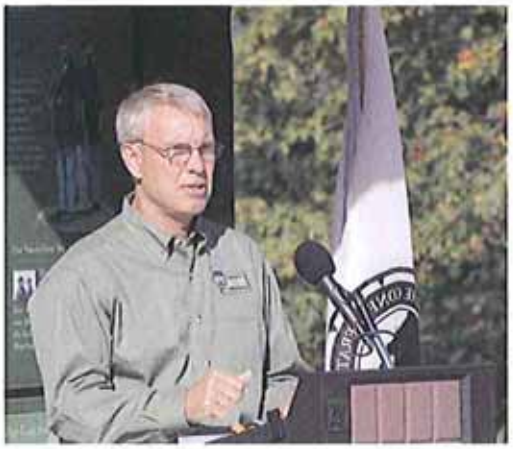
This document is part of the Statewide Comprehensive Outdoor Recreation Plan (SCORP) process. Authority to conduct the SCORP process is granted to the Director of the Oregon Parks and Recreation Department under Oregon Revised Statutes (ORS) 390.180. This document and related appendices are prepared to comply with Chapter 630 of the Land and Water Conservation Fund Grants Manual produced by the National Park Service, Department of the Interior.

All of this Agency's public programs and activities are operated free from discrimination on the basis of race, color, national origin, age or handicap. Any person who believes he or she has been discriminated against or who would like further information regarding the prohibition of discrimination should write to:

Equal Opportunity Program Director
U.S. Department of the Interior
National Park Service
1201 Eye Street, 5th Floor
Washington, D.C. 20005

FORWARD

A message from the Director, Oregon Parks and Recreation Department



The Oregon Parks and Recreation Department (OPRD) is pleased to provide your organization with a copy of the 2008-2012 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP) entitled *Outdoor Recreation in Oregon: The Changing Face of the Future*. This plan focuses on a number of serious challenges facing the well being of our state, our local communities, and our parks and natural resources. These challenges are associated with shifting demographics and lifestyle changes which are resulting in a clientele base with needs dramatically different from those served by recreation providers in the past.

This plan closely examines the effects of a rapidly aging population, fewer youth learning outdoor skills, an increasingly diverse population, and increasingly sedentary lifestyles on the provision of recreation facilities and services in the state. A series of carefully designed statewide SCORP research studies provide outdoor recreation managers with usable information and recommendations to guide federal, state, and local units of government, as well as the private sector in making policy and planning decisions addressing these key changes. The plan will also assist park and recreation providers to better describe the benefits resulting from recreation projects and programs in an effort to develop and nurture a broader constituency and wider community support throughout our state.

The plan constitutes Oregon's basic five-year plan for outdoor recreation. It also provides guidance for the Land and Water Conservation Fund (LWCF) program and other OPRD-administered grant programs including the Local Grant, County Opportunity Grant, Recreational Trails and All-Terrain Vehicle programs. OPRD will support the implementation of key statewide and local planning recommendations through internal and external partnerships and OPRD-administered grant programs.

My hope is that all Oregonians involved with the administration of recreation and park facilities and programs take time to read this important document and join OPRD in a statewide effort to proactively address the challenges associated with *The Changing Face of the Future*.

Sincerely,

Tim Wood
Director

Acknowledgements

The following individuals developed and prepared this plan.

Project Staff

Terry Bergerson	Project Manager and Primary Editor
Carrie Lovellette	Administrative Support and Document Design & Layout

OPRD Management

Tim Wood	Director
Kyleen Stone	Assistant Director, Recreation Programs and Planning
Kathy Schutt	Planning Manager

Other OPRD Contributors
(Listed in Alphabetical Order)

Tammy Baumann
Jan Braden
Ty Conley
Teresa Boes
Judy Keefer
John Potter
Wayne Rawlins
Richard Walkoski

Research Team
(Listed in Alphabetical Order)

Team Member	Organization
Dr. Carrie Autri	Arizona State University
Terry Bergerson	Oregon Parks and Recreation Department
Dr. Robert Burns	West Virginia University
Libby Covelli	The Pennsylvania State University
Dr. Alan Graefe	The Pennsylvania State University
Dr. Kreg Lindberg	Oregon State University
Karen Robinson	West Virginia University
Dr. Randy Rosenberger	Oregon State University
Arlene Wallace	Portland State University

SCORP Advisory Committees
(Listed in Alphabetical Order)

A Rapidly Aging Population

Member	Organization
Connie Bradley	Oregon Parks & Recreation Department
Eric Denzler	Bend Metro Park & Recreation District
Teri Dresler	Metro Parks & Greenspaces
Chuck Frayer	U.S. Forest Service
Mel Mann	City of Eugene Recreation Services
Diane Pergamit	Willamalane Park & Recreation District
Patti Proctor	Medford Senior Center
Bruce Ronning	Bend Metro Park & Recreation District
Bandana Shrestha	American Association of Retired Persons
Brian Sjothun	Medford Parks & Recreation
Chris Wayland	Washington County Parks
David Yamashita	Portland Parks and Recreation

Fewer Youth Learning Outdoor Skills

Member	Organization
Kris Babbs	Oregon Department of Forestry
Andre' Briggs	Oregon Parks & Recreation Department
Maureen Crawford	Crook County Park & Recreation District
Justin Cutler	City of Gresham Parks & Recreation
Karen Emery	Corvallis Parks & Recreation
Mike Fewel	Oregon Mentors
Roger Fuhrman	Oregon Department of Fish & Wildlife
Randy Henry	Oregon Marine Board
Ed Hodney	City of Albany Parks & Recreation Department
Bob Keefer	Willamalane Park & Recreation District
Tim Patrick	City of Eugene Recreation Services
Craig Smith	City of Eugene Recreation Services
Beth Unverzagt	Oregon After School for Kids
Stephanie Wagner	Friends of Tryon Creek State Park

An Increasingly Diverse Population

Member	Organization
Ivan Anderholm	City of Hermiston
Michelle Harper	Portland Parks and Recreation
Stan Hinatsu	US Forest Service
Carolyn Lee	Portland Parks and Recreation
Mario Magana	Oregon State University
Kevin Price	Oregon Parks and Recreation Department
Elida Sifuentez	City of Woodburn
Randy Westrick	Citizen at large
Todd Winter	Lane County Parks

A Physical Activity Crisis

Member	Organization
Scott Archer	City of Oregon City
Ric Balfour	Oregon Recreational Trails Advisory Council
Sue Boettner	Bend Metro Park & Recreation District
Jess Bogli	Oregon Dept of Education
Janet Bubl	Oregon Department of Education
Shawna Care	Kaiser Permanente
Brian Carroll	Linn County Parks & Recreation
Noelle Dobson	Community Health Partnership
Ernie Drapela	Oregon Recreational Trails Advisory Council
Frank Jagodnik	Oregon Recreation & Park Association
Steve Lamb	Willamette Education Service District
Kelly Punteney	City of Vancouver
Bruce Ronning	Oregon Recreational Trails Advisory Council
Zari Santner	Portland Parks & Recreation
Alex Stone	NPS - Rivers, Trails & Conservation Program

Table of Contents

Table of Contents i

List of Figures ii

List of Tables v

Executive Summary 1

Chapter One Introduction 21
Plan Introduction 22

Chapter Two A Rapidly Aging Oregon Population 29
Issue Introduction: A Rapidly Aging Oregon Population 30
Research Project: Outdoor Recreation and an Aging Oregon Population 37
Key Planning Recommendations for a Rapidly Aging Oregon Population 58

Chapter Three Fewer Oregon Youth Learning Outdoor Skills 65
Issue Introduction: Fewer Oregon Youth Learning Outdoor Skills 66
Research Project: Encouraging Youth Outdoor Recreation Participation in Oregon 71
Key Planning Recommendations for Fewer Oregon Youth Learning Outdoor Skills 100

Chapter Four An Increasingly Diverse Oregon Population 107
Issue Introduction: An Increasingly Diverse Oregon Population 108
Research Project: A Growing Minority Population and Outdoor Recreation in Oregon 111
Key Planning Recommendations for an Increasingly Diverse Oregon Population 139

Chapter Five Oregon's Physical Activity Crisis 147
Issue Introduction: Oregon's Physical Activity Crisis 148
Research Project: Health and Recreation Linkages in Oregon: Physical Activity, Overweight and Obesity 170
Key Planning Recommendations for Addressing Oregon's Physical Activity Crisis 186

Appendix A Oregon Demographic and Social Trend Analysis 195

Appendix B Oregon Wetlands Priority Plan 227

Appendix C Recreation Provider Roles 235

Appendix D Oregon Administrative Rules 239

List of Figures

Figure 1: Oregon population pyramids 31
Figure 2: Causes of death among U.S. adults aged 65 or older, 2002 33
Figure 3: Oregon state volunteer rate by year 36
Figure 4: Participation by age 38
Figure 5: Future recreation participation 10 years from now 38
Figure 6: Most popular activities, participation rate by age 41
Figure 7: Percent reporting that action will lead to a large increase in recreation 44
Figure 8: Expected volunteer changes 46
Figure 9: Volunteerism by age (all volunteers and recreation volunteers) 46
Figure 10: Volunteerism by income (all volunteers and recreation volunteers) 46
Figure 11: What can agencies do to increase volunteerism? 47
Figure 12: Respondent origin, percent 49
Figure 13: Importance of community characteristics 50
Figure 14: Relocation behavior by age 54
Figure 15: Geographic distribution of Oregon boomer/pre-boomer relocation communities 56
Figure 16: Percent of Oregon population participating in traditional outdoor activities 66
Figure 17: Participation by child age, days per year 74
Figure 18: Participation by child age, total days and total activities per year 74
Figure 19: Participation by location, total days per year 75
Figure 20: Participation by location, total activities per year 75
Figure 21: Participation by location, total activities per year 75
Figure 22: Participation by parental education, total days and total activities per year 76
Figure 23: Participation by household income, total days and total activities per year 76
Figure 24: Child's participation relative to parent's 79
Figure 25: Importance and abilities, average ratings, by skill 80
Figure 26: Child's participation relative to parent's by location 81
Figure 27: Priorities when considering programs 84
Figure 28a: Priority for outdoor activities 87
Figure 28b: Favorite youth activities 87
Figure 29: Constraints ─ why too little time outdoors? 89
Figure 30: Top 6 activities to include in ideal youth program 89
Figure 31: With whom would you like to do favorite activity? 91
Figure 32: Preferred group size for favorite activity 91
Figure 33: Percent of total Oregon Population, Hispanic, Asian-Pacific Islander, African-American 109
Figure 34: What is your favorite activity? By group 112

Figure 35: With whom do you do your favorite activity? By group 113
Figure 36: With whom do you do your favorite activity? By whether lived abroad 113
Figure 37: Where do you do your favorite activity? By group 114
Figure 38: Where do you do your favorite activity? By age 114
Figure 39: Typical group size in parks by groups 115
Figure 40: Would like to do this activity more often 118
Figure 41: Would help to do activity more often 118
Figure 42: Motivations 121
Figure 43: Effects of management actions on recreation participation 123
Figure 44: Desired facilities, percent of all respondents in group 125
Figure 45: Type of information desired, percent of all respondents in group 126
Figure 46: Information outlet desired, percent of all respondents in group 126
Figure 47: Importance of constraint to program participation 129
Figure 48: Importance of program priorities 130
Figure 49: Chronic diseases among healthy weight and overweight/obese Oregonians 150
Figure 50: Extent of physical activity and chronic diseases in Oregon 151
Figure 51: Trends in meeting CDC's minimum recommendation for physical activity 155
Figure 52: Physical activity proportion for U.S. and Oregon in total and by gender 155
Figure 53: Trends in overweight for the U.S. and Oregon 156
Figure 54: Overweight proportion in Oregon and the U.S. in total and by gender 156
Figure 55: Trends in obesity for the U.S. and Oregon 157
Figure 56: Obesity proportion for Oregon and the U.S. in total and by gender 157
Figure 57: Physical activity proportion for Oregon and the U.S. by age class, 2005 158
Figure 58: Overweight proportion for Oregon and the U.S. by age class, 2002 159
Figure 59: Obesity proportion for Oregon and the U.S. by age class, 2002 160
Figure 60: Proportion of physical activity by Oregon counties, 2001 161
Figure 61: Proportion of physical activity by Oregon counties, 2005 162
Figure 62: Rates of change in physical activity proportions by Oregon counties 163
Figure 63: Proportion of overweight by Oregon counties, 2001 164
Figure 64: Proportion of overweight by Oregon counties, 2005 165
Figure 65: Rates of change in overweight proportions by Oregon counties, 2001-2005 166
Figure 66: Proportion of obesity by Oregon counties, 2001 167
Figure 67: Proportion of obesity by Oregon counties, 2005 168
Figure 68: Rates of change in obesity proportions by Oregon counties, 2001-2005 169
Figure 69: Focus on direct effect of natural areas on physical activity and weight status 170
Figure 70: Miles of hiking trails in Oregon 174
Figure 71: Miles of urban trails in Oregon 174
Figure 72: Total number of recreation facilities in Oregon 175
Figure 73: Household density (number of households per acre) 176

Figure 74: Hiking trail miles density (miles of trail per household) 176
Figure 75: Urban trail miles density (miles of trail per household) 177
Figure 76: Proportion participating in trail or off-trail activities 178
Figure 77: Average annual days per household in trail or off-trail activities 178
Figure 78: Proportion participating in road and street activities 179
Figure 79: Average annual days per household in road and street activities 179
Figure 80: Proportion participating in outdoor sports and games activities 180
Figure 81: Average annual days per household in outdoor sports and games activities 180
Figure A1: High priority counties and cities — Increase in Oregon population 60 years and older (2005-2020) 199
Figure A2: High priority counties and cities — Increase in Oregon youth population 6-17 years (2005-2020) 200
Figure A3: High priority counties and cities — Increase in Oregon Hispanic population (2005-2020) 201
Figure A4: High priority counties and cities — Increase in Oregon Asian and Pacific Islander population (2005-2020) 202
Figure A5: High priority counties and cities — Increase in Oregon African-American (Black race) population (2005-2020) 203
Figure A6: High priority counties and cities — Increase in Oregon adult population not meeting CDC physical activity requirements (2005-2020) 204

List of Tables

Table 1 2000 and 2030 Oregon population change ... 31
Table 2 2006 Oregon volunteering by age year ... 36
Table 3 10 years from now relative to present age ... 38
Table 4 Activities sorted by percent participating ... 39
Table 5 Activities sorted by mean days ... 39
Table 6 Activities with greatest mean days by age ... 40
Table 7 Future participation for those expecting overall increase, mean days ... 41
Table 8 Importance of motivations ... 43
Table 9 Percent reporting that action will lead to a large increase in recreation, by generation ... 44
Table 10 Top 10 activities for respondents with disabilities ... 48
Table 11 Importance of community characteristics by generation ... 51
Table 12 Interstate relocation by origin, count and percent of all surrendered licenses ... 53
Table 13 Top 43 relocation destination communities, sorted by combined intensity ... 55
Table 14 Past and projected relocation in the 40 to 79 age range ... 57
Table 15 Participation rate and intensity ... 73
Table 16 Parents first participated in activity as… ... 77
Table 17 Who introduced child to activity? ... 78
Table 18 Average rating of ability relative to parental ability as child, by location ... 81
Table 19 How parents learned skills as youths ... 82
Table 20 Past and potential participation in outdoor recreation programs ... 83
Table 21 Importance of constraints to program participation ... 83
Table 22 Importance of constraints by household income ... 84
Table 23 Agreement with statements relating to safety and other issues ... 86
Table 24 Favorite and second favorite activities, by youth age ... 88
Table 25 Top three activities to include in ideal youth program, by youth age ... 90
Table 26 Top activities to include in ideal youth program, by gender ... 90
Table 27 Oregon population projections - Hispanic, Asian-Pacific Islander, African-American, and Total Statewide ... 108
Table 28 Extent of physical activity among Oregon adults, by race/ethnicity & gender ... 111
Table 29 Percent of Oregon adults who are overweight or obese, by race/ethnicity & gender ... 111
Table 30 Activity participation intensity by group, mean days ... 115
Table 31 Activity participation rate by group ... 117
Table 32 Activity participation by group, overall days and number of activities ... 117
Table 33 Recreation motivations, by group ... 122
Table 34 Effect of management actions on recreation participation by group ... 124
Table 35 Effect of management actions on recreation participation by residence ... 124

Table 36 Past and potential participation in outdoor recreation programs 128
Table 37 Preferred program participation times 128
Table 38 Importance of constraints by group 129
Table 39 Importance of priorities by group 130
Table 40 Variable descriptions and sources of data..... 172
Table 41 Summary statistics, Oregon counties..... 173
Table 42 Regression results 183
Table A1 Oregon county population projections..... 205
Table A2 Oregon city population projections..... 206
Table A3 Oregon adults 60+ years county projections..... 207
Table A4 Oregon adults 60+ years "high-priority" city projections..... 208
Table A5 Oregon youth 6-11 years county projections 209
Table A6 Oregon youth 6-11 years "high-priority" city projections 210
Table A7 Oregon youth 12-17 years county projections 211
Table A8 Oregon youth 12-17 years "high-priority" city projections 212
Table A9 Oregon Hispanic county projections..... 213
Table A10 Oregon Hispanic "high-priority" city projections..... 214
Table A11 Oregon Asian or Pacific Islander county projections 215
Table A12 Oregon Asian or Pacific Islander "high-priority" city projections 216
Table A13 Oregon African American (black race) county projections 217
Table A14 Oregon African American (black race) "high-priority" city projections 218
Table A15 Oregon adult population meeting
CDC physical activity recommendations county projections 219
Table A16 Oregon youth population meeting
CDC physical activity recommendations county projections 220
Table A17 Oregon adult population overweight county projections 221
Table A18 Oregon youth population at-risk of being overweight county projections 222
Table A19 Oregon adult population obese county projections 223
Table A20 Oregon youth population overweight county projections 224
Table A21 Oregon adult consumes five or more fruits or vegetables daily county projections..... 225
Table A22 Oregon youth consumes five or more fruits or vegetables daily 226
Table B1 Priority regions/watersheds for wetland restoration/acquisition.....230-231
Table B2 Habitat conservation objectives for target areas in the Willamette Valley..... 233
Table B3 Wetland habitat objectives for target areas in the Klamath Basin 233

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Executive Summary

Prepared by the Oregon Parks and Recreation Department

Outdoor Recreation in Oregon:
The Changing Face of the Future

The 2008-2012 Oregon Statewide Comprehensive Outdoor Recreation Plan

February 2008
Oregon Parks and Recreation Department

Executive Summary

The Purpose of the Plan

Authority to conduct the Statewide Comprehensive Outdoor Recreation Plan (SCORP) process is granted to the Director of the Oregon Parks and Recreation Department (OPRD) under Oregon Revised Statutes (ORS) 390.180. The primary purpose of this planning effort is to provide recommendations to the Oregon State Park System operations, administration, planning, development, and recreation programs. It also provides guidance for other OPRD-administered grant programs including the Local Grant, County Opportunity Grant, Recreational Trails and All-Terrain Vehicle Programs.

In addition, the plan provides guidance for the Land and Water Conservation Fund (LWCF) program and information and recommendations to guide federal, state, and local units of government, as well as the private sector, in making policy and planning decisions.

OPRD Planning Role

For this planning effort, the OPRD provided the project management, staffing and resources necessary to complete the plan in a high-quality manner. To maintain objectivity, the department incorporated rigorous research methods and established four separate Advisory Committees (aging, diversity, youth, and physical activity) to assist with addressing these key statewide demographic and social changes in the planning process. As a result, key planning recommendations represent the consensus of members representing a wide variety of agencies and organizations from across the state. The OPRD will support the implementation of key statewide and local planning recommendations through internal and external partnerships and OPRD-administered grant programs.

The LWCF program was established by Congress in 1964 to create parks and open spaces, protect wilderness, wetlands, and refuges, preserve wildlife habitat and enhance recreational opportunities. Within the LWCF

program, each state is appropriated funding for a stateside matching grants program which can be used to acquire land for parks and recreation purposes; build or redevelop recreation and park facilities; provide riding and hiking trails; enhance recreation access; and conserve open space, forests, estuaries, wildlife, and natural resource areas through recreation projects. In most years, all states receive individual allocations of stateside LWCF grant funds based on a national formula, with state population being the most influential factor.

To qualify for stateside LWCF funding, each state must prepare a SCORP every five years. This document and related appendices were prepared by OPRD to be in compliance with Chapter 630 of the Federal Land and Water Conservation Fund Grants Manual. With the completion of this plan, the state of Oregon will maintain its eligibility to participate in the LWCF fund through the year 2012.

Key Planning Issues

The OPRD began this SCORP planning process in September 2005. Unlike previous statewide planning efforts where planning staff used regional issues workshops to identify top statewide issues, the agency has taken a more proactive approach in addressing a limited number of previously identified and defined issues. Key findings from the 2003-2007 SCORP and the 2005-2014 statewide trails planning efforts identified a number of important demographic and social changes facing outdoor recreation providers in the coming years including:

1. A Rapidly Aging Oregon Population

Within the next decade, 15 percent of Oregon's total population will be over the age of 65 and by 2030 that number will grow to nearly 20 percent. An enhanced focus on promoting and preserving the health of older adults is essential if we are to effectively address the health and economic challenges of an aging society. If older adults increase physical activity, improve eating habits, and take some relatively simple steps to minimize the risk of falling, they could live longer and healthier lives. Boomers will also have more time to "give back" to their communities or become involved in meaningful and purposeful volunteer activities. In addition to providing direct benefits to the community, studies have also shown that volunteerism increases an older adult's physical health and agility as well as his/her cognitive and mental well-being. Clearly, Oregon's park and recreation providers have the facilities and programs in place across the state to take a leadership role in promoting and preserving the health of older adults through encouraging and facilitating their involvement in active outdoor recreation activities. OPRD has undertaken an effort to examine how recreation providers across the state can proactively manage for changes associated with an aging Oregon population.

2. Fewer Oregon Youth Learning Outdoor Skills

Although Oregon is a state with abundant natural resources, there is growing evidence that Oregon's youth are gravitating away from outdoor experiences and towards a virtual indoor reality. Analysis of past SCORP survey results indicates that participation in traditional outdoor recreation activities such as camping, fishing and hunting has dramatically decreased. It could be argued that because of a variety of societal changes, Oregon has "lost a generation" of outdoor recreation participants. Research has shown that people who do not participate in outdoor recreation as youth are less likely to participate in those activities as adults. By providing Oregon's youth with opportunities to learn outdoor recreation skills in outdoor settings, we have the opportunity to rebuild the foundation for future outdoor recreation participation, reestablish personal connections with nature and their public lands, and improve not only health and well being of future youth and adults, but also instill a passion for nature that may parlay into nature stewardship. This can be accomplished by engaging Oregon parents in outdoor skill/development activities or engaging youth directly.

3. An Increasingly Diverse Oregon Population

The face of Oregon is changing. By the year 2020, Oregon's combined Hispanic, Asian, and African-American population will make up 22% of the state's population. Research has identified that in general, minorities are less likely than whites to participate in outdoor recreation in the U.S. As a result, these under-represented populations forego the health, social, and other benefits of outdoor recreation, while natural areas, and the agencies that manage them, lose a potentially important group of supporters. As Oregon's population continues to change, it is critical to understand how different ethnic and racial groups participate in outdoor recreation activities, and the constraints that limit their participation to better serve their outdoor recreation needs.

4. Oregon's Physical Activity Crisis

According to the U.S. Center for Disease Control (CDC), rates of physical inactivity and obesity in the U.S. have reached epidemic proportions. Overweight and obesity are associated with increases in several chronic diseases such as coronary heart disease, type-2 diabetes, and various cancers. Regular, moderate exercise has been proven to reduce the risk of developing coronary heart disease, stroke, colon cancer, hypertension, diabetes, osteoporosis, obesity and depression. Public facilities such as trails, swimming pools and parks that are conveniently located have been found to be positively associated with vigorous physical activity in a number of studies, among both adults and children. By providing facilities and programs which encourage physical activity, parks and recreation providers can directly contribute to the battle on physical inactivity, obesity, and rising health costs in Oregon.

SCORP Research Projects

The planning process includes a series of studies designed to provide outdoor recreation managers and planners across Oregon with usable knowledge so they can proactively address the four key statewide demographic and social changes affecting recreation in Oregon. The research projects, methodologies, and key findings are highlighted below.

1. An Aging Population and Outdoor Recreation in Oregon.

This research component assessed the effects on outdoor recreation of two related trends—Baby Boomers moving into retirement and relocation to and within Oregon. The project included: (a) a statewide mail survey of "Baby Boomers" and "Pre-Boomers"[1]; and (b) a separate analysis of factors affecting relocation to and within Oregon associated with the Baby Boomer and Pre-Boomer populations.

Statewide Survey of Boomers and Pre-Boomers

The statewide mail survey was designed to identify current outdoor recreation participation among these two populations and how they expect to recreate in the coming years. Of critical importance, is how to keep Boomers actively involved in outdoor recreation as they move into and through retirement. A copy of the full report is available on the web at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Aging_Oregon_Report.pdf.

<u>Summary of Key Findings: Statewide Survey of Boomers and Pre-Boomers</u>

- Survey results for the current Oregon population of Boomers and Pre-Boomers are consistent with expectations that outdoor recreation

[1] Baby Boomers, or simply Boomers, are Oregon residents born between 1946 through 1964, while Pre-Boomers are Oregon residents born between 1926 and 1945.

participation declines with age despite greater free time in retirement.

- On average across all activities, respondents expect to spend 28% more days recreating 10 years from now than they currently do. In other words, Boomers in Oregon may "break the trend" of decreasing recreation participation with age.
- The most popular outdoor recreation activities for Oregonians between the ages of 42 and 80 included walking, picnicking, sightseeing, visiting historic sites and ocean beach activities.
- A comparison across age categories for top five activities by participation intensity leads to the following conclusions: Walking is the top activity across all age categories (40-79); jogging is a top activity between the ages of 40-59, but is also popular for those in their 70s; bicycling is a top activity between the ages of 40-64; sightseeing is a top activity between the ages of 45-74; bird watching is a top activity between the ages of 55-79; and RV/trailer camping is a top activity between the ages of 55-74.
- The top five activities in terms of future participation intensity 10 years from now included walking, bicycling (road/path), jogging, bird watching and day hiking.
- The most important current motivations or reasons for participating in outdoor activities were to have fun and be in the outdoors.
- Ensuring clean and well-maintained parks and facilities was the most important management action that will lead to a large increase in recreation followed by developing walking/hiking trails closer to home and providing more free-of-charge recreation opportunities.
- Boomers placed more importance than Pre-Boomers on developing trails and parks closer to home and providing more information.
- Over a third of Oregon Boomers and Pre-Boomers volunteered in their community, with an average time commitment of 5.3 hours per week.
- Of those who volunteered, 43% expect future changes in their volunteer activities, with most of the changes involving greater volunteerism: more time, more projects at current volunteer opportunities, and new volunteer opportunities.
- When asked what recreation or natural resource agencies can do to increase the time respondents spend volunteering or to attract new volunteers, the overwhelming response was to provide more information.
- Oregon's recreation managers can expect substantial increases in the number of visitors with a physical or mental disability using their recreational facilities and services in the coming years as Boomers increase in age.
- Priority should be given to trails, picnic areas, sightseeing areas, and historic sites in terms of where resources should be directed for providing accessibility accommodations.
- Respondents were asked about their past and expected moves (relocation). Nearly one third (32%) had moved in the past ten years and 14% plan on moving in the next 10 years.
- Respondents who had moved or expected to move were asked about community characteristics that affected or will affect their selection of a destination community. Scenery was the most important characteristic, followed by low crime, high-quality health care, low tax levels, and general outdoor recreation opportunities.

- Boomers rated job opportunities much more highly than do Pre-Boomers. Other characteristics favored by Boomers included other recreation (other than golf and winter recreation) opportunities, presence of a college or university, and a four-season climate.
- Pre-Boomers rated the following more highly: assisted living facilities, being near family and friends, being near previous residence, and low tax levels.

Boomer and Pre-Boomer Relocation To and Within Oregon

The relocation analysis summarizes available data on Boomer and Pre-Boomer relocation in Oregon, with a goal of understanding past and future relocation in order to facilitate provision of outdoor recreation opportunities. The analysis utilized secondary data, primarily from the U.S. Census Bureau, Oregon DMV records and the results of the statewide Boomer and Pre-Boomer survey. Relocation can be separated into intra-state relocation (from one location to another within Oregon) and inter-state relocation (from another state or county to Oregon). A copy of the full report is available on the web at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Aging_Migration_Report.pdf.

<u>Summary of Key Findings: Boomer and Pre-Boomer Relocation To and Within Oregon</u>

- Oregon as a whole has been a popular destination for inter-state relocation, with California being the dominant state of origin, followed by Washington.
- On a statewide basis, the number of Oregonians relocating to new communities within the state in the Boomer and Pre-Boomer population far exceeds the number of people relocating in Oregon from other states in these age categories.
- Southern, Coastal, and Central Oregon have been particularly popular destinations for inter-state relocation, while inter-county relocation has been more dispersed around the state.
- Considering inter-state and inter-county relocation combined, 1995-2000 relocation represents more than 20% of the 2000 population in most counties, and more than 30% in some.
- The aging Boomer cohort will dramatically increase the number of inter-county and inter-state moves to Oregon communities. Over the next decade, Oregon communities can expect roughly 20% more moves in the 40 to 79 age range than they experienced in the past decade.
- The level and distribution of relocation across communities will not be uniform across the state; rather, both the number of moves and the intensity relative to current population bases will vary across the state.
- During the period from 1996-2006, Southern and coastal (Florence and south) Oregon communities had highest levels of relocation intensity, followed by Central Oregon.
- Projections for the years 2006-2016, maintain a similar relocation pattern — that relocation will be most intense in Southern and Coastal Oregon.

2. Encouraging Youth Outdoor Recreation Participation in Oregon.

This research component was designed to identify factors that limit youth participation and opportunities for overcoming them. The project included (a) a statewide mail survey of Oregon youth and their parents and (b) a separate study

designed to explore the opinions and thoughts directly from youth in a series of focus group meetings.

Statewide Survey of Oregon Parents and Youth

The statewide mail survey was conducted using a random sample of "child intense" Oregon households. Each person in the sample received a parent survey and two youth surveys. Parents reported on their own outdoor recreation behavior and that of a randomly selected child between the ages of 3 and 17 (if there were any in the household). The youth surveys were intended for household youth, up to a maximum of two, in the 12-17 age range. A copy of the full report is available on the web at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Youth_Survey_Report.pdf.

<u>Summary of Key Findings: Statewide Survey of Oregon Parents</u>

- Starting with the parent survey, the most popular (highest average days in past year) outdoor activities for parents were walking, viewing natural features, and relaxing/hanging out. For children, the most popular were walking, followed by outdoor sports/games, relaxing/hanging out, and general play at neighborhood parks/playgrounds.
- The more a parent engages in an outdoor recreation activity, the more their child does.
- Participation varies across child age, with both the number of activities and the number of activity days peaking amongst 12-14 year olds and decreasing for 15-17 year olds.
- Rural children spend more days, on average, in outdoor activities relative to urban and suburban children. Suburban children spend the least amount of days in outdoor activities.
- For most activities parents first engaged in the activity as a child, rather than an adult. This is consistent with research indicating the importance of early life participation setting a pattern for later life participation.
- Based on parental reports, children spend more time, on average, than parents did in organized sports, both indoor and outdoor. However, there have been decreases in other activities, with the greatest decreases occurring in outdoor chores and outdoor play not at school.
- With the exception of swimming and applying environmental ethics, children were rated, on average, as having a lower ability than their parents when they were children.
- Map/ compass, cooking outdoors, and knots/ rope work skills were the skills in which children's abilities are lowest relative to the previous generation's ability.
- In general, abilities have decreased more, on average, amongst urban and suburban households than among rural households.
- Most parents learned skills from their parents or guardians.
- Outdoor sports programs and day camps were the most popular types of outdoor recreation programs with respect to past participation.
- Many parents indicated that it would be very likely for their children to participate in outdoor sports programs (62%), multi-day camps (49%), outdoor adventure trips (45%), and day camps (45%) in the future.
- When considering constraints that limit program participation, parents reported that lack of information and cost are the

two most important constraints — especially for low income households.

- Having fun was clearly the most important priority for parents in selecting programs, though staying safe and out of trouble and getting physical activity and exercise were also important priorities.
- Most respondents felt there are safe opportunities for their children to engage in outdoor activities.
- Almost all parents felt that it was a priority for their child to spend more time in outdoor activities.

Summary of Key Findings: Statewide Survey of Oregon Youth

- Outdoor field games were clearly the favorite activity for youth, followed by biking and outdoor court games.
- Though parents play critical roles in introducing youth to activities, friends and other family (e.g., siblings) were more popular recreation partners for youth.
- When asked what they would like to do more often, youth commonly noted outdoor field games, followed by biking and camping.
- More or better facilities and more participants or teams would help youth engage more often.
- Homework and other (e.g., indoor) activities were noted as the most common constraint to youth spending more time outdoors.
- Youth were asked to create an ideal activity program, selecting one or more from a list of 31 potential activities. Tent camping was the most popular activity to include in such a program, followed by sledding / tubing, swimming / diving, and outdoor field games.
- Girls were more likely than boys to include horseback riding as an ideal activity program, while boys were more likely than girls to include All-Terrain Vehicle (ATV) riding. Girls are equally enthusiastic about tent and cabin camping whereas boys prefer tent camping.
- Youth preferred to do their favorite program activity with friends and in groups of 3-5 or 6-10 people.

Oregon Youth Focus Group Meetings

The focus group study was designed to explore the opinions and thoughts directly from youth of various age groups who lived in rural and urban areas in the state of Oregon. Activities, time, constraints and benefits experienced in the outdoors were the major focus of this exploration. A series of nine focus group meetings occurred in three separate locations in Oregon including the cities of Portland, Bend and Prineville. A copy of the full report is available on the web at: http://www.oregon.gov/OPRD/PLANS/docs/scorp/Youth_Focus_Group_Interviews.pdf.

Summary of Key Findings: Oregon Youth Focus Group Meetings

- Conduct a region-based inventory of governmental, not-for-profit, and for-profit recreation youth-related facilities, programs and processes. This inventory would include the strengths, weaknesses, opportunities, and threats of each recreation entity within each of the 11 SCORP planning regions.
- Oregon recreation resource managers should attempt to understand if their existing and proposed facilities are appropriate for Oregon's youth.
- Recreation resource managers should strive to develop partnerships with appropriate recreation entities. These partnerships may include communities

partnering with public, private and not-for-profit entities.

- Oregon recreation resource managers may want to consider a public awareness campaign touting the importance of outdoor recreation and include awareness about sedentary activities.
- Many communities have been participating in a "community policing" method, where police are present in neighborhoods to prevent criminal activity, rather than responding to crimes. Partnerships between police and other safety/security agencies in communities with crime threats would be an important component and may allow kids to feel more comfortable recreating outdoors.
- Recreation resource managers should consider a pointed marketing campaign touting the benefits and potential outcomes of playing outside.

3. A Growing Minority Population and Outdoor Recreation Participation in Oregon.

This research component identified the factors limiting minority outdoor recreation participation in Oregon and opportunities to increase this participation The project included (a) a statewide mail survey of Oregon's Hispanic and Asian populations and (b) a series of focus group interviews designed to explore the opinions and thoughts of Oregon's Hispanic, Asian and African-American populations.

Statewide Survey of Oregon Hispanic and Asian Populations

The statewide mail survey was conducted using a random sample of Oregon Hispanic and Asian households. Survey recipients were obtained from a commercially provided list of Hispanic and Asian households in Oregon. For all correspondence, persons in the Hispanic sample were sent versions in both English and Spanish (e.g., English and Spanish cover letters, English and Spanish surveys). A copy of the full report is available on the web at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Diversity_Survey_Report.pdf.

<u>Summary of Key Findings: Statewide Survey of Oregon Hispanic and Asian Populations</u>

- Walking for pleasure was the most common favorite activity for both Hispanics and Asians, with fishing and soccer being the next most common for Hispanics and hiking and fishing the next most common for Asians.
- Both Hispanic and Asian respondents most commonly did their favorite activity with members of their immediate family. Asians were more likely than Hispanics to do activities alone, as were older respondents relative to younger respondents.
- The most common location for Hispanic and Asian respondents to do their favorite activity was in a park or other area outside one's town or city. Males were more likely than females to engage in their favorite activity further from home.
- Survey results suggest that both the Hispanic and Asian populations in Oregon engage in outdoor recreation less than the general population. With respect to days of participation (intensity), this is especially true for Asians. With respect to number of activities, this is true for both Hispanics and Asians.

- Walking for pleasure was also the activity respondents spent the most days engaged in during the past year. Hispanics engage more intensely than Asians in jogging/running, day hiking, picnicking, fishing, viewing natural features, visiting nature centers, and visiting historic sites.
- The most common activities respondents would like to do more often, or start doing were walking for Asians and walking and camping for Hispanics. The factor that would most help make this happen is availability of partners, followed by more time.
- Most of the Hispanic and Asian respondents have lived in another country and engaged in outdoor recreation in that country. The specific activities engaged in varied widely, with walking being the most common, followed by day hiking.
- For the Hispanic population, being in the outdoors, relaxing and having fun were the most important motivators or reasons for participating in outdoor activities.
- For the Asian population, relaxing, fitness, and having fun were the top motivators.
- Ensuring clean and well-maintained parks and facilities were the most important management action followed by keeping parks safe from crime, providing more free-of-charge recreation opportunities and expanded facilities.
- The most commonly recommended facilities for development in parks were picnic tables, followed by trails and campgrounds. There were some differences across groups, with Hispanic being more likely than Asians to suggest additional sports fields.
- In terms of information sought by respondents, practical information on activities, facilities, and location were the most common response, followed by information on cost.
- Overall, the internet was most frequently noted as the desired information outlet.
- Asians clearly preferred the internet, followed by newspapers and TV. Hispanics preferred newspapers and TV, followed by the internet.
- With respect to youth outdoor programs, the majority (59%) of respondents with children indicated that their children have participated in outdoor sports programs. Close to forty percent also indicated participation in day camps or multi-day camps.
- Outdoor sports programs were also the activity that children were most likely to participate in the future, followed by programs to help youth use their free time productively.
- Weekends were the most popular times for participation in youth outdoor programs, followed by summer weekends and weekdays.
- Lack of information and cost were reported as the main constraints to participation in such programs.
- Top constraints for Hispanics included lack of information, and cost. For Asians, top constraints included lack of information, safety concerns and age/gender-appropriate programs.
- When considering programs for children to participate in outside class time, Hispanic parents placed highest priority on staying safe and out of trouble and getting physical exercise. Asian parents placed the highest priority on getting physical exercise and having fun.

Oregon Ethnicity Focus Group Meetings

The focus group study was designed to understand ethnic minorities' interests and needs related to outdoor recreation, and how agencies such as the Oregon Parks and Recreation Department, the U.S. Forest Service, and local recreation providers can better respond to these non-traditional users. Current and previous recreation experiences, benefits sought, constraints, media, and specific information about parks were the major focus of this exploration. A series of four focus group meetings occurred, two taking place in the city of Portland (one African-American and one Asian-American), and one each in Hermiston (Hispanic) and Woodburn (Hispanic). A copy of the full report is available on the web at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/OregonSCORPMinorityFocusGroupReport.pdf.

Summary of Key Findings: Oregon Ethnicity Focus Group Meetings

- Develop facilities (such as picnic areas) large enough for extended families.
- Recruit a more diverse staff.
- Target marketing information at ethnic groups in appropriate media and languages.
- Develop a multi-language recreation web site.
- Create trust with key informants within the communities.
- Focus information delivery on Hispanic youth.
- Focus youth programs on academic enhancement.

4. Health and Recreation Linkages in Oregon: Physical Activity, Overweight and Obesity

This research component tested the hypothesis that people in Oregon with ready access to outdoor recreation opportunities are healthier than people residing in areas without access to such resources. The objective of this study was to evaluate the relationship between the supply and demand of recreation opportunities in Oregon and measures of health status (physical activity, overweight, and obesity) at the county-level. Data were collected from secondary sources at the county-level or below and a regression model[2] used for hypothesis testing. The report begins with a literature review and concludes with key findings and recommendations. A copy of the full report is available on the web at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Health_and_Rec_Report_websize.pdf.

<u>Summary of Key Literature Review Findings: Health and Recreation Linkages</u>

- In 2003, the state of Oregon spent an estimated $291 per person on medical costs related to obesity. Oregon's total estimated medical costs related to obesity in adults that year was $781 million, nearly 6% of the state's total health care costs.
- Regular, moderate exercise has been proven to reduce the risk of developing coronary heart disease, stroke, colon cancer, hypertension, diabetes,

[2] In statistics, regression analysis examines the relationship of a dependent variable (response variable) to specific independent variables (explanatory variables). This technique allows a researcher to isolate the effect of individual and multiple explanatory variables on a response variable.

osteoporosis, obesity and depression. Even small increases in light to moderate activity, equivalent to walking about 30 minutes a day, will produce measurable benefits among those who are least active.

- Public facilities such as trails, swimming pools and parks that are conveniently located have been found to be positively associated with vigorous physical activity in a number of studies, among both adults and children.
- Regular physical activity clearly lessens many of the health risks associated with overweight and obesity.
- Physically active adults (56%) in Oregon have lower rates of many chronic diseases than sedentary adults (44%).
- As people move away from being sedentary, the health benefits of being physically active accumulate immediately, and continue to accrue as they become more physically active.
- Active obese individuals have lower morbidity and mortality than normal weight individuals who are sedentary.
- Being physically active is associated with moderate reductions in depression, small to moderate decrease in anxiety, small decrease in panic disorder, a large increase in energy and vigor, a small to moderate increase in self-esteem, and a small to moderate increase in positive affect (especially if physical activity occurs in social settings).
- Evidence suggests that physical inactivity is a strong contributing factor for overweight and obesity. However, exercising does not significantly increase initial weight loss over and above that obtained with diet only. As a result, physical activity messages that focus on behavioral changes (increased physical activity and healthy diets) rather than outcomes (weight loss) may provide the appropriate motivation for sedentary individuals to become physically active.
- In urban environments, factors of accessibility that promote physical activity include bike paths, local parks, density of facilities and shops within walking distance. Factors of accessibility that reduced physical activity included busy streets, steep hills, lack of or inadequate facilities and distance from residence to resources.
- Access to parks and trails is consistently related to activity levels. The more distant recreation facilities are from an individual's residence, the less likely they are to use it.
- People are more likely to walk in parks when they are close, large, and have a variety of features.
- Users of public open space are three-times more likely to meet recommended physical activity levels.
- Parks and other areas to recreate help move people get physical activity.

<u>Summary of Key Literature Review Findings: Trends in Physical Activity and Obesity</u>

- In 2005, Oregon was doing better or at least doing no worse than the U.S. on health prevalence measures of physical activity, overweight and obesity.
- The proportion of Oregon adults that are physically active in their leisure time was 56% compared to the U.S. at 49%.
- Oregon was identical to the U.S. in the proportion of adults that were overweight (37%), while rates of obesity were slightly lower than the U.S. (20% v. 22%, respectively).

- These general patterns of health prevalence measures between Oregon and the U.S. held up across gender and age classes.
- Trends in the proportion of adults that are physically active, overweight or obese are all increasing at nearly identical rates between Oregon and the U.S.
- Rates of physical activity, overweight and obesity varies across Oregon's counties.
- The average county proportion of physical activity increased from 44% in 2001, to 54% in 2005.
- The average county proportion of overweight slightly decreased from 39% in 2001 to 38% in 2005.
- The average county proportion of obesity slightly increased from 22% in 2001 to 24% in 2005. Some counties' proportions of physical activity decreased and some counties' proportions of overweight and obesity increased during this period.

Summary of Key Findings: Regression Model Analysis of Recreation Supply and Demand in Oregon.

- Recreation supply and demand are strongly associated with higher rates of physical activity, somewhat associated with lower rates of overweight, and weakly associated with rates of obesity.
- More hiking and urban trail miles per household were associated with increased rates of physical activity.
- More days spent in trail, road and sports related activities were associated with higher physical activity rates.
- Hiking trail miles per household were negatively associated with overweight, but not obesity.
- Days spent in trail and sports activities were negatively associated with overweight, while only days spent in trail activities was negatively associated with obesity.

Summary of Key Recommendations: Linkages Between Physical Activity, Overweight, Obesity and Recreation Supply in Oregon

- Support close-to-home non-motorized trail development.
- Identify at risk communities.
- Promote the use of existing trail networks by providing information on existing trails.
- Market the health benefits of outdoor recreation, but note the importance of nutrition in a weight loss regimen.
- Target at-risk people and communities.

Demographic and Social Trend Analysis

To better understand how these important demographic and social changes will affect outdoor recreation providers in their local service areas in the coming years, OPRD had the Population Research Center at Portland State University prepare population estimates and projections for planning and grant program purposes. Estimates were developed for the year 2005, and the projections, for 2010, 2015, and 2020. The estimates and projections include population sub-groups, as well as the total population, with specific demographic characteristics, such as age, race/ethnicity, and health status. Population estimates and projection tables for Oregon counties and selected communities are included in Appendix A.

The Population Research Center also identified high-priority counties and cities for each of the four key SCORP planning issues based on an analysis of historical trends and expectations for the future.

A Rapidly Aging Population:
Counties identified as "high-priority" based on increase in aging population 60 years and older include Benton, Clackamas, Columbia, Crook, Deschutes, Lane, Multnomah, and Washington. High-priority cities include Albany, Aumsville, Beaverton, Bend, Eugene, Florence, Gresham, Hillsboro, Keizer, Lakeside, McMinnville, Medford, Oregon City, Richland, Salem, Tigard and Troutdale.

Fewer Youth Learning Outdoor Skills:
Counties identified as "high-priority" based on increase in youth population between the ages of 6-17 include Clackamas, Crook, Deschutes, Jefferson, Lane, Marion, Morrow, Multnomah, Washington, and Wheeler. High-priority cities include Albany, Banks, Barlow, Beaverton, Bend, Boardman, Coburg, Creswell, Donald, Eugene, Fairview, Gresham, Happy Valley, Helix, Hillsboro, Medford, Oregon City, Portland, Redmond, Salem, Sherwood, Tigard, Wilsonville and Woodburn.

An Increasingly Diverse Population:

- Hispanic—Counties identified as "high priority" based on an increase in population diversity for Hispanic ethnicity include Clackamas, Deschutes, Lincoln, Marion, Morrow, Multnomah, Sherman, Tillamook, Washington and Wheeler. High-priority cities include Albany, Beaverton, Bend, Boardman, Canby, Cornelius, Corvallis, Eugene, Fairview, Forest Grove, Gervais, Gresham, Hermiston, Hillsboro, Hood River, Hubbard, Irrigon, Keizer, Lafayette, Madras, McMinnville, Medford, Milton-Freewater, Newberg, Ontario, Portland, Salem, Springfield, Stanfield, Tigard, Tualatin, Umatilla, Wilsonville, Wood Village and Woodburn.
- Asian/Pacific Islander—Counties identified as "high-priority" based on an increase in population diversity for Asian/Pacific Islander race include Clackamas, Deschutes, Jackson, and Washington. High-priority cities include Beaverton, Bend, Corvallis, Eugene, Fairview, Forest Grove, Gresham, Happy Valley, Hillsboro, Keizer, Lake Oswego, Medford, Portland, Salem, Sherwood, Springfield, Tigard, Troutdale, Tualatin, West Linn, and Wilsonville.
- African-American—Counties identified as "high-priority" based on an increase in population diversity for African American (Black race) include Deschutes, Washington and Multnomah. High-priority cities include Albany, Ashland, Beaverton, Cornelius, Eugene, Fairview, Gladstone, Gresham, Hermiston, Hillsboro, Keizer, McMinnville, Medford, Milwaukie, Monmouth, Oregon City, Portland, Salem, Springfield, Tigard, Troutdale, Tualatin, Umatilla and Wilsonville.

A Physical Activity Crisis:
Counties identified as "high-priority" based on an increase in adult population not meeting CDC physical activity recommendations[3] include Baker, Columbia, Crook, Douglas, Harney, Hood River, Josephine, Morrow, Tillamook, Umatilla and Wallowa.

Key Planning Recommendations

Following completion of the research studies, each of the four SCORP Advisory Committees met to develop a final set of planning

[3] CDC physical activity recommendations include moderate activity greater or equal to 30 minutes at least five days a week or vigorous activity greater or equal to 20 minutes at least three days a week.

recommendations for assisting recreation providers across the state to proactively address their respective planning issues. Committee member recommendations were based on a thorough review of existing literature related to the issue, SCORP research findings, and members' practical experience and knowledge of the issue. Key recommendations are divided into two categories; statewide recommendations and local recommendations. Statewide recommendations are relevant for all recreation providers across the state of Oregon. Because individual issues might be of greater relevance in certain areas of the state, local recommendations apply to those high-priorities counties and/or cities identified in SCORP research projects.

Key Planning Recommendations for a Rapidly Aging Oregon Population

- Statewide Recommendation #1: Develop a statewide trails web site to facilitate recreational trail use by Oregon's Boomer population.
- Statewide Recommendation #2: Develop a statewide marketing plan to encourage Boomer outdoor recreation participation.
- Statewide Recommendation #3: Create a statewide interagency volunteer information web site or other communications medium to match Boomer volunteers with recreation or natural resource projects in Oregon.
- Statewide Recommendation #4: Facilitate the development of local senior walking clubs throughout Oregon.
- Statewide Recommendation #5 Identify ways to fund accessible trails in remote settings in close proximity to urban areas of the state.
- Local Recommendation #1: Greater priority for trail acquisition and development projects in high-priority counties and communities as identified by the Population Research Center (under the heading A Rapidly Aging Population) in OPRD-administered grant programs.
- Local Recommendation #2: Plan and develop regional trail systems in areas of the state having highest relocation intensity in the 40 to 79 age range in Coastal, Southern and Central Oregon communities as identified by the SCORP Boomer and Pre-Boomer Relocation Analysis project.

Key Planning Recommendations for Fewer Oregon Youth Learning Outdoor Skills

- Statewide Recommendation #1: Develop a statewide youth outdoor programming framework and funding source to focus youth programming efforts across Oregon towards addressing a specific set of key measurable objectives.
- Statewide Recommendation #2: Develop a menu of after-school programs which are linked to current education standards and that address key objectives of the statewide youth outdoor programming framework.
- Statewide Recommendation #3: Develop a "Let's go Camping" marketing campaign targeting Oregon adults with children with the objective of getting parents outdoors with their children.
- Statewide Recommendation #4: Create a new Outdoor Recreation Section within the Oregon Recreation and Park Association (ORPA) addressing the areas of outdoor recreation and environmental education.
- Local Recommendation #1: Provide funding and assistance for innovative park designs to connect youth with nature in high-priority counties and communities as identified by the Population Research Center (under the heading Fewer Youth Learning Outdoor Skills) in OPRD-administered grant programs.

Key Planning Recommendations for an Increasingly Diverse Oregon Population

- Statewide Recommendation #1: Encourage organizational cultural change within public recreation agencies/ organizations to effectively address the diversity issue.
- Statewide Recommendation #2: Create a pilot project to identify how to increase under-represented population access to outdoor sports fields.
- Statewide Recommendation #3: Develop recommendations for addressing language barriers to encourage under-represented population use of outdoor recreation facilities and programs.
- Statewide Recommendation #4: Create a customer service training module related to serving the outdoor recreation needs of an increasingly diverse population.
- Local Recommendation #1: Greater priority for developing group day-use facilities, recreational trails, outdoor sports fields, close-to-home camping and alternative camping opportunities in high-priority counties and communities as identified by the Population Research Center (under the heading an Increasingly Diverse Population) in OPRD-administered grant programs.
- Local Recommendation #2: Develop and implement a strategic regional marketing model designed to deliver outdoor recreation information to under-represented populations in Oregon.
- Local Recommendation #3: Develop and implement a regional youth framework to encourage under-represented youth participation in outdoor recreation activities through partnerships and investments in school-based recreation clubs.

Key Planning Recommendations for Addressing Oregon's Physical Activity Crisis

- Statewide Recommendation #1: Develop a statewide marketing plan to encourage Oregonians to become physically active by using park and recreation facilities and services.
- Statewide Recommendation #2: Develop and institutionalize the statewide trails web site and add information about physical-activity related recreation programs and facilities following completion of the recreational trails work.
- Statewide Recommendation #3: Work with the medical community to get outdoor recreation participation information into medical offices and physician referrals.
- Statewide Recommendation #4: Identify ways to fund recreation maintenance and facility development on school grounds.
- Statewide Recommendation #5: Develop a strategy to strengthen the role of parks and recreation agencies in the state's Safe Routes to Schools grant program.
- Statewide Recommendation #6: Create a pilot program to identify how to increase under-represented population access to outdoor sports fields.
- Statewide Recommendation #7: Identify ways to fund and maintain bicycle trails on Oregon Department of Transportation (ODOT) right-of-ways which are separated from the road using excess corridor.
- Local Recommendation #1: Greater priority for close-to-home non-motorized trail acquisition and development projects in high-priority counties as identified by the Population Research Center (under the heading A Physical Activity Crisis) in OPRD-administered grant programs.

Key LWCF Grant Priorities

- A Rapidly Aging Oregon Population: Greater priority for trail acquisition and development projects in high-priority counties and communities as identified by the Population Research Center (under the heading A Rapidly Aging Population) in the LWCF grant program.
- Fewer Oregon Youth Learning Outdoor Skills: Greater priority for projects which include innovative park designs to connect youth with nature in high-priority counties and communities as identified by the Population Research Center (under the heading Fewer Youth Learning Outdoor Skills) in the LWCF grant program.
- An Increasingly Diverse Oregon Population: Greater priority for developing group day-use facilities, recreational trails, outdoor sports fields, close-to-home camping and alternative camping opportunities in high-priority counties and communities as identified by the Population Research Center (under the heading an Increasingly Diverse Population) in the LWCF grant program.
- Oregon's Physical Activity Crisis: Greater priority for close-to-home non-motorized trail acquisition and development projects in high-priority counties as identified by the Population Research Center (under the heading A Physical Activity Crisis) in the LWCF grant program.

Recommendations Matrix

These recommendations have been categorized into seven focus areas including web site development, marketing, recreation programming, collaboration and partnerships, interagency planning, OPRD-administered grant programs, and other funding needs. A planning recommendations matrix is included on the following pages. Over the course of the planning process, it became evident that there was a considerable amount of overlap between the four issue findings and recommendations. For example, the development of a statewide trails web site was a key recommendation for both the aging and physical activity issues, but was also relevant to getting youth and under-represented populations involved in outdoor activities. As a result, the matrix includes not only the primary issue addressed by each recommendation (marked with **P)**, but other secondary issues addressed by each recommendation (marked with S).

2008-2012 Oregon SCORP Recommendations Matrix

Focus Area / Planning Strategy	Key Planning Issues			
	Aging	Youth	Diversity	Physical Activity
Website Development				
✓ Develop a statewide trails website to facilitate recreational trail use.	**P**	S	S	S
✓ Develop a statewide interagency volunteer website to match Boomers with recreation or natural resource volunteer opportunities.	**P**			
✓ Institutionalize the statewide trails website and add information about physical activity-related recreation programs and facilities.	S	S	S	**P**
Marketing				
✓ Develop a statewide marketing plan to encourage Boomer outdoor recreation participation.	**P**	S	S	S
✓ Develop a "Let's go Camping" marketing campaign targeting Oregon adults with children with the objective of getting parents outdoors with their children.	S	**P**	S	
✓ Develop a strategic regional marketing model designed to deliver outdoor recreation information to under-represented populations.	S	S	**P**	S
✓ Develop a statewide marketing plan to encourage Oregonians to become physically active by using park and recreation facilities and services.	S	S	S	**P**
Recreation Programming				
✓ Facilitate the development of local senior walking clubs throughout Oregon.	**P**			S
✓ Develop a menu of after-school programs that are linked to current education standards and that address key objectives of the statewide youth outdoor programming framework.		**P**	S	S
✓ Create a new outdoor education and extension position at Oregon State University.	S	**P**	S	S
✓ Create a pilot project to increase under-represented population access to outdoor sports fields.		S	**P**	S
✓ Develop a regional youth framework to encourage under-represented youth participation in outdoor recreation activities through partnerships and investments in school-based recreation clubs.		S	**P**	S

P = Primary issue addressed by recommendation S = Secondary issue addressed by recommendation

2008-2012 Oregon SCORP Recommendations Matrix (contd.)

Focus Area / Planning Strategy	Key Planning Issues			
	Aging	Youth	Diversity	Physical Activity
Collaboration and Partnerships				
✓ Develop a statewide youth oudoor programming framework and funding source to focus youth programming efforts across Oregon to address a specific set of key measurable objectives.		**P**	S	S
✓ Create a new Outdoor Recreation Section within the Oregon Park and Recreation Association addressing the areas of outdoor recreation and environmental education.	S	**P**	S	S
✓ Work with the medical community to get outdoor recreation participation information into medical offices and physician referrals.	S	S	S	**P**
✓ Develop a strategy to strengthen the role of park and recreation agencies in the state's Safe Routes to Schools grant program.	S	S	S	**P**
✓ Identify ways to fund and maintain bicycle trails on ODOT right-of-ways which are separated from the roadway using excess corridor.	S	S	S	**P**
Interagency Planning				
✓ Plan and develop regional trail systems in areas having highest relocation intensity in the 40- to 79- age range (Coastal, Southern and Central Oregon communities).	**P**	S	S	S
✓ Provide design assistance for innovative park designs connecting kids with nature.	S	**P**	S	S
✓ Encourage organizational cultural change within public recreation agencies/ organizations to effectively address the diversity issue.			**P**	
✓ Develop recommendations for addressing language barriers to encourage under-represented population use of outdoor recreation facilities and programs.	S	S	**P**	S
✓ Create a customer service training module related to serving the outdoor recreation needs of an increasingly diverse population.	S	S	**P**	S
OPRD-Administered Grant Program Priorities				
✓ Non-motorized trail acquistion and development projects.	**P**	S	S	S
✓ Develop innovative park projects designed to connect youth with nature.	S	**P**	S	S
✓ Develop group day-use facilities, recreational trails, outdoor sports fields, close-to-home camping and alternative camping opportunities.	S	S	**P**	S
✓ Close-to-home non-motorized trail acquisition and development projects.	S	S	S	**P**
Other Funding Needs				
✓ Identify ways to fund accessible trails in remote settings in close proximity to urban areas of the state.	**P**	S	S	S
✓ Identify ways to fund recreation maintenance and facility development on school grounds.	S	**P**	S	S

P = Primary issue addressed by recommendation S = Secondary issue addressed by recommendation

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Chapter One
Introduction

Prepared by the Oregon Parks and Recreation Department

Plan Introduction

The purpose of this planning effort was to provide guidance for the Land and Water Conservation Fund (LWCF) program and information and recommendations to guide federal, state, and local units of government, as well as the private sector, in making policy and planning decisions. It also provides guidance for other Oregon Parks and Recreation (OPRD)-administered grant programs including the Local Grant, County Opportunity Grant, Recreational Trails and All-Terrain Vehicle Programs. In addition, it provides recommendations to the Oregon State Park System operations, administration, planning, development, and recreation programs.

This document constitutes Oregon's basic five-year policy plan for outdoor recreation. It establishes the framework for statewide comprehensive outdoor recreation planning and the implementation process. In conjunction with that purpose, it is intended to be consistent with the objectives of the Land and Water Conservation Fund Act of 1965, which, as its title implies, is to conserve and make available for public enjoyment as much of the nation's high-quality land and water resources as may be available and necessary to meeting the nation's outdoor recreation needs.

The Land and Water Conservation Fund

The Land and Water Conservation Fund was established by Congress in 1964 to create parks and open spaces, protect wilderness, wetlands, and refuges, preserve wildlife habitat and enhance recreational opportunities. The LWCF has two components:'

- A **federal program** that funds the purchase of land and water areas for conservation and recreation purposes within the four federal land management agencies; and
- A **stateside matching grants program** that provides funds to states for planning, developing and acquiring land and water areas for state and local parks and recreation areas.

The Federal LWCF Program

Funds appropriated for the federal program are available to federal agencies including the U.S. Forest Service, U.S. Fish and Wildlife Service, National Park Service, and the Bureau of Land Management for the purchase of land and water areas for conservation and recreation purposes. These funds are used for public acquisition of special lands and places for conservation and recreation purposes; public acquisition of private holdings within National Parks, National Forests, National Fish and Wildlife Refuges, public lands managed by the Bureau of Land management, and wilderness areas; public acquisition areas key to fish and wildlife protection; and public acquisition as authorized by law.

Federal LWCF program funds are distributed following an annual process of prioritizing regional land acquisition needs for each eligible agency. After taking into account a variety of factors such as cost, probability of development, and local support, they develop prioritized "wish lists" that are forwarded to their Washington, D.C. land acquisition headquarters. The headquarters staff identifies its priorities and sends them to the Land Acquisition Working Group, comprised of the Assistant Secretary of the Interior for Fish, Wildlife, and Parks; and the Assistant Secretary of the Interior for Land Management; and the Assistant Secretary of Agriculture for Nature, Resources, and the Environment. The working group sends the prioritized agency lists to the

Office of Management and Budget (OMB) at the completion of the congressional session. OMB critiques and returns the list and, following a final appeal process by the agencies, the fiscal year's land acquisition funding amount is presented as part of the President's budget.

The Stateside LWCF Grant Program

Those funds appropriated for the stateside matching grants program can be used to acquire land for parks and recreation purposes; build or redevelop recreation and park facilities; provide riding and hiking trails; enhance recreation access; and conserve open space, forests, estuaries, wildlife, and natural resource areas through recreation projects. In most years, all states receive individual allocations of stateside LWCF grant funds based on a national formula, with state population being the most influential factor.

Qualifying For LWCF Funding

To qualify for stateside LWCF funding, each state must prepare a Statewide Comprehensive Outdoor Recreation Plan (SCORP) every five years. In Oregon, the plan functions not only to guide the LWCF program, but also provides guidance for other OPRD administered grant programs including the Local Grant, County Opportunity Grant, Recreational Trails, and All-Terrain Vehicle Programs. Finally, the plan provides guidance to federal, state, and local units of government, as well as the private sector, in delivering quality outdoor recreational opportunities to Oregonians and out-of-state visitors.

Legal Authority

To be eligible for assistance under the Federal Land and Conservation Fund Act of 1964 (P.L. 88-578; 78 Statute 897), the Governor of the state of Oregon has designated the Director of the Oregon Parks and Recreation Department as the official who has authority to represent and act for the State as the State Liaison Officer (SLO) in dealing with the Director of the National Park Service for purposes of the LWCF program. The SLO has authority and responsibility to accept and to administer funds paid for approved projects.

Authority to conduct the SCORP process is granted to the Director of the Oregon Parks and Recreation Department under Oregon Revised Statutes (ORS) 390.180. This document and related appendices were prepared to be in compliance with Chapter 630 of the Federal Land and Water Conservation Fund Grants Manual. Federal acceptance of the States comprehensive outdoor recreation planning process is a prerequisite for Oregon's establishing and maintaining eligibility to participate in the Land and Water Conservation Fund program.

The Oregon Administrative Rules, Chapter 736, Division 8, Distribution of LWCF Funding Assistance to Units of Local Government for Public Outdoor Recreation establishes the State Liaison Office, when distributing federal Land and Water Conservation Fund monies to the state agencies and eligible local governments, and the process for establishing the priority order in which projects shall be funded. See Appendix D for the Oregon Administrative Rules used by OPRD when distributing stateside LWCF grant monies. The rules are also available online at: http://arcweb.sos.state.or.us/rules/OARS_700/OAR_736/736_008.html.

OPRD Planning Role

For this planning effort, the OPRD provided the necessary project management, staffing and resources necessary to complete the plan in a

high-quality manner. To maintain objectivity, the department incorporated rigorous research methods and established four separate Advisory Committees (aging, diversity, youth, and physical inactivity) to assist with addressing these key statewide demographic and social changes in the planning process. As a result, key planning recommendations represent the consensus of members representing a wide variety of agencies and organizations from across the state. The OPRD will support the implementation of key statewide and local planning recommendations through internal and external partnerships and through OPRD-administered grant programs.

The Planning Process

Background

The last SCORP for Oregon was completed by the Oregon Parks and Recreation Department and accepted by the National Park Service in January 2003. A primary focus of the planning effort was to develop an up-to-date, state-of-the-art SCORP plan providing guidance to federal, state, and local units of government, and the private sector in providing outdoor recreation resource opportunities in the state of Oregon. With the completion of this plan, the state maintains eligibility to participate in the Land and Water Conservation Fund up to December 31, 2007.

In addition to the current SCORP, the state has also completed a statewide trails plan entitled, "Oregon Trails 2005-2014: A Statewide Action Plan." The plan includes separate motorized, non-motorized and water trail components. It is the state's official plan for recreational trail management for a 10-year period, serving as a statewide and regional information and planning tool to assist Oregon recreation providers (local, state, federal, and private) in providing trail opportunities and promoting access to Oregon's trails and waterways. It also identifies how the state's limited resources will be allocated for motorized, non-motorized and water trail projects throughout Oregon. A copy of this plan is available online at: http://egov.oregon.gov/OPRD/PLANS/trailsplanning.shtml.

OPRD began this SCORP planning process in September 2005. The plan focuses on the concept of repositioning[4] in an effort to develop and nurture a broader constituency and wider community support for park and recreation providers in Oregon. The initial planning task was to identify the most important issues in Oregon related to outdoor recreation. Critical repositioning issues identified and addressed in this plan include a rapidly aging Oregon population, fewer Oregon youth learning outdoor skills, an increasingly diverse Oregon population, and the Oregon physical activity crisis. As a result, the plan has been titled, *Outdoor Recreation in Oregon: The Changing Face of the Future*.

Tomorrow's outdoor recreation users will come from a population dramatically different from that seen by recreation providers in the past. Therefore, a critical objective of the 2008-2012 Oregon SCORP planning effort was to provide outdoor recreation managers with usable information to proactively address the changing face of outdoor recreation in Oregon. The plan will also assist providers in Oregon to better describe the benefits resulting from recreation projects and programs addressing these issues and, as stated by Crompton and Witt, "reposition the place that parks and recreation occupies in the minds of elected officials and the general public."

---

[4] Crompton, JL and PA Witt. 1997. Repositioning: The key to building support. *Parks and Recreation,* 32(10):80-90.

Components of the Planning Effort

The following section includes a brief description of the major components of the planning effort.

SCORP Advisory Committees

Early in the planning effort, OPRD established four separate Advisory Committees (aging, youth, diversity, and physical activity) to assist the department with addressing these key statewide demographic and social changes in the planning process. During the planning effort, committee members were asked to assist OPRD with the following SCORP related tasks:

- reviewing the basic planning framework;
- determining the basic plan outline;
- recommending actions that enhance outdoor recreation opportunities in the state;
- reviewing research findings and reports; and
- reviewing final planning documents.

Two rounds of Advisory Committee meetings (a total of eight meetings) were held over the course of the planning process. The first round of meetings was held between May and June of 2006. First round meeting objectives included:

- identifying key research analysis recommendations;
- identifying the basic planning outline; and
- identifying major topic areas addressed in the planning chapter.

A second round of meetings was held between March and August of 2007. Second round meeting objectives included:

- reviewing and providing feedback on research findings;
- identifying primary outdoor recreation needs; and
- developing key planning recommendations.

Committee member planning recommendations were based on a thorough review of existing literature related to the issue, SCORP research findings, and members' practical experience and knowledge of the issue.

SCORP Research Projects

The planning effort included a series of research projects designed to provide outdoor recreation managers and planners across Oregon with usable knowledge to proactively address the four key statewide demographic and social changes effecting recreation provision in the state. The research projects and methodologies are highlighted below.

1. An Aging Population and Outdoor Recreation in Oregon.
   With the Baby Boomer generation fast approaching an age where leisure activities will increase and retirement relocation will peak, the implications of increasing recreational participation on park and recreation and for future non-metropolitan relocation and population growth are substantial. This research component assessed the effects on outdoor recreation of two related trends—Boomers moving into retirement and relocation to and within Oregon.

   The project included a statewide mail survey of "Boomers" and "Pre-Boomers"[5] and a separate analysis of factors affecting relocation to and within Oregon associated with the Boomer and Pre-Boomer populations.

[5] In this study, Baby Boomers, or simply Boomers, are Oregon residents born between 1946 through 1964, while Pre-Boomers are Oregon residents born between 1926 and 1945.

2. Encouraging Youth Outdoor Recreation Participation in Oregon.
   Analysis of previous SCORP survey results indicates that participation in traditional outdoor recreation activities is decreasing, and this may be due to decreasing youth participation. Anecdotal information and recent analysis indicate that youth participation in outdoor activities is decreasing because of several factors including increased urbanization, loss of free time, increase in single-parent family households, and greater youth focus on electronic activities (TV, video games, internet). Research has shown that people who do not participate in outdoor recreation as youth are less likely to participate in those activities as adults (with implications also for the next generation). An investment in catalyzing youth participation now may be critical for achieving positive conservation attitudes in the future, and ultimately for maintaining support for the agencies that manage natural areas. This project is designed to identify factors that limit youth participation and opportunities for overcoming them.

   The project included a statewide survey of Oregon youth and their parents and a series of youth focus group interviews designed to explore the opinions and thoughts directly from youth.

3. A Growing Minority Population and Outdoor Recreation in Oregon.
   People of color are transforming Oregon much faster than expected, arriving in larger numbers and settling in areas throughout the state. In general, minorities are less likely than whites to participate in outdoor recreation in the U.S. Minorities forego the health, social, and other benefits of outdoor recreation, while natural areas, and the agencies that manage them, lose a potentially important group of supporters. Lower participation rates amongst minorities will become even more important in the future with the growth of the minority population. This project identified the factors limiting minority participation in Oregon and opportunities to increase this participation.

   The project included a statewide mail survey of Oregon's Hispanic and Asian populations and a series of focus group interviews designed to explore the opinions and thoughts of Oregon's Hispanic, Asian and African-American populations.

4. Health and Recreation Linkages in Oregon.
   According to the U.S. Center for Disease Control (CDC) rates of physical inactivity and obesity in the U.S. have reached epidemic proportions. Overweight and obesity are associated with increases in several chronic diseases such as coronary heart disease, type-2 diabetes, and various cancers.

   This project included a statewide study testing the hypothesis that local populations in Oregon with ready access to locally-provided outdoor recreation opportunities are healthier than areas without access to such resources. This information about the health-related benefits of outdoor recreation is useful to managers and policymakers who are increasingly challenged to both describe the benefits resulting from recreation projects and to allocate their scarce resources to providing high-quality recreation opportunities in addition to other public services.

SCORP Demographic and Social Trend Analysis

To better understand how these important demographic and social changes will affect

outdoor recreation providers in their local service areas in the coming years, OPRD requested the Population Research Center at Portland State University to prepare population estimates and projections for planning and grant program administrative purposes. The estimates were developed for the year 2005, and the projections, for 2010, 2015, and 2020. Estimates and projections include population sub-groups, as well as the total population, with specific demographic characteristics, such as age, race/ethnicity, and health status. The project also identified high-priority counties and cities for the following indicators: increase in aging population 60 years and older; increase in population diversity for Black, Asian/Pacific Islander races, and Hispanic ethnicity; increase in youth population between the ages of 6-17; and increase in the adult population not meeting minimum CDC physical activity recommendations.

Key Planning Recommendations

Following completion of the research studies, each of the four Advisory Committees met to develop a final set of planning recommendations for assisting recreation providers across the state to address the four planning issues. Key recommendations are divided into two categories; statewide recommendations and local recommendations. Statewide recommendations are relevant for all recreation providers across the state of Oregon. Because individual issues might be of greater relevance in certain areas of the state, local recommendations apply to those high-priorities counties and/or cities identified in SCORP research projects.

Oregon Wetlands Priority Plan

The Emergency Wetlands Resources Act of 1986 (P.L. 99-645) requires each state comprehensive outdoor recreation plan to include a component that identifies wetlands as a priority concern within the state. An appendix to the plan describes a brief history of wetland protecting in Oregon, current wetland protection strategies, and a priority listing of regions/watersheds for wetland restoration/acquisition.

SCORP Planning Web site

Early in the planning process, OPRD staff developed a SCORP planning web site for people across the state to access current information about the 2008-2012 SCORP planning process. One of the primary objectives of the web site was to build interest in SCORP through the course of the two-year planning effort. The web site was also useful in disseminating research results and the review of preliminary draft materials. The web site address is: http://egov.oregon.gov/OPRD/PLANS/SCORP.shtml.

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Chapter Two
A Rapidly Aging Oregon Population

Prepared by the Oregon Parks and Recreation Department

Issue Introduction: A Rapidly Aging Oregon Population

According to a May 6, 2006 news release from Oregon Governor Ted Kulongoski's office[6], "Within the next decade, 15 percent of Oregon's total population will be over the age of 65, compared with 12 percent just last year. By 2025, that number will grow to nearly 20 percent – that is one person in every five." According to the Governor's office, "The time to prepare for this situation is now." As a result of the Governor's leadership on this issue, the Oregon Parks and Recreation Department has undertaken an effort to examine how recreation providers across the state can proactively manage for changes associated with an aging Oregon population

Park and recreation professionals have long responded to demographic diversity by providing a range of services and facilities that cater to different age groups and participant recreation styles. However, the aging Boomer generation (those born between 1946 and 1964) presents a distinct challenge for recreation providers. First, they represent approximately one million Oregonians or approximately 30% of the state's population. According to the U.S. Census Bureau, during the next 25 years as these Boomers age, the number of people 65 years and older in the state of Oregon is expected to double (Figure 1). As this "bulge" in the population ages, it generates increased demand for services and facilities suited to older adults.

[6] News Release: Governor announces forums on services to aging Oregonians, May 2, 2006.

Figure 1: Oregon population pyramids[7]

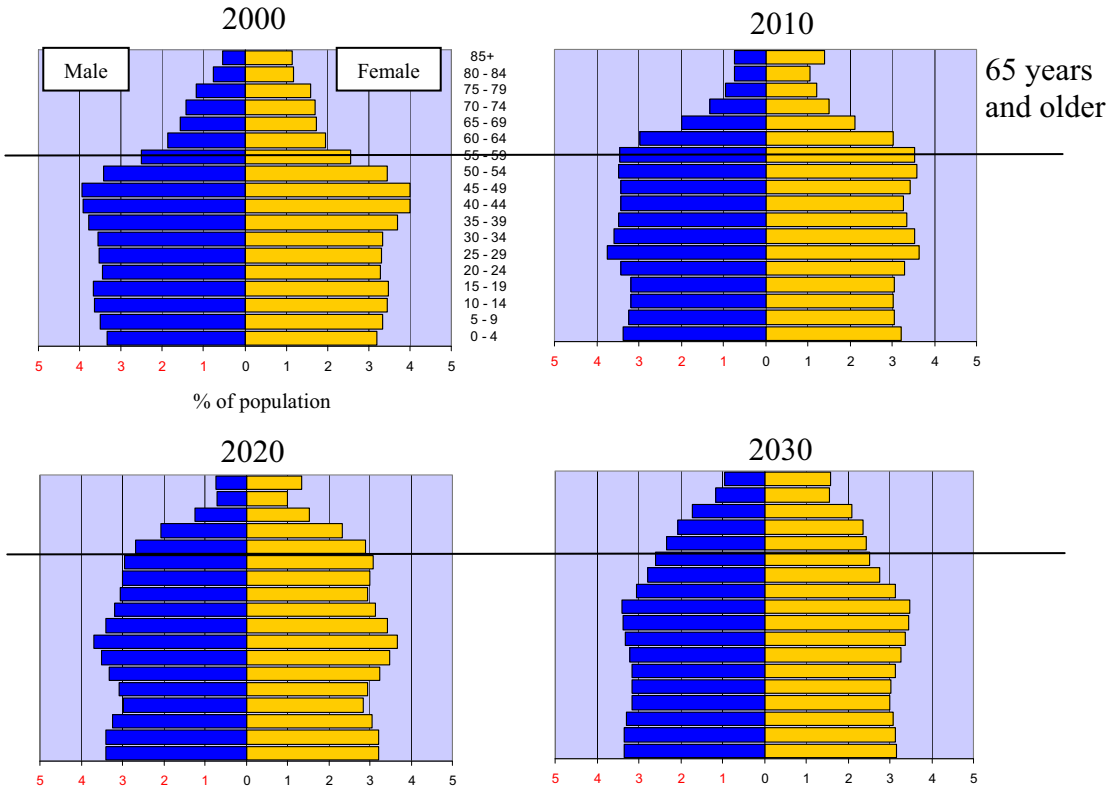


Table 1: 2000 and 2030 Oregon population change[8]

Age Group	Census 2000		Projection 2030		2000-2030 Change	
	Number	Percent Total	Number	Percent Total	Number	Percent Total
65-69	112,614	3.3	230,556	4.8	117,942	104.7
70-74	106,728	3.1	213,599	4.4	106,871	100.1
75-79	95,059	2.8	184,075	3.8	89,016	93.6
80-84	66,345	1.9	131,986	2.7	65,641	98.9
85+	57,431	1.7	121,741	2.5	64,310	112
65+	438,177	12.8	881,957	18.2	443,780	101.3

[7] U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.
[8] U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

Outdoor Recreation Participation and an Aging Oregon Population

National and statewide data support the intuitive belief that participation rates decrease as one ages, particularly for physically demanding activities.[9] Recent analysis of National Survey on Recreation and the Environment[10] data generates four conclusions:

- With the exception of gardening/landscaping, participation in all recreation activities decreases with age.
- Participation in most activities continues to decrease as age increases, with physically demanding activities decreasing most rapidly.
- Even in the oldest age group (85+), there was at least some participation in almost every activity (participation rarely went to 0%).
- Some activities, such as walking for pleasure, remain popular across all age groups.

Similar decreases in outdoor recreation participation as aging increases were identified in an analysis of data from the 2002 Oregon Outdoor Recreation Survey[11] for hunting, boating, camping, and motorized activities.

Boomers differ from previous generations. As Ziegler[12] notes, Boomers work hard, play hard, and spend hard. Many feel (and behave) 10 years younger than their chronological age. In particular, they are devoted to exercise and fitness. In broad terms, these two forces work in opposite directions – there will be more people of retirement age, but their recreation patterns may change relatively little as they move into retirement. However, the net effect is unknown, and recreation providers require more detailed information to guide acquisition, facility development, and service provision. Traditionally, older people "exit" from physically demanding activities as they age. This is balanced by younger people "entering" these activities. The Boomers may effect this standard equation in two ways:

- First, the size of the cohort means that the "exit" may not be balanced by the "entry."
- Second, Boomers may not "exit" as early/quickly as their predecessors did.

It is difficult to quantify the size of the net effect, by the general direction of the effect is that there will be more demand for activities than in the past.

In preparation for the 2008-2012 Oregon SCORP, OPRD contracted Oregon State University to conduct a statewide survey of "Baby Boomers" (born between 1946 and 1964) ─ and "Pre-Boomers" (born between 1926 and 1945). The primary intent of this survey was to identify current outdoor recreation participation among these two populations and how they expect to recreate in the coming 10 years. Survey results will help recreation professionals provide the recreation opportunities that Boomers and Pre-Boomers currently seek and expect to seek in the future. Of critical importance, is how to keep Boomers actively involved in outdoor recreation activities as they move into and through their retirement years.

---

[9] Kelly, J.R. 1980. Outdoor recreation participation: A comparative analysis. Leisure Sciences 3(2):129-154.
[10] Cordell, K., C. Betz, G. Green, F. Thompson, A. West, M. Fly, and B. Stephens. 2005. Retirees participation in outdoor activities: Retirees 65 and older remain active in many activities well into their senior years. Recreation and Tourism Statistics Update No. 10.
[11] Oregon Parks and Recreation Department, 2002. The Oregon Outdoor Recreation Survey.
[12] Ziegler, J. 2002. Recreating Retirement: How Will Baby Boomers Reshape Leisure in Their 60s? *Parks and Recreation*, October, pp. 56-61.

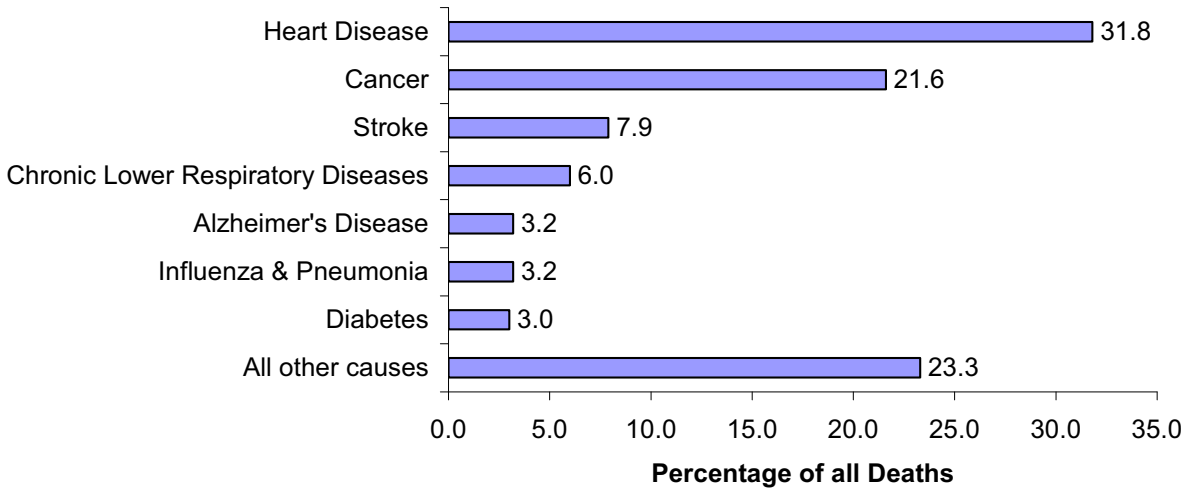
Physical Activity and Older Oregonians

(Note: National-level statistics and recommendations included under this heading are from a report entitled: The State of Aging and Health in America 2007[13].)

An enhanced focus on promoting and preserving the health of older adults is essential if we are to effectively address the health and economic challenges of an aging society. The cost of providing health care for an older American is three to five times greater than the cost for someone younger than 65. By 2030, the nation's health care spending is projected to increase by 25% due to demographic shifts unless improving and preserving the health of older adults is more actively addressed.

The aging of America is triggering a higher demand for health care and social services. Currently, about 80% of older adults have at least one chronic condition, and 50% have at least two. These conditions can cause years of disability, pain, and loss of function. Three million older adults indicate that they cannot perform basic activities of daily living such as bathing, shopping, dressing, and eating. Their quality of life suffers as a result, and demands on family and caregivers can be challenging. Statistics indicate the number of Oregonians who need long-term care will grow from nearly 200,000 in 2005 to more than 265,000 in 2015, and more than 375,000 in 2025[14].
Because the population will be older and greater in number in the coming years, overall U.S. health care costs are projected to increase 25% by 2030. Preventing health problems is one of the few known ways to stem rising health care costs. By preserving function and preventing injury, we also can help older adults

Figure 2: Causes of death among U.S. Adults aged 65 or older, 2002[15]



[13] The State of Aging and Health in America 2007. Centers for Disease Control (CDC) and the Merck Company Foundation. Whitehouse Station, New Jersey. Report online at: http://www.cdc.gov/aging/pdf/saha_2007.pdf.

[14] State of Oregon. Recommendations on the future of long-term care in Oregon. Department of Human Services, Seniors and Peoples with Disabilities. May 2006.

[15] CDC, National Center for Health Statistics. Data Warehouse, Trends in Health and Aging.

remain independent for as long as possible, which can improve their quality of life and delay the need for costly long-term care.

Millions of Americans, most of them older adults, suffer from chronic illnesses that can be prevented or improved through regular physical activity. In a 1993 study[16], 14 percent of all deaths in the United States were attributed to insufficient activity and inadequate nutrition.

Lack of physical activity is an important contributor to many of the most important chronic diseases for older Americans, including heart disease, diabetes, colon cancer, and high blood pressure. Lack of physical activity, along with poor nutrition, is a major contributor to the growing epidemic of obesity in the United States.

The data are compelling, almost overwhelming: If older adults increase physical activity, improve eating habits, and take some relatively simple steps to minimize the risk of falling, they could live longer and healthier lives. In Oregon, 62% of adults between the ages of 50 and 64 and 64% between 65 and 74 do not meet the CDC physical activity guidelines of moderate intensity physical activities for at least 30 minutes on five or more days a week[17]. Regular physical activity has beneficial effects on most (if not all) organ systems, and consequently it prevents a broad range of health problems and diseases. Physical activity in older persons produces three types of health benefits:

1. It can reduce the risk of developing chronic diseases such as heart disease.
2. It can aid in the management of active problems such as high blood pressure, diabetes, obesity, or high cholesterol.
3. It can improve the ability to function and stay independent in the face of active problems like lung disease or arthritis.

Although the benefits of physical activity increase with more frequent or more intense activity, substantial benefits are evident even for those who report only moderate levels of activity—i.e. washing a car for 60 minutes, raking leaves for 30 minutes, or brisk walking or swimming for 20 minutes. All of the benefits of physical activity are especially important for older men and women since they are more likely to develop chronic diseases and are more likely to have conditions such as arthritis that can affect their physical function.

Regular physical activity has beneficial effects on a variety of health outcomes, effects that are supported by consistent scientific evidence. These include:

- Lower overall mortality. Benefits were greatest among the most active persons but were also evident for individuals who reported only moderate activity.
- Lower risk of coronary heart disease. The cardiac risk of being inactive is comparable to the risk from smoking cigarettes.
- Lower risk of colon cancer.
- Lower risk of diabetes.
- Lower risk of developing high blood pressure. Exercise also lowers blood pressure in individuals who have hypertension.
- Lower risk of obesity.
- Improved mood and relief of symptoms of depression.
- Improved quality of life and improved functioning.
- Improved function in persons with arthritis.
- Lower risk of falls and injury.

---

[16] McGinnis, J.M., and Foege W.H. Actual causes of death in the United States. JAMA 1993; 270(18): 207-12.

[17] Oregon Overweight, Obesity, Physical Activity, and Nutrition Facts. 2004. Physical Activity and Nutrition Program. Oregon Department of Human Services.

Additional possible benefits of physical activity (research is less consistent) include:

- Lower risk of breast cancer.
- Prevention of bone loss and fracture after the menopause.
- Lower risk of developing depression.
- Improved quality of sleep.

Research studies have demonstrated these benefits in both middle-aged and in older persons, and in men and women. Because these chronic diseases increase with age, older persons may benefit even more than those in middle-age from physical activity. A recent study of older men in Baltimore demonstrated that leisure time activity was more important for protecting against heart disease in men over 65 than in younger men.

Of great importance to older adults, regular physical activity sustains the ability to live independently. Research has shown that virtually all older adults can benefit from regular physical activity. In particular, the mobility and functioning of frail and very old adults can be improved by regular physical activity. The large potential ability of regular physical activity to prevent chronic diseases and sustain active living means that an active lifestyle is a key component of healthy and successful aging.[18]

In those older adults with chronic diseases, physical activity can play an important role in treatment. Physical activity is effective in treating cardiovascular disease, high blood pressure, high cholesterol, chronic lung disease, diabetes, obesity, and osteoarthritis.

Substantial health benefits occur with a moderate amount of activity (e.g., at least 30 minutes of brisk walking) on five or more days of the week. Additional health benefits can be gained through longer duration of physical activity or more vigorous activity. Brief episodes of physical activity, such as 10 minutes at a time, can be beneficial if repeated. Sedentary persons can begin with brief episodes and gradually increase the duration or intensity of activity.

Clearly, Oregon's park and recreation providers have the facilities and programs in place across the state to take a leadership role in promoting and preserving the health of older adults through encouraging and facilitating their involvement in active outdoor recreation activities. There is a strong economic incentive for action.

Relocation and an Aging Oregon Population

The aging of the population, and the "bulge" represented by the Boomer generation of retirement age, has sparked political and academic interest in the factors that affect retiree relocation. Growing wealth among some sections of the Boomer population will provide them an opportunity to relocate in preferred geographic locations within the state of Oregon. In recent years, amenities such as scenic beauty, climate and recreational opportunities have lured large numbers of people to areas of the state such as Bend, Ashland, and the south coast. Retiree recruitment has become an acknowledged economic development strategy[19] [20].

---

[18] Talbot LA, Morrell CH, Metter J. et al. Comparison of cardio respiratory fitness versus leisure time physical activity as predictors of coronary events in men aged less than 65 and greater than 65 years. Am J Cardiology 2002; 89: 1187-92.

[19] Judson, D.H., S. Reynolds-Scanlon, and C. L. Popoff. 1999. Migrants to Oregon in the 1990's Working Age, Near-Retirees, and Retirees Make Different Destination Choices. *Rural Development Perspectives*, 14(2):24-31.

[20] Duncombe, W. M. Robbins, and D. A. Wolf. 2003. Place Characteristics and Residential Location Choice Among the Retirement-Age Population. *Journal of Gerontology*, 58B (4) S244–S252.

Insofar as retiree relocation into or within Oregon is pursued as an economic development strategy, it is important to understand what drives retiree relocation decisions and what impact relocation into or within Oregon has on communities. Recreation providers play a role in this to the extent that recreation opportunity drives retiree destination choices.

To address this relocation issue, Oregon State University conducted a study to assess Boomer and Pre-Boomer relocation in Oregon based on secondary data, primarily from the U.S. Census Bureau, and the results of the statewide survey of Boomers and Pre-Boomers. The goal of this study was to better understand past and future relocation in order to facilitate provision of outdoor recreation opportunities. A primary objective of the study was to develop a "retirement community projection model" that provides estimates of future retiree relocation patterns, the effect of outdoor recreation development on those patterns and the effect of these patterns on demand for outdoor recreation facilities and services.

Volunteering and an Aging Oregon Population

As older adults either retire completely or move to flex or part-time employment, studies have shown that they hope to have more time to "give back" to their communities or become involved in meaningful and purposeful activities. In addition to providing direct benefits to the community, studies have also shown that volunteerism increases an older adult's physical health and agility as well as his/her cognitive and mental well-being[21].

[21] The Maturing of America - Getting Communities on Track for an Aging Population. National Association of Area Agencies on Aging. August 2005.

During the period from 2003-2005, Oregon was one of the top ten states in the nation for volunteering rates among seniors[22]. In 2006, 36.4% of Oregon's Boomer population volunteered a median of 56 hours (Table 2). During the period from 2002-2006, Oregon's overall volunteer rate has been consistently higher than the national rate (Figure 3).

Table 2: 2006 Oregon volunteering by age year 23

Age	Median Hours	State Rate	National Rate
16 to 24 years	30	26.2%	23.4%
25 to 34 years	48	27.3%	24.7%
35 to 44 years	66	41.9%	33.3%
45 to 54 years	52	36.5%	32.2%
55 to 64 years	72	35.8%	29.3%
65 years and over	112	31.2%	24.4%
Baby boomers	56	36.4%	32.2%

Figure 3: Oregon state volunteer rate by year 24

[22] Volunteering in America: State Trends and Rankings. Corporation for National & Community Service.
[23] Volunteering in America 2007. Corporation for National & Community Service http://www.nationalservice.org/pdf/VIA/VIA_synopsis_OR.pdf
[24] Volunteering in America 2007. Corporation for National & Community Service http://www.nationalservice.org/pdf/VIA/VIA_synopsis_OR.pdf

Although national and state-level volunteer information has been collected in recent years, no information has been available for volunteer participation associated with recreation or natural resource agencies/ organizations. To better identify how recreation providers can better position themselves to tap into the time, talent and experience of the growing ranks of older adults, a series of questions were added to the OSU Boomer and Pre-Boomer survey related to recreation volunteering.

Research Project: Outdoor Recreation and an Aging Oregon Population

Project introduction

This research project, conducted by Dr. Kreg Lindberg of Oregon State University, included a statewide mail survey of "Baby Boomers" and "Pre-Boomers" and a separate analysis of factors affecting relocation to and within Oregon associated with the Baby Boomer and Pre-Boomer populations. In this study, Baby Boomers, or simply Boomers, are Oregon residents born between 1946 through 1964, while Pre-Boomers are Oregon residents born between 1926 and 1945.

Statewide Survey of Boomers and Pre-Boomers

The survey was conducted using a random sample of Boomers and Pre-Boomers, with names and addresses based on Oregon Department of Motor Vehicles (DMV) records. A total of 4,562 surveys were mailed, with 1,219 returned. Adjusting for un-deliverables, there was a 31% response rate. U.S. Census and Portland State University population data were used to adjust for the stratification and non-response. Results presented in this summary reflect this weighting and represent the diversity of the Oregon Boomer and Pre-Boomer population. A full survey report is included on the OPRD SCORP planning web site at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Aging_Oregon_Report.pdf.

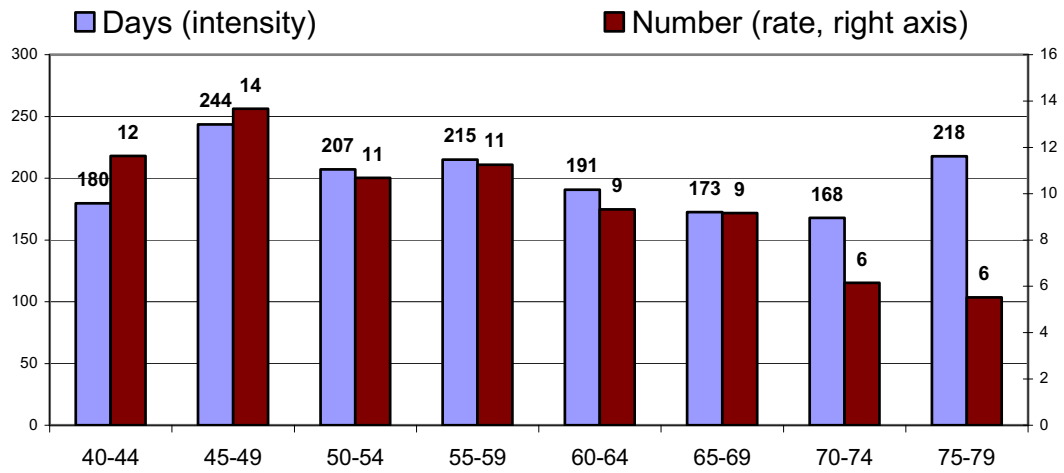
The following is a summary of key findings from the statewide survey of Boomers and Pre-Boomers in Oregon.

Outdoor Recreation Participation

Respondents were asked how many days in the past year they engaged in a set of 52 specific outdoor recreation activities. Respondents reported how many days they spent engaging in each activity during the past year. Activities ranged from easy (e.g., picnicking or walking on sidewalks) to physically demanding (e.g., rock climbing or whitewater kayaking). The participation intensity for individuals was the total number of days each individual spent engaged in outdoor recreation, summed across all activities. The participation rate for individuals was the total number of activities each person engaged in at least once during the year.

A key question in the survey was to examine if Oregon data supports the belief that participation rates decrease as a person ages. Figure 4 shows variation across age groups. In Oregon, outdoor recreation participation intensity tends to peak at age 45-49, decline with age, and then increase in the late 70s — though this increase appears due to a few particularly active individuals. Participation rate also tends to peak at age 45-49 and then slowly decline with age. These results are consistent with the expectation that recreation participation declines with age despite greater free time in retirement. Likewise, women and persons in lower income households are more likely than others to be spending less time.

Figure 4: Participation by age



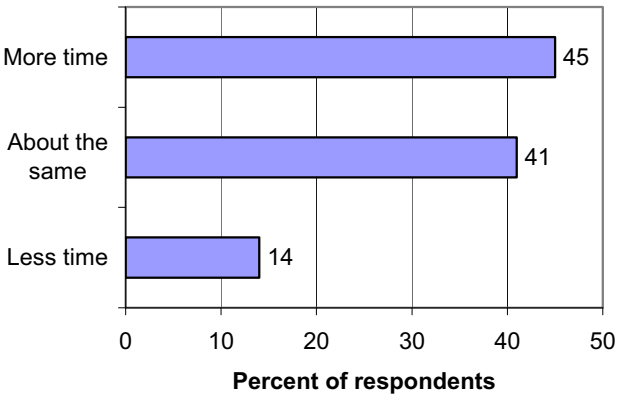
An important question is whether this trend will continue in the future. In other words, will Boomers reduce their participation as they age, following the example of previous generations? A question was asked about expectations for the future, specifically 10 years from the present. It is difficult for respondents to forecast the future, so responses should be treated with some caution. Nonetheless, they provide an indication of expectations.

Looking into the future, respondents are more likely to expect an increase rather than a decrease in their outdoor recreation activities (Figure 5). As shown in Table 3, responses vary widely by age, with younger respondents expecting to spend more time and older respondents expecting to spend less time. Note that "more" responses increase up to the 50-54 age category, presumably reflecting a look ahead to retirement.

Table 3: 10 Years from now relative to present age, percent

Age	More	Same	Less
40-44	41	55	4
45-49	57	36	7
50-54	64	34	2
55-59	55	40	5
60-64	33	53	14
65-69	43	31	26
70-74	20	29	51
75-79	4	53	43

Figure 5: Future recreation participation 10 years from now, percent



On average across all activities, respondents expect to spend 28% more days recreating 10 years from now than they currently do. In other words, Boomers in Oregon may "break the trend" of decreasing recreation with age.

Another critical question is what specific outdoor recreation activities are most popular among an aging population. In terms of percent of respondents engaged in them at least once in the past year (activity participation rate) the top five activities included walking, picnicking, sightseeing, visiting historic sites and ocean beach activities (Table 4). In terms of average number of days engaged in an activity (activity participation intensity), the top five activities were walking, bird watching, jogging, sightseeing and bicycling on road/path. Walking tops both lists.

Table 4: Activities sorted by percent participating

Activity	Percent participating	Mean days	Mean hours/day
walking	80	64.3	1.8
picnicking	68	5.2	3.2
sightseeing	63	9.9	4.1
visiting historic sites	62	3.6	3.1
ocean beach activities	54	4.1	3.9
day hiking	52	6.6	3
children/grand children to playground	39	5.7	2.1
exploring tidepools	37	1.5	2.5
freshwater beach activities	33	2.6	4.8
other nature/wildlife observation	31	5.4	2.8

Table 5: Activities sorted by mean days

Activity	Percent participating	Mean days	Mean hours/day
walking	80	64.3	1.8
bird watching	26	16.2	2.2
jogging	18	12.6	1.2
sightseeing	63	9.9	4.1
bicycling (road / path)	31	7.7	2.2
day hiking	52	6.6	3
other activity	10	6	3.7
children/grand children to playground	39	5.7	2.1
other nature/wildlife observation	31	5.4	2.8
picnicking	68	5.2	3.2

The survey's large sample size also allowed examining outdoor recreation participation across five year age categories within the population (Table 6). A comparison across age categories for top five activities by participation intensity leads to the following conclusions:

- Walking was the top activity across all age categories (40-79).
- Jogging was a top activity between the ages of 40-59, but it is also popular for those in their 70s.
- Bicycling was a top activity between the ages of 40-64.
- Sightseeing was a top activity between the ages of 45-74.
- Bird watching was a top activity between the ages of 55-79.
- RV/trailer camping was a top activity between the ages of 65-74.

Table 6: Activities with greatest mean days by age

Age / Activity	Mean days
40-44	
walking	56
jogging	16
bicycling (road / path)	9
children/grand children to playground	8
swimming	7
45-49	
walking	51
jogging	26
sightseeing	15
fishing from a boat	11
picnicking	10
50-54	
walking	77
other activity	20
jogging	11
bicycling (road / path)	11
sightseeing	9
55-59	
walking	71
bird watching	21
sightseeing	12
jogging	10

Age / Activity	Mean days
60-64	
walking	81
bird watching	18
bicycling (road / path)	11
other nature/wildlife observation	9
sightseeing	8
65-69	
walking	39
bird watching	39
sightseeing	10
day hiking	9
RV/trailer camping	6
70-74	
walking	55
bird watching	31
RV/trailer camping	10
sightseeing	8
jogging	7
75-79	
walking	89
bird watching	25
golf	22
jogging	15

- Figure 6 shows how the top five activities vary across age groups. This figure can serve as a useful benchmarking tool as we evaluate our progress in keeping Boomers engaged in outdoor recreation activities in the coming years.

Respondents also forecasted how many days they would participate in each activity 10 years from now. Forecasting a specific number of days can be difficult, so results should be treated with caution. Table 7 shows the top ten activities in terms of future participation intensity, as well as the change in the number of days relative to the present. For example, walking will be the most popular activity in terms of average days spend, and those days (83.1) will represent an increase of 17.7 days (25%) over current average days. Of the top 10, only bird watching was forecast to have a decrease in participation intensity.

Figure 6: Most popular activities, participation rate by age

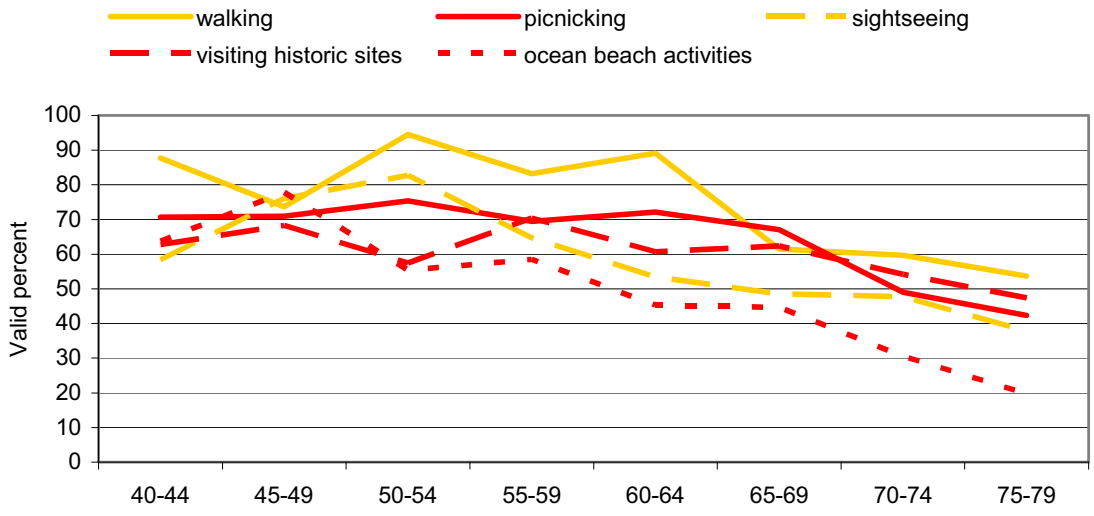


Table 7: Future participation for those expecting overall increase, mean days

Activity	Future	Change
walking	83.1	17.7
bicycling (road / path)	17.5	6.9
jogging	16.9	0.4
bird watching	15.6	-2.4
day hiking	14.1	8.1
sightseeing	13.1	4.4
RV/trailer camping	12.8	7.7
children/grand children to playground	12.0	6.8
fishing from a boat	11.7	7.2
ocean beach activities	10.7	6.6

Summary of Key Findings: Outdoor Recreation Participation

1. Survey results for the current Oregon population of Boomers and Pre-Boomers were consistent with the expectation that outdoor recreation participation declines with age despite greater free time in retirement.
2. On average across all activities, respondents expected to spend 28% more days recreating 10 years from now than they currently do. In other words, Boomers in Oregon may "break the trend" of decreasing recreation with age.
3. The most popular outdoor recreation activities for the Oregonians between the ages of 42 and 80 included walking, picnicking, sightseeing, visiting historic sites and ocean beach activities.
4. A comparison across age categories for top five activities by participation intensity leads to the following conclusions:
   - Walking was the top activity across all age categories (40-79).
   - Jogging was a top activity between the ages of 40-59, but it is also popular for those in their 70s.
   - Bicycling was a top activity between the ages of 40-64.
   - Sightseeing was a top activity between the ages of 45-74.
   - Bird watching was a top activity between the ages of 55-79.
   - RV/trailer camping was a top activity between the ages of 65-74.
5. The top five activities in terms of future participation intensity 10 years from now included walking, bicycling (road/path), jogging, bird watching and day hiking.

Recreation Motivations

Respondents were asked how important each of 16 motivations was when they currently engaged in outdoor recreation, as well as how important they expect each to be 10 years from now. Both currently and in the future, having fun and being in the outdoors were the most important motivations (Table 8). Challenge and meeting new people were the least important motivations. Those motivations with the biggest positive change as respondents look to the future are:

- To keep fit and healthy.
- To expose your children or grandchildren to something new.
- To learn something new.
- To meet new people.

These motivations should be considered when developing marketing strategies to encourage Boomer outdoor recreation participation in the coming years.

Summary of Key Findings: Outdoor Recreation Motivations

1. The most important current motivations were to have fun and to be in the outdoors.
2. The least important motivations were to meet new people and to experience challenge and excitement.
3. Looking to the future, fun and being outdoors will remain the most important motivations, but the following will increase most in importance:
   - To keep fit and healthy.
   - To expose your children or grandchildren to something new.
   - To learn something new.
   - To meet new people.

Table 8: Importance of motivations, mean ratings
(changes that are statistically significant are designated by * preceding motivation)

	Current	**10 years From now**	**Change**
*To keep fit and healthy	4	4.2	0.3
To expose your children or grandchildren to something	3.3	3.5	0.3
*To learn something new	3.1	3.3	0.3
*To meet new people	2.6	2.8	0.2
*To do something your children or grandchildren enjoy	3.6	3.8	0.2
*To feel safe and secure	3.1	3.2	0.2
To achieve spiritual fulfillment	2.9	3.1	0.1
To get away from crowded situations	3.8	3.9	0.1
To feel harmony with nature	3.6	3.7	0
To be with family and friends	4.1	4.1	0
To experience challenge and excitement	3	3	0
To be in the outdoors	4.3	4.3	0
*To have fun	4.3	4.3	0
To relax	4.1	4.1	0
*To reduce tension	3.7	3.6	-0.1
*To escape the daily routine	3.8	3.7	-0.1

Management Actions for Increasing Outdoor Recreation Participation

Respondents rated 14 potential agency actions with respect to the effect on their participation in outdoor recreation. A three-point scale was used, with 1=no effect, 2=lead to a small increase, and 3=lead to a large increase. Figure 7 shows the percent of "large increase" responses for each action. Ensuring clean and well-maintained parks and facilities were the most important action followed by developing walking/ hiking trails closer to home, providing more free-of-charge recreation opportunities, and making parks safer from crime.

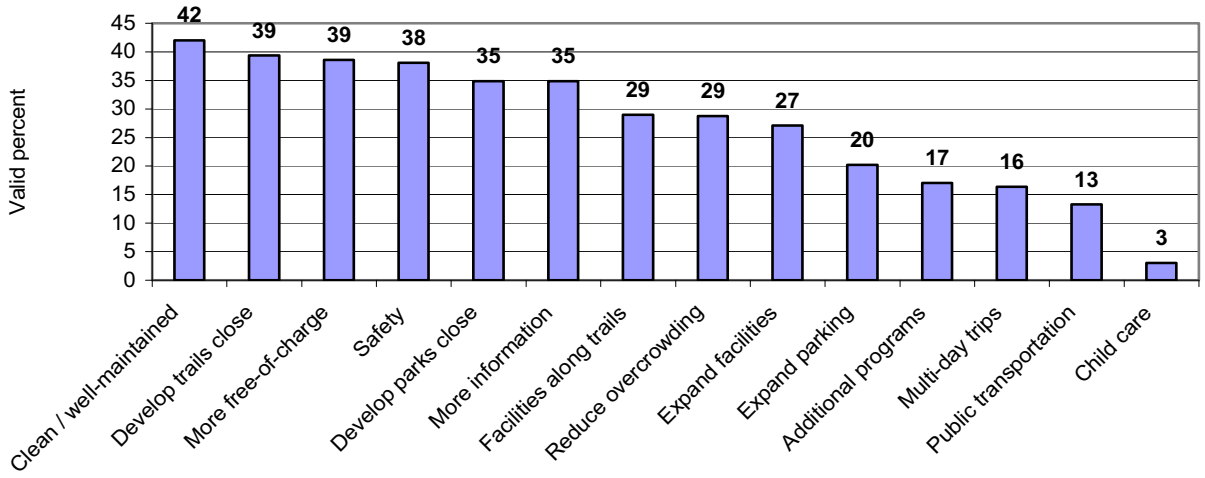
Differences in generations are shown in Table 9 (top actions for each generation are bolded). Boomers placed much more importance on some actions, such as developing trails and parks close to home, as well as providing more information. Conversely, Pre-Boomers placed much more importance on expanded parking and facilities along trails.

In general, agency actions will have less effect on high-income households than on low-income households. For the lowest income households, information was the top action. More free-of-charge programs were one of the most important actions across all income groups, but such programs would have the greatest impact on households in the lowest income category.

Table 9: Percent reporting that action will lead to a large increase in recreation, by generation

	Boomer	Pre-Boomer
Develop trails close	**46**	24
Facilities along trails	27	33
Develop parks close	41	20
More information	39	25
Public transportation	14	11
Safety	37	41
Multi-day trips	18	12
Additional programs	19	12
Reduce	31	24
Expand facilities	28	26
Expand parking	17	28
Clean/well-	41	**44**
Child care	3	3

Figure 7: Percent reporting that action will lead to a large increase in recreation



Summary of Key Findings: Management Actions to Increase Outdoor Recreation Participation

1. Ensuring clean and well-maintained parks and facilities was the most important management action followed by developing walking/hiking trails closer to home and providing more free-of-charge recreation opportunities.
2. Boomers placed more importance than Pre-Boomers on developing trails and parks closer to home and providing more information.
3. Pre-Boomers placed much more importance on expanded parking and facilities along trails.
4. For low-income households, more information was the top management action.

Volunteerism

Respondents were asked several questions about volunteerism. Over a third (38%) volunteer in their community, with an average time commitment of 5.3 hours per week. Those that volunteer were asked the type of organization and type of activity that they mostly volunteered for. The intention was for each volunteer to pick one category for each question, but some picked more than one category, so percentages total more than 100.

- 28% volunteer with church or religious organizations.
- 27%, non-profit community organizations, such as United Way, Salvation Army, or Humane Society.
- 21% school or youth organizations, such as high school sports/activities, Little League, or Boys & Girls Clubs.
- 10%, recreation or natural resource agency/organizations, such as community parks and recreation, watershed council, or Oregon State Parks.
- 3%, library or literacy program.
- 41%, other organizations.

Prior to this survey, there was a lack of information related to the number of Boomers and Pre-Boomers who are volunteering with recreation or natural resource agencies or organizations. The data reveal that about 10% of Boomers and Pre-Boomers in Oregon volunteered for such opportunities.

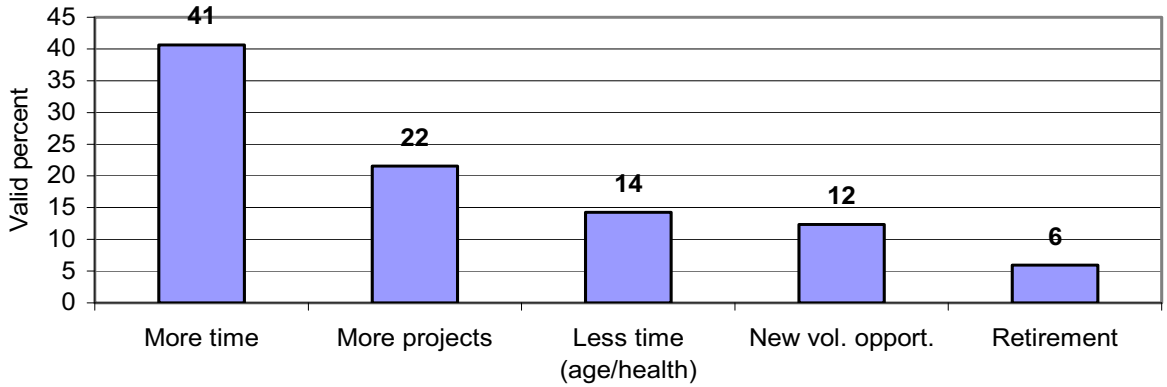
With respect to the type of activity, volunteers engaged in:

- 31%, participating – special events, fundraising, work projects.
- 25%, teaching / program oversight.
- 23%, leadership – including leading groups.
- 23%, labor – construction, maintenance, clean-up.
- 20%, professional – decision making, managing, supervising.
- 6%, clerical – photocopy, filing, mailing.
- 3%, transport – driving vans or trucks.
- 18%, other.

In terms of demographics, males were somewhat more likely than females to volunteer (40% versus 36%), and they also volunteered more hours per week (5.9 versus 4.6). Respondents from high income households were more likely to volunteer than are respondents from low income households; however, they were likely to volunteer for fewer hours.

Of those who volunteer, 43% expected future changes in their volunteer activities, with most of the changes involving greater volunteerism: more time, more projects at current volunteer opportunities, and new volunteer opportunities (Figure 8). However, some respondents indicated they would have less time due to age and health reasons. These results indicate that it is very likely that Oregon will remain a national leader in terms of volunteering rates for seniors as the Boomer population moves into retirement years.

Figure 8: Expected volunteer changes



Of those who volunteer, 10 percent do so with recreation or natural resource agencies/ organizations (referred to here as "recreation volunteers"). The following provides a picture of these respondents[25]. Recreation volunteer activities breakdown as follows:

- 31%, labor – construction, maintenance, clean-up.
- 29%, professional – decision making, managing, supervising.
- 19% leadership – including leading groups.
- 17%, teaching / program oversight.
- 15% participating – special events, fundraising, work projects.
- 6%, clerical – photocopy, filing, mailing.
- 1%, transport – driving vans or trucks.

Recreation volunteers engaged in a range of activity types, with a focus on labor and professional. For recreation volunteers (maroon bar in Figure 9), volunteering tends to peak in the late 50s but also declines more quickly than the entire population of Boomer and Pre-Boomer volunteers (blue). About a third of recreation volunteers are retired.

Figure 9: Volunteerism by age
(all volunteers and recreation volunteers)

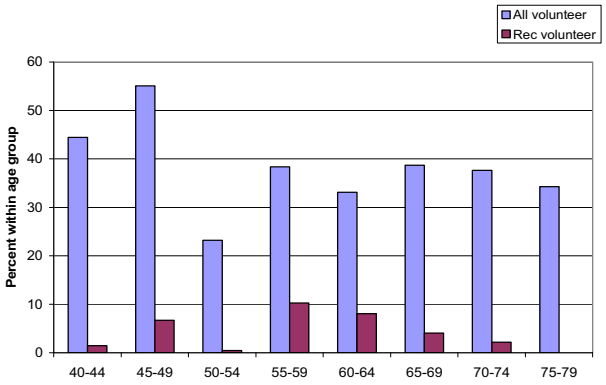


Figure 10: Volunteerism by income
(all volunteers and recreation volunteers)

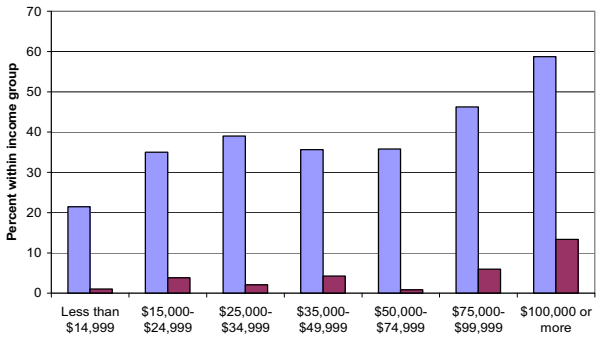
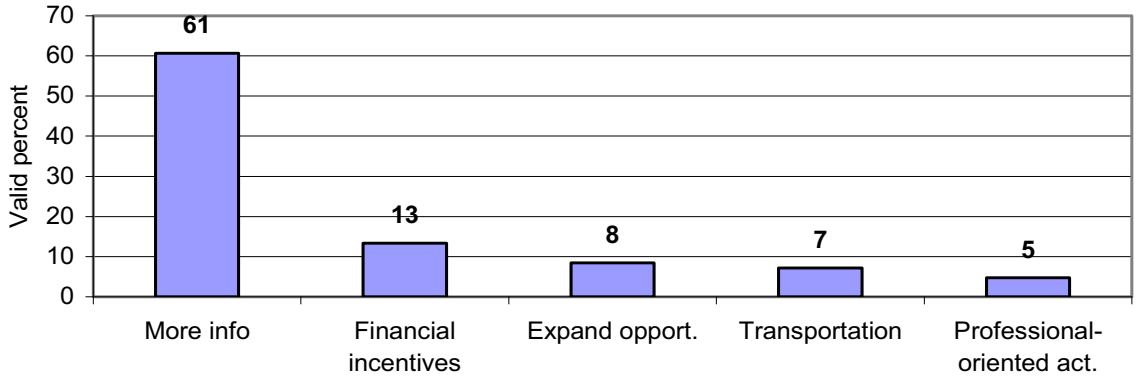


Figure 10 includes income information for all volunteers and recreation volunteers.

[25] There were only 49 recreation volunteers in the sample so information in figures 9 and 10 should be interpreted with caution.

Figure 11: What can agencies do to increase volunteerism?



Respondents were asked their level of agreement with 22 statements relating to volunteering. A 7-point scale, was used, from 1=strongly disagree to 7=strongly agree. The greatest agreement in terms of combined 6 and 7 responses was for the following statements:

- 62%, I feel it is important to help others.
- 56%, Volunteering allows me to do something for a cause that is important to me.
- 47%, I do not have enough time to volunteer as much as I would like.
- 47%, I am genuinely concerned about the particular group I am serving.
- 45%, My volunteer experience has positively impacted my life.

When asked what recreation or natural resource agencies can do to increase the time respondents spend volunteering or to attract new volunteers, the overwhelming response was to provide more information (Figure 11). These findings suggest that an informational marketing campaign aimed at Boomers could be an effective strategy for recreation managers to consider in attracting Boomers to recreation or natural resource volunteer opportunities.

Disability

A series of questions were included in this survey regarding disability and accessibility to identify types of accommodation or assistance that could be useful to improve their outdoor recreation experience in Oregon.

Approximately a third of Boomer and Pre-Boomer respondents indicated that they or someone in their household had a disability. A similar question asked in the 2002 Oregon Outdoor Recreation Survey of all Oregon households found that 16% of Oregon households indicated someone with a disability. These findings indicate that recreation managers can expect substantial increases in the numbers of visitors with a physical or mental disability using their recreational facilities and services in the coming years.

Summary of Key Findings: Volunteerism

1. Over a third of Oregon Boomers and Pre-Boomers volunteered in their community, with an average time commitment of 5.3 hours per week.
2. Of those who volunteered, 43% expect future changes in their volunteer activities, with most of the changes involving greater volunteerism: more time, more projects at current volunteer opportunities, and new volunteer opportunities. These results indicate that it is very likely that Oregon will remain a national leader in terms of volunteering rates for seniors as the Boomer population moves into retirement years.
3. Of those who volunteered, 10% report volunteering with recreation or natural resource agencies or organizations.
4. Recreation volunteers engaged in a range of activity types, with a focus on labor and professional. They tended to be either in their late 40s or late 50s/early 60s, most are male, and from households with high income levels and about a third are retired.
5. When asked what recreation or natural resource agencies can do to increase the time respondents spend volunteering or to attract new volunteers, the overwhelming response was to provide more information. These findings suggest that an informational marketing campaign aimed at Boomers could be an effective strategy for recreation managers to consider in attracting Boomers to recreation and natural resource agency opportunities.

Of those Boomer and Pre-Boomer households with someone with a disability, 81% of the disabilities were physical, 6% mental, and 13% both. Almost two-thirds (64%) indicated that the disability hampered their ability to recreation outdoors in Oregon. Top barriers affecting their ability to recreate included:

- Recreation programs are not accessible for persons with the disability (17%).
- Facilities are not accessible (15%).
- Trails are not accessible (13%).
- Other visitors have negative attitudes towards the disability (9%).

For the 16% of respondents reporting a personal disability, the top activities that they participated in are included in Table 10 below. These results suggest that priority should be given to trails, picnic areas, sightseeing areas, and historic sites in terms of where resources should be directed for providing accessibility accommodations.

Table 10: Top 10 activities (by rate) for respondents with disabilities

	Rate (percent participating	Intensity (mean days)
walking	75	48.2
picnicking	74	7.1
sightseeing	59	12.4
visiting historic sites	53	5.1
ocean beach activities	42	4.1
fishing from a bank or shore	42	5.6
other nature/wildlife observation	39	7.6
day hiking	37	3.3
children/grand children to playground	34	4.9
collecting	34	4.1

Summary of Key Findings: Disability

1. Approximately a third (32%) of Boomer and Pre-Boomer respondents indicated that they or someone in their household has a disability.
2. Of those respondents, almost two-thirds (64%) indicated that the disability hampered their ability to recreation outdoors in Oregon.
3. Oregon's recreation managers can expect substantial increases in the numbers of visitors with a physical or mental disability using their recreational facilities and services in the coming years as Boomers increase in age.
4. Priority should be given to trails, picnic areas, sightseeing areas, and historic sites in terms of where resources should be directed for providing accessibility accommodations.

Relocation

Respondents were asked about their past and expected future relocation (moves), as well as what considerations or characteristics are important to them in destination communities. Thirty-two percent of respondents had moved in the past ten years and 14% plan on moving in the next ten years. For those who have moved in the past 10 years, most moved from a location in Oregon (Figure 12). A quarter came from California, a quarter from other states, and the remainder from Washington or abroad.

Respondents who have moved or expected to move were asked about the considerations or community characteristics that affected their selection of destination community in rating of 23 potential characteristics. The rating involved a scale from 1=Not at all important to 5=Very important.

Scenery was the most important characteristic, followed by low crime, high quality health care, low tax levels, and general outdoor recreation opportunities (Figure 13). These most important factors affecting relocation can be managed to varying degrees. For example, factors such as beautiful scenery and outdoor recreation opportunities, which are affected by local, state, and federal land management agencies and recreation providers. Communities interested in pursing retiree relocation into or within Oregon as an economic development strategy should consider these factors in their planning process.

Figure 12: Respondent origin, percent

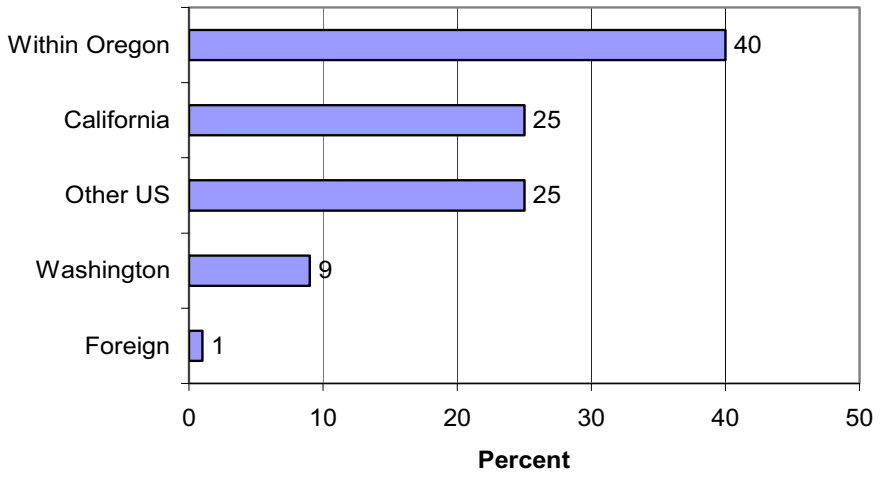
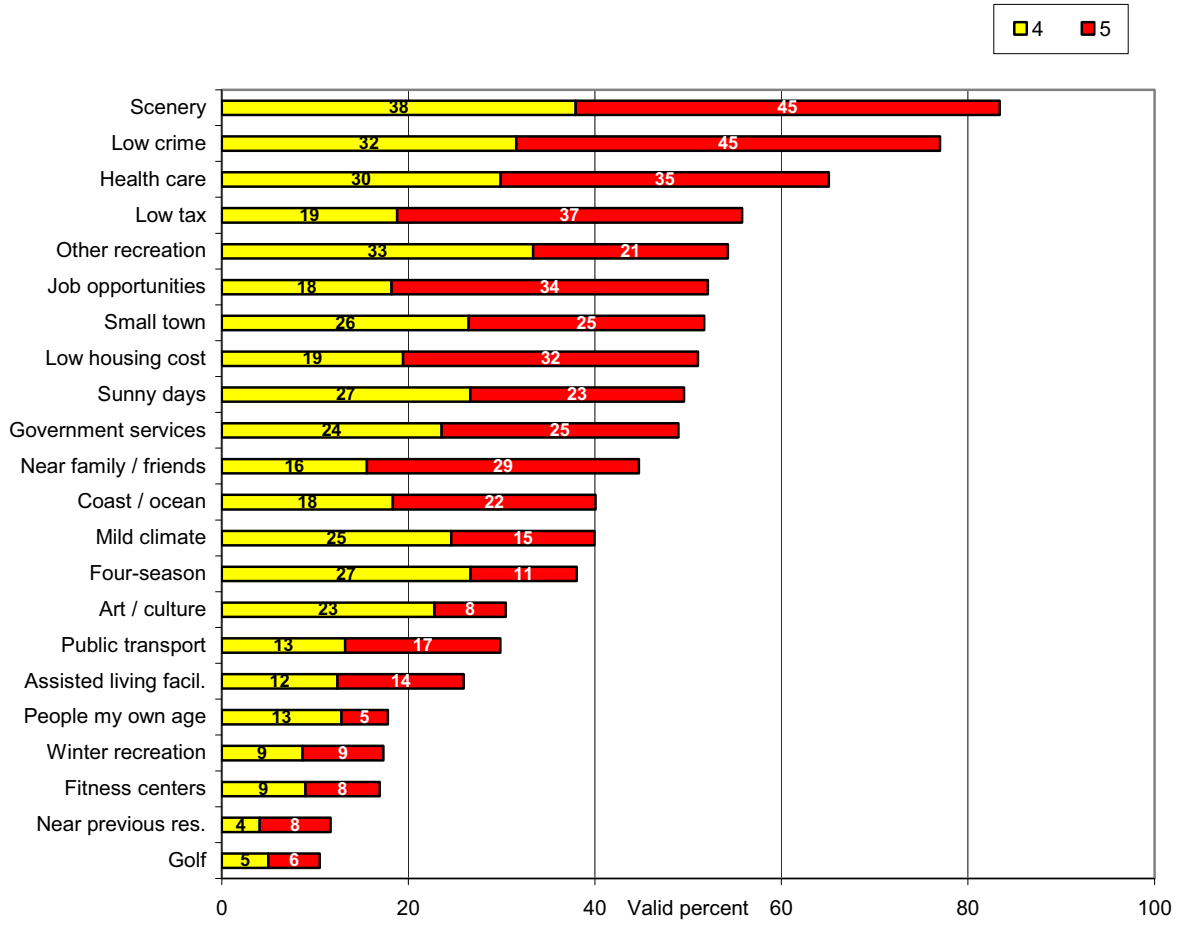


Figure 13: Importance of community characteristics 4 and 5 responses on a 5-point scale



Note that these are statewide ratings and will vary by location. For example, those living in Bend are unlikely to rate proximity to the coast as important while those living in Brookings are unlikely to rate winter recreation as important. See Table B4 in the full survey report for a list of ratings for each of the 36 counties in Oregon. The report is available online at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Aging_Oregon_Report.pdf.

The following characteristics generally become more important with age: proximity to assisted living facilities, number of people one's age, low tax levels, and high quality health care. The following generally become less important: proximity to winter recreation activities, other outdoor recreation activities (e.g., hiking, biking, etc), and work opportunities.

Boomers rated job opportunities much more highly than do Pre-Boomers (Table 11). Other characteristics favored by Boomers included other outdoor recreation opportunities, presence of a college or university, and four-season climate. Conversely, Pre-Boomers rated the following more highly: assisted living facilities, being near family and friends, being near previous residence, and low tax levels.

Table 11: Importance of community characteristics by generation, mean rating (differences statistically significant across generations are designated by * preceding characteristic)

	Boomer	Pre-Boomer
*Work / job opportunities	3.9	1.9
Mild climate (about the same year-round)	3.1	3.2
*Four-season climate (warm summers, snowy winters)	3.2	2.5
Number of clear / sunny days	3.4	3.4
Beautiful scenery	4.2	4.1
Golfing opportunities	1.6	1.6
*Winter recreation opportunities (skiing, snowshoeing, snowmobiling, etc.)	2.3	1.7
*Other outdoor recreation opportunities (hiking, biking, etc.)	3.5	2.5
Convenient access to fitness centers	2.2	2.0
Being near the coast / ocean	3.1	3.2
Arts and culture opportunities	2.8	2.7
*Being near previous residence	1.7	2.1
*Being near family and friends	3.1	3.7
Low crime rates	4.0	4.1
High-quality health care	3.8	4.0
*High-quality assisted living facilities / nursing homes	2.5	3.1
*Good government services, such as education and public safety	3.5	3.1
Good public transport system	2.9	2.7
*Presence of a college or university	2.8	2.1
*Low tax levels	3.5	3.9
Low cost of housing	3.4	3.6
*Being a small town	3.4	3.7
*Number of people my own age	2.6	2.9

With respect to income, the following characteristics become more important as income increases: golfing opportunities, winter recreation opportunities, other recreation opportunities, four-season climate, and job opportunities. The following become less important: public transportation, number of people one's own age, high-quality assisted living facilities, being near the coast, being a small town, low cost of housing, and low tax levels.

Relative to those still working, respondents who are retired placed greater importance on being near previous residence, being near family and friends, low tax levels, and being in a small town.

Boomer and Pre-Boomer Relocation To and Within Oregon

Oregon's statewide population increased from 2.84 million in 1990 to 3.42 million in 2000 to 3.70 million in 2006,[26] and relocation accounted for much of that growth. In order to

[26] http://www.census.gov/popest/datasets.html

provide desired recreation opportunities, it is important to understand past, and likely future, relocation patterns. Such patterns are also important for broader planning, especially for regions targeting retiree relocation into or within Oregon as a tool for rural development.[27]

This analysis summarizes available data on Baby Boomer and Pre-Boomer relocation in Oregon, with a goal of understanding past and future relocation in order to facilitate provision of outdoor recreation opportunities. The analysis utilized secondary data, primarily from the U.S. Census Bureau, Oregon DVM records and the results of the OPRD SCORP survey of Baby Boomers and Pre-Boomers. Relocation can be separated into relocation into counties (from one location to another within Oregon) and relocation into Oregon (from another state or country to Oregon).
A full report is included on the OPRD SCORP planning web site at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Aging_Migration_Report.pdf.
The following is a summary of key findings from the relocation analysis.

Oregon Relocation Research Findings

Oregon as a whole has been a popular destination for relocation into Oregon, with California being the dominant state of origin, followed by Washington (Table 12). Southern, Coastal, and Central Oregon have been particularly popular destinations for inter-state relocation, while inter-county relocation has been more dispersed around the state. Considering inter-state and inter-county relocation combined, 1995-2000 relocation represents more than 20% of the 2000 population in most counties, and more than 30% in some.

Figure 14 shows how relocation behavior varies across age. Within each age group, the majority of residents remained in place during the period evaluated (1996 to 2006). There is a clear increase in relocation as residents approach 60, keeping in mind that this reflects behavior over a 10-year period. However, this increase is in the form of intra-state rather than inter-state moves. Inter-state moves consistently decrease with age. Some communities may be particularly attractive to, and dominated by, inter-state relocation rather than intra-state relocation. Nonetheless, on a statewide basis the number of people relocating within Oregon far exceeds the number of people coming into Oregon from other states.

[27] Literature on this topic includes: 1) William J. Serow, 2003, Economic Consequences of Retiree Concentrations: A Review of North American Studies. *The Gerontologist*, vol. 43, no. 6, pp 897–903; 2) William H. Walters, 2002, Later-Life Migration in the United States: A Review of Recent Research. *Journal of Planning Literature*, vol. 17, no. 1, pp. 37-66; and 3) Richard J. Reeder, 1998, *Retiree-Attraction Policies for Rural Development*. Economic Research Service, U.S. Department of Agriculture, Agriculture Information Bulletin No. 741, available at http://www.ers.usda.gov/publications/aib741/.

Table 12: Inter-state relocation by origin, DMV records, count and percent of all surrendered licenses

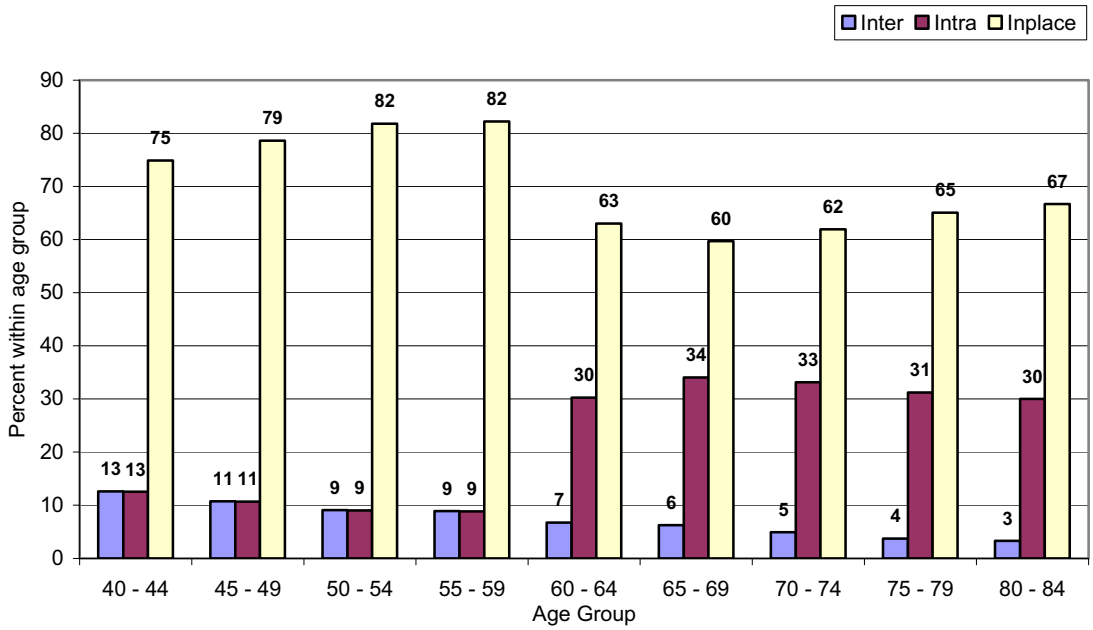
Origin	1985		1995		2005	
	Licenses	Percent	Licenses	Percent	Licenses	Percent
California	15,560	33	28,375	36	27,306	37
Washington	8,094	17	13,970	18	11,207	15
Idaho	2,365	5	3,047	4	3,221	4
Arizona	1,724	4	2,662	3	2,435	3
Texas	1,527	3	2,545	3	2,371	3

Summary of Key Findings: Relocation

1. Respondents were asked about their past and expected future moves (relocation). 32% have moved in the past ten years and 14% planned on moving in the next ten years.
2. Respondents who have moved or expected to move were asked about community characteristics that affected or will affect their selection of a destination community. Scenery was the most important characteristic, followed by low crime, high-quality health care, low tax levels, and general outdoor recreation opportunities.
3. The following characteristics generally become more important with age: proximity to assisted living facilities, number of people one's age, low tax levels, and high-quality health care. The following generally become less important: proximity to winter recreation activities, other outdoor recreation activities, and work opportunities.
4. Boomers rated job opportunities much more highly than do Pre-Boomers. Other characteristics favored by Boomers included other recreation (other than golf and winter recreation) opportunities, presence of a college or university, and four-season climate.
5. Pre-Boomers rated the following more highly: assisted living facilities, being near family and friends, being near previous residence, and low tax levels.
6. With respect to income, the following characteristics become more important as income increases: golfing opportunities, winter recreation opportunities, other recreation opportunities, four-season climate, and job opportunities.
7. Relative to those that are still working, respondents who are retired placed greater importance on being near previous residence, being near family and friends, low tax levels, and being in a small town.

In addition, census data indicate that the aging of the Boomer cohort will dramatically increase the number of residents in that age range — in Oregon and in origin states. Combined, these factors will increase the number of inter-county and inter-state residents moving to Oregon communities. Specifically, over the next decade communities can expect roughly 20% more moves in the 40 to 79 age range than they experienced in the past decade.

Figure 14: Relocation behavior by age, 1996-2006, DMV data



Relocation by Oregon community was calculated based on a sample drawn from a list of Oregon Boomer and Pre-Boomer driver's license holders obtained from the Oregon DVM. In the DMV file, there were 455 Oregon communities with at least one resident in the Boomer or Pre-Boomer age groups. Of these communities, 43 had at least 1,000 inter-county or inter-state moves and a relocation intensity of at least 13% (moves relative to all residents in these age cohorts). Details for these communities are shown in Table 13 and their geographic distribution is shown in Figure 15. A fuller list of 80 communities with at least 700 moves is presented in Appendix A of the full report available online at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Aging_Migration_Report.pdf.

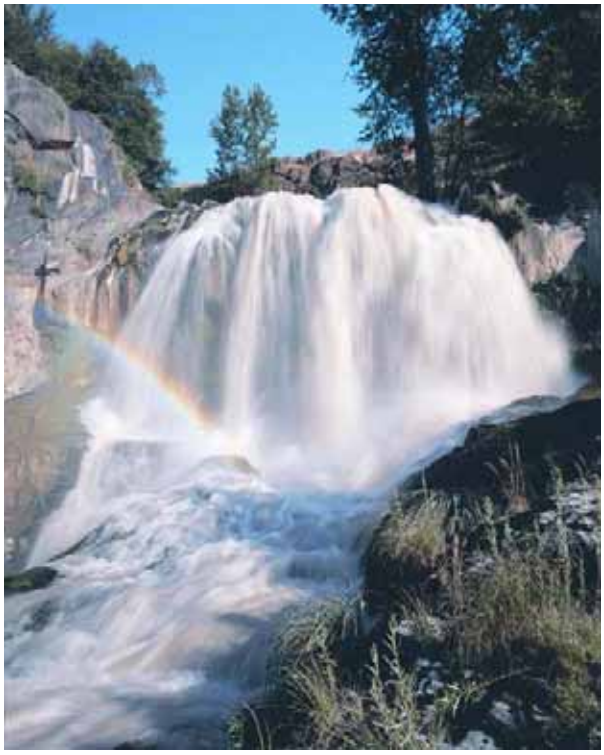
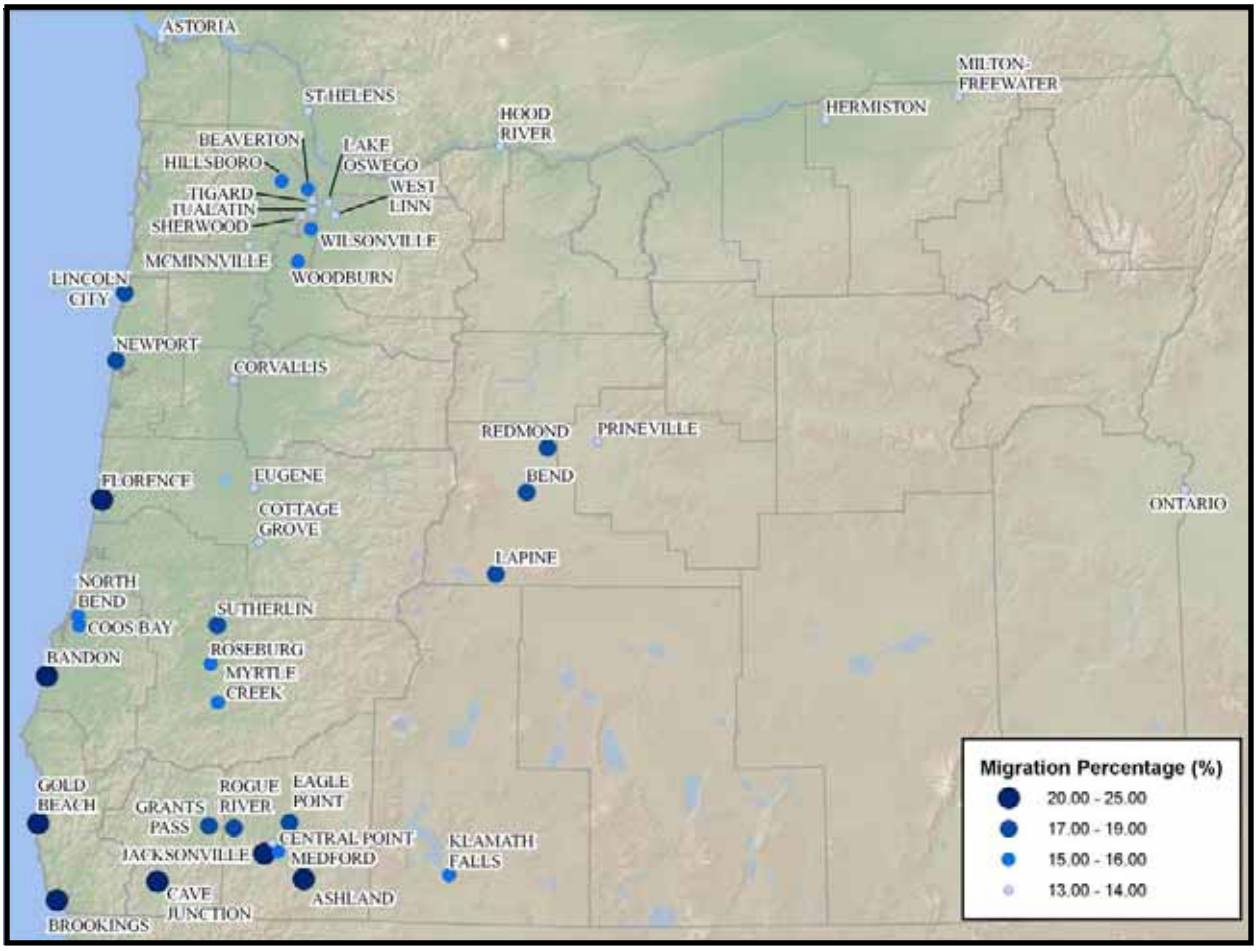


Table 13: Top 43 Relocation destination communities, 1996-2006, DMV data, sorted by combined

Town	Boomer				Pre-Boomer				Boomer and Pre-Boomer Combined	
	Inter-state	Inter-county	Relocation volume (inter-state + inter-county)	Relocation intensity (mig/all in cohort)	Inter-state	Inter-county	Relocation volume (inter-state + inter-county)	Relocation intensity (mig/all in cohort)	Relocation volume (inter-state + inter-county)	Relocation intensity (mig/all in cohorts)
Brookings	1,201	345	1,546	26%	1,086	520	1,606	23%	3,153	25%
Gold Beach	424	122	546	24%	277	207	484	21%	1,030	22%
Florence	915	264	1,179	23%	1,119	702	1,821	21%	3,000	22%
Ashland	1,778	512	2,290	22%	867	473	1,340	20%	3,630	21%
Cave Junction	452	129	581	21%	305	187	492	20%	1,073	21%
Bandon	500	144	644	22%	330	351	681	19%	1,325	20%
Jacksonville	526	151	677	21%	271	191	462	19%	1,139	20%
Eagle Point	728	207	935	18%	416	270	686	20%	1,621	19%
Rogue River	499	144	643	20%	293	249	542	17%	1,185	19%
Grants Pass	3,412	981	4,393	19%	2,378	1,829	4,207	18%	8,600	19%
Bend	5,029	1,450	6,479	18%	2,161	2,048	4,209	18%	10,688	18%
Lincoln City	601	173	774	19%	302	374	676	16%	1,451	18%
Newport	639	184	823	17%	412	435	847	17%	1,670	17%
Sutherlin	371	106	477	16%	325	349	674	17%	1,151	17%
La Pine	594	171	765	18%	347	525	872	16%	1,637	17%
Redmond	1,167	337	1,504	15%	725	800	1,525	18%	3,029	17%
Medford	3,490	1,005	4,495	16%	1,739	1,711	3,450	16%	7,945	16%
Coos Bay	1,187	342	1,529	16%	649	904	1,553	16%	3,082	16%
Myrtle Creek	411	117	528	16%	271	249	520	16%	1,048	16%
North Bend	641	185	826	15%	294	465	759	15%	1,585	15%
Hillsboro	3,326	959	4,285	16%	639	952	1,591	13%	5,876	15%
Beaverton	5,780	1,670	7,450	16%	1,048	1,740	2,788	14%	10,238	15%
Klamath Falls	2,098	603	2,701	15%	923	1,040	1,963	14%	4,664	15%
Roseburg	1,766	506	2,272	14%	1,127	1,127	2,254	15%	4,526	15%
Woodburn	725	205	930	15%	328	578	906	14%	1,837	15%
Wilsonville	728	210	938	15%	242	409	651	14%	1,590	15%
West Linn	1,424	411	1,835	15%	291	408	699	13%	2,533	14%
Astoria	713	205	918	14%	217	494	711	14%	1,629	14%
Central Point	887	255	1,142	13%	510	577	1,087	15%	2,229	14%
Ontario	684	195	879	15%	192	314	506	12%	1,385	14%
Milton-Freewater	391	113	504	13%	167	359	526	15%	1,030	14%
Hermiston	808	233	1,041	13%	224	582	806	14%	1,847	14%
Lake Oswego	2,275	656	2,931	14%	529	763	1,292	12%	4,223	14%
Tualatin	1,091	315	1,406	14%	191	346	537	13%	1,943	14%
Cottage Grove	604	173	777	13%	299	352	651	14%	1,428	13%
Tigard	2,243	648	2,891	14%	522	970	1,492	13%	4,383	13%
Hood River	660	185	845	14%	178	231	409	12%	1,254	13%
McMinnville	895	258	1,153	12%	424	742	1,166	15%	2,319	13%
Prineville	500	145	645	11%	322	794	1,116	15%	1,760	13%
Corvallis	2,087	602	2,689	13%	597	718	1,315	13%	4,004	13%
St Helens	402	116	518	11%	113	374	487	15%	1,006	13%
Sherwood	630	182	812	12%	176	347	523	14%	1,335	13%
Eugene	6,054	1,739	7,793	13%	2,006	3,099	5,105	13%	12,899	13%

Figure 15: Geographic Distribution of Oregon Boomer/Pre-Boomer Relocation Communities, 1996-2006



Southern and coastal (Florence and south) communities dominate with respect to relocation intensity. Central Oregon communities experienced the next category (17-19%) of intensity. Portland experienced by far the largest volume of relocation, but the Portland metro region did not experience the same level of intensity found in Coastal and Southern Oregon.

In addition to providing historical evaluation, the DMV data facilitates projection of future relocation during the period from 2006-2016. Projections by community are shown in Table 14, sorted by relocation intensity. There is some change in the ordering of towns, due to variations in relocation proportions across inter-state and inter-county categories and the differing percentage increases in each (19.7% for inter-county and 20.8% for inter-state). Nonetheless, the projection methodology maintains essentially the same findings as show in Table 13 ─ relocation is most intense in Southern and Coastal Oregon. Projections for an expanded list of communities are shown in Appendix B of the full report. These projections form a foundation for estimating future changes in demand for recreation facilities and other local facilities and services.

Table 14: Past and projected relocation in the 40 to 79 age range

Town	1996-2006			2006-2016 Projection		
	Inter-state	Inter-county	Total	Inter-state	Inter-county	Total
Brookings	2,287	866	3,153	2,762	1,037	3,799
Gold Beach	701	329	1,030	847	394	1,241
Florence	2,034	966	3,000	2,457	1,156	3,613
Ashland	2,645	985	3,630	3,194	1,180	4,374
Cave Junction	757	316	1,073	914	378	1,293
Bandon	830	495	1,325	1,002	593	1,596
Jacksonville	797	342	1,139	963	410	1,373
Eagle Point	1,144	477	1,621	1,382	571	1,953
Rogue River	792	393	1,185	957	470	1,427
Grants Pass	5,790	2,810	8,600	6,993	3,365	10,358
Bend	7,190	3,498	10,688	8,684	4,189	12,873
Lincoln City	903	548	1,451	1,091	656	1,747
Newport	1,051	619	1,670	1,269	741	2,010
Sutherlin	696	455	1,151	841	545	1,386
La Pine	941	696	1,637	1,136	834	1,970
Redmond	1,892	1,137	3,029	2,285	1,362	3,647
Medford	5,229	2,716	7,945	6,315	3,253	9,568
Coos Bay	1,836	1,246	3,082	2,217	1,492	3,709
Myrtle Creek	682	366	1,048	824	438	1,262
North Bend	935	650	1,585	1,129	778	1,907
Hillsboro	3,965	1,911	5,876	4,789	2,288	7,077
Beaverton	6,828	3,410	10,238	8,246	4,083	12,329
Klamath Falls	3,021	1,643	4,664	3,649	1,968	5,616
Roseburg	2,893	1,633	4,526	3,494	1,956	5,450
Woodburn	1,053	784	1,837	1,272	938	2,210
Wilsonville	970	620	1,590	1,172	742	1,914
West Linn	1,715	818	2,533	2,071	980	3,051
Astoria	930	699	1,629	1,123	837	1,960
Central Point	1,397	832	2,229	1,687	996	2,683
Ontario	876	509	1,385	1,058	610	1,668
Milton-Freewater	558	472	1,030	674	565	1,239
Hermiston	1,032	815	1,847	1,246	976	2,223
Lake Oswego	2,804	1,419	4,223	3,387	1,700	5,086
Tualatin	1,282	661	1,943	1,548	792	2,340
Cottage Grove	903	525	1,428	1,091	628	1,719
Tigard	2,765	1,618	4,383	3,339	1,938	5,277
Hood River	838	416	1,254	1,012	498	1,510
McMinnville	1,319	1,000	2,319	1,593	1,197	2,790
Prineville	822	938	1,760	993	1,124	2,116
Corvallis	2,684	1,320	4,004	3,242	1,580	4,822
Sherwood	806	529	1,335	973	634	1,607
St Helens	515	491	1,006	622	587	1,209
Eugene	8,060	4,839	12,899	9,734	5,794	15,528

Summary of Key Findings: Relocation to and Within Oregon

1. Oregon as a whole has been a popular destination for inter-state relocation, with California being the dominant state of origin, followed by Washington.
2. On a statewide basis, the number of Oregonians relocating to new communities within the state in the Boomer and Pre-Boomer population far exceeds the number of people relocating in Oregon from other states in these age categories.
3. Southern, Coastal, and Central Oregon have been particularly popular destinations for inter-state relocation, while inter-county relocation has been more dispersed around the state.
4. Considering inter-state and inter-county relocation combined, 1995-2000 relocation represents more than 20% of the 2000 population in most counties, and more than 30% in some.
5. The aging Boomer cohort will dramatically increase the number of inter-county and inter-state moves to Oregon communities. Over the next decade, Oregon communities can expect roughly 20% more moves in the 40 to 79 age range than they experienced in the past decade.
6. The level and distribution of relocation across communities will not be uniform across the state; rather, both the number of moves and the intensity relative to current population bases will vary across the state.
7. During the period from 1996-2006, Southern and coastal (Florence and south) Oregon communities had highest levels of relocation intensity, followed by Central Oregon.
8. Projections for the years 2006-2016, maintain a similar relocation pattern ─ that relocation will be most intense in Southern and Coastal Oregon.

Key Planning Recommendations for a Rapidly Aging Oregon Population

Following completion of the research studies, the Aging Oregon Advisory Committee met to develop a final set of planning recommendations for assisting recreation providers across the state to proactively manage for changes associated with an aging Oregon population. During the March 23, 2007 Advisory Committee Meeting, committee members identified the following set of key recommendations based on a thorough review of existing literature related to the issue, SCORP research findings, and members' practical experience and knowledge regarding the issue. Copies of meeting notes and planning recommendations were sent to each Advisory Committee member for review following the meeting.

Key recommendations are divided into two categories; statewide recommendations and local recommendations. Statewide recommendations are relevant for all recreation providers across the state of Oregon. Because the level and distribution of aging within the population will not be uniform across the state, local recommendations apply to those high-priority counties and communities in the state which are projected to experience higher levels of increases in their population of 60 years and older in the coming years.

Statewide Recommendation #1: Develop a statewide trails web site to facilitate recreational trail use by Oregon's Boomer population.

Oregon SCORP research shows that walking is the top outdoor recreation activity engaged in by the Boomer and Pre-Boomer populations both in terms of participation rate and intensity.

Additional research has shown that virtually all older adults can benefit from regular physical exercise and walking is one of the easiest and safest ways to exercise. The ability of regular physical activity such as walking to prevent chronic diseases and sustain active living means that an active lifestyle is a key component of healthy and successful aging. Walking requires no special equipment or training; can be done anywhere and is a great way to make one physically, mentally and emotionally healthy. As a result, promoting the use of existing close-to-home walking opportunities among Boomers and Pre-Boomers can be an effective strategy in preventing health problems and reducing health costs associated with an aging population.

The Oregon Statewide Trails Web site project will satisfy a strong need identified in recent statewide recreation planning efforts (including the 2002-2007 Oregon SCORP and 2005-2014 Oregon Trails Plan) for easy-to-access information on where Oregonians can identify and learn about close-to-home recreational facilities and programs to facilitate daily physical activity. This project will provide the biggest bang for the buck in linking an aging Oregon population with park and recreation information to encourage them to get and stay active.

This project will develop a one-stop web site for recreational trail opportunities in the state of Oregon. The web site, to be housed on the Oregon State Park web site, will include an interactive map of Oregon allowing users to find trail opportunities in their particular area of the state and neighborhood.

The OPRD will develop a searchable database and user interface for the web site. Park and recreation providers (federal and state agencies, cities, counties, special recreation districts, ports, tribes) across the state are being asked to provide a limited set of information for each trail they have identified for inclusion on the statewide site. The intent of this project is not to gather information for all recreational trails, but rather for those that a provider wants to promote for general public use.

Recreation trails often have a number of public access points[28] along the length of the trail. Residents from the surrounding neighborhood might simply walk to the nearest access point to get on a trail, while others might need to drive to the nearest access point and park their vehicle in either a designated parking lot or on-street parking. Providers may chose to provide information for only those trail access points with amenities such as parking lots and restrooms or decide to also include information for public access points with casual on-street parking or even no parking.

Following project completion, the data collection effort will shift from recreational trails to other physical activity-related facilities such as parks, outdoor sports fields, swimming pools, and active recreational programming opportunities.

Statewide Recommendation #2: Develop a statewide marketing plan to encourage Boomer outdoor recreation participation.

Clearly, Oregon's park and recreation providers have the facilities and programs in place across the state to take a leadership role in promoting and preserving the health of older adults through encouraging and facilitating their involvement in active outdoor recreation activities. SCORP research has identified that

[28] Public access points are designated areas and passageways that allow the public to reach a trail from adjacent roads, streets or community facilities.

Oregon Boomers may "break the trend" of decreasing recreation with age. Of critical importance to this planning effort is how recreation providers can get and keep Boomers actively involved in outdoor recreation activities as they move into and through their retirement years.

In Oregon, 62% of adults between the ages of 50 and 64 and 64% between 65 and 74 do not meet the CDC physical activity guidelines of moderate intensity physical activities for at least 30 minutes on five or more days a week. These individuals are a logical target market to focus on in an effort to improve health through the promotion of an active outdoor lifestyle. The Advisory Committee members suggested that it would be of value to seek the expertise of marketing professionals to provide recreation managers with direction on how to reach this important target market. Their recommendation was to develop a statewide marketing plan to encourage Boomer outdoor recreation participation in Oregon.

Because Boomers have an age span of 19 years difference, they will have a range of behaviors and attitudes toward retirement. The SCORP dataset includes a wealth of data related to age, recreation participation, and motivations. The Association for the Advancement of Retired People (AARP) has identified five groups of Boomers on the basis of their attitudes towards retirement: The Strugglers, The Anxious, The Enthusiast, The Self-Reliant and Today's Traditionalists[29]. Each group has their own specific marketing hot buttons. One marketing technique that should be considered is to look at different psychographic profiles such as those identified in the AARP study and to target the message towards the specific profile type. The analysis should also examine the types of information delivery systems currently in use and evaluate their effectiveness and recommend other forms of media that providers might consider for future use.

Statewide Recommendation #3: Create a statewide interagency volunteer information web site or other communications medium to match Boomer volunteers with recreation or natural resource projects in Oregon.

As older adults either retire completely or move to flex or part-time employment, studies have shown that they hope to have more time to "give back" to their communities or become involved in meaningful or purposeful activities. In addition to providing direct benefits to the community, studies have also shown that volunteerism increases an older adult's physical health and agility as well as his/her cognitive and mental well-being. In recent years, Oregon has been one of the top ten states in the nation for volunteering rates among seniors. However, in the initial meeting Advisory Committee members voiced a concern that the Boomers' tendency towards a more self-centered lifestyle could result in lower rates of senior volunteerism in the coming years in Oregon. As a result, a series of questions were included in the Oregon Boomer and Pre-Boomer survey addressing current and anticipated volunteerism among respondents.

SCORP survey results indicate that over a third of Oregon Boomers and Pre-Boomers currently volunteer in their community. Of those that volunteered, 43% expect future changes in their volunteer activities, with most of the changes involving greater volunteerism. When asked what recreation or natural resource agencies

[29] Baby Boomers envision their retirement: An AARP segmentation Analysis. Roper Starch Worldwide, February 1999.

can do to increase the time respondents spend volunteering or to attract new volunteers, the overwhelming response was to provide more information about available volunteer opportunities. These findings suggest that an information campaign aimed at Boomers could be an effective strategy for recreation managers to consider in attracting Boomers to recreation or natural resource agency volunteer opportunities the coming years.

Based on this information, Advisory Committee members recommended the development of a statewide interagency volunteering information clearinghouse to match volunteers with recreation or natural resource agency projects in Oregon. A potential model for the site is the "Get Outdoors Nevada" web site at http://www.getoutdoorsnevada.org/. This site includes volunteer opportunities for federal agencies (BLM, USF&W, USFS, and NPS) in Nevada.

The web site should include not only federal, but state and local recreation volunteer opportunities. It should include information related to the benefits and volunteering and incorporate key motivational information identified in the SCORP survey related to Boomers and volunteering. Volunteer opportunities should include not only trail work, but a wide range of opportunities related to park maintenance, recreation and sports programming, education, interpretation and special events. The web site design should provide links to recreation and natural resource agency/organization web site locations with specific volunteer opportunities available within the specific agency/organization. Individual providers would be responsible for keeping their specific volunteering information current.

Statewide Recommendation #4: Facilitate the development of local senior walking clubs throughout Oregon.

As previously stated, Oregon SCORP research shows that walking is the top outdoor recreation activity engaged in by the Boomer and Pre-Boomer populations both in terms of participation rate and intensity. There is also strong evidence that walking is a preferred activity for seniors not currently using recreational trails. AARP research shows that the most preferred mode of exercise for 74% of its members is walking.

A SCORP survey question asked respondents how important each of 16 motivations were when they currently engaged in outdoor recreation, as well as how important they expected each to be 10 years from now. Two of the top motivations with the biggest positive change as respondents looked to the future were to keep fit and healthy and to meet new people. These findings indicate that encouraging seniors to join walking clubs could be a good long-term strategy for empowering Boomers to get and remain physically active.

The Bend Metro Park and Recreation District has developed over the years a Senior Hiking Program targeting those over 50 years of age. They have discovered that a lot of the attractiveness to participate in such program was not so much the destination or the specific outdoor activity, but rather the social network component. People were coming back week after week to spend time with the same group of people. As a result, any walking program, particularly for older adults, needs to focus on the idea of forming social groups which get together on a regular basis. This social component can be a much more powerful motivator than the walk itself.

Advisory Committee members recommended that a framework be developed for establishing local walking clubs addressing a variety of organizational structure types from the most developed with local staffing and transportation, to 501 (c) three non-profit walking clubs, to loosely organized walking clubs. Walking could be done by such clubs in a variety of settings both within the community in parks, on trails, or in malls; and outside of the community on county, state, or federal trails. Local park and recreation departments would use this framework to work with volunteers to create local walking clubs. Volunteer groups should be given the freedom to determine for themselves how they will be governed. Local clubs can set up web pages and list serves on the statewide trails web site to attract new members and get the word out regarding outing times and specific meeting locations.

It is also important to identify a local anchor. AARP is a possibility, along with other partners within the health community. Local hospitals could also be good natural partners and can reach those people who should be walking for health reasons.

Statewide Recommendation #5: Develop accessible trails in remote settings in close proximity to urban areas of the state.

SCORP survey findings indicate that recreation managers can expect substantial increases in the number of visitors with a physical disability using their recreational facilities and services in the coming years. Of survey respondents reporting a disability, 75% reported participation in walking on average 48.2 days over the course of a year. One of the challenges with an aging population is providing safe walking opportunities, especially after they lose their ability to handle variable terrain. Trail opportunities for seniors should be relatively close-to-home and appropriate for all ability levels. In addition, they need to be ADA accessible and allow seniors to walk with their grandchildren. According to SCORP survey results, such trails should have expanded parking and facilities such as restrooms and benches along the trails to encourage use by seniors.

Based on this information, Steering Committee members recommend that recreation providers managing remote-setting public lands in Oregon place a priority on developing accessible trails which are relatively close to urban areas to provide opportunities for an aging population to continue to enjoy their forests.

Local Recommendation #1: Greater priority for trail acquisition and development projects in OPRD-administered grant programs.

Walking is the top outdoor recreation activity engaged in by the Boomer and Pre-Boomer populations. A comparison across five-year age categories within these populations shows that a variety of trail activities are in the top five activities in terms of participation intensity including walking (top activity for population between 40- 79 year olds), jogging (40-59), and bicycling (40-64).

The need for more trails in close proximity to where people live was also a top statewide concern identified in the 2005-2014 Trails Plan. Recreation providers and other workshop attendees in issues workshops across the state voiced a need for more non-motorized trails in close proximity to where people live. This need is clearly in line with the findings of the 2002 Oregon Outdoor Recreation Survey that

identified running and walking for exercise and walking for pleasure as the most popular everyday outdoor recreation activities of Oregonians. According to the OSU report, these activities are generally engaged in near home, and on a regular basis and state residents demand these opportunities in the communities in which they live. This need was also reinforced in the initial Advisory Committee meeting. According to committee members, there is an urgent need for more recreational trails in Oregon. They see more and more people using trails and more potential for user conflicts ─ bicyclists who are riding too fast and skaters in larger numbers.

Although the federally funded OPRD-administered Recreational Trails Grant Program's (RTP) primary intent is to provide funding for recreational trail development in Oregon, it is not a great deal of money ─ only about $800,000 a year. There are also federal limitations/restrictions attached to spending these dollars.

The Advisory Committee recommended greater priority for trail acquisition and development projects in OPRD-administered grant programs to facilitate everyday trail use by an aging Oregon population. Because the level and distribution of aging within the population will not be uniform across the state, priority points should be awarded for trail acquisition and development grant proposals in high-priority counties and communities in the state which are projected to experience higher levels of increases in their population of 60 years and older in the coming years. Counties identified as "high-priority" based on increase in aging population include Benton, Clackamas, Columbia, Crook, Deschutes, Lane, Multnomah, and Washington. High-priority cities include Albany, Aumsville, Beaverton, Bend, Eugene, Florence, Gresham, Hillsboro, Keizer, Lakeside, McMinnville, Medford, Oregon City, Richland, Salem, Tigard and Troutdale.

This could be one of the most cost-effective investments the state of Oregon can make in terms of preventative efforts to stem the rising health care costs predicted as a result of an aging Oregon population.

Local Recommendation #2: Plan and develop regional trail systems in areas of the state having highest relocation intensity in the 40 to 79 age range.

According to the Oregon Boomer and Pre-Boomer Relocation Analysis, the aging Boomer cohort will dramatically increase the number of inter-county and inter-state moves to Oregon communities. Over the next decade, Oregon communities can expect roughly 20% more moves in the 40 to 79 age range than they experienced in the past decade. During the period from 1996-2006, Southern and coastal (Florence and south) Oregon communities had highest levels of relocation intensity, followed by Central Oregon. Projections for the years 2006-2016, maintain a similar relocation pattern ─ that relocation will be most intense in Southern and Coastal Oregon.

Advisory Committee members recommended planning and developing regional trail systems in high-priority areas identified in the Oregon Boomer and Pre-Boomer Relocation Analysis. This recommendation supports the creation of regional multi-jurisdictional trail planning entities in these areas to facilitate regional and urban trail system planning. Such groups would work with private landowners, irrigation districts and public agencies (federal, state and local) to coordinate the trails planning process and facilitate idea sharing and the communication process. In addition, the groups would create a shared vision between local, state and federal recreation providers on

a regional scale that can be used to identify trail development priorities. Such an overall vision is essential in order to see trails projects through to completion and to ensure that individual trail projects make sense as part of the larger trail system. After planning completion, an acquisition strategy should focus resources on completing gaps in these trail networks.

Chapter Three
Fewer Oregon Youth Learning Outdoor Skills

Prepared by the Oregon Parks and Recreation Department

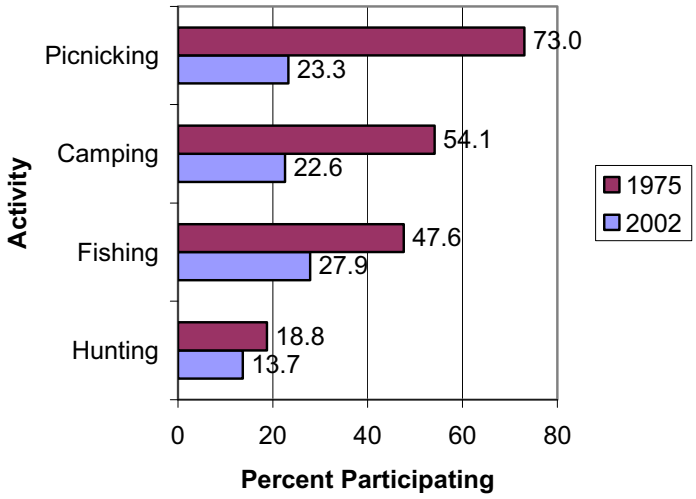
Issue Introduction: Fewer Oregon Youth Learning Outdoor Skills

Oregon is a state rich in physical variety, with citizens molded by a recent frontier history. The relative proximity of seashore, mountains and deserts to most of the state's population has instilled in Oregonians a special connection to these lands. Because of these factors, an active outdoor lifestyle is a central part of our shared tradition and heritage in Oregon and throughout the Pacific Northwest.

However, growing evidence shows that young Oregonians are gravitating away from outdoor experiences and towards a virtual indoor reality. Analysis of past Oregon SCORP results (Figure 16) indicates that participation in traditional outdoor recreation activities is decreasing. Anecdotal information and recent analysis indicate that youth participation in outdoor activities is decreasing because of several factors including increased urbanization, loss of free time, increase in single-parent family households, and greater focus on electronic activities (TV, video games, and internet).

This disconnect from nature has serious long-term implications for the health and well-being of our state and to the future stewardship of our public lands. Research has shown that people who do not participate in outdoor recreation as youth are less likely to participate in those activities as adults (with implications also for the next generation). Exposing children to outdoor recreation activities can provide children a variety of benefits ─ including physical, social, emotional and spiritual benefits. Increasing participation by youth in active outdoor recreation activities can also serve as a primary strategy in combating the

Figure 16: Percent of Oregon population participating in traditional outdoor activities



unprecedented epidemic of childhood obesity that is currently plaguing the state of Oregon. Moreover, an effort to increase outdoor recreation participation is critical for achieving positive conservation attitudes in the future, and ultimately for maintaining support for agencies that manage recreation and natural areas.

The intention of this chapter is to set a course for recreation providers in the state to reconnect Oregonians to their traditional outdoor lifestyle and build a strong future generation of natural resource stewards and leaders.

Outdoor Recreation Participation and Oregon's Youth Population

With the wild enthusiasm over video games, the Internet and the endless supply of TV channels, children and teenagers have little need to walk out their front door to find entertainment. A national longitudinal study of children and their families conducted by the University of Michigan in 2004[30], found a

[30] Juster, F.T, H. Ono and F.P. Stafford. Changing times of American youth: 1981-2003. Nov. 2004. Institute for Social Research , University of Michigan.

substantial decline in the amount of time spent in out-of-door activities among American children between the ages of 6-17. In 1982 youth spent an average of one hour and 40 minutes per week on outdoor activities and only half of that amount of time (50 minutes) in 2003. In 2003 youth spent on average 17 hours and 21 minutes per week watching television and on the computer!

According to Zaradic and Pergams[31], increasing use of electronic media has been implicated in negative psychological and physical effects, including obesity, loneliness, depression, and attentional problems. Internet use at home is shown to have a strong negative impact on time spent with friends and family as well as time spent on social activities. Outdoor play and nature experience have proven beneficial for cognitive functioning, reduction in symptoms of ADD, increase in self-discipline and emotional well being at all development stages. Yet, in contrast to the hours spent per child per week in front of electronic entertainment, children living in the United States reportedly spend on average only 30 minutes of unstructured time outdoors each week.

This trend towards more indoor electronic media time is not likely to go away in the near future. Nearly 70% of children ages 6-14 have a television in their bedrooms and nearly 50% have video game systems in their bedrooms. A recent study by the Kaiser Family Foundation found that a generation of parents raised on TV is largely encouraging the early use of television, video games and computers by their own children. This study found that 8 in 10 of the nation's youngest children ─ babies up to age 6 ─ watch TV, play video games or use the computer for about two hours on a typical day. Even for littlest tots, TV in the bedroom is not rare: Nineteen percent of babies younger than two-years-old have one despite urging from the American Academy of Pediatrics that youngsters not watch any television at that age.

In Oregon, recent data confirm a shift towards a virtual indoor reality. An analysis of results from the Oregon Healthy Teens Survey[32] identified:

- a 35% increase from 2001 to 2005 in the fraction of Oregon 11th graders who watched more than two hours of TV on an average school day (17.0% to 22.9%);
- a 76% increase from 2001-2003 in the fraction of 11th graders who played video games more than two hours a day (4.9% to 8.6%); and
- a 100% increase from 2001-2003 in the fraction of Oregon 11th graders who "surfed" the Internet for more than two hours (6.2% to 12.4%).

In preparation for this planning chapter, OPRD contracted Oregon State University to conduct a statewide survey of Oregon youth and their parents. The goal of this survey project was to better understand current youth outdoor recreation patterns in Oregon, the extent to which recreation participation and development of outdoor skills has changed in the past generation, and current and potential participation in outdoor programs. The evaluation included assessment of constraints and parental priorities for such programs, as well as parental perceptions of safety and access to natural areas. The project involved surveys of both parents and youth.

---

[31] Zaradic P.A. and Pergams ORW. Videophilia: Implications for childhood development and conservation. The Journal of Developmental Processes Spring 2007; 2(1): 130-147.

[32] Oregon Overweight, Obesity, Physical Activity, and Nutrition Facts. January 2007. Oregon Department of Human Services, Physical Activity and Nutrition Program.

A second research study was designed to explore the opinions and thoughts directly from youth in a series of focus group meetings during the months of February and March 2007. A series of nine focus group meetings occurred, four taking place in the city of Portland, Oregon and five in rural and suburban settings (one in Prineville and four in Bend). Ages of the youth ranged between 7-18 years old and groups ages of 7-9, 9-11, 11-13, 13-16, and 16-18. Activities, time, constraints and benefits experienced were the major focus of this exploration.

A "Lost Generation" of Oregon Outdoor Recreation Participants

Several studies have noted that people who do not participate in outdoor recreation as youth are less likely to participate in those activities as adults. For example, Cordell et al.[33] state that "the type of outdoor recreation children learn as children and young adults will affect outdoor recreation because a surprising number of outdoor interests and skills are acquired only, or mainly, in childhood." Bixler, Floyd, and Hammitt[34] found that childhood play in wild environments led to more positive perceptions of outdoor recreation activities.

Since participation in outdoor recreation as youth is correlated with participation as adults, there is the potential for a continuous cycle of reinforcing participation—but also a downward cycle if participation declines (since interest and skills may not be passed to the next generation). Parents not only introduce children to outdoor recreation, continuing (or breaking) the cycle, but also set examples for physical activity generally.

Additional studies on attitude toward the environment suggests that direct contact with nature, especially as children, is the most critical influence on later attitude toward the environment[35].
In a recent public appearance, Richard Louv spoke about the potential repercussions of today's youth losing a personal connection to the outdoors. According to Louv, "We care for what we know and love." He told the group that if today's children do not have "transformational experiences in the outdoors" during their youth, they are unlikely, as adults, to be engaged in public policy deliberations about our forests and parks and about environmental issues like global warming.

Analysis of past Oregon SCORP results suggests that this downward cycle of outdoor recreation participation has been underway for some time within the overall Oregon population. It could be argued that because of a variety of societal changes, Oregon has "lost a generation" of outdoor recreation participants. Some outdoor recreation activities like walking for pleasure and viewing scenery and wildlife come naturally to people. Other activities, such as hiking, fishing, hunting and wilderness camping require not only acquired skills and knowledge, but also a strong understanding of the recreation resource and resource stewardship. By providing Oregon's youth with opportunities to learn outdoor recreation skills in outdoor settings, we have the opportunity to rebuild the foundation for

---

[33] Cordell, K., McDonald, B., Teasley, J., Bergstrom, J., Martin, J., Bason, J., Leeworthy, V. (1999). Outdoor recreation participation trends. In K. Cordell, C. Betz, & J. Bowker (Eds)., *Outdoor recreation in American life: A national assessment of demand and supply trends*. Champaign, IL: Sagamore Publishing.
[34] Bixler, R.D., M.F. Floyd, and W.E. Hammitt. 2002. Environmental Socialization: Quantitative Tests Of The Childhood Play Hypothesis. *Environment And Behavior*, 34(6):795-818.

[35] Zaradic P.A. and Pergams ORW. Videophilia: Implications for childhood development and conservation. The Journal of Developmental Processes Spring 2007; 2(1): 130-147.

future outdoor recreation participation and reestablish personal connections with nature and their public lands.

Physical Activity and Oregon's Youth

According to a 2000 report to the President on promoting youth health[36], "America loves to think of itself as a youthful nation focused on fitness. But behind the vivid media images of robust runners, Olympic Dream Teams, and rugged mountain bikers is the troubling reality of a generation of young people that is, in large measure, inactive, unfit, and increasingly overweight."

Rates of participation in physical activity have declined in the past 30 years for both children and youth. More than a third of young people in grades 9-12 do not regularly engage in vigorous physical activity. Daily participation in high school physical education classes dropped to 28% in 2003[37]. According to the Center for Disease Control (CDC), 61.5% of children ages 9-13 do not participate in any organized physical activity outside of school hours, and 22.6% do not engage in any type of physical activity during their free time. Participation rates are even lower for urban children.

In the long run, physical inactivity threatens to reverse the decades-long progress we have made in reducing death and suffering from cardiovascular diseases. Children and adolescents who are overweight are move likely to be overweight or obese as adults[38]. Physical inactivity increases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure. In addition to the toll taken by human suffering, surges in the prevalence of these diseases could lead to crippling increases in our national health care expenditures.

In the short run, physical inactivity has contributed to an unprecedented epidemic of childhood obesity that is currently plaguing the U.S. The prevalence of overweight among children aged six-11 has more than doubled in the past 20 years, increasing from 7% in 1980 to 18.8% in 2004[39].

Similar patterns are occurring in the state of Oregon[40] :

- The proportion of 8th graders who were overweight or at risk of it in 2005 was **1 in 4**.
- The proportion of 11th graders who were overweight or at risk of it in 2005 was **1 in 4**.
- The percentage of 11th graders who were overweight increased **63%** since 2001.

Of children five to 10 who are overweight, 61% have one or more cardiovascular disease risk factors, and 27% have two or more[41]. The negative health consequences linked to the childhood obesity epidemic include the appearance in the past two decades of a new

---

[36] Promoting better health for young people through physical activity and sports. A report to the President from the Secretary of Health and Human Services and the Secretary of Education. Fall 2000.
[37] Mortality and Morbidity Weekly Report. 2003.
[38] Ferraro KF, Thorpe RJ Jr, Wilkinson JA. The life course of severe obesity: Does childhood overweight matter? Journal of Gerentology 2003; 58B(2): S110-S119.

[39] Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999-2004. Journal of the American Medical Association, 2006; 295(13): 1549-1555.
[40] Oregon Overweight, Obesity, Physical Activity, and Nutrition Facts. January 2007. Oregon Department of Human Services, Physical Activity and Nutrition Program.
[41] Freedman DS, Dietz WH, Srinivasan SR, Berenson GS. The relation of overweight to cardiovascular risk factors among children and adolescents: the Bogalusa heart study. Pediatrics 1999; 103: 1175-82.

and frightening public health problem: Type-2 diabetes among adolescents. This condition was previously so rarely seen in children or adolescents that it came to be called "adult-onset diabetes". Now, an increasing number of teenagers and preteens must be treated for diabetes and strive to ward off the life-threatening health complications that it can cause. In recent years, it has been estimated that in the U.S. as many as 30% of boys and 40% of girls are at risk for being diagnosed with Type-2 diabetes.

A recently published article on childhood obesity and adult coronary heart disease (CHD) reports that being overweight as a child significantly increases the risk for CHD in adulthood as early as age 25[42]. The study investigated the association between body-mass index in childhood (7 through 13 years of age) and CHD in adulthood (25 years or older). Study subjects included a cohort of 276,835 Danish schoolchildren over a period of 46 years. This study provides the most powerful evidence yet that the obesity epidemic is spawning a generation prone to serious health problems later in life. These findings are particularly disturbing because they suggest overweight children were not only experiencing more disease and disability in childhood, but many are also destined to be more sickly young adults.

Clearly, Oregon's park and recreation providers have the facilities and programs in place across the state to take a leadership role in promoting and preserving the health of youth through encouraging and facilitating their involvement in active outdoor recreation activities.

[42] Baker, JL, Olsen LW, Sorensen, TIA. Childhood body-mass index and the risk of coronary heart disease in adulthood. The New England Journal of Medicine, 2007, 357(23): 2329-2337.

After-School Activities

Young people spend just 20 percent of their waking hours in school. How they spend the remaining 80 percent of those waking hours can have a significant impact on their overall development. The Afterschool Alliance found that only 10% of Oregon's K-12 youth participate in after-school programs, but 23% of children not in such programs indicated they would be likely to participate if such a program were available in their community.

Nationally, Penn, Shoen & Berland Associates[43] found that more than half of teens say they would not watch so much TV or play video games if they had other things to do after school. Fifty-four percent of teens say that there is not much for them to do after school other than hang out. Jago and Baranowski[44] found that after-school programs do not necessarily increase physical activity, but this likely is due to limitations with the specific activities evaluated; they note the importance of providing attractive activities and transport to/from school.

When asked what they desire from after-school programming[45], 54% of parents feel that children need a break from academics during the after-school hours while 38% of parents feel that children need after-school programs that are focused on academic skills. These findings suggest that parents would be open to

[43] Penn, Shoen & Berland Associates. (2001). Telephone interviews with a national sample of 500 teens, 14-17 years of age. Washington, DC: Author. Retrieved from: http://www.ymca.net/pdf/executive Summary.PDF.

[44] Jago, R. and T. Baranowski. 2004. Non-curricular approaches for increasing physical activity in youth: a review. *Preventive Medicine* 39:157–163.

[45] Duffett, A. and Johnson J. (2004). All work and no play? Listening to what kids and parents really want from out-of-school time. New York, NY. Public Agenda.

the idea of their children learning more about outdoor recreation activities and opportunities in after-school programs.

Studies show that young people benefit significantly from compelling and consistent outdoor experiences, whether in urban or wilderness settings. The outdoors uniquely transforms individuals through personal, social, and academic growth. Unfortunately, many of Oregon's youth do not have access to these life-enhancing experiences. In Oregon, recreation providers might consider collaborating with school administrators in developing after-school programs designed to:

- Increase the participation of youth in successful outdoor recreation education programs that provide an array of opportunities that enable youth to build their competencies.
- Help youth learn to use their leisure time wisely.
- Make the outdoors a more integral part of youth's lives to improve their general health and well being.
- Enable youth to develop self-esteem and positive peer interaction.
- Develop awareness, appreciation and knowledge of the environment.

Research Project: Encouraging Youth Outdoor Recreation Participation in Oregon

Project introduction

This research project, included a statewide mail survey of Oregon youth and their parents (conducted by Dr. Kreg Lindberg of Oregon State University) and a separate study designed to explore the opinions and thoughts directly from youth in a series of focus group meetings (conducted by Dr. Robert Burns of West Virginia University, Dr. Cari Autry of Arizona State University, and Dr. Alan Graefe of The Pennsylvania State University).

Statewide Survey of Oregon Youth and Their Parents

The survey was conducted using a random sample of Oregon households with children during the fall 2006/winter 2007 period. Survey recipients were obtained from commercially provided lists of "child intense" households in Oregon. Each person in the sample received a parent survey and two youth surveys. Parents reported on their own outdoor recreation behavior and that of a randomly selected child between the ages of three and 17 (if there were any in the household). The youth surveys were intended for household youth, up to a maximum of two, in the 12 to 17 age range. Several youth surveys were completed by youth younger than 12, and these responses were included in the report despite being outside the target range.

A total of 3,712 surveys were mailed; adjusting for un-deliverables, there was an 18% response rate. Of the 637 returned parent surveys, 365 included data on child recreation behavior; the remaining respondents are assumed not to have children in the target age range. Census data on location (by county), gender, and household income were used to weight responses and reduce the potential for non-response bias. In addition, a brief phone survey of non-respondents was used to assess potential non-response bias.

A full survey report is included on the OPRD SCORP planning web site at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Youth_Survey_Report.pdf.

The following is a summary of key findings from the statewide survey of Oregon youth and their parents.

Parent Survey Results

The following are results from the parent survey.

Outdoor Recreation Participation

Parents reported on their own outdoor recreation participation and that of a randomly selected child in their household between the ages of three and 17. Participation was reported as number of days the parent and the child engaged in each of 28 activities in Oregon in the past year. Participation intensity is the average number of days people engaged in the activity; persons who do not engage in the activity are give a value of 0 days. Each respondent was then classified as either participating (1 or more days) or not participating in each activity (0 days). Participation rate is the percentage of respondents that engaged in the activity.

Table 15 shows intensity and rate by activity. The most popular (highest average days in past year) outdoor activities for parents were walking, viewing natural features, and relaxing/hanging out. For children, the most popular was walking, followed by outdoor sports/games, relaxing/hanging out, and general play at neighborhood parks/playgrounds. Though not displayed in Table 15, the correlation between parental participation and child participation was positive and statistically significant for each activity except skateboarding. In other words – the more a parent engages in an activity, the more a child does.

Table 15: Participation rate and intensity

Activity	Parent		Child	
	Rate (percent participat.)	Intensity (mean days)	Rate (percent participat.)	Intensity (mean days)
Walking (on streets, sidewalks, etc.)	74	63	80	43
Jogging or running for exercise	24	15	27	12
Day hiking on trails	57	9	65	7
Picnicking and family gatherings	69	8	77	8
Relaxing, hanging out, etc.	56	25	64	25
General play at neighborhood park / playground	52	13	80	25
Bicycling on paved roads / paths	43	12	65	23
Mountain biking (single track / dirt road)	13	2	15	5
Skateboarding	2	1	17	6
Horseback riding	12	2	19	3
Off-highway vehicle travel	22	4	22	3
Camping (tents, cabins, or RVs)	57	6	62	6
Hunting	18	4	11	1
Fishing	41	6	45	3
Motorized boating	27	3	30	2
Floating / paddling	29	2	30	2
Rock climbing / bouldering / mountaineering	5	0	9	1
Ocean or freshwater beach activities	67	7	73	6
Winter skiing / sledding / snowshoeing	29	1	46	3
Viewing natural features (scenery, wildlife, etc.)	60	26	58	22
Visiting a nature center or nature trail	53	3	57	3
Visiting historic sites	53	3	57	2
Outdoor photography, painting, drawing	23	6	15	4
Nature study	12	3	16	1
Gathering mushrooms or other natural products	36	4	37	4
Driving for pleasure on roads	52	16	42	6
Outdoor sports and games	40	12	69	28
Swimming in an outdoor pool	37	7	65	14

Figures 17 and 18 include participation across age groups. Figure 18 shows that participation increased, with respect to both total number of days and total number of activities participated in, up to the 12-14 year old category; it then falls for children in the 15-17 category. With respect to individual activities (Figure 17), general play consistently decreased with age, whereas other activities tended to peak with children 12-14 years old.

Boys tended to have higher participation rates overall and amongst the most popular activities, but most differences generally were not statistically significant.

Figure 17: Participation by child age, days per year

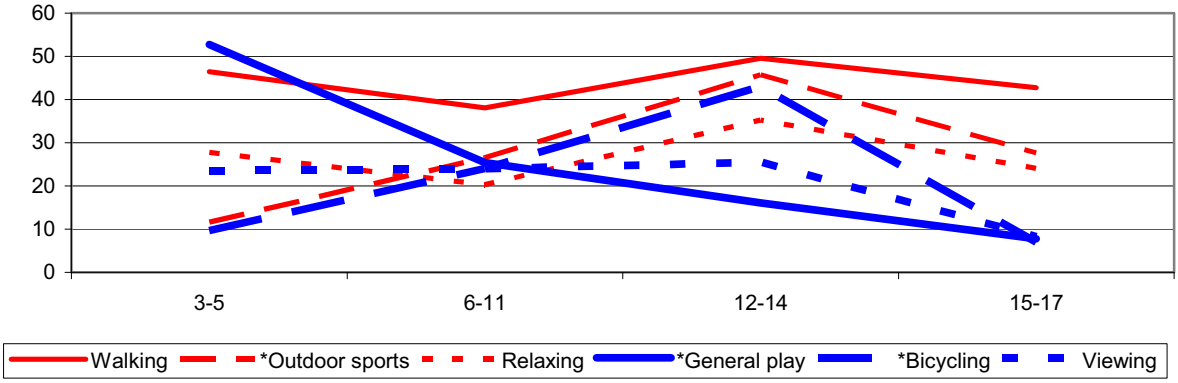
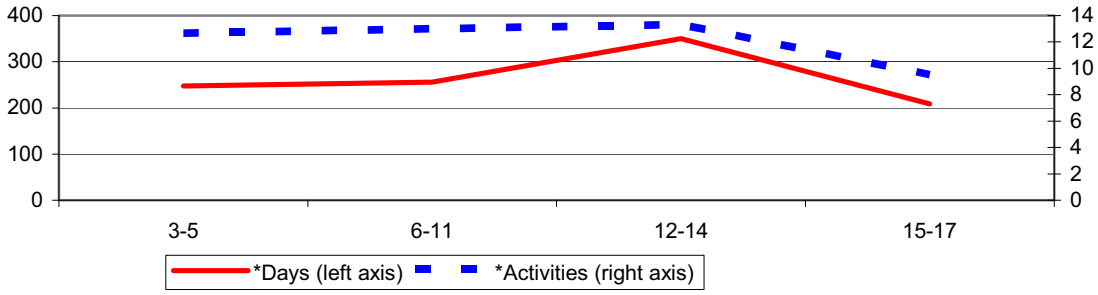


Figure 18: Participation by child age, total days and total activities per year



Figures 19 and 20 include children's participation by location. Overall, differences across location generally were significant, with rural children spending more days, on average, in outdoor activities relative to urban and suburban children. Suburban children spent the least amount of time participating in outdoor activities. The most noticeable difference was in viewing natural features, though there are also differences in outdoor sports and general play (Figure 21).

Figure 19: Participation by location, total days per year

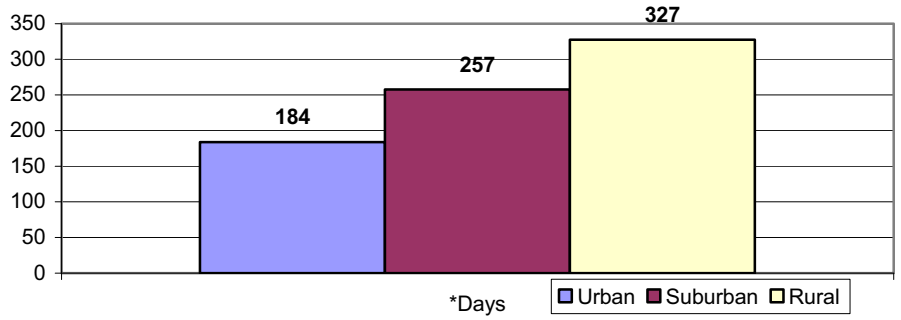


Figure 20: Participation by location, total activities per year

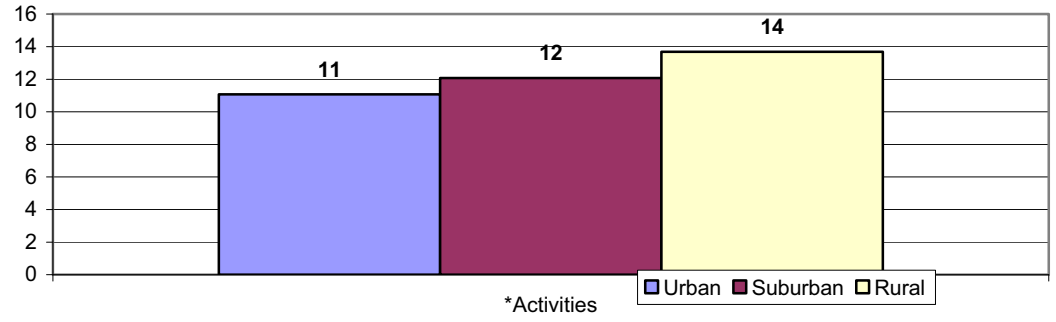
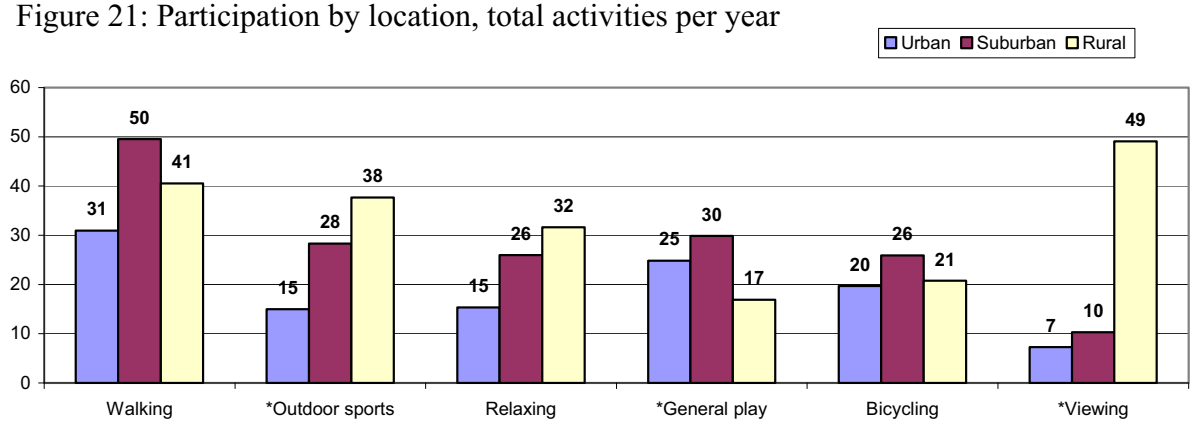


Figure 21: Participation by location, total activities per year



With respect to parental education and household income, participation generally increased from the lowest level to the "middle levels" and then decreased again at higher levels (Figures 20 and 21). For example, number of activity days was highest for children of parents with a high school diploma and in households with annual income of $25,000 to $35,000.

Figure 22: Participation by parental education, total days and total activities per year

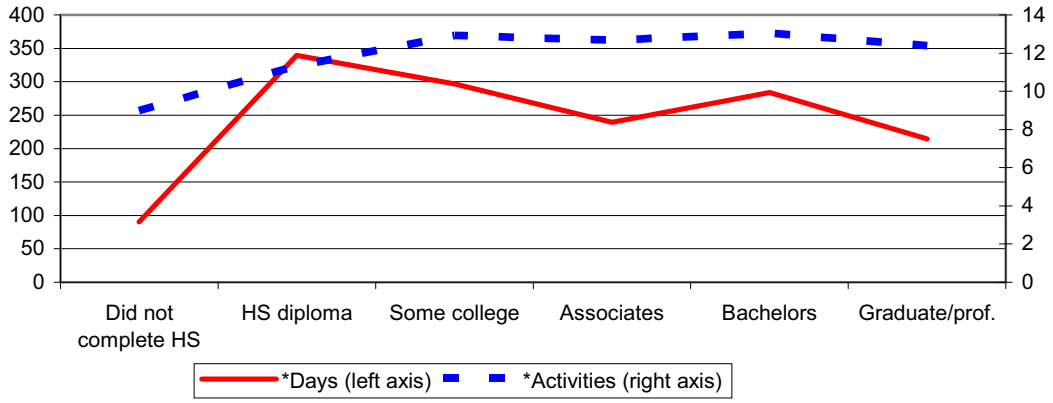


Figure 23: Participation by household income, total days and total activities per year

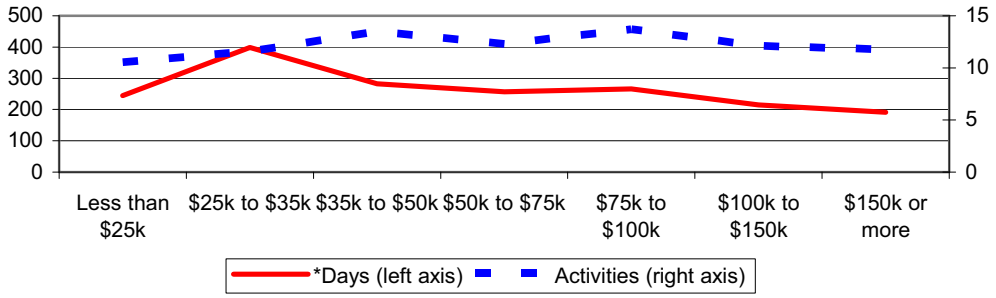


Table 16 shows whether parents first participated in each activity as a child or as an adult. These results clearly show that in Oregon, most outdoor recreation activities participated in by adults, were first learned as children. The only activities for which more than 50% first engaged as an adult were mountain biking (a relatively new sport), off-highway vehicle travel, rock climbing, outdoor photography, and driving for pleasure.

Table 16: Parents first participated in activity as…, percent

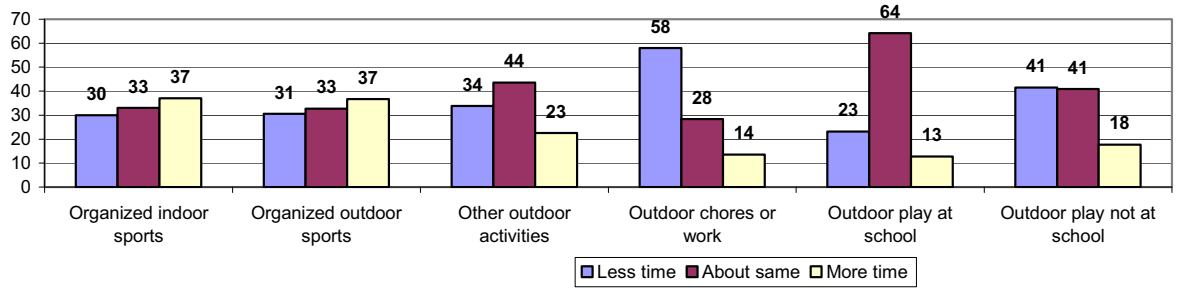
	Child	**Adult**
Walking (on streets, sidewalks, etc.)	61	39
Jogging or running for exercise	57	43
Day hiking on trails	71	29
Picnicking and family gatherings	81	19
Relaxing, hanging out, etc.	82	18
General play at neighborhood park / playground	86	14
Bicycling on paved roads / paths	80	20
Mountain biking (single track / dirt road)	41	59
Skateboarding	81	19
Horseback riding	79	21
Off-highway vehicle travel	32	68
Camping (tents, cabins, or RVs)	68	32
Hunting	67	33
Fishing	79	21
Motorized boating	55	45
Floating / paddling	59	41
Rock climbing / bouldering / mountaineering	40	60
Ocean or freshwater beach activities	71	29
Winter skiing / sledding / snowshoeing	70	30
Viewing natural features (scenery, wildlife, etc.)	70	30
Visiting a nature center or nature trail	61	39
Visiting historic sites	63	37
Outdoor photography, painting, drawing	39	61
Nature study	59	41
Gathering mushrooms or other natural products	65	35
Driving for pleasure on roads	45	55
Outdoor sports and games	83	17
Swimming in an outdoor pool	90	10

Next, parents were asked to report who introduced their child to each activity the child participated in (Table 17). The data show that one or both parents clearly played the major role in almost all activities, though schools play roles in running, climbing, and nature study. Friends played the main role in introducing children to skateboarding.

Table 17: Who introduced child to activity? Percent

	Father	Mother	Parents	Other family	School	Friends	Other
Walking (on streets, sidewalks, etc.)	12	44	37	5	0	0	1
Jogging or running for exercise	18	30	18	10	17	1	7
Day hiking on trails	30	29	33	4	1	1	2
Picnicking and family gatherings	7	40	45	7	0	0	1
Relaxing, hanging out, etc.	16	39	36	4	0	2	2
General play at neighborhood park	6	43	41	5	0	3	1
Bicycling on paved roads / paths	26	25	39	5	0	3	1
Mountain biking	56	13	23	2	0	3	3
Skateboarding	12	27	8	9	0	40	4
Horseback riding	13	43	15	20	0	5	5
Off-highway vehicle travel	42	11	27	7	0	10	4
Camping (tents, cabins, or RVs)	28	22	41	7	0	1	1
Hunting	60	4	17	17	0		2
Fishing	58	7	14	15	0	4	2
Motorized boating	44	8	26	12	0	5	5
Floating / paddling	31	25	30	3	2	6	3
Rock climbing / bouldering / mountaineering	33	2	23	0	14	4	24
Ocean / freshwater beach activities	10	33	50	6	0	0	0
Winter skiing / sledding / snowshoeing	20	23	43	7	2	1	3
Viewing natural features	15	37	36	5	3	0	3
Visiting a nature center, etc.	14	34	38	5	4	0	5
Visiting historic sites	9	39	40	7	4	0	1
Outdoor photography, painting, etc.	15	51	16	6	9	2	1
Nature study	6	32	21	9	26	0	6
Gathering mushrooms / other	20	30	39	10	0	1	1
Driving for pleasure on roads	24	40	31	4	0	1	0
Outdoor sports and games	28	16	28	4	4	6	15
Swimming in an outdoor pool	7	47	35	6	1	2	2

Figure 24: Child's participation relative to parent's, percent



An important issue was how much time the current generation of children spends engaged in outdoor activities relative to the time their parents spent as children. Based on parental reports, children spent more time, on average, than parents did in organized sports, both indoor and outdoor (Figure 24). However, there have been decreases in other activities, with the greatest decreases occurring in Outdoor chores and Outdoor play not at school. This is consistent with other literature indicating an increase in structured/organized activities and a decrease in unstructured activities. These decreases have been greater for girls than boys (though the difference is significant only for Outdoor chores). The effect by location has been mixed, though the greatest decrease has been in Outdoor chores amongst children in urban and suburban areas. Results from the youth survey suggest that a tradeoff exists between homework and time spent in outdoor activities. Comparing across child age groups, older children were more likely to spend less time in activities relative to their parents.

The clear majority (86%) of parents reported that their children engaged in 30 minutes of moderate exercise on average per day. This exercise was most likely to occur outdoors, with 74% of parents reporting that it occurred outdoors, 22% indoors, and 4% both. Boys were more likely to have engaged in exercise relative to girls, with the difference being statistically significant.

Summary of Key Findings: Outdoor Recreation Participation

1. Starting with the parent survey, the most popular (highest average days in past year) outdoor activities for parents were walking, viewing natural features, and relaxing/hanging out. For children, the most popular was walking, followed by outdoor sports/games, relaxing/hanging out, and general play at neighborhood parks/playgrounds.
2. The more a parent engages in an outdoor recreation activity, the more their child does.
3. Participation varies across child age, with both the number of activities and the number of activity days peaking amongst 12-14 year olds and decreasing for 15-17 year olds.
4. Rural children spend more days, on average, in outdoor activities relative to urban and suburban children. Suburban children spend the least amount of days in outdoor activities.
5. For most activities, parents first engaged in the activity as a child, rather than as an adult. This is consistent with research indicating the importance of early life participation setting a pattern for later life participation. When asked who introduced their child to each activity, parents were by far the most common response.
6. Based on parental reports, children spend more time, on average, than parents did in organized sports, both indoor and outdoor. However, there have been decreases in other activities, with the greatest decreases occurring in Outdoor chores and Outdoor play not at school.

Outdoor Recreation Skills

Parents were asked several questions relating to outdoor skills. For each of 16 skills, parents rated:

- The importance of the skill, with 1=Not at all important, 2=Somewhat important, and 3=Very important.

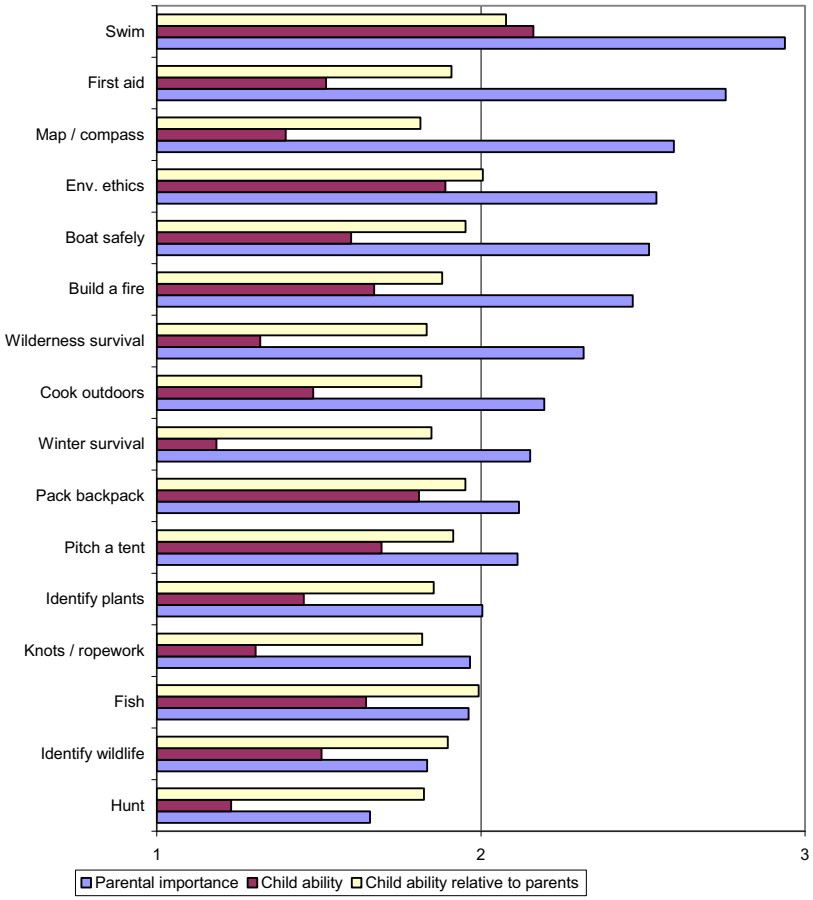
The child's ability in the skill, with 1=Low or no ability, 2=Moderate ability, and 3=High ability.

- The child's ability relative to the parent's ability as a child, with 1=Lower (than my ability as a child), 2=About the same, and 3=Higher.

Figure 25 shows average ratings for each, by item, sorted in decreasing order of importance. Swimming was rated as most important. It was also the skill in which children's ability was rated highest, as well as only one of two skills in which, on average, children had a higher ability than did their parents as children.

Map/ compass, cooking outdoors, and knots/ ropework skills were the skills in which children's abilities were lowest relative to the previous generation's ability. Of these, map/ compass skills were rated the most important. Children received the lowest ability ratings for winter survival and hunting skills, with winter survival skills being rated of moderate importance.

Figure 25: Importance and abilities, average ratings, by skill



Turning to assessment of children's ability relative to the parent's as a child, with the exception of swimming and applying environmental ethics, children were rated, on average, as having a lower ability than their parents when they were children (Figure 26). In Table 18, ratings under 2 indicate that abilities have decreased overall from one generation to the next. Differences across locations for many items are significant (those marked with an asterisk), though generally not large. In general, abilities have decreased more, on average, amongst urban and suburban households than among rural households.

Figure 26: Child's participation relative to parent's by location, average

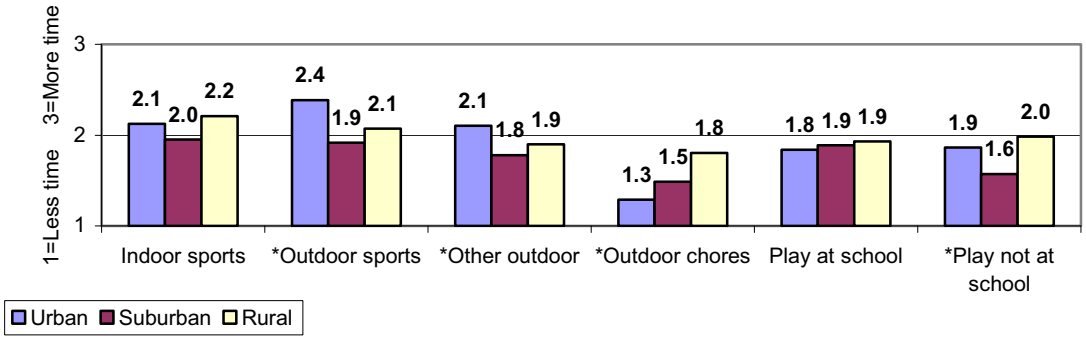


Table 18: Average rating of ability relative to parental ability as child, by location

	Urban	Suburban	Rural
Average across all items	**1.9**	**1.9**	**2.0**
*Pitch a tent	1.7	1.9	2.0
*Pack a backpack	2.2	1.9	1.9
*Hunt (including gun or bow safety)	1.9	1.8	1.8
*Fish	2.1	1.8	2.2
Winter survival skills (including avalanche safety)	1.8	1.9	1.9
*Identify birds / wildlife	2.1	1.9	1.9
*Identify plants	1.9	1.9	1.8
*Basic emergency first aid	1.7	1.9	2.1
*Wilderness survival	1.7	1.8	1.9
*Swim (for example, swim to shore if canoe capsizes)	2.2	1.9	2.2
*Boat safely	2.0	1.8	2.1
*Build a fire	1.8	1.8	2.0
*Cook outdoors	1.8	1.8	1.9
Tie knots, ropework	1.8	1.8	1.8
Use a map and compass	1.6	1.8	1.9
Follow environmental ethics, such as Leave No Trace (LNT) principles	2.0	2.0	2.0

With respect to income, households at the low and high end of the income spectrum have children with abilities, on average, at the same level as their parents when children. The largest decrease in ability (average rating of 1.7) was in households earning $35,000 to $50,000.

Parents were asked how they learned outdoor skills as a youth. Table 19 indicates that most respondents learned skills from parents or guardians (the Other category included a variety of sources including friends, coaches, and church). A comparison of Table 19 with Table 17 suggests that parents remain the primary source, but that other sources of skill development may be decreasing in importance.

Table 19: How parents learned skills as youths, percent

Parents / guardians	85
Schools	50
Other family	37
Boy or Girl Scouts	37
Other	18
Community Parks & Rec	16
4-H	14
YMCA / YWCA	4
Boys and Girls Clubs	1

Outdoor Programs

Respondents were asked several questions about programs designed to help children engage in outdoor recreation outside of school class time. As shown in Table 20, two-thirds (67%) of respondents reported that their child has participated in outdoor sports programs, with more than half also participating in day camps.

Turning to likelihood of participating in the future, outdoor sports programs were again the most popular. Between 40% and 50% of respondents indicated Very likely for outdoor adventure trips, day camps, and multi-day camps. Weekends and summer weekdays were the most common "good times" for children to participate in such programs. School holidays and weekdays after school were the least common good times.

For multi-day programs, 66% of parents indicated they would prefer their child stay overnight at home, while 34% preferred their child stay overnight at the program location. When asked how likely they would be to participate in such programs with their child, 59% reported they would be somewhat likely to do so 29% very likely to do so.

Summary of Key Findings: Outdoor Recreation Skills

- 1. With the exception of swimming and applying environmental ethics, children were rated, on average, as having a lower ability than their parents when they were children.
- 2. Map/ compass, cooking outdoors, and knots/ ropework skills were the skills in which children's abilities were lowest relative to the previous generation's ability.
- 3. In general, abilities have decreased more, on average, amongst urban and suburban households than among rural households.
- 4. Most parents learned skills from their parents or guardians.

Table 20: Past and potential participation in outdoor recreation programs

Type of program	Has participated, percent	Likely to participate in future? Percent		
		Not likely	Some-what likely	Very likely
Outdoor sports programs	67	12	26	62
Outdoor adventure trips	37	12	43	45
Outdoor activity skills courses / clinics / workshops	33	24	45	30
Natural history or environmental education programs	36	23	54	23
Day camps, including multi-day camps but not overnight	56	19	36	45
Multi-day camps involving overnight away from home	40	24	28	49
One-on-one mentoring programs	13	62	30	8
Programs to help youth use their free time productively	18	61	28	11
Programs to combat youth obesity through outdoor recreation	8	82	13	4
Programs designed help youth cope with everyday life through outdoor recreation	11	73	19	9

Respondents were then asked about constraints to participating in such programs. Ratings of the importance of each potential constraint are show in Table 21. The primary reported constraints are lack of information and cost.

Table 21: Importance of constraints to program participation, percent

Reason / constraint	Not important	Somewhat important	Very important
We cannot afford the cost of the program and associated equipment	23	45	32
Transportation is a problem – my child can not get to where the programs are offered	57	33	10
We have not heard about these types of programs or do not have enough information about them	17	49	34
My child is not interested in these types of programs	38	45	17
My child's friends are not interested in these types of programs	48	47	5
We do not have enough time for these programs	29	50	21
We have safety concerns about these programs	45	32	23
These programs are not suited for my child's age group	32	41	28
We prefer girls-only or boys-only programs, but they are not available	74	17	9

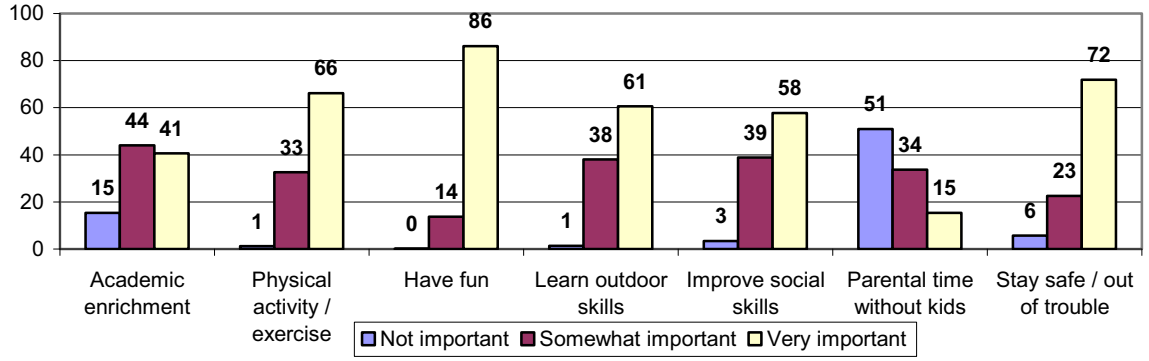
As expected, cost was much more important to households with lower income than to those with higher income (Table 22). Lack of information was also a more important constraint to lower income households. Transportation was less of a constraint for high income households. Interestingly, time was also a stronger constraint for lower income than higher income households; perhaps through its connection to income (parental free time may be less available in lower income households because of work demands).

Table 22: Importance of constraints by household income, average on 3-point scale

	Less than $25k	$25k to $35k	$35k to $50k	$50k to $75k	$75k to $100k	$100k to $150k	$150k or more
*Cost	2.7	2.3	2.3	2.2	2.0	1.6	1.1
*Transportation	1.6	1.8	1.6	1.5	1.7	1.6	1.1
*Information	2.4	2.3	2.2	2.1	2.1	2.0	2.2
Child interest	1.6	1.8	1.8	1.9	1.7	1.8	1.8
*Friend interest	1.8	1.5	1.5	1.4	1.6	1.9	1.7
*Time	2.1	2.0	2.1	1.9	1.8	1.8	1.7
*Safety	1.9	1.6	2.1	1.9	1.8	1.5	1.1
*Suited to age	2.0	1.8	2.1	2.1	1.9	1.8	1.7
*Gender-specific	1.4	1.3	1.6	1.4	1.3	1.2	1.0

Figure 27 shows priorities for parents in considering programs for their children to participate in. Having fun was clearly the highest priority, with staying safe and physically active also being very important. Academic enrichment was most important for parents of girls and for parents with middle levels of education (especially those with a high school diploma or some college).

Figure 27: Priorities when considering programs, percent



Summary of Key Findings: Outdoor Programs

- 1. Outdoor sports programs and day camps were the most popular types of outdoor recreation programs with respect to past participation.
- 2. Many parents indicated that it would be very likely for their children to participate in outdoor sports programs (62%) multi-day camps (49%), outdoor adventure trips (45%), and day camps (45%) in the future.
- 3. When considering constraints that limit program participation, parents reported that lack of information and cost were the two most important constraints ─ especially for low income households.
- 4. Having fun was clearly the most important priority for parents in selecting programs, though staying safe and out of trouble and getting physical activity and exercise were also important priorities.

Outdoor Safety

Because safety concerns have been noted as a cause of decreased time spent by youth outdoors, respondents were asked their level of agreement with several statements (Table 23). Categories with at least 20% of the responses are bolded and shown in red. Safety does appear to be a concern, but in general it appears that respondents feel there are safe opportunities for their children to engage in outdoor activities. Perceptions of safety were most positive amongst suburban respondents and less positive amongst urban and rural respondents. It also appears that parents do not strongly oppose outdoor activities from an injury or learning perspective.

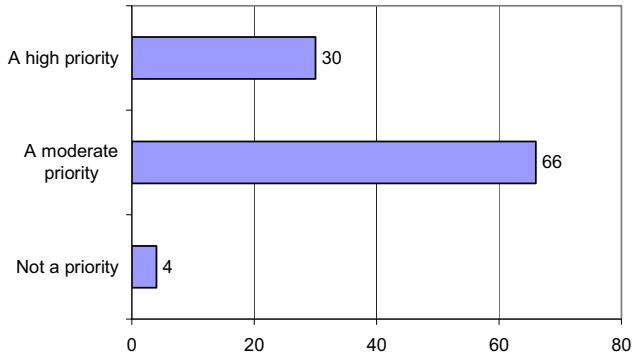
The clear majority (80%) of respondents reported that there is a park or playground near their home. On average, respondents or their children used these parks 4.6 times per month, with the majority of respondents using the parks between one and three times per month (the median is two times).

Parents were also asked whether it was one of their priorities for their child to spend more time in outdoor activities considering other activities such as homework, video games, indoor sports, etc. As shown in Figure 28a, almost all respondents felt it was either a high (30%) or moderate (66%) priority.

Table 23: Agreement with statements relating to safety and other issues, percent

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. You can count on adults in my neighborhood to watch out that children are safe and do not get into trouble	6	15	**27**	**35**	17
2. Children around here have no place to play but the street	**23**	**39**	16	19	4
3. Traffic in this area is a hazard for children who play outside	9	**35**	**22**	**25**	8
4. The park or playground that is closest to where I live is clean and well-maintained	1	7	19	**45**	**29**
5. The park or playground closest to where I live is safe during the day	0	5	16	**51**	**27**
6. The park or playground closest to where I live is safe at night	12	**20**	**46**	14	8
7. I feel comfortable with the other people who use the park or playground closest to where I live	1	6	**31**	**47**	15
8. I avoid the park or playground closest to where I live because of gangs or other trouble-makers	**40**	**39**	15	4	2
9. Because of safety concerns, I do not allow my child to play outside without adult supervision	12	**31**	17	19	**22**
10. Because of safety concerns, I am careful about where I allow my child to play	3	4	9	**41**	**43**
11. There is not enough time in the day for my child to spend as much time outdoors as he/she would like	10	**23**	**20**	**36**	11
12. There are plenty of places nearby where my child can play outdoors	1	**21**	**28**	**36**	14
13. Children can hurt themselves more easily when they play outdoors than when they play indoors	**23**	**37**	**23**	16	2
14. Children learn more in indoor activities than in outdoor activities	**27**	**42**	**26**	3	1

Figure 28a: Priority for outdoor activities, percent



Summary of Key Findings: Outdoor Safety

1. Responses to a set of safety statements did not indicate a major safety concern for respondents overall.
2. Most felt there are safe opportunities for their children to engage in outdoor activities.
3. Almost all parents felt that it was a priority for their child to spend more time in outdoor activities.

Youth Survey Results

The following are results from the youth survey where the children reported from their own perspective.

Youth Outdoor Recreation Participation

Youth were asked what their favorite and second favorite outdoor activities were in an open-ended format. Responses were categorized into 60 potential activity categories. In the results presented below:

- Biking includes mountain biking, biking on roads / paths and unspecified biking.
- Camping includes tent camping and unspecified camping, but not RV or yurt camping (if "RV" or "yurt" or "cabin" was specified in a camping response, it was grouped into the relevant sub-category of camping).
- Fishing includes fly fishing, other fishing, and unspecified fishing.

Results in Figure 28b are sorted by Favorite percents. Outdoor field games were clearly the most popular, followed by biking and outdoor court games. With respect to gender, outdoor field games were the most commonly reported favorite activity for both boys and girls. Biking was second most commonly reported for boys and camping for girls.

Figure 28b: Favorite youth activities, percent

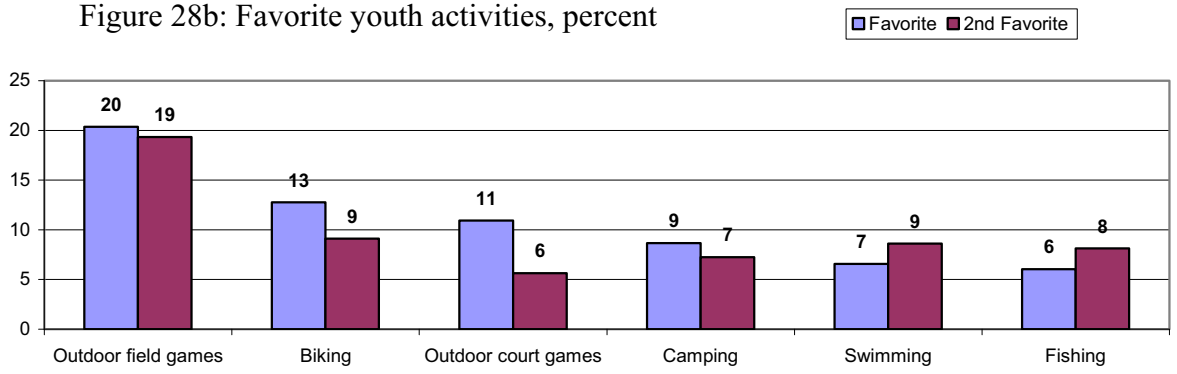


Table 24 shows how favorite activities evolve over childhood, with going to parks / playgrounds being the favorite activity for 3-5 year olds, but declining in importance as youth age. Conversely, outdoor field games, biking, and camping become more important as youth age. Youth interests also diversify with age, as indicated by lower percentages for individual "favorite" activities amongst older youth.

Youth were then asked with whom they do their favorite and second favorite activity. Friends and other family (includes siblings and cousins) were the two most popular categories. These findings indicate that parents play an important role in introducing children to activities, but youth were unlikely to report parents as favorite activity partners.

Next, youth indicated the activities they would like to do more often. Consistent with their favorite activities, youth would like to spend more time engaged in outdoor field games, biking, and camping. Facilities are seen as the primary constraint to doing outdoor activities more often. Additional teams and more free time also would help youth engage in activities more often.

Table 24: Favorite and second favorite activities, by youth age,
Top three favorite (4 if tied), percent reporting

Age	Activity	Favorite	Second
3-5	Parks/playgrounds	42	20
	Outdoor field games	17	13
	Fishing	17	13
	Play w/ friends	17	13
6-11	Biking	30	16
	Outdoor field games	22	28
	Parks/playgrounds	11	4
12-14	Outdoor field games	28	14
	Outdoor court games	23	13
	Camping	9	11
15-17	Outdoor field games	14	20
	Camping	10	5
	Biking	9	2
	Swimming	9	5

When asked whether they spend too little, too much, or about the right amount of time in outdoor activities, the majority reported spending too little time (53%), with most of the rest reporting the right amount of time (44%). Youth that reported spending too little time in outdoor activities were asked what keeps them from spending more time. The instruction was for only one of several potential responses (the most important reason) to be marked, but several respondents marked multiple boxes. As a result, the following percents total more than 100. Figure 29 illustrates that youth reported being too busy with homework and other activities, with cost and transportation being secondary constraints.

Figure 29: Constraints ─ why too little time outdoors? Percent

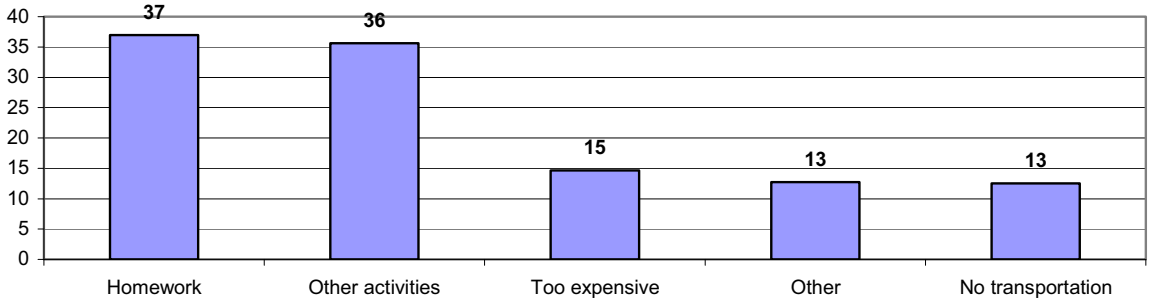
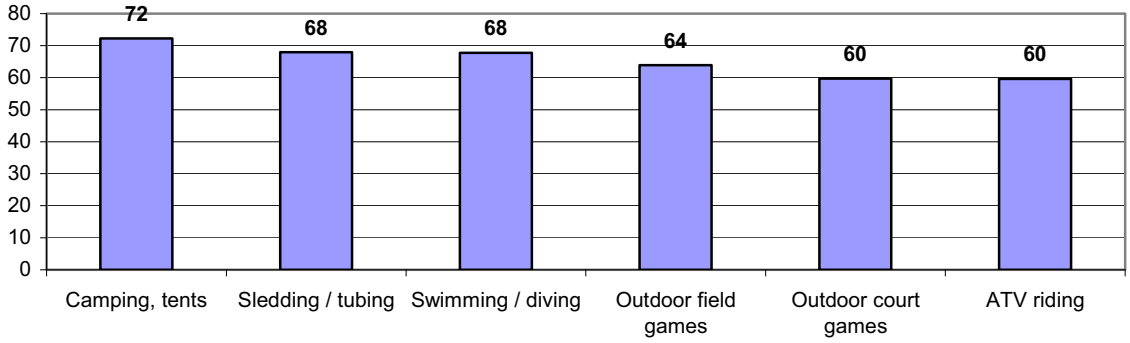


Figure 30: Top 6 activities to include in ideal youth program, percent



Youth Outdoor Recreation Programs

Youth were then asked what activities they would include in an ideal outdoor activity program. This would occur after school, on weekends, or during the summer, and ideal activities were not limited to those that the youth already engage in (they could include new activities learned in the program). Youth could choose as many activities as they liked from a list of 31. Figure 30 shows the Top six selected activities, with tent camping being the most popular, followed by sledding/tubing and swimming/diving.

Summary of Key Findings: Youth Outdoor Recreation Participation

1. Outdoor field games were clearly the favorite activity for youth, followed by biking and outdoor court games.
2. Though parents play critical roles in introducing you to activities, friends and other family (e.g., siblings) were more popular recreation partners for youth.
3. When asked what they would like to do more often, youth commonly noted outdoor field games, followed by biking and camping.
4. More or better facilities and more participants or teams would help youth engage more often.
5. Homework and other (e.g., indoor) activities were noted as the most common constraint to youth spending more time outdoors.

Table 25 includes the top program activities by age category. Camping in tents was the preferred youth program activity across all youth age categories. Sledding / tubing and swimming / diving were also preferred youth program activities across most age categories.

Table 26 shows preferred youth program activities by gender. Girls were more likely than boys to include horseback riding, while boys were more likely than girls to include various types of motorized recreation. Girls were equally enthusiastic about tent and cabin camping, whereas boys preferred tent camping.

When asked with whom they would prefer to do their favorite program activity with (Figure 31), 83% of the youth said with friends, though many would also like to involve family members and other youth that would be met during the program (multiple responses were allowed so percents total more than 100). Most youth preferred to do their favorite program activity in medium-sized groups, either 3-5 people or 6-10 people (Figure 32).

Table 25: Top three activities to include in ideal youth program, by youth age, percent

Age	Activity	Percent
3-5	Camping in tents	71
	Sledding / tubing	71
	Outdoor field games	68
6-11	Swimming / diving	81
	Camping in tents	79
	Outdoor field games	79
12-14	Camping in tents	67
	Sledding / tubing	65
	Swimming / diving	65
15-17	Camping in tents	74
	ATV riding	69
	Sledding / tubing	68

Table 26: Top activities to include in ideal youth program, by gender, percent

Gender	Activity	Percent
Male	Camping in tents	77
	All-terrain vehicle riding	73
	Paintball	71
	Sledding / tubing	69
	Swimming / diving	69
Female	Horseback riding	69
	Camping in cabins	67
	Cross country / Nordic skiing	67
	Swimming / diving	67
	Camping in tents	66

Summary of Key Findings: Youth Outdoor Recreation Programs

1. Youth were asked to create an ideal activity program, selecting one or more from a list of 31 potential activities. Tent camping was the most popular activity to include in such a program, followed by sledding / tubing, swimming / diving, and outdoor field games.
2. Girls were more likely than boys to include horseback riding as an ideal activity program, while boys were more likely than girls to include All-Terrain Vehicle (ATV) riding. Girls were equally enthusiastic about tent and cabin camping whereas boys preferred tent camping.
3. Youth preferred to do their favorite program activity with friends and in groups of 3-5 or 6-10 people.

Figure 31: With whom would you like to do favorite activity? Percent

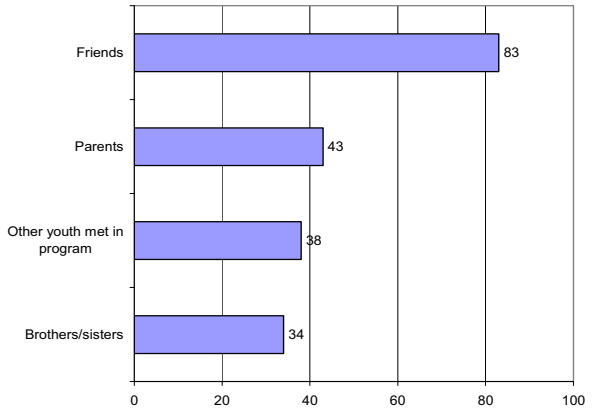
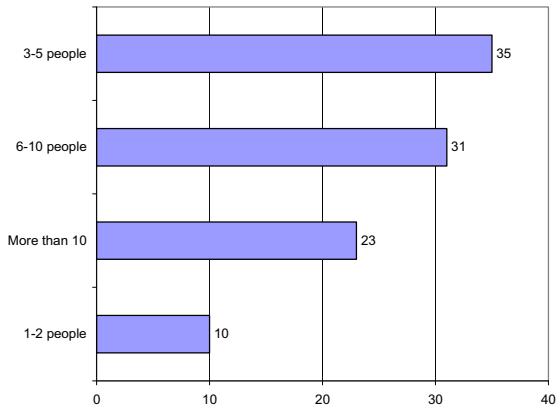


Figure 32: Preferred group size for favorite activity, percent



Oregon Youth Focus Group Meetings

This research study was designed to explore the opinions and thoughts directly from youth of various age groups who lived in rural and urban areas in the state of Oregon. Activities, time, constraints and benefits experienced in the outdoors were the major focus of this exploration. The resulting findings complement the statewide survey of Oregon youth and their parents.

A series of nine focus group meetings occurred in three separate locations in Oregon in February and March 2007. Four focus groups took place in the city of Portland, Oregon and five took place in rural and suburban settings (one in Prineville and four in Bend). Ages of the youth ranged between 7-18 years old and grouped ages of 7-9, 9-11, 11-13, 13-16, and 16-18 were the divisions for the meetings. Racial/ethnic backgrounds of the youth included Caucasian, African American, Hispanic, and Asian-American. The majority of youth interviewed in the rural settings were Caucasian and the majority of youth interviewed in the urban areas were African-American and Hispanic. The average focus group size was eight participants and the meetings lasted between 30-90 minutes. (Please see the Appendix on Page 11 of the full report for the Interview Guide.) The full report is available online at: http://www.oregon.gov/OPRD/PLANS/docs/scorp/Youth_Focus_Group_Interviews.pdf.

The transcribed interviews from each focus group were analyzed through categorization analysis. Using this technique, the three researchers searched for categories and sub-categories within the text which were then developed into major themes representative of the data (Silverman, 2000). These themes are then linked with examples and quotes from the interviews. The five major themes constructed from the data are divided into the perceptions of youth who lived in rural settings versus youth who lived in urban settings and include:

1) preferred recreation activities;
2) the benefits of recreation: why the youth like playing outdoors;
3) constraints: what keeps you from playing outdoors more?
4) what happens when kids do not go outside?
5) how can we get more kids into the parks and outside?

Preferred Recreation Activities

One of the first questions the youth were asked is what they like to do in the outdoors. In addition we asked how much they like participating in these activities, using a scale of 1 to 10, where 10 indicates that they liked to participate very much. Typical answers for preferred activities outside did not indicate a contrast between the youth who lived in the urban versus those who lived in the rural areas of Oregon. Each of these two group types provided activities that varied from passive to active, solitary to social and local to distant.

Urban

One of the teenagers from the Portland area talked about how he enjoyed volunteering to clean-up the environment. He stated, "One of my family members…put together like this little volunteer thing and it is like a big like group. Like we go to parks and or like just walk streets and pick up garbage….It is just that giving back to Mother Nature what they provided to us. It is just my way to give back." Additional responses from urban youth included:

- Outside sports (basketball, football, baseball, soccer, etc.)
- Riding bike
- View nature, wildlife
- Dancing, going to the park
- Play with dogs
- Play with friends
- Work with zoo animals
- Camping
- Walking/hiking
- Volunteering (nature clean-up & with animals)
- Writing and drawing

Rural

One of the 7 year old girls from a rural town explained "I like horseback riding because you get to be with nature. I like skiing because you get to play in the snow. What was the other one, oh yeah camping. I really like camping because you get to go on trips and sleep in a tent." Other activities from the rural youth included:

- Horseback riding
- Camp
- Skateboarding, riding bike/scooter
- Wrestle
- Play in snow, skiing, ice skating
- Play with dogs
- Play with friends
- Soccer, gymnastics
- Walking/hiking
- Outside sports
- Exercise and have fun
- Driving with parents
- Camping with family

In addition to finding out what the youth participants like to do outdoors, we asked how much they liked doing these outdoor activities on a scale of 1-10. The common response by most of the youth ranged between 8 and 9. This meant they liked being outdoors a great deal; however, there were activities they liked to do indoors (e.g. computer, video games, favorite TV shows, playing in rooms) and some of their responses were seasonally/weather and weekday dependent. The lowest response of five came from one of the rural youth who used a wheelchair. He said that he really liked the outdoors, but he also enjoyed watching movies as well.

The Benefits of Recreation: Why Youth Like Playing Outdoors

All youth enjoyed participating in outdoor recreation activities, regardless of their age range or location of where they lived. The youth provided a variety of responses to why they liked to participate in outdoor activities. Again, there was not a contrast between the urban and rural youth in how they responded to the benefits of playing outdoors. The most common answer related to freedom or that the outdoors made them feel free. More specifically, they liked playing outdoors because it provided more options and choices with a greater repertoire of activities and more ways to play with their friends. These responses are significantly tied to a common definition of leisure in how the outdoors facilitates a sense of freedom and choice in activities. Having this freedom and choice then can facilitate a sense of self-determination for the children. In addition to this psychological benefit, they recognized how important it is to their physical and social health as well.

Urban

An answer that portrays such self-determination can be seen through response from a 13 year old boy who lived in Portland. He stated, "I know it stops me from doing something stupid… [and not] be bored". Other youth revealed benefits of playing outdoors that included:

- You can do anything you want outdoors
- Helps me think better
- I feel cooped up inside
- Exercise
- You can jump around
- Fun and relaxing
- I get to be free
- More space to play
- To be with friends

Rural

Again, the rural youth provided similar reasons why they like to play outdoors. A 7-year-old from Prineville explained, "It gives you exercise, I guess. Fresh air. You get a lot more active because you have more room to do stuff. You can get more exercise. More healthy. More healthy and fit and you can exercise and it keeps your body good. It is very helpful." Another 11-year-old from Bend stated, "The good thing about outside is you can go to different places and then play different things and then inside usually it is one thing maybe. Outside it is pretty warm sometimes." Other reasons from the rural youth included:

- I feel free and happy
- Fresh air—it is good for you
- More room to play
- You can do more things outdoors
- Let out energy and play
- Get to be free
- To be with friends

As we can see from these answers, young children as well as teens are aware of and can

verbalize a variety of benefits of playing outdoors that have been discussed frequently in recreation and leisure literature. Research has shown that play-based experiences and early life play in the outdoors can influence the attitudes and behaviors toward the environment into adulthood (Catling[46]; Lubomira[47]; Place[48]). The current argument is that environmental education should start even earlier within the pre-school ages (Lubomira, 2004). It is never too early to learn the benefits of playing and being outdoors whether it is in a family, school, travel, community, field trip context (Catling, 2005). In the current study, proof of understanding of the environment and outdoors even at the 7-year-old level was apparent.

Constraints: What Keeps You from Playing Outdoors More?

One of the major constraints to playing outdoors more frequently was technology. The notion that technology represented a barrier by the participants in this study reiterates and supports what we are reading in recent academic and popular literature. Louv (2005) explains the tremendous impact of how technology will keep children inside and from becoming more aware of and learning how to protect the outdoors.

To provide a direct example of how the youth perceive technology to be a constraint, a 16-year-old living in Portland stated, "I blame everything on (name brand of computer/video games) and (name brand of computer/video games) because everyone's got a (name brand of computer/video games)." The rural youth expressed such barriers as well. A 10-year-old expressed, "I've got a (name brand of four different computer/video games)." Even the youngest participants (7-year-old children) knew what kept them from playing outside: TV, video games, and computers.

In his book, *Last child in the Woods*, Louv[49] also explains how fear and lack of safe neighborhoods have played another role in keeping children and teens from playing outside. The literature has shown that parental fear is a major reason within this constraint. Fisman (2005) concluded from her study on local learning and environmental awareness that children growing up in neighborhoods where they do not feel safe or secure could experience more challenges in applying environmental or ecological knowledge to their home environments.

Within the latter constraint of fear is where the difference in perceptions between the rural and urban youth emerged from the data. The differences came about in more frequency and intensity surrounding the lack of safe neighborhood in relation to human based causes of fear versus natural causes of fear. The urban youth verbalized more fear themselves and as perceived by their parents in relation to violence and crime as associated with living in the inner city (e.g. guns, fighting, gang activity, rape, and drugs) in contrast to fear in relation to living in the rural areas (e.g. getting hurt in the outdoors climbing trees, rocks, skiing, and from living close to animals whose natural habitat is in their backyards).

---

[46] Catling, S. (2005). Seeking younger children's 'voices' in geographical education research. *International Research in Geographical and Environmental Education, 14,* 297-304.

[47] Lubomira, D. (2004). Environmental education at pre-school. *International Research in Geographical and Environmental Education, 13,* 258-263.

[48] Place, G. (2004). Youth recreation leads to adult conservation. *Parks and Recreation, 39,* 29-38.

[49] Louv, R. (2006). *Last child in the woods: Saving our children from nature-deficit disorder.* Chapel Hill, NC: Algonquin Books of Chapel Hill.

A constraint as perceived by several of the youth in the study as another barrier caused by parents is explained by a 14-year-old from Portland, "Probably some of the reasons why kids do not go outside is because either their family does not go outside or nobody pushes them to go outside, to eat healthier or to do anything active." This barrier signifies that opportunities for children need to be just as accessible to their parents/caregivers to help provide more ecological solutions surrounding youths' lives in relation to connecting them to the outdoors and to become more successful environmental stewards. That is, we have to reach out to the parents as well. According to the Search Institute[50], an important aspect of youth development incorporates support for youth. This support is exhibited mainly through familial support and communication where youth are willing to seek advice and counsel from parents/caregivers and where parents/caregivers are involved directly in helping their children to transition to successful adults themselves. In addition, this development cannot be expected to only come from the family. Such successful transition to adulthood must also come from community, neighbors and other caring adults to be involved in youths' lives (e.g. outdoor recreation and education professionals).

Overall, constraints to participating in outdoor activities as perceived by all the youth in this study included and will be divided into the urban and rural responses:

Urban

Comments themes included:

- Electronics (TV, video games, internet)
- Not cool to hang out outside
- Peer pressure
- Nobody pushes kids to go outside
- Other family members do not go outside, so I do not either
- Drugs—they are bad, slow you down
- Mom will not let me
- Advertising—it does not suggest that we go outside
- Bus system is poor
- Weather
- Fear- crime, gangs, getting hurt
- Just being a couch potato
- Playing inside with pets
- Homework

Rural

Comments themes included:

- Electronics (TV, video games, internet)
- School and homework
- Weather (e.g. cold, rain)
- Chores
- Too neat and do not like to get dirty
- Organized athletic events (parents take kids to these events)
- Nobody pushes kids to go outside
- Cougars have been seen near my house
- Like to do stuff with family and friends
- Sick parent or grandparent
- Parent's job

What happens when kids do not go outside?

An interesting theme that emerged from the data is what the youth knew no matter their age or where they lived as consequences of kids not spending time outdoors. They provided explanations including:

- Get really, really bored… "they will rot with boredom and go bad"
- Get lazy
- Become unhealthy
- They are missing part of their life
- Do not exercise anymore

[50] Search Institute. (2007). *40 developmental assets*. Retrieved May 22, 2007, from http://www.search-institute.org.

- Become TV addicts
- They will just get into their work
- Do not get any sun
- They will become couch potatoes

How can we get more kids into the parks and outside?

Many solutions that were perceived by the youth to help get more "kids in the woods" were common between the two areas of locations. However, the solutions did subtly vary between what should be the focus within urban settings versus rural settings. The suggestions in the urban setting does have to take into consideration that the "wilderness" or acres of natural surroundings find themselves non-existent or in close proximity to concrete, high rises, and mass transportation. Louv (2005) encourages outdoor recreation and natural resource professionals to find innovative and unique ways to bring nature to the urban youth of today. We cannot always take them out of the city, so how can we bring nature to them into the city. Solutions include ways that are already being implemented with the Portland Zoo teen internship program on the premises and through their environmental outreach and mentor programs to other youth programs (e.g. after school, Boys and Girls Clubs). However, the youth had additional suggestions to make nature and outdoor recreation more appealing to other kids. Such suggestions focused on the arts, music, and social events in the outdoors.

Other suggestions as divided into urban and rural youth perceptions included:

Urban

- Advertise on TV, posters, email, internet
- Just stop using all electronics
- Advertise at and provide more funding to schools
- Make it like a carnival, have food stands
- Have social events in nature
- Make outdoors cool
- Pay money to get kids outdoors
- Something exciting happening
- Better weather
- More and better facilities
- Better transportation
- Get recreation providers out of their offices and into the community
- Have special events focused on art and/or music to attract teens

Rural

Comments themes included:

- Make outdoors cool
- Advertise on TV, posters, email, internet
- Just stop using all electronics
- Outdoor sports, structured activities
- More fun things, food and people
- More playground, more toys
- Inform parents to get kids out
- Outdoor camps
- Have contests, raffles, all related to getting kids outdoors

Summary and Conclusions

The focus groups conducted within this study provide insight from one of the most powerful voices we should listen to when we are exploring youth and the outdoors. Conducting focus groups with the youth themselves is a mechanism to incorporate two of the 20 external developmental assets listed under the category of empowerment which is necessary in positive youth development: 1) Community Values Youth-young person perceives that adults in the community value youth, and 2) Youth as Resources - youth are given useful roles in the community (Search Institute, 1997).

A major question emerges from focusing on what youth like to do in the outdoors, why they

like to play outdoors, what constraints they experience, and what more can we do to get more kids in the woods. This question is how are recreation, natural resource managers, environmental educators and other human service professionals going to meet the challenges we are continuing to face if more kids do not get outdoors. We are already facing major health challenges for today's youth. But in the large context of the world if children who grow into adults who are too unhealthy to take care of and unaware of how to take of the earth… what is going to happen to the environment if we do not get more kids outside? How can we help youth become life long learners and advocates who will in turn become healthier adults, adult ambassadors for the environment and appreciate all types and locales of nature? Jeronen and Kaikkonen[51] developed a model that focused on the education of the young child or learner that would help them become ready and responsible adults over four areas related to the environment: natural, cultural, aesthetic and ethical. They found that before we provide knowledge and awareness that a child needs to become sensitive to nature. What better way through outdoor recreation activities can a child be exposed to nature… to be sensitive to it through enjoyment, pleasure, choices, and freedom.

Feelings and emotions are features of experiences which provide the foundation for environmental sensitivity (2002). We can see from this study that this foundation is present in the youth. The youth expressed honest, passionate, and in-depth feelings about what the outdoors meant to them and how it made them feel. We need to "tap into" this sensitivity through the youth themselves as well as within an ecological approach to include their peers, teachers, programmers, and parents in order to take it to the next step (Autry & Anderson[52]; Jeronen & Kaikkonen, 2002; Witt & Caldwell[53]). This next step of helping the young child or learner want to play in and protect the outdoors includes environmental knowledge and awareness. In turn the young learner will progress to the next step of becoming ready and responsible adolescents and then adults who will act for a better life and where environmental values are taken into account.

One of the major principles of youth development is sustainability. Program sustainability whether focused in one discipline or within a multidisciplinary program is critical to the success of the program itself and is critical to gaining the trust and involvement of the youth (Witt & Caldwell, 2005). Efforts in youth programs must begin early (Catling, 2005; Lubomira, 2004; Witt & Caldwell, 2005) and sustain through adolescents and meet a variety of challenges and skill levels. "Finally, we need to develop a system of services that are ongoing and inclusive of the variety of services necessary to meet youth's needs" (Witt & Caldwell, p. 21). Connecting youth to the outdoors and to nature is a critical need within our society and it is critical for positive youth development.

There are major challenges associated with determining how these research findings relate to kids in the state of Oregon. Specifically, how can recreation resource managers provide outdoor recreation opportunities in Oregon that

---

[51] Jeronen, E. & Kaikkonen, M. (2002). Thoughts of children and adults about the environment and environmental education. *International Research in Geographical and Environmental Education, 11,* 341-353.

[52] Autry, C. E., & Anderson, S. C. (2007). Recreation and the Glenview neighborhood: Implications for youth and community development. *Leisure Sciences*, 29, 267-285.

[53] Witt, P. A. & Caldwell, L. L. (Eds.). (2005). *Recreation and youth development.* Sate College, PA: Venture Publishing.

will facilitate youth participation? What impact will increased youth recreation participation have on the youth and on the environment? These are questions that will not be answered quickly, but will require long-term monitoring and in-depth analysis.

Key Recommendations

Specific recommendations resulting from the statewide youth focus group interviews in Oregon are as follows:

- **Recreation Opportunity Inventory.** A complete inventory of the recreation providers should be completed. This inventory would include the strengths, weaknesses, opportunities, and threats of each recreation entity within each of the 11 Oregon SCORP planning regions. The agencies could be classified as *governmental* (e.g., federal, state, local), *not-for-profit* (e.g., Boys/Girls Clubs, Scouting, church groups, community recreation centers, schools, etc.), and *for-profit* (e.g., REI, local outfitters, local recreation shops, etc.).
    - Strengths-what are the success stories, or programs and processes that are currently working in each agency? These might include the agency's staff, facilities, partnerships, etc.
    - Weaknesses-similarly, an objective list of each recreation entity's weakness should be created. This list may include similar items outlined in the strengths, such as poorly trained staff, poor facilities, etc.
    - Opportunities- what untapped resources exist for each agency within the community? Are there opportunities to partner with other agencies to reduce redundancy, to shore up weaknesses? Do opportunities exist in partnering with for-profit and not-for-profit agencies that may have trained staff, facilities, etc.?
    - Threats-what impending threats exist? These threats typically come from outside the recreation agency, and may be in the form of financial (tax cuts, higher rent/liability costs, etc.), facility (an agency may offer a similar program, thus creating the unintended consequence of unfriendly competition in a community).

- **Statewide Facilities.** Oregon recreation resource managers should attempt to understand if their existing and proposed facilities are appropriate for Oregon's youth. Are the facilities and recreation areas developed so they will facilitate the recruitment of new participants (e.g., racial/ethnic minorities, persons with disabilities, non-English speaking youth, etc.)? This could be accomplished by comparing the findings of previous Oregon SCORP findings with current statewide SCORP findings. What trends have been identified, what demographic changes will occur, and will the facilities be appropriate for that future user group? The literature reviews included in the SCORP issue introductions should be examined to understand the changing demographics of Oregon residents (this includes racial/ethnic minority use, aging Oregonians, etc.).

- **Partnerships.** Recreation resource managers should strive to develop partnerships with appropriate recreation entities. These partnerships may include communities partnering with public, private and non-for-profit entities. Each partner should have its niche identified and should understand how the other contributes. Discussion about partnering topics is included in the recommendations listed below.

- **Electronic Toys.** The topic of children staying indoors to play with electronic toys instead of playing outside warrants considerable discussion. Not only has this type of indoor play been identified as a problem in constraints literature, but the children who participated in this study identified this problem themselves. Recreation resource managers will need to understand the role of their agency in this matter. Parents may support the use of television, internet and other electronic games by their kids, thus the potential for conflicting goals may exist between parents and recreation providers. This type of entertainment may keep their kids busy while the parents are engaged in other activities. Oregon recreation resource managers may want to consider a public awareness campaign touting the importance of outdoor recreation and include awareness about sedentary activities. However, we must take into account the notion that playing indoors, while not promoting a healthy lifestyle, in itself is not particularly bad. Kids who are engaged in these indoor activities may have chosen this activity in lieu of other, more harmful activities, including abusive behavior such as drinking alcohol or using harmful drugs.

- **Crime and Safety.** The notion of safety during outdoor recreation pursuits was mentioned by kids in both the urban and rural areas, although the type of threat was different in the different settings. Children in the urban settings mentioned gang-related crime as a threat, while a rural child mentioned the reports of wild animals (cougar) in his neighborhood. This issue overlaps with the earlier suggestion that recreation resource managers focus on partnerships. Many communities have been participating in a "community policing" method, where police are present in neighborhoods to prevent criminal activity, rather than respond to crimes. Partnerships between police and other safety/security agencies in communities with crime threats would be an important component, and may allow kids to feel more comfortable recreating outdoors.

- **Marketing.** Recreation resource managers should consider a pointed marketing campaign touting the benefits and potential outcomes of playing outside. Partnering with statewide recreation entities (public, private and not-for-profit) would be appropriate and perhaps the most cost effective method of communicating the importance of outdoor recreation in children's lives.

Future Research

The findings of this study and that of the larger SCORP study within the state of Oregon indicate that the needs of youth must be identified and efforts must be addressed in a systematic, statewide approach. Accordingly, the Oregon Parks and Recreation Department has requested that researchers develop an implementation plan that will be tested in 2008. The crux of this implementation plan is to test an outreach method; to develop a methodology that will provide the youth and parents of Oregon with a conduit to the services and facilities that youth seek in participating in outdoor recreation experiences in Oregon. Although this process and methodology is still being researched, many of the concepts expressed in the recommendations section (above) will be tested in the Bend, Oregon area. Federal, state, local, private and not-for-profit entities will be engaged and provided with the opportunity to develop specific tool-kits that will facilitate outdoor recreation participation by youth.

Summary of Key Recommendations: Oregon Youth Focus Group Meetings

1. Recreation Opportunity Inventory. Conduct a region-based inventory of governmental, not-for-profit, and for-profit recreation youth-related facilities, programs and processes. This inventory would include the strengths, weaknesses, opportunities, and threats of each recreation entity within each of the 11 SCORP planning regions.
2. Statewide Facilities. Oregon recreation resource managers should attempt to understand if their existing and proposed facilities are appropriate for Oregon's youth.
3. Partnerships. Recreation resource managers should strive to develop partnerships with appropriate recreation entities. These partnerships may include communities partnering with public, private and not-for-profit entities.
4. Electronic Toys. Oregon recreation resource managers may want to consider a public awareness campaign touting the importance of outdoor recreation and include awareness about sedentary activities.
5. Crime and Safety. Many communities have been participating in a "community policing" method, where police are present in neighborhoods to prevent criminal activity, rather than responding to crimes. Partnerships between police and other safety/security agencies in communities with crime threats would be an important component and may allow kids to feel more comfortable recreating outdoors.
6. Marketing. Recreation resource managers should consider a pointed marketing campaign touting the benefits and potential outcomes of playing outside.

Key Planning Recommendations for Fewer Oregon Youth Learning Outdoor Skills

Following completion of the research studies, the Oregon Youth Advisory Committee met to develop a final set of planning recommendations for assisting recreation providers across the state to encourage and enable Oregon's youth to become more involved in outdoor recreation activities. During the April 27, 2007 Advisory Committee meeting, committee members identified the following set of key recommendations based on a thorough review of existing literature related to the issue, SCORP research findings, and members' practical experience and knowledge regarding the issue. Copies of meeting notes and planning recommendations were sent to each Advisory Committee member for review following the meeting.

Key recommendations are divided into two categories; statewide recommendations and local recommendations. Statewide recommendations are relevant for all recreation providers across the state of Oregon. Because the distribution of youth within the population is not uniform across the state, local recommendations apply to those high-priority counties and communities in the state which are projected to experience higher increases in youth population between 6-17 years of age in the coming years.

Statewide Recommendation #1: Develop a statewide youth outdoor programming framework and funding source to focus youth programming efforts across Oregon towards addressing a specific set of key measurable objectives.

Although Oregon is a state with abundant natural resources, there is growing evidence that Oregon's youth are gravitating away from outdoor experiences and towards a virtual indoor reality. Analysis of past SCORP survey results indicates that participation in traditional outdoor recreation activities such as camping, fishing and hunting has dramatically decreased. The SCORP survey of Oregon's parents and their children indicates that while children are spending more time, on average, than parents did in both indoor and outdoor organized sports, there have been decreases occurring in outdoor play not at school. Research has shown that people who do not participate in outdoor recreation as youth are less likely to participate in those activities as adults. By providing Oregon's youth with opportunities to learn outdoor recreation skills in outdoor settings, we have the opportunity to rebuild the foundation for future outdoor recreation participation, reestablish personal connections with nature and their public lands, and improve not only health and well being of future youth and adults, but also instill a passion for nature that may parlay into nature stewardship.

SCORP Youth Advisory Committee Members stated that currently, public-sector recreation providers and non-profit organizations are taking a shotgun approach towards engaging Oregon's youth in outdoor programming. They felt that outdoor programmers and educators are often duplicating efforts and spending considerable time in competing for corporate sponsorships and foundation and public grant sources. They stated a need to step back and find ways to redirect our efforts towards a redefined set of youth outdoor programming objectives with a set of evaluation tools to evaluate the merits of programming against these objectives.

This project proposes to develop a statewide youth outdoor programming consortium to focus youth programming efforts across Oregon towards addressing a specific set of key measurable objectives. Potential objectives include developing the following skills within the Oregon's youth population:

- natural resource appreciation;
- emotional and physical well-being;
- life-long outdoor skills; and
- workforce and life skills.

The intent of the Oregon Kids Outdoors Consortium project is to develop an alliance of public and private organizations that would join forces to support programs aimed at addressing key consortium objectives. The member organizations would pool their resources and expertise in order to more effectively deliver youth outdoor programming across the state.

A non-profit organization, such as the Oregon State Park Trust, could manage day-to-day consortium operations. Financial support for member organizations could be provided through an established endowment fund, as well as through local, state and federal grants. Member organizations would work together to develop projects that are reviewed by Oregon Kids Outdoors committees. Each project would need to address a critical youth outdoor need in the state, and meet criteria based on key objectives of the consortium.

Project deliverables would include:

- a set of key statewide program objectives;
- an organizational and administrative structure for a Oregon Kids Outdoors Consortium non-profit entity;

- an evaluation method to evaluate the merits of outdoor programs against the programming framework objectives; and
- a strategic plan for creating an endowment fund for the consortium.

The evaluation method will be used to evaluate all youth outdoor programs against the programming framework objectives — both existing and new programs. The method should allow us to quantify what we are producing through our programs and to be able to communicate that to our funding sources, stakeholders, and the legislature.

Advisory Committee members suggested that initial Consortium funds be used to adopt Linda Caldwell's new school-based curriculum, TimeWise to teach youth to take charge of their leisure time through outdoor recreation participation. Initially, TimeWise was developed to help prevent substance abuse by middle-school youth and was funded through a grant from the National Institutes of Health National Institute of Drug Abuse (NID). The intention of this effort is to adapt TimeWise for use as a stand alone recreation after-school program for youth.

Finally, there is a need for a statewide outreach and extension position to provide technical assistance for youth outdoor programming in Oregon. The position could be housed either in the Oregon State University Extension Service or within the Oregon Recreation and Parks Association's new Outdoor Recreation Section (see Statewide Recommendation #4).

Statewide Recommendation #2: Develop a menu of after-school programs which are linked to current education standards and that address key objectives of the statewide youth outdoor programming framework.

Young people spend just 20% of their waking hours in school. The AfterSchool Alliance found that only 10% of Oregon's K-12 youth participate in after-school programs, but 23% of children not in such programs indicated they would be likely to participate if such a program were available in their community. Research findings report that more than half of teens say that they would not watch so much TV or play video games if they had other things to do after school. Research also suggests that parents would be open to the idea of their children learning more about outdoor recreation and opportunities in after-school programs. In addition, a recently published study[54] reports that students who attended middle school after-school programs had better attendance in ninth grade, and earned more credits, than similar students who did not.

Advisory Committee members noted that after-school programming in Oregon has grown exponentially over the past five years — to where it is now common to see programs almost every school night. They felt that recreation providers should focus their efforts on developing youth outdoor after-school educational programs. However, they noted that schools will not allow any after-school programming that is not tied to current teaching standards.

There are several existing outdoor recreation programs that link to educational standards such as Project Wild, Project West, and Project Learning Tree. Such programs could be used to meet both the need to teach kids outdoor skills and the schools' need to reinforce educational standards.

---

[54] Russell CA, Mielke MB, Miller TD, Johnson JC. After-School Programs and High School Success: Analysis of Post-Program Educational Patterns of Former Middle-Grades TASC Participants. Policy Studies Associates, Inc. Prepared with the support of the Charles Stewart Mott Foundation. 2007 Online at: http://www.tascorp.org/content/document/detail/1758.

The committee members recommended an initial effort to develop a menu of off-the-shelf outdoor recreation after-school programs which are linked to current Oregon educational standards. These outdoor recreation after-school programs should also address key objectives of the statewide youth outdoor program framework (described in Statewide Recommendation #1) to qualify for Oregon Youth Outdoors Consortium funding. Once the menu of off-the shelf outdoor recreation after-school programs and consortium funding are available, local park providers can start to work with local school districts to get these programs in place throughout the state. Such a strategy should be appealing to teachers who are already stretched too thin to partner up with other organizations for after-school programming.

A longer-term strategy should focus on changing how the Oregon education system sees the role that recreation plays in the overall education of our children. In order for this to occur, parks and recreation providers must find a "champion" to begin a public dialogue in Oregon to insure that schools are encouraged by law to meet a benchmark in having a certain number of hours dedicated to experiential outdoor education (outdoor school programming) for all Oregon students.

Statewide Recommendation #3: Develop a "Let's go Camping" marketing campaign targeting Oregon adults with children with the objective of getting parents outdoors with their children.

In the SCORP youth survey, Oregon youth were asked to create an ideal activity program, selecting one or more from a list of 31 potential activities. Camping in tents is a preferred youth program activity across all youth age categories (3-5, 6-11, 12-14, and 15-17). Tent camping in a park setting will also expose children to a variety of other preferred youth outdoor activities such as biking, swimming, fishing, horseback riding, hiking, and unstructured general play.

The survey results also point out that for most activities, parents first engaged in the activity as a child, rather than as an adult ─ indicating the importance of early life participation setting a pattern for later life participation. When asked who introduced their child to each activity, parents were by far the most common response. The data show that one or both parents clearly play the major role in introducing Oregon's youth to almost all outdoor activities.

During a SCORP focus group interview a 14-year-old from Portland stated, "Probably some of the reasons why kids do not go outside is because either their family does not go outside or nobody pushes them to go outside, to eat healthier or to do anything active." This barrier signifies that opportunities for children need to be just as accessible to their parents/caregivers to help provide more ecological solutions surrounding youths' lives in relation to connecting them to the outdoors and to become more successful environmental stewards. In other words, to engage kids we have to reach out to the parents as well.

Based on a review of these findings and existing literature, Advisory Committee members recommended the development of a statewide "Lets go Camping" program and marketing campaign to encourage parents to take their kids camping. From a marketing perspective, there is a model successfully being used at the national and state levels to encourage parents to take their kids out fishing called "Take me Fishing." This program uses media messages such as, "Take me fishing, I am growing up too fast" to increase residential fishing license sales. The model has been successfully pilot tested in the state of Idaho by

the Idaho Department of Fish and Game in partnership with the Recreational Boating and Fishing Foundation[55].

For the "Lets go Camping" campaign, marketing messages should tie into key SCORP research findings by including the following key motivational themes:

- It is cool to go camping.
- It is fun to go camping.
- So take me camping!

The marketing campaign should target Oregon adults with children with the objective of getting the parents and their children (ages 6-17) out camping together. The campaign should focus on those parents that have camped at one time and encourage them to take their kids out and introduce them to camping.

According to the parent and youth survey, 43% of Oregon parents had not camped in a tent, cabin, or a Recreational Vehicle in the last year. As such, it is safe to assume that large numbers of Oregon parents would not have the knowledge or outdoor equipment needed to take their children camping. For this "lost generation" of Oregon families, additional program support is needed to reintroduce them to the family camping experience. This could be accomplished through the development of a camping 101 toolbox, designed to teach parents and kids how to go camping. That is the local part of the campaign. So if a kid in Bend says to mom or dad that they want to go camping – that a recreation provider like Bend Metro Park and Recreation District can take advantage of the media campaign and, using the camping 101 toolbox, deliver the necessary local programming to make it happen.

OPRD could work with marketing consultants to develop and implement the statewide "Lets go Camping" marketing campaign using appropriate media. OPRD could also develop the camping 101 toolbox to enable local providers with the necessary curriculum and programming materials to teach parents and kids how to go camping. Local park and recreation providers could apply for grant monies from the Oregon Youth Outdoors Consortium to fund the camping 101 programs throughout the state. Finally, partnerships could be established between local park providers and outdoor goods retailers, non-profit groups, and county, state, and federal land management agencies to access camping areas, facilities, and equipment.

Statewide Recommendation #4: Create a new Outdoor Recreation Section within the Oregon Recreation and Park Association (ORPA) addressing the areas of outdoor recreation and environmental education.

[55] Human Dimensions Consulting. Take me fishing in Idaho: An evaluation of the IDFG's 2005 angler recruitment and retention program. Prepared for the Recreational Boating and Fishing Foundation and the Idaho Department of Fish and Game. March 2006. Online at: http://www.rbff.org/uploads/Research_section/Program_Evaluation_Files/IDFG-RBFF_Final_Report_March_2006.pdf

SCORP research indicates that fewer and fewer individuals are accessing nature/outdoors, and that youth specifically are decreasing their time spent in outdoor recreation activities. Advisory Committee members identified that a critical barrier to addressing this problem is the lack of organization and communication among outdoor recreation providers in Oregon related to outdoor recreation services. There is currently no such section that exists in the ORPA serving these functions.

Committee members recommended creating a Special Section (Outdoor Recreation) in ORPA, to take a proactive approach to addressing issues related to outdoor recreation programming and education and environmental education. This section should reach out to outdoor equipment manufacturers and retailers, guides and packers, and non-profit organizations such as the American Camping Association, scouting, and church-based programs. For assistance with the educational components, the Community Education Association and the Oregon Department of Education Association would also be key partners.

Local Recommendation #1: Provide funding and assistance for innovative park designs to connect youth with nature in OPRD-administered grant programs.

SCORP parent and youth survey findings show that almost all of Oregon parents feel that it was a priority for their child to spend more time in outdoor activities. Based on parental reports, Oregon's children are spending considerably less time than the parents did on outdoor play while not at school. Research shows that increasing use of electronic media has been implicated in negative psychological and physical effects, including obesity, loneliness, depression, and attentional problems. In addition, research shows that direct contact with nature, especially as children, is the most critical influence on later attitude toward the environment.

Advisory Committee members felt it critical to have a strategy in place to reconnect Oregon youngsters with nature. The statewide survey of Oregon youth identified that favorite outdoor activities evolve over childhood, with going to parks / playgrounds being the favorite activity for 3-5 year olds and a top favorite activity for 6-11 year olds. According to a recent research report, planners need to create safe, wild spaces in urban areas because unstructured natural areas offer children rich opportunities to learn how to find their way in strange territory and gain other skills[56]. According to the report, for youths in urban settings, woods, unmanaged fields and other natural spaces are just as important for learning and growing up as baseball parks and other traditional outdoor recreational opportunities. These findings indicate that developing neighborhood park settings that are more conducive to youngsters learning about and interacting with nature could be and effective strategy targeting the 3-11 year old demographic.

There are a number of different types of designs currently available to purposefully pull kids into an area and hardened for sustainable use. Such designs encourage activities that we used to do as youth such as digging, climbing, and playing. Such area are designed to be relatively safe for the kids and hardened to protect the natural resource.

---

[56] Bixler RD, Floyd MF, and Hammitt WE. Environmental Socialization: Quantitative tests of the childhood play hypothesis. Environmental Behavior 2002; 34(6): 795-818.

According to Advisory Committee members, there are a few excellent examples of innovative youth park designs in Oregon including Eugene's River Play Park. Many of Eugene's unique experiences are captured in River Play Park. Visitors can climb a small replica of Skinner Butte, uncover fossils at an ancient history sand dig, play with sand and water along a miniature Willamette River, and recreate the life of the original native inhabitants and early settlers of the area at the Kalapuya and pioneer villages.

The Advisory Committee identified a need for greater priority for park projects including design features that are conducive to youngsters learning about and interacting with nature in OPRD-administered grant programs. Such designs should be age-appropriate, with differing designs to provide opportunities for the 3-11 demographic. OPRD could also provide local recreation providers with assistance in identifying the best designs available for the park space and target age group.

Because the level and distribution of youth within the population will not be uniform across the state, grant funding for innovative park designs connecting youth with nature will be directed towards high-priority counties and communities in the state which are projected to experience higher levels of increases in youth population between the ages of 6-17 in the coming years. Counties identified as "high-priority" based on increase in youth population include: Clackamas, Crook, Deschutes, Jefferson, Lane, Marion, Morrow, Multnomah, Washington, and Wheeler. High-priority cities include Albany, Banks, Barlow, Beaverton, Bend, Boardman, Coburg, Creswell, Donald, Eugene, Fairview, Gresham, Happy Valley, Helix, Hillsboro, Medford, Oregon City, Portland, Redmond, Salem, Sherwood, Tigard, Wilsonville and Woodburn.

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Chapter Four
An Increasingly Diverse Oregon Population

Prepared by the Oregon Parks and Recreation Department

Issue Introduction: An Increasingly Diverse Oregon Population

The face of Oregon is changing. According to the Portland State University Population Research Center's Barry Edmonston, "Oregon is becoming more diverse." Census data shows that Oregon's minority populations are growing at a rate well above total statewide population growth. People of Hispanic and Asian-American origins are among the fastest growing population groups in Oregon.

Table 27 includes Oregon's historic and projected populations grouped by major ethnic category through the year 2020[57]. Oregon's Hispanic population is currently the largest minority population in the state and will continue in this position in the upcoming years. From 2000 to 2020, Oregon's Hispanic population will double to 551,314, an increase from 8% to 13.1% of the state's population. Asian-Pacific Islander population will increase 77% to 252,750. A similar, but slower growth pattern is projected with Oregon's African-American population ─ the third largest minority population in the state.

Table 27: Oregon population projections: Hispanic, Asian-Pacific Islander, African-American, and total statewide[1]

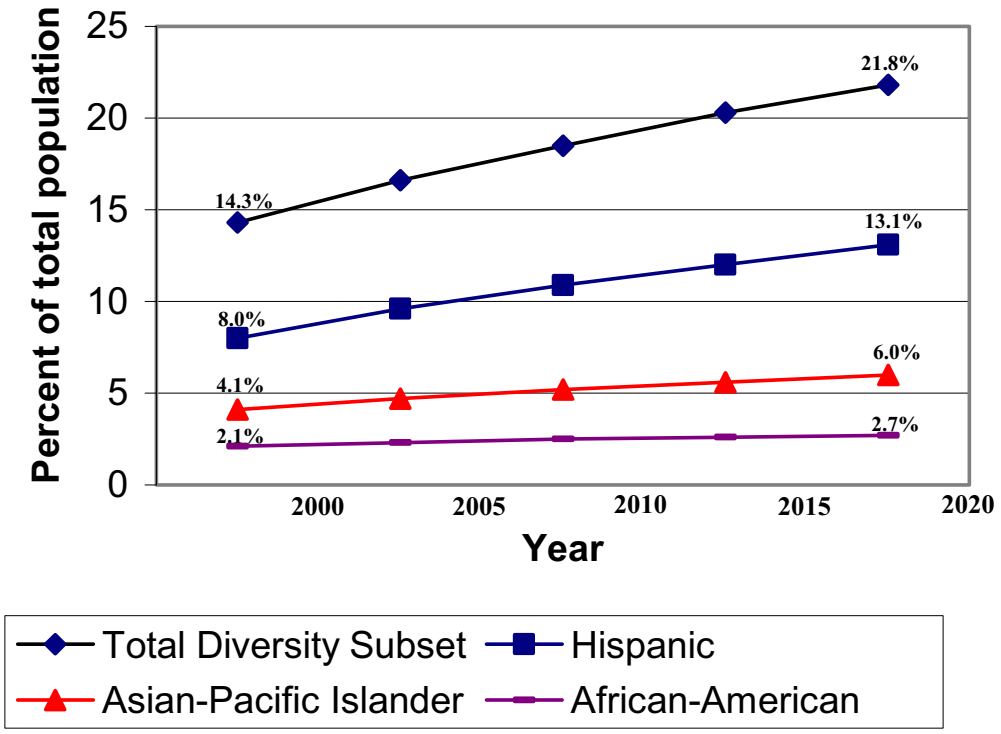
Year	Hispanic		Asian - Pacific Islander		African - American		Subtotal		Oregon Population
	Total	% of Oregon Total Pop	Total	% of Oregon Total Pop	Total	% of Oregon Total Pop	Total	% of Oregon Total Pop	Total
2000	275,314	8.0%	142,564	4.1%	72,204	2.1%	490,082	14.3%	3,436,750
2005	348,425	9.6%	171,708	4.7%	83,534	2.3%	603,666	16.6%	3,631,440
2010	416,192	10.9%	198,722	5.2%	94,036	2.5%	708,950	18.5%	3,826,130
2015	483,959	12.0%	225,736	5.6%	104,537	2.6%	814,232	20.3%	4,020,820
2020	551,726	13.1%	252,750	6.0%	115,039	2.7%	919,515	21.8%	4,215,510

The trend lines shown in Figure 33 reinforce Barry Edmonston's assertion that Oregon is becoming more diverse. Combined, these ethnic populations are projected to make up over 1 in 5 Oregonians in the year 2020.

---

[57] Although there are other minority populations in Oregon, the SCORP planning budget limitations led to a decision to focus efforts on the three fastest growing populations in the state ─ the Hispanic, Asian-Pacific Islander, and African-American populations. In this chapter, the term "diversity" will be used to describe these three populations. The term "under-represented population" will be used to describe when these diversity populations are participating in outdoor recreation activities and programs at lower levels than the overall Oregon population.

Figure 33: Percent of total Oregon Population, Hispanic, Asian-Pacific Islander, African-American



Park and recreation professionals have long responded to demographic diversity by providing a range of services and facilities that cater to different recreation styles. Despite these efforts, minorities are less likely than whites to participate in outdoor recreation in the U.S.[58], and this limits the benefits both to the minority population and to the natural areas where outdoor recreation occurs. Minorities forego the health, social, and other benefits of outdoor recreation.

As stated in the 1997 U.S. National Park Service Strategic Plan, the low participation of minorities "is an important cultural and social issue…and many parks do not attract and offer park experiences meaningful to visitors from varied ethnic backgrounds, or have not yet made their park values relevant to them[59]." Similarly, Driver et al. [60] observe that "if public land managers are to be responsive to the changing needs and values of an increasingly multicultural citizenry in management planning, they must work toward a fuller understanding of those needs and values."

This population trend and context raises a key question: How can Oregon's recreation providers prepare to help an increasingly diverse population have satisfying outdoor recreational experiences? As Oregon's population continues to change, it is critical to

[58] Cordell, H.K., C. Betz, and G.T. Green. (2002). Recreation and the environment as cultural dimensions in contemporary American society. Leisure Sciences, 24, 13-41.

[59] Noted in Floyd, M. 1999. Race, ethnicity and use of the National Park System. National Park Service *Social Science Research Review*, 1(2), 1-24.

[60] Driver, B.L., D. Dustin, T. Baltic, G. Elsner, and G. Peterson. 1996. Nature and the human spirit: Overview. In B.L. Driver, D. Dustin, T. Baltic, G. Elsner, and G. Peterson (eds.), *Nature and the human spirit: Toward an expanded land management ethic*. State College, PA: Venture.

understand how different ethnic groups participate in outdoor recreation activities, and the constraints that limit their participation. The intent of this SCORP chapter is to begin the process of answering these critical questions.

Outdoor Recreation Participation and Under-represented Populations

Various explanations for low minority participation in outdoor recreation have been proposed, with marginality and ethnicity being common explanations. The central tenet of marginality is that low levels of non-white participation are caused by lack of socioeconomic resources. Lower income hinders the ability of non-whites to participate given the costs involved in visiting parks, as well as the related issue of lack of transport. The ethnicity (subcultural) hypothesis explains differing participation rates as a result of differing norms, value systems, and socialization practices. These differences may involve preferences for recreational experiences and style of park use in terms of location, social group, activity, desired facilities, and so on.

Research suggests several themes associated with variation in recreation and park use. These include:

- Minorities may prefer different physical settings than whites, including traditional park landscapes, urban proximate locations, and areas that allow for extended and multiple family gatherings. These preferences may be due to a combination of economic (e.g., transport) and cultural reasons.
- Many members of minority groups regard some outdoor recreation activities as culturally irrelevant and may have little interest in them.
- Minorities may prefer different social settings, including a greater emphasis on socializing than solitude, and park staff and information content that more fully reflect the minority population (i.e., that is not dominated by white employees).
- Minorities may perceive discrimination and, in general, feel less safe and comfortable than whites in outdoor recreation/park settings.
- Information about outdoor recreation and park opportunities may be less accessible to minorities than to whites in terms of content and distribution channels.
- Minorities may have had less socialization and exposure to outdoor recreation/parks, a self-reinforcing cycle. This may reflect the absence of parental or other role models and support for engaging in outdoor recreation.

Physical Activity and Minority Populations

In the U.S., the health status of racial and ethnic minorities lags far behind that of non-minority populations. As a result, the burden of many chronic diseases and conditions — especially high blood pressure, diabetes and cancer — varies widely by race and ethnicity. As mentioned in the aging chapter, lack of physical activity is an important contributor to many of the most important chronic diseases facing Oregonians including heart disease, diabetes, colon cancer, and high blood pressure.

During the period from 2004-2005, 59% of Oregon's White, Non-Latino population were meeting the CDC physical activity guidelines of moderate intensity physical activities for at least 30 minutes on five or more days a week (Table 28). However, at that time only 42% of Oregon's Hispanic population was meeting these physical activity guidelines (a statistically significant difference in comparison to the White, Non-Latino population rate). Almost 1 in 4 (23%) of Hispanic adults in Oregon were reporting no physical activity during their leisure time activities.

Table 28: Extent of Physical Activity Among Oregon Adults, by Race/Ethnicity and Gender, 2004-2005

	Meets CDC Physical Activity Recommendations	**No Leisure Time Activity**
White, Non-Latino	59.0	7.5
African-American	63.9	12.1
Asian/Pacific Islander	54.6	8.6
Latino	42.1**	22.7
** Statistically significant difference compared to White, Non-Latino		

Approximately 31% of Oregon's adult Hispanics are identified as being obese (Table 29). Another minority population with higher levels of obesity in Oregon is African-American females, with 41% reported as obese. Recreation providers serving the needs of the Hispanic and African-American communities should consider targeting these two populations when developing strategies related to increasing physical activity within their service areas.

Table 29: Percent of Oregon Adults who are Overweight or Obese, by Race/Ethnicity and Gender, 2004-2005

	Overweight			**Obese**		
	Male	Female	**Total**	Male	Female	**Total**
White, Non-Latino	43.6	28.4	35.5	23.7	24.8	24.2
African-American	39.7	35.8	40.0	17.5	40.8	28.7
Asian/Pacific Islander	35.4	21.3	28.1	21.4	10.3	14.7**
Latino	42.6	31.0	38.6	28.7	31.7	30.9**
** Statistically significant difference compared to White, Non-Latino						

Research Project: A Growing Minority Population and Outdoor Recreation in Oregon

Project introduction

In preparation for this planning chapter, OPRD contracted with Oregon State University to conduct a statewide survey of Oregon's Hispanic and Asian populations (conducted by Kreg Lindberg of Oregon State University) and a separate study designed to explore the opinions and thoughts directly from under-represented populations in a series of focus group meetings (conducted by Robert Burns of West Virginia University, Alan Graefe of The Pennsylvania State University, and Libby Covelli of The Pennsylvania State University).

Statewide Survey of Oregon Hispanic and Asian Populations

The survey was conducted using a random sample of Oregon Hispanic and Asian households. Survey recipients were obtained from a commercially provided list of Hispanic and Asian households in Oregon. For all correspondence, persons in the Hispanic sample were sent versions in both English and Spanish (e.g., English and Spanish cover letters, English and Spanish surveys). Surveys were mailed to a 3,595 recipients. Adjusting for undeliverables, the response rates were 17% for Hispanics and 21% for Asians. In total, 522 completed surveys were received. However, 164 respondents did not classify themselves as Hispanics or Asians. These respondents were

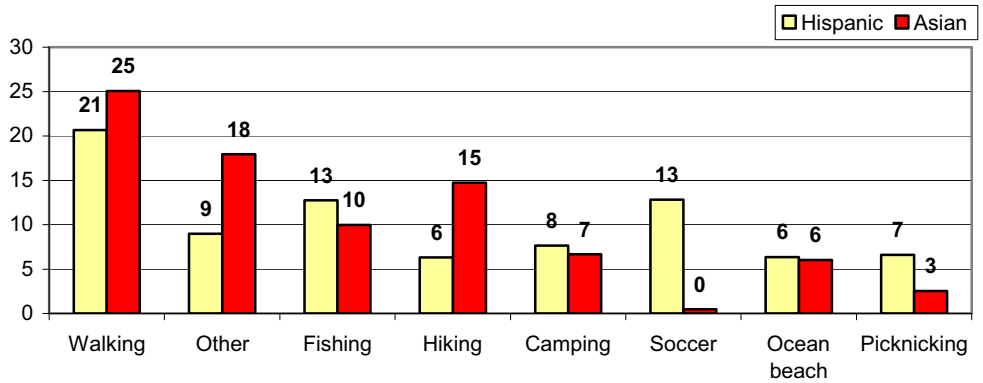
included in the "by group" analysis, but not in the other analyses[61]. The remaining 358 respondents were included in all analyses. Census data on gender and educational attainment were used to weight responses and reduce the potential for non-response bias. The sample almost exactly matched the statewide geographic distribution across Portland metro versus elsewhere in the state, so responses were not weighted by location. A brief phone survey of non-respondents was used to assess potential non-response bias; there was no indication of systematic bias.

Outdoor Recreation Participation

Respondents started by reporting their favorite outdoor recreation activity in an open-ended question format. Figure 34 shows the most popular activities, in percent of all respondents who reported at least one activity (sorted by the average of Hispanic and Asian percents).

Walking for pleasure was the most common favorite activity for both Hispanics and Asians, with fishing and soccer being the next most common for Hispanics and hiking and fishing the next most common for Asians.

Figure 34: What is your favorite activity? By group, percent



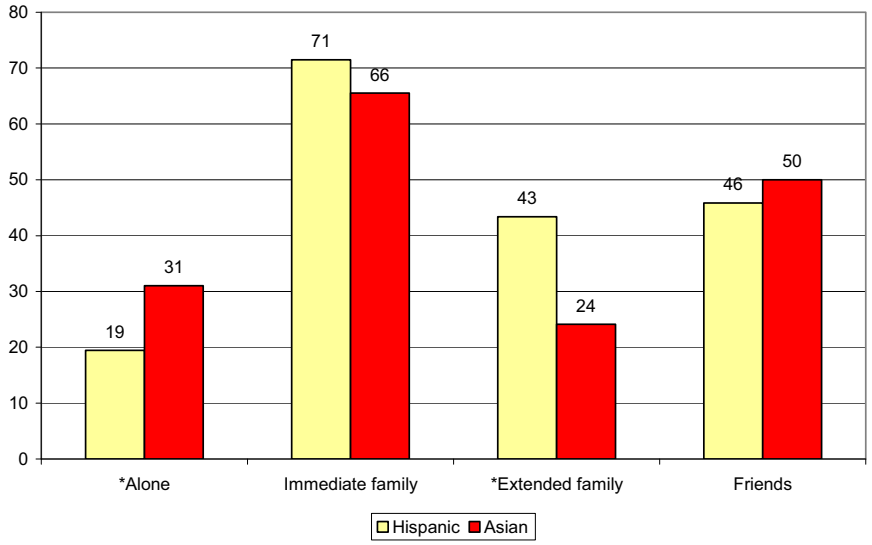
In addition to the mail survey sample described above, efforts were made to distribute surveys via churches and 4-H programs with high numbers of Hispanics. Due to the smaller sample size and the different sampling strategy, the results from these surveys are presented in Appendix B of the full survey report (see web link below). A full survey report is included on the OPRD SCORP planning web site at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Diversity_Survey_Report.pdf. The following is a summary of key findings from the statewide survey of Hispanic and Asian households in Oregon.

Respondents next reported who they like to do this activity with and where they most often do the activity. Note that these "with whom" and "where" responses relate only to each respondent's favorite activity, not to outdoor recreation activities in general.

For the "with whom" question, multiple responses were allowed, so the sum across categories (alone, immediate family, etc.) is greater than 100 (Figure 35). Hispanics were least likely to engage in the activity alone and most likely to engage with extended family. Seven percent also selected "Other," with dogs and co-workers/business associates being the most common responses.

[61] Responses for these 164 respondents are included in the full report, but not in the summary of group analysis findings in this chapter.

Figure 35: With whom do you do your favorite activity? By group, percent



As shown in Figure 36, respondents who had lived abroad differ from those who had not with respect to participation with extended family and with friends. The experience of living abroad does not necessarily mean respondents are immigrants, but decreased engagement with extended family would be expected for immigrants who have not moved to the United States with their extended family. Likewise, immigrants may have a smaller network of friends relative to respondents who have always lived in the country.

Figure 36: With whom do you do your favorite activity? By whether lived abroad, percent

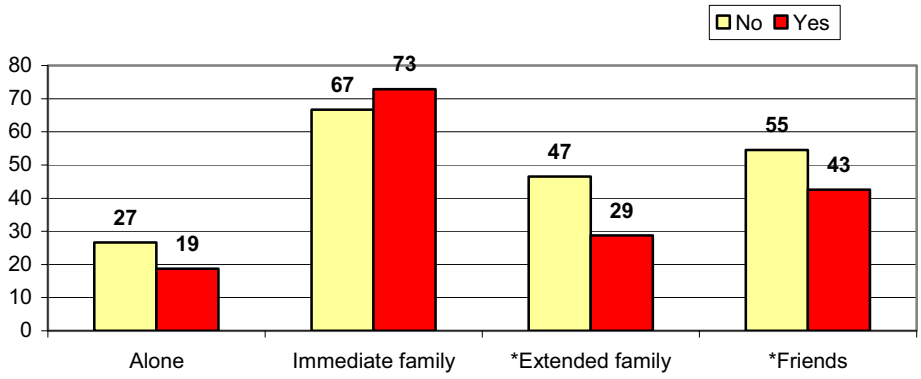
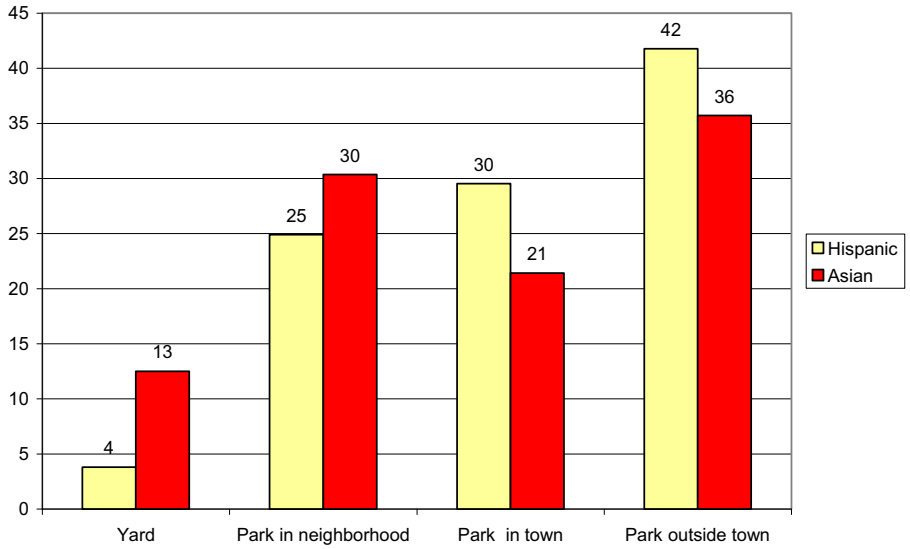


Figure 37 shows where respondents most often did their favorite activity, by group. The most common location for each group was a park or other area outside one's town or city. Males were more likely than females to engage in their favorite activity further from home.

Figure 37: Where do you do your favorite activity? By group, percent (SS)



As shown in Figure 38, older respondents generally were more likely to engage in their activities in their yard, and less likely to do so in parks outside town. Though the relationship between age and location is statistically significant, it is irregular.

Those who have lived abroad were more likely than others to engage in their favorite activity in neighborhood parks and less likely to have done so in parks located further away.

Figure 38: Where do you do your favorite activity? By age, percent (SS)

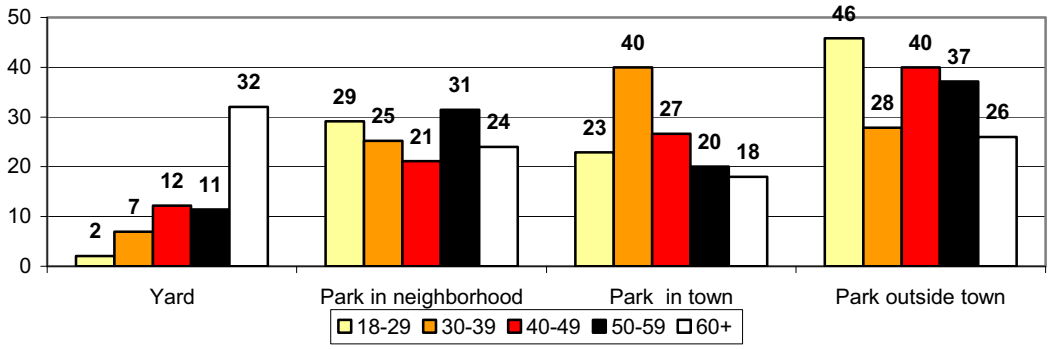
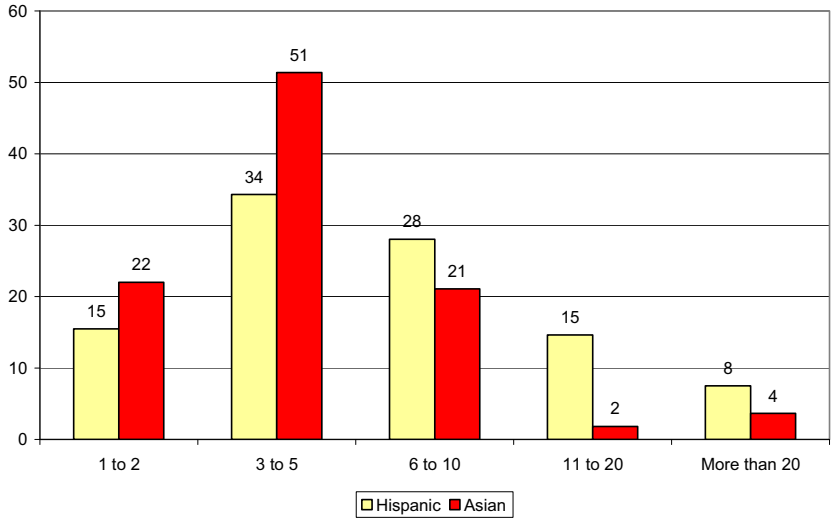


Figure 39 shows how "typical group size" varied across groups. Hispanics were more likely than Asians to be in large groups when visiting parks, though group sizes of five or fewer dominated for both groups.

Figure 39: Typical group size in parks by groups, percent



A key question in the survey was to examine if Oregon data supports the national findings that minorities engages in outdoor recreation less than the general population. To answer this question, respondents were asked how many days in the past year they engaged in a set of 26 specific outdoor recreation activities.

Table 30: Activity participation intensity by group, mean days

	Hispanic	Asian	Average	Parents	% Diff.
Walking for pleasure	**60**	**61**	**60**	**63**	-4
*Jogging or running for exercise	**24**	12	**20**	15	32
*Day hiking on trails	11	5	9	9	-1
*Picnicking and family gatherings	15	5	11	8	**51**
Relaxing, hanging out, etc.	**23**	15	**20**	**25**	-20
Bicycling on paved roads / paths	9	7	8	12	-32
Mountain biking	2	1	1	2	-45
Horseback riding	0	0	0	2	**-86**
OHV (4-wheelers, dirt bikes, quads)	3	4	3	4	-23
Camping (tents, cabins, or RVs)	3	2	3	6	**-52**
Hunting	3	1	2	4	-34
*Fishing	9	4	7	6	28
Motorized boating	3	1	2	3	-35
Floating / paddling (kayaking, rafting, etc.)	1	1	1	2	**-67**
Rock climbing / mountaineering	0	0	0	0	42
Ocean / freshwater beach	6	3	5	7	-33
Skiing / sledding / snowshoeing	1	1	1	1	**-53**
*Viewing natural features	**21**	9	17	**26**	-33
*Visiting a nature center	7	2	5	3	**78**
*Visiting historic sites	5	2	4	3	43
Outdoor photography, painting, etc.	3	1	3	6	**-54**
Nature study	1	0	1	3	**-66**
Gathering mushrooms, berries, etc.	4	2	3	4	-16
Driving for pleasure on roads	14	9	12	16	-21
Outdoor sports and games	**21**	13	18	12	**55**
Swimming in an outdoor pool	8	3	6	7	-11

Table 30 shows the average number of days (participation *intensity*) that respondents engaged in each of 26 activities in the past year, by group (full wording for each activity is presented in the survey in Appendix A of the full report). The table includes the Hispanic/Asian average and "parents" participation from the SCORP survey of parents and youth. The parents' data are from a "family-intense" sample of the general population, but not all respondents in that survey (or the diversity survey) were parents. The parents' data provide a useful reference point, but the samples may differ in characteristics beyond ethnicity.

There is large variability in participation within groups, so apparently large differences across groups are not always statistically significant (e.g., for relaxing/hanging out). Statistical differences relate to the Hispanic versus Asian results, not the parent results. For example, the statistical significance of Jogging/running indicates confidence that there were differences between Hispanics and Asians in the general population with respect to participation in this activity. Statistical differences between the diversity sample and the parents sample were not assessed because the two data sets are broadly, but not directly, comparable.

All activity-group combinations with averages of at least 20 days are bolded in red. Walking for pleasure was the most popular activity for each group. Asians did not engage in any other activity 20 days or more on average, whereas Hispanics engaged in several other activities at that level, including jogging or running for exercise; relaxing, hanging out; viewing natural features; and outdoor sports and games. For all the activities with statistically significant differences, Hispanics engaged more intensely than Asians in: jogging/running, day hiking, picnicking, fishing, viewing natural features, visiting nature centers, and visiting historic sites.

Comparing the diversity average to the parent results, the last column shows differences in percentage terms, with parents as the base and percents 50 or greater bolded. Thus, the diversity average participation intensity for picnicking (11 days) was 51% higher than the parent average (8 days).[62] Conversely, the diversity average for horseback riding was 86% lower. Overall, negative percents were more common than positive percents, indicating that the diversity sample tended to engage less intensely in outdoor activities. However, for several activities the diversity sample engaged more intensely than the parent sample.

Table 31 shows the percent of respondents who engaged in each activity (participation *rate*). For this table, participation rates of 60 percent or higher were bolded in red. Walking remains the "top" activity, with several additional activities having overall participation rates of 60 percent or higher.

In terms of statistically significant differences, Hispanics were more likely to participate in day hiking, picnicking, relaxing/hanging out, hunting, outdoor sports, and swimming in outdoor pools. Asians were more likely to participate in Off-Highway Vehicle (OHV) use and snow sports.

Turning to differences between the diversity sample and the parents sample, there were fewer differences of 50% or greater. In other words, there were more dramatic differences between the diversity and parent samples with respect to participation intensity than with respect to participation rates. However, the overall trend holds: parents were more likely to have higher (rather than lower) rates relative to the diversity sample

[62] Table 30 shows rounded figures, but the percentages were calculated on actual figures (to 12 decimal points).

Table 31: Activity participation rate by group, percent

	Hispanic	Asian	Average	Parents	% Diff.
Walking for pleasure	**77**	**80**	**78**	**74**	6
Jogging or running for exercise	42	33	39	24	**63**
*Day hiking on trails	50	36	45	57	-21
*Picnicking and family gatherings	**74**	**63**	70	**69**	1
*Relaxing, hanging out, etc.	**67**	53	**63**	56	13
Bicycling on paved roads / paths	32	30	31	43	-26
Mountain biking	8	5	7	13	-44
Horseback riding	3	2	2	12	**-80**
*OHV (4-wheelers, dirt bikes, quads)	10	18	12	22	-44
Camping (tents, cabins, or RVs)	38	35	37	57	-35
*Hunting	17	5	13	18	-29
Fishing	31	30	31	41	-26
Motorized boating	16	10	14	27	-47
Floating / paddling (kayaking, rafting, etc.)	16	13	15	29	-49
Rock climbing / mountaineering	6	4	5	5	-6
Ocean / freshwater beach	56	52	55	**67**	-17
*Skiing / sledding / snowshoeing	15	24	18	29	-37
Viewing natural features	**62**	56	**60**	**60**	0
Visiting a nature center	51	47	50	53	-7
Visiting historic sites	47	44	46	53	-14
Outdoor photography, painting, etc.	16	21	18	23	-21
Nature study	7	10	8	12	-35
Gathering mushrooms, berries, etc.	27	29	27	36	-24
Driving for pleasure on roads	45	48	46	52	-10
*Outdoor sports and games	49	38	45	40	12
*Swimming in an outdoor pool	31	20	28	37	-26

Table 32 shows participation as measured by overall days and number. Days were the sum of days across all activities for each respondent. Number was the count of all activities that each respondent participated in for at least one day during the past year. Overall, Hispanics spent significantly more days engaged in outdoor activities than did Asians. Parents spent more days than either diversity group, though the difference between parents and Hispanics was not large in percentage terms. Parents engaged in more activities than either Hispanics or Asians.

Table 32: Activity participation by group, overall days and number of activities

	Hispanic	Asian	Average		Parents
*Days	252	163	222		264
Number	9	8	9		12

In summary, the comparison between the diversity and parents samples is limited by potential differences in factors other than ethnicity. This was not a direct comparison between Hispanics, Asians, and the general population. Given this caveat, results did suggest that the diversity sample engaged in outdoor recreation less than the general population. With respect to days of participation (intensity), this was especially true for Asians. With respect to number of activities,

this was true for both Hispanics and Asians. As one would expect, there were differences across individual activities. For example, Table 28 shows that differences across groups for the most popular activity (walking) were modest, but Hispanics engaged in outdoor sports more intensively than either Asians or parents, while parents engaged in horseback riding more intensively than either Hispanics or Asians.

When asked whether there was any activity they would like to start doing or to do more often, 61% of respondents said yes. Those saying yes then indicated the activity of interest and what would help them engage in the activity. Figure 40 presents percentages for all respondents that reported an activity. Differences across groups are apparent, with camping being most popular for Hispanics and walking for pleasure and "other" most popular for Asians. The other category included various activities, such as gardening, sightseeing, and unspecified sports or games. Camping includes tent and RV/trailer camping. Biking includes road biking and mountain biking.

Figure 40: Would like to do this activity more often, percent

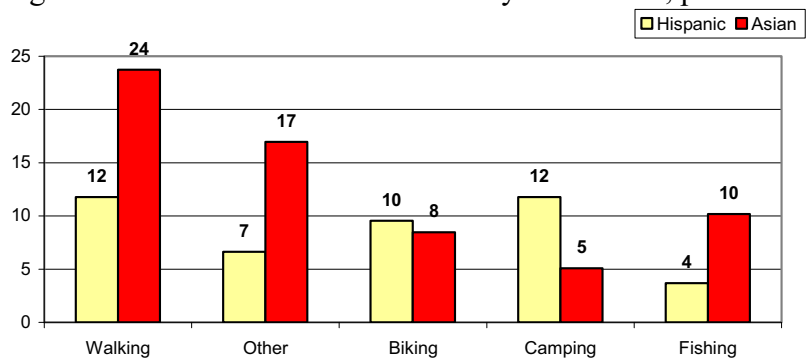
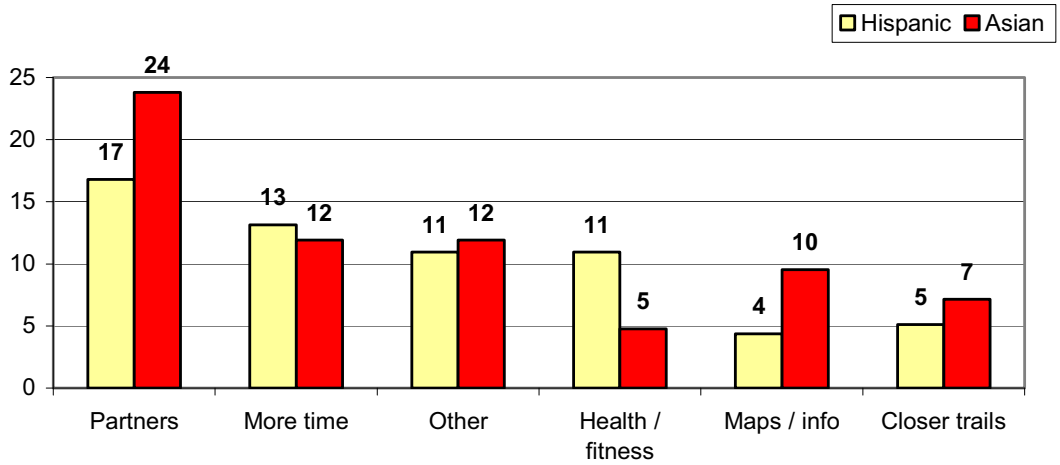


Figure 41 shows what would help, with percentages of all those who noted a specific "help" factor. Someone to do the activity with would be the most important facilitator for both Hispanic and Asians, though it is particularly important for the latter group.
Asians were more likely than Hispanics to be helped by additional information, whereas Hispanics more commonly noted health or fitness (e.g., improved health). The "other" category for this question reflected very diverse and individual-specific responses.

Figure 41: Would help to do activity more often, percent



Respondents reported whether they had lived in a country other than the United States and, if so, the specific country. They then indicated whether they engaged in outdoor recreation in that country and, if so, what their favorite activity was. The majority (69%) have lived in another country. Amongst Hispanic respondents that have lived in another country, the majority (84%) lived in Mexico. Amongst Asians, the plurality (23%) lived in Japan, followed by Vietnam (16%) and China, including Hong Kong (15%). Eighty-one percent of those having lived in another country engaged in outdoor recreation in that country. The most popular activity was walking (13% of those listing an activity), followed by day hiking, soccer, outdoor court games, and going to the beach.

Recreation Motivations

Respondents were asked to rank the importance of each of 17 motivations or reasons for engaging in outdoor activities. A scale of 1=not all important to 5=very important was used. Figure 42 shows ratings of 4 or 5, with items sorted in decreasing importance. Several motivations grouped with the highest ratings, including being in the outdoors, having fun, relaxing, reducing tension, and being with family and friends.

Summary of Key Findings: Hispanic and Asian Outdoor Recreation Participation in Oregon

1. Walking for pleasure was the most common favorite activity for both Hispanics and Asians, with fishing and soccer being the next most common for Hispanics and hiking and fishing the next most common for Asians.
2. Both Hispanic and Asian respondents most commonly did their favorite activity with members of their immediate family. Asians were more likely than Hispanics to do activities alone, as were older respondents relative to younger respondents.
3. The most common location for Hispanic and Asian respondents to do their favorite activity was in a park or other area outside one's town or city. Males were more likely than females to have engaged in their favorite activity further from home.
4. Survey results suggest that both the Hispanic and Asian populations in Oregon engaged in outdoor recreation less than the general population. With respect to days of participation (intensity), this is especially true for Asians. With respect to number of activities, this was true for both Hispanics and Asians.
5. Walking for pleasure was also the activity respondents spent the most days engaged in during the past year. Hispanics engaged more intensely than Asians in jogging/running, day hiking, picnicking, fishing, viewing natural features, visiting nature centers, and visiting historic sites.
6. The most common activities respondents would like to do more often, or start doing were walking for Asians and walking and camping for Hispanics. The factor that would most help make this happen was availability of partners, followed by more time.
7. Most of the Hispanic and Asian respondents have lived in another country and engaged in outdoor recreation in that country. The specific activities varied widely, with walking being the most common, followed by day hiking.

Figure 42: Motivations, percent of 4 or 5 ratings on 5-point scale
(5 = very important)

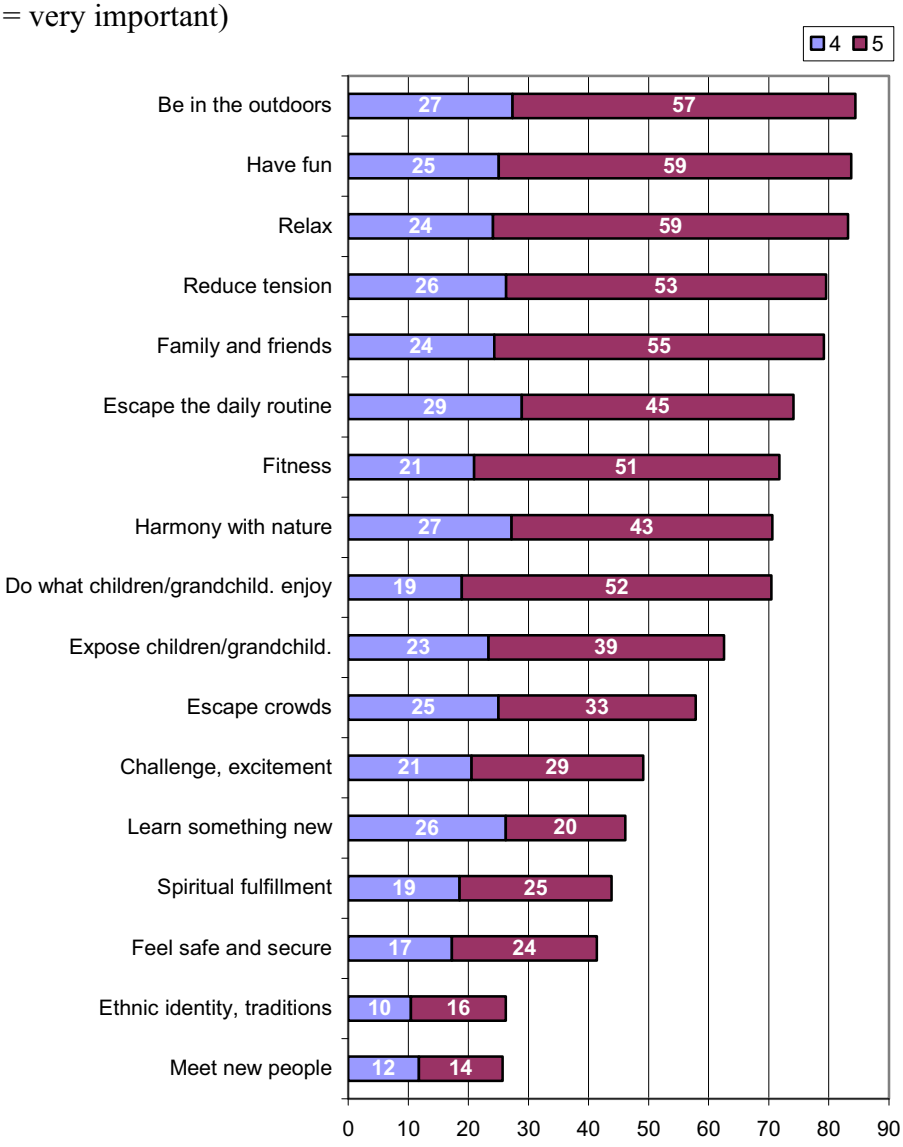


Table 33 showed results by group including mean ratings from the same 1 to 5 scale. Highest ranking motivations for Hispanic respondents include being in the outdoors, relaxing, and having fun. For Asian respondents top motivations were relaxing, fitness, and having fun.

Table 33: Recreation motivations, by group, mean rating

Motivation / reason	Hispanic	Asian
Relax	4.5	4.3
Fitness	4.1	4.1
Challenge, excitement	3.5	3.4
Have fun	4.5	4.1
Meet new people	2.6	2.3
Family and friends	4.3	4.0
Activity children, grandchildren enjoy	4.1	3.4
Maintain ethnic identity, traditions	2.4	2.0
Learn something new	3.3	3.0
Expose children, grandchildren to something new	3.8	3.1
Escape the daily routine	4.3	3.6
Escape crowded situations	3.8	3.4
Be in the outdoors	4.6	4.0
Harmony with nature	4.2	3.7
Spiritual fulfillment	3.2	3.0
Feel safe and secure	3.2	2.9
Reduce tension	4.4	3.8
Average across all motivations	**3.8**	**3.4**

There were a few differences in motivations for those that have lived abroad relative to those who have not. Those having lived abroad placed less importance on challenge and having fun. Conversely, they placed more importance on maintaining ethnic identity and traditions.

This motivational information should be considered when developing marketing strategies to encourage outdoor recreation among under-represented populations in the coming years.

Summary of Key Findings: Outdoor Recreation Motivations

1. For the Hispanic population, being in the outdoors, relaxing and having fun were the most important motivators.
2. For the Asian population, relaxing, fitness, and having fun were the top motivators.

Management Actions for Increasing Outdoor Recreation Participation

Respondents rated 13 potential agency actions with respect to the effect on their participation in outdoor recreation. A three-point scale was used, with 1=no effect, 2=lead to a small increase, and 3=lead to a large increase. Figure 43 shows percentages of responses 2 and 3. Provision of clean and well-maintained parks and facilities were clearly the most important actions. This was similar to results from the survey of Baby Boomers and Pre-Boomers. The importance of expanding facilities is consistent with the literature on minority recreation preferences. It was not a high priority for parks to have more staff members from minority ethnic groups or to provide programs tailored to specific ethnic groups.

Figure 43: Effects of management actions on recreation participation, percent of 2 or 3 ratings on a 3-point scale (3=large increase)

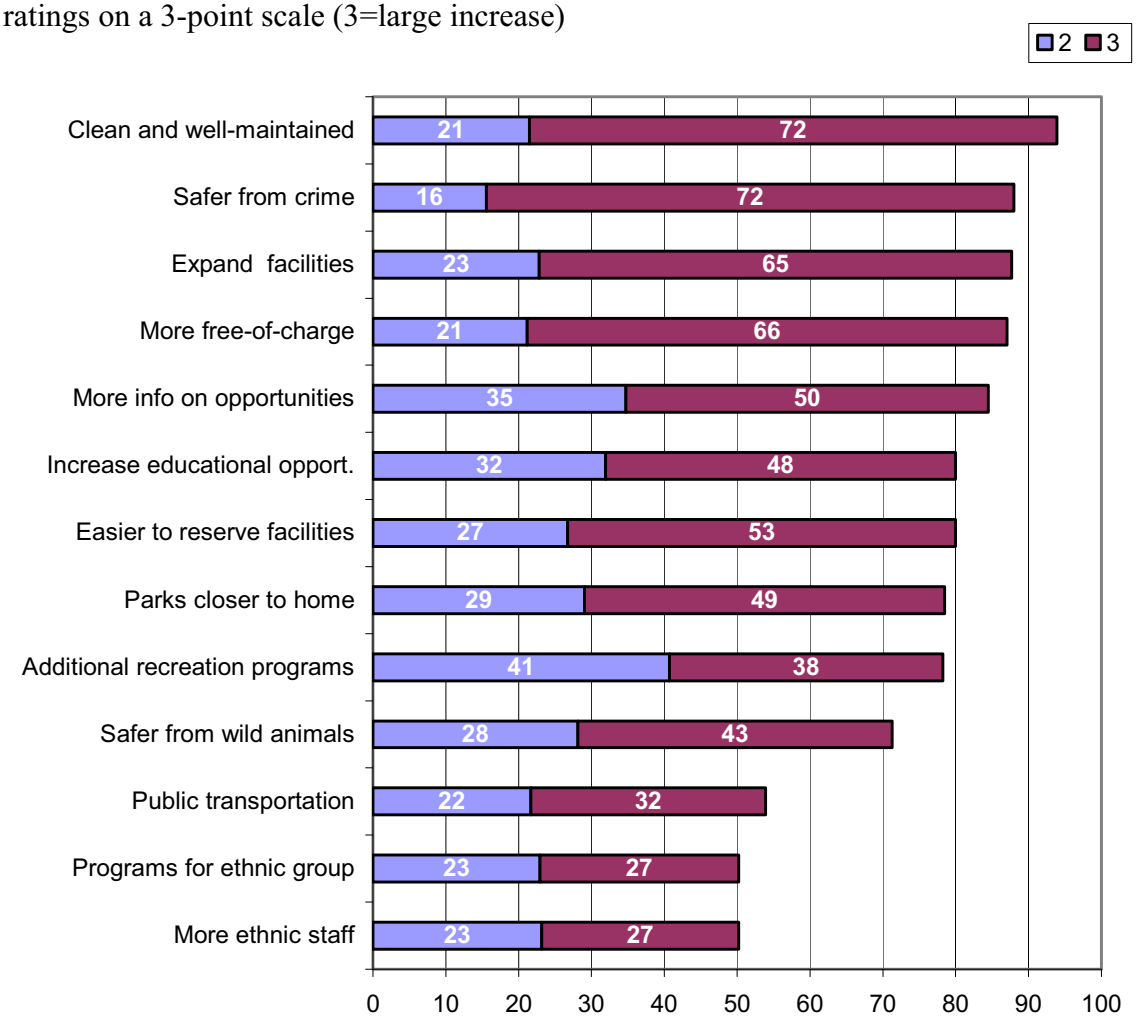


Table 43 includes means for each group, by action item. For Hispanic respondents provision of clean and well-maintained parks and facilities was the most important action, followed by providing more free-of-charge recreation opportunities, making parks safer from crime, providing more information on parks and recreation opportunities, and expanding park facilities such as picnic tables, barbeques, pavilions, restrooms, restaurants, and lodging.

For Asian respondents provision of clean and well-maintained parks and facilities was also the most important action, followed by making parks safer from crime, providing more free-of-charge recreation opportunities, expanding park facilities, and developing parks closer to your home.

Table 34: Effect of management actions on recreation participation by group, mean ratings using a 3-point scale with 1=no effect, 2= small increase, and 3= large increase

Action	Hispanic	Asian
Develop parks closer to your home	2.4	2.2
Provide more information on parks / recreation opportunities	2.5	2.0
Provide public transportation to parks	1.9	1.5
Make parks safer from crime	2.6	2.4
Make parks safer from wild animals	2.1	1.9
Develop additional recreation programs	2.3	1.9
Expand park facilities (picnic tables, barbeques, etc.)	2.5	2.2
Provide clean and well-maintained parks and facilities	2.7	2.5
Make it easier to reserve facilities (soccer fields, picnic areas, etc.)	2.4	1.9
Provide more free-of-charge recreation opportunities	2.6	2.3
Increase educational opportunities in parks	2.3	1.8
Employ more park staff from your ethnic group	1.8	1.5
Develop programs specifically for people in your ethnic group	1.8	1.4
Average across all actions	**2.3**	**2.0**

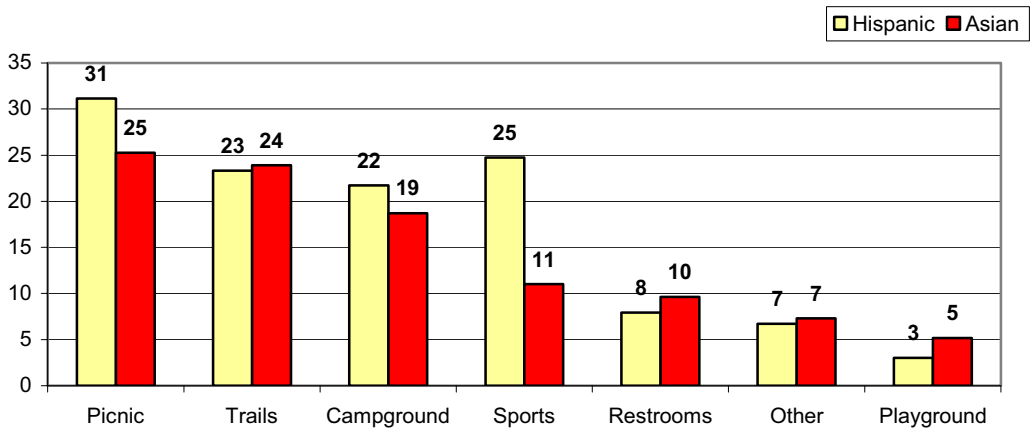
Results by residence are shown in Table 35. They suggest that crime was a more important issue in the Portland Metro area (PDX) than elsewhere in the state. To a lesser degree, maintenance was as well. The ethnic composition of park staff also would have a larger impact in the Portland Metro region.

Table 35: Effect of management actions on recreation participation by residence, mean, ratings using a 3-point scale (1=no effect, 2= small increase, and 3= large increase)

Action	Elsewhere	PDX
Develop parks closer to your home	2.1	2.3
Provide more information on parks / recreation opportunities	2.2	2.4
Provide public transportation to parks	1.8	1.9
*Make parks safer from crime	2.4	2.7
Make parks safer from wild animals	2.1	2.1
Develop additional recreation programs	2.1	2.2
Expand park facilities (picnic tables, barbeques, etc.)	2.4	2.6
*Provide clean and well-maintained parks and facilities	2.6	2.7
Make it easier to reserve facilities (soccer fields, picnic areas, etc.)	2.2	2.4
Provide more free-of-charge recreation opportunities	2.5	2.5
Increase educational opportunities in parks	2.3	2.3
*Employ more park staff from your ethnic group	1.6	1.8
Develop programs specifically for people in your ethnic group	1.6	1.8
Average across all actions	**2.1**	**2.3**

Respondents were asked in an open-ended format, what types of facilities they would like to see developed in parks. Additional picnic areas were most desired, followed by trails and campgrounds (Figure 44). The "sports fields" category was noticeably more popular for Hispanics than for Asians, but otherwise the differences are modest. The "trails" category included hiking trails and unspecified trails. In addition, some respondents noted biking and horse trails. The "restrooms" category included some specific suggestions, such as restrooms at trailheads and restrooms with showers. The "other" category included various facilities. Some respondents encouraged more development, others encouraged less development (of campgrounds or parks generally).

Figure 44: Desired facilities, percent of all respondents in group



Half of the respondents (50%) reported other things park agencies could do to facilitate participation in outdoor activities. Responses were very diverse, with the most common being increased security (noted by 14% of those responding to this question). This was followed by additional information (6%). Other suggestions included more sports fields, cleaner parks, more parks, increased staffing (including staff speaking Spanish), more facilities, larger campgrounds, and more campgrounds that do not require reservations.

Summary of Key Findings: Management Actions to Increase Outdoor Recreation Participation

1. Ensuring clean and well-maintained parks and facilities was the most important management action followed by keeping parks safe from crime, providing more free-of-charge recreation opportunities and expanded facilities.
2. Keeping parks safer from crime was a more important issue in the Portland Metro area than in the rest of the state.
3. The most commonly recommended facilities for development in parks were picnic tables, followed by trails and campgrounds. There were some differences across groups, with Hispanics being more likely than Asians to suggest additional sports fields.

Recreation Information

Respondents reported in an open-ended format what information would be most useful and, how that information should be provided. Figure 45 shows the information desired by respondents, with information on activities and facilities being the most popular. That type of information was particularly important for Asians, whereas location information was relatively important for Hispanics. The "other" category included diverse types of information, such as opening hours, rules and regulations (including how to keep parks clean and whether dogs allowed), trail conditions, transport options, weather information, and safety information (especially relating to children). Reservation information included facility availability (e.g., whether campsites are full). Only two percent of Hispanic respondents specifically requested information in Spanish. However, keep in mind that a much larger percentage of the Hispanic respondents completed the survey in Spanish rather than in English, presumably reflecting stronger ability in that language.

Figure 46 shows suggested information outlets, with web/internet, newspaper, and TV being the most popular. The "other" category included outlets such as direct mail, libraries, grocery stores, etc. There are differences across the two groups, with Asians more clearly favoring the web. Suggestions by Hispanics were more evenly spread, and they were much more likely than Asians to suggest radio and magazines.

Figure 45: Type of information desired, percent of all respondents in group

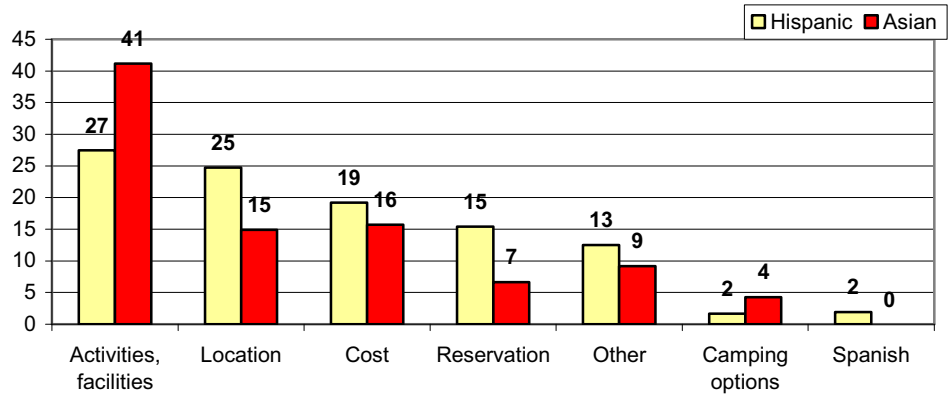
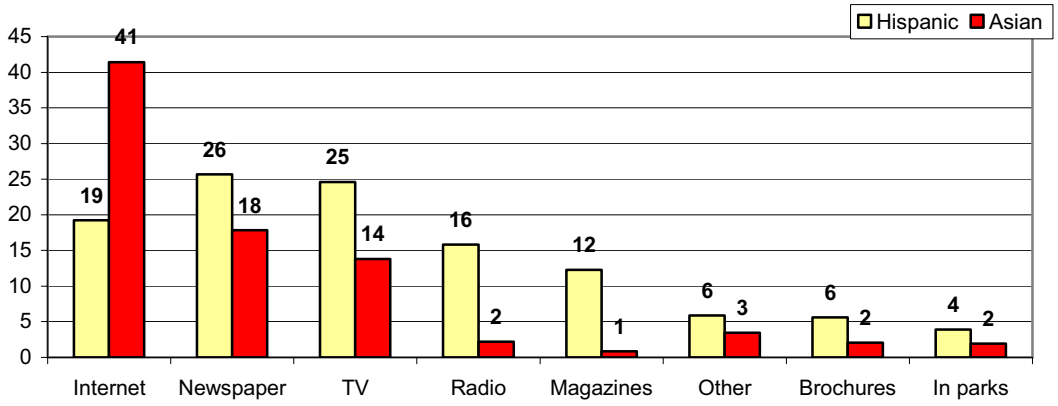


Figure 46: Information outlet desired, percent of all respondents in group



Summary of Key Findings: Information

1. In terms of information sought by respondents, practical information on activities, facilities, and location were the most common response, followed by information about cost.
2. Overall, the internet was most frequently noted as the desired information outlet.
3. Asians clearly preferred the internet, followed by newspapers and TV. Hispanics preferred newspapers and TV, followed by the internet.

The following are specific suggestions:

- Internet: link to Oregon newspaper web sites, create oregonparks.com, Yahoo.com.
- TV: Univision, Channel 6, Channel 21, Fox News 39, OPB (noted multiple times).
- Radio: 1520, 940, 107.5, 1150.
- Yellow Pages under "what to do in Oregon."
- Local social service providers (including those involving children); clinics, schools (including school newsletters).
- Stores where Latinos go, sporting goods stores.
- Direct mail, including city/county mailings.
- "El programa hispano" (503-669-8350), Spanish church mass.
- Magazine: "El Latino de Hoy."

Youth Recreation Programs

Respondents were asked several questions about programs designed to help children engage in outdoor recreation outside of school class time (see survey in Appendix A of the full report for full wording of items). Respondents without children skipped these questions, and there was also substantial item non-response[63].

As shown in Table 36, 59% of respondents reported that their child has participated in outdoor sports programs, with 38% also participating in day camps and multi-day camps. Turning to likelihood of participating in the future, outdoor sports programs was again the most popular. This was followed by programs designed to help youth use their free time more productively, natural history programs, and day camps.

[63] On average, there were 207 responses to the "has participated?" questions and 190 responses to the "likely to participate?" questions.

Table 36: Past and potential participation in outdoor recreation programs

Type of program	Has participated, percent	Likely to participate in future? Percent		
		Not likely	Some-what likely	Very likely
Outdoor sports programs	59	9	38	54
Outdoor adventure trips	26	25	54	21
Outdoor activity skills courses / clinics / workshops	21	30	45	25
Natural history or environmental education programs	33	17	45	38
Day camps, including multi-day camps but not overnight	38	19	43	38
Multi-day camps involving overnight away from home	38	31	37	32
One-on-one mentoring programs	26	31	37	32
Programs to help youth use their free time productively	33	12	40	48

As shown in Table 37, weekends were the most common "good times" for children to participate in such programs (multiple responses allowed). Summer weekends and summer weekdays were the next best periods.

Table 37: Preferred program participation times, percent

Weekdays, after school	35
Weekends	72
Summer, weekdays	47
Summer, weekends	55
Summer, full week or longer	24
School holidays (weekdays off during school year)	36

Respondents were then asked about constraints to participating in such programs, with 1=not important, 2=somewhat important, and 3=very important. Percentages of 2 and 3 responses are shown in Figure 47. The primary reported constraints were lack of information and cost.

Figure 47: Importance of constraint to program participation, percent 2 or 3 rating on 3-point scale (3=very important)

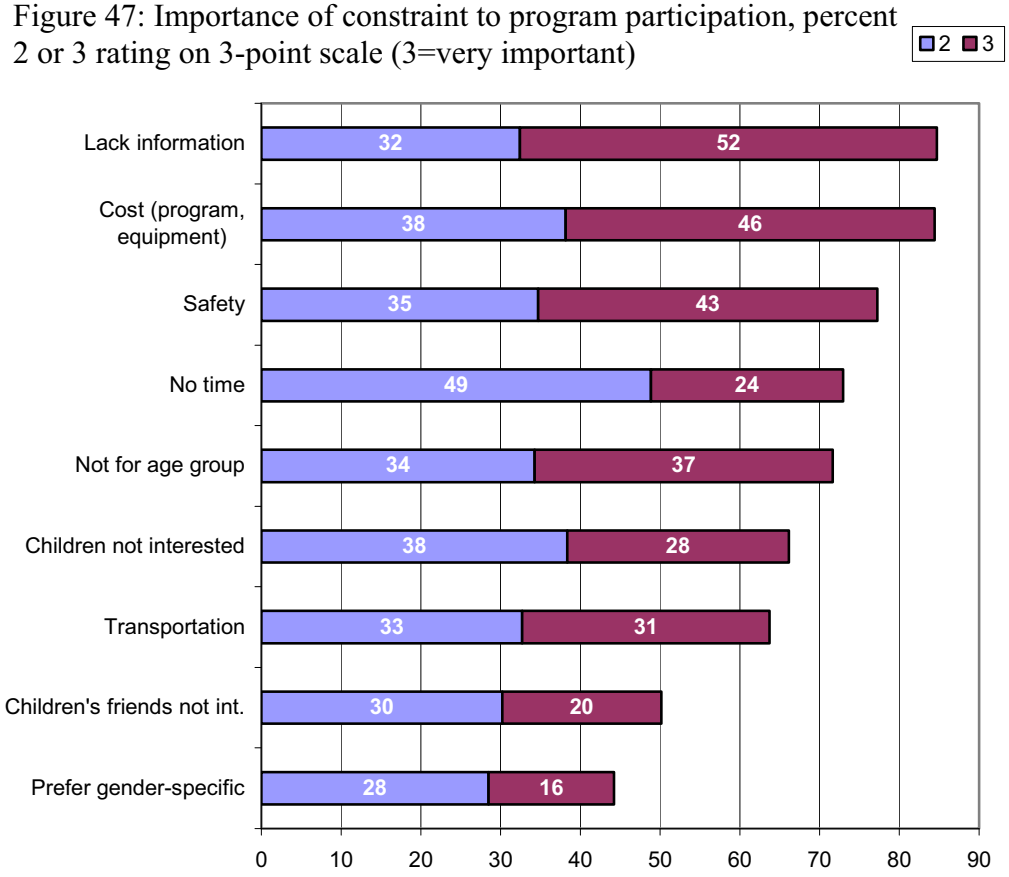


Table 38 shows constraints by group. Top constraints for Hispanics included lack of information, and cost. For Asians, top constraints included lack of information, safety concerns and age/gender-appropriate programs. Overall, Hispanics report that constraints were more important, relative to Asians.

Table 38: Importance of constraints by group, mean, 3=very important

Constraint	Hispanic	Asian
We cannot afford the cost of the program and equipment needed	2.4	1.9
Transportation is a problem – my children can not get to where the programs are offered	2.0	1.7
We have not heard about these types of programs or do not have enough information about them	2.5	2.1
My children are not interested in these types of programs	1.9	1.9
My children's friends are not interested in these types of programs	1.7	1.7
We do not have enough time for these programs	1.9	1.9
We have safety concerns about these programs	2.2	2.1
These programs are not for my children's age group	2.2	2.1
We prefer girls-only or boys-only programs, but they are not available	1.6	1.4
Average across all constraints	**2.1**	**1.9**

Respondents rated the importance of several potential priorities when considering programs for children to participate in outside class time. As shown in Figure 48, most of the priorities were rated as somewhat or very important. Staying safe and out of trouble received the most "very important" ratings, while providing parents' time without their kids was the least important.

Figure 48: Importance of program priorities,
percent 2 or 3 rating on 3-point scale (3=very important)

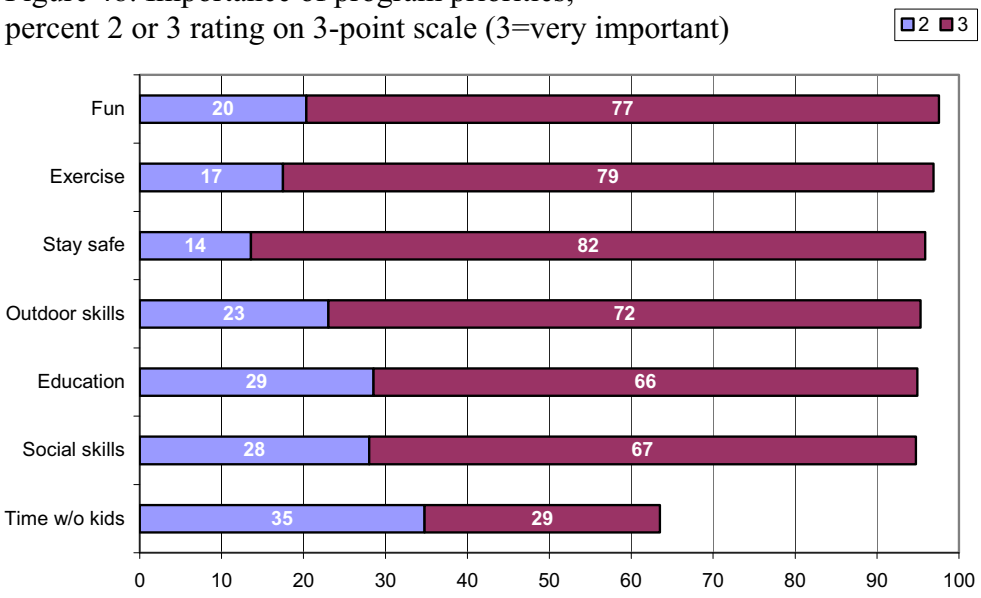


Table 39 shows differences across groups. Hispanic parents placed highest priority on staying safe and out of trouble and getting physical exercise. Asian parents placed the highest priority on getting physical exercise and having fun.

Table 39: Importance of priorities by group, mean, 3=very important

Priority	Hispanic	Asian
Education / reinforce class lessons	2.6	2.6
Physical activity / exercise	2.9	2.7
Having fun	2.8	2.7
Learning outdoor skills	2.8	2.5
Improving social skills	2.7	2.4
Providing parents time without their kids	2.0	1.7
Staying safe and out of trouble	2.9	2.5
Average across all priorities	**2.7**	**2.4**

Summary of Key Findings: Youth Recreation Programs

1. With respect to youth outdoor programs, the majority (59%) of respondents with children indicated that their children have participated in outdoor sports programs. Close to forty percent also indicated participation in day camps or multi-day camps.
2. Outdoor sports programs were the activity that children were most likely to participate in the future, followed by programs to help youth use their free time productively.
3. Weekends were the most popular times for participation in youth outdoor programs, followed by summer weekends and weekdays.
4. Lack of information and cost were reported as the main constraints to participation in such programs.
5. Top constraints for Hispanics included lack of information, and cost. For Asians, top constraints included lack of information, safety concerns and age/gender-appropriate programs.
6. When considering programs for children to outside of class time, Hispanic parents placed highest priority on staying safe and out of trouble and getting physical exercise. Asian parents placed the highest priority on getting physical exercise and having fun.

Ethnicity Focus Group Report

The purpose of the study was to understand ethnic minorities' interests and needs related to outdoor recreation, and how agencies such as Oregon Parks and Recreation Department, the U.S. Forest Service, and local recreation providers can better respond to these non-traditional users. Current and previous recreation experiences, benefits sought, constraints, media, and specific information about parks were the major focus of this exploration.

A series of four focus group meetings occurred during the summer of 2006, two taking place in the city of Portland (one African and one Asian-American), and one each in Hermiston (Hispanic) and Woodburn (Hispanic). Specifically, this research effort was designed to understand the perceptions of racial/ethnic minorities in Oregon. The focus group interviews were designed to ascertain residents' perceptions about what recreation activities, services, facilities and experiences are appropriate at various lands on public lands Oregon. The full report is included on the OPRD SCORP planning web site at:

http://egov.oregon.gov/OPRD/PLANS/docs/scorp/OregonSCORPMinorityFocusGroupReport.pdf.

Current and Previous Recreation Experiences

Participants were asked to describe their outdoor recreation experiences and interests, including the types of activities they currently or previously have participated in. Probing questions were asked to understand the setting in which these activities took place and with whom they participated during the activity.

Asian-Americans
Comments themes included:

- Improved amenities: overnight facilities and places to eat
- Access to facilities
- Recreation areas with water features
- Dislike camping in tents
- Enjoy visiting areas with entire family including elders and children
- Safety and protection

Amenities were mentioned several times throughout the focus group interviews. Especially during the Asian-American discussion, participants explained that they sought areas with amenities. This included places to eat (restaurants) and indoor overnight facilities. Along with amenities there were concerns over actually accessing these facilities. Repeated concerns were mentioned about online reservation systems and not being able to locate overnight facilities on both the state and federal level.

Participants indicated that they enjoyed visiting areas with water features. This included places like the Columbia River Gorge, Crater Lake, and the Willamette River in Portland.

A theme that emerged throughout the focus group meeting was recreating with family, especially with children. Participants explained that they prefer to recreate with their children. They want to experience outdoor recreation with their children and not send them to participate in a program by themselves, like the boy scouts. Additionally, participants explained that they usually recreate with their extended family including elders. This has implications for the types of areas they visit and also dictates the types of activities they participate in.

Issues surrounding safety and protection were identified as important to the Asian-American group. Participants preferred to recreate in areas that "feel" safe. This was achieved by going on shorter hikes and being close to areas with people. Reflections of childhoods from participants explained that they were not allowed to recreate or leave the apartment due to safety concerns, which may be why more Asians do not recreate outdoors.

Hispanic/Latino-Americans
Comments themes included:

- Facilities large enough for extended families
- Prefer local areas over traveling distances
- Information needs
- Places for youth

Participants discussed frustration with visiting areas that do not have enough room for large, extended families. Often Hispanic/Latinos enjoy celebrating a children's birthday, or having a family party in an outdoor setting. However, the setting or facility does not accommodate the group size. Additionally, many local areas are often busy or full and require a reservation system that Hispanics/Latinos are unaware of. Areas with gazebos or pavilions are also preferred settings.

According to the participants, Hispanic/Latinos are dependent upon their jobs, which often require long hours and are also concerned with the price of gasoline. This prevents them from traveling long distances to recreation areas. They would like to see more local recreation facilities including campgrounds.

The Hispanic/Latino community looks for new places to visit; however they have had problems accessing information from the local chamber of commerce. Participants agreed that their community would enjoy going to outdoor areas, but they are often constrained by not knowing where to go.

Participants explained that children are an important component of the Hispanic/Latino community. They prefer settings that accommodate children. Additionally, they were not as interested in educational programs, but rather desired places for the child to play and be free.

African-Americans
Comments themes included:
- Dislike remote locations
- Aesthetics
- Often stereo-typed

Participants in the African-American focus group preferred to recreate in locations that were not off the beaten path. They preferred controlled areas that were close to urban areas and places that were well maintained with clean amenities. They find comfort in knowing that, in case of an emergency they can leave an area and get help.

Aesthetically pleasing areas were important features for African-Americans as well. Places with a view, water or green spaces were identified as ideal. Participants like being able to look back at the hike and see the "reward" of climbing a mountain.

African-Americans discussed how stereotypes often prevent people from recreating in outdoor settings. They explained that their own group stereotypes themselves along with other media sources. They confirmed that, yes, African-Americans are interested in outdoor recreation.

Benefits Sought

Participants were asked to identify what types of benefits they hope to get from recreating in an outdoor activity.

Asian-Americans
Comment themes included:
- To be in nature and see wildlife
- To get away from it all
- Education

For the Asian-American group, three general benefits were sought. One of these involved experiencing nature and viewing animals. A participant explained that Asians place a high value on animals and they visit areas in hopes to see wildlife. Scenery and fresh air were also important benefits.

Along with nature, Asian-Americans identified "getting away from it all" as a major benefit. They enjoyed outdoor recreation because they were able to get away from home and spend time with family.
Educational opportunities were also identified as a benefit to participating in outdoor recreation. Participants indicated that they looked for areas where they could learn something. The Bonneville Dam was mentioned as an example of the type of educational experience that they looked for.

Hispanic/Latino-Americans
Comment themes included:
- Spend time with family
- To get away from it all
- Education

Participants identified that they often recreate to spend time with family and friends. They enjoy going to places where they can have big parties and socialize with each other. Areas that have pavilions and barbeque areas are ideal settings.

They are also interested in going to areas to get away from the stress of everyday life. They like to go to places that are free of pollution and free of cost. Focus group participants said that many Hispanic/Latinos cannot afford to go to expensive places. Additionally, they want to go to areas that will build memories for their families.

Educational programs that help promote self-esteem for youth in the community would be welcomed. Parents want to be able to take their children to a place where they can learn and explore.

African-American
Comment themes included:

- Solitude
- Spending time with family and friends

Participants identified that solitude and spiritual healing were reasons for participating and benefits that they hope to gain through outdoor recreation. The benefit of self-renewal was also important.

Being with family and friends was an important benefit that African-Americans sought. They enjoyed connecting with family and meeting new people. Children are an important component of family; however they often preferred to go to places where children were well behaved.

Constraints

Participants were asked about their perceived constraints, or factors that prevent or decrease their participation in outdoor recreation.

Asian-Americans
Comment themes included:

- Lack of information
- Safety concerns
- Culture

A constraint that was noted for the Asian-American group was lack of information. This included information about where to recreate, safety and the reservation system for state parks. Asian-Americans often will only go to places that they have visited before and know are safe, familiar and convenient. They were also concerned that, when they do want to visit an area or stay overnight, the reservation system for Oregon State Parks was not adequate.

In general, there is a lack of understanding about the benefits of outdoor recreation among the Asian-Americans. Culture plays a role in the type of activities that Asian-Americans have traditionally participated in. Generally, indoor activities are preferred. Additionally, participants explain that darker skin is associated with peasants and the working class, which prevents many Asian-Americans from recreating outdoors.

Additional cultural constraints were concerned with children and education. Although the Asian-American group would enjoy more programs devoted to outdoor recreation and survival skills, they are still reluctant to send their children to classes alone. They explain that they enjoy recreating with their children and do not like to send just the child to a class focused on outdoor recreation. Participants explained that while parents want to participate with their child, they also want programs that are focused on academic enhancement. Instead of an outdoor recreation program, a program that takes children into the woods to learn about archeology is more appealing to the parents.

Hispanic/Latino-Americans
Comment themes included:

- Distance to recreation areas
- Lack of information
- Fear of new places
- Signage
- Different activity styles
- Transportation

Distance is a factor that prevents Hispanic/Latino participants from visiting outdoor recreation areas. Many cannot afford to travel long distances due to gasoline prices. Participants explained that people within their community also do not like to go to remote locations and prefer more front country settings.

According to the participants, lack of information is a major reason for not recreating at outdoor recreation areas. Either they do not know where to go or they cannot find information about recreation sites. Participants see the benefit of recreating outdoors; however they do not know where to go or who to contact about opportunities.

Along with not being aware of recreation opportunities, there is a fear amongst immigrants of new areas. Often Hispanic/Latino immigrants do not go to areas that other people in their community have not visited. There is also uncertainty when actually arriving at the site of where to go and what the rules are.

Although many communities on the local level have moved toward universal or Spanish/English signs, there are still many areas that have not altered their signage. Many Hispanic/Latinos may not be able to read a sign in English that informs them of the recreation fee or that an area may be restricted, which could result in a dangerous situation.

Many of the participants explained that Hispanic/Latinos do not recreate in the same fashion as traditional users. They often recreate in large groups and expect to have more amenities, like a place for barbeques and food.

Transportation is a major constraint to recreation for the Hispanic/Latino community. Often many people are already paying a high price to live in the United States and driving to a recreation area takes more money than they can afford.

African-Americans
Comment themes included:

- Facilities
- Cleanliness

Participants felt that many recreation areas are not large enough for their outdoor recreation interests. They would like to see more areas with picnic tables and places to barbeque. Also, outdoor recreation areas should include facilities with basketball hoops and bathrooms.

Other constraints included cleanliness of facilities. Participants would be more inclined to recreate if there were more trash receptacles and cleaner restrooms. According to the participants, dirty areas are considered a turnoff.

Media and Recreation Opportunities

Participants were asked about how they learned of outdoor recreation opportunities. This included what types of media sources they currently used and what types of media sources could be used to reach more people in their group.

Asian-Americans
Comment themes included:

- Information in multiple languages
- Asian organizations

- Using key informants to build trust
- Publicizing benefits

According to the participants, having literature and information in multiple Asian languages would help encourage use at outdoor recreation areas. Mandarin Chinese is a language that is understood by many Chinese along with Vietnamese. There was also a suggestion to recruit a more diverse staff in outdoor recreation settings.

Participants all agreed that utilizing existing Asian-American organizations as a media to inform the community about recreation opportunities would be helpful. This includes using social service agencies, Asian restaurant associations, churches and schools. One suggestion was to hang fliers and posters in Asian restaurants and stores.

The issue of trust within the community is important to acknowledge. Participants suggested that outdoor recreation agencies need to create trust with key informants within the community to pass along the benefits of outdoor recreation. This may be achieved by going to Asian community fairs and using social service agencies.

Participants also suggested publicizing the benefits of recreation to the community. Some benefits that may be appealing to the Asian-American community include health, culture and education.

Hispanic/Latino-Americans
Comment themes included:

- Lack of information
- Information in multiple languages
- Information sent home with children
- Using Hispanic/Latino media sources
- Calendar of events
- Hispanic/Latino organizations

The theme of not knowing or receiving information about recreation opportunities was evident throughout the Hispanic/Latino focus group meetings. Participants were concerned with how local, state and federal agencies inform their community about outdoor recreation. Participants often felt that they were "left out" of receiving information and felt frustrated with not knowing where to look to find outdoor opportunities.

Participants agreed that disseminating information in Spanish would be a good way to reach their community. In many Hispanic/Latino families, it is the children who speak or read English and have to translate for the adult. If the child does not find the information interesting, then they will not inform the parent. Using both English and Spanish in information campaigns and literature is ideal.

Participants identified youth as a resource to communicate to adults. Sending information to households through the school system is a potential method of communication. As one participant put it, "children are a way into the household." Information that is brought home from school is considered important and is more likely to be read by parents or translated to them by the children.

Participants identified that many Hispanic/Latinos watch television, especially Univision (Hispanic channel). Advertising and informing the public through this media would be a useful way to inform the Hispanic/Latino community. Participants suggested making commercials with Hispanic/Latinos as advertisements for outdoor areas. There are also all Spanish newspapers that would be useful sources for informing the community, including the paper La Conexion.

Participants agreed that they would like to see some form of a calendar put together by local, state and federal agencies listing the different recreation events that are occurring in the area. Along with a calendar, a list of resources with

corresponding phone numbers would be a helpful way to find out about potential recreation opportunities.

Utilizing Hispanic/Latino organizations to disseminate information is another potential way to inform the community about recreation opportunities. These organizations can include farm workers associations, local health clinics, community centers and small businesses.

African-Americans
Comment themes included:

- African-American organizations
- More information

African-American participants were hopeful that more people would visit outdoor recreation areas if local, state and federal agencies utilized local businesses to inform the public about recreation opportunities. These organizations could include barber/hair shops, restaurants and public health offices. They also identified the need to have more readily accessible information. The use of local radio stations and African-American newspapers like the Scanner and Observer (Portland) could help inform this segment of the public of outdoor recreation opportunities.

Specific Information about Parks

Participants were asked if they had noticed any changes in the service or facilities of their parks and forests within their Oregon community. These changes could be either negative or positive. This section also covers any additional areas that may not have been covered in previous sections.

Asian-Americans
Common themes included:

- Increased signage
- Facility improvements
- Web site improvements

Participants have noticed an increase in signage and interpretive displays in the recreation areas they visit. However, some site specific improvements are still needed, including repairing poor railings and stairs. They would like to see recreation areas where they can bring the elders in their family.

Accessing information on the internet is useful. Participants have visited both the Oregon State Parks and U.S. Forest Service web sites. The state parks web site was considered more user-friendly and resulted in visitations to Oregon State Parks. The participants were less impressed with the U.S. Forest Service web site, claiming it was hard to navigate and they could never find the information they were looking for.

Hispanic/Latino-Americans
Comment themes included:

- Facility improvements
- National Forests
- Parent/youth involvement

Participants have recognized improvements in facilities on the local level. They have seen improvements in safety and feel that local parks are much safer than before. They also believe that their tax money is well spent with regards to local parks.
Participants discussed National Forests and what they have to offer. A participant asked the question, "Why go to a national forest? What is there for me and my family? There is just open space." These are questions that go back to lack of information about opportunities and the need to reach out to the Hispanic/Latino community.

Participants discussed the importance of using youth to target adults. Many Hispanic/Latino children assimilate at a quicker rate than their parents. The school system provides opportunities for youth to experience the outdoors. Participants agree that it is harder to get the parent to be part of field trips or

programs outside of school. Often Hispanic/Latino parents are most concerned with working and providing for the family.

African-Americans
Comment themes included:

- Making health links
- Free is key

Participants agreed that, with current issues of obesity and health in America, people are more willing to participate in recreation. If outdoor recreation agencies could make the link between outdoor recreation and health, more people would be willing to go to outdoor facilities.

The African-American community would like to see more free recreation opportunities. The group was informed that Oregon State Parks offers a free recreation day at their sites; however the participants were unaware this existed.

Conclusions

The social context is a very important aspect of recreation among minorities. The family group is especially important. A lot of free time is devoted to family activities, and often involves the extended family spending time together. For example, if the older generation is not interested in going to parks, no one goes to the parks. The younger generation is more likely to participate in outdoor recreation with groups of friends. When families go to parks, they prefer nearby areas with modern facilities and plenty of space for their extended groups.

Safety is a major concern affecting outdoor recreation participation and includes two elements: personal safety and safety for children. Many minority individuals consider parks dangerous, with the degree of danger varying for different types of parks and outdoor areas. While members of all cultures are concerned for the safety of their children, Asian parents are especially protective of their children. They often will not allow their children to go to parks, especially if they are places for risky activities, such as skate parks, or far away outdoor areas.

Ethnic minorities have little awareness of the recreation opportunities available to them on public lands. Few understand the differences between the many federal, state, and local areas and managing agencies. Better information is needed to facilitate greater participation by these groups. Efforts such as multi-lingual materials and reaching out through community groups are necessary to deliver the needed information to the minority populations.

Ethnic minorities are interested in outdoor recreation, but their extent and type of participation are related to the degree of acculturation. For example younger Asian-Americans born here have interacted with Caucasians all of their lives and have been introduced to parks and outdoor recreation, often through the schools. Older generations generally are less interested in outdoor recreation; they have no interest in camping and do not like camping food. They would rather do other things with the family

(including community gardening or other outdoor or indoor activities). In general, interests in outdoor recreation activities and areas become more similar to the majority population as ethnic minorities become more assimilated within America.

Ethnic minorities are not all alike. There is variation within the three groups studied as well as between them. Like the majority population, minorities in Oregon are split into two groups, rich and poor. These groups have very different interests in outdoor recreation. A common denominator for both groups, however, is support for the children's education. Often, even the poorest will put all

that they have to help their kids advance in life through a better education. Minority kids do not usually join groups like boy or girl scouts – their parents do not support it. They might support it more if it were considered more educational.

Summer is the best time to get the minority youth outdoors, as they have 11 weeks with no school. But most minority parents do not want to send their kids away. They would rather participate with their children, but are unable due to work obligations. They might send kids to close to home programs while they are working, especially if the programs are educational.

Key Planning Recommendations for an Increasingly Diverse Oregon Population

Following completion of the research studies, the Oregon Diversity Advisory Committee met to develop a final set of planning recommendations for assisting recreation providers across the state to help an increasingly diverse Oregon population have satisfying outdoor recreational experiences. During the March 16, 2007 Advisory Committee meeting, committee members identified the following set of key recommendations based on a thorough review of existing literature related to the issue, SCORP research findings, and members' practical experience and knowledge regarding the issue. Copies of meeting notes and planning recommendations were sent to each Advisory Committee member for review following the Advisory Committee meeting. Key recommendations are divided into two categories; statewide recommendations and local recommendations. Statewide recommendations are relevant for all recreation providers across the state of Oregon. Because the distribution of under-represented populations is not uniform across the state, local recommendations apply to those high-priority counties and communities in the state which are projected to experience higher increases in Hispanic, Asian, or African-American populations in the coming years.

Statewide Recommendation #1: Encourage organizational culture change within public recreation agencies/ organizations to effectively address the diversity issue.

As mentioned in the issue introduction, the face of Oregon is changing. By the year 2020, 1 in 5 Oregonians will be a Hispanic, Asian, or African-American. This trend is increasingly significant from an outdoor recreation perspective as SCORP research has shown that these groups presently participate in outdoor recreation activities at lower rates than non-minorities in Oregon. This will mean that the tax base for Oregon's natural resource and recreation agencies/organizations may increasingly fall on groups who have not traditionally participated in outdoor recreation activities.

The focus group findings indicate that strategies such as recruiting a more diverse staff, targeting information at ethnic groups in appropriate media and languages, developing a multi-lingual recreation web site, and creating trust with key informants within these communities were critical in order to better serve the outdoor recreation needs of Oregon's under-represented populations. Several committee members felt that they would have great difficulty carrying out such strategies within the providers' current cultural structure. Committee members felt that to properly address such strategies and for any long-term diversity efforts to succeed, the impetus for necessary cultural change within natural resource and recreation agencies/ organizations must come from the very top of the organizational structure.

According to a recent report on diversifying the conservation movement[64], "in order for diversity efforts to be sustainable, organizational leaders need to view diversity as a top priority." The authors state that diversity needs to be worked on "in many areas and interwoven throughout organizational operations, such as programs, projects, initiatives, mission and policy statements, recruitment, staff retention, partnerships and collaborations, outreach, and work experiences for young people." In addition, "most organizations fall short in devoting adequate staff, time, money and resources to improving the diversity of their respective organizations."

Advisory Committee members recommended that a set of recommendations be developed to encourage organizational cultural change within public recreation agencies/ organizations to effectively address the diversity issue within the state of Oregon.

Statewide Recommendation #2: Create a pilot project to identify how to increase under-represented population access to outdoor sports fields.

The statewide survey of Hispanic and Asian households identified that with respect to youth outdoor programs, the majority (59%) of respondents with children indicated that their children have participated in outdoor sports programs. Outdoor sports programs were also the activity that most of these children were most likely to participate in the future. Lack of information and cost were reported as the main constraints to participate in such activities. When considering programs for children to participate in outside class time, Hispanic parents place highest priority on staying safe and out of trouble and getting physical activity. Asian parents place highest priority on getting physical activity and having fun.

According to Advisory Committee members, soccer is a gateway outdoor activity for Oregon's Hispanic youth population. However, many low-income under-represented families lack the necessary financial resources to pay fees associated with participation in traditional youth soccer programs. As a result, many of Oregon's children are missing out on the opportunity to connect with local park and recreation programs and getting more physically active. Research has identified that being overweight as a child significantly increases the risk for coronary heart disease in adulthood as early as age 25. This health threat is of particular concern with the Hispanic and African-American populations with relatively higher levels of overweight and obesity. In addition, damage to public soccer fields often occurs when Hispanic youth have no option but to join in on pick-up soccer games using fields not scheduled or maintained for such use.

Non-profit organizations such as Oregon State University's 4-H Youth Development Program have attempted to fill the youth soccer service void, by providing low-cost opportunities for Hispanic youth to participate in youth soccer leagues in the Willamette Valley. However, such non-profit groups often experience difficulties in making arrangements with park and recreation providers to access pubic soccer fields because of high liability insurance costs. Advisory Committee members felt that there were ways to address the liability issue through partnership agreements between non-profit organizations and park and recreation departments where the department becomes the

[64] M. Bonta and C. Jordan. 2007. Diversifying the conservation movement. Special Report: The future of land conservation in America. Land Trust Alliance. Online at: http://www.lta.org/publications/exchange/special_issue/diversifying_conservation.pdf

sponsor for the soccer program. They felt that many park and recreation departments were simply not aware of how to structure such legal arrangements to cover liability insurance requirements.

Advisory Committee members recommended that a pilot project be developed and tested to remove barriers for under-represented population sports clubs to access public outdoor sports fields managed by local park and recreation departments in Oregon. The pilot project should include model partnership language for local park and recreation providers to use to reduce the high liability insurance costs associated with sports clubs using their sports fields; and a method for providing limited funding for under-represented population outdoor sports teams in Oregon.

Statewide Recommendation #3: Develop recommendations for addressing language barriers to encourage under-represented population use of outdoor recreation facilities and programs.

Oregon SCORP research clearly reinforces the understanding that information about outdoor recreation and park opportunities is less accessible to minorities than to whites in terms of context and distribution channels. A key focus group report finding was that although many communities on the local level have moved toward universal or Spanish/English signs, there are still many areas that have not altered their signage. Census data show that in Oregon, about 293,000 people speak Spanish at home and 152,900 report to speaking English less than very well. As a result, many Hispanic/Latinos may not be able to read a sign in English that informs them of the recreation fee or that an area may be restricted, which could result in a dangerous situation.

According to Advisory Committee members, the language barrier issue is very similar to the accessibility issue and universal design. In park settings, rather than having directional and regulatory signage posted in a number of languages, we may instead consider using international symbols that all people will understand. A recent test at Metro's Blue Lake Regional Park (with a highly diverse clientele), examined the differences between translating informational signs into four different languages and using universal symbol signs. The test concluded that universal symbol signs were much more effective in relaying information and were much more aesthetically pleasing. They are now working on the self-pay fee booth during the off-season when the booth is not staffed.

Another promising method is providing visitors with an opportunity to push a button on a sign allowing them to hear a message translated in their language (e.g., on interpretive signs). Informational flyers and brochures can be translated into a variety of languages for general distribution.

Discussions about translation of information can be very controversial among members of the general public during site-specific master planning efforts. From a planning perspective, it is very inefficient to deal with this issue on a park-by-park basis.

Advisory Committee members recommended that a set of specific recommendations for addressing language barriers be developed to encourage under-represented population use of outdoor recreation facilities and programs. Recommendations should include a model agency policy for addressing language barriers and innovative methods for removing language

barriers within park and recreation agencies/organizations products and services.

Statewide Recommendation #4: Create a customer service training module related to serving the outdoor recreation needs of an increasingly diverse population.

According to focus group findings, along with not being aware of recreation opportunities, there is a fear amongst immigrants of new areas. Focus group participants told researchers that Hispanic immigrants do not go to areas that other people in their community have not visited. According to Gobster[65], "interethnic user conflict is a part of a large problem for minorities who use parks, namely discrimination." Gobster argues that "in its mildest form, discrimination can make users feel uncomfortable and lower their enjoyment of their recreation experience." However, "at higher levels it can generate anger and physical violence, and result in user displacement or nonuse by some groups altogether."

It would be unrealistic to expect that policies alone would stop all interethnic visitor user conflict. However, managers can help to reduce real or perceived fear that under-represented populations experience when visiting Oregon's public parks by insuring that park staff interactions with all visitors are consistently fair and equitable. Advisory Committee members feel that it is essential that park managers and supervisors should educate themselves and their staffs of the possibilities that their language and actions can discriminate against certain groups. To be effective, customer service training for under-represented populations should not be a one-time basis, but rather at intervals.

Committee members suggested the development of a customer service training module related to better serving the outdoor recreation needs of Oregon's under-represented populations. Training could focus on a variety of items such as cultural understanding, prejudices and stereo-types, and skills development to deal effectively with a diverse clientele in the kinds of programs and services offered.

Local Recommendation #1: Greater priority for developing group-day use facilities, recreational trails, outdoor sports fields, close-to-home camping and alternative camping opportunities in OPRD-administered grant programs.

SCORP Hispanic and Asian survey respondents were asked to identify what types of facilities they would like to see developed in parks. Additional picnic areas are most desired, followed by recreational trails, campgrounds and sports fields. Oregon's Hispanic and Asian-American populations also reported more group outdoor recreation participation than solitary participation ─ more often recreating with groups of family and friends. Asian group size is typically 3-5 people, while Hispanic group sizes often range from 3-20 people. Hispanic focus group participants also reinforced the need for recreation facilities large enough for extended families. African-American focus group participants also felt that many recreation areas are not large enough and would like to see more areas with picnic tables, places to barbeque, and with basketball hoops and restrooms.

---

[65] Gobster, P.L. (2002). Managing Urban Parks for a Racially and Ethnically Diverse Clientele. Leisure Sciences, 24, 143-149.

The Advisory Committee identified a need for greater priority for developing group-day use facilities, recreational trails, outdoor sports fields, close-to-home camping and alternative camping opportunities in OPRD-administered grant programs to encourage outdoor participation by under-represented populations in Oregon.

Because the level and distribution of diversity within the population will not be uniform across the state, grant funding to develop these types of facilities should be directed towards high-priority counties and cities in the state which are projected to experience higher levels of increases in their population of Hispanics, Asian and African-Americans in the coming years. These high-priority counties and cities include:

- Hispanic. Counties identified as "high priority" based on an increase in population diversity for Hispanic ethnicity include: Clackamas, Deschutes, Lincoln, Marion, Morrow, Multnomah, Sherman, Tillamook, Washington and Wheeler. High-priority cities include Albany, Beaverton, Bend, Boardman, Canby, Cornelius, Corvallis, Eugene, Fairview, Forest Grove, Gervais, Gresham, Hermiston, Hillsboro, Hood River, Hubbard, Irrigon, Keizer, Lafayette, Madras, McMinnville, Medford, Milton-Freewater, Newberg, Ontario, Portland, Salem, Springfield, Stanfield, Tigard, Tualatin, Umatilla, Wilsonville, Wood Village and Woodburn.
- Asian/Pacific Islander. Counties identified as "high-priority" based on an increase in population diversity for Asian/Pacific Islander race include: Clackamas, Deschutes, Jackson, and Washington. High-priority cities include: Beaverton, Bend, Corvallis, Eugene, Fairview, Forest Grove, Gresham, Happy Valley, Hillsboro, Keizer, Lake Oswego, Medford, Portland, Salem, Sherwood, Springfield, Tigard, Troutdale, Tualatin, West Linn, and Wilsonville.
- African-American. Counties identified as "high-priority" based on an increase in population diversity for African American (Black) include: Deschutes, Washington and Multnomah. High-priority cities include: Albany, Ashland, Beaverton, Cornelius, Eugene, Fairview, Gladstone, Gresham, Hermiston, Hillsboro, Keizer, McMinnville, Medford, Milwaukie, Monmouth, Oregon City, Portland, Salem, Springfield, Tigard, Troutdale, Tualatin, Umatilla and Wilsonville.

This investment will strategically focus resources towards appropriate facilities in specific areas of the state where needed.

Local Recommendation #2: Develop and implement a strategic regional marketing model designed to deliver outdoor recreation information to under-represented populations in Oregon.

As previously mentioned, Oregon SCORP research clearly reinforces the understanding that information about outdoor recreation and park opportunities is less accessible to under-represented populations in terms of content and distribution channels. A key SCORP focus group finding was that ethnic minorities in Oregon have little awareness of the recreation opportunities available to them on public lands. According to Hispanic focus group participants, lack of information is a major reason for not recreating at outdoor recreation areas. Participants felt they were "left out" of receiving information and felt frustrated with not knowing where to look for find outdoor opportunities. A similar theme ran through the focus group findings for Asian and African-American populations ─ they have little

awareness of the recreation opportunities available to them on Oregon's public lands.

Oregon SCORP research has identified a number of key findings related to the informational needs of under-represented populations.

- Provide practical information on activities, facilities, location and cost.
- Provide information in multiple languages.
- For information delivery, Asians clearly prefer the internet, followed by newspapers and TV. Hispanics prefer newspapers and TV, followed by the internet.
- Use existing Hispanic, Asian, and African-American organizations as media to inform the community about recreation opportunities.
- For Hispanics, disseminating information in both English and Spanish would be a good way to reach their community.
- Send outdoor recreation information home with Hispanic children through the school system. Information that is brought home from school is considered important and more likely read by parents or translated to them by children.
- Advertise and inform the Hispanic community though media such as Univision, Spanish-speaking radio, and Hispanic newspapers such as La Conexion.
- Advertise and inform the African-American community through the use of local radio stations and African-American newspapers like the Scanner and Observer (Portland).
- For the Hispanic population, being in the outdoors, relaxing and having fun are the most important motivators.
- For the Asian population, relaxing, fitness, and having fun are top motivators.

Advisory Committee members felt that each local area should examine its own specific set of demographic circumstances to identify how they can use these research findings to best inform their under-represented populations. To assist recreation providers in taking a more local approach for information delivery to under-represented populations, Advisory Committee members recommended that a strategic regional marketing model be designed to deliver outdoor recreation information to under-represented populations in Oregon. This model can be tested and adapted for use in other areas of the state.

Local Recommendation #3: Develop and implement a regional youth framework to encourage under-represented youth participation in outdoor recreation activities through partnerships and investments in school-based recreation clubs.

The original question we began with in this chapter was, how can Oregon's recreation providers prepare to help an increasingly diverse population have satisfying outdoor recreational experiences? In response to this key question, Advisory Committee members have recommended a number of critical strategies including:

- Creating organizational cultural change;
- Removing participation barriers;
- Providing appropriate outdoor recreation facilities;
- Improving customer service; and
- Improving delivery of outdoor recreation information.

These are all critical strategies that should be implemented in this plan's five-year planning horizon to better serve the needs of an increasing diverse Oregon population. However, there is one final long-term recommendation that is needed to insure a

sustainable effort to better serve the outdoor recreation needs of our under-represented populations.

When looking at the faces of people attending any statewide park and recreation or resource management meetings or conferences in Oregon, one thing is clearly evident ─ people of color are simply not adequately represented in the public parks and recreation workforce in the state of Oregon. According to an article in Parks and Recreation magazine[66], "the importance of diversity as an issue for professionals in the field of parks and recreation is undeniable—and this "issue" has been the subject of considerable discussion for over a decade." According to the authors, "while there is certainly an assortment of organizations in America that are multicultural in nature, many parks and recreation organizations and agencies are still primarily in the state of contemplating the "lack of people of color" and lack specific plans of action to alter this situation."

Many parks and natural resource organizations in the state that rely on typical recruitment practices for attracting under-served job candidates often fail to recruit qualified candidates. The traditional method of recruiting minorities into the field of is to attract them in their college years to study in a college recreation or resource management program. Committee members felt that this method has also had little success in Oregon, because by this time these youth have already decided on a career choice. Members stated that to bring a successful recreation or natural resource student into the field in Oregon, these youth must have already formed a strong connection to the outdoors to relate to and understand coursework. As a result, they felt that the effort to build a more diverse workforce in this field must start at a much earlier age ─ in grade school and junior high years.

To assist recreation providers in taking a more local and proactive approach in diversifying the workforce, Advisory Committee members recommended that a regional youth framework be developed to encourage under-represented youth participation in outdoor recreation activities through partnerships and investments in school-based outdoor recreation clubs. The framework could include scholarship and internship opportunities for under-represented populations to help these youth get a leg up into a career in the field of natural resource/outdoor recreation management.

This recommendation is complementary to statewide youth recommendation #1, which includes developing a statewide youth outdoor programming framework and funding source to focus on youth programming efforts. Development and implementation funding for school-based recreation clubs could be tied to the Oregon Youth Outdoors Consortium grant program.

---

[66] Roberts NS, and Outley C. Innovation and resourcefulness: recruit and retain a diverse staff in the 21st century – research update. Parks and Recreation, April 2002. Online at: http://findarticles.com/p/articles/mi_m1145/is_4_37/ai_85882881.

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Chapter Five
Oregon's Physical Activity Crisis

Prepared by the Oregon Parks and Recreation Department

Issue Introduction: Oregon's Physical Activity Crisis

The U.S. Centers for Disease Control and Prevention (CDC), among many others, are concerned about dramatic increases in rates of physical inactivity, overweight and obesity in the U.S. These health issues are of equal concern to citizens in Oregon. Overweight and obesity are associated with increases in several chronic diseases such as coronary heart disease, type-2 diabetes, and various cancers. Physical activity significantly mediates many chronic diseases, regardless of weight-class. Given the beneficial effects of physical activity in preventing several chronic diseases, reducing sedentary lifestyles is a focus of public health programs.

Overweight and obesity also impose substantial costs on the United States' health care system. According to the Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, the U.S. economic costs associated with being overweight or obese were more than $117 billion in the year 2000. In 2003, the state of Oregon spent an estimated $291 per person on medical costs related to obesity. Oregon's total estimated medical costs related to obesity in adults that year was $781 million, nearly 6 percent of the state's total health care bill[67].

Prescriptions for physical activity levels changed over a decade ago. The CDC and the American College of Sports Medicine in 1995 changed the recommended dose of physical activity. As reflected by the U.S. Surgeon General, recommended physical activity is an accumulation of at least 30 minutes of moderate physical activity or 20 minutes of vigorous physical activity most days of the week. Parks and other infrastructure (bikeways, sidewalks) provide opportunities to meet the recommended levels of physical activity through recreation.

Regular, moderate exercise has been proven to reduce the risk of developing coronary heart disease, stroke, colon cancer, hypertension, diabetes, osteoporosis, obesity, and depression. Physical activity need not be unduly strenuous for an individual to reap significant health benefits. Even small increases in light to moderate activity, equivalent to walking for about 30 minutes a day, will produce measurable benefits among those who are least active.

Public facilities such as trails, swimming pools and parks that are conveniently located have been found to be positively associated with vigorous physical activity in a number of studies, among both adults and children. By providing facilities and programs which encourage physical activity, park and recreation providers can directly contribute to the battle on physical inactivity, obesity, and rising health costs in Oregon.

Information about the public benefits of recreation is useful to managers and policymakers who are increasingly challenged both to describe the benefits resulting from recreation projects and to allocate their scarce resources to providing high-quality recreation opportunities in addition to other public services. This chapter will contribute to our understanding of the role of, and benefits from, outdoor recreation resources in general and trails in particular. It also will provide information describing the human health benefits of recreation resources, including scientifically-derived measures of these benefits for trails and other recreation resources in Oregon.

---

[67] Finkelstein, EA, Fiebelkorn, IC, Wang, G. State-level estimates of annual medical expenditures attributable to obesity. *Obesity Research* 2004;12(1):18–24.

Summary of Key Literature Review Findings: Issue Introduction

1. In 2003, the state of Oregon spent an estimated $291 per person on medical costs related to obesity. Oregon's total estimated medical costs related to obesity in adults that year was $781 million, nearly 6 percent of the state's total health care costs.
2. Regular, moderate exercise has been proven to reduce the risk of developing coronary heart disease, stroke, colon cancer, hypertension, diabetes, osteoporosis, obesity and depression. Even small increases in light to moderate activity, equivalent to walking about 30 minutes a day, will produce measurable benefits among those who are least active.
3. Public facilities such as trails, swimming pools and parks that are conveniently located have been found to be positively associated with vigorous physical activity in a number of studies, among both adults and children.

The Health Effects of Physical Activity

The primary sources of information on the epidemiology of physical activity, overweight and obesity cited in this report are published summaries of the literature. These quantitative and qualitative summary articles provide indicators on scientific consensus to date, such as the effects of inactivity and obesity on morbidity and mortality[68].

Overweight and obesity are associated with increased health risks for certain chronic diseases such as coronary heart disease, type-2 diabetes, various cancers (e.g., endometrial, breast, and colon cancers), among other diseases and disorders[69]. Figure 49 shows the percentages of healthy weight individuals (40% of adults) with chronic diseases are substantially lower than the percentages of overweight/obese individuals (60% of adults) with chronic diseases in Oregon.

Physical activity at recommended levels mitigates many health risks, regardless of weight class. As Blair and Brodney (1999) conclude:

1) Regular physical activity clearly attenuates many of the health risks associated with overweight and obesity;
2) Physical activity appears to not only attenuate the health risks of overweight and obesity, but active obese individuals have lower morbidity and mortality than normal weight individuals who are sedentary; and
3) Inactivity and low cardiorespiratory fitness are as important as overweight and obesity as mortality predictors.

Figure 50 shows physically active adults (56% of adults) have lower rates of many chronic diseases than sedentary adults (44% of adults) in Oregon. There is strong evidence of an inverse, linear relationship between physical activity and reductions in all-cause mortality, total cardiovascular and coronary heart disease incidence and mortality, type-2 diabetes mellitus, and colon cancer[70] [71]. The linear

[68] Blair, SN and S Brodney. 1999. Effects of physical inactivity and obesity on morbidity and mortality: Current evidence and research issues. *Medicine & Science in Sports & Exercise* 31(11):S464-S662

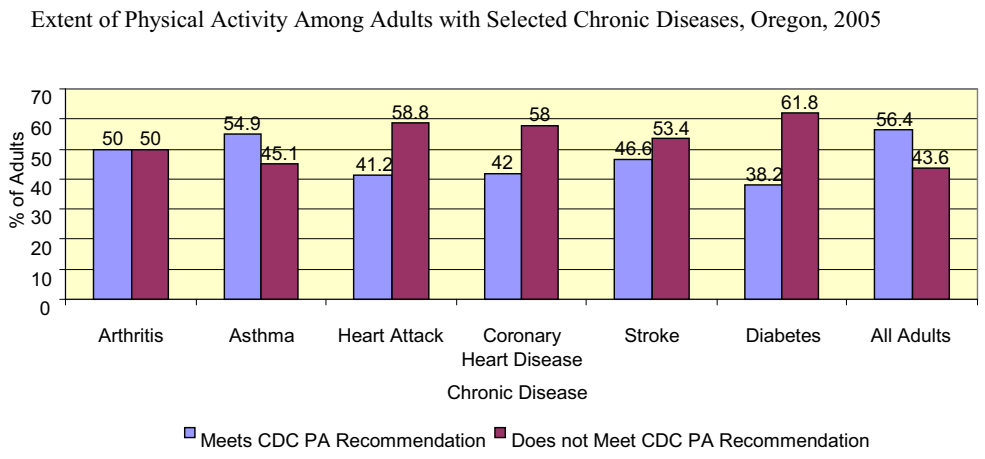
[69] Mokdad, AH, ES Ford, BA Bowman, WH Dietz, F Vinicor, VS Bales and JS Marks. 2003. Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. *Journal of the American Medical Association* 289:76-79.

[70] Rankinen, T and C Bouchard. 2002. Dose-response issues concerning the relations between regular physical activity and health. President's Council on Physical Fitness and Sports, *Research Digest* 3(18):1-8.

relationship suggests that as people move away from sedentarism, the health benefits of being physically active accumulate immediately, and continue to accrue as they become more physically active. For example, physical activity levels that expend 500 kcal/week (about 100 minutes/week) provide slight favorable effects, whereas expending 1000 kcal/week (about 200 minutes/week) in physical activity provides a 30% reduction in all-cause mortality rates (Rankinen and Bouchard, 2002). Landers (1997)[72] and Fontaine (2000)[73] discuss literature on mental/psychological benefits of physical activity and show that physical activity is associated with moderate reductions in depression (decreases symptoms similar to psychotherapy); small to moderate decrease in anxiety; small decrease in panic disorder; a large increase in energy & vigor; a small to moderate increase in self-esteem; and a small to moderate increase in positive affect (especially if physical activity occurs in a social setting). Evidence on the relationship between physical activity and eating is unclear.

Also unclear is the relationship between physical activity and weight loss (Rankinen and Bouchard, 2002). Evidence suggests that physical inactivity is a strong contributing factor for overweight and obesity. Its effectiveness in promoting weight loss, however, is less than encouraging[74]. As Wing (1999)[75] concluded, exercising does not significantly increase initial weight loss over and above that obtained with diet only. Thus, a confusing message appears: physical activity helps prevent weight gain, but is ineffective at promoting weight loss. Overweight and obese

Figure 49: Chronic diseases among healthy weight and overweight/obese Oregonians, Source: ODHS, 2007



[71] Haennel, RG and R Lemire. 2002. Physical activity to prevent cardiovascular disease: How much is enough? *Canadian Family Physician* 48:65-71.

[72] Landers, DM. 1997. The influence of exercise on mental health. President's Council on Physical Fitness and Sports, *Research Digest* 2(12):1-6.

[73] Fontaine, KR. 2000. Physical activity improves mental health. *The Physician and Sportsmedicine* 28(1):1-3.

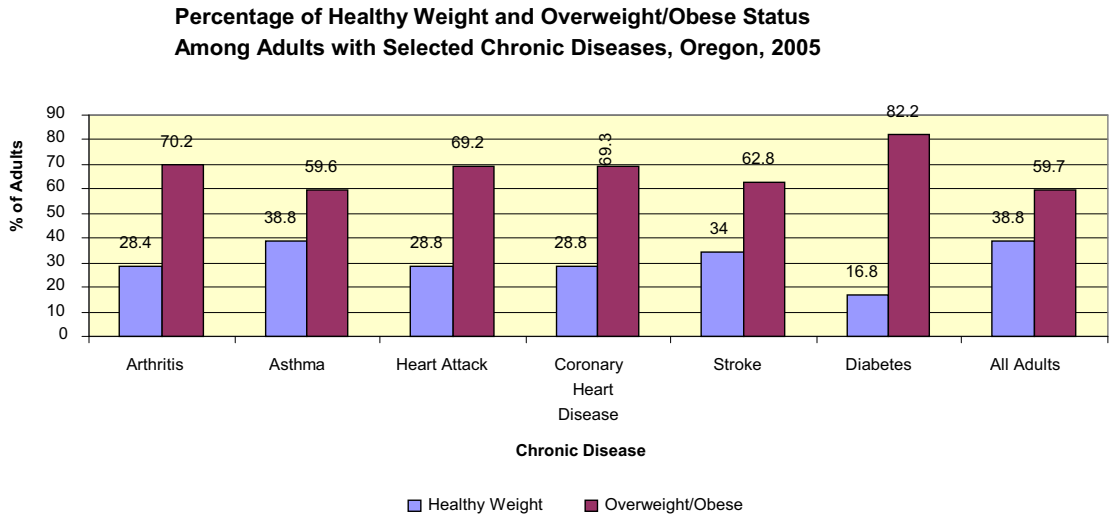
[74] Welk, GJ and SN Blair. 2000. Physical activity protects against the health risks of obesity. President's Council on Physical Fitness and Sports, *Research Digest* 3(12):1-8.

[75] Wing, RR. 1999. Physical activity in the treatment of the adulthood overweight and obesity: Current evidence and research issues. *Medicine and Science in Sports and Exercise* 31:S547-S552.

individuals that initiate a physical activity program may become discouraged if they do not realize weight loss. Their loss, however, may not be in terms of body weight, but in the health risks associated with inactivity—overweight and obese individuals can gain the same health benefits (low chronic disease risks) as normal weight individuals from physical activity.

Physical activity messages that focus on behavioral changes (increased physical activity and healthy diets) rather than outcomes (weight loss) may provide the appropriate motivation for sedentary individuals (normal weight, overweight, or obese) to become physically active. Increasing the proportion of physically active individuals in society (regardless of weight) would greatly reduce the public health care burden (Welk and Blair, 2000). Maiback (2007)[76], however, raises the issue whether the problem is inactive individuals, or whether it is inactive environments. The lack of places and social opportunities for physical activity may be equally to blame for the increasing rates of obesity and poor health in the U.S.

Figure 50: Extent of physical activity and chronic diseases in Oregon, Source: ODHS, 2007



[76] Maibach, E. 2007. The influence of the media environment on physical activity: Looking for the big picture. *American Journal of Health Promotion* 21(4S):353-362.

Summary of Key Literature Review Findings: The Health Effects of Physical Activity

1. Regular physical activity clearly lessens many of the health risks associated with overweight and obesity.
2. Physically active adults (56% of adults) in Oregon have lower rates of many chronic diseases than sedentary adults (44% of adults).
3. As people move away from being sedentary, the health benefits of being physically active accumulate immediately, and continue to accrue as they become more physically active.
4. Active obese individuals have lower morbidity and mortality than normal weight individuals who are sedentary.
5. Being physically active is associated with moderate reductions in depression, small to moderate decrease in anxiety, small decrease in panic disorder, a large increase in energy and vigor, a small to moderate increase in self-esteem, and a small to moderate increase in positive affect (especially if physical activity occurs in social settings).
6. Evidence suggests that physical inactivity is a strong contributing factor for overweight and obesity. However, exercising does not significantly increase initial weight loss over and above that obtained with diet only. As a result, physical activity messages that focus on behavioral changes (increased physical activity and health diets) rather than outcomes (weight loss) may provide the appropriate motivation for sedentary individuals to become physically active.

Physical Activity and the Environment

Leisure-time physical activity often connotes exercise. The Dictionary of Sport and Exercise Science operationally defines physical activity as "movement of the human body that results in the expenditure of energy at a level above the resting metabolic rate." Thus, physical activity can take place not only as deliberative exercise, but also at the workplace, in forms of transportation (walking, biking), in household activities, and in leisure-time, recreational activities.

Most epidemiological studies that link environmental factors with participation in physical activities have been conducted in urban environments that look at land use patterns, neighborhood designs, parks, and transportation infrastructure (sidewalks, bike lanes, trails). Humpel, Owen and Leslie (2002)[77] and Williams (2007)[78], after reviewing the literature, conclude that accessibility, opportunities, and aesthetic attributes have the strongest associations with physical activity. Weather and safety were found to have less-strong relationships with physical activity. Factors of accessibility that promoted physical activity included bike paths, local parks, density of facilities and shops within walking distance. Factors of accessibility that reduced

[77] Humpel, N, N Owen and E Leslie. 2002. Environmental factors associated with adults' participation in physical activity: A review. *American Journal of Preventive Medicine* 22(3):188-199.
[78] Williams, CH. 2007. The built environment and physical activity: What is the relationship? Research Synthesis Report No. 11. Princeton, NJ: The Robert Wood Johnson Foundation.

physical activity included busy streets, steep hills, lack of or inadequate facilities and distance from residence to resources. Opportunities that were positively associated with physical activity included home exercise equipment, awareness of facilities, satisfaction with facilities, and local clubs. Lack of equipment was found to be negatively associated with physical activity. Aesthetic attributes that promote physical activity included friendliness of neighborhood, attractiveness of local area, and enjoyable scenery.

Sallis and Kerr (2006)[79] summarize some of the findings from research on physical activity and the built environment. Access to parks and trails is consistently related to activity levels[80]. The more distant recreation facilities are from an individual's residence, the less likely they are to use it. However, parks with more natural attributes associated with them have disproportionately larger volumes of use than other parks. As Giles-Corti et al. (2005)[81] show, people are more likely to walk in parks when they are close, large, and have a variety of features. Parks and other public lands that provide recreational (and transportation) opportunities may promote health through physical activity. Users of public open space are three-times more likely to meet recommended physical activity levels (Giles-Corti et al., 2005).

Gordon, Zizzi and Pauline (2004)[82] found that 25% of respondents surveyed at a newly constructed rail trail in a rural city were sedentary prior to the trail's development. Habitually active rail trail users modestly increased their activity levels (0-26%), whereas new exercisers (i.e., previously sedentary) increased their activity levels 51-100%. Thus, parks and other areas to recreate help move people from sedentary-levels up the dose response function of health benefits from physical activity.

Summary of Key Literature Review Findings: The Health Effects of Physical Activity

1. In urban environments, factors of accessibility that promote physical activity include bike paths, local parks, and density of facilities and shops within walking distance. Factors of accessibility that reduced physical activity include busy streets, steep hills, lack of or inadequate facilities and distance from residence to resources.
2. Access to parks and trails is consistently related to activity levels. The more distant recreation facilities are from an individual's residence, the less likely they are to use it.
3. People are more likely to walk in parks when they are close, large, and have a variety of features.
4. Users of public open space are three-times more likely to meet recommended physical activity levels.
5. Parks and other areas to recreate help get more people physical activity.

[79] Sallis, JR and J Kerr. 2006. Physical activity and the built environment. President's Council on Physical Fitness and Sports, *Research Digest* 7(4):1-8.

[80] Roux, AVD, KR Evenson, AP McGinn, DG Brown, L Moore, S Brines and DR Jacobs. 2007. Availability of recreational resources and physical activity in adults. *American Journal of Public Health* 97(3):493-499.

[81] Giles-Corti, B, MH Broomhall, M Knuiman, C Collins, K. Douglas, K Ng, A Lange and RJ Donovan. 2005. Increasing walking: How important is distance to, attractiveness, and size of public open space? *American Journal of Preventive Medicine* 28(2S2):169-176.

[82] Gordon, PM, SJ Zizzi and J Pauline. 2004. Use of a community trail among new and habitual exercisers: A preliminary assessment. *Preventing Chronic Disease* 1(4):1-11.

Trends in Physical Activity, Overweight, and Obesity

The U.S. and Oregon

Behavioral Risk Factor Surveillance System (BRFSS) data reported by the CDC is used to compare levels and trends in health prevalence measures between Oregon and the U.S. In 2001, the CDC changed their question relating to physical activity. From 1990 to 2002, primarily every other year, BRFSS respondents were asked if they had no leisure time physical activity. U.S. leisure time physical inactivity was higher than Oregon's, with both falling over time. Oregon's rate of change was about 0.11% per year, while the U.S.'s proportion was falling twice as fast at about 0.22% per year. Figure 51 graphs the proportion of adults who reported meeting the CDC's minimum recommendation for physical activity from 2001 to 2005. Oregon's proportion of physical activity is higher than the U.S., with both trending upward. Oregon's increase in physical activity is about 0.9% per year, while for the U.S. it is 0.75% per year. Figure 52 shows Oregon is fairing better than the U.S. in proportion of adults physically active in 2005 (56.4% v. 49.1%, respectively).

Figure 53 graphs proportion and trends of overweight (BMI 25.0 to 29.9) for the U.S. and Oregon. Proportions of overweight are erratic, possibly due to differences in samples from year-to-year and that BMI is self-reported. There is little difference between the U.S. and Oregon, on average. In 2002, Oregon's and the U.S.'s proportion of overweight adults were nearly identical at 37% (Figure 54).

Figure 55 graphs proportion and trends of obesity (BMI >30) for the U.S. and Oregon. Proportions and trends of obesity are similar between the U.S. and Oregon. Figure 56 shows Oregon is doing a little better than the U.S. in 2002 with a lower proportion of obesity than the U.S. (20% v. 22%, respectively).
Rates of physical activity for Oregonians are higher than the U.S. regardless of gender. Rates of increase in physical activity are higher for females (Oregon: 1.12% per year; U.S.: 1.18% per year) than males (Oregon: 0.65% per year; U.S.: 0.25% per year). However, Oregon males' rate of increase is over twice as large per year as the U.S. Figure 52 shows that in 2005, the proportion of females in Oregon that are physically active is disproportionately higher than physically active males when compared to the relative proportions for the U.S.

Overweight data for females in the U.S. and Oregon are nearly identical in rates and trends. However, data for males is highly erratic, although males in Oregon appear to be doing better than the U.S. (Oregon: 0.06% per year; U.S.: 0.16% per year). Figure 54 shows the proportion of males that are overweight is 50% higher than the proportion of females that are overweight in the U.S. and in Oregon in 2002, with overweight rates by gender being nearly identical between Oregon and the U.S. (Females: 30%; Males: 44%).

Obesity data is fairly similar for both females and males, with Oregon performing slightly worse than the U.S. in trends (Oregon females: 0.97% per year; U.S. females: 0.85% per year; Oregon males: 0.99% per year; U.S. males: 0.97% per year). Figure 56 shows that the proportion of obese adults in Oregon is slightly lower than the national rate in 2002, with the proportion of males that are obese being disproportionately lower than females when compared to the relative proportions for the U.S.

Figure 51: Trends in meeting CDC's minimum recommendation for physical activity—the U.S. and Oregon, Source: BRFSS data

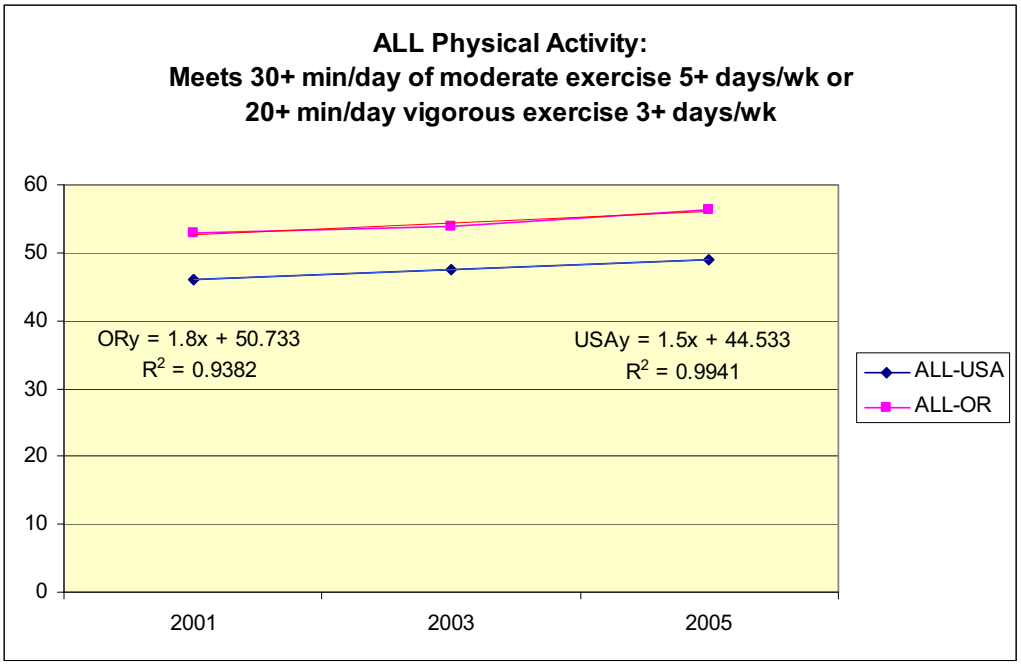


Figure 52: Physical activity proportion for U.S. and Oregon in total and by gender, 2005, Source: BRFSS data

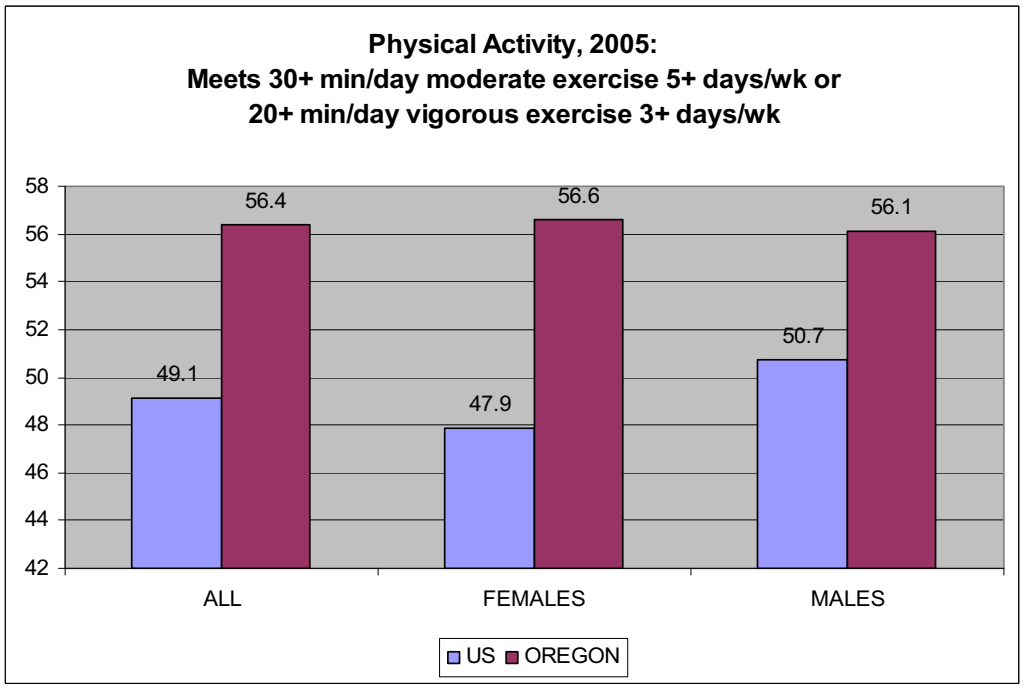


Figure 53: Trends in overweight for the U.S. and Oregon, Source: BRFSS data

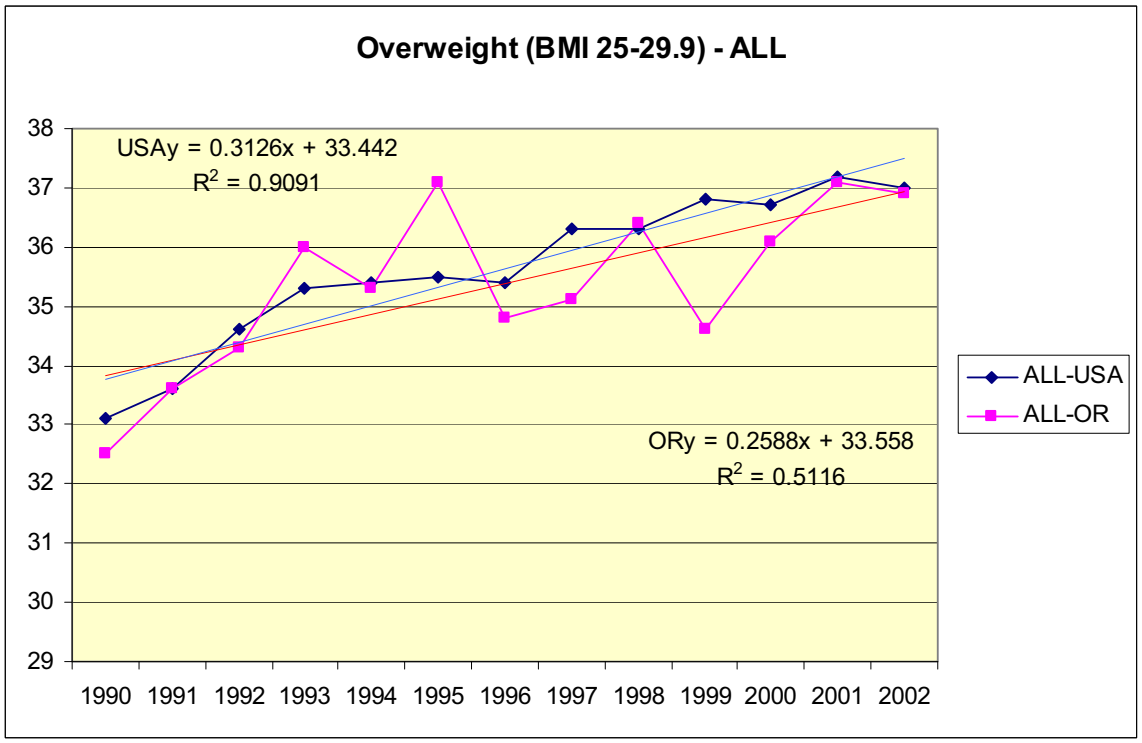


Figure 54: Overweight proportion in Oregon and the U.S. in total and by gender, 2002, Source: BRFSS data

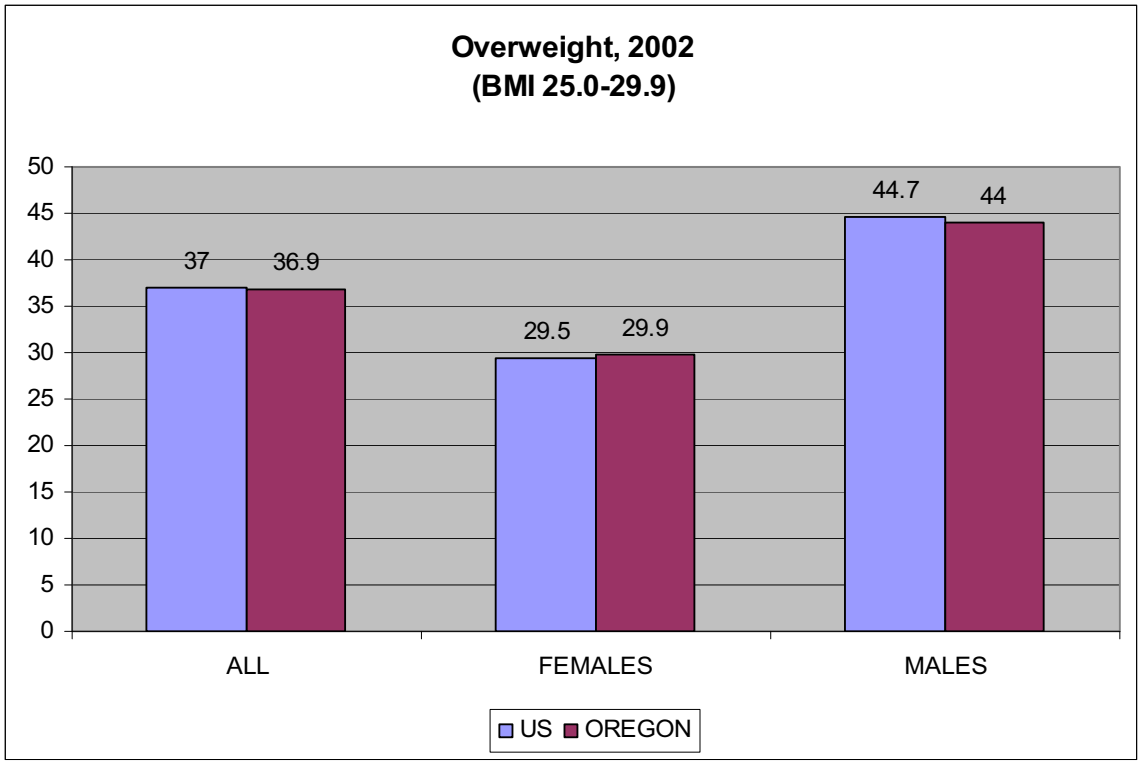


Figure 55: Trends in obesity for the U.S. and Oregon, Source: BRFSS data

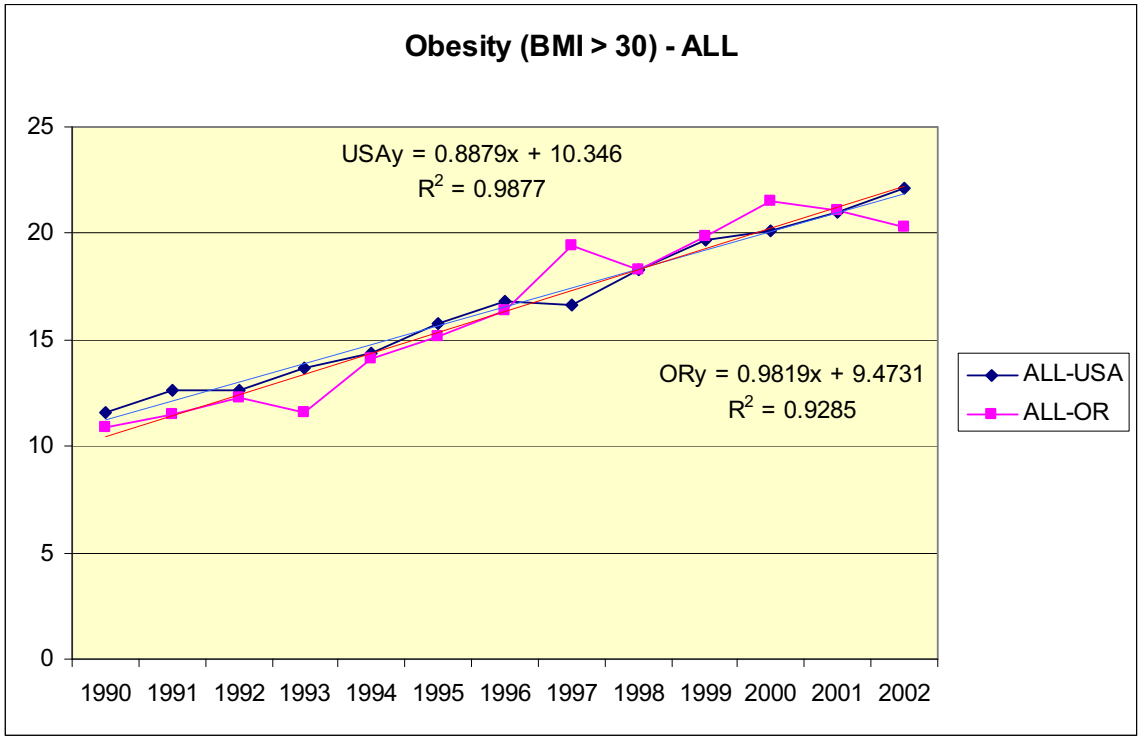


Figure 56: Obesity proportion for Oregon and the U.S. in total and by gender, 2002, Source: BRFSS data

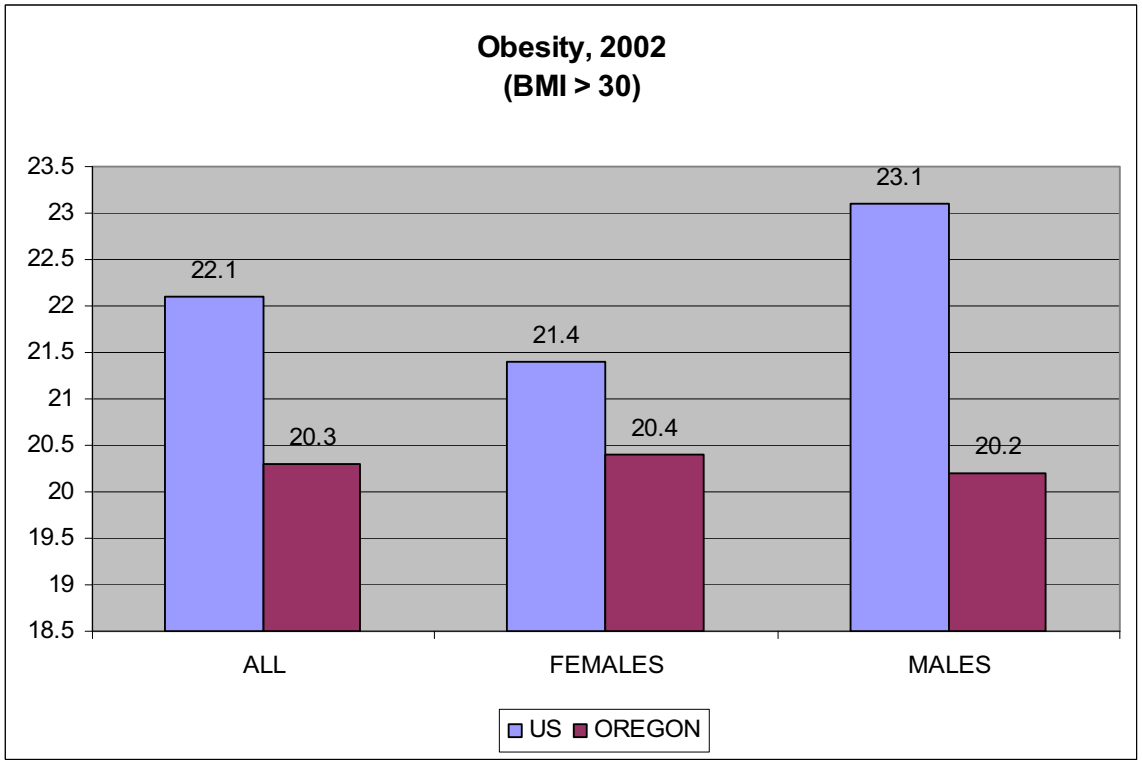


Figure 57 shows the proportions of physical activity by age class for Oregon and the U.S. in 2005. Oregon's proportions of physical activity exceed those for the U.S. across all age classes, with a downward trend in physical activity. Physical activity rates for 18-24 year olds in Oregon is growing four times faster than the U.S. (1.6% per year v. 0.4% per year, respectively). Rates for 25-34 year olds in Oregon are growing twice as fast as the U.S. (0.55% v. 0.25% per year, respectively). Oregon's 35-44 year olds have rates of physical activity increasing faster than the U.S.'s rates (1% per year v. 0.6% per year, respectively). However, Oregon's 45-54 year olds' rate of physical activity increase is lower than the U.S.'s rate (1% v. 1.25% per year, respectively). Oregon's 55-64 year olds are increasing their proportion of physically active adults faster than the U.S. (0.75% v. 0.38% per year, respectively). Oregon's 65+ year olds are not increasing their proportion in physical activity as fast as the U.S. (0.4% v. 0.7% per year, respectively).

Figure 57: Physical activity proportion for Oregon and the U.S. by age class, 2005, Source: BRFSS data

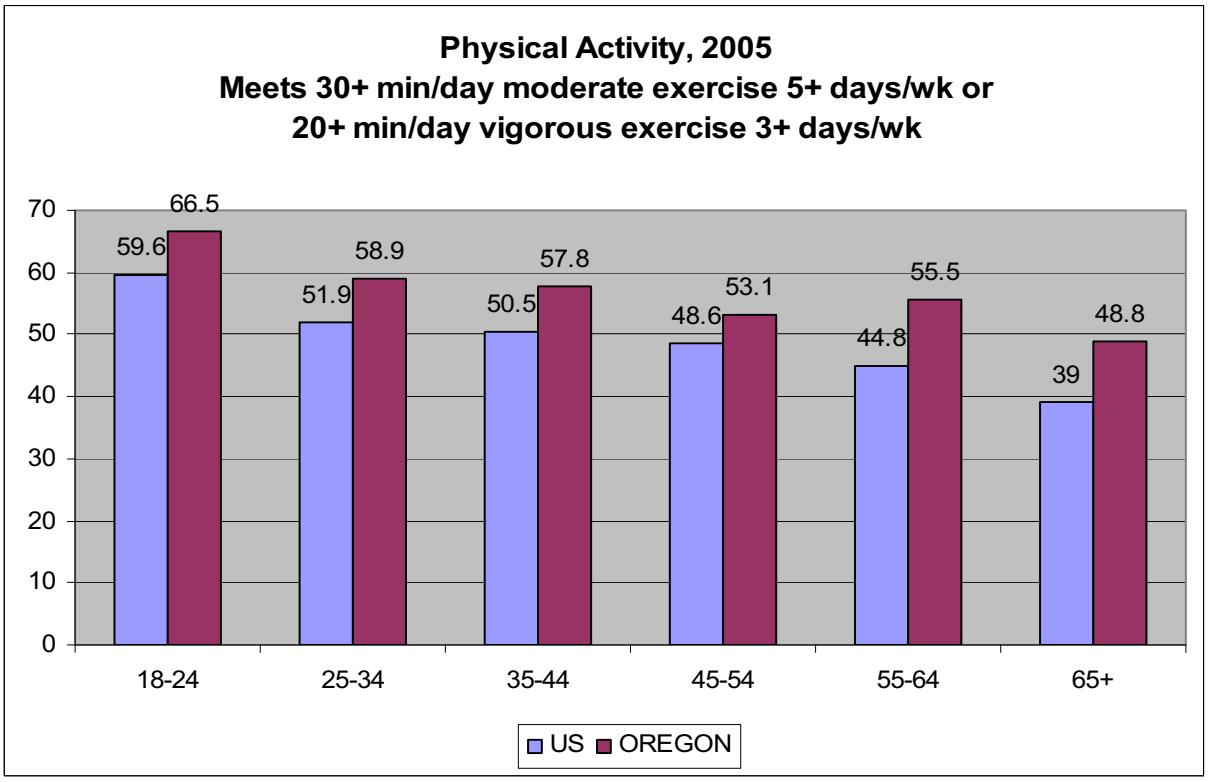


Figure 58 shows proportion of overweight for Oregon and the U.S. by age class. The proportions of adults that are overweight in Oregon and the U.S. in 2002 were nearly identical and increasing with age. 18-24 year olds and 65+ year olds have nearly identical rates of change in proportions of overweight adults for Oregon and the U.S., at about 0.35% per year increase in proportion of overweight individuals. Data for 35-49 year olds and 50-64 year olds are erratic, but the general trend seems to be about 0.22% per year for the U.S. and Oregon (ignoring the outliers in Oregon's data, the beginning and ending points are the same as the U.S. and therefore the trend would be similar). Oregon's and the U.S.'s 50-64 year olds seem to have a decreasing trend in proportion of overweight (-0.21% v. -0.04% per year, respectively).

Figure 58: Overweight proportion for Oregon and the U.S. by age class, 2002,
Source: BRFSS data

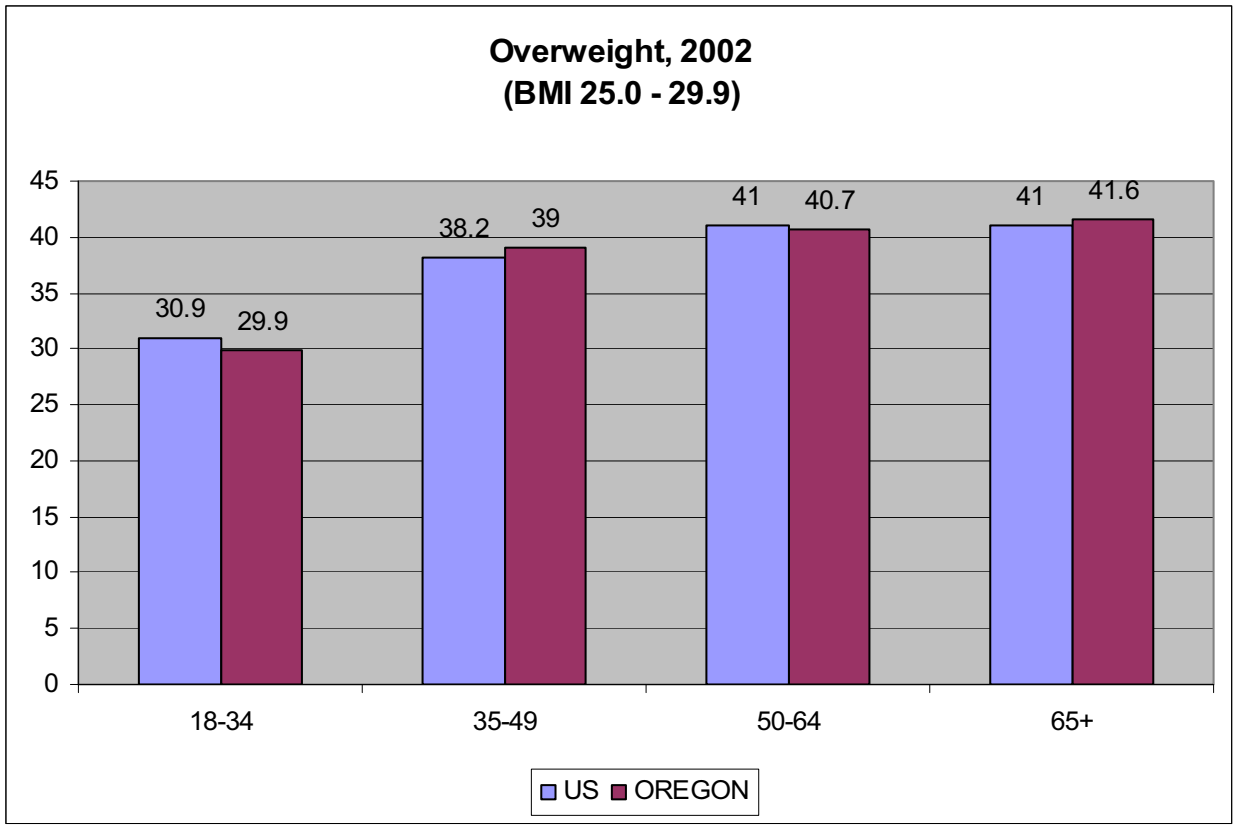
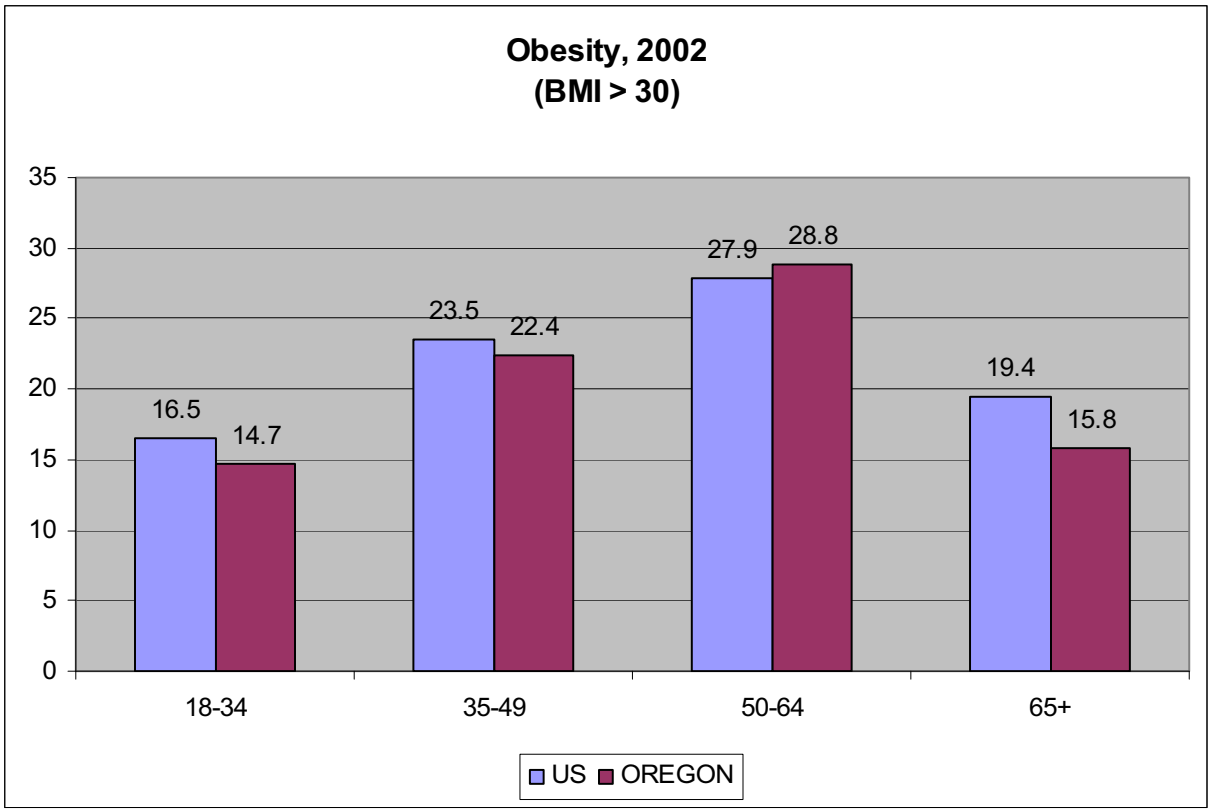


Figure 59 shows obesity proportions in 2002 are slightly lower for Oregon in all age classes except 50-64 year olds than the U.S.; however, these differences are likely not significant. Rates of increase in obesity proportions are nearly identical between Oregon and the U.S., and are about 1% per year (18-34 years: 0.8%; 35-49 years: 0.9%; 50-64 years: 1.2%; and 65+: 0.7% per year for Oregon—national trends are slightly lower than Oregon).

Figure 59: Obesity proportion for Oregon and the U.S. by age class, 2002, Source: BRFSS data



Summary of Key Findings: Trends in Physical Activity and Obesity, the U.S. and Oregon.

1. In 2005, Oregon was doing better or at least doing no worse than the U.S. on health prevalence measures of physical activity, overweight and obesity.
2. The proportion of Oregon adults that are physically active in their leisure time was 56% compared to the U.S. at 49%.
3. Oregon was identical to the U.S. in the proportion of adults that were overweight (37%), while rates of obesity were slightly lower than the U.S. (20% v. 22%, respectively).
4. These general patterns of health prevalence measures between Oregon and the U.S. held up across gender and age classes.
5. Trends in the proportion of adults that are physically active, overweight or obese are all increasing at nearly identical rates between Oregon and the U.S.

Oregon Counties

Proportions of physical activity, overweight and obesity are provided by county within Oregon, along with rates of change between 2001 and 2005. These rates of change may not be indicative of the long-term trends in any specific county due to the limited number of data points, inherent sampling issues in the BRFSS survey, and/or changing demographics within each county.

Figure 60 displays proportions of physical activity by county in 2001 and Figure 61 displays data for 2005. In 2001, the average proportion for physical activity was 44%, ranging from 23% to 54%. The five counties with the highest proportions of physical activity in 2001 included Columbia, Harney and Polk (52%), Baker (53%), and Sherman/Wasco (54%). Counties with the lowest proportion of physical activity included Douglas (23%), Yamhill (31%), Linn and Marion (35%), and Josephine, Multnomah and Washington (37%).

Figure 60: Proportion of physical activity by Oregon counties, 2001

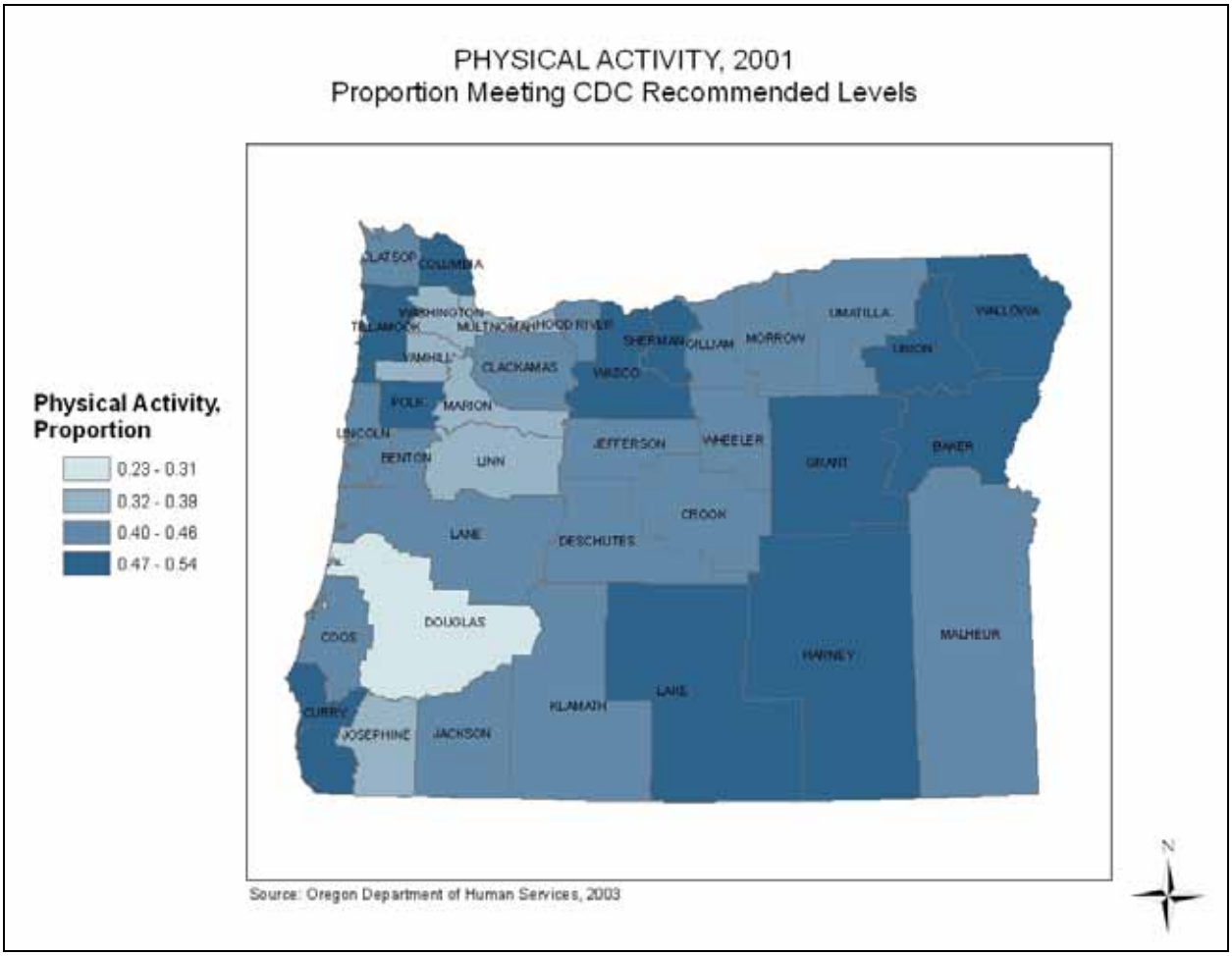
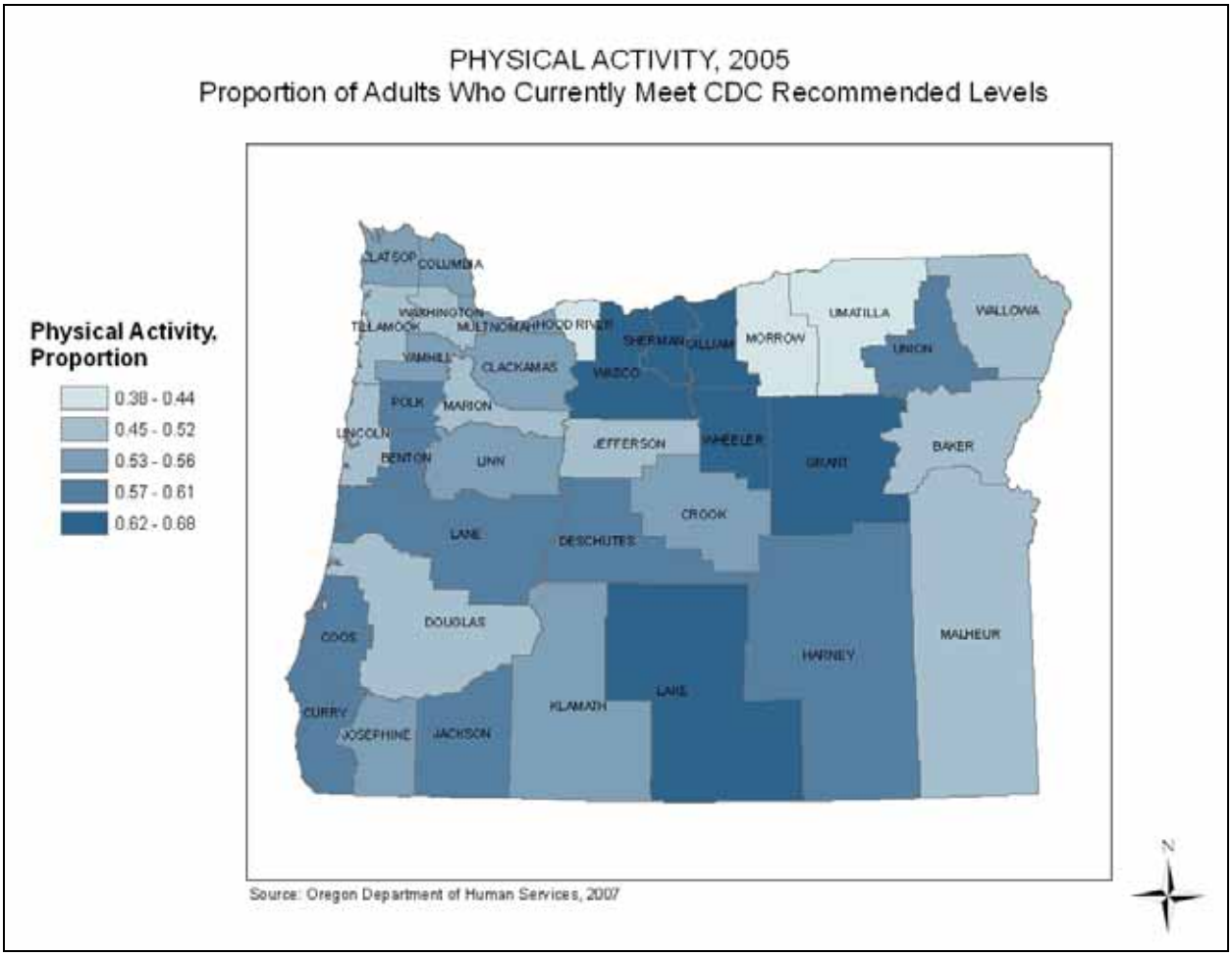


Figure 61: Proportion of physical activity by Oregon counties, 2005



In 2005, the average proportion for physical activity was 55%, ranging from 38% to 68%. The five counties with the highest proportions of physical activity in 2005 were Union (61%), Lake and Sherman/Wasco (63%), Gilliam/Wheeler (65%), and Grant (68%). Counties with the lowest proportion of physical activity included Umatilla (38%), Morrow (40%), Hood River (44%), and Malheur and Baker (47%).

Figure 62: Rates of change in physical activity proportions by Oregon counties, 2001-2005

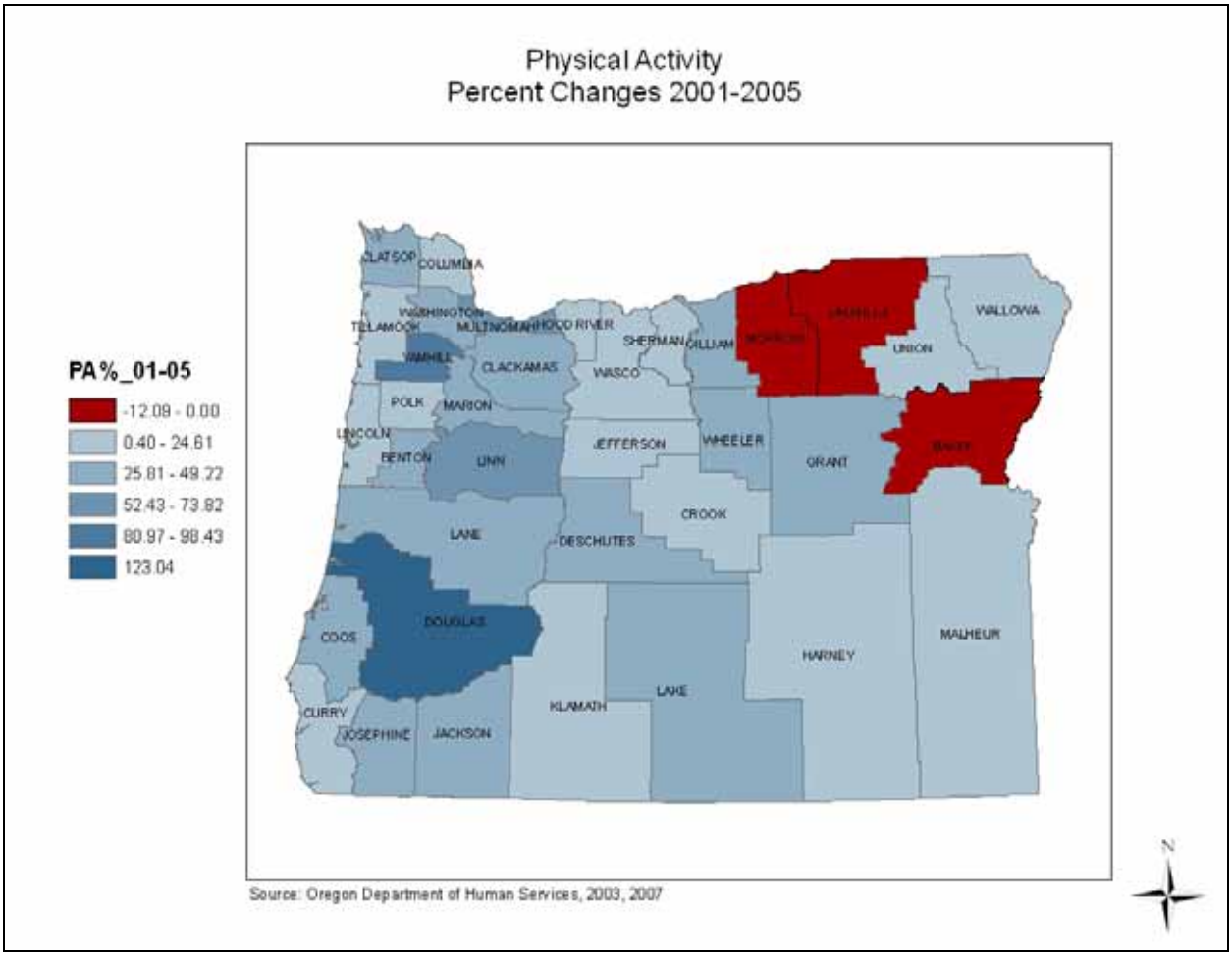


Figure 62 shows the rates of change in proportions for physical activity between 2001 and 2005 by county. The average rate of change for physical activity was 27%, ranging from -12% to 123%. Umatilla (-12%), Baker (-11%), Morrow (-8%) had decreasing proportions of physical activity from 2001-2005, while Tillamook's (0%) proportion remained unchanged. Josephine (46%), Multnomah (52%), Linn (55%), Yamhill (81%) and Douglas (123%) had the largest increase in physical activity proportions.

Counties may be labeled as at-risk due to relatively low physical activity participation rates. Counties that have been identified as "in need" based on adult physical activity rates and trends projected by the Population Research Center, Portland State University for Oregon Parks and Recreation Department. These counties include Baker, Columbia, Crook, Douglas, Harney, Hood River, Josephine, Morrow, Tillamook, Umatilla and Wallowa and are supported with data provided in this report.

Figure 63: Proportion of overweight by Oregon counties, 2001

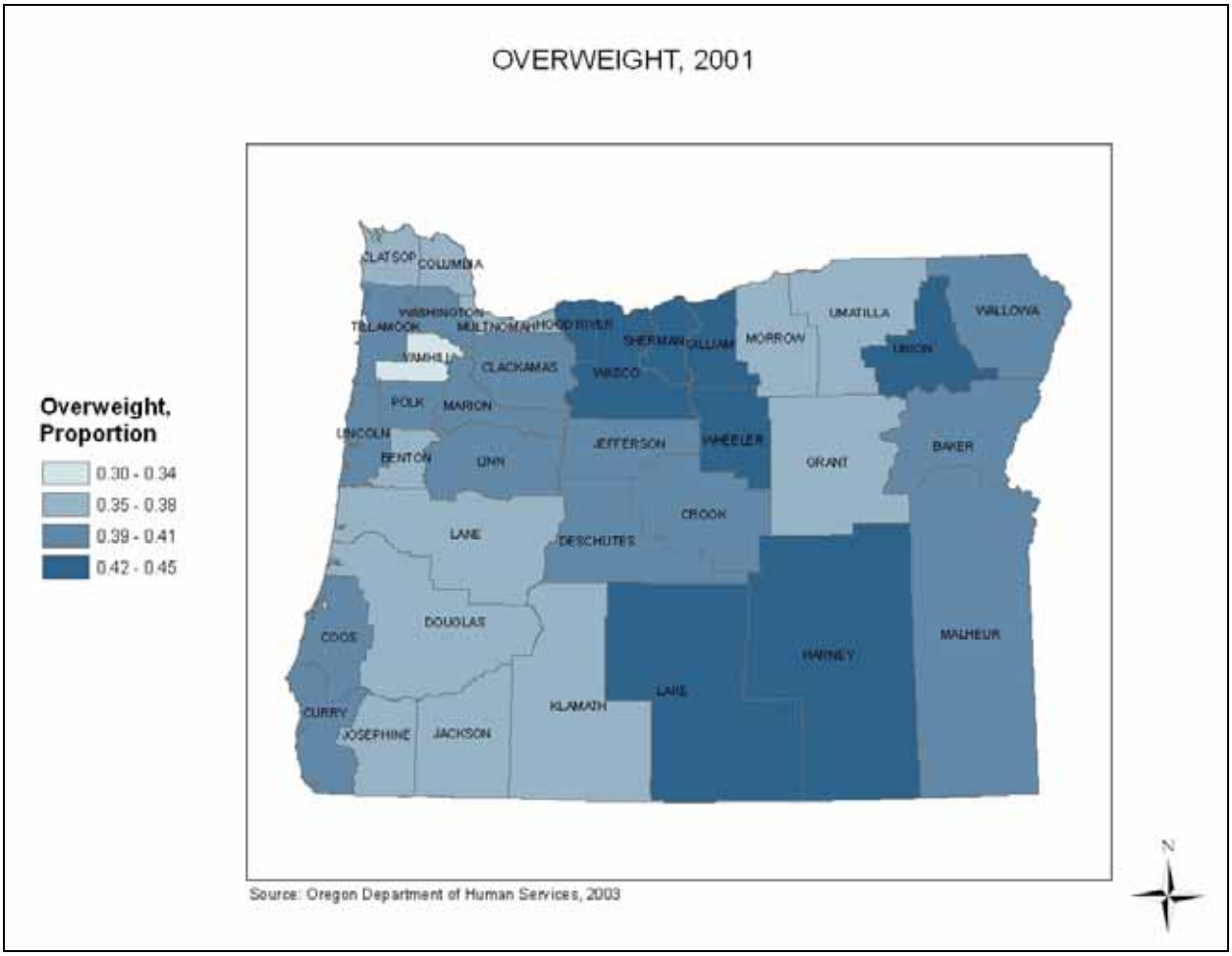
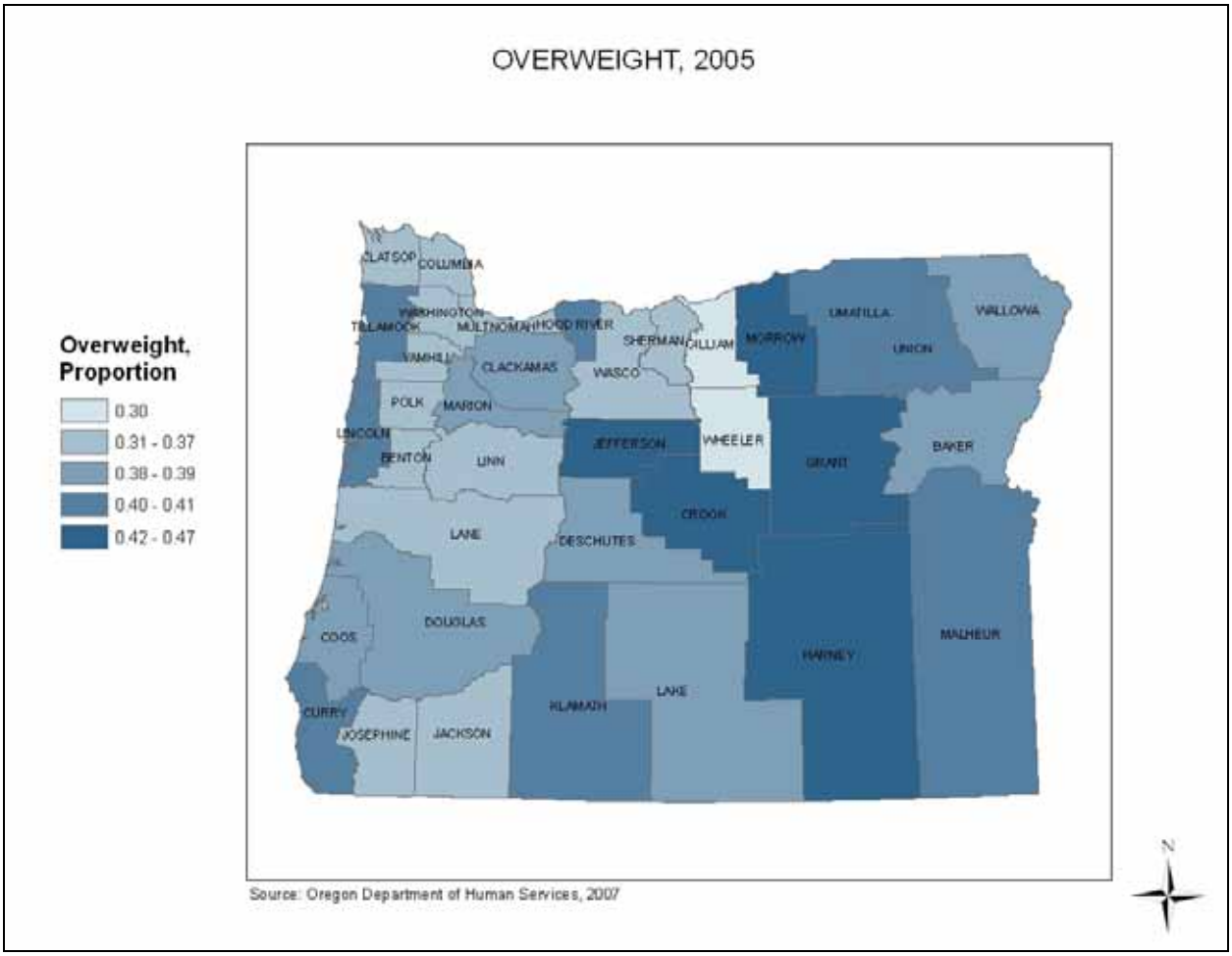


Figure 63 displays proportions of overweight by county in 2001 and Figure 64 displays data for 2005. In 2001, the average proportion for overweight was 39%, ranging from 30% to 45%. The five counties with the highest proportions of overweight in 2001 included Lake, Union and Hood River (42%), Harney and Gilliam/Wheeler (43%), and Sherman/Wasco (45%). Counties with the lowest proportion of overweight included Yamhill (30%), and Klamath, Columbia, Multnomah, and Jackson and Benton (35%).

Figure 64: Proportion of overweight by Oregon counties, 2005



In 2005, the average proportion for overweight was 38%, ranging from 30% to 47%. The five counties with the highest proportions of overweight in 2005 included Jefferson (43%), Crook and Grant (45%), Morrow (46%), and Harney (47%). Counties with the lowest proportion of overweight included Gilliam/Wheeler (30%), Clatsop and Multnomah (34%), and Josephine and Linn (35%).

Figure 65: Rates of change in overweight proportions by Oregon counties, 2001-2005

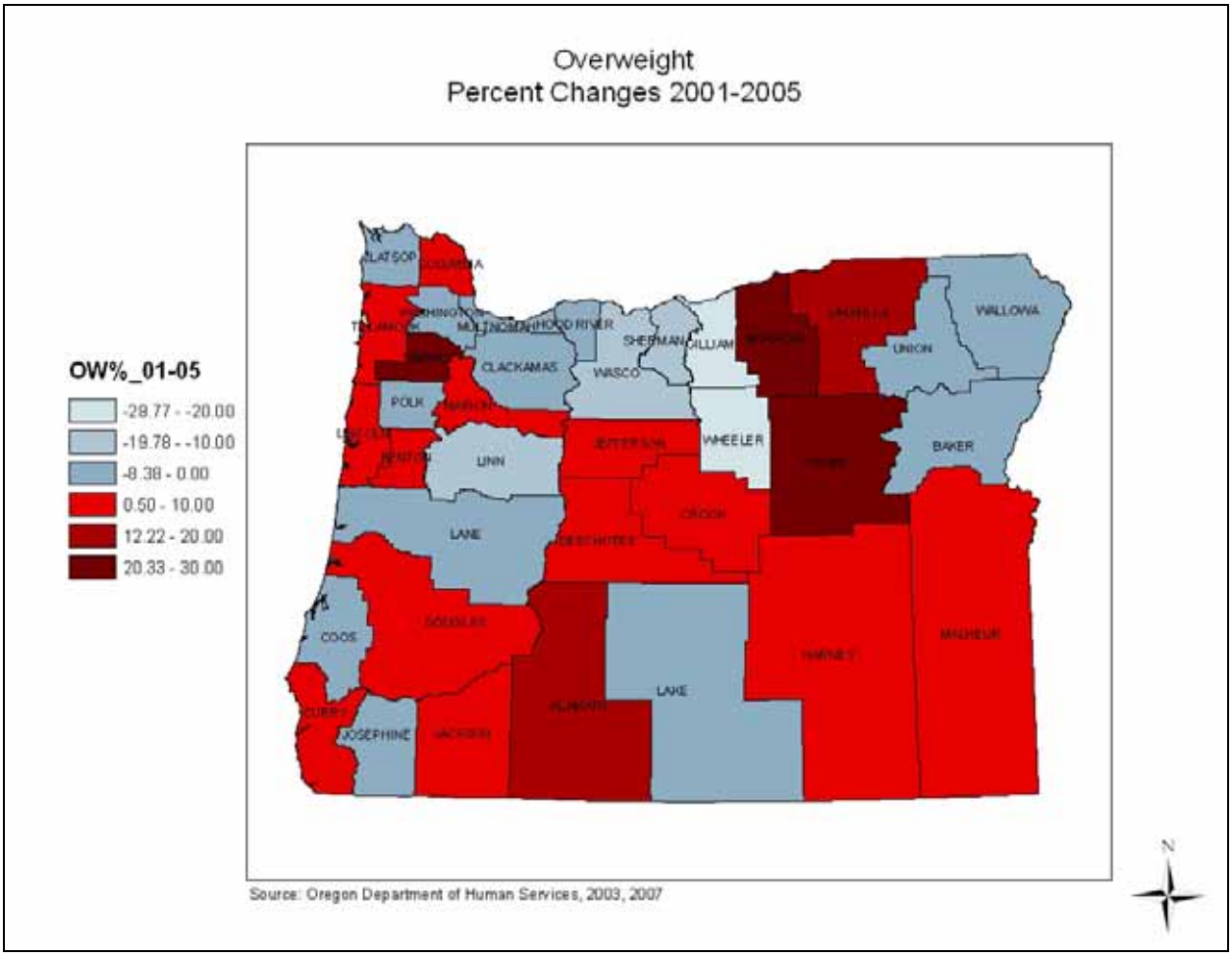


Figure 65 shows the rates of change in proportions for overweight between 2001 and 2005 by Oregon County. The average rate of change for overweight was -1%, ranging from -30% to 25%. The counties with the highest increases in overweight included Umatilla (12%), Klamath (13%), Yamhill (20%), Grant (23%), and Morrow (25%). Counties with the largest decreases in proportions of overweight included Gilliam/Wheeler (-30%), Sherman/Wasco (-20%), Linn (-12%), Clatsop (-8%), and Lake (-7%).

Figure 66: Proportion of obesity by Oregon counties, 2001

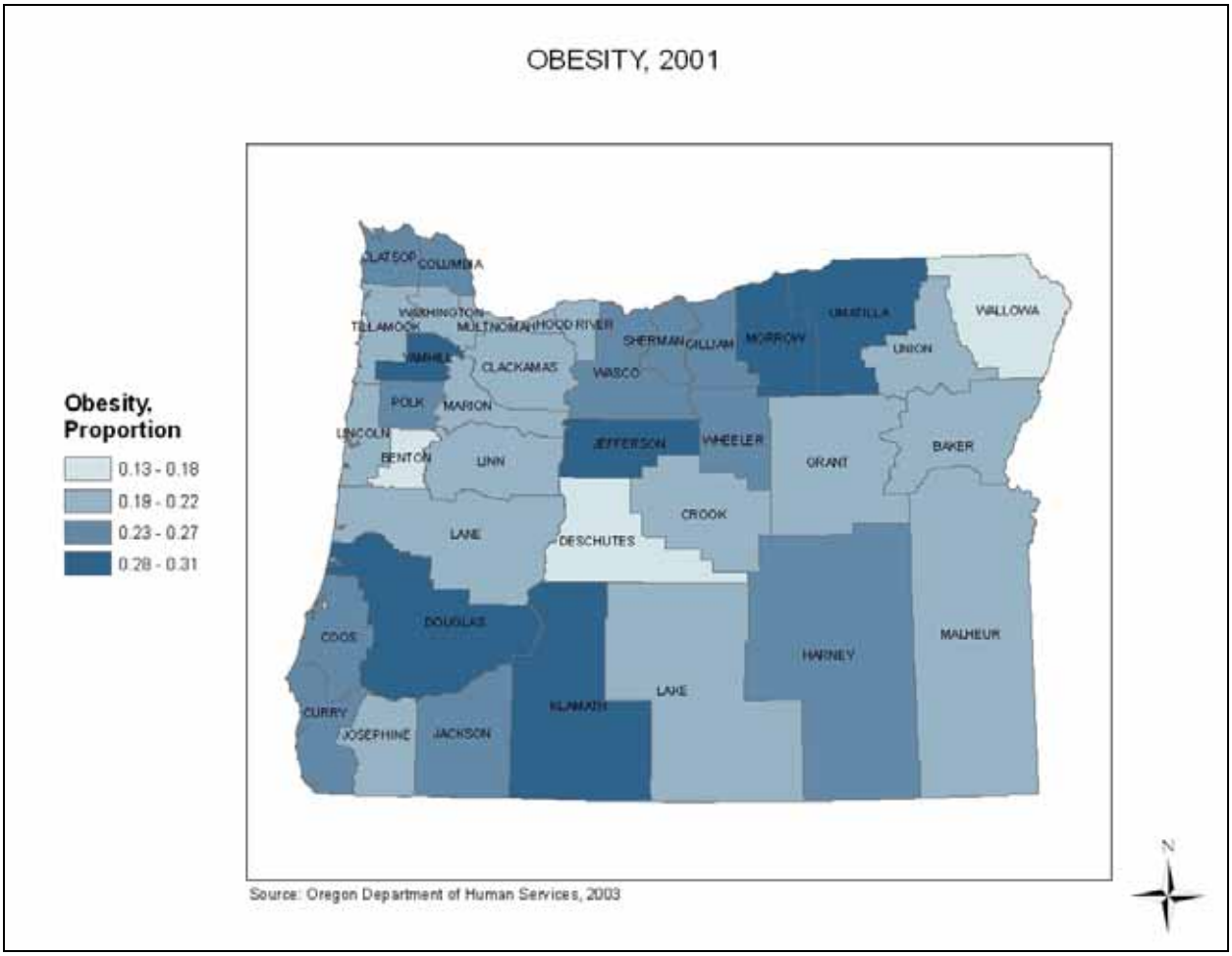


Figure 66 displays proportions of obese by county in 2001 and Figure 67 displays data for 2005. In 2001, the average proportion for obese was 22%, ranging from 13% to 31%. The five counties with the highest proportions of obese in 2001 included Yamhill and Umatilla (27%), Douglas and Klamath (28%), Jefferson (30%), and Morrow (31%). Counties with the lowest proportion of obese included Deschutes (13%), Benton (14%), Wallowa (17%), and Clackamas and Grant (18%).

In 2005, the average proportion for obese was 24%, ranging from 11% to 34%. The five counties with the highest proportions of obese in 2005 included Jefferson and Morrow (29%), Malheur (30%), Linn and Columbia (31%), and Gilliam/Wheeler (34%). Counties with the lowest proportion of obese included Wallowa (11%), Benton (15%), Curry (17%), Deschutes (18%), and Baker and Multnomah (19%).

Figure 67: Proportion of obesity by Oregon counties, 2005

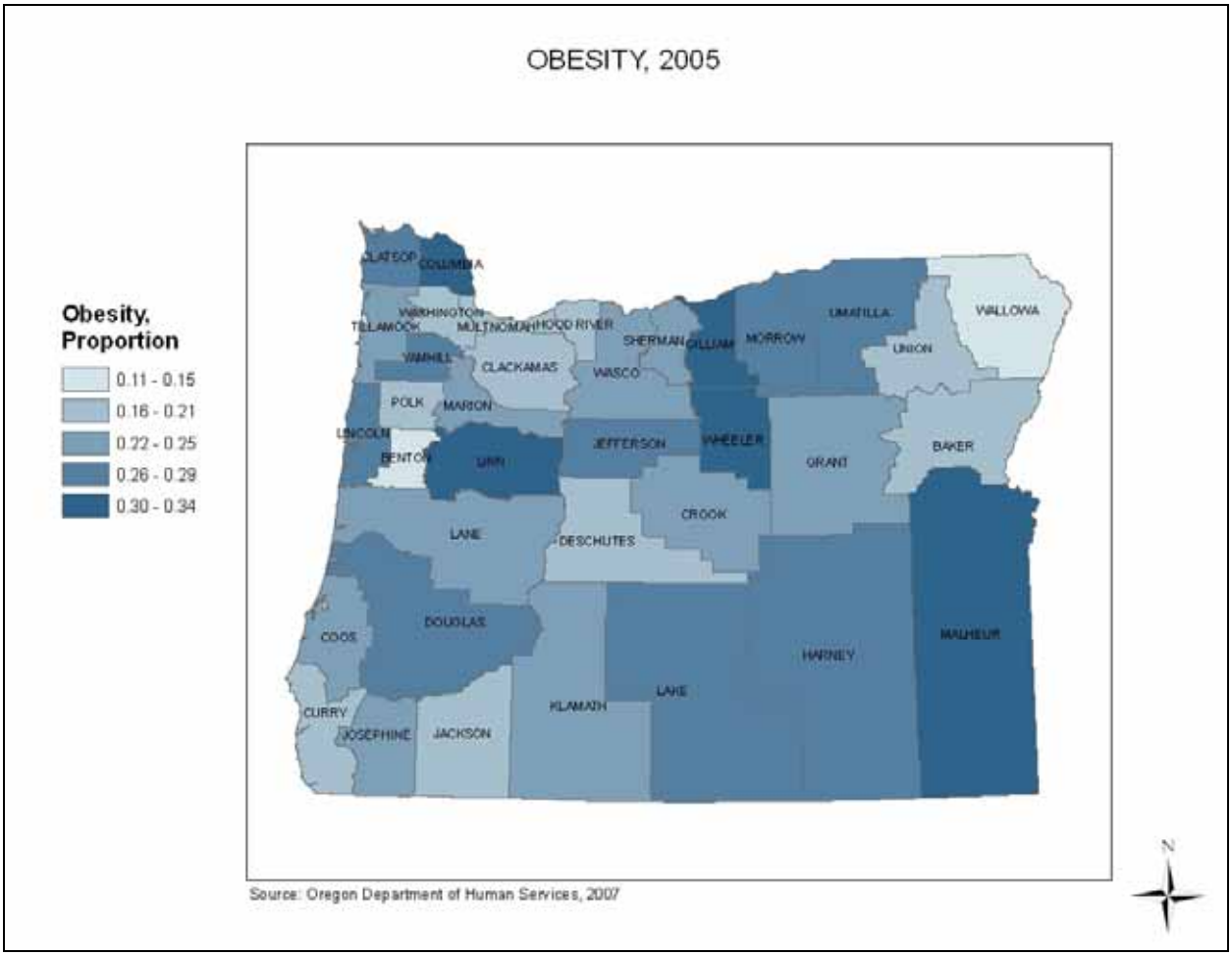
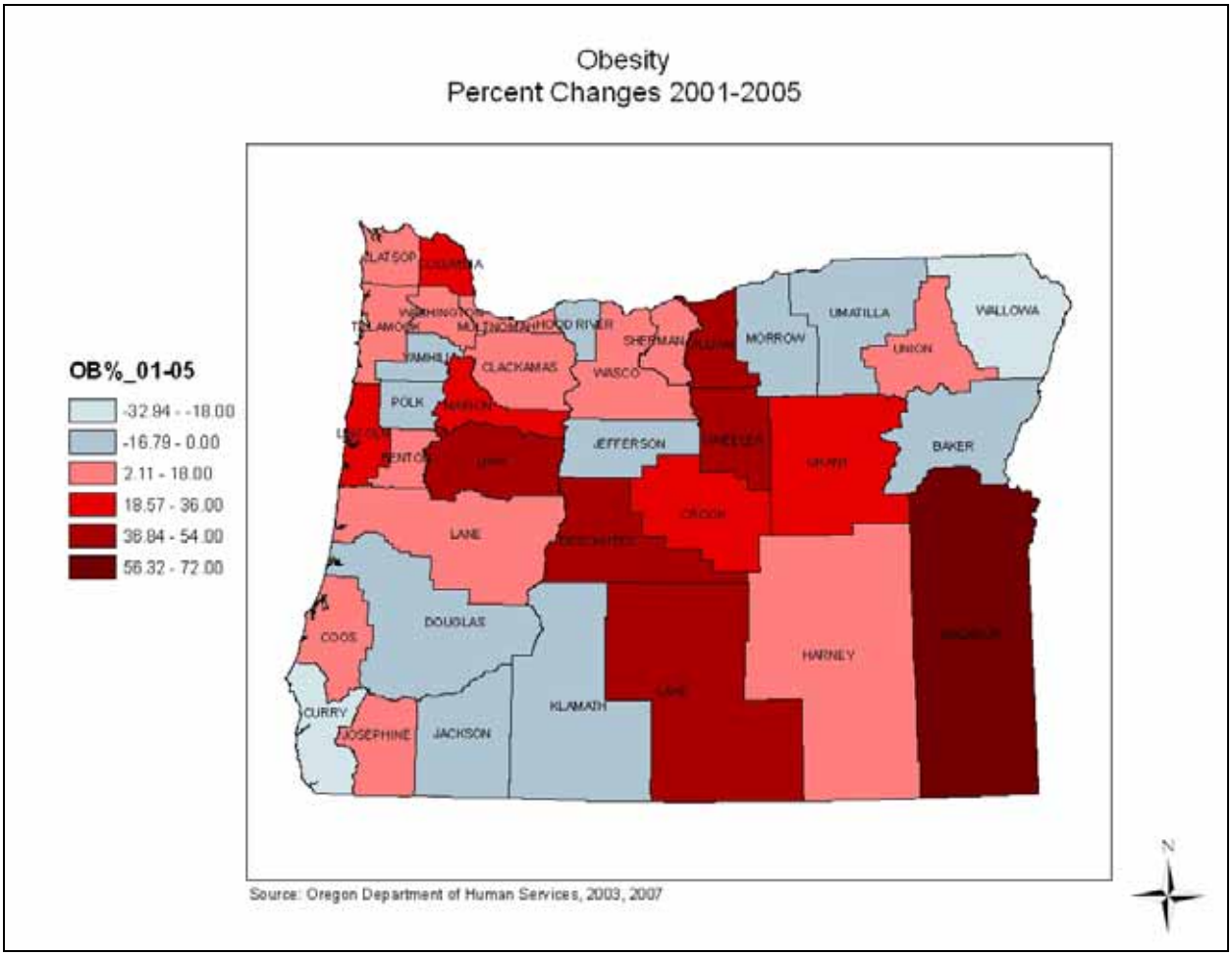


Figure 68 shows the rates of change in proportions for obese between 2001 and 2005 by county. The average rate of change for obesity was 10%, ranging from -33% to 56%. The counties with the highest increases in obesity included Lake (37%), Gilliam/Wheeler (40%), Deschutes (42%), Linn (46%), and Malheur (56%). Counties with the largest decreases in proportions of obesity included Wallowa (-33%), Curry (-28%), Klamath (-17%), Polk (-13%), and Jackson (-12%).

Figure 68: Rates of change in obesity proportions by Oregon counties, 2001-2005



Summary of Key Findings: Trends in Physical Activity and Obesity, Oregon Counties.

1. Rates of physical activity, overweight and obesity vary across Oregon's counties.
2. The average county proportion of physical activity increased from 44% in 2001, to 54% in 2005.
3. Counties that have been identified as "in need" based on adult physical activity rates and trends include Baker, Columbia, Crook, Douglas, Harney, Hood River, Josephine, Morrow, Tillamook, Umatilla and Wallowa.
4. The average county proportion of overweight slightly decreased from 39% in 2001 to 38% in 2005.
5. The average county proportion of obesity slightly increased from 22% in 2001 to 24% in 2005. Some counties' proportions of physical activity decreased and some counties' proportions of overweight and obesity increased during this period.

Research Project: Health and Recreation Linkages in Oregon: Physical Activity, Overweight and Obesity

This research project, conducted by Dr. Randy Rosenberger of Oregon State University, tests the hypothesis that people in Oregon with ready access to outdoor recreation opportunities are healthier than people residing in areas without access to such resources. The objective of this study was to evaluate the relationship between the supply and demand of recreation opportunities in Oregon and measures of health status (physical activity, overweight, and obesity) at the county-level. Data were collected from secondary sources at the county-level or below and a regression[83] model used for hypothesis testing. A full research report is included on the OPRD SCORP planning web site at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Health_and_Rec_Report_websize.pdf.

The following is a summary of key findings from the health and recreation linkages study.

Linkages Between Physical Activity, Overweight, Obesity and Recreation Supply in Oregon

Introduction

Proportion of physical activity, overweight and obesity vary across counties in Oregon. The supply of recreation opportunities likewise vary. This analysis measures the association among physical activity, overweight, obesity and recreation supply while holding other potential confounding factors constant.

Conceptually, our model measures the direct effect of natural areas/recreation supply on physical activity and weight status, while controlling for the indirect relationships, or dependence, of physical activity on weight status. There are many other factors associated with overall health and weight, including dietary habits, neighborhood design, social/cultural influences, among other factors (Wells et al., 2007),[84] that are not accounted for in our model. Instead, we are interested in isolating the relationship between recreation supply and demand and health indicators.

Data

This analysis was conducted with data collected in the 2000-2001 period. We are restricted to this period due to data availability: 2000 U.S. Census data, 2001 SCORP inventory data (OPRD, 2001),[85] and the 2002 SCORP participation survey (OPRD, 2003)[86]. Table 40 provides descriptions of variables and sources of data used in this analysis. Appendix D in the full on-line report provides pairwise correlation tests for health prevalence indicators, county classifications, and recreation supply measures, which contain a broader list of variables tested in this analysis.

---

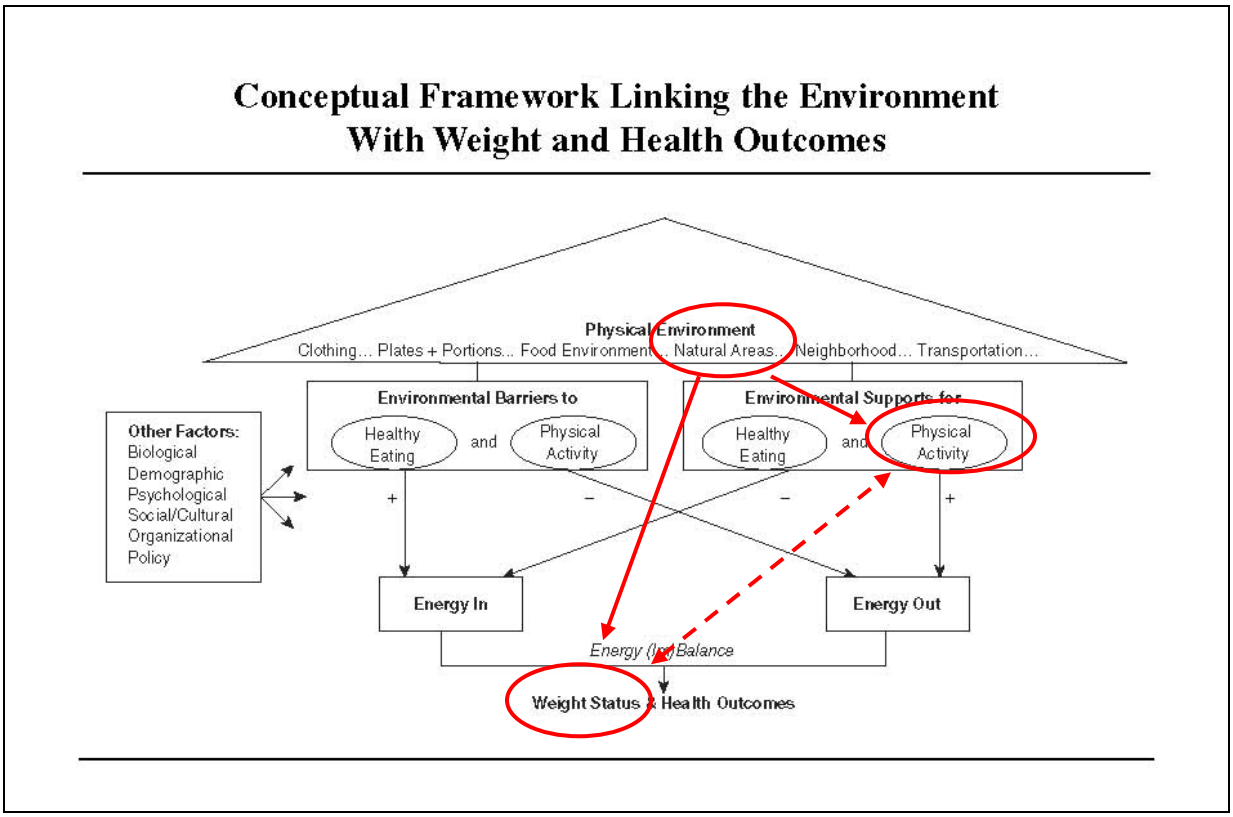
[83] In statistics, regression analysis examines the relationship of a dependent variable (response variable) to specific independent variables (explanatory variables). This technique allows a researcher to isolate the effect of individual and multiple explanatory variables on a response variable.

[84] Wells, N.M., S.P. Ashdown, E.H.S. Davies, F.D. Cowett and Y. Yang. 2007. Environment, design, and obesity: Opportunities for interdisciplinary collaborative research. *Environment and Behavior* 39(1):6-33.

[85] OPRD. 2001. 2001 Oregon Statewide Outdoor Recreational Resource/Facility Inventory Bulletin. Salem, OR: Oregon Parks and Recreation Department.

[86] OPRD. 2003. Oregon Statewide Comprehensive Outdoor Recreation Plan: 2003-2007. Salem, OR: Oregon Parks and Recreation Department.

Figure 69: Focus on direct effect of natural areas on physical activity and weight status, Source: Wells et al. (2007)



Appendix Table D1 (see full on-line report) shows health prevalence data are not strongly correlated with the majority of the demographic, county profile and recreation supply and demand variables in pairwise correlation tests. Appendix Table D2 (full on-line report) shows that METRO, HHAC (household density per acre), and RURAL are highly correlated with several demographic characteristics of counties, such as age and age distribution, income levels, housing values, and racial profiles. Therefore, METRO, HHAC and RURAL will serve as proxies for demographic profiles of counties. Appendix Table D3 (full on-line report) shows the volume of recreation supply measures, in miles and number of facilities, are correlated with metropolitan classification, household density, and public land ownership patterns. These recreation supply measures have been normalized by household density as number of miles per household.

Table 40: Variable descriptions and sources of data

Variable	Description	Source
PA	Physical Activity, proportion of adults meeting CDC requirements, 2000-2001	Oregon Dept of Human Services, 2003
OW	Overweight (BMI 25.0-29.9), proportion of adults, 2000-2001	Oregon Dept of Human Services, 2003
OB	Obesity (BMI≥30.0), proportion of adults, 2000-2001	Oregon Dept of Human Services, 2003
HIKTRL	Hiking Trails, miles, 2001	OR SCORP Inventory, 2001
HIKTRLHH	Hiking Trail miles per household, 2001	Calculated from OR SCORP Inventory, 2001
URBTRL	Urban Trails, miles (bike, walking and jogging trails), 2001	OR SCORP Inventory, 2001
URBTRLHH	Urban Trail miles per household, 2001	Calculated from OR SCORP Inventory, 2001
PUBAC	Density of public lands (per acre), 1997	USDA NRCS, Natural Resources Inventory
TRAILP	Proportion of adults participating in Trail or Off-Trail Activities (hiking, mountain biking, cross-country skiing, etc.), 2002	OR SCORP Phone Survey 2002
ROADP	Proportion of adults participating in Road & Street Activities (walking, jogging, skating, skateboarding, etc), 2002	OR SCORP Phone Survey 2002
SPORTSP	Proportion of adults participating in Outdoor Sports & Games (soccer, football, golf, basketball, tennis, etc), 2002	OR SCORP Phone Survey 2002
TRAILD	Annual days per household participating in Trail & Off-Trail Activities, 2002	Calculated from OR SCORP Phone Survey 2002
ROADD	Annual days per household participating in Road & Street Activities, 2002	Calculated from OR SCORP Phone Survey 2002
SPORTSD	Annual days per household participating in Outdoor Sports & Games, 2002	Calculated from OR SCORP Phone Survey 2002
HHAC	Density of households (per acre), 2000	Calculated from U.S. Census
COLLEGE	College, % 25+ years old with bachelor's degree, 2000	US Census
COMMUTE	Mean travel time to work (minutes), workers aged 16+, 2000	US Census
METRO	Metropolitan Status (0, 1), 2003	USDA Economic Research Service
RURAL	Rural Status (0,1), 2003	USDA Economic Research Service

Models

For a full description of models used in this analysis, please see the full on-line report available at: http://egov.oregon.gov/OPRD/PLANS/docs/scorp/Health_and_Rec_Report_websize.pdf.

Results

Table 41 provides summary statistics for variables used in this analysis along with measures for participation in recreation activities and number of recreation facilities. Maps showing the distribution of the recreation supply and demand variables across Oregon are provided below. Based on the 2001 SCORP Inventory (OPRD, 2001), there was an average of 270 miles of hiking trails per county, ranging from 0 miles to 1,150 miles. Figure 70 shows the distribution of reported hiking trail miles, with higher miles clustered around Lane County and Wallowa County. Low miles were reported in the northwest and southeast portions of the state. Urban trail (biking, walking and jogging trails) miles averaged 106 miles per county, although there is likely

double-counting for multi-purpose trails. They ranged from a reported 0 miles to 474 miles. Figure 71 shows the distribution of reported urban trail miles, with higher miles in the mid-valley region and low numbers in the eastern and northwestern portions of the state. We also used SCORP Inventory data to estimate the number of recreation facilities, which averaged 263 per county. These facilities included the number of baseball/softball fields; football/rugby/soccer fields; indoor and outdoor swimming pools; outdoor basketball nets; outdoor tennis courts; public and private golf courses; miscellaneous recreation centers; and baseball batting cages. Figure 72 shows the distribution of reported recreation facilities, with higher populated counties reporting more facilities and lower populated counties reporting fewer facilities.

Table 41: Summary statistics, Oregon counties (n = 36)

Variable	Mean	Std.Dev.	Min	Max
PA	0.44	0.07	0.23	0.54
OW	0.39	0.03	0.30	0.45
OB	0.22	0.04	0.13	0.31
HIKTRL	269.50	271.32	0	1150.00
HIKTRLHH	0.03	0.06	0	0.30
URBTRL	106.22	118.70	0	474.00
URBTRLHH	0.01	0.02	0	0.08
FACILITY	262.72	339.60	15.00	1265.00
FACILITYHH	0.01	0.01	0	0.03
PUBAC	0.46	0.21	0.09	0.78
TRAILP	0.49	0.07	0.34	0.65
ROADP	0.73	0.09	0.53	0.92
SPORTSP	0.47	0.07	0.34	0.60
TRAILD	6.44	2.53	2.80	12.37
ROADD	31.49	5.25	21.58	44.69
SPORTSD	8.30	1.96	3.72	13.87
HHAC	0.06	0.16	0	0.91
COLLEGE	0.19	0.07	0.11	0.47
COMMUTE	20.26	3.67	14.40	30.80
METRO	0.31	0.47	0	1
RURAL	0.14	0.35	0	1

Figure 70: Miles of hiking trails in Oregon

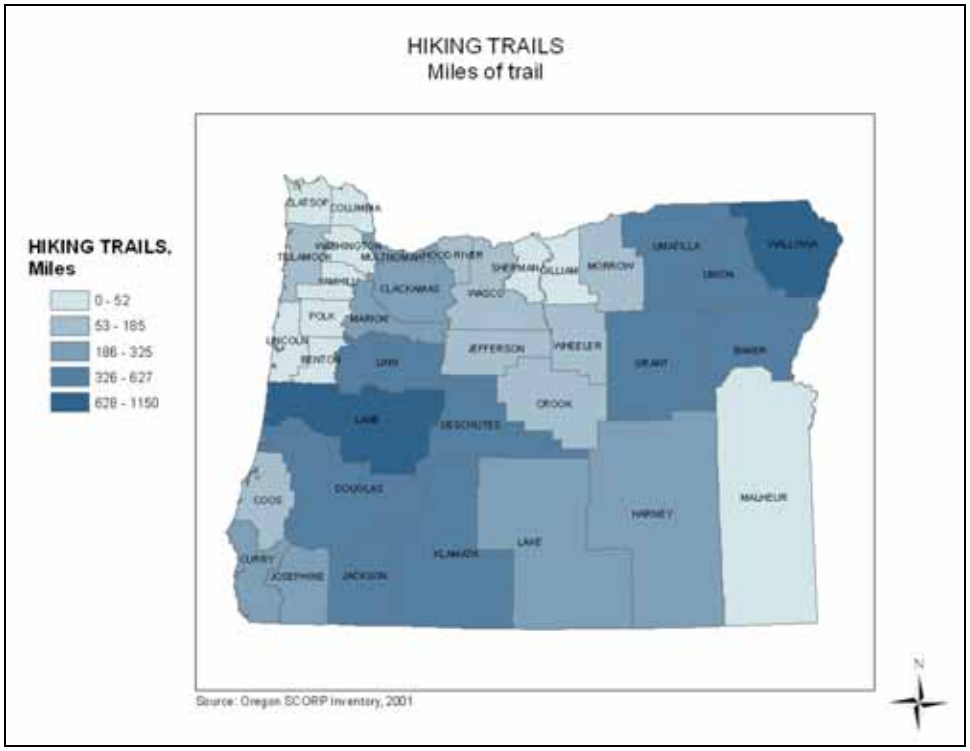


Figure 71: Miles of urban trails in Oregon

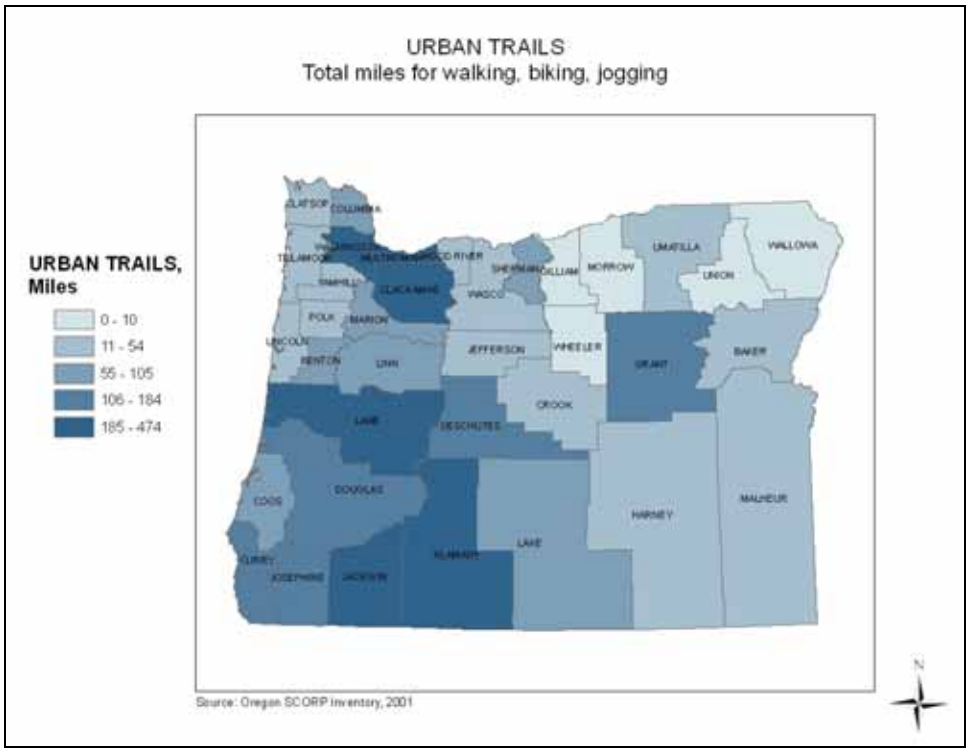
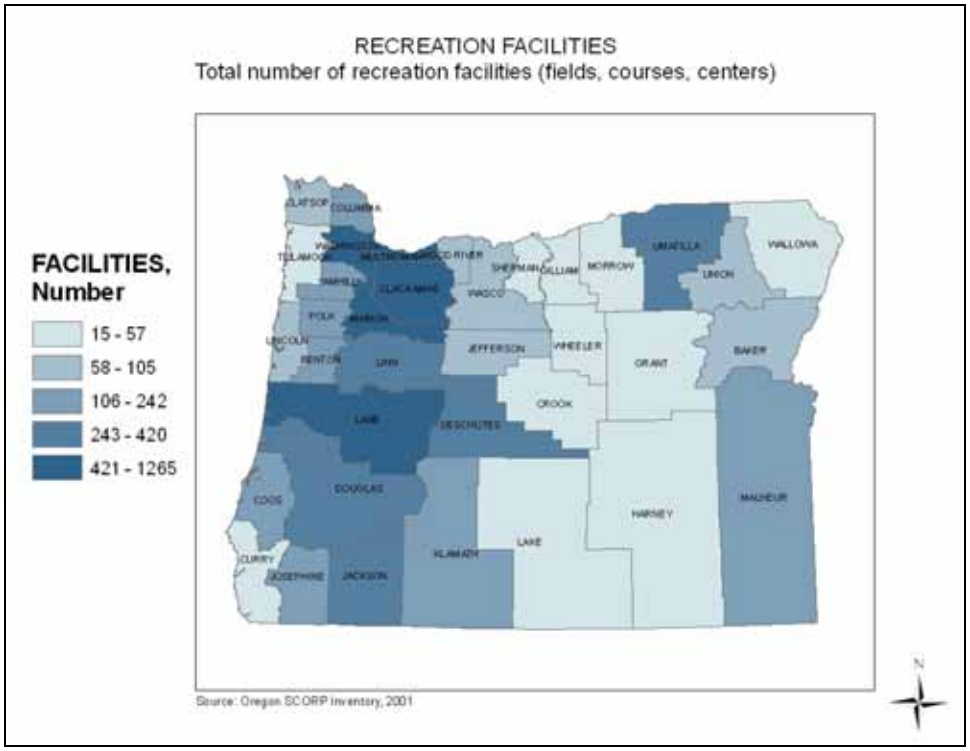


Figure 72: Total number of recreation facilities in Oregon



The total estimated miles of trails and numbers of facilities are correlated with the number of households (Appendix D, Table D3 in on-line report). Therefore, we normalize the recreation supply data by converting them to per household measures. Figure 73 shows the distribution of household density (per acre) across the state. Higher densities are centered on counties with metropolitan and urban centers. Hiking trail miles density averaged 0.03 miles per household, ranging from 0 to 0.3 miles per household. Figure 74 shows a more even distribution of these data across household density differences. Urban trail miles density averaged 0.01 miles per household, ranging from 0 to 0.08. Figure 75 shows how the distribution of these data is more evenly represented when accounting for population differences. Recreation facilities density averaged 0.01 facilities per household, ranging from 0 to 0.03. The normalized facility data were ultimately dropped from the estimated models because they remained highly correlated with metro and household density measures.

Figure 73: Household density (number of households per acre)

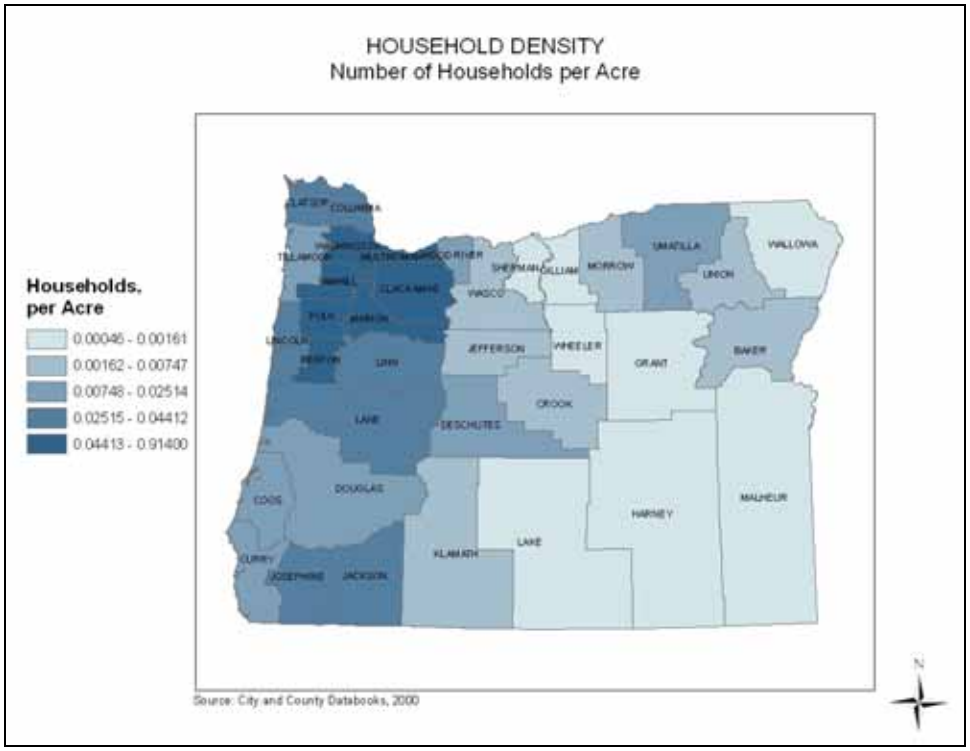


Figure 74: Hiking trail miles density (miles of trail per household)

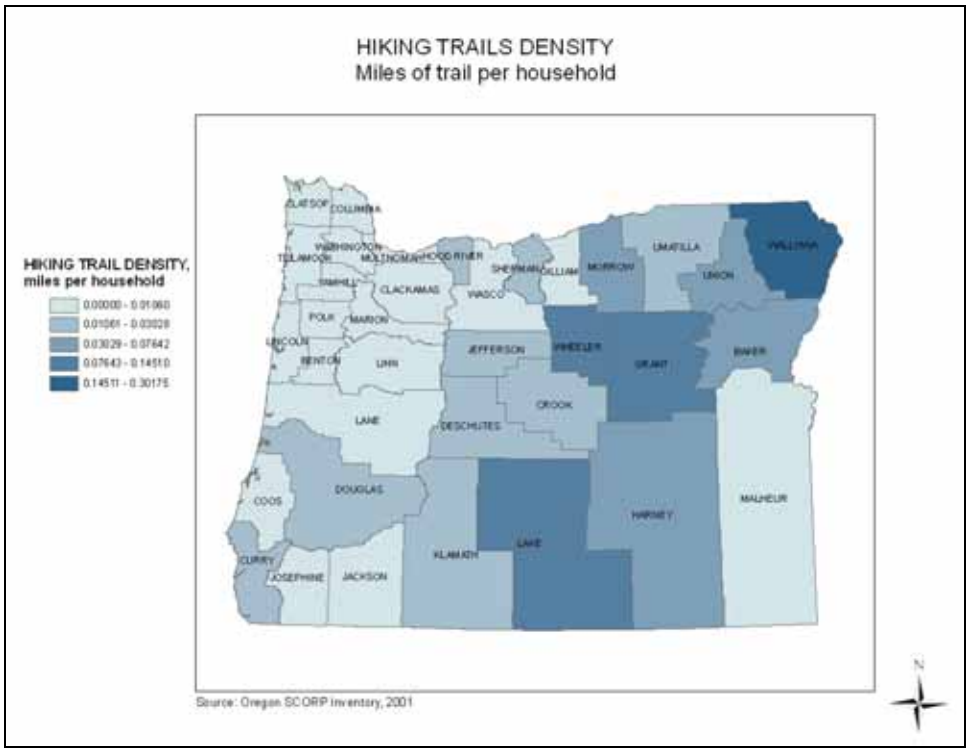
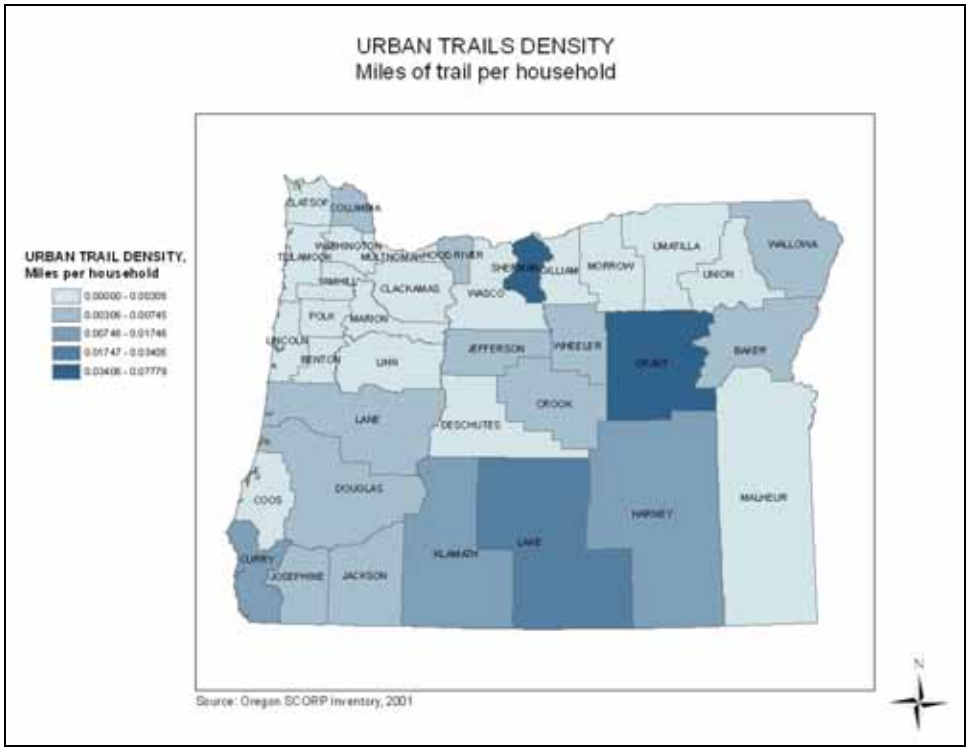


Figure 75: Urban trail miles density (miles of trail per household)



Recreation demand measures were derived from the 2002 SCORP participation survey (OPRD, 2003). An average of 49% of adults participated in trail or off-trail activities, including hiking, backpacking, mountain biking, cross-country skiing, orienteering, or horseback riding. Trail participation ranged from 34% to 65%, with no general visual patterns observable in the data (Figure 76). The average number of days of participating in trail or off-trail activities per year was about 6 days. Annual days in trail activities ranged from 3 to 12 days. Figure 77 shows higher days per household in the central and southeast portions of the state with the exception of Crook County (low rate), and Benton and Clatsop Counties (high rate). An average of 73% participated in road or street activities, including running or walking for exercise, walking for pleasure, in-line skating, or skateboarding. Road and street activity participation ranged from 53% to 92%, with higher rates clustered in the northwest portion of the state (Figure 78). The average number of days of participating in road or street activities per year was about 31 days, ranging from 22 to 45 days. These data were scattered across the state with no discernible pattern (Figure 79). An average of 47% participated in outdoor sports and games, including golf, baseball, softball, football, rugby, tennis, soccer, volleyball, Frisbee games, hang gliding, skydiving, rock climbing, or using children's playground equipment. Sports and games participation ranged from 34% to 60%, clustered around urban centers (Figure 80). The average number of days of participating in outdoor sports and games activities per year was about 8 days, ranging from 3 to 14 days. Figure 81 shows these data are highest in the northern portion of the state. Participation variables were not significant in the models and therefore dropped from the final models. Duration of use is a better measure of physical activity and is retained in the following models.

Figure 76: Proportion participating in trail or off-trail activities

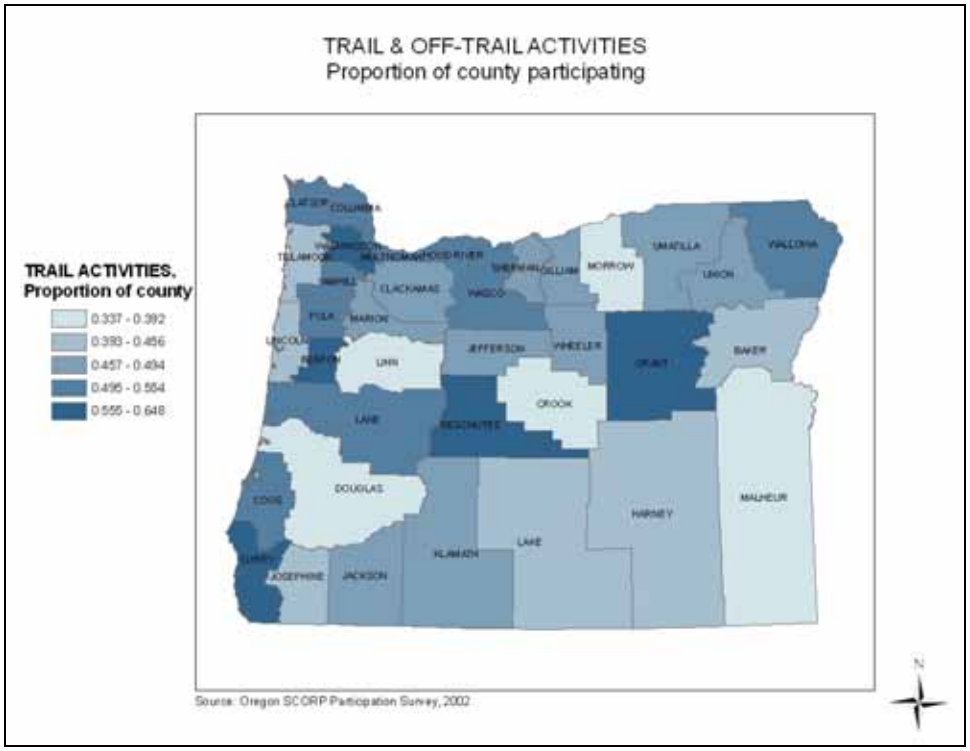


Figure 77: Average annual days per household in trail or off-trail activities

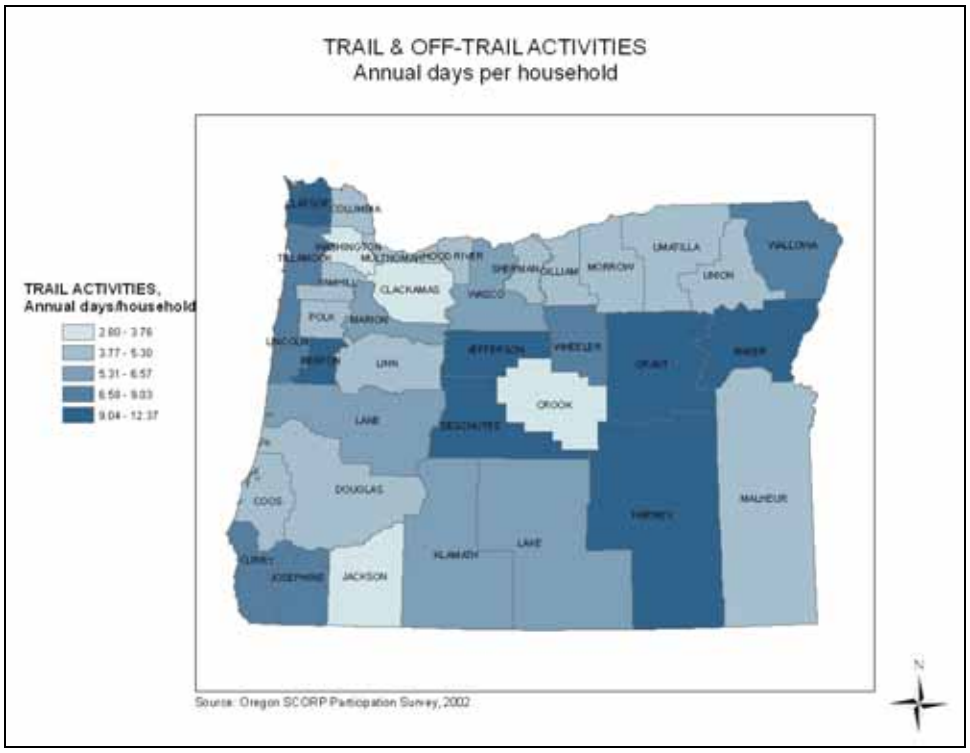


Figure 78: Proportion participating in road and street activities

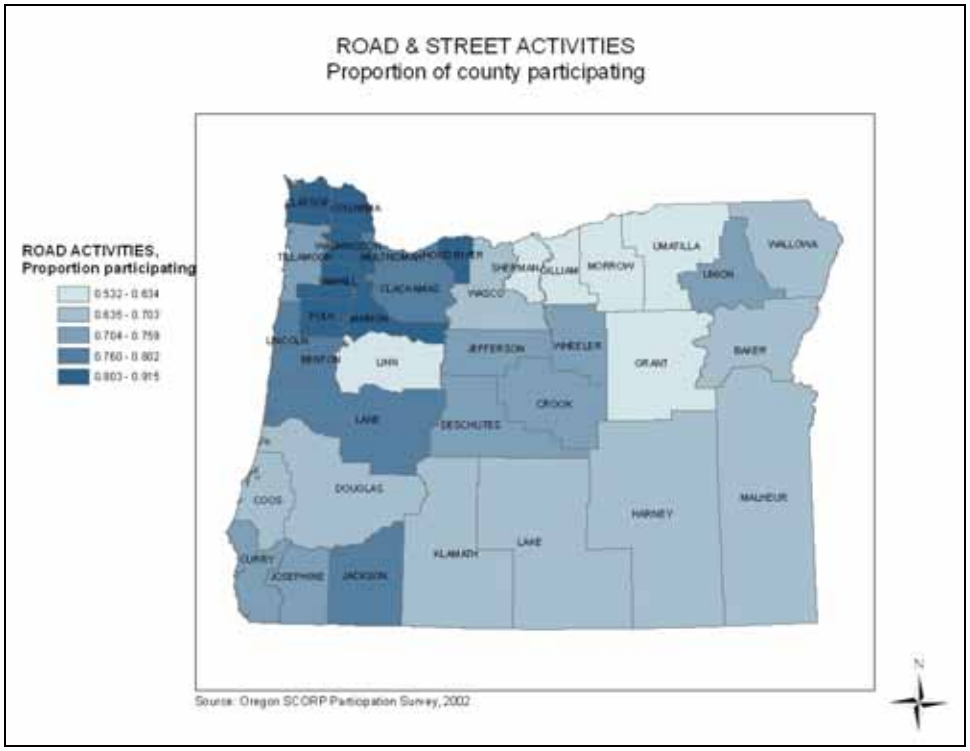


Figure 79: Average annual days per household in road and street activities

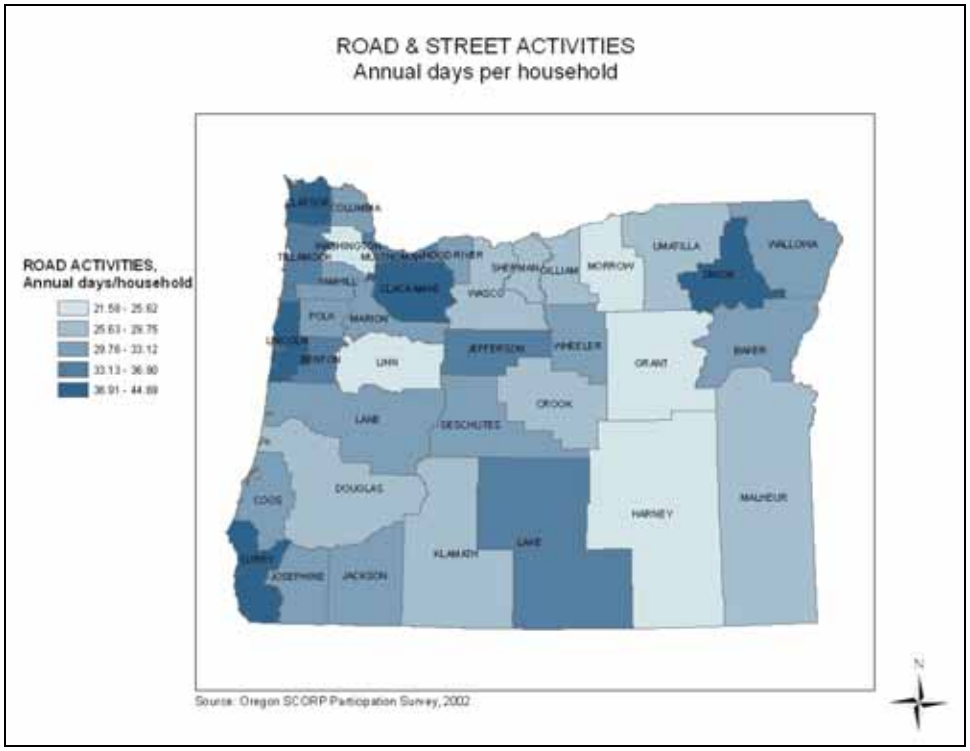


Figure 80: Proportion participating in outdoor sports and games activities

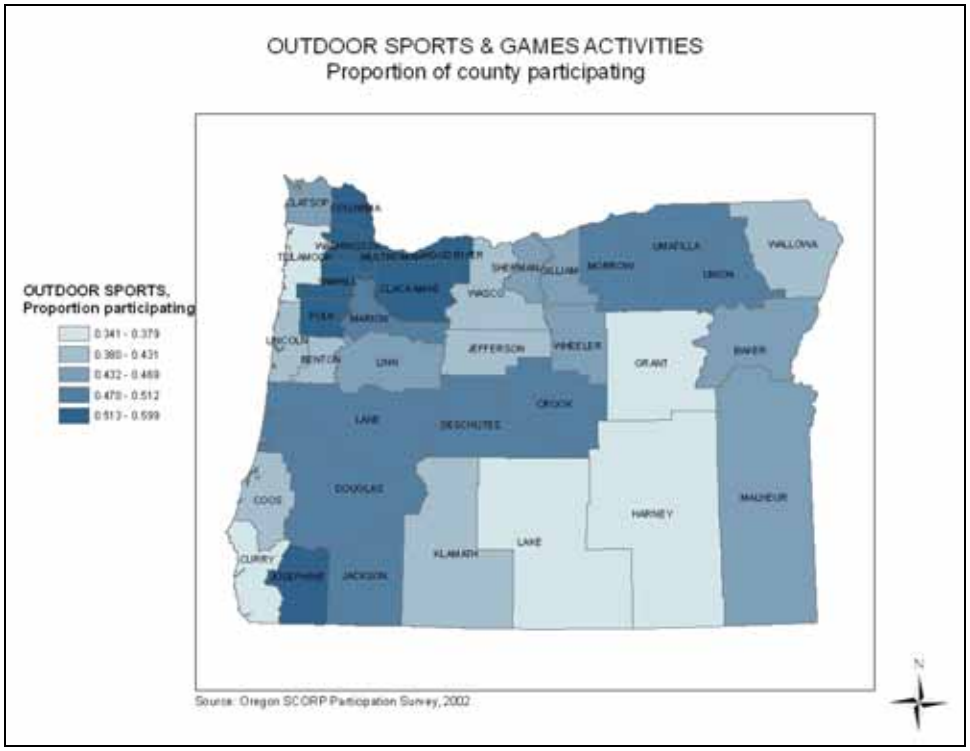
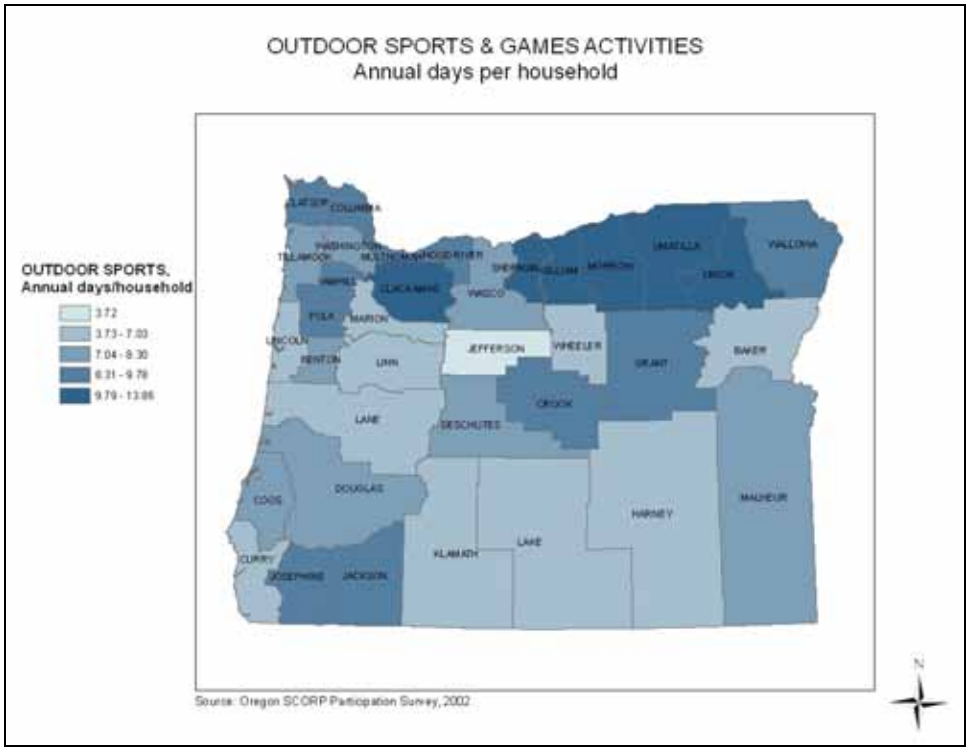


Figure 81: Average annual days per household in outdoor sports and games activities



There was an average of 0.06 households per acre, ranging from 0 to 0.91. About 19% have a college education, and average commute times was a little over 20-minutes one-way. Thirty-one percent of counties are classified as metropolitan, while 14% are classified as rural. Public acres (federal, state, county, and municipal) made up 46% of the total land base in each county on average, ranging from a low of 9% to a high of 78%.

Results of the models using Ordinary Least Squares are reported in Table 42. The estimated coefficients represent the change in the dependent variable (PA, OW, or OB) for a one-unit change in the independent variables. The sign on the coefficient is the direction of the association. These coefficients are estimated associations between the dependent variable and the independent variable, not to be confused with causality. While some of the independent variables may cause changes in the dependent variable, we cannot prove causality with our data. However, patterns in associations in county-level data mirror physical and behavioral results reported for individual-level data (Rosenberger et al., 2005)[87].

Those coefficients that are statistically different than zero are identified with asterisks (*), where statistical significance tests the hypothesis that the estimated coefficient is different than zero. Standard errors of coefficient estimates are provided in parentheses. Elasticity measures are provided in square-brackets. Elasticities are unitless measures of the relationship between the dependent variable and the independent variables, where the estimated elasticity may be interpreted as the percent change in the dependent variable associated with a one-percent change in the independent variable, evaluated at the mean values for the variables. That is, as we move from county to county, elasticities tell us the general effect of changes in recreation supply and demand on the counties' average physical activity and weight status rates. Overall model goodness of fit is provided by the adjusted-R^2, which may be interpreted as the percent of the variation in the dependent variable explained by the independent variables.

The estimated physical activity model (PA MODEL) explained 30% of the variation in physical activity proportions (PA) as reflected in the adjusted-R^2 value. Overweight (OW) is positively associated with PA—for every 1% increase in OW an associated 0.83% increase in PA. We should be very cautious with interpreting this relationship—one plausible explanation is that as people enter the overweight class, they may become more physically active in an attempt to offset their weight gain, although given the elasticity is less than one, not everyone becomes physically active. Obesity proportions (OB) are not associated with PA. Trails are strongly, positively associated with physical activity. Counties with higher per household densities of trail miles have higher proportions of physically active adults. A 1% increase in hiking trails (HIKTRLHH) or urban trails (URBTRL) is associated with a 0.01% higher physical activity rate. The density of public land (PUBAC) in a county is not significantly related to PA. The frequency of participation in various recreation activities is positively associated with PA across counties. The average annual days households participate in trail or off-trail related activities

[87] Rosenberger, RS, Y Sneh, TT Phipps and R Gurvitch. 2005. A spatial analysis of linkages between health care expenditures, physical inactivity, obesity and recreation supply. *Journal of Leisure Research* 37(2):216-235.

(TRAILD), in road and street activities (ROADD), and in outdoor sports and games (SPORTSD) are associated with higher PA rates—elasticities range from 0.10% to 0.13% for a 1% increase in annual participation in the various activities. Household density per acre in a county is negatively associated with PA rates, meaning more densely populated counties have lower PA rates.

The estimated overweight model (OW MODEL) explained 46% of the variation in overweight proportions (OW) as reflected in the adjusted-R^2 value. Physical activity (PA) is positively associated with OW—for every 1% increase in PA an associated 0.27% increase in OW. Again, interpretation of this relationship should be cautious—recall PA was found to be endogenously determined. Obesity proportions (OB) are negatively associated with OW—for every 1% increase in OB an associated 0.15% decrease in OW follows—reflecting movement of people into OB from OW. Trails are strongly, negatively associated with physical activity. Counties with higher per household densities of trail miles have lower proportions of overweight adults. A 1% increase in miles/household of hiking trails (HIKTRLHH) is associated with a 0.01% lower overweight rate. Urban trails (URBTRL) are not statistically associated with OW. The frequency of participation in various recreation activities is negatively associated with OW across counties, although road and street activities are not statistically significant. A 1% increase in trail or off-trail related activities (TRAILD) and in outdoor sports and games (SPORTSD) are associated with 0.07% and 0.08% decreases in OW, respectively. Metropolitan counties had lower OW rates, while rural counties had higher OW rates.

The estimated obesity model (OB MODEL) explained 53% of the variation in obesity proportions (OB) as reflected in the adjusted-R^2 value. This is the only model that explicitly needed to correct for spatial dependence in the form of a spatial error model. Physical activity (PA) and overweight (OW) are not statistically associated with OB. Likewise, trail densities (HIKTRLHH and URBTRLHH) are not significantly associated with OB patterns at the county-level. Only annual days per household participating in trail or off-trail activities (TRAILD) is statistically, negatively associated with OB—a 1% increase in trail or off-trail is associated with a 0.18% reduction in OB. Household density is negatively associated with OB. The more educated a county is as measured by the proportion of 25 or older adults with at least a bachelor's degree (COLLEGE), the lower its OB rate—a 1% increase in COLLEGE has a -0.30% response in OB. Also, counties with longer commute times (COMMUTE), the higher their OB rates—a 1% increase in COMMUTE results in a 0.23% response in OB.

Table 42: Regression results (n = 36)

VARIABLE	PA MODEL	OW MODEL	OB MODEL
Constant	-0.05426 (0.1259)	0.4296*** (0.0397)	0.3689*** (0.0700)
PA	Dependent variable	0.2374*** (0.0690) [0.2714]	-0.0803 (0.0835) [-0.1621]
OW	0.9531*** (0.2559) [0.8342]	Dependent variable	-0.1804 (0.1399) [-0.3186]
OB	-0.0448 (0.2232) [-0.0222]	-0.2688** (0.0994) [-0.1522]	Dependent variable
HIKTRLHH	0.1612** (0.0792) [0.0119]	-0.1348** (0.0500) [-0.0113]	-0.1160 (0.0806) [-0.0172]
URBTRLHH	0.7185** (0.2988) [0.0133]	-0.2298 (0.2748) [-0.0048]	0.0049 (0.3712) [0.0002]
PUBAC	-0.0461 (0.0496) [-0.0478]	---	---
TRAILD	0.0070** (0.0030) [0.1016]	-0.0043** (0.0020) [-0.0713]	-0.0060** (0.0029) [-0.1757]]
ROADD	0.0018* (0.0010) [0.1277]	-0.0005 (0.0008) [-0.0405]	0.0002 (<0.0001) [0.0286]
SPORTSD	0.0059* (0.0031) [0.1103]	-0.0037** (0.0018) [-0.0790]	0.0014 (0.0024) [0.0528]
HHAC	-0.0556** (0.0251) [-0.0073]	---	-0.0669** (0.0291) [-0.0177]
METRO	---	-0.0368*** (0.0081)	---
RURAL	---	0.0272** (0.0122)	---
COLLEGE	---	---	-0.3457*** (0.0606) [-0.3014]
COMMUTE	---	---	0.0025** (0.0012) [0.2302]
λ	---	---	-0.9900*** (0.2075)
Adj-R^2	0.30	0.46	0.53

Standard errors in parentheses; elasticities in square-brackets calculated at mean values.
***p-value<0.01; **p-value<0.05; *p-value<0.1

Summary of Key Findings: Regression Models

1. Recreation supply and demand are strongly associated with higher rates of physical activity, somewhat associated with lower rates of overweight, and weakly associated with rates of obesity.
2. More hiking and urban trail miles per household were associated with increased rates of physical activity.
3 More days spent in trail, road and sports related activities were associated with higher physical activity rates.
4 Hiking trail miles per household were negatively associated with overweight, but not obesity.
5. Days spent in trail and sports activities were negatively associated with overweight, while only days spent in trail activities was negatively associated with obesity.

SUMMARY

The objective of this study was to evaluate the relationship between the supply and demand of recreation opportunities in Oregon and measures of health status (physical activity, overweight, and obesity) at the county-level. Overweight and obesity are significant health concerns in the U.S. However, regular physical activity can attenuate many of the health risks associated with weight status. In fact, the literature shows that physical activity lowers health risks regardless of weight class. Therefore, compelling arguments to get people active are the health benefits derived from a physically active lifestyle. While Oregon is doing better, on average, than the nation regarding proportion of adults that are physically active, there are still significant health benefits to be gained by increasing the physical activity levels of adults in Oregon.

Recreation is one mode through which people may accumulate their recommended daily doses of physical activity. Multivariate regression analyses show that more hiking and urban trails are associated with higher physical activity rates. The models also show that counties in which people are more engaged in trail-related activities, road and street activities (walking, jogging, biking), and outdoor sports, their overall physical activity rates are higher. Therefore, parks and recreation providers have a significant social role to play in the health and well-being of Oregon's residents.

Recommendations

1. *Support close-to-home non-motorized trail development.* Trails provide an important opportunity for people to be physically active. Accessibility is one of the primary attributes of trails, including distance from home. Close-to-home trails provide opportunities for daily doses of physical activity, where remote trails provide other opportunities not available in local trails.
2. *Identify at risk communities*. Health risks, as proportions of county residents, vary across Oregon. We show that this pattern is associated with the distribution and use of recreation opportunities in the form of trail mile density and intensity of use (annual days of participation). Therefore, at risk communities might be those with higher proportions of adults in health risk categories, whose trends in health risk categories are flat or trending in the wrong direction, and/or are associated with inactive environments (low recreation opportunities in terms of availability, accessibility and diversity).

The Population Research Center, Portland State University has projected health status indicators to 2020 for Oregon Parks and Recreation Department. Those counties with relatively low (<50%) proportions of adults that meet recommended levels of physical activity and/or are trending downward over time have been identified as 'in need' counties. This classification could be used to target funds in support of trail development, educational programs, and marketing aimed at getting people active in their environments.

3. *Promote the use of existing trail networks by providing information on existing trails.* People may not be aware of places to recreate. Increasing their awareness may help them become more active. An example is the trails web site development by Oregon Parks and Recreation Department that is currently underway.

4. *Market the health benefits of outdoor recreation, but note the importance of nutrition in a weight loss regimen.* Physical activity promotes good health, regardless of weight class. While physical activity may help prevent weight gain, it may be necessary, but is not sufficient for weight loss. Therefore, a media campaign should focus on health, not weight. For example, a chart that shows the potential health gains from various types of activities by frequency and duration of participation may help keep people motivated. People need to be aware that even though they may not be lowering their weight, they are lowering their health risks of various chronic diseases. Furthermore, recreation may be prescribed by physicians as an important disease prevention program.

5. *Target at-risk people and communities.* Target at-risk people and communities by identifying their preferences for trail attributes, supply gaps in trail networks, and their physical and perceived barriers to participating in physical activity/recreation. Getting sedentary people physically active will lead to health benefits for them and a reduction in the health care burden on society.

Gaps in recreation supply are not simply the lack of facilities (although this is important), but also their location (accessibility) and diversity of opportunities (trails, settings, social events, etc.). Identifying gaps may need to be user driven—who is using resources and why; who is not using resources and why; and what resources would they use that are currently not available to them.

Key Planning Recommendations for Addressing Oregon's Physical Activity Crisis

Following completion of the research studies, the Physical Activity Advisory Committee met to develop a final set of planning recommendations for assisting recreation providers across the state to facilitate an increase in the numbers of Oregonians that meet CDC physical activity requirements. During the August 15, 2007 Advisory Committee meeting, committee members identified the following set of key recommendations based on a thorough review of existing literature related to the issue, SCORP research findings, and members' practical experience and knowledge regarding the issue. Copies of meeting notes and planning recommendations were sent to each Advisory Committee member for review following the meeting.

Key recommendations are divided into two categories; statewide recommendations and local recommendations. Statewide recommendations are relevant for all recreation providers across the state of Oregon. Because rates of physical activity vary across Oregon's counties, local recommendations apply to those high-priority counties in the state that have been identified as "in need" based on adult physical activity rates and trends projected by the Population Research Center at Portland State University.

Statewide Recommendation #1: Develop a statewide marketing plan to encourage Oregonians to become physically active by using park and recreation facilities and services.

Physical activity reduces the prevalence and risk of many chronic diseases, regardless of weight class. Oregon SCORP research has identified that participation in recreational trail activities and outdoor sports and games are important ways in which active Oregonians accumulate their recommended daily doses of physical activity. Other research shows parks are a contributing factor in getting people moving and enjoying the health benefits associated with physical activity. There are ample social benefits to be gained if the 44% of Oregon adults that are currently below suggested physical activity levels become more physically active. As a result, a marketing strategy promoting recreational trail and outdoor sports and games participation could prove to be a cost-effective preventative health strategy for Oregon.

The 2004 Oregon Statewide Non-motorized Trail Users Survey[88] identified that one-third (33%) of Oregon households have a person reporting non-motorized recreational trail use. Hiking, walking for pleasure, bicycling (other than mountain biking), and jogging or running are the top trail activities in terms of extent of participation (percent participation in activity) and frequency of yearly participation. The 2002 SCORP participation survey identified that 40% of the Oregon population participates in outdoor sports and games. Golf, using park playground equipment, baseball/softball, soccer and basketball are top outdoor sports and games activities in terms of extent of participation and frequency of yearly participation.

The Advisory Committee recommended development of a statewide marketing plan to encourage Oregon's sedentary adult population to begin participation in selected park and

[88] OPRD. 2005. Oregon Trails 2005-2014: A Statewide Action Plan. Salem, OR: Oregon Parks and Recreation Department.

recreation programs and services. Based on Oregon recreation participation survey results, the marketing promotion should encourage regular adult participation among sedentary Oregonians in the following park and recreation programs and services:

- Trail hiking or day hiking;
- Walking for pleasure on trails;
- Bicycling on trails;
- Jogging or running on trails;
- Golfing;
- Organized baseball/softball leagues;
- Organized soccer leagues or clubs; and
- Organized basketball leagues or clubs.

Committee members also suggested that it would be of value to seek the expertise of marketing professionals to provide specific direction on how to strategically reach this important target market.

Statewide Recommendation #2: Develop and institutionalize the statewide trails web site and add information about physical activity related recreation programs and facilities following completion of the recreational trails work.

Statewide Recommendation #1 in the Aging Population Chapter describes the creation the Oregon Statewide Trails Web site ─ a one-stop web site for trail opportunities in the state of Oregon. The web site, to be housed on the Oregon State Park web site, will include an interactive map of Oregon allowing users to find trail opportunities in their particular area of the state and neighborhood.

The Physical Activity Advisory Committee members stated that the statewide trails web site was a good first start in providing information to encourage daily physical activity. Following the creation of the statewide trails web site OPRD should continue to collect information for a wider array of close-to-home recreational facilities and programs to facilitate daily physical activity. This effort will include gathering and disseminating statewide information on park programs, facilities (e.g., parks, playgrounds, sports fields), recreation clubs, and volunteer opportunities.

The Oregon Physical Activity Web site project will provide the citizens of Oregon with comprehensive, quality assured, accessible, on-line park and recreation facility and program information both directly and in partnership with other organizations. The vision is to be the leading Internet gateway to information on where Oregonians can get and stay physically active for life. The overall project mission is to improve, promote, and maintain the health and well-being of Oregonians through the development of a recreation resource and referral directory. The project goal seeks to reduce the prevalence of obesity and physical inactivity in Oregon by enabling more Oregonians to become active.

This project will satisfy a strong need identified in recent statewide recreation planning efforts (Oregon Statewide Comprehensive Outdoor Recreation Plan and Statewide Recreational Trails Plan) for easy to access information on where Oregonians can identify and learn about close-to-home recreational facilities and programs to facilitate daily physical activity. The web site will use a unique model of information "pull" (having information on-site rather than providing links to other sites) based on the cooperative development of information with content partners, which will be quality assured and posted on the Physical Activity Web site. The one-stop-shop nature of the proposed web site model will allow consumers to quickly access consistent information on a single web site, rather than having to sort

through a lot of information and numerous sites to find what they are looking for.

Information will be tailored for specific audiences including children, teenagers, families, adults, and older adults, and under-represented populations. In addition to recreation information, the site will also contain up-to-date information on the health benefits of regular physical activity for each of the specific target audiences. A marketing strategy will be developed to introduce the web site to the general public.

OPRD will manage this project with assistance from an interagency Advisory Committee including health professionals, recreation providers and university researchers. Federal, state, and local partners will provide information on their facilities and programs that fit specific facility and program criteria determined by the advisory team, which will be entered into a database designed and maintained by the Department.

Statewide Recommendation #3: Work with the medical community to get outdoor recreation participation information into medical offices and physician referrals.

Research clearly shows that regular physical activity lessens many of the health risks associated with overweight and obesity. However, physicians cannot treat overweight and obesity in a doctor's office. Advisory Committee members felt that Oregon's park and recreation providers have the facilities and programs in place across the state to assist physicians in preserving patient health through facilitating their involvement in active recreation activities.

A program which successfully links physicians with recreation facilities and programs is the Healthy Activities for Wake County[89] developed in Raleigh, North Carolina by the Wake County Health Department's Health Promotion and Chronic Disease Prevention Program, the NC Recreation Resources Service and local Parks and Recreation Departments. In this program, physicians have the option to literally prescribe physical activity to their patients. The program provides physicians with a database of available physical activity opportunities available through local parks and recreation departments in Wake County. Physicians are able to print out a list of opportunities with specific information about where and how to access these recreation facilities or programs for their patients.

Advisory Committee members felt that a similar physician referral program should be developed in Oregon as an intervention tool to target Oregonians at risk of becoming overweight. They recommended beginning with a pilot test at a Health Maintenance Organization (HMO) such as Kaiser Permanente in a specific community such as Portland or Salem to gain insight into the best methods for implementing the referral program into medical practices across the state. The Pacific Northwest Therapeutic Recreation Association should be a key partner in development of the referral program.

Prior to referral program implementation, Advisory Committee members recommended that all local park and recreation providers begin work on an individual basis to place recreation brochures in medical offices in their service areas.

---

[89] A description of this program is available online at: http://www.eatsmartmovemorenc.com/programs_tools/healthcare/success_stories/wake_youthCD.html.

Statewide Recommendation #4: Identify ways to fund recreation maintenance and facility development on school grounds.

A recent study by Powell et al.[90] determined that "communities with lower incomes, higher poverty rates, and higher proportions of racial/ethnic minorities ─ those most at risk to be sedentary and overweight ─ also have the fewest community-level physical activity-related opportunities." According to a recent report by the Prevention Institute[91], "Access to sports fields and courts, playgrounds, swimming pools, and gyms appear to affect activity level. Opening existing facilities such as schools and recreation centers for expanded drop-in hours can be achieved without extensive capital investment." The report suggests that a key policy area to pursue is the use of existing programming and facilities through joint-use agreements allowing school grounds and facilities to be open for public use during non-school hours.

According to Advisory Committee members, there are many Oregon School Districts that close and lock outdoor school grounds and recreational facilities during the summer months. A primary reason for these closures is a lack of funds available to maintain these grounds and facilities. In communities with adequate park and recreation resources, municipalities use strategies such as adding use schedules in partnership agreements and having parks and recreation departments maintain fields and facilities for the schools to open these facilities to the general public.

Advisory Committee members stated a need to identify a funding source for recreation maintenance and facility development on school grounds to facilitate statewide public access to outdoor recreation grounds and facilities on public school properties.

Statewide Recommendation #5: Develop a strategy to strengthen the role of parks and recreation agencies in the state's Safe Routes to Schools grant program.

Only a generation ago, children routinely traveled around their neighborhoods either on foot or by bike. Today, fewer children are walking and biking and more parents are driving. In 1969, 42% of children five to18 years of age walked or bicycled to school ─ in 2001, the rate fell to 16% (CDC, 2005). This trend of children replacing a routine of physical activity with motor-powered transportation has led to lifestyle changes impacting children, families, schools, neighborhoods and the broader community.

The Oregon Safe Routes to School (SRTS) Program has $3.5 million over 2005-2009 for projects at schools, serving grades K-8. $2.1 million in funds is available for award in 2007. The program administers funds received from the 2005 SAFETEA-LU transportation bill for Safe Routes to School programs. The goals of the program are to increase the ability and opportunity for children to walk and bicycle to school; promote walking and bicycling to school and encourage a healthy and active lifestyle at an early age; and facilitate the planning, development and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution within two miles of the school.

According to the National Recreation and Park Association (NRPA), local park and recreation departments are one of the best untapped

---

[90] Powell, L., Slater, S. and Chaloupka, F. The relationship between physical activity settings and race, ethnicity, and socioeconomic status. Evidence-Based Preventative Medicine, 2004. 1(2), 135-144.

[91] Mikkelsen, L., Chehimi, S. and Cohen, L.Healthy eating and physical activity: Addressing inequities in urban environments. May 2007. Prevention Institute.

potential partners for the SRTS program, and could help enable not only better neighborhood connections to schools, but also connections to after-school activities, parks, trails, recreation programs and organized sports. An informal survey by NRPA of local and municipal park and recreation agencies in 2006 indicated that there are a very large number of local park and recreation agencies that own or manage much of the land surrounding local schools and connecting to local neighborhoods. In Oregon, the Bend Metro Park and Recreation District has 10 park properties that are adjacent to schools.

The Advisory Committee recommends that the Oregon Recreation and Park Association (ORPA) begin discussions with the ODOT to place a parks and recreation representative on the statewide Advisory Committee for the Oregon SRTS program and to modify grant evaluation criteria to encourage parks and recreation department proposals. ORPA could also identify ways for local parks and recreation departments to better complete for available SRTS grant funding resources and to disseminate information about successful park and recreation projects receiving SRTS funding from across the country.

At the local level, parks and recreation providers should begin conversations with school districts about potential SRTS grant projects involving park properties and facilities.

Statewide Recommendation #6: Create a pilot project to identify how to increase under-represented population access to outdoor sports fields.

Note: This statewide physical activity recommendation is the same as Statewide Recommendation #2 in the Diversity chapter. Since individual chapters may serve as stand-alone documents, this recommendation is the same as presented in the Diversity chapter.

The statewide survey of Hispanic and Asian households identified that with respect to youth outdoor programs, the majority (59%) of respondents with children indicated that their children have participated in outdoor sports programs. Outdoor sports programs were also the activity that most of these children were most likely to participate in the future. Lack of information and cost were reported as the main constraints to participate in such activities. When considering programs for children to participate in outside class time, Hispanic parents place highest priority on staying safe and out of trouble and getting physical activity. Asian parents place highest priority on getting physical activity and having fun.

According to Advisory Committee members, soccer is a gateway outdoor activity for Oregon's Hispanic youth population. However, many low-income under-represented families lack the necessary financial resources to pay fees associated with participation in traditional youth soccer programs. As a result, many of Oregon's children are missing out on the opportunity to connect with local park and recreation programs and getting more physically active. Research has identified that being overweight as a child significantly increases the risk for coronary heart disease in adulthood as early as age 25. This health threat is of particular concern with the Hispanic and African-American populations with relatively higher levels of overweight and obesity.

Non-profit organizations such as Oregon State University's 4-H Youth Development Program have attempted to fill the youth soccer service void, by providing low-cost opportunities for Hispanic youth to participate in youth soccer leagues in the Willamette Valley. However, such non-profit groups often experience difficulties in making arrangements with park and recreation providers to access pubic soccer

fields because of high liability insurance costs. Advisory Committee members felt that there were ways to address the liability issue through partnership agreements between non-profit organizations and park and recreation departments where the department becomes the sponsor for the soccer program. They felt that many park and recreation departments were simply not aware of how to structure such legal arrangements to cover liability insurance requirements.

Advisory Committee members recommended that a pilot project be developed and tested to remove barriers for under-represented population sports clubs to access public outdoor sports fields managed by local park and recreation departments in Oregon. The pilot project should include model partnership language for local park and recreation providers to use to reduce the high liability insurance costs associated with sports clubs using their sports fields; and a method for providing limited funding for under-represented population outdoor sports teams in Oregon.

Statewide Recommendation #7: Identify ways to fund and maintain bicycle trails on Oregon Department of Transportation (ODOT) right-of-ways which are separated from the roadway using excess corridor.

Committee members recommended that as traditional funding sources such as the Land and Water Conservation Fund (LWCF) and the Urban Park and Recreation Recovery (UPAR) programs diminish, park and recreation providers need to take a strategic look at the federal Transportation Bill as a source of funding for recreational trail projects. In the present cycle of authorization of SAFETEA-LU that goes to bicycle and pedestrian trails, there are about 10 different program categories of eligibility such as transportation alliances, air quality, job access, safe routes to school and 12 eligible categories of transportation enhancement. At the national level, there is approximately $1 billion dollars in dedicated funding that is now available — with a lot of un-obligated funding as a result of too few project applications. Park and recreation providers need to link up with transportation planners and the ODOT to allow park and recreation projects to help contribute to their priorities, solutions and needs.

For safety reasons, park and recreation designers want to separate bicycle trails from the side of the roadway and automobile traffic. From a recreational design perspective, such trails could still be in the right-of-way, but separate from the highway. However, according to committee members recreational trail projects submitted to ODOT for SAFETEA-LU federal grant programs are not successful when trail designs are separate from the roadway.

Due to challenges associated with identifying and developing bicycle/pedestrian corridors in the state, it is important that all players, including federal, state, and local agencies, non-profit and private-sector organizations, join together in planning efforts to make the most efficient use of existing transportation and recreation trail infrastructure. As a result, the Advisory Committee members recommend that park and recreation providers work with the ODOT to identify ways to fund and maintain bicycle trails on ODOT right-of-ways (non-operational and operational) which are separated from the roadway using excess corridor.

Local Recommendation #1: Greater priority for close-to-home non-motorized trail acquisition and development projects in OPRD-administered grant programs.

Trail activities such as walking, jogging or running, in-line skating, cross-country skiing, and bicycling are well documented to help improve health and fitness when done on a regular basis. Exercise derived from trail-related activities lessens health related problems and subsequent health care costs. Non-motorized trails provide a safe, inexpensive avenue for regular exercise for people living in rural, urban and suburban areas.

Support for close-to-home non-motorized trail development is a key recommendation included the SCORP Health and Recreation Linkages study. According to the report, "Trails provide an important opportunity for people to be physically active. Accessibility is one of the primary attributes of trails, including distance from home. Close-to-home trails provide opportunities for daily doses of physical activity, where remote trails provide other opportunities not available in local trails." The study identified that urban trail density was positively associated with physical activity rates and that trail activities were positively associated with physical activity rates; and negatively associated with physical activity rates and obesity rates within the Oregon population.

The need for more trails in close proximity to where people live was also a top statewide concern identified in the 2005-2014 Trails Plan. Recreation providers and other workshop attendees in issues workshops across the state voiced a need for more trails non-motorized trails in close proximity to where people live. This need is clearly in line with the findings of the 2002 Oregon Outdoor Recreation Survey that identified running and walking for exercise and walking for pleasure as the most popular everyday outdoor recreation activities of Oregonians. According to the OSU report, these activities are generally engaged in near home, and on a regular basis and state residents demand these opportunities in the communities in which they live.

As pointed out in this chapter, health risks, as proportions of county residents, vary across Oregon. To better understand this variation in health risks, the Population Research Center at Portland State University has projected health status indicators to 2020 for Oregon Parks and Recreation Department as a part of this SCORP planning effort. According to the Population Research Center report, high-priority counties in Oregon include those having less than 50% of the adult population meeting the CDC recommendations (in 2010) and those with a negative trend over time with less then 50% in 2020. High-priority counties identified in the Population Research Center analysis include Morrow, Umatilla, Tillamook, Baker, Wallowa, Crook, Douglas, Hood River, Josephine, Harney and Columbia. These counties could greatly benefit from the health benefits associated with increased recreational trail use. As a result, priority points should be awarded for close-to-home trail acquisition and development project applications within these 11 Oregon counties in the OPRD-administered grant programs.

Additional Recommendations

Although not key statewide or local recommendations, the following recommendations were also identified in the planning process as ways that local, state, and federal recreation providers can tribute to an overall increase in the numbers of Oregonians that meet CDC physical activity requirements.

1. Adopt the AARP/NRPA 10-week Senior Walking Program for use across Oregon. The intent is to help participants find safe places to walk, and provide tools and support to help them take personal

responsibility for their health and to stick with their exercise plans. Additional information about this program is available at the following web site: http://www.nrpa.org/content/default.aspx?documentId=5331.

2. Work with local park and recreation departments to establish mall walking programs within their communities to encourage winter walking.
3. Adopt the NRPA "Step up to Health" Program for use across Oregon. The program is an online, in-service training for staff and citizen leaders. It offers field-tested curriculum to increase awareness and knowledge about the health impacts of physical inactivity and poor diet. It also focuses on proven strategies and best practices to combat sedentary lifestyles. Additional information about this program is available at the following web site: http://www.nrpa.org/content/default.aspx?documentId=4491.
4. Encourage employers to provide flextime to allow for physical activity before or during the workday. Park and recreation providers should work with employers to set up programs to use local park and recreation facilities and programs.
5. Develop a pilot project to examine whether adding lighting to high-daytime use urban recreational trails would significantly increase trail use during evening and early morning hours and among women.
6. Work with park and recreation departments to establish bike refurbishing programs modeled after the Corvallis Parks and Recreation Departments program. The following is a brief description of the program (next page).
7. Develop a model marketing plan for a "Passport to Winter Fun" designed to show Oregonians what to do outdoors during winter months. Potential slogan: "*There is no bad weather, only bad clothing!*" The concept is based on a program developed by the Upper Valley Trails Alliance in Norwich, Vermont. Additional information about this program is available at the following web site: http://www.uvtrails.org/passport.htm.
8. Adopt the Ohio model for a Healthy Community Award for Park and Recreation Agencies. The Healthy Ohio Park and Recreation Community Award is a self-assessment tool that enables agencies to review their programs and policies as they relate to the health and fitness of the entire community. Agencies are measured against others within their selected park district whether rural, suburban or urban. Those earning the most points based on this assessment are awarded a gold, silver or bronze award. Additional information about this program is available at the following web site: http://healthyohioprogram.org/. This award is part of Governor Ted Strickland's comprehensive health care reform initiative.

CORVALLIS YOUTH VOLUNTEERS HELP OTHERS GET ON THE ROAD

by Deb Curtis, Recreation Program Coordinator

Corvallis Parks and Recreation Department's bike refurbishing program connects youth with the community by teaching bike repair skills, while modeling recycling practices. For the past seven years, youth, ages eleven to sixteen, who participated in the Department's Youth Volunteer Corps (YVC), spent time learning about bike maintenance, reuse and recycling, while refurbishing donated bikes. The finished bikes were then given to community members in need through the assistance of various non-profit organizations. In addition to learning a new life skill, youth gained knowledge about the vital role played by area organizations helping people in difficult times.

YVC youth work side by side with bike mechanics from Oregon State University's Outdoor Recreation Center and local bike shops to rebuild and repair donated bikes. The bikes are donated by community members and through the organizations who later receive the refurbished bikes. The mechanics evaluate the bikes for potential repair, and if beyond repair, parts are collected to use in the program. After all useable parts have been stripped the bike is recycled at a local metal recycling facility, keeping it out of the waste stream. Local bike shops donate parts or provide them at discounted prices. In addition, staff members have written successful grants to Consumers Power, the Kiwanis and the Blazers Community Builders Youth Corps program to help pay for parts and training for the youth.

One hundred-thirty-five refurbished bikes have been donated to local non-profits, such as Jackson Street Youth Shelter, Children's Farm Home (a residential treatment facility for youth), and Community Outreach's family and adult shelters.

In December 2006, Corvallis Parks and Recreation expanded the program to include a "Bikes for Tykes" component. Youth repaired, cleaned, and painted seventeen children's bikes and one scooter that were given to low-income youth through a local non-profit as holiday gifts.

For more information regarding this program, or the Youth Volunteer Program, call Deb Curtis at Corvallis Parks and Recreation at 766 - 6918 or email debra.curtis@ci.corvallis.or.us.

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Appendix A
Oregon Demographic and Social Trend Analysis

Prepared by the Oregon Parks and Recreation Department

Demographic and Social Trend Analysis

For Oregon Parks and Recreation Department
Prepared by: Population Research Center
Portland State University.
October 2007.

Introduction

This report presents population projections and estimates for Oregon, its counties and for selected incorporated cities, for the period 2000 to 2020. The projections are benchmarked to 2000 census results for the city and county populations, except for the projections created from the Behavioral Risk Factor Surveillance System data and Oregon Healthy Teens survey.

The forecasts in this report are based on assumptions developed from analysis of historical trends and expectations of the future. While the past gives some indication of what is likely to happen in the future, there always the possibility of unforeseen events that could have a significant impact of population change. Thus, users of these projections should be aware that new changes could occur and that it is wise to evaluate projections periodically in future years.

Given that these projections are developed for long-term trends, they are conservative. This means that they do not assume drastic changes to the population trends.

Methods and Assumptions

All projections use the 2005 population estimates, produced by the Population Research Center for the State of Oregon, as the benchmark population. The estimates are considered the benchmark for Oregon's population and have been developed to be as accurate as possible.
We use two methods to project city and county populations: 1) Share-of-Growth method for projecting county population size, and 2) Shift-Share projections for the total city population and all other sub-county categories, by five years intervals, from 2010 to 2020.

The Share-of-growth method is that the focus is on shares of population growth rather than population size. It provides a more reasonable projection because it assumes that the smaller area (county) population growth will be the same over the projection horizon as it was during the base period.

Shift-share method accounts for changes in population shares over time. In particular, we assume here that the influences of population change (fertility, mortality, and migration) are similar in Beaverton, Hillsboro, and Tigard cities and surrounding Washington County. So, rather than make detailed assumptions about local mortality, fertility, and migration levels for the city populations, we can presume a link between population changes in the county and the cities located in their particular county.

Projection Methods, 2010-2020

Total County/State

Data: 2000 U.S. Census, and 2005 estimates from the Population Research Center and projections from Office of Financial Management (OFM).

Methods: Shift-Share[1] method was used to create State projections based on 2005 estimates and then compared OFM projections (which are based on 2003 population estimate). OFM county projections were then raked to the new state projections.

Total City (for selected cities)

Data: 1990, 2000 U.S. Census, and 2005 estimates from the Population Research Center

Methods: Shift-Share[1] method was used to calculate these projections.

Five year Age groups, County

Data: OFM projections and 2005 estimates from the Population Research Center

Methods: OFM projections were used as a base for all projections. State by age was raked to each years total population and then all counties were raked to county and age totals.

Youth 6-11 years and 12-17 years; County and Selected Cities

Data: 1990, 2000 U.S. Census, and 2005 estimates from the Population Research Center

Methods: Share-of-Growth[1] method was used for county projections and Shift-Share[1] method was used for city projections.

Adults 60 and over; County and Selected Cities

Data: 1990, 2000 U.S. Census, and 2005 estimates from the Population Research Center

Methods: Share-of-Growth[92] method was used for county projections and Shift-Share[1] method was used for city projections.

Hispanic, Black, and Asian/PI; County and Selected Cities

Data: 1990, 2000 U.S. Census, and 2005 estimates from the Population Research Center

Methods: Share-of-Growth[1] method was used for county projections and Shift-Share[1] method was used for city projections.

Suggestions for Priority Counties

1. Increase in aging population 60 years and older
   To be considered a high priority county, counties must have had at least 9 percent of the states population in 2005, or at least 10 percent of the population in 2015, or 20 percent change in 2015.
   Priority counties: Benton, Clackamas, Columbia, Crook, Deschutes, Lane, Multnomah, and Washington

2. Increase in youth population between the ages of 6-17
   To be considered a high priority county, counties must have had:
   Ages 6 to11- over 8 percent change or more than 10 percent of the total state population.
   Ages 12 to 17- over 8 percent change in 2015 or 2020 or more than 10 percent of the total state population.
   Priority counties: Clackamas, Crook, Deschutes, Jefferson, Lane, Marion, Morrow, Multnomah, Washington and Wheeler.

3. Increase in population diversity for Hispanic ethnicity and Black, Asian/Pacific Islander races. To be considered a high priority county, counties must have had:
   a. Hispanic-over 15 percent change in 2015 and 2020 or over 10 percent of the total state population.
      Priority counties: Clackamas, Deschutes, Lincoln, Marion, Morrow, Multnomah, Sherman, Tillamook, Washington and Wheeler.
   b. Asian/Pacific Islander- over 15 percent change in 2015 and 2020 or more than 10 percent of the total state population.
      Priority counties: Clackamas, Deschutes, Jackson and Washington.
   c. Black-over 20 percent change in 2015 and 2020 or over 10 percent of the total state population.
      Priority counties: Deschutes, Washington and Multnomah.

4. Adult population meeting CDC physical activity recommendations.
   To be considered a high priority county, counties must have had:

[92] State and Local Population Projections, Smith, S., et al., Shift-Share: Trend Extrapolation Methods, Chapter 8:178-180.

Less than 50% of the adult population (18+) meeting the CDC recommendations[93] (in 2010) and those counties that have a negative trend over time with less then 50% in 2020.
Priority counties: Baker, Columbia, Crook, Douglas, Harney, Hood River, Josephine, Morrow, Tillamook, Umatilla and Wallowa.

Suggestions for Priority Cities

Method for City Selections

Key: Total Population
1990: X_1
2000: X_2

High priority cities for aging, diversity, and youth were selected based on three variables:

1) Relative percent change- special population (2000) divided by total population (2000); minus 1990 special population divided by total population (1990).
   Formula: $(Y_2/X_2) – (Y_1/X_1)$
2) Absolute change- 2000 special population minus 1990 special population.
   Formula: $Y_2 – Y_1$
3) Absolute percent change- 2000 special population divided by 1990 special population;
   minus 1.
   Formula: $(Y_2/Y_1) –1$

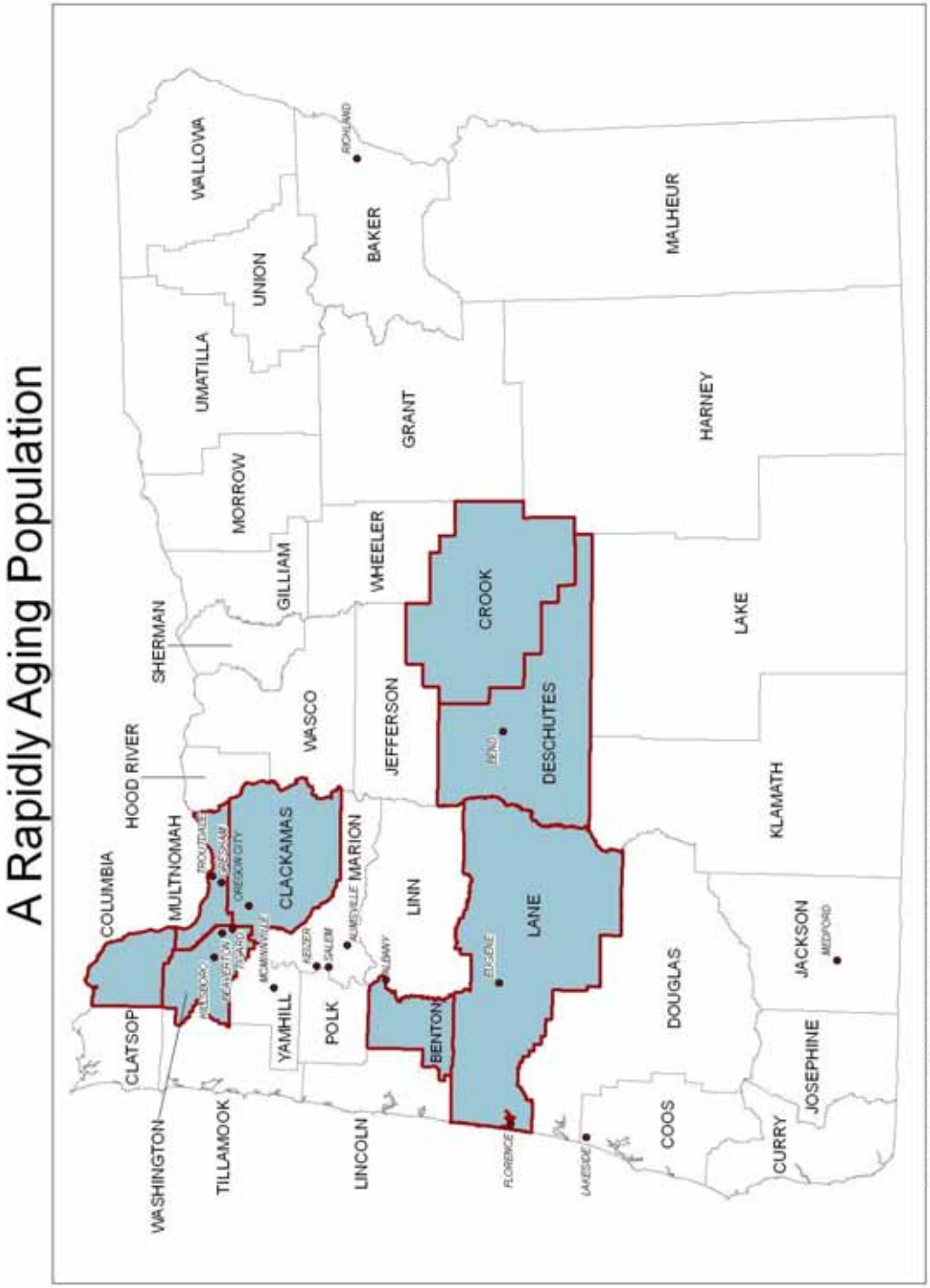
1. Increase in aging population 60 years and older
   Priority cities: Albany, Aumsville, Beaverton, Bend, Eugene, Florence, Gresham, Hillsboro, Keizer, Lakeside, McMinnville, Medford, Oregon City, Richland, Salem, Tigard and Troutdale.

2. Increase in youth population between the ages of 6-17
   Priority cities: Albany, Banks, Barlow, Beaverton, Bend, Boardman, Coburg, Creswell, Donald, Eugene, Fairview, Gresham, Happy Valley, Helix, Hillsboro, Medford, Oregon City, Portland, Redmond, Salem, Sherwood, Tigard, Wilsonville and Woodburn.

3. Increase in population diversity
   a. Hispanic ethnicity diversity
      Priority cities: Albany, Beaverton, Bend, Boardman, Canby, Cornelius, Corvallis, Eugene, Fairview, Forest Grove, Gervais, Gresham, Hermiston, Hillsboro, Hood River, Hubbard, Irrigon, Keizer, Lafayette, Madras, McMinnville, Medford, Milton-Freewater, Newberg, Ontario, Portland, Salem, Springfield, Stanfield, Tigard, Tualatin, Umatilla, Wilsonville, Wood Village and Woodburn.
   b. Asian/ Pacific Islander race diversity
      Priority cities: Beaverton, Bend, Corvallis, Eugene, Fairview, Forest Grove, Gresham, Happy Valley, Hillsboro, Keizer, Lake Oswego, Medford, Portland, Salem, Sherwood, Springfield, Tigard, Troutdale, Tualatin, West Linn, and Wilsonville.
   c. Black race diversity
      Priority cities: Albany, Ashland, Beaverton, Cornelius, Eugene, Fairview, Gladstone, Gresham, Hermiston, Hillsboro, Keizer, McMinnville, Medford, Milwaukie, Monmouth, Oregon City, Portland, Salem, Springfield, Tigard, Troutdale, Tualatin, Umatilla and Wilsonville.

[93] U.S. Center for Disease Control (CDC) physical activity guidelines include moderate activity greater or equal to 30 minutes at least five days a week or vigorous activity greater or equal to 20 minutes at least three days a week..

Figure A1: High priority counties and cities –
Increase in Oregon population 60 years and older (2005-2020)



Counties and Cities that have been identified as "high priority", based on increase in aging population 60 years and older, by the Population Research Center at Portland State University.

Figure A2: High priority counties and cities ─
Increase in Oregon youth population 6-17 years (2005-2020)

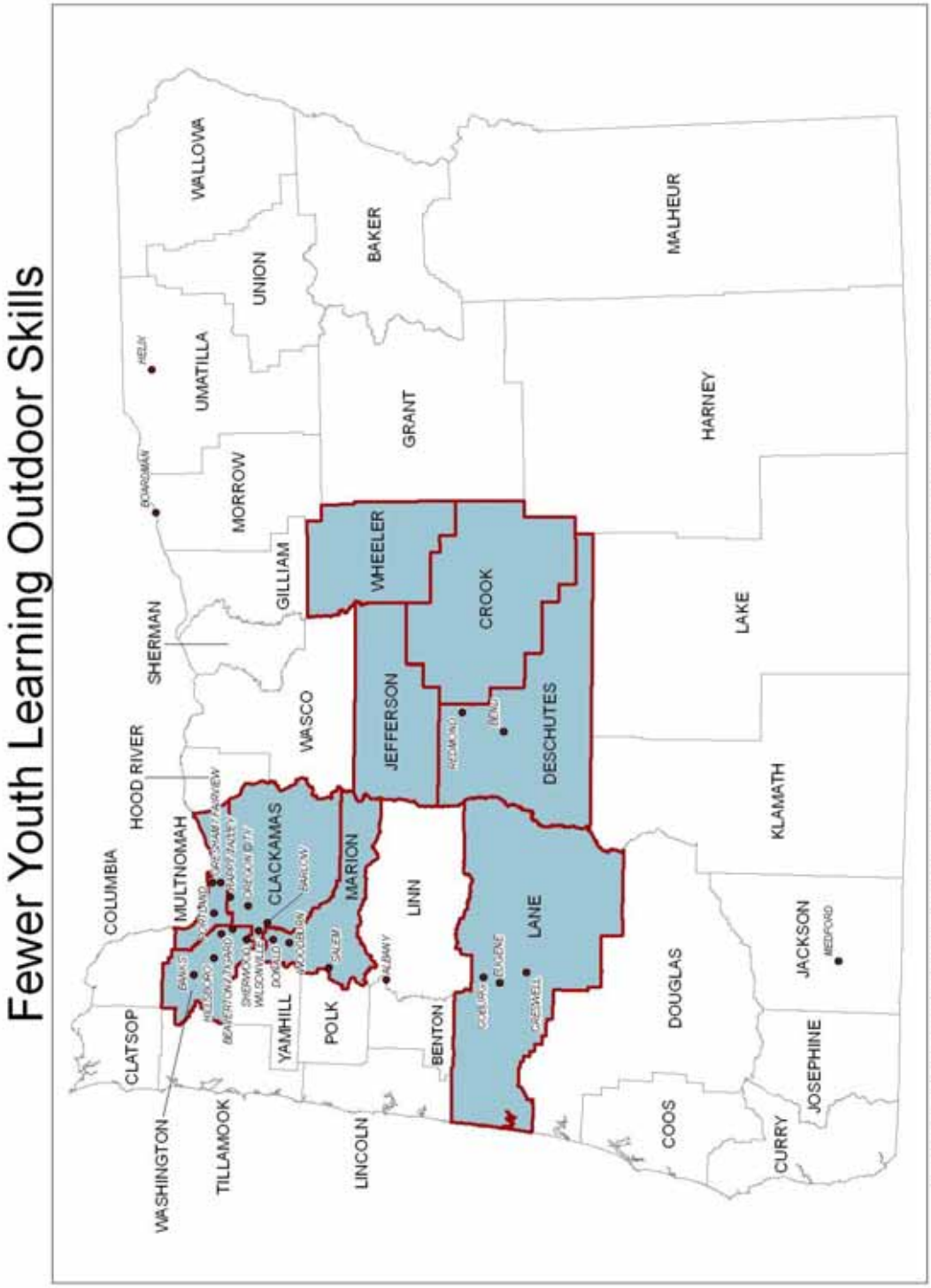
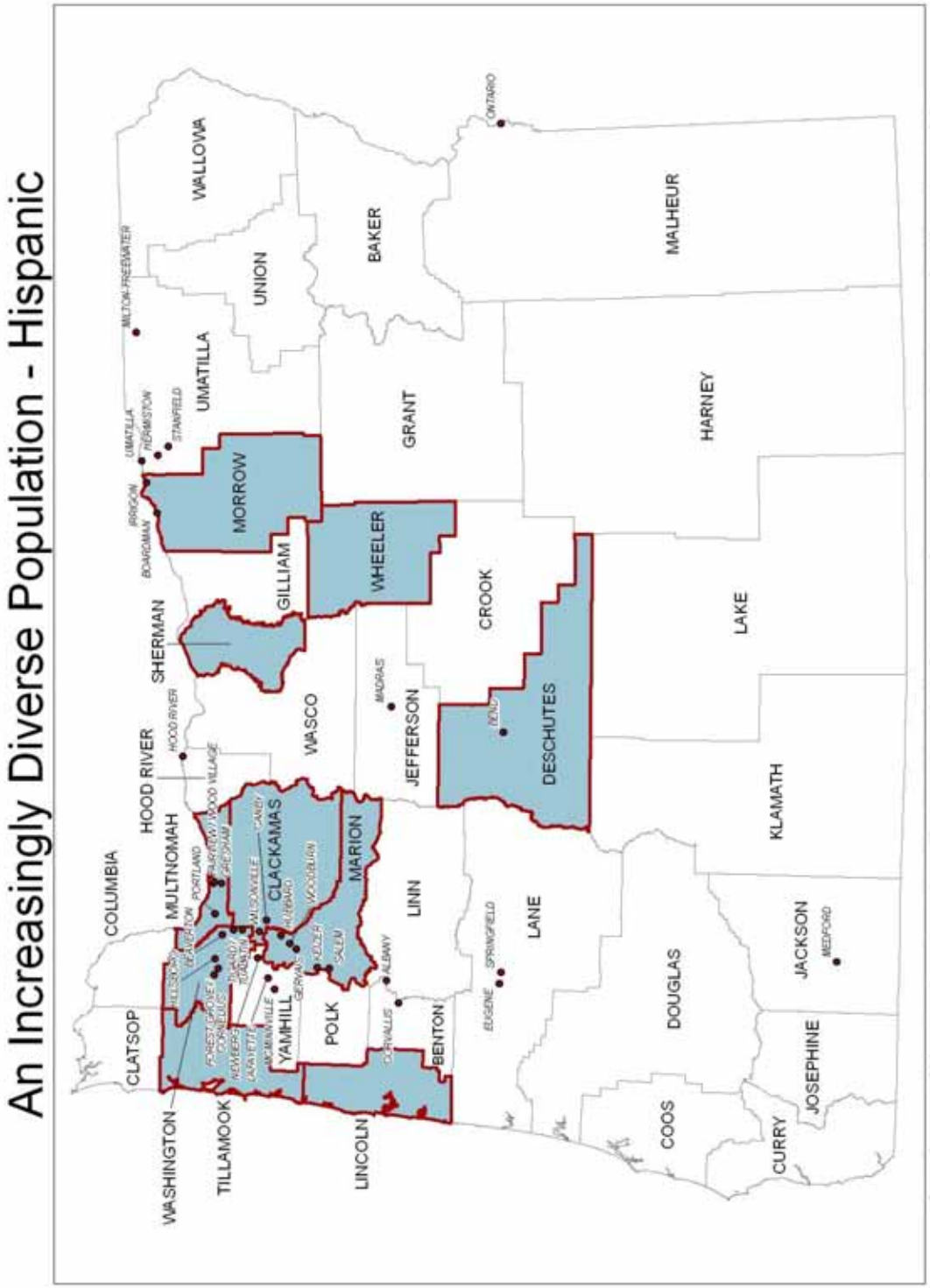
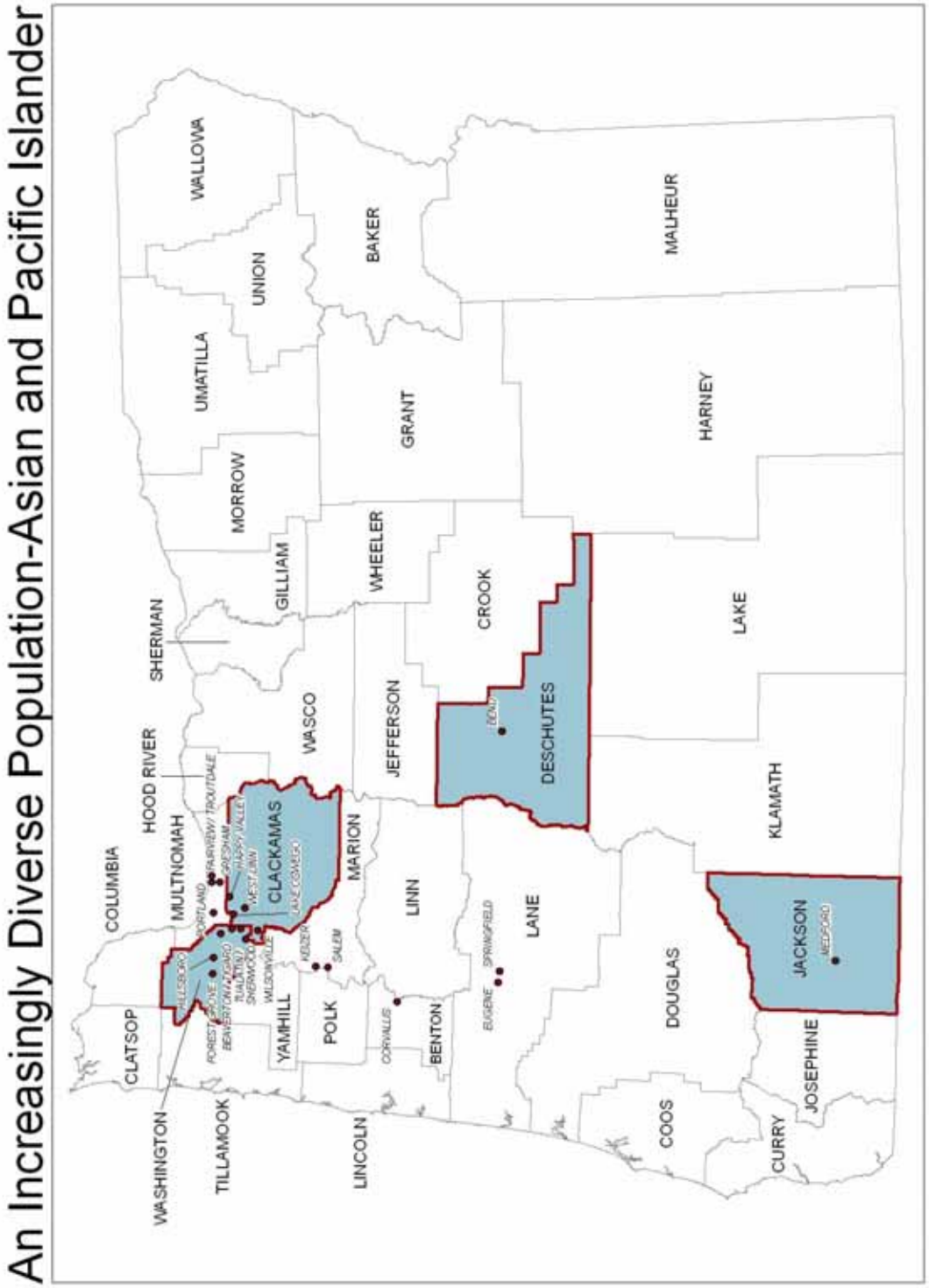


Figure A3: High priority counties and cities ─
Increase in Oregon Hispanic population (2005-2020)



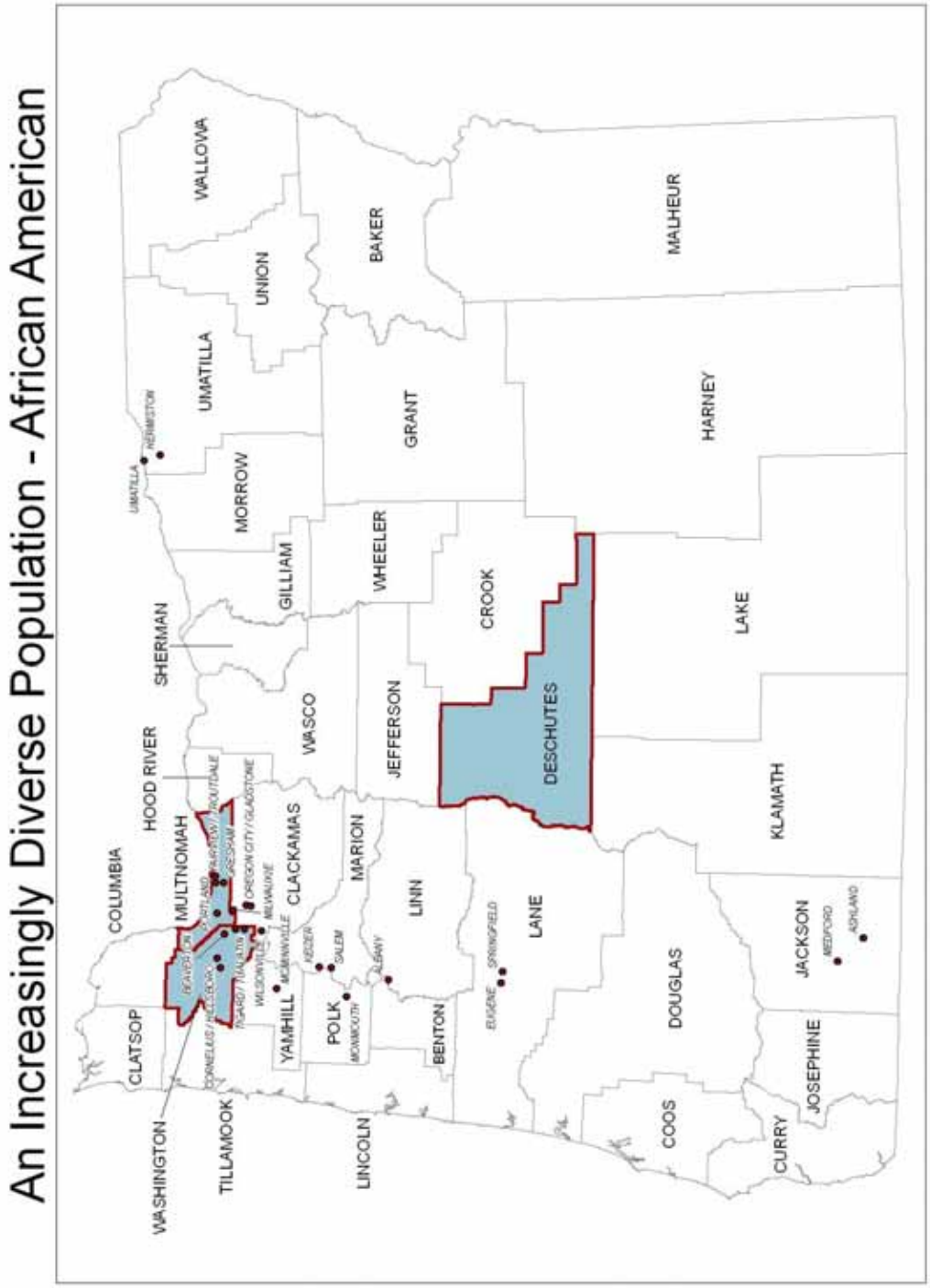
Counties and Cities that have been identified as "high priority", based on increase in population diversity for Hispanic ethnicity, by the Population Research Center at Portland State University.

Figure A4: High priority counties and cities –
Increase in Oregon Asian and Pacific Islander population (2005-2020)



Counties and Cities that have been identified as "high priority", based on increase in population diversity for Asian and Pacific Islanders, by the Population Research Center at Portland State University.

Figure A5: High priority counties and cities ─
Increase in Oregon African-American (Black race) population (2005-2020)



Counties and Cities that have been identified as "high priority", based on increase in population diversity for African Americans, by the Population Research Center at Portland State University.

Figure A6: High priority counties and cities –
Increase in Oregon adult population not meeting CDC physical activity requirements (2005-20)

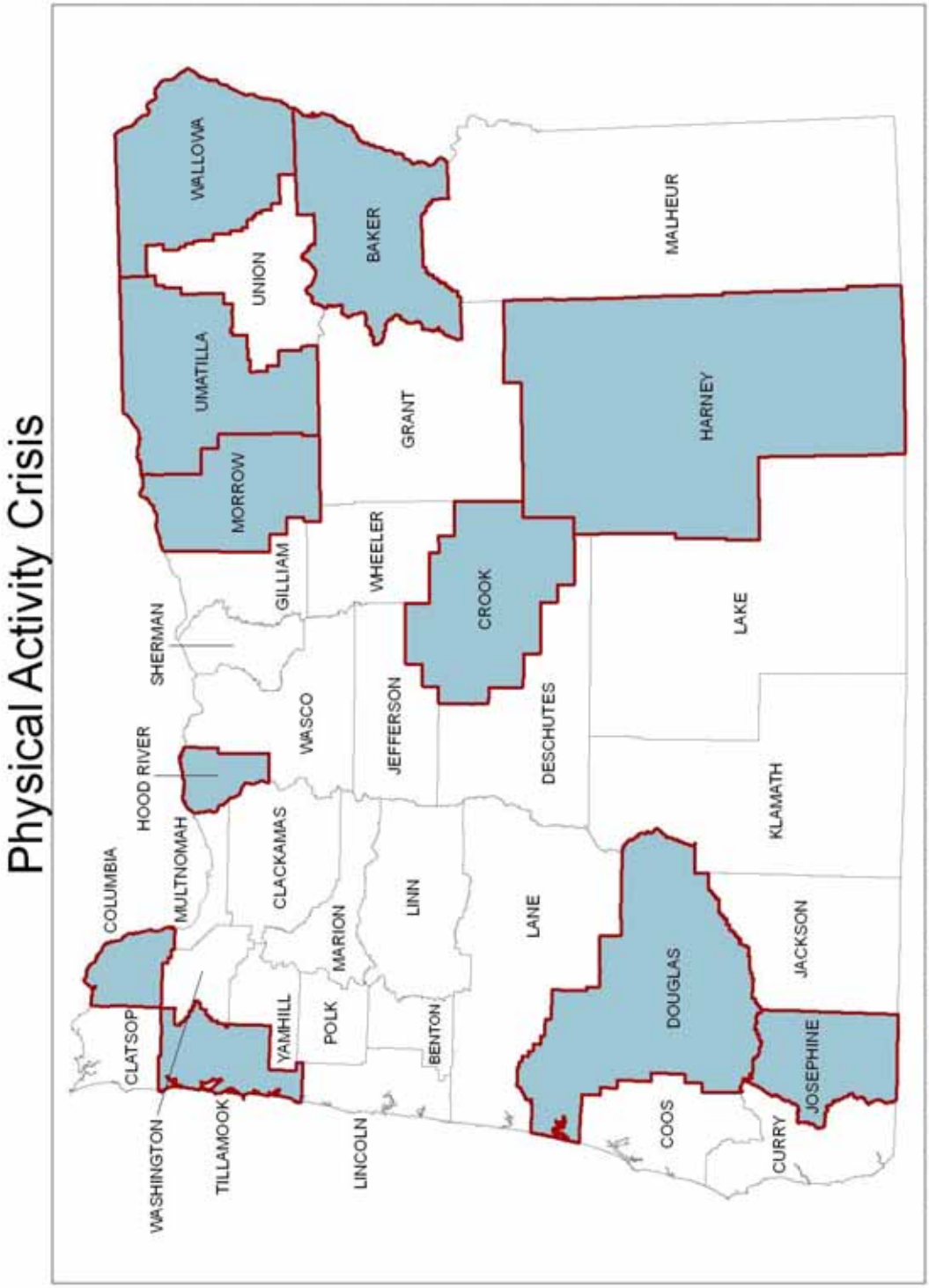


Table A1: Oregon County Population Projections

Oregon Counties	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of County	Percent Change
Oregon	**3,436,750**		**3,631,440**			**3,826,130**			**4,020,820**			**4,215,510**		
Baker	16,750	0.5%	16,500	0.5%	-1.5%	16,354	0.4%	-0.9%	16,307	0.4%	-0.3%	16,250	0.4%	-0.3%
Benton	78,300	2.3%	82,835	2.3%	5.8%	84,997	2.2%	2.6%	86,860	2.2%	2.2%	88,212	2.1%	1.6%
Clackamas	340,000	9.9%	361,300	9.9%	6.3%	388,371	10.2%	7.5%	414,873	10.3%	6.8%	442,277	10.5%	6.6%
Clatsop	35,700	1.0%	36,640	1.0%	2.6%	36,842	1.0%	0.6%	36,727	0.9%	-0.3%	36,346	0.9%	-1.0%
Columbia	43,700	1.3%	46,220	1.3%	5.8%	47,888	1.3%	3.6%	49,678	1.2%	3.7%	51,403	1.2%	3.5%
Coos	62,800	1.8%	62,695	1.7%	-0.2%	62,838	1.6%	0.2%	62,321	1.5%	-0.8%	61,557	1.5%	-1.2%
Crook	19,300	0.6%	22,775	0.6%	18.0%	26,050	0.7%	14.4%	29,068	0.7%	11.6%	31,934	0.8%	9.9%
Curry	21,200	0.6%	21,190	0.6%	0.0%	21,345	0.6%	0.7%	21,576	0.5%	1.1%	21,734	0.5%	0.7%
Deschutes	116,600	3.4%	143,490	4.0%	23.1%	157,533	4.1%	9.8%	174,446	4.3%	10.7%	189,555	4.5%	8.7%
Douglas	100,500	2.9%	102,905	2.8%	2.4%	105,479	2.8%	2.5%	109,392	2.7%	3.7%	112,881	2.7%	3.2%
Gilliam	1,900	0.1%	1,890	0.1%	-0.5%	1,929	0.1%	2.1%	1,968	0.0%	2.0%	2,015	0.0%	2.4%
Grant	7,950	0.2%	7,685	0.2%	-3.3%	7,486	0.2%	-2.6%	7,374	0.2%	-1.5%	7,263	0.2%	-1.5%
Harney	7,600	0.2%	7,660	0.2%	0.8%	7,653	0.2%	-0.1%	7,588	0.2%	-0.8%	7,511	0.2%	-1.0%
Hood River	20,500	0.6%	21,180	0.6%	3.3%	21,813	0.6%	3.0%	22,936	0.6%	5.1%	24,030	0.6%	4.8%
Jackson	182,200	5.3%	194,515	5.4%	6.8%	206,667	5.4%	6.2%	218,265	5.4%	5.6%	229,377	5.4%	5.1%
Jefferson	19,150	0.6%	20,600	0.6%	7.6%	21,988	0.6%	6.7%	23,526	0.6%	7.0%	25,042	0.6%	6.4%
Josephine	76,050	2.2%	79,645	2.2%	4.7%	83,489	2.2%	4.8%	87,112	2.2%	4.3%	90,599	2.1%	4.0%
Klamath	63,900	1.9%	65,055	1.8%	1.8%	66,400	1.7%	2.1%	67,184	1.7%	1.2%	67,680	1.6%	0.7%
Lake	7,450	0.2%	7,505	0.2%	0.7%	7,363	0.2%	-1.9%	7,284	0.2%	-1.1%	7,209	0.2%	-1.0%
Lane	323,950	9.4%	336,085	9.3%	3.7%	344,556	9.0%	2.5%	356,980	8.9%	3.6%	372,062	8.8%	4.2%
Lincoln	44,600	1.3%	44,405	1.2%	-0.4%	46,556	1.2%	4.8%	47,607	1.2%	2.3%	48,312	1.1%	1.5%
Linn	103,350	3.0%	107,150	3.0%	3.7%	109,187	2.9%	1.9%	112,413	2.8%	3.0%	115,584	2.7%	2.8%
Malheur	31,750	0.9%	31,800	0.9%	0.2%	33,548	0.9%	5.5%	34,709	0.9%	3.5%	35,804	0.8%	3.2%
Marion	286,300	8.3%	302,135	8.3%	5.5%	320,482	8.4%	6.1%	336,384	8.4%	5.0%	352,398	8.4%	4.8%
Morrow	11,100	0.3%	11,945	0.3%	7.6%	12,686	0.3%	6.2%	13,316	0.3%	5.0%	13,901	0.3%	4.4%
Multnomah	662,400	19.3%	692,825	19.1%	4.6%	717,192	18.7%	3.5%	735,659	18.3%	2.6%	752,162	17.8%	2.2%
Polk	62,700	1.8%	65,670	1.8%	4.7%	72,268	1.9%	10.0%	81,514	2.0%	12.8%	92,038	2.2%	12.9%
Sherman	1,950	0.1%	1,880	0.1%	-3.6%	1,916	0.1%	1.9%	1,938	0.0%	1.1%	1,959	0.0%	1.1%
Tillamook	24,300	0.7%	25,205	0.7%	3.7%	26,369	0.7%	4.6%	27,234	0.7%	3.3%	27,914	0.7%	2.5%
Umatilla	70,850	2.1%	72,395	2.0%	2.2%	74,638	2.0%	3.1%	77,825	1.9%	4.3%	81,858	1.9%	5.2%
Union	24,550	0.7%	24,950	0.7%	1.6%	25,378	0.7%	1.7%	25,908	0.6%	2.1%	26,426	0.6%	2.0%
Wallowa	7,250	0.2%	7,130	0.2%	-1.7%	7,253	0.2%	1.7%	7,428	0.2%	2.4%	7,569	0.2%	1.9%
Wasco	23,850	0.7%	23,935	0.7%	0.4%	23,544	0.6%	-1.6%	23,706	0.6%	0.7%	23,867	0.6%	0.7%
Washington	449,250	13.1%	489,785	13.5%	9.0%	538,381	14.1%	9.9%	585,813	14.6%	8.8%	634,865	15.1%	8.4%
Wheeler	1,550	0.0%	1,550	0.0%	0.0%	1,549	0.0%	-0.1%	1,552	0.0%	0.2%	1,530	0.0%	-1.4%
Yamhill	85,500	2.5%	90,310	2.5%	5.6%	98,140	2.6%	8.7%	106,341	2.6%	8.4%	114,384	2.7%	7.6%

Table A2: Oregon City Population Projections

City Projections	County	2000		2005			2010			2015			2020		
		Total Population	Percent of County	Total Population	Percent of County	Percent Change	Total Population	Percent of County	Percent Change	Total Population	Percent of County	Percent Change	Total Population	Percent of County	Percent Change
Albany	Linn	40,852	39.5%	45,360	42.3%	11.0%	49,285	45.1%	8.7%	53,895	47.9%	9.4%	58,658	50.7%	8.8%
Ashland	Jackson	19,522	10.7%	20,880	10.7%	7.0%	22,225	10.8%	6.4%	23,516	10.8%	5.8%	24,758	10.8%	5.3%
Aumsville	Marion	3,003	1.0%	3,130	1.0%	4.2%	3,279	1.0%	4.8%	3,398	1.0%	3.6%	3,514	1.0%	3.4%
Banks	Washington	1,286	0.3%	1,430	0.3%	11.2%	1,603	0.3%	12.1%	1,777	0.3%	10.9%	1,962	0.3%	10.4%
Barlow	Clackamas	140	0.0%	140	0.0%	0.0%	141	0.0%	0.7%	141	0.0%	0.0%	139	0.0%	-1.4%
Beaverton	Washington	76,129	16.9%	83,095	17.0%	9.2%	91,446	17.0%	10.0%	99,619	17.0%	8.9%	108,086	17.0%	8.5%
Bend	Deschutes	52,029	44.6%	70,330	49.0%	35.2%	84,132	53.4%	19.6%	100,826	57.8%	19.8%	117,884	62.2%	16.9%
Boardman	Morrow	2,855	25.7%	3,175	26.6%	11.2%	3,481	27.4%	9.6%	3,768	28.3%	8.2%	4,053	29.2%	7.6%
Canby	Clackamas	12,790	3.8%	14,385	4.0%	12.5%	16,316	4.2%	13.4%	18,341	4.4%	12.4%	20,524	4.6%	11.9%
Coburg	Lane	969	0.3%	1,070	0.3%	10.4%	1,163	0.3%	8.7%	1,274	0.4%	9.5%	1,399	0.4%	9.8%
Cornelius	Washington	9,652	2.1%	10,585	2.2%	9.7%	12,318	2.3%	16.4%	14,146	2.4%	14.8%	16,136	2.5%	14.1%
Corvallis	Benton	49,322	63.0%	53,165	64.2%	7.8%	55,565	65.4%	4.5%	57,817	66.6%	4.1%	59,767	67.8%	3.4%
Creswell	Lane	3,579	1.1%	4,525	1.3%	26.4%	5,471	1.6%	20.9%	6,531	1.8%	19.4%	7,706	2.1%	18.0%
Donald	Marion	608	0.2%	750	0.2%	23.4%	910	0.3%	21.3%	1,076	0.3%	18.2%	1,254	0.4%	16.5%
Eugene	Lane	137,893	42.6%	146,160	43.5%	6.0%	153,024	44.4%	4.7%	161,836	45.3%	5.8%	172,107	46.3%	6.3%
Fairview	Multnomah	7,561	1.1%	9,425	1.4%	24.7%	11,327	1.6%	20.2%	13,229	1.8%	16.8%	15,172	2.0%	14.7%
Florence	Lane	7,263	2.2%	8,185	2.4%	12.7%	9,058	2.6%	10.7%	10,075	2.8%	11.2%	11,220	3.0%	11.4%
Forest Grove	Washington	17,708	3.9%	19,565	4.0%	10.5%	24,356	4.5%	24.5%	29,602	5.1%	21.5%	35,441	5.6%	19.7%
Gervais	Marion	2,009	0.7%	2,240	0.7%	11.5%	2,503	0.8%	11.7%	2,761	0.8%	10.3%	3,032	0.9%	9.8%
Gladstone	Clackamas	11,438	3.4%	12,170	3.4%	6.4%	13,098	3.4%	7.6%	14,010	3.4%	7.0%	14,954	3.4%	6.7%
Gresham	Multnomah	90,205	13.6%	95,900	13.8%	6.3%	100,879	14.1%	5.2%	105,124	14.3%	4.2%	109,167	14.5%	3.8%
Happy Valley	Clackamas	4,519	1.3%	7,275	2.0%	61.0%	10,478	2.7%	44.0%	14,033	3.4%	33.9%	17,987	4.1%	28.2%
Hermiston	Umatilla	13,154	18.6%	15,025	20.8%	14.2%	17,124	22.9%	14.0%	19,558	25.1%	14.2%	22,363	27.3%	14.3%
Hillsboro	Washington	70,186	15.6%	82,025	16.7%	16.9%	96,216	17.9%	17.3%	111,279	19.0%	15.7%	127,734	20.1%	14.8%
Hood River	Hood River	5,831	28.4%	6,450	30.5%	10.6%	7,081	32.5%	9.8%	7,906	34.5%	11.7%	8,766	36.5%	10.9%
Hubbard	Marion	2,483	0.9%	2,855	0.9%	15.0%	3,277	1.0%	14.8%	3,701	1.1%	12.9%	4,151	1.2%	12.2%
Irrigon	Morrow	1,702	15.3%	1,790	15.0%	5.2%	1,857	14.6%	3.7%	1,903	14.3%	2.5%	1,938	13.9%	1.8%
Keizer	Marion	32,203	11.2%	34,735	11.5%	7.9%	37,641	11.7%	8.4%	40,344	12.0%	7.2%	43,141	12.2%	6.9%
Lafayette	Yamhill	2,586	3.0%	3,105	3.4%	20.1%	3,780	3.9%	21.7%	4,536	4.3%	20.0%	5,352	4.7%	18.0%
Lake Oswego	Clackamas	35,278	10.4%	36,075	10.0%	2.3%	37,259	9.6%	3.3%	38,179	9.2%	2.5%	38,971	8.8%	2.1%
Lakeside	Coos	1,371	2.2%	1,420	2.3%	3.6%	1,475	2.3%	3.9%	1,514	2.4%	2.6%	1,545	2.5%	2.0%
Madras	Jefferson	5,078	26.5%	5,600	27.2%	10.3%	6,124	27.9%	9.4%	6,709	28.5%	9.6%	7,309	29.2%	8.9%
McMinnville	Yamhill	26,499	31.0%	30,020	33.2%	13.3%	34,829	35.5%	16.0%	40,130	37.7%	15.2%	45,737	40.0%	14.0%
Medford	Jackson	63,154	34.7%	70,855	36.4%	12.2%	78,928	38.2%	11.4%	87,209	40.0%	10.5%	95,697	41.7%	9.7%
Milton-Freew	Umatilla	6,470	9.1%	6,540	9.0%	1.1%	6,669	8.9%	2.0%	6,878	8.8%	3.1%	7,154	8.7%	4.0%
Milwaukie	Clackamas	20,490	6.0%	20,655	5.7%	0.8%	21,000	5.4%	1.7%	21,149	5.1%	0.7%	21,176	4.8%	0.1%
Monmouth	Polk	7,741	12.3%	8,795	13.4%	13.6%	10,435	14.4%	18.6%	12,623	15.5%	21.0%	15,216	16.5%	20.5%
Newberg	Yamhill	18,064	21.1%	20,565	22.8%	13.8%	23,962	24.4%	16.5%	27,712	26.1%	15.6%	31,689	27.7%	14.4%
Ontario	Malheur	10,985	34.6%	11,245	35.4%	2.4%	12,119	36.1%	7.8%	12,803	36.9%	5.6%	13,481	37.7%	5.3%
Oregon City	Clackamas	25,754	7.6%	28,965	8.0%	12.5%	32,853	8.5%	13.4%	36,929	8.9%	12.4%	41,324	9.3%	11.9%
Portland	Multnomah	529,121	79.9%	556,370	80.3%	5.1%	578,987	80.7%	4.1%	597,023	81.2%	3.1%	613,614	81.6%	2.8%
Redmond	Deschutes	13,481	11.6%	20,010	13.9%	48.4%	25,723	16.3%	28.6%	32,643	18.7%	26.9%	39,988	21.1%	22.5%
Richland	Baker	147	0.9%	150	0.9%	2.0%	154	0.9%	2.7%	159	1.0%	3.2%	163	1.0%	2.5%
Salem	Marion	136,924	47.8%	147,250	48.7%	7.5%	159,112	49.6%	8.1%	170,072	50.6%	6.9%	181,379	51.5%	6.6%
Sherwood	Washington	11,791	2.6%	14,940	3.1%	26.7%	18,714	3.5%	25.3%	22,857	3.9%	22.1%	27,474	4.3%	20.2%
Springfield	Lane	52,864	16.3%	55,855	16.6%	5.7%	58,299	16.9%	4.4%	61,475	17.2%	5.4%	65,191	17.5%	6.0%
Stanfield	Umatilla	1,979	2.8%	2,150	3.0%	8.6%	2,348	3.1%	9.2%	2,586	3.3%	10.1%	2,865	3.5%	10.8%
Tigard	Washington	41,223	9.2%	45,500	9.3%	10.4%	50,627	9.4%	11.3%	55,754	9.5%	10.1%	61,146	9.6%	9.7%
Troutdale	Multnomah	13,777	2.1%	14,880	2.1%	8.0%	15,890	2.2%	6.8%	16,799	2.3%	5.7%	17,686	2.4%	5.3%
Tualatin	Washington	22,791	5.1%	25,465	5.2%	11.7%	28,671	5.3%	12.6%	31,935	5.5%	11.4%	35,410	5.6%	10.9%
Umatilla	Umatilla	4,978	7.0%	6,370	8.8%	28.0%	7,891	10.6%	23.9%	9,607	12.3%	21.7%	11,556	14.1%	20.3%
West Linn	Clackamas	22,261	6.5%	24,075	6.7%	8.1%	26,330	6.8%	9.4%	28,608	6.9%	8.7%	31,011	7.0%	8.4%
Wilsonville	Clackamas	13,991	4.1%	16,510	4.6%	18.0%	19,513	5.0%	18.2%	22,730	5.5%	16.5%	26,242	5.9%	15.5%
Wood Village	Multnomah	2,860	0.4%	2,880	0.4%	0.7%	2,866	0.4%	-0.5%	2,822	0.4%	-1.5%	2,764	0.4%	-2.1%
Woodburn	Marion	20,100	7.0%	22,110	7.3%	10.0%	24,405	7.6%	10.4%	26,617	7.9%	9.1%	28,931	8.2%	8.7%

Table A3: Oregon Adults 60+ Years County Projections

Adults 60 years and Older	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change
Oregon	572,208		625,444			727,147			853,765			970,698		
Baker	4,176	0.7%	4,289	0.7%	2.7%	4,482	0.6%	4.5%	4,801	0.6%	7.1%	5,071	0.5%	5.6%
Benton	10,407	1.8%	11,778	1.9%	13.2%	14,042	1.9%	19.2%	17,018	2.0%	21.2%	19,263	2.0%	13.2%
Clackamas	50,513	8.8%	58,178	9.3%	15.2%	71,221	9.8%	22.4%	85,219	10.0%	19.7%	97,635	10.1%	14.6%
Clatsop	7,245	1.3%	7,586	1.2%	4.7%	8,516	1.2%	12.3%	9,855	1.2%	15.7%	10,686	1.1%	8.4%
Columbia	6,879	1.2%	8,060	1.3%	17.2%	9,676	1.3%	20.0%	11,627	1.4%	20.2%	13,404	1.4%	15.3%
Coos	15,625	2.7%	16,133	2.6%	3.3%	17,612	2.4%	9.2%	19,301	2.3%	9.6%	20,723	2.1%	7.4%
Crook	3,860	0.7%	4,619	0.7%	19.7%	5,633	0.8%	22.0%	6,546	0.8%	16.2%	7,477	0.8%	14.2%
Curry	7,149	1.2%	7,555	1.2%	5.7%	8,123	1.1%	7.5%	8,829	1.0%	8.7%	9,510	1.0%	7.7%
Deschutes	20,525	3.6%	26,544	4.2%	29.3%	33,469	4.6%	26.1%	42,731	5.0%	27.7%	52,206	5.4%	22.2%
Douglas	23,259	4.1%	24,845	4.0%	6.8%	27,663	3.8%	11.3%	31,229	3.7%	12.9%	34,542	3.6%	10.6%
Gilliam	473	0.1%	486	0.1%	2.7%	533	0.1%	9.7%	600	0.1%	12.6%	684	0.1%	14.0%
Grant	1,780	0.3%	1,838	0.3%	3.3%	1,957	0.3%	6.5%	2,133	0.2%	9.0%	2,263	0.2%	6.1%
Harney	1,538	0.3%	1,688	0.3%	9.8%	1,821	0.3%	7.9%	1,970	0.2%	8.2%	2,115	0.2%	7.4%
Hood River	3,304	0.6%	3,494	0.6%	5.8%	3,838	0.5%	9.8%	4,572	0.5%	19.1%	5,327	0.5%	16.5%
Jackson	37,035	6.5%	40,921	6.5%	10.5%	47,696	6.6%	16.6%	55,675	6.5%	16.7%	62,792	6.5%	12.8%
Jefferson	3,365	0.6%	3,819	0.6%	13.5%	4,438	0.6%	16.2%	5,119	0.6%	15.3%	5,817	0.6%	13.6%
Josephine	19,478	3.4%	21,017	3.4%	7.9%	23,735	3.3%	12.9%	26,963	3.2%	13.6%	29,875	3.1%	10.8%
Klamath	12,527	2.2%	13,146	2.1%	4.9%	14,594	2.0%	11.0%	16,058	1.9%	10.0%	17,023	1.8%	6.0%
Lake	1,748	0.3%	1,851	0.3%	5.9%	1,954	0.3%	5.6%	2,126	0.2%	8.8%	2,252	0.2%	5.9%
Lane	55,780	9.7%	61,096	9.8%	9.5%	70,562	9.7%	15.5%	82,597	9.7%	17.1%	92,351	9.5%	11.8%
Lincoln	11,326	2.0%	11,647	1.9%	2.8%	13,436	1.8%	15.4%	15,330	1.8%	14.1%	16,750	1.7%	9.3%
Linn	19,454	3.4%	21,115	3.4%	8.5%	23,353	3.2%	10.6%	26,267	3.1%	12.5%	28,874	3.0%	9.9%
Malheur	5,547	1.0%	5,690	0.9%	2.6%	6,257	0.9%	10.0%	7,044	0.8%	12.6%	7,755	0.8%	10.1%
Marion	45,349	7.9%	47,990	7.7%	5.8%	54,527	7.5%	13.6%	62,602	7.3%	14.8%	70,737	7.3%	13.0%
Morrow	1,623	0.3%	1,812	0.3%	11.6%	2,093	0.3%	15.5%	2,424	0.3%	15.8%	2,805	0.3%	15.7%
Multnomah	94,728	16.6%	98,513	15.8%	4.0%	113,703	15.6%	15.4%	134,422	15.7%	18.2%	153,352	15.8%	14.1%
Polk	11,655	2.0%	12,531	2.0%	7.5%	14,494	2.0%	15.7%	17,223	2.0%	18.8%	19,604	2.0%	13.8%
Sherman	456	0.1%	497	0.1%	9.0%	576	0.1%	15.9%	664	0.1%	15.3%	772	0.1%	16.3%
Tillamook	6,233	1.1%	6,757	1.1%	8.4%	7,747	1.1%	14.7%	8,845	1.0%	14.2%	9,799	1.0%	10.8%
Umatilla	11,483	2.0%	12,265	2.0%	6.8%	13,499	1.9%	10.1%	15,468	1.8%	14.6%	17,298	1.8%	11.8%
Union	4,692	0.8%	4,978	0.8%	6.1%	5,510	0.8%	10.7%	6,160	0.7%	11.8%	6,454	0.7%	4.8%
Wallowa	1,771	0.3%	1,899	0.3%	7.2%	2,149	0.3%	13.2%	2,561	0.3%	19.2%	2,758	0.3%	7.7%
Wasco	5,087	0.9%	5,177	0.8%	1.8%	5,541	0.8%	7.0%	6,078	0.7%	9.7%	6,572	0.7%	8.1%
Washington	52,786	9.2%	61,048	9.8%	15.7%	75,878	10.4%	24.3%	93,713	11.0%	23.5%	112,709	11.6%	20.3%
Wheeler	482	0.1%	544	0.1%	12.9%	575	0.1%	5.7%	606	0.1%	5.4%	620	0.1%	2.3%
Yamhill	12,869	2.2%	14,029	2.2%	9.0%	16,241	2.2%	15.8%	19,383	2.3%	19.3%	22,816	2.4%	17.7%

Table A4: Oregon Adults 60+ Years "High-Priority" City Projections

Selected Cities	2000		2005			2010			2015			2020		
	Total Population	Percent of City	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change
Albany	6,600	16.2%	7,624	16.8%	15.5%	9,340	19.0%	22.5%	11,526	21.4%	23.4%	13,741	23.4%	19.2%
Aumsville	245	8.2%	332	10.6%	35.5%	461	14.1%	38.9%	629	18.5%	36.4%	814	23.2%	29.4%
Beaverton	8,876	11.7%	10,652	12.8%	20.0%	13,489	14.8%	26.6%	17,135	17.2%	27.0%	20,957	19.4%	22.3%
Bend	8,132	15.6%	11,235	16.0%	38.2%	15,790	18.8%	40.5%	21,743	21.6%	37.7%	28,364	24.1%	30.5%
Eugene	20,677	15.0%	22,872	15.6%	10.6%	26,907	17.6%	17.6%	31,963	19.8%	18.8%	36,762	21.4%	15.0%
Florence	3,284	45.2%	4,224	51.6%	28.6%	5,649	62.4%	33.7%	7,499	74.4%	32.7%	9,511	84.8%	26.8%
Gresham	11,624	12.9%	13,441	14.0%	15.6%	16,481	16.3%	22.6%	20,355	19.4%	23.5%	24,284	22.2%	19.3%
Hillsboro	5,982	8.5%	7,162	8.7%	19.7%	9,051	9.4%	26.4%	11,479	10.3%	26.8%	14,018	11.0%	22.1%
Keizer	5,067	15.7%	5,863	16.9%	15.7%	7,193	19.1%	22.7%	8,889	22.0%	23.6%	10,610	24.6%	19.4%
Lakeside	524	38.2%	595	41.9%	13.5%	718	48.7%	20.7%	873	57.7%	21.6%	1,028	66.5%	17.8%
McMinnville	4,590	17.3%	5,361	17.9%	16.8%	6,632	19.0%	23.7%	8,256	20.6%	24.5%	9,920	21.7%	20.2%
Medford	12,649	20.0%	14,498	20.5%	14.6%	17,637	22.3%	21.7%	21,625	24.8%	22.6%	25,630	26.8%	18.5%
Oregon City	3,207	12.5%	3,922	13.5%	22.3%	5,044	15.4%	28.6%	6,491	17.6%	28.7%	8,027	19.4%	23.7%
Richland	83	56.5%	91	60.7%	9.6%	102	66.2%	12.1%	118	74.2%	15.7%	130	79.8%	10.2%
Salem	21,330	15.6%	23,026	15.6%	8.0%	26,435	16.6%	14.8%	30,644	18.0%	15.9%	34,394	19.0%	12.2%
Tigard	5,359	13.0%	6,154	13.5%	14.8%	7,499	14.8%	21.9%	9,210	16.5%	22.8%	10,931	17.9%	18.7%
Troutdale	879	6.4%	1,200	8.1%	36.5%	1,673	10.5%	39.4%	2,290	13.6%	36.9%	2,975	16.8%	29.9%

Table A5: Oregon Youth 6-11 Years County Projections

Youth 6-11 years	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change
Oregon	287,741		300,892			313,082			325,272			337,462		
Baker	1,333	0.5%	1,292	0.4%	-3.1%	1,253	0.4%	-3.0%	1,215	0.4%	-3.0%	1,177	0.3%	-3.1%
Benton	5,556	1.9%	5,597	1.9%	0.7%	5,636	1.8%	0.7%	5,674	1.7%	0.7%	5,712	1.7%	0.7%
Clackamas	30,800	10.7%	32,481	10.8%	5.5%	34,039	10.9%	4.8%	35,597	10.9%	4.6%	37,155	11.0%	4.4%
Clatsop	2,776	1.0%	2,692	0.9%	-3.0%	2,615	0.8%	-2.9%	2,537	0.8%	-3.0%	2,459	0.7%	-3.1%
Columbia	4,141	1.4%	4,282	1.4%	3.4%	4,414	1.4%	3.1%	4,545	1.4%	3.0%	4,676	1.4%	2.9%
Coos	4,622	1.6%	4,373	1.5%	-5.4%	4,143	1.3%	-5.3%	3,912	1.2%	-5.6%	3,681	1.1%	-5.9%
Crook	1,723	0.6%	1,881	0.6%	9.2%	2,027	0.6%	7.8%	2,173	0.7%	7.2%	2,320	0.7%	6.8%
Curry	1,445	0.5%	1,470	0.5%	1.7%	1,493	0.5%	1.6%	1,516	0.5%	1.5%	1,540	0.5%	1.6%
Deschutes	9,913	3.4%	11,061	3.7%	11.6%	12,125	3.9%	9.6%	13,189	4.1%	8.8%	14,253	4.2%	8.1%
Douglas	8,152	2.8%	7,949	2.6%	-2.5%	7,761	2.5%	-2.4%	7,572	2.3%	-2.4%	7,384	2.2%	-2.5%
Gilliam	158	0.1%	145	0.0%	-8.3%	133	0.0%	-8.2%	121	0.0%	-9.0%	109	0.0%	-9.9%
Grant	689	0.2%	657	0.2%	-4.6%	627	0.2%	-4.6%	598	0.2%	-4.6%	568	0.2%	-5.0%
Harney	707	0.2%	718	0.2%	1.5%	727	0.2%	1.3%	737	0.2%	1.4%	747	0.2%	1.4%
Hood River	1,973	0.7%	2,116	0.7%	7.3%	2,249	0.7%	6.3%	2,382	0.7%	5.9%	2,515	0.7%	5.6%
Jackson	15,170	5.3%	16,076	5.3%	6.0%	16,916	5.4%	5.2%	17,756	5.5%	5.0%	18,596	5.5%	4.7%
Jefferson	1,985	0.7%	2,195	0.7%	10.6%	2,390	0.8%	8.9%	2,584	0.8%	8.1%	2,779	0.8%	7.5%
Josephine	6,127	2.1%	6,448	2.1%	5.2%	6,746	2.2%	4.6%	7,043	2.2%	4.4%	7,341	2.2%	4.2%
Klamath	5,665	2.0%	5,831	1.9%	2.9%	5,985	1.9%	2.6%	6,139	1.9%	2.6%	6,293	1.9%	2.5%
Lake	633	0.2%	607	0.2%	-4.1%	583	0.2%	-3.9%	558	0.2%	-4.3%	534	0.2%	-4.3%
Lane	24,955	8.7%	25,161	8.4%	0.8%	25,351	8.1%	0.8%	25,542	7.9%	0.8%	25,733	7.6%	0.7%
Lincoln	3,202	1.1%	3,162	1.1%	-1.2%	3,126	1.0%	-1.2%	3,089	0.9%	-1.2%	3,053	0.9%	-1.2%
Linn	9,147	3.2%	9,385	3.1%	2.6%	9,606	3.1%	2.4%	9,827	3.0%	2.3%	10,048	3.0%	2.2%
Malheur	2,946	1.0%	3,026	1.0%	2.7%	3,100	1.0%	2.5%	3,174	1.0%	2.4%	3,248	1.0%	2.3%
Marion	26,086	9.1%	27,925	9.3%	7.1%	29,630	9.5%	6.1%	31,335	9.6%	5.8%	33,040	9.8%	5.4%
Morrow	1,165	0.4%	1,293	0.4%	11.0%	1,411	0.5%	9.2%	1,529	0.5%	8.4%	1,648	0.5%	7.8%
Multnomah	49,729	17.3%	51,224	17.0%	3.0%	52,611	16.8%	2.7%	53,997	16.6%	2.6%	55,383	16.4%	2.6%
Polk	5,372	1.9%	5,594	1.9%	4.1%	5,800	1.9%	3.7%	6,007	1.8%	3.6%	6,213	1.8%	3.4%
Sherman	165	0.1%	163	0.1%	-1.3%	161	0.1%	-1.1%	159	0.0%	-1.2%	157	0.0%	-1.3%
Tillamook	1,856	0.6%	1,874	0.6%	1.0%	1,892	0.6%	0.9%	1,909	0.6%	0.9%	1,926	0.6%	0.9%
Umatilla	6,639	2.3%	6,948	2.3%	4.7%	7,234	2.3%	4.1%	7,521	2.3%	4.0%	7,807	2.3%	3.8%
Union	2,021	0.7%	1,925	0.6%	-4.8%	1,836	0.6%	-4.6%	1,747	0.5%	-4.8%	1,658	0.5%	-5.1%
Wallowa	574	0.2%	543	0.2%	-5.4%	515	0.2%	-5.2%	486	0.1%	-5.6%	457	0.1%	-6.0%
Wasco	1,981	0.7%	1,954	0.6%	-1.4%	1,929	0.6%	-1.3%	1,904	0.6%	-1.3%	1,880	0.6%	-1.3%
Washington	40,466	14.1%	44,616	14.8%	10.3%	48,462	15.5%	8.6%	52,309	16.1%	7.9%	56,155	16.6%	7.4%
Wheeler	102	0.0%	102	0.0%	0.0%	102	0.0%	0.0%	102	0.0%	0.0%	102	0.0%	0.0%
Yamhill	7,767	2.7%	8,124	2.7%	4.6%	8,455	2.7%	4.1%	8,787	2.7%	3.9%	9,118	2.7%	3.8%

Table A6: Oregon Youth 6-11 Years "High-Priority" City Projections

	2000		2005			2010			2015			2020		
Selected Cities	**Total Population**	**Percent of City**	**Total Population**	**Percent of City**	**Percent Change**	**Total Population**	**Percent of City**	**Percent Change**	**Total Population**	**Percent of City**	**Percent Change**	**Total Population**	**Percent of City**	**Percent Change**
Albany	3,704	9.1%	4,175	9.2%	12.7%	4,635	9.4%	11.0%	5,099	9.5%	10.0%	5,564	9.5%	9.1%
Banks	163	12.7%	207	14.5%	27.0%	252	15.7%	21.7%	298	16.8%	18.3%	345	17.6%	15.8%
Barlow	16	11.4%	18	12.9%	12.5%	19	13.5%	5.6%	21	14.9%	10.5%	23	16.5%	9.5%
Beaverton	6,503	8.5%	7,410	8.9%	13.9%	8,303	9.1%	12.1%	9,205	9.2%	10.9%	10,112	9.4%	9.9%
Bend	4,282	8.2%	5,637	8.0%	31.6%	7,023	8.3%	24.6%	8,446	8.4%	20.3%	9,898	8.4%	17.2%
Boardman	373	13.1%	497	15.7%	33.2%	625	18.0%	25.8%	756	20.1%	21.0%	889	21.9%	17.6%
Coburg	95	9.8%	106	9.9%	11.6%	117	10.1%	10.4%	127	10.0%	8.5%	138	9.9%	8.7%
Creswell	360	10.1%	397	8.8%	10.3%	432	7.9%	8.8%	467	7.2%	8.1%	503	6.5%	7.7%
Donald	79	13.0%	106	14.1%	34.2%	134	14.7%	26.4%	162	15.1%	20.9%	191	15.2%	17.9%
Eugene	9,233	6.7%	9,382	6.4%	1.6%	9,455	6.2%	0.8%	9,493	5.9%	0.4%	9,498	5.5%	0.1%
Fairview	751	9.9%	1,046	11.1%	39.3%	1,348	11.9%	28.9%	1,660	12.5%	23.1%	1,979	13.0%	19.2%
Gresham	8,264	9.2%	9,021	9.4%	9.2%	9,741	9.7%	8.0%	10,457	9.9%	7.4%	11,165	10.2%	6.8%
Happy Valley	539	11.9%	744	10.2%	38.0%	955	9.1%	28.4%	1,172	8.4%	22.7%	1,393	7.7%	18.9%
Helix	35	19.1%	47	24.7%	34.3%	58	29.1%	23.4%	71	33.6%	22.4%	83	36.9%	16.9%
Hillsboro	6,312	9.0%	7,362	9.0%	16.6%	8,407	8.7%	14.2%	9,469	8.5%	12.6%	10,541	8.3%	11.3%
Medford	5,642	8.9%	6,426	9.1%	13.9%	7,198	9.1%	12.0%	7,978	9.1%	10.8%	8,761	9.2%	9.8%
Oregon City	2,379	9.2%	2,875	9.9%	20.8%	3,374	10.3%	17.4%	3,883	10.5%	15.1%	4,400	10.6%	13.3%
Portland	37,607	7.1%	39,247	7.1%	4.4%	40,626	7.0%	3.5%	41,909	7.0%	3.2%	43,093	7.0%	2.8%
Redmond	1,373	10.2%	1,727	8.6%	25.8%	2,087	8.1%	20.8%	2,456	7.5%	17.7%	2,832	7.1%	15.3%
Salem	11,552	8.4%	12,665	8.6%	9.6%	13,729	8.6%	8.4%	14,789	8.7%	7.7%	15,839	8.7%	7.1%
Sherwood	1,248	10.6%	1,742	11.7%	39.6%	2,251	12.0%	29.2%	2,774	12.1%	23.2%	3,309	12.0%	19.3%
Tigard	3,467	8.4%	3,994	8.8%	15.2%	4,516	8.9%	13.1%	5,045	9.0%	11.7%	5,578	9.1%	10.6%
Wilsonville	1,170	8.4%	1,497	9.1%	27.9%	1,829	9.4%	22.2%	2,171	9.6%	18.7%	2,518	9.6%	16.0%
Woodburn	1,997	9.9%	2,354	10.6%	17.9%	2,711	11.1%	15.2%	3,074	11.5%	13.4%	3,440	11.9%	11.9%

Table A7: Oregon Youth 12-17 Years County Projections

Youth 12-17 years	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change
Oregon	290,702		313,040			333,746			354,452			375,157		
Baker	1,634	0.6%	1,753	0.6%	7.3%	1,863	0.6%	6.3%	1,972	0.6%	5.9%	2,082	0.6%	5.6%
Benton	6,310	2.2%	6,780	2.2%	7.4%	7,217	2.2%	6.4%	7,653	2.2%	6.0%	8,089	2.2%	5.7%
Clackamas	31,165	10.7%	33,494	10.7%	7.5%	35,652	10.7%	6.4%	37,811	10.7%	6.1%	39,969	10.7%	5.7%
Clatsop	3,234	1.1%	3,397	1.1%	5.0%	3,549	1.1%	4.5%	3,700	1.0%	4.3%	3,851	1.0%	4.1%
Columbia	4,336	1.5%	4,571	1.5%	5.4%	4,790	1.4%	4.8%	5,008	1.4%	4.6%	5,226	1.4%	4.4%
Coos	5,454	1.9%	5,586	1.8%	2.4%	5,708	1.7%	2.2%	5,831	1.6%	2.2%	5,953	1.6%	2.1%
Crook	1,850	0.6%	2,040	0.7%	10.3%	2,216	0.7%	8.6%	2,392	0.7%	7.9%	2,569	0.7%	7.4%
Curry	1,585	0.5%	1,691	0.5%	6.7%	1,790	0.5%	5.9%	1,888	0.5%	5.5%	1,987	0.5%	5.2%
Deschutes	10,142	3.5%	11,538	3.7%	13.8%	12,831	3.8%	11.2%	14,125	4.0%	10.1%	15,419	4.1%	9.2%
Douglas	9,114	3.1%	9,294	3.0%	2.0%	9,461	2.8%	1.8%	9,627	2.7%	1.8%	9,794	2.6%	1.7%
Gilliam	180	0.1%	198	0.1%	10.0%	216	0.1%	9.1%	233	0.1%	7.9%	250	0.1%	7.3%
Grant	795	0.3%	833	0.3%	4.8%	868	0.3%	4.2%	904	0.3%	4.1%	939	0.3%	3.9%
Harney	721	0.2%	746	0.2%	3.5%	769	0.2%	3.1%	791	0.2%	2.9%	814	0.2%	2.9%
Hood River	1,945	0.7%	2,118	0.7%	8.9%	2,278	0.7%	7.6%	2,438	0.7%	7.0%	2,598	0.7%	6.6%
Jackson	15,872	5.5%	17,229	5.5%	8.5%	18,487	5.5%	7.3%	19,745	5.6%	6.8%	21,004	5.6%	6.4%
Jefferson	1,910	0.7%	2,165	0.7%	13.4%	2,401	0.7%	10.9%	2,637	0.7%	9.8%	2,873	0.8%	8.9%
Josephine	6,454	2.2%	6,936	2.2%	7.5%	7,384	2.2%	6.5%	7,831	2.2%	6.1%	8,278	2.2%	5.7%
Klamath	5,814	2.0%	6,045	1.9%	4.0%	6,259	1.9%	3.5%	6,472	1.8%	3.4%	6,686	1.8%	3.3%
Lake	751	0.3%	785	0.3%	4.5%	817	0.2%	4.1%	849	0.2%	3.9%	881	0.2%	3.8%
Lane	26,487	9.1%	28,155	9.0%	6.3%	29,701	8.9%	5.5%	31,248	8.8%	5.2%	32,794	8.7%	4.9%
Lincoln	3,689	1.3%	3,996	1.3%	8.3%	4,281	1.3%	7.1%	4,566	1.3%	6.7%	4,851	1.3%	6.2%
Linn	9,291	3.2%	9,818	3.1%	5.7%	10,306	3.1%	5.0%	10,794	3.0%	4.7%	11,282	3.0%	4.5%
Malheur	2,903	1.0%	2,999	1.0%	3.3%	3,088	0.9%	3.0%	3,177	0.9%	2.9%	3,266	0.9%	2.8%
Marion	25,743	8.9%	28,224	9.0%	9.6%	30,523	9.1%	8.1%	32,822	9.3%	7.5%	35,122	9.4%	7.0%
Morrow	1,098	0.4%	1,219	0.4%	11.0%	1,331	0.4%	9.2%	1,444	0.4%	8.5%	1,556	0.4%	7.8%
Multnomah	47,129	16.2%	49,873	15.9%	5.8%	52,417	15.7%	5.1%	54,961	15.5%	4.9%	57,505	15.3%	4.6%
Polk	5,704	2.0%	6,246	2.0%	9.5%	6,749	2.0%	8.1%	7,252	2.0%	7.5%	7,754	2.1%	6.9%
Sherman	231	0.1%	250	0.1%	8.2%	268	0.1%	7.2%	286	0.1%	6.7%	304	0.1%	6.3%
Tillamook	2,109	0.7%	2,268	0.7%	7.5%	2,415	0.7%	6.5%	2,562	0.7%	6.1%	2,710	0.7%	5.8%
Umatilla	6,603	2.3%	7,072	2.3%	7.1%	7,506	2.2%	6.1%	7,940	2.2%	5.8%	8,375	2.2%	5.5%
Union	2,308	0.8%	2,330	0.7%	1.0%	2,350	0.7%	0.9%	2,370	0.7%	0.9%	2,390	0.6%	0.8%
Wallowa	764	0.3%	821	0.3%	7.5%	874	0.3%	6.5%	928	0.3%	6.2%	981	0.3%	5.7%
Wasco	2,178	0.7%	2,252	0.7%	3.4%	2,321	0.7%	3.1%	2,389	0.7%	2.9%	2,458	0.7%	2.9%
Washington	37,112	12.8%	41,444	13.2%	11.7%	45,459	13.6%	9.7%	49,474	14.0%	8.8%	53,489	14.3%	8.1%
Wheeler	163	0.1%	181	0.1%	11.0%	198	0.1%	9.4%	215	0.1%	8.6%	232	0.1%	7.9%
Yamhill	7,924	2.7%	8,693	2.8%	9.7%	9,405	2.8%	8.2%	10,117	2.9%	7.6%	10,830	2.9%	7.0%

Table A8: Oregon Youth 12-17 Years "High-Priority" City Projections

Selected Cities	2000		2005			2010			2015			2020		
	Total Population	Percent of City	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change
Albany	3,423	8.4%	4,021	8.9%	17.5%	4,661	9.5%	15.9%	5,360	9.9%	15.0%	6,121	10.4%	14.2%
Banks	128	10.0%	164	11.5%	28.1%	204	12.7%	24.4%	248	14.0%	21.6%	298	15.2%	20.2%
Barlow	20	14.3%	27	19.3%	35.0%	35	24.8%	29.6%	44	31.2%	25.7%	54	38.8%	22.7%
Beaverton	5,902	7.8%	7,051	8.5%	19.5%	8,291	9.1%	17.6%	9,653	9.7%	16.4%	11,143	10.3%	15.4%
Bend	4,197	8.1%	5,760	8.2%	37.2%	7,507	8.9%	30.3%	9,466	9.4%	26.1%	11,647	9.9%	23.0%
Boardman	282	9.9%	356	11.2%	26.2%	438	12.6%	23.0%	529	14.0%	20.8%	629	15.5%	18.9%
Coburg	97	10.0%	129	12.1%	33.0%	165	14.2%	27.9%	206	16.2%	24.8%	251	17.9%	21.8%
Creswell	381	10.6%	489	10.8%	28.3%	608	11.1%	24.3%	741	11.3%	21.9%	887	11.5%	19.7%
Donald	62	10.2%	79	10.5%	27.4%	98	10.8%	24.1%	119	11.1%	21.4%	142	11.3%	19.3%
Eugene	9,926	7.2%	11,064	7.6%	11.5%	12,228	8.0%	10.5%	13,463	8.3%	10.1%	14,774	8.6%	9.7%
Fairview	556	7.4%	777	8.2%	39.7%	1,025	9.0%	31.9%	1,304	9.9%	27.2%	1,614	10.6%	23.8%
Gresham	8,034	8.9%	9,152	9.5%	13.9%	10,322	10.2%	12.8%	11,584	11.0%	12.2%	12,941	11.9%	11.7%
Happy Valley	478	10.6%	685	9.4%	43.3%	918	8.8%	34.0%	1,180	8.4%	28.5%	1,472	8.2%	24.7%
Helix	28	15.3%	31	16.3%	10.7%	35	17.6%	12.9%	38	18.0%	8.6%	42	18.7%	10.5%
Hillsboro	5,845	8.3%	7,142	8.7%	22.2%	8,554	8.9%	19.8%	10,114	9.1%	18.2%	11,828	9.3%	16.9%
Medford	5,363	8.5%	6,273	8.9%	17.0%	7,244	9.2%	15.5%	8,304	9.5%	14.6%	9,457	9.9%	13.9%
Oregon City	2,020	7.8%	2,403	8.3%	19.0%	2,816	8.6%	17.2%	3,270	8.9%	16.1%	3,765	9.1%	15.1%
Portland	35,410	6.7%	38,847	7.0%	9.7%	42,276	7.3%	8.8%	45,858	7.7%	8.5%	49,597	8.1%	8.2%
Redmond	1,258	9.3%	1,642	8.2%	30.5%	2,067	8.0%	25.9%	2,542	7.8%	23.0%	3,069	7.7%	20.7%
Salem	11,173	8.2%	12,975	8.8%	16.1%	14,890	9.4%	14.8%	16,973	10.0%	14.0%	19,232	10.6%	13.3%
Sherwood	903	7.7%	1,280	8.6%	41.7%	1,704	9.1%	33.1%	2,180	9.5%	27.9%	2,711	9.9%	24.4%
Tigard	3,238	7.9%	3,912	8.6%	20.8%	4,642	9.2%	18.7%	5,447	9.8%	17.3%	6,329	10.4%	16.2%
Wilsonville	1,006	7.2%	1,433	8.7%	42.4%	1,913	9.8%	33.5%	2,453	10.8%	28.2%	3,055	11.6%	24.5%
Woodburn	1,908	9.5%	2,413	10.9%	26.5%	2,969	12.2%	23.0%	3,587	13.5%	20.8%	4,270	14.8%	19.0%

Table A9: Oregon Hispanic County Projections

Hispanic	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change
Oregon	275,314		348,425			416,192			483,959			551,726		
Baker	392	0.1%	434	0.1%	10.7%	473	0.1%	9.0%	512	0.1%	8.2%	551	0.1%	7.6%
Benton	3,645	1.3%	4,338	1.2%	19.0%	4,980	1.2%	14.8%	5,622	1.2%	12.9%	6,264	1.1%	11.4%
Clackamas	16,744	6.1%	22,483	6.5%	34.3%	27,802	6.7%	23.7%	33,121	6.8%	19.1%	38,441	7.0%	16.1%
Clatsop	1,597	0.6%	1,941	0.6%	21.5%	2,260	0.5%	16.4%	2,579	0.5%	14.1%	2,898	0.5%	12.4%
Columbia	1,093	0.4%	1,241	0.4%	13.5%	1,379	0.3%	11.1%	1,516	0.3%	9.9%	1,654	0.3%	9.1%
Coos	2,133	0.8%	2,416	0.7%	13.3%	2,678	0.6%	10.8%	2,940	0.6%	9.8%	3,203	0.6%	8.9%
Crook	1,082	0.4%	1,334	0.4%	23.3%	1,567	0.4%	17.5%	1,800	0.4%	14.9%	2,034	0.4%	13.0%
Curry	761	0.3%	909	0.3%	19.4%	1,045	0.3%	15.0%	1,182	0.2%	13.1%	1,319	0.2%	11.6%
Deschutes	4,304	1.6%	5,312	1.5%	23.4%	6,246	1.5%	17.6%	7,180	1.5%	15.0%	8,114	1.5%	13.0%
Douglas	3,283	1.2%	3,667	1.1%	11.7%	4,022	1.0%	9.7%	4,378	0.9%	8.9%	4,734	0.9%	8.1%
Gilliam	35	0.0%	37	0.0%	5.7%	38	0.0%	2.7%	40	0.0%	5.3%	42	0.0%	5.0%
Grant	163	0.1%	167	0.0%	2.5%	171	0.0%	2.4%	174	0.0%	1.8%	178	0.0%	2.3%
Harney	316	0.1%	350	0.1%	10.8%	382	0.1%	9.1%	414	0.1%	8.4%	446	0.1%	7.7%
Hood River	5,107	1.9%	5,961	1.7%	16.7%	6,753	1.6%	13.3%	7,545	1.6%	11.7%	8,336	1.5%	10.5%
Jackson	12,126	4.4%	14,366	4.1%	18.5%	16,443	4.0%	14.5%	18,520	3.8%	12.6%	20,597	3.7%	11.2%
Jefferson	3,372	1.2%	4,070	1.2%	20.7%	4,717	1.1%	15.9%	5,364	1.1%	13.7%	6,010	1.1%	12.0%
Josephine	3,229	1.2%	3,766	1.1%	16.6%	4,263	1.0%	13.2%	4,761	1.0%	11.7%	5,259	1.0%	10.5%
Klamath	4,961	1.8%	5,678	1.6%	14.5%	6,343	1.5%	11.7%	7,007	1.4%	10.5%	7,672	1.4%	9.5%
Lake	404	0.1%	453	0.1%	12.1%	498	0.1%	9.9%	543	0.1%	9.0%	588	0.1%	8.3%
Lane	14,874	5.4%	17,784	5.1%	19.6%	20,481	4.9%	15.2%	23,178	4.8%	13.2%	25,875	4.7%	11.6%
Lincoln	2,119	0.8%	2,671	0.8%	26.1%	3,182	0.8%	19.1%	3,693	0.8%	16.1%	4,205	0.8%	13.9%
Linn	4,514	1.6%	5,362	1.5%	18.8%	6,147	1.5%	14.6%	6,933	1.4%	12.8%	7,719	1.4%	11.3%
Malheur	8,099	2.9%	9,167	2.6%	13.2%	10,157	2.4%	10.8%	11,146	2.3%	9.7%	12,136	2.2%	8.9%
Marion	48,714	17.7%	61,597	17.7%	26.4%	73,538	17.7%	19.4%	85,480	17.7%	16.2%	97,421	17.7%	14.0%
Morrow	2,686	1.0%	3,361	1.0%	25.1%	3,987	1.0%	18.6%	4,612	1.0%	15.7%	5,238	0.9%	13.6%
Multnomah	49,607	18.0%	63,527	18.2%	28.1%	76,429	18.4%	20.3%	89,332	18.5%	16.9%	102,234	18.5%	14.4%
Polk	5,480	2.0%	6,451	1.9%	17.7%	7,352	1.8%	14.0%	8,252	1.7%	12.2%	9,152	1.7%	10.9%
Sherman	94	0.0%	118	0.0%	25.5%	140	0.0%	18.6%	162	0.0%	15.7%	185	0.0%	14.2%
Tillamook	1,244	0.5%	1,560	0.4%	25.4%	1,852	0.4%	18.7%	2,145	0.4%	15.8%	2,437	0.4%	13.6%
Umatilla	11,366	4.1%	13,564	3.9%	19.3%	15,601	3.7%	15.0%	17,638	3.6%	13.1%	19,675	3.6%	11.5%
Union	600	0.2%	679	0.2%	13.2%	753	0.2%	10.9%	827	0.2%	9.8%	900	0.2%	8.8%
Wallowa	125	0.0%	129	0.0%	3.2%	133	0.0%	3.1%	137	0.0%	3.0%	141	0.0%	2.9%
Wasco	2,214	0.8%	2,631	0.8%	18.8%	3,017	0.7%	14.7%	3,403	0.7%	12.8%	3,790	0.7%	11.4%
Washington	49,735	18.1%	70,009	20.1%	40.8%	88,802	21.3%	26.8%	107,595	22.2%	21.2%	126,387	22.9%	17.5%
Wheeler	79	0.0%	103	0.0%	30.4%	126	0.0%	22.3%	148	0.0%	17.5%	171	0.0%	15.5%
Yamhill	9,017	3.3%	10,790	3.1%	19.7%	12,433	3.0%	15.2%	14,077	2.9%	13.2%	15,720	2.8%	11.7%

Table A10: Oregon Hispanic "High-Priority" City Projections

Selected Cities	2000		2005			2010			2015			2020		
	Total Population	Percent of City	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change
Albany	2,489	6.1%	3,354	7.4%	34.8%	4,302	8.7%	28.3%	5,347	9.9%	24.3%	6,492	11.1%	21.4%
Beaverton	8,463	11.1%	13,344	16.1%	57.7%	19,542	21.4%	46.4%	23,132	23.2%	18.4%	26,714	24.7%	15.5%
Bend	2,396	4.6%	3,799	5.4%	58.6%	5,586	6.6%	47.0%	7,807	7.7%	39.8%	10,503	8.9%	34.5%
Boardman	1,431	50.1%	2,228	70.2%	55.7%	2,900	83.3%	30.2%	3,105	82.4%	7.1%	3,178	78.4%	2.4%
Canby	1,985	15.5%	2,601	18.1%	31.0%	3,244	19.9%	24.7%	3,921	21.4%	20.9%	4,628	22.5%	18.0%
Cornelius	3,609	37.4%	6,167	58.3%	70.9%	8,557	69.5%	38.8%	9,184	64.9%	7.3%	9,429	58.4%	2.7%
Corvallis	2,820	5.7%	3,446	6.5%	22.2%	3,977	7.2%	15.4%	4,406	7.6%	10.8%	4,714	7.9%	7.0%
Eugene	6,843	5.0%	8,274	5.7%	20.9%	9,429	6.2%	14.0%	10,284	6.4%	9.1%	10,786	6.3%	4.9%
Fairview	1,210	16.0%	2,141	22.7%	76.9%	3,384	29.9%	58.1%	4,981	37.7%	47.2%	6,964	45.9%	39.8%
Forest Grove	3,065	17.3%	3,792	19.4%	23.7%	4,441	18.2%	17.1%	5,007	16.9%	12.7%	5,472	15.4%	9.3%
Gervais	1,310	65.2%	1,668	74.5%	27.3%	2,019	80.7%	21.0%	2,363	85.6%	17.0%	2,695	88.9%	14.0%
Gresham	10,732	11.9%	14,762	15.4%	37.6%	21,158	21.0%	43.3%	28,994	27.6%	37.0%	38,396	35.2%	32.4%
Hermiston	3,168	24.1%	3,734	24.9%	17.9%	4,120	24.1%	10.3%	4,310	22.0%	4.6%	4,272	19.1%	-0.9%
Hillsboro	13,262	18.9%	18,679	22.8%	40.8%	24,970	26.0%	33.7%	32,263	29.0%	29.2%	40,624	31.8%	25.9%
Hood River	1,351	23.2%	1,815	28.1%	34.3%	2,321	32.8%	27.9%	2,877	36.4%	24.0%	3,483	39.7%	21.1%
Hubbard	811	32.7%	943	33.0%	16.3%	1,145	34.9%	21.4%	1,592	43.0%	39.0%	2,616	63.0%	64.3%
Irrigon	464	27.3%	755	42.2%	62.7%	1,014	54.6%	34.3%	1,118	58.7%	10.3%	1,189	61.4%	6.4%
Keizer	3,950	12.3%	5,588	16.1%	41.5%	7,499	19.9%	34.2%	9,724	24.1%	29.7%	12,282	28.5%	26.3%
Lafayette	523	20.2%	797	25.7%	52.4%	1,136	30.1%	42.5%	1,552	34.2%	36.6%	2,049	38.3%	32.0%
Madras	1,815	35.7%	2,303	41.1%	26.9%	2,776	45.3%	20.5%	3,234	48.2%	16.5%	3,671	50.2%	13.5%
McMinnville	3,879	14.6%	5,220	17.4%	34.6%	6,686	19.2%	28.1%	8,300	20.7%	24.1%	10,064	22.0%	21.3%
Medford	5,841	9.2%	7,399	10.4%	26.7%	8,899	11.3%	20.3%	10,345	11.9%	16.2%	11,712	12.2%	13.2%
Milton-Freewater	2,055	31.8%	2,145	32.8%	4.4%	2,250	33.7%	4.9%	2,653	38.6%	17.9%	3,797	53.1%	43.1%
Newberg	1,901	10.5%	2,368	11.5%	24.6%	3,102	12.9%	31.0%	4,622	16.7%	49.0%	7,958	25.1%	72.2%
Ontario	3,521	32.1%	3,563	31.7%	1.2%	3,557	29.4%	-0.2%	3,911	30.5%	10.0%	5,204	38.6%	33.1%
Portland	36,058	6.8%	47,005	8.4%	30.4%	52,298	9.0%	11.3%	57,931	9.7%	10.8%	69,016	11.2%	19.1%
Salem	19,973	14.6%	27,732	18.8%	38.8%	36,595	23.0%	32.0%	45,512	26.8%	24.4%	49,093	27.1%	7.9%
Springfield	3,651	6.9%	4,923	8.8%	34.8%	6,319	10.8%	28.4%	7,858	12.8%	24.4%	9,547	14.6%	21.5%
Stanfield	614	31.0%	776	36.1%	26.4%	931	39.7%	20.0%	1,080	41.8%	16.0%	1,219	42.5%	12.9%
Tigard	3,686	8.9%	5,931	13.0%	60.9%	8,813	17.4%	48.6%	12,416	22.3%	40.9%	16,806	27.5%	35.4%
Tualatin	2,701	11.9%	4,543	17.8%	68.2%	6,958	24.3%	53.2%	10,018	31.4%	44.0%	13,787	38.9%	37.6%
Umatilla	1,622	32.6%	2,274	35.7%	40.2%	3,027	38.4%	33.1%	3,896	40.6%	28.7%	4,888	42.3%	25.5%
Wilsonville	971	6.9%	1,596	9.7%	64.4%	2,407	12.3%	50.8%	3,428	15.1%	42.4%	4,678	17.8%	36.5%
Wood Village	435	15.2%	660	22.9%	51.7%	940	32.8%	42.4%	1,281	45.4%	36.3%	1,688	61.1%	31.8%
Woodburn	10,064	50.1%	12,596	57.0%	25.2%	14,949	61.3%	18.7%	17,116	64.3%	14.5%	19,047	65.8%	11.3%

Table A11: Oregon Asian or Pacific Islander County Projections

Asian or Pacific Islander	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change
Oregon	142,564		171,708			198,722			225,736			252,750		
Baker	104	0.1%	123	0.1%	18.3%	140	0.1%	13.8%	158	0.1%	12.9%	175	0.1%	10.8%
Benton	4,624	3.2%	4,890	2.8%	5.8%	5,136	2.6%	5.0%	5,383	2.4%	4.8%	5,629	2.2%	4.6%
Clackamas	12,269	8.6%	17,215	10.0%	40.3%	21,800	11.0%	26.6%	26,385	11.7%	21.0%	30,970	12.3%	17.4%
Clatsop	786	0.6%	910	0.5%	15.8%	1,026	0.5%	12.7%	1,141	0.5%	11.2%	1,256	0.5%	10.1%
Columbia	460	0.3%	524	0.3%	13.9%	583	0.3%	11.3%	642	0.3%	10.1%	701	0.3%	9.2%
Coos	1,055	0.7%	1,228	0.7%	16.4%	1,389	0.7%	13.1%	1,550	0.7%	11.6%	1,710	0.7%	10.3%
Crook	134	0.1%	166	0.1%	23.9%	195	0.1%	17.5%	224	0.1%	14.9%	253	0.1%	12.9%
Curry	196	0.1%	223	0.1%	13.8%	248	0.1%	11.2%	273	0.1%	10.1%	297	0.1%	8.8%
Deschutes	1,643	1.2%	2,078	1.2%	26.5%	2,481	1.2%	19.4%	2,884	1.3%	16.2%	3,287	1.3%	14.0%
Douglas	1,274	0.9%	1,492	0.9%	17.1%	1,694	0.9%	13.5%	1,896	0.8%	11.9%	2,098	0.8%	10.7%
Gilliam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Harney	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hood River	398	0.3%	432	0.3%	8.5%	463	0.2%	7.2%	494	0.2%	6.7%	526	0.2%	6.5%
Jackson	3,240	2.3%	4,143	2.4%	27.9%	4,980	2.5%	20.2%	5,816	2.6%	16.8%	6,653	2.6%	14.4%
Jefferson	119	0.1%	140	0.1%	17.6%	159	0.1%	13.6%	178	0.1%	11.9%	197	0.1%	10.7%
Josephine	1,001	0.7%	1,197	0.7%	19.6%	1,379	0.7%	15.2%	1,561	0.7%	13.2%	1,743	0.7%	11.7%
Klamath	989	0.7%	1,181	0.7%	19.4%	1,358	0.7%	15.0%	1,536	0.7%	13.1%	1,713	0.7%	11.5%
Lake	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lane	10,312	7.2%	12,037	7.0%	16.7%	13,635	6.9%	13.3%	15,234	6.7%	11.7%	16,833	6.7%	10.5%
Lincoln	766	0.5%	918	0.5%	19.8%	1,060	0.5%	15.5%	1,201	0.5%	13.3%	1,342	0.5%	11.7%
Linn	1,572	1.1%	1,852	1.1%	17.8%	2,112	1.1%	14.0%	2,372	1.1%	12.3%	2,632	1.0%	11.0%
Malheur	773	0.5%	758	0.4%	-1.9%	745	0.4%	-1.7%	732	0.3%	-1.7%	718	0.3%	-1.9%
Marion	8,347	5.9%	9,897	5.8%	18.6%	11,333	5.7%	14.5%	12,769	5.7%	12.7%	14,205	5.6%	11.2%
Morrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multnomah	49,431	34.7%	57,449	33.5%	16.2%	64,881	32.6%	12.9%	72,313	32.0%	11.5%	79,744	31.6%	10.3%
Polk	1,260	0.9%	1,474	0.9%	17.0%	1,672	0.8%	13.4%	1,870	0.8%	11.8%	2,068	0.8%	10.6%
Sherman	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tillamook	229	0.2%	253	0.1%	10.5%	275	0.1%	8.7%	297	0.1%	8.0%	320	0.1%	7.7%
Umatilla	946	0.7%	1,096	0.6%	15.9%	1,235	0.6%	12.7%	1,374	0.6%	11.3%	1,512	0.6%	10.0%
Union	471	0.3%	540	0.3%	14.6%	604	0.3%	11.9%	668	0.3%	10.6%	732	0.3%	9.6%
Wallowa	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wasco	437	0.3%	508	0.3%	16.2%	575	0.3%	13.2%	641	0.3%	11.5%	707	0.3%	10.3%
Washington	38,073	26.7%	47,014	27.4%	23.5%	55,301	27.8%	17.6%	63,588	28.2%	15.0%	71,875	28.4%	13.0%
Wheeler	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yamhill	1,655	1.2%	1,971	1.1%	19.1%	2,264	1.1%	14.9%	2,558	1.1%	13.0%	2,851	1.1%	11.5%

Table A12: Oregon Asian or Pacific Islander "High-Priority" City Projections

	2000		2005			2010			2015			2020		
Selected Cities	**Total Population**	**Percent of City**	**Total Population**	**Percent of City**	**Percent Change**	**Total Population**	**Percent of City**	**Percent Change**	**Total Population**	**Percent of City**	**Percent Change**	**Total Population**	**Percent of City**	**Percent Change**
Beaverton	9,150	12.0%	12,197	14.7%	33.3%	15,477	16.9%	26.9%	19,128	19.2%	23.6%	23,149	21.4%	21.0%
Bend	929	1.8%	1,585	2.3%	70.6%	2,373	2.8%	49.7%	3,308	3.3%	39.4%	4,390	3.7%	32.7%
Corvallis	4,009	8.1%	4,157	7.8%	3.7%	4,294	7.7%	3.3%	4,431	7.7%	3.2%	4,569	7.6%	3.1%
Eugene	7,093	5.1%	8,832	6.0%	24.5%	10,308	6.7%	16.7%	11,808	7.3%	14.6%	13,331	7.7%	12.9%
Fairview	334	4.4%	595	6.3%	78.1%	911	8.0%	53.1%	1,289	9.7%	41.5%	1,726	11.4%	33.9%
Forest Grove	686	3.9%	820	4.2%	19.5%	941	4.3%	14.8%	1,060	4.4%	12.6%	1,177	4.5%	11.0%
Gresham	4,495	5.0%	5,747	6.0%	27.9%	7,340	7.3%	27.7%	9,121	8.7%	24.3%	11,089	10.2%	21.6%
Happy Valley	449	9.9%	820	11.3%	82.6%	1,272	12.1%	55.1%	1,813	12.9%	42.5%	2,441	13.6%	34.6%
Hillsboro	5,754	8.2%	9,975	12.2%	73.4%	15,068	15.7%	51.1%	18,941	17.0%	25.7%	23,000	18.0%	21.4%
Keizer	851	2.6%	1,228	3.5%	44.3%	1,657	4.4%	34.9%	2,149	5.3%	29.7%	2,706	6.3%	25.9%
Lake Oswego	2,183	6.2%	3,113	8.6%	42.6%	4,163	11.2%	33.7%	5,365	14.1%	28.9%	6,720	17.2%	25.3%
Medford	1,380	2.2%	1,938	2.7%	40.4%	2,561	3.2%	32.1%	3,272	3.8%	27.8%	4,069	4.3%	24.4%
Portland	43,143	8.2%	50,382	9.1%	16.8%	57,092	9.9%	13.3%	63,802	10.7%	11.8%	70,512	11.5%	10.5%
Salem	5,264	3.8%	6,717	4.6%	27.6%	8,209	5.2%	22.2%	9,820	5.8%	19.6%	11,550	6.4%	17.6%
Sherwood	394	3.3%	742	5.0%	88.3%	1,168	6.2%	57.4%	1,679	7.3%	43.8%	2,274	8.3%	35.4%
Springfield	1,286	2.4%	1,560	2.8%	21.3%	1,817	3.1%	16.5%	2,078	3.4%	14.4%	2,343	3.6%	12.8%
Tigard	3,142	7.6%	4,713	10.4%	50.0%	6,530	12.9%	38.6%	8,639	15.5%	32.3%	11,040	18.1%	27.8%
Troutdale	742	5.4%	1,204	8.1%	62.3%	1,752	11.0%	45.5%	2,398	14.3%	36.9%	3,141	17.8%	31.0%
Tualatin	1,187	5.2%	1,887	7.4%	59.0%	2,712	9.5%	43.7%	3,681	11.5%	35.7%	4,794	13.5%	30.2%
West Linn	869	3.9%	1,266	5.3%	45.7%	1,718	6.5%	35.7%	2,239	7.8%	30.3%	2,829	9.1%	26.4%
Wilsonville	425	3.0%	684	4.1%	60.9%	991	5.1%	44.9%	1,352	5.9%	36.4%	1,767	6.7%	30.7%

Table A13: Oregon African American (Black race) County Projections

Black or African American	2000		2005			2010			2015			2020		
	Total Population	Percent of State	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change	Total Population	Percent of State	Percent Change
Oregon	72,204		83,534			94,036			104,537			115,039		
Baker	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benton	932	1.3%	1,050	1.3%	12.7%	1,160	1.2%	10.5%	1,269	1.2%	9.4%	1,379	1.2%	8.7%
Clackamas	3,497	4.8%	4,354	5.2%	24.5%	5,149	5.5%	18.3%	5,943	5.7%	15.4%	6,737	5.9%	13.4%
Clatsop	264	0.4%	318	0.4%	20.5%	369	0.4%	16.0%	419	0.4%	13.6%	470	0.4%	12.2%
Columbia	191	0.3%	245	0.3%	28.3%	295	0.3%	20.4%	345	0.3%	16.9%	395	0.3%	14.5%
Coos	350	0.5%	425	0.5%	21.4%	494	0.5%	16.2%	563	0.5%	14.0%	632	0.5%	12.3%
Crook	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Curry	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deschutes	441	0.6%	948	1.1%	115.0%	1,417	1.5%	49.5%	1,887	1.8%	33.2%	2,357	2.0%	24.9%
Douglas	359	0.5%	437	0.5%	21.7%	510	0.5%	16.7%	583	0.6%	14.3%	655	0.6%	12.3%
Gilliam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Harney	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hood River	165	0.2%	208	0.2%	26.1%	248	0.3%	19.2%	288	0.3%	16.1%	328	0.3%	13.9%
Jackson	1,261	1.7%	1,595	1.9%	26.5%	1,905	2.0%	19.4%	2,214	2.1%	16.2%	2,524	2.2%	14.0%
Jefferson	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Josephine	342	0.5%	420	0.5%	22.8%	492	0.5%	17.1%	565	0.5%	14.8%	637	0.6%	12.7%
Klamath	644	0.9%	739	0.9%	14.8%	828	0.9%	12.0%	916	0.9%	10.6%	1,005	0.9%	9.7%
Lake	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lane	4,199	5.8%	4,958	5.9%	18.1%	5,661	6.0%	14.2%	6,364	6.1%	12.4%	7,068	6.1%	11.1%
Lincoln	278	0.4%	354	0.4%	27.3%	425	0.5%	20.1%	495	0.5%	16.5%	566	0.5%	14.3%
Linn	551	0.8%	685	0.8%	24.3%	809	0.9%	18.1%	933	0.9%	15.3%	1,057	0.9%	13.3%
Malheur	454	0.6%	595	0.7%	31.1%	726	0.8%	22.0%	857	0.8%	18.0%	987	0.9%	15.2%
Marion	3,717	5.1%	4,292	5.1%	15.5%	4,825	5.1%	12.4%	5,358	5.1%	11.0%	5,891	5.1%	9.9%
Morrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multnomah	44,755	62.0%	48,245	57.8%	7.8%	51,480	54.7%	6.7%	54,715	52.3%	6.3%	57,950	50.4%	5.9%
Polk	463	0.6%	558	0.7%	20.5%	647	0.7%	15.9%	735	0.7%	13.6%	824	0.7%	12.1%
Sherman	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tillamook	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Umatilla	782	1.1%	931	1.1%	19.1%	1,069	1.1%	14.8%	1,207	1.2%	12.9%	1,346	1.2%	11.5%
Union	172	0.2%	198	0.2%	15.1%	222	0.2%	12.1%	247	0.2%	11.3%	271	0.2%	9.7%
Wallowa	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wasco	134	0.2%	158	0.2%	17.9%	181	0.2%	14.6%	203	0.2%	12.2%	226	0.2%	11.3%
Washington	7,307	10.1%	10,664	12.8%	45.9%	13,776	14.6%	29.2%	16,887	16.2%	22.6%	19,999	17.4%	18.4%
Wheeler	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yamhill	946	1.3%	1,155	1.4%	22.1%	1,349	1.4%	16.8%	1,542	1.5%	14.3%	1,736	1.5%	12.6%

Table A14: Oregon African American (Black race) "High-Priority" City Projections

Selected Cities	2000		2005			2010			2015			2020		
	Total Population	Percent of City	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change	Total Population	Percent of City	Percent Change
Albany	334	0.8%	501	1.1%	50.0%	705	1.4%	40.7%	951	1.8%	34.9%	1,163	2.0%	22.3%
Ashland	228	1.2%	330	1.6%	44.7%	453	2.0%	37.3%	602	2.6%	32.9%	731	3.0%	21.4%
Beaverton	1,864	2.4%	2,818	3.4%	51.2%	3,987	4.4%	41.5%	5,400	5.4%	35.4%	6,614	6.1%	22.5%
Cornelius	110	1.1%	179	1.7%	62.7%	264	2.3%	47.5%	369	2.9%	39.8%	457	3.3%	23.8%
Eugene	2,743	2.0%	3,565	2.4%	30.0%	4,513	2.9%	26.6%	5,611	3.5%	24.3%	6,630	3.9%	18.2%
Fairview	288	3.8%	497	5.3%	72.6%	760	6.7%	52.9%	1,082	8.2%	42.4%	1,351	8.9%	24.9%
Gladstone	145	1.3%	214	1.8%	47.6%	298	2.3%	39.3%	399	2.8%	33.9%	487	3.3%	22.1%
Gresham	2,346	2.6%	3,482	3.6%	48.4%	4,868	4.8%	39.8%	6,538	6.2%	34.3%	7,981	7.3%	22.1%
Hermiston	192	1.5%	259	1.7%	34.9%	339	2.0%	30.9%	433	2.2%	27.7%	517	2.3%	19.4%
Hillsboro	1,202	1.7%	1,966	2.4%	63.6%	2,919	3.0%	48.5%	4,082	3.7%	39.8%	5,062	4.0%	24.0%
Keizer	397	1.2%	604	1.7%	52.1%	859	2.3%	42.2%	1,167	2.9%	35.9%	1,431	3.3%	22.6%
McMinnville	267	1.0%	436	1.5%	63.3%	648	1.9%	48.6%	905	2.3%	39.7%	1,123	2.5%	24.1%
Medford	505	0.8%	786	1.1%	55.6%	1,133	1.4%	44.1%	1,554	1.8%	37.2%	1,913	2.0%	23.1%
Milwaukie	315	1.5%	448	2.2%	42.2%	609	2.9%	35.9%	801	3.8%	31.5%	969	4.6%	21.0%
Monmouth	114	1.5%	151	1.7%	32.5%	193	1.8%	27.8%	243	1.9%	25.9%	288	1.9%	18.5%
Oregon City	280	1.1%	452	1.6%	61.4%	666	2.0%	47.3%	927	2.5%	39.2%	1,148	2.8%	23.8%
Portland	41,589	7.9%	42,750	7.7%	2.8%	42,140	7.3%	-1.4%	39,726	6.7%	-5.7%	40,266	6.6%	1.4%
Salem	2,455	1.8%	2,846	1.9%	15.9%	3,239	2.0%	13.8%	3,641	2.1%	12.4%	4,099	2.3%	12.6%
Springfield	710	1.3%	986	1.8%	38.9%	1,315	2.3%	33.4%	1,706	2.8%	29.7%	2,053	3.1%	20.3%
Tigard	687	1.7%	1,020	2.2%	48.5%	1,427	2.8%	39.9%	1,917	3.4%	34.3%	2,341	3.8%	22.1%
Troutdale	358	2.6%	502	3.4%	40.2%	676	4.3%	34.7%	882	5.3%	30.5%	1,064	6.0%	20.6%
Tualatin	274	1.2%	417	1.6%	52.2%	593	2.1%	42.2%	806	2.5%	35.9%	989	2.8%	22.7%
Umatilla	146	2.9%	254	4.0%	74.0%	390	4.9%	53.5%	556	5.8%	42.6%	695	6.0%	25.0%
Wilsonville	150	1.1%	243	1.5%	62.0%	360	1.8%	48.1%	501	2.2%	39.2%	621	2.4%	24.0%

Table A15: Oregon Adult Population Meeting
CDC Physical Activity Recommendations County Projections

Meets CDC Physical Activity Recommendations	2005		2010			2015			2020		
	Total Pop. 18+ yrs	Percent of County	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change
Baker	6,568	50.8%	6,085	47.4%	-7.4%	5,647	43.6%	-7.2%	5,087	39.4%	-9.9%
Benton	37,422	56.3%	36,744	56.6%	-1.8%	36,571	54.2%	-0.5%	35,919	52.6%	-1.8%
Clackamas	155,087	57.0%	163,972	56.7%	5.7%	176,373	56.4%	7.6%	187,995	56.4%	6.6%
Clatsop	16,121	56.5%	16,615	59.1%	3.1%	17,422	61.6%	4.9%	18,103	64.6%	3.9%
Columbia	21,015	61.0%	19,857	55.7%	-5.5%	18,888	50.1%	-4.9%	17,570	44.8%	-7.0%
Coos	31,296	63.0%	29,637	60.5%	-5.3%	28,267	57.7%	-4.6%	26,384	54.6%	-6.7%
Crook	9,810	57.6%	9,285	48.2%	-5.4%	8,849	40.6%	-4.7%	8,251	34.4%	-6.8%
Curry	11,636	66.7%	11,699	66.7%	0.5%	11,953	66.9%	2.2%	12,087	67.3%	1.1%
Deschutes	68,106	61.5%	67,993	56.3%	-0.2%	68,934	50.7%	1.4%	69,120	46.4%	0.3%
Douglas	41,514	51.9%	40,349	49.7%	-2.8%	39,693	46.7%	-1.6%	38,464	43.7%	-3.1%
Grant	4,191	70.9%	3,990	69.1%	-4.8%	3,830	65.8%	-4.0%	3,604	62.5%	-5.9%
Harney	3,269	56.0%	3,112	53.6%	-4.8%	2,988	51.4%	-4.0%	2,811	49.2%	-5.9%
Hood River	8,233	53.2%	7,858	50.1%	-4.6%	7,566	45.6%	-3.7%	7,145	41.3%	-5.6%
Jackson	90,614	60.6%	88,555	56.6%	-2.3%	87,667	52.4%	-1.0%	85,577	48.5%	-2.4%
Jefferson	8,681	59.1%	8,386	54.2%	-3.4%	8,191	48.9%	-2.3%	7,872	44.3%	-3.9%
Josephine	37,492	60.0%	34,547	53.1%	-7.9%	31,831	46.2%	-7.9%	28,402	39.5%	-10.8%
Klamath	26,094	53.3%	26,724	54.5%	2.4%	27,840	55.6%	4.2%	28,736	56.9%	3.2%
Lake	3,658	63.3%	3,483	61.2%	-4.8%	3,343	58.7%	-4.0%	3,146	56.4%	-5.9%
Lane	158,673	60.2%	161,722	61.2%	1.9%	167,632	60.6%	3.7%	172,124	59.5%	2.7%
Lincoln	19,581	55.0%	21,249	57.2%	8.5%	23,427	61.1%	10.2%	25,564	65.5%	9.1%
Linn	41,961	52.3%	41,500	51.9%	-1.1%	41,641	50.2%	0.3%	41,276	48.3%	-0.9%
Malheur	15,441	66.0%	15,062	62.2%	-2.5%	14,879	58.7%	-1.2%	14,489	55.2%	-2.6%
Marion	111,712	50.4%	121,799	53.3%	9.0%	134,868	55.8%	10.7%	147,756	58.1%	9.6%
Morrow	3,437	40.4%	3,272	36.8%	-4.8%	3,141	32.9%	-4.0%	2,956	29.3%	-5.9%
Multnomah	306,243	56.9%	334,179	61.5%	9.1%	370,323	66.0%	10.8%	406,002	70.5%	9.6%
Polk	27,585	55.0%	31,469	58.7%	14.1%	36,260	59.7%	15.2%	41,149	60.4%	13.5%
Tillamook	10,249	51.0%	9,836	46.9%	-4.0%	9,533	43.4%	-3.1%	9,077	40.4%	-4.8%
Umatilla	22,294	41.8%	21,068	39.2%	-5.5%	20,041	35.2%	-4.9%	18,645	31.1%	-7.0%
Union	11,362	59.7%	10,901	58.8%	-4.1%	10,562	56.2%	-3.1%	10,051	53.2%	-4.8%
Wallowa	2,910	51.8%	2,771	47.8%	-4.8%	2,660	44.7%	-4.0%	2,502	41.6%	-5.9%
Wasco/Sherman	12,195	62.6%	11,653	61.8%	-4.4%	11,236	58.9%	-3.6%	10,630	55.3%	-5.4%
Washington	189,409	52.9%	198,846	51.9%	5.0%	212,404	50.4%	6.8%	224,865	48.9%	5.9%
Wheeler/Gilliam	1,765	64.9%	1,680	60.6%	-4.8%	1,613	57.2%	-4.0%	1,517	53.3%	-6.0%
Yamhill	37,388	55.1%	40,827	56.7%	9.2%	45,272	57.5%	10.9%	49,662	58.5%	9.7%

Table A16: Oregon Youth Population Meeting
CDC Physical Activity Recommendations County Projections

Meets CDC Physical Activity Recommendations	2005		2010			2015			2020		
	Total Pop. 6-17 yrs	Percent of County	Total Pop. 6-17 yrs	Percent of County	Percent Change	Total Pop. 6-17 yrs	Percent of County	Percent Change	Total Pop. 6-17 yrs	Percent of County	Percent Change
Baker	1,752	57.5%	1,746	56.0%	-0.3%	1,663	52.2%	-4.8%	1,563	48.0%	-6.0%
Benton	6,820	55.1%	8,281	64.4%	21.4%	9,591	72.0%	15.8%	10,987	79.6%	14.6%
Clackamas	35,299	53.5%	38,379	55.1%	8.7%	40,227	54.8%	4.8%	42,065	54.5%	4.6%
Clatsop	3,505	57.6%	3,771	61.2%	7.6%	3,911	62.7%	3.7%	4,046	64.1%	3.5%
Columbia	4,888	55.2%	5,224	56.8%	6.9%	5,381	56.3%	3.0%	5,527	55.8%	2.7%
Coos	5,824	58.5%	5,794	58.8%	-0.5%	5,506	56.5%	-5.0%	5,162	53.6%	-6.2%
Crook	2,115	53.9%	2,271	53.5%	7.4%	2,350	51.5%	3.5%	2,426	49.6%	3.2%
Curry	1,731	54.8%	1,894	57.7%	9.4%	1,999	58.7%	5.5%	2,104	59.7%	5.3%
Deschutes	12,596	55.7%	12,991	52.1%	3.1%	12,876	47.1%	-0.9%	12,685	42.8%	-1.5%
Douglas	9,526	55.2%	9,392	54.5%	-1.4%	8,827	51.3%	-6.0%	8,161	47.5%	-7.5%
Grant	837	56.2%	895	59.9%	6.9%	922	61.4%	3.0%	947	62.8%	2.7%
Harney	744	50.8%	842	56.3%	13.2%	918	60.1%	9.0%	997	63.9%	8.6%
Hood River	2,141	50.6%	2,611	57.7%	22.0%	3,036	63.0%	16.3%	3,489	68.2%	14.9%
Jackson	18,293	54.9%	20,131	56.9%	10.0%	21,355	56.9%	6.1%	22,598	57.1%	5.8%
Jefferson	2,167	49.7%	2,373	49.5%	9.5%	2,506	48.0%	5.6%	2,640	46.7%	5.3%
Josephine	-	-	-	-	-	-	-	-	-	-	-
Klamath	6,022	50.7%	6,233	50.9%	3.5%	6,202	49.2%	-0.5%	6,137	47.3%	-1.0%
Lake	897	64.4%	839	59.9%	-6.5%	736	52.3%	-12.3%	619	43.7%	-15.9%
Lane	30,218	56.7%	32,952	59.9%	9.0%	34,642	61.0%	5.1%	36,333	62.1%	4.9%
Lincoln	-	-	-	-	-	-	-	-	-	-	-
Linn	10,725	55.9%	11,097	55.7%	3.5%	11,037	53.5%	-0.5%	10,917	51.2%	-1.1%
Malheur	3,048	50.6%	3,287	53.1%	7.8%	3,417	53.8%	4.0%	3,543	54.4%	3.7%
Marion	30,705	54.7%	31,909	53.0%	3.9%	31,891	49.7%	-0.1%	31,714	46.5%	-0.6%
Morrow	1,388	55.3%	1,391	50.7%	0.2%	1,333	44.8%	-4.2%	1,263	39.4%	-5.3%
Multnomah	52,484	51.9%	61,522	58.6%	17.2%	69,182	63.5%	12.5%	77,280	68.5%	11.7%
Polk	6,779	57.3%	7,318	58.3%	8.0%	7,615	57.4%	4.1%	7,905	56.6%	3.8%
Tillamook	2,267	54.7%	2,369	55.0%	4.5%	2,383	53.3%	0.6%	2,386	51.5%	0.1%
Umatilla	7,533	53.7%	7,807	53.0%	3.6%	7,779	50.3%	-0.4%	7,710	47.6%	-0.9%
Union	2,372	55.7%	2,379	56.8%	0.3%	2,283	55.5%	-4.0%	2,166	53.5%	-5.1%
Wallowa	736	54.0%	714	51.4%	-3.0%	657	46.5%	-8.0%	591	41.1%	-10.0%
Wasco	2,134	50.7%	2,201	51.8%	3.1%	2,182	50.8%	-0.9%	2,150	49.6%	-1.5%
Washington	45,410	52.8%	51,020	54.3%	12.4%	55,212	54.2%	8.2%	59,559	54.3%	7.9%
Yamhill	9,187	54.6%	9,391	52.6%	2.2%	9,213	48.7%	-1.9%	8,972	45.0%	-2.6%
Gilliam, Sherman & Wheeler	584	56.2%	585	54.3%	0.2%	561	50.3%	-4.1%	531	46.0%	-5.3%

Table A17: Oregon Adult Population Overweight
County Projections (Body Mass Index 25-30)

Overweight (Body Mass Index: 25-30)	2005		2010			2015			2020		
	Total Pop. 18+ yrs	Percent of County	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change
Baker	4,245	32.8%	4,015	31.2%	-5.4%	3,873	29.9%	-3.5%	3,667	28.4%	-5.3%
Benton	23,127	34.8%	23,250	35.8%	0.5%	24,022	35.6%	3.3%	24,581	36.0%	2.3%
Clackamas	94,862	34.9%	94,114	32.6%	-0.8%	95,872	30.7%	1.9%	96,631	29.0%	0.8%
Clatsop	9,536	33.4%	10,189	36.2%	6.8%	11,183	39.5%	9.8%	12,152	43.3%	8.7%
Columbia	12,402	36.0%	13,561	38.0%	9.3%	15,201	40.3%	12.1%	16,839	42.9%	10.8%
Coos	18,855	38.0%	20,730	42.3%	9.9%	23,350	47.7%	12.6%	25,980	53.8%	11.3%
Crook	7,778	45.7%	8,565	44.5%	10.1%	9,661	44.4%	12.8%	10,762	44.8%	11.4%
Curry	7,501	43.0%	7,932	45.2%	5.7%	8,621	48.2%	8.7%	9,281	51.7%	7.7%
Deschutes	40,868	36.9%	42,208	34.9%	3.3%	44,831	33.0%	6.2%	47,195	31.7%	5.3%
Douglas	32,808	41.0%	33,240	40.9%	1.3%	34,623	40.7%	4.2%	35,732	40.6%	3.2%
Grant	2,122	35.9%	1,919	33.3%	-9.6%	1,751	30.1%	-8.8%	1,541	26.7%	-12.0%
Harney	2,744	47.0%	2,804	48.3%	2.2%	2,947	50.7%	5.1%	3,070	53.8%	4.2%
Hood River	6,655	43.0%	7,234	46.1%	8.7%	8,067	48.6%	11.5%	8,894	51.4%	10.3%
Jackson	53,491	35.7%	57,245	36.6%	7.0%	62,921	37.6%	9.9%	68,465	38.8%	8.8%
Jefferson	7,052	48.0%	7,826	50.6%	11.0%	8,887	53.1%	13.6%	9,959	56.0%	12.1%
Josephine	21,910	35.1%	24,858	38.2%	13.5%	28,765	41.8%	15.7%	32,763	45.6%	13.9%
Klamath	17,611	36.0%	17,532	35.8%	-0.4%	17,926	35.8%	2.2%	18,140	35.9%	1.2%
Lake	2,074	35.9%	2,166	38.1%	4.4%	2,325	40.8%	7.3%	2,474	44.4%	6.4%
Lane	87,164	33.0%	87,499	33.1%	0.4%	90,261	32.6%	3.2%	92,211	31.9%	2.2%
Lincoln	13,070	36.7%	13,756	37.0%	5.2%	14,884	38.8%	8.2%	15,955	40.9%	7.2%
Linn	25,674	32.0%	25,433	31.8%	-0.9%	25,865	31.2%	1.7%	26,023	30.5%	0.6%
Malheur	8,663	37.0%	8,666	35.8%	0.0%	8,907	35.1%	2.8%	9,064	34.5%	1.8%
Marion	91,093	41.1%	102,293	44.8%	12.3%	117,351	48.6%	14.7%	132,679	52.2%	13.1%
Morrow	3,931	46.2%	4,355	49.0%	10.8%	4,939	51.8%	13.4%	5,529	54.8%	11.9%
Multnomah	172,329	32.0%	171,776	31.6%	-0.3%	175,875	31.4%	2.4%	178,242	30.9%	1.3%
Polk	15,281	30.5%	13,330	24.9%	-12.8%	11,560	19.0%	-13.3%	9,440	13.9%	-18.3%
Tillamook	7,241	36.0%	7,287	34.8%	0.6%	7,536	34.3%	3.4%	7,719	34.4%	2.4%
Umatilla	18,495	34.7%	17,034	31.7%	-7.9%	15,901	27.9%	-6.7%	14,437	24.0%	-9.2%
Union	7,370	38.7%	7,741	41.7%	5.0%	8,358	44.5%	8.0%	8,942	47.3%	7.0%
Wallowa	2,140	38.1%	2,372	41.0%	10.8%	2,691	45.2%	13.4%	3,012	50.1%	11.9%
Wasco/Sherman	7,090	36.4%	7,957	42.2%	12.2%	9,125	47.8%	14.7%	10,312	53.7%	13.0%
Washington	120,556	33.7%	123,913	32.3%	2.8%	130,982	31.1%	5.7%	137,225	29.8%	4.8%
Wheeler/Gilliam	707	26.0%	792	28.6%	12.0%	907	32.2%	14.5%	1,023	35.9%	12.8%
Yamhill	26,403	38.9%	29,993	41.7%	13.6%	34,744	44.1%	15.8%	39,608	46.6%	14.0%

Table A18: Oregon Youth Population At-Risk of Being Overweight
County Projections (85-95% Percentile)

Baker	394	12.9%	446	14.3%	13.2%	486	15.2%	9.0%	527	16.2%	8.4%
Benton	1,403	11.3%	1,575	12.3%	12.3%	1,704	12.8%	8.2%	1,837	13.3%	7.8%
Clackamas	8,059	12.2%	8,983	12.9%	11.5%	9,649	13.1%	7.4%	10,335	13.4%	7.1%
Clatsop	1,034	17.0%	1,054	17.1%	1.9%	1,031	16.5%	-2.2%	1,001	15.9%	-2.9%
Columbia	1,130	12.8%	1,244	13.5%	10.1%	1,320	13.8%	6.1%	1,398	14.1%	5.9%
Coos	1,496	15.0%	1,547	15.7%	3.4%	1,538	15.8%	-0.6%	1,520	15.8%	-1.2%
Crook	526	13.4%	560	13.2%	6.5%	574	12.6%	2.5%	587	12.0%	2.3%
Curry	379	12.0%	437	13.3%	15.3%	485	14.2%	11.0%	535	15.2%	10.3%
Deschutes	2,608	11.5%	2,990	12.0%	14.6%	3,297	12.1%	10.3%	3,619	12.2%	9.8%
Douglas	2,867	16.6%	3,311	19.2%	15.5%	3,675	21.4%	11.0%	4,058	23.6%	10.4%
Grant	180	12.1%	187	12.5%	3.9%	186	12.4%	-0.5%	184	12.2%	-1.1%
Harney	154	10.5%	159	10.6%	3.2%	158	10.3%	-0.6%	156	10.0%	-1.3%
Hood River	587	13.9%	627	13.9%	6.8%	646	13.4%	3.0%	663	13.0%	2.6%
Jackson	4,520	13.6%	4,867	13.7%	7.7%	5,051	13.5%	3.8%	5,229	13.2%	3.5%
Jefferson	813	18.6%	867	18.1%	6.6%	891	17.1%	2.8%	913	16.2%	2.5%
Josephine	-	-	-	-	-	-	-	-	-	-	-
Klamath	1,490	12.5%	1,606	13.1%	7.8%	1,669	13.2%	3.9%	1,730	13.3%	3.7%
Lake	204	14.7%	229	16.4%	12.3%	248	17.6%	8.3%	268	18.9%	8.1%
Lane	7,760	14.6%	8,817	16.0%	13.6%	9,642	17.0%	9.4%	10,503	17.9%	8.9%
Lincoln	-	-	-	-	-	-	-	-	-	-	-
Linn	3,015	15.7%	3,258	16.4%	8.1%	3,393	16.5%	4.1%	3,525	16.5%	3.9%
Malheur	903	15.0%	991	16.0%	9.7%	1,048	16.5%	5.8%	1,106	17.0%	5.5%
Marion	8,191	14.6%	8,715	14.5%	6.4%	8,934	13.9%	2.5%	9,131	13.4%	2.2%
Morrow	433	17.2%	468	17.1%	8.1%	488	16.4%	4.3%	508	15.9%	4.1%
Multnomah	13,897	13.7%	14,606	13.9%	5.1%	14,779	13.6%	1.2%	14,897	13.2%	0.8%
Polk	2,468	20.8%	2,678	21.3%	8.5%	2,802	21.1%	4.6%	2,924	20.9%	4.4%
Tillamook	806	19.5%	918	21.3%	13.9%	1,006	22.5%	9.6%	1,099	23.7%	9.2%
Umatilla	2,421	17.3%	2,645	17.9%	9.3%	2,785	18.0%	5.3%	2,926	18.1%	5.1%
Union	701	16.5%	743	17.7%	6.0%	759	18.4%	2.2%	773	19.1%	1.8%
Wallowa	233	17.1%	233	16.8%	0.0%	223	15.8%	-4.3%	210	14.6%	-5.8%
Wasco	734	17.5%	771	18.1%	5.0%	780	18.2%	1.2%	786	18.1%	0.8%
Washington	11,468	13.3%	12,676	13.5%	10.5%	13,505	13.3%	6.5%	14,352	13.1%	6.3%
Yamhill	2,914	17.3%	3,129	17.5%	7.4%	3,238	17.1%	3.5%	3,342	16.8%	3.2%
Gilliam, Sherman & Wheeler	175	16.8%	187	17.3%	6.9%	192	17.2%	2.7%	197	17.1%	2.6%

Table A19: Oregon Adult Population Obese
County Projections (Body Mass Index 30 and over)

Obese (Body Mass Index: 30 and over)	2005		2010			2015			2020		
	Total Pop. 18+ yrs	Percent of County	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change
Baker	2,243	17.3%	2,134	16.6%	-4.9%	2,073	16.0%	-2.9%	1,979	15.3%	-4.5%
Benton	12,723	19.1%	14,577	22.5%	14.6%	17,006	25.2%	16.7%	19,502	28.6%	14.7%
Clackamas	56,835	20.9%	55,817	19.3%	-1.8%	56,231	18.0%	0.7%	55,988	16.8%	-0.4%
Clatsop	6,779	23.8%	6,131	21.8%	-9.6%	5,590	19.8%	-8.8%	4,916	17.5%	-12.1%
Columbia	8,974	26.0%	8,182	22.9%	-8.8%	7,540	20.0%	-7.8%	6,729	17.2%	-10.8%
Coos	10,929	22.0%	10,258	20.9%	-6.1%	9,805	20.0%	-4.4%	9,177	19.0%	-6.4%
Crook	3,875	22.8%	3,653	19.0%	-5.7%	3,511	16.1%	-3.9%	3,308	13.8%	-5.8%
Curry	3,235	18.5%	3,839	21.9%	18.7%	4,605	25.8%	20.0%	5,402	30.1%	17.3%
Deschutes	21,027	19.0%	21,700	18.0%	3.2%	23,032	16.9%	6.1%	24,229	16.3%	5.2%
Douglas	21,925	27.4%	22,102	27.2%	0.8%	22,902	27.0%	3.6%	23,507	26.7%	2.6%
Grant	1,360	23.0%	1,356	23.5%	-0.3%	1,389	23.9%	2.4%	1,409	24.5%	1.4%
Harney	1,518	26.0%	1,494	25.7%	-1.6%	1,509	26.0%	1.0%	1,507	26.4%	-0.1%
Hood River	2,749	17.8%	2,389	15.2%	-13.1%	2,060	12.4%	-13.8%	1,667	9.6%	-19.1%
Jackson	31,189	20.8%	30,862	19.7%	-1.0%	31,350	18.7%	1.6%	31,501	17.9%	0.5%
Jefferson	4,111	28.0%	3,969	25.6%	-3.5%	3,923	23.4%	-1.2%	3,822	21.5%	-2.6%
Josephine	15,075	24.1%	15,514	23.8%	2.9%	16,419	23.8%	5.8%	17,223	24.0%	4.9%
Klamath	12,570	25.7%	13,791	28.1%	9.7%	15,505	31.0%	12.4%	17,223	34.1%	11.1%
Lake	1,329	23.0%	1,251	22.0%	-5.9%	1,199	21.0%	-4.2%	1,126	20.2%	-6.1%
Lane	65,938	25.0%	71,116	26.9%	7.9%	78,731	28.5%	10.7%	86,239	29.8%	9.5%
Lincoln	10,334	29.0%	10,639	28.6%	3.0%	11,264	29.4%	5.9%	11,820	30.3%	4.9%
Linn	24,824	30.9%	25,016	31.3%	0.8%	25,911	31.2%	3.6%	26,585	31.1%	2.6%
Malheur	7,024	30.0%	6,946	28.7%	-1.1%	7,050	27.8%	1.5%	7,078	27.0%	0.4%
Marion	58,575	26.4%	61,289	26.8%	4.6%	65,938	27.3%	7.6%	70,297	27.7%	6.6%
Morrow	2,467	29.0%	2,421	27.2%	-1.9%	2,437	25.5%	0.7%	2,424	24.0%	-0.5%
Multnomah	110,392	20.5%	113,031	20.8%	2.4%	119,014	21.2%	5.3%	124,197	21.6%	4.4%
Polk	12,037	24.0%	13,565	25.3%	12.7%	15,610	25.7%	15.1%	17,695	26.0%	13.4%
Tillamook	4,828	24.0%	5,507	26.3%	14.1%	6,400	29.2%	16.2%	7,316	32.6%	14.3%
Umatilla	14,840	27.8%	15,720	29.2%	5.9%	17,115	30.1%	8.9%	18,456	30.7%	7.8%
Union	3,811	20.0%	3,643	19.6%	-4.4%	3,560	18.9%	-2.3%	3,422	18.1%	-3.9%
Wallowa	657	11.7%	760	13.1%	15.7%	894	15.0%	17.6%	1,032	17.2%	15.4%
Wasco/Sherman	4,678	24.0%	4,768	25.3%	1.9%	4,998	26.2%	4.8%	5,191	27.0%	3.9%
Washington	76,953	21.5%	80,607	21.0%	4.7%	86,813	20.6%	7.7%	92,648	20.1%	6.7%
Wheeler/Gilliam	897	33.0%	888	32.0%	-1.0%	901	32.0%	1.5%	905	31.8%	0.4%
Yamhill	19,438	28.7%	21,302	29.6%	9.6%	23,925	30.4%	12.3%	26,551	31.3%	11.0%

Table A20: Oregon Youth Population Overweight
County Projections (95% Percentile and above)

Overweight (95th percentile and above)	2005		2010			2015			2020		
	Total Pop. 6-17 yrs	Percent of County	Total Pop. 6-17 yrs	Percent of County	Percent Change	Total Pop. 6-17 yrs	Percent of County	Percent Change	Total Pop. 6-17 yrs	Percent of County	Percent Change
Baker	317	10.4%	333	10.7%	5.0%	337	10.6%	1.1%	339	10.4%	0.7%
Benton	1,102	8.9%	1,290	10.0%	17.1%	1,449	10.9%	12.3%	1,617	11.7%	11.6%
Clackamas	6,549	9.9%	7,340	10.5%	12.1%	7,925	10.8%	8.0%	8,530	11.1%	7.6%
Clatsop	726	11.9%	813	13.2%	12.0%	877	14.1%	7.9%	943	14.9%	7.6%
Columbia	1,226	13.8%	1,311	14.2%	6.9%	1,351	14.1%	3.0%	1,388	14.0%	2.8%
Coos	1,220	12.3%	1,324	13.4%	8.5%	1,385	14.2%	4.6%	1,446	15.0%	4.4%
Crook	460	11.7%	511	12.0%	11.1%	547	12.0%	7.1%	584	11.9%	6.8%
Curry	408	12.9%	467	14.2%	14.5%	514	15.1%	10.1%	564	16.0%	9.6%
Deschutes	1,809	8.0%	1,939	7.8%	7.2%	2,003	7.3%	3.3%	2,064	7.0%	3.0%
Douglas	2,066	12.0%	2,322	13.5%	12.4%	2,514	14.6%	8.2%	2,712	15.8%	7.9%
Grant	147	9.9%	189	12.6%	28.6%	229	15.2%	21.1%	272	18.0%	18.7%
Harney	207	14.1%	233	15.6%	12.6%	253	16.5%	8.4%	273	17.5%	8.0%
Hood River	472	11.1%	512	11.3%	8.5%	535	11.1%	4.6%	559	10.9%	4.3%
Jackson	3,294	9.9%	3,336	9.4%	1.3%	3,238	8.6%	-2.9%	3,114	7.9%	-3.8%
Jefferson	516	11.8%	566	11.8%	9.7%	598	11.5%	5.7%	631	11.2%	5.5%
Josephine	-	-	-	-	-	-	-	-	-	-	-
Klamath	1,417	11.9%	1,529	12.5%	7.9%	1,590	12.6%	4.0%	1,650	12.7%	3.8%
Lake	101	7.3%	115	8.2%	13.9%	126	9.0%	9.6%	138	9.7%	9.1%
Lane	5,595	10.5%	6,386	11.6%	14.1%	7,012	12.3%	9.8%	7,668	13.1%	9.3%
Lincoln	-	-	-	-	-	-	-	-	-	-	-
Linn	2,334	12.2%	2,617	13.1%	12.1%	2,827	13.7%	8.0%	3,044	14.3%	7.7%
Malheur	893	14.8%	967	15.6%	8.3%	1,009	15.9%	4.4%	1,051	16.1%	4.1%
Marion	6,749	12.0%	6,940	11.5%	2.8%	6,855	10.7%	-1.2%	6,727	9.9%	-1.9%
Morrow	223	8.9%	241	8.8%	8.1%	251	8.4%	4.2%	261	8.1%	3.9%
Multnomah	10,340	10.2%	10,976	10.5%	6.2%	11,224	10.3%	2.3%	11,442	10.1%	1.9%
Polk	1,496	12.6%	1,628	13.0%	8.8%	1,708	12.9%	4.9%	1,788	12.8%	4.7%
Tillamook	365	8.8%	433	10.1%	18.6%	492	11.0%	13.6%	554	12.0%	12.7%
Umatilla	1,788	12.8%	1,864	12.6%	4.3%	1,869	12.1%	0.3%	1,866	11.5%	-0.2%
Union	432	10.2%	536	12.8%	24.1%	632	15.3%	17.8%	734	18.1%	16.2%
Wallowa	89	6.5%	94	6.8%	5.6%	96	6.8%	1.7%	97	6.7%	1.4%
Wasco	551	13.1%	619	14.6%	12.3%	670	15.6%	8.2%	722	16.7%	7.9%
Washington	7,871	9.1%	8,818	9.4%	12.0%	9,517	9.3%	7.9%	10,240	9.3%	7.6%
Yamhill	2,012	12.0%	2,177	12.2%	8.2%	2,271	12.0%	4.3%	2,363	11.8%	4.1%
Gilliam, Sherman & Wheeler	123	11.8%	137	12.7%	11.4%	147	13.2%	7.3%	157	13.6%	7.0%

Table A21: Oregon Adult Consumes five or More Fruits or Vegetables Daily County Projections

Consumes 5 or more Fruits and Vegetables Daily	2005		2010			2015			2020		
	Total Pop. 18+ yrs	Percent of County	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change	Total Pop. 18+ yrs	Percent of County	Percent Change
Baker	3,358	26.0%	3,774	29.4%	12.4%	4,334	33.5%	14.8%	4,903	37.9%	13.1%
Benton	19,177	28.8%	17,715	27.3%	-7.6%	16,601	24.6%	-6.3%	15,149	22.2%	-8.7%
Clackamas	73,929	27.2%	76,338	26.4%	3.3%	81,066	25.9%	6.2%	85,324	25.6%	5.3%
Clatsop	6,211	21.8%	5,605	19.9%	-9.8%	5,095	18.0%	-9.1%	4,463	15.9%	-12.4%
Columbia	8,726	25.3%	9,336	26.2%	7.0%	10,258	27.2%	9.9%	11,159	28.5%	8.8%
Coos	10,701	21.5%	10,858	22.2%	1.5%	11,328	23.1%	4.3%	11,710	24.2%	3.4%
Crook	2,775	16.3%	3,004	15.6%	8.3%	3,337	15.3%	11.1%	3,666	15.3%	9.9%
Curry	3,613	20.7%	3,494	19.9%	-3.3%	3,459	19.3%	-1.0%	3,377	18.8%	-2.4%
Deschutes	29,625	26.8%	29,443	24.4%	-0.6%	30,049	22.1%	2.1%	30,350	20.4%	1.0%
Douglas	17,687	22.1%	16,643	20.5%	-5.9%	15,956	18.8%	-4.1%	14,989	17.0%	-6.1%
Grant	1,064	18.0%	1,053	18.2%	-1.0%	1,070	18.4%	1.6%	1,075	18.7%	0.5%
Harney	1,302	22.3%	1,288	22.2%	-1.1%	1,309	22.5%	1.6%	1,315	23.0%	0.5%
Hood River	6,147	39.7%	6,471	41.3%	5.3%	7,003	42.2%	8.2%	7,508	43.3%	7.2%
Jackson	39,723	26.5%	38,147	24.4%	-4.0%	37,468	22.4%	-1.8%	36,241	20.6%	-3.3%
Jefferson	3,370	23.0%	3,217	20.8%	-4.5%	3,137	18.7%	-2.5%	3,009	16.9%	-4.1%
Josephine	16,103	25.8%	15,154	23.3%	-5.9%	14,530	21.1%	-4.1%	13,652	19.0%	-6.0%
Klamath	10,172	20.8%	9,484	19.3%	-6.8%	8,992	18.0%	-5.2%	8,329	16.5%	-7.4%
Lake	1,133	19.6%	1,121	19.7%	-1.1%	1,139	20.0%	1.6%	1,144	20.5%	0.4%
Lane	69,284	26.3%	69,984	26.5%	1.0%	72,667	26.3%	3.8%	74,748	25.8%	2.9%
Lincoln	8,645	24.3%	8,784	23.6%	1.6%	9,177	23.9%	4.5%	9,500	24.3%	3.5%
Linn	20,740	25.9%	18,557	23.2%	-10.5%	16,676	20.1%	-10.1%	14,369	16.8%	-13.8%
Malheur	3,663	15.6%	3,785	15.6%	3.3%	4,021	15.9%	6.2%	4,234	16.1%	5.3%
Marion	49,988	22.6%	55,119	24.1%	10.3%	62,245	25.8%	12.9%	69,414	27.3%	11.5%
Morrow	1,115	13.1%	1,103	12.4%	-1.1%	1,121	11.7%	1.6%	1,126	11.2%	0.4%
Multnomah	149,083	27.7%	165,563	30.5%	11.1%	188,134	33.6%	13.6%	210,954	36.6%	12.1%
Polk	11,796	23.5%	12,435	23.2%	5.4%	13,474	22.2%	8.4%	14,464	21.2%	7.3%
Tillamook	5,773	28.7%	5,559	26.5%	-3.7%	5,477	24.9%	-1.5%	5,317	23.7%	-2.9%
Umatilla	10,380	19.5%	9,836	18.3%	-5.2%	9,510	16.7%	-3.3%	9,027	15.0%	-5.1%
Union	4,979	26.2%	4,671	25.2%	-6.2%	4,462	23.7%	-4.5%	4,172	22.1%	-6.5%
Wallowa	1,466	26.1%	1,451	25.1%	-1.0%	1,474	24.7%	1.6%	1,482	24.6%	0.5%
Wasco/Sherman	4,227	21.7%	3,931	20.8%	-7.0%	3,715	19.5%	-5.5%	3,427	17.8%	-7.8%
Washington	102,020	28.5%	107,318	28.0%	5.2%	116,057	27.5%	8.1%	124,350	27.0%	7.1%
Wheeler/Gilliam	707	26.0%	700	25.3%	-1.0%	711	25.2%	1.6%	714	25.1%	0.4%
Yamhill	19,333	28.5%	19,753	27.4%	2.2%	20,753	26.3%	5.1%	21,608	25.4%	4.1%

Table A22: Oregon Youth Consumes five or More Fruits or Vegetables Daily County Projections

Consumes 5 or more Fruits and Vegetables Daily	2005		2010			2015			2020		
	Total Pop. 6-17 yrs	Percent of County	Total Pop. 6-17 yrs	Percent of County	Percent Change	Total Pop. 6-17 yrs	Percent of County	Percent Change	Total Pop. 6-17 yrs	Percent of County	Percent Change
Baker	593	19.5%	668	21.4%	12.6%	725	22.7%	8.5%	784	24.1%	8.1%
Benton	3,250	26.3%	3,502	27.2%	7.8%	3,637	27.3%	3.9%	3,768	27.3%	3.6%
Clackamas	14,040	21.3%	15,454	22.2%	10.1%	16,397	22.3%	6.1%	17,355	22.5%	5.8%
Clatsop	1,367	22.5%	1,549	25.1%	13.3%	1,690	27.1%	9.1%	1,837	29.1%	8.7%
Columbia	1,908	21.6%	2,025	22.0%	6.1%	2,070	21.7%	2.2%	2,110	21.3%	1.9%
Coos	2,339	23.5%	2,710	27.5%	15.9%	3,016	31.0%	11.3%	3,339	34.7%	10.7%
Crook	729	18.6%	798	18.8%	9.5%	842	18.4%	5.5%	886	18.1%	5.2%
Curry	646	20.4%	722	22.0%	11.8%	777	22.8%	7.6%	834	23.6%	7.3%
Deschutes	4,672	20.7%	5,093	20.4%	9.0%	5,352	19.6%	5.1%	5,611	18.9%	4.8%
Douglas	3,377	19.6%	3,646	21.2%	8.0%	3,794	22.1%	4.1%	3,939	22.9%	3.8%
Grant	257	17.2%	319	21.3%	24.1%	376	25.0%	17.9%	436	28.9%	16.0%
Harney	242	16.5%	262	17.5%	8.3%	273	17.9%	4.2%	283	18.1%	3.7%
Hood River	1,061	25.1%	1,168	25.8%	10.1%	1,239	25.7%	6.1%	1,312	25.7%	5.9%
Jackson	6,657	20.0%	7,698	21.7%	15.6%	8,553	22.8%	11.1%	9,453	23.9%	10.5%
Jefferson	1,052	24.1%	1,174	24.5%	11.6%	1,262	24.2%	7.5%	1,353	23.9%	7.2%
Josephine	-	-	-	-	-	-	-	-	-	-	-
Klamath	2,101	17.7%	2,143	17.5%	2.0%	2,097	16.6%	-2.1%	2,036	15.7%	-2.9%
Lake	267	19.2%	290	20.7%	8.6%	304	21.6%	4.8%	318	22.5%	4.6%
Lane	11,354	21.3%	12,216	22.2%	7.6%	12,668	22.3%	3.7%	13,104	22.4%	3.4%
Lincoln	-	-	-	-	-	-	-	-	-	-	-
Linn	3,723	19.4%	3,987	20.0%	7.1%	4,115	20.0%	3.2%	4,236	19.9%	2.9%
Malheur	1,454	24.1%	1,628	26.3%	12.0%	1,756	27.6%	7.9%	1,888	29.0%	7.5%
Marion	12,570	22.4%	13,713	22.8%	9.1%	14,422	22.5%	5.2%	15,132	22.2%	4.9%
Morrow	555	22.1%	599	21.8%	7.9%	623	21.0%	4.0%	647	20.2%	3.9%
Multnomah	22,602	22.4%	24,567	23.4%	8.7%	25,742	23.6%	4.8%	26,910	23.8%	4.5%
Polk	2,630	22.2%	2,950	23.5%	12.2%	3,187	24.0%	8.0%	3,433	24.6%	7.7%
Tillamook	666	16.1%	701	16.3%	5.3%	710	15.9%	1.3%	717	15.5%	1.0%
Umatilla	2,656	18.9%	2,852	19.3%	7.4%	2,952	19.1%	3.5%	3,048	18.8%	3.3%
Union	747	17.6%	827	19.8%	10.7%	882	21.4%	6.7%	938	23.2%	6.3%
Wallowa	195	14.3%	204	14.7%	4.6%	205	14.5%	0.5%	205	14.3%	0.0%
Wasco	873	20.8%	978	23.0%	12.0%	1,055	24.6%	7.9%	1,134	26.1%	7.5%
Washington	17,473	20.3%	18,605	19.8%	6.5%	19,087	18.8%	2.6%	19,524	17.8%	2.3%
Yamhill	3,802	22.6%	4,142	23.2%	8.9%	4,350	23.0%	5.0%	4,557	22.8%	4.8%
Gilliam, Sherman & Wheeler	236	22.7%	263	24.4%	11.4%	282	25.3%	7.2%	301	26.1%	6.7%

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Appendix B
Oregon Wetlands Priority Plan

Prepared by the Oregon Parks and Recreation Department

Oregon Wetlands Priority Plan

The Emergency Wetlands Resources Act of 1986 (P.L. 99-645) requires each state comprehensive outdoor recreation plan to include a component that identifies wetlands as a priority concern within the state. This Appendix describes a brief history of wetland protection in Oregon, current wetland protection strategies, and a priority listing of regions/watersheds for wetland restoration/ acquisition.

Background

In the early days, settlers in Oregon, and in the rest of the country, viewed wetlands as an impediment to efficient development. Much of the conversion of wetlands was a result of public policies that provided public funding and technical assistance to drain and dike wetlands, as well as incentives to purchase cheap or free public "swampland" for conversion to "productive" use. The Swamp Land Acts of 1849, 1850, and 1860 provided public domain wetlands to any individuals who would drain them and put them to "productive" use. As a result, approximately 38 percent of Oregon's historic wetlands have been converted to agricultural, commercial, and other uses (Dahl, 1990).

In recent decades, we have learned much more about wetlands and the important functions they provide to society including:

- flood control and storm damage protection, which prevent loss of life and property;
- essential spawning, rearing, feeding, nesting and wintering habitats for a major portion of this state's fish and wildlife, including threatened and endangered species;
- essential habitat for waterfowl using the Pacific Flyway and for the rearing of salmon and other anadromous and resident fish;
- water quality improvement through absorption and filtration of sediments, nutrients, metals, and toxic materials that would otherwise degrade groundwater or the water quality of adjacent rivers, lakes, and estuaries; and
- significant opportunity for public recreation, environmental and ecological research, education, scenic diversity, and aesthetic value as open space.

Changes in public policy have attempted to reverse the trend of wetland conversion and to redirect regulatory, landowner incentive, and management efforts. The Fill Law, enacted by the Oregon Legislature in 1971, found that "unregulated filling in the waters of the state for any purpose may result in interfering with or injuring public navigation, fishery and recreational uses of the waters." During 1973, Oregonians expressed their concern about protecting wetlands in landmark land-use regulations; Statewide Planning Goals 5, 15, 16, and 17 all specifically mention wetland resources. Then, in 1989, the Oregon Legislature passed a comprehensive wetland bill that included several policies stressing the *importance* of wetlands (ORS 196.668 and 196.672). The legislation focused on integrating local wetland planning and state wetland permitting under the Removal-Fill Law, development of a statewide wetlands inventory, a Wetland Conservation Plan option for local governments to meet state-mandated wetland planning requirements, and identification of wetland restoration opportunities.

Strategic planning through the statewide land-use planning process has provided substantial protection for more than 99 percent of Oregon's remaining tidal marshes. The strategy used to manage Oregon's estuaries was the application of an estuary classification system and a goal to maintain diversity of systems. The strategy identified estuarine management units for protection, conservation, or development (DLCD, 1987; Bella, 1974). Oregon's estuarine planning approach has successfully protected the public trust held in intertidal and subtidal lands. However, freshwater wetlands pose a significantly greater challenge for conservation.

Oregon's Wetland Conservation Strategy

In the state of Oregon, the long-term protection and management of the state's wetland resources is addressed through both regulatory and non-regulatory measures including:

- Providing protection of wetlands and restoration sites;
- Conserving and managing functions and values of wetlands;
- Encouraging restoration of wetlands for watershed, water quality and /or wildlife objectives, while accommodating necessary economic activities; and
- Managing Oregon's wetlands through partnerships that improve communication, cooperation and consistency among agencies, organizations and the public.

Towards this end, the Oregon Division of State Lands has developed a report entitled, "Oregon's Wetland Conservation Strategy, Issue Analysis, Public Discussions and Recommendations" (March 1995). The report was funded by a grant from Region 10, U.S. Environmental Protection Agency for Wetland Program Enhancement and was adopted as an agency strategic plan by the State Land Board. It was written with the assistance and guidance of various federal, state, and local agencies and interest groups including:

- U.S. Army Corps of Engineers
- Oregon Department of Fish & Wildlife
- U.S. Environmental Protection Agency
- Oregon Department of Agriculture
- U.S. Soil Conservation Service
- Oregon Department of Environmental Quality
- U.S. Fish and Wildlife Service
- Oregon Parks & Recreation Department
- Bureau of Land Management
- Oregon Water Resources Department
- U.S. Forest Service
- Oregon Department of Energy
- National Marine Fisheries Service
- National Wildlife Federation

The report suggests direction and establishes priorities for the Oregon Wetland Conservation Strategy, an integrated state wetland program. The recommendations in the report are aimed toward improving the effectiveness and efficiency of Oregon's effort to conserve, restore, and protect wetlands, recognizing that many wetlands occur on private property. The goal of the Strategy is to:

"Ensure the long-term protection and management of the state's wetland resources through both regulatory and non-regulatory measures by a) providing protection of wetlands and restoration sites, b) conserving and managing functions, values, and acreage of wetlands, and c) encouraging restoration of wetlands for watershed, water quality, and/or wildlife objectives, while accommodating necessary economic activities. Also, to manage Oregon's wetlands through partnerships which improve education, communication, cooperation, and consistency among agencies, organizations, and the public."

Implementation of the Oregon Wetland Conservation Strategy will assist in attaining the Oregon Progress Board's Benchmark of no-net loss of freshwater wetland acreage and net increase of estuarine wetland acreage.

Priority Regions/Watersheds for Wetland Restoration/Acquisition

As part of the Wetland Conservation Strategy's planning process, a list of high-priority wetland restoration basins was proposed. The following table lists priority areas for wetland restoration/acquisition, based on ecological, political, and economic feasibility factors.

Table B1: Priority Regions/Watersheds for Wetland Restoration/Acquisition

Area	**Rationale/Criteria**
Coastal Estuaries:	Historic loss, ease of restoration with predicted high success rates.
Columbia River Estuary	Rare habitats, staging and wintering areas, raptors, etc. (Blind Slough).
Coastal Freshwater Wetlands	Loss of habitat, rapidly urbanizing areas (Gearhart Bog, Neskowin Marsh).
Floodplain Features of Lower Columbia River	Diminished by cessation of floods from dams and diking (shallow lakes, and willow flats of Sauvie and Government islands).
Rapidly Urbanizing Areas	Great historic loss, threat to resource.
Interior Valleys:	
Willamette Valley	Historic loss, land owner interest, proximity to development.
Wet Prairie & Forested Wetlands	
Willamette Greenway	Greatest historical loss, rapidly urbanizing areas, water quality issues, rare plant species and wet meadow and shrub habitat types.
Rogue Valley	Great historical loss, rapidly urbanizing areas, water quality issues. Threatened and Endangered species, rare plant species, and vernal pool habitat (highest priority area—Agate Desert).
Umpqua Valley	Great historical loss, rapidly urbanizing area, water quality issues. Rare plant species and wet grassland habitat (highest priority area—Sutherland).
Klamath Basin	Endangered fish (lost river and short nose sucker), Pacific flyway, water quality and quantity problems, loss of habitat, staging and wintering areas for raptors, staging area for waterfowl and shorebirds, fur bearers.
Oregon High Desert	
Closed Basin Wetlands	
Warner Basin	Important flyway stopover, rare fish and plant species, and rare habitat types.

Table B1: Priority Regions/Watersheds for Wetland Restoration/Acquisition (Cont.)

Area	**Rationale/Criteria**
Malheur Basin	Important flyway stopover, rare fish and plant species, and rare habitat types.
Serpentine Bogs	Rare habitat with high number of rare plant species. Impacts from historic and current mining and water diversion. Mining pressure is increasing.
EPA Priority Basins	Water quality problems.
Tier 1	Lots of data, research.
Tillamook Bay	
Willamette River	
Grand Ronde	
Tier II	Moderate amount of data, research.
John Day	
Coos and Coquille River Bays	
Tier III	Candidates—more information needed.
NOMINATED—Illinois, South Umpqua	
DEQ Critical Basins	Water quality problems.
Tualatin	
Garrison Lake	
Bear Creek	
Clear Lake	
Yamhill River	
Columbia River	
Willamette River	
Pudding River	
Coquille River/Estuary	
Klamath River	
Columbia Slough	
Grande Ronde River	
South Umpqua River	
Rickreall Creek	
Umatilla River	
Riparian Areas	
John Day River	Salmon and steelhead, water quality and quantity, loss of riparian community types.
Grande Ronde	Salmon and steelhead, water quality and quantity, loss of riparian community types.
Sycan River	Important wetland habitat, tributary to Klamath River, water quality and quantity issues.
Crooked River	
Upper Deschutes	
Grande Ronde	

Restoration Program Recommendations

Building on one of the recommendations in the Wetland Conservation Strategy, the Division of State Lands obtained EPA funding to develop a restoration strategy for Oregon. As with the conservation strategy, the effort involved facilitated workshops with numerous interest groups. The final report, Recommendations for a Nonregulatory Wetland Restoration Program for Oregon, was endorsed by the State Land Board and subsequently published by Oregon Sea Grant (ORESU-O-98-001).

The report outlines 10 specific recommendations that are accompanied by specific implementation actions. Several of the recommendations address setting priorities for restoration and protection.

Coastal Bog Priority Wetlands

Recently, the Oregon Natural Heritage Program completed an updated inventory of low-elevation Sphagnum mires in Western Oregon (December 2001, unpublished report). The report describes 26 plant associations in 43 sites. The site inventory includes description, location, rare elements, conservation significance, ownership and conservation status (protected or not protected). Unprotected sites with high conservation significance are priorities for acquisition.

Oregon's Greatest Wetlands Project

Oregon's Greatest Wetlands project is in progress and should provide new statewide acquisition priority information. This project is led by The Wetlands Conservatory, headquartered in Tualatin, Oregon, and is funded by a combination of federal (EPA) and state (OWEB) funds.

Joint Venture Implementation Plans

The Oregon Joint Venture, a coalition of groups and agencies involved in cooperative efforts to protect and restore important wetland habitats for native fish and wildlife, is developing implementation plans that identify specific high priority sites for restoration and/or protection. For example, the Willamette Valley plan (in final draft form) includes 15 target areas (see Table L.2). Similarly, the Klamath Basin plan identifies 15 target areas within Oregon (see Table L.3). These target areas are described in detail in the implementation plans.

Table B2: Habitat Conservation Objectives (in acres) For Target Areas in the Willamette Valley*

Target Areas	**Protect (acres)**	**Restore (acres)**	**Wetland/ Floodplain/ Riparian (acres)**	**Oak Savanna & Woodland/ Grassland (acres)**
Willamette Forks	3,000	4,000	3,000	1,000
West Eugene-Long Tom	2,500	4,000	2,500	1,500
McKenzie Confluence	4,000	3,000	2,500	1,500
Mid-Willamette Floodplain	20,000	20,000	20,000	0
Coburg Hills	3,000	3,000	500	2,500
Muddy Creek	1,500	2,500	1,000	1,000
Marys River	2,500	2,500	1,000	2,000
Calapooia River	2,000	2,000	2,000	0
Buena Vista	4,500	4,500	3,500	1,000
North Santiam Flats	2,000	2,000	2,000	0
Baskett Slough	2,500	2,500	1,000	1,500
South Yamhill	5,000	5,000	3,000	2,000
Lake Labish-Pudding River	1,000	1,000	1,000	0
Mission-Champoeg Bottoms	10,000	10,000	10,000	0
Tualatin Basin	5,000	5,000	5,000	0
Total	**68,500**	**71,000**	**58,000**	**14,000**

* From the Pacific Coast Joint Venture Implementation Plan for the Willamette Valley (July 2002 Draft).

Table B3: Wetland habitat objectives (in acres) for Target Areas in the Klamath Basin**

Oregon Target Areas	**Protect (acres)**	**Restore (acres)**	**Enhance (acres)**
Aspen, Buck, Long and Round Lakes	3,000	20	0
Hog and Jack Creeks, Winema NF	8,300	5,710	0
Klamath Marsh NWR	20,000	20,000	0
Klamath River Floodplain	1,000	1,000	500
Klamath Wildlife Area	1,000	0	1,850
Langell, Poe, Swan Lake, & Yonna Valleys	35,000	35,000	0
Sprague River & Lower Sycan River	15,000	16,000	3,000
Spring Lake Valley	1,500	0	0
Sycan Marsh	10,100	17,250	2,700
Upper Klamath Lake	5,000	5,000	0
Upper Klamath NWR	5,000	5,000	0
Upper Williamson River	8,400	8,445	0
Williamson River Delta	0	6,300	0
Wood River Valley	8,400	6,000	0
Wood River Wetland	0	3,000	400

** From the Joint Venture Klamath Basin Implementation Plan (March 2001 Draft).

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Appendix C
Recreation Provider Roles

Prepared by the Oregon Parks and Recreation Department

Introduction

A variety of local, state, and governmental agencies; and commercial, private, and nonprofit entities have a role in planning for, providing, and managing recreation and open space resources and services in the state of Oregon. The Oregon Parks and Recreation Department has a state mandate to identify and clarify public and private-sector outdoor recreation provision roles in the state. Towards this effort, OPRD gathered role and provision information from each of the major federal and state agencies, county, municipal and special recreation district organizations, and private-sector industry representatives across the state.

Reporting Methods

The reporting method used a Public/Private-Sector Recreation Roles Matrix, where representatives were asked to enter a specific code letter into each matrix box corresponding to the type of recreational resource, facility or service their agency/organization/industry is responsible for providing in Oregon. The code letters used for recording role information included the following:

M = Major Provider	Direct relationship to mission; currently providing facilities; provides substantial share of regional supply.
S = Secondary Provider	A current supplier; is secondary or supportive to its primary mission.
F = Funding only	
L = Licensing	

Public/Private Recreation Roles Matrix

The Public/Private-Sector Recreation Roles Matrix (Table 6.1) is intended as an easy-to-use reference tool for information regarding the different types of recreational resources, facilities and services provided by recreational agencies/organizations in the state of Oregon. Role information included in the matrix was submitted to OPRD from agency/organization representatives in the state.

Table C1: Public/Private-Sector Recreation Roles Matrix

RESOURCE / FACILITY / SERVICE	FEDERAL					STATE					OTHER					
	BLM	NPS	USACOE	USFS	USF&W	DSL	MARINE BD	ODF	ODF&W	ODOT	OPRD	COUNTY	MUNICIPAL	SPEC DIST	SCHOOLS	PRIVATE
Dispersed recreation areas	M	S	S	M	S	S		M	M		S	S				
Scenic river corridors (Federal/State)	M	S	M	M	S	S		S			M					
Scenic highways	S	S	S	M	S					M						
Backcountry byways	M		S	M	S	S		S								
Wilderness areas--designated	M	S	S	M	S											
Wilderness areas--under review	M	S	S	M	S											
Wildlife refuges or special wildlife management areas	M	S	M	M	M	S		S	M							
Wildlife viewing areas	M	S	M	S	M			S			S					
Areas where hunting is allowed	M		S	M	M	S		M	M			S				
Highway day--use parks/ rest areas	S	S	M	S	S			S		M	M	S				
Lodges/resorts		S	S	L	L						S			S		M
Cabins/yurts/teepees, etc.	S		S	L	S						M	S				M
Concessions (souvenirs, food, gas, etc) regardless of ownership		S	S	L	S	S					M	S				M
Camping sites (RV)--Full	M		S	S							M	M		S		M
Camping sites (RV)--Group	M	S	M	S							M	M				
Camping sites (RV)--Dispersed (non-designated)	M		M	S	S	S		M	S		S	S				
Camping sites (Tent)--Electrical/Water	M	S	M	M				M			M	M				M
Camping sites (Tent)--Group	M	S	M	M	S			S			M	M				M
Camping sites (Tent)--Dispersed	M		S	M		S		M	S		S	S				
Camping sites--Horse camps	S	S	S	M	S			M			M	S				
ATV trail system	M		S	M	S			M			F	M				
Designated 4x4 motorized trails	M		S	M				M			F					
Designated motorized riding areas (including snowmobiles)	M		S	M				M			F					
OHV staging areas	M		S	M				M			F					
Trails--motorcycle	M		S	M				M			F					
Trails--hiking/mountain bike	M	S	S	M	S	S		M	S		M	M	S	M		
Trails--nature/ interpretive	M	M	M	M	M	S		M	M		M	M	S	M	M	
Trails--historic	M	S	M	M	S			S			M	S		S		
Trails--water	M	S	M	S		S		S			M	S		S		

Table C1: Public/Private-Sector Recreation Roles Matrix (Cont.)

RESOURCE / FACILITY / SERVICE	FEDERAL					STATE					OTHER				
	BLM	NPS	USACOE	USFS	USF&W	DSL	MARINE BD	ODF	ODF&W	ODOT	OPRD	COUNTY	MUNICIPAL	SPEC DIST	SCHOOLS	PRIVATE
Trails--Cross-country skiing	S	M	S	M	S						F	S				M
Trails--Bridle	M	S	S	M	S			M			M	S		M		
Picnic sites--nonreservable	M	M	M	M				M			M	M	M	M		
Picnic sites--group-reservable	M	S	M	S				S			M	M	M	M		
Cultural/historical Sites	M	M	M	S	S	S		S			M	S	S	M		S
Museum/Interpretive Building/Visitor Centers	M	M	S	S	S	S		S	S		M	S	S	M		M
Interpretive sites/kiosks	M	M	M	S	S	S		S	M	S	M	M	S	M		
Beach access (fresh & saltwater)	M	S	M	S	S	S		S	S		M	M		M		S
Boat accesses/ramps/docks	M	S	M	M	M		F	S	S		M	M	S	M		M
Fishing access (piers, Shoreline trails,	M	S	M	S	M	S		S	S		M	M	S	M		S
Snowparks	S	S	S	S						F	F	S				
Downhill ski areas (commercial)			S	L												M
Greenways	S		M								M	M	M	M		
Parkways	M		S								F	S	M	S		
Neighborhood recreation parks (Serving a single neighborhood)			S								F		M	M	M	
District recreation parks (Serving 3 or more neighborhoods)			M								F	M	M	M		
Large urban parks (100 acres or more with scenic value)			S								S	M	M	M		
Neighborhood parks			S								F		M	M	M	
Large extraurban parks and reservations			S								M	M	S	S		
Children's equipped play areas (swings, slides, etc.)			S								F	M	M	M	M	
Trails--community	S		S								F	M	M	M	M	
Golf courses			S								F	S	S	M		M
Sports fields/athletic courts			S								F	M	M	M	M	M
Swimming pools			S								F	M	M	M	M	M
Community recreation programs			S									S	M	M	M	
Festivals/events	S	S	S	L	S			S			M	S	M	M	S	M
Sports fields/athletic courts			S								F	M	M	M	M	M
Guiding (rafting, fishing, hunting)	M		S	L	L	S	L	S						S		M

Outdoor Recreation in Oregon:
The Changing Face of the Future

January 2008

Appendix D
Oregon Administrative Rules

Prepared by the Oregon Parks and Recreation Department

OREGON ADMINISTRATIVE RULES
CHAPTER 736, DIVISION 8
OREGON PARKS AND RECREATION DEPARTMENT

DIVISION 8

DISTRIBUTION OF LAND AND WATER CONSERVATION FUNDING ASSISTANCE TO UNITS OF LOCAL GOVERNMENT FOR PUBLIC OUTDOOR RECREATION

736-008-0005 - Purpose of Rule
This rule establishes the procedures and requirements used by the Oregon Parks and Recreation Department, State Liaison Officer, when distributing federal Land and Water Conservation Fund monies to state agencies and eligible local governments, and the process for establishing the priority order in which projects shall be funded.
Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0010 - Statutory Authority and Procedure
ORS 390.180 requires the Director of the Oregon Parks and Recreation Department to adopt rules establishing procedures the Oregon Parks and Recreation Department shall use when the Department allocates money to local governments or other state agencies.
Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0015 - Federal Requirements
The Land and Water Conservation Fund Act of 1965, as amended, provides matching grants to states and local units of government for acquisition and development of public outdoor recreation areas and facilities. Funds for the program are derived from entrance or admission fees to federal recreation areas, Outer Continental Shelf revenues from leasing oil and gas sites in coastal waters, federal surplus real property sales and a small portion of federal motorboat fuel taxes. All applicants for federal funding assistance must also satisfy the requirements delineated in the "National Park Service's Land and Water Conservation Fund Grants Manual", Parts 600 through 685. [Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]
Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0020 - Definitions
For purposes of OAR 736-008-0005 through 736-008-0055 the following definitions shall apply:
(1) "Acquisition" - The gaining of property rights, including but not limited to fee title or easements, for public use by donation or purchase.
(2) "Conversion" - Property acquired and/or developed with LWCF assistance that has been converted to other than public outdoor recreation uses.
(3) "Current Park Master Plan" - A site-specific resource based plan guiding park acquisition, development, protection and management of park areas and facilities.
(4) "Department" - The Oregon Parks and Recreation Department.

(5) "Development" - The construction or rehabilitation of facilities necessary for the use and enjoyment of public outdoor recreation resources.
(6) "Director" - The Director of the Oregon Parks and Recreation Department.
(7) "Eligible Project" - An acquisition, development, or major rehabilitation undertaking which satisfies the requirements of the federal Land and Water Conservation Fund Program.
(8) "Implementation Program" - A requirement of SCORP which identifies salient recreation issues to be addressed over a two-year period.
(9) "Land and Water Conservation Fund (LWCF)" - Those funds made available to the state through the Land and Water Conservation Fund Act of 1965 (Public Law 88-578).
(10) "Local Comprehensive Plan" - The comprehensive land use plan prepared by each local jurisdiction within the state, as required by ORS Chapter 197.
(11) "Major Rehabilitation" - The repair, restoration, or reconstruction of eligible facilities which is necessitated by obsolescence, building code changes, or normal wear and tear not attributed to lack of maintenance.
(12) "Oregon Application Procedures Manual" - A manual prepared by the Department containing state and federal policies, procedures and instructions to assist local government agencies wishing to participate in LWCF assistance.
(13) "Oregon Outdoor Recreation Committee (OORC)" - The committee appointed by the Director to prioritize LWCF project applications.
(14) "Project Authorization" - State/local agreement which authorizes the project, as signed by both the Department and project sponsor.
(15) "Project Sponsor" - The recipient of the grant funds and the agency responsible for implementation of the project and the maintenance and operation of the site.
(16) "Reapportionment Account" - Those monies derived from project underruns, cancellations and reduction in project scope. Separate accounts will be kept for both state and local sponsors.
(17) "State Comprehensive Outdoor Recreation Plan" - Otherwise known as SCORP, the document used to identify and assess Oregon outdoor recreation needs.
(18) "State Liaison Officer (SLO)" - Designated by the Governor, the Oregon Parks and Recreation Department Director and his designees who have the responsibility to administer the stateside LWCF.
(19) "State/Local Agreement" - Agreement between the state and project sponsor which authorizes the project to begin.

Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0025 - Apportionment of Monies Between State and Local Agencies

(1) Monies apportioned annually by the Department of Interior to the state from the federal Land and Water Conservation Fund shall be divided into three shares:
    (a) An amount equal to one-half of the annual anticipated administrative costs of the office of the State Liaison Officer to operate the program;
    (b) Not less than 60 percent of the remainder to units of local government; and
    (c) Up to 40 percent of the remainder to eligible state agencies.
(2) Monies derived from project underruns, project cancellations, reduction in project scope will be made available to the Director to redistribute to state or local projects.

Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0030 - Assessment for Services

(1) Each local government project sponsor shall be assessed a percentage of the total final project cost for services provided by the Department. This percentage assessment shall be established in the state/local agreement. The assessment shall be reviewed by the Department annually to insure that income does not exceed 50 percent of the administrative costs for grant distribution to units of local government. This assessment shall be made at the time of any project billing with the fee being withheld from the amount paid to the sponsor.

(2) Any project sponsor requesting a conversion will be required to pay an advance deposit. The deposit would cover staff salary and OPE, and administrative fees to process the conversion. The advance deposit amount will be based on the appraised value of the property to be converted. If the advance deposit does not cover all costs, the project sponsor will be billed for the balance due. If the total costs are less than the deposit, the Department will reimburse the project sponsor for the unused deposit amount.
   (a) Converted property appraised up to $50,000 will require a $1,000 deposit;
   (b) Converted property appraised from $50,001 to $100,000 will require a $2,000 deposit;
   (c) Converted property appraised above $100,000 will require a $3,000 deposit.

Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0045 - Application Procedure

The purpose of this section is to set forth requirements that must be met by local government applicants in submitting an application for Land and Water Conservation Fund assistance.

(1) Eligibility for Funding Assistance. Public agencies eligible for LWCF funding assistance are:
   (a) Local Governments:
      (A) City Park and Recreation Departments;
      (B) County Park and Recreation Departments;
      (C) Park and Recreation Districts;
      (D) Port Districts;
      (E) Indian Tribes;
      (F) Metropolitan Service District.
   (b) State Agencies:
      (A) Oregon Parks and Recreation Department;
      (B) Oregon Department of Fish and Wildlife;
      (C) Oregon Department of Forestry;
      (D) Oregon Division of State Lands.

(2) Matching Requirements. The Land and Water Conservation Fund provides for up to 50 percent funding assistance. The eligible agency match may include local budgeted funds, donated funds, and value of private donated property, equipment, materials, labor, or any combination thereof. The minimum federal share shall be no less than $12,500 ($25,000 total project costs). Section 6f of the LWCF Act prohibits the use of other federal funds as matching share of a LWCF grant

(3) Projects Eligible for Funding:
   (a) Projects eligible are acquisition, development and rehabilitation projects that are consistent with the outdoor recreation goals and objectives contained in the Statewide

Comprehensive Outdoor Recreation Plan (SCORP) and the Implementation Program, and recreation elements of local comprehensive plans.

(b) Marine facility development requests are eligible for funding. Project which use federal Dingle-Johnson funds may not be used as match with LWCF.

(4) Local Agency Requirements. Local agencies participating in the funding assistance program must show that there is a current park master plan in effect and that the project is consistent with the local comprehensive land use plan.

(5) State Agency Requirements. State agencies participating in the fund assistance program must show that the project is in their legislatively approved biennial budgets or is mandated by legislation.

(6) Application Form. All applications for funding assistance for outdoor recreation projects must be submitted on forms supplied by the Department. All applications must be consistent with the Oregon Application Procedures Manual and contain the following information:

(a) Program narrative;
(b) Environmental assessment;
(c) Vicinity map;
(d) Project boundary map;
(e) Park master plan;
(f) Civil Rights compliance;
(g) Local Council of Governments review;
(h) State agency review;
(i) Property deed or lease;
(j) Estimate of development costs and schedule;
(k) Preliminary title report (acquisitions only);
(l) Documented Americans with Disabilities Act Compliance Plan specific to projects;
(m) Other documentation that may be required by the Department.

(7) Local Project Time Line:

(a) All applications for funding must be submitted to the Oregon Parks and Recreation Department in a completed form consistent with section (6) of this rule, no later than January 1 for funding in the next federal fiscal year which begins October 1. Incomplete applications will not be considered for funding assistance. The Department Grants Program staff shall perform a technical review of all applications and forward eligible applications to the Oregon Outdoor Recreation Committee (OORC). Project sponsors will be contacted about missing documentation, which must be submitted to the Department within 10 days. On or about April 1, OORC will meet to recommend funding priorities to the Director for all eligible projects submitted.

(b) By October 1 of each year, sponsors whose projects have been prioritized and are scheduled for funding assistance must submit to the Department the following project information:

(A) Certification by project sponsor of availability of local match;
(B) All required permits and certifications as identified in the Department Procedural Manual;
(C) Preliminary plans and specifications (for construction projects);
(D) Appraisal for acquisition projects. Appraisals must conform to the Uniform Appraisal Standards for Federal Land Acquisitions.

(c) The Department will remove those project applications from the priority list (as outlined in subsection (b) of this section) that are unable to provide the required documentation.
(d) The amount of federal funding assistance available within the federal fiscal year (October 1 to September 30), will determine the projects to be funded;
(e) If additional federal monies become available throughout the current funding year, projects on the priority list will be funded in priority order;
(f) Reapportionment account will be requested on or about March 31 of each year to assure that the State does not loose the availability of those funds. All reapportionment monies received will be allocated to the current funding cycle.

(8) Project administration:
(a) A signed state/local agreement shall constitute project authorization. It shall be executed 30 days after federal approval. Projects not authorized within this time frame will be cancelled. Funds recovered from cancellations will be reassigned to other projects on the priority list.

No project may begin without a signed state/local agreement from the Department;
(b) Final documentation (permits, plans and specifications) must be submitted to the Department prior to project authorization;
(c) In the event that the funding assistance available cannot fully fund the last priority project, the sponsor will be given the option of reducing the scope of the project or the Department will pass the available funds to the next priority project;
(d) The sponsor shall have one year from the date of authorization to begin substantial work (i.e., the award of contracts or to complete at least 25 percent of the work, if done by force account). Force account work is work on a development project with the forces and resources of the project sponsor. Projects not conforming to this schedule will be cancelled, unless substantial justification warrants an extension. Extensions in such cases will be made for a six-month period only. In no situation will further extensions be granted.
(e) Projects that do not receive funding assistance for the federal fiscal year submitted will be returned to the applicant without prejudice;
(f) All projects shall be completed and billed within two years from the authorization date. Projects will be inspected and audited by the Department, or its designee prior to final grant payment. Partial payments up to 90 percent of the grant amount may be billed during the project for work completed.
(g) Project amendments that increase the federal share will generally not be allowed. Project amendment requests based on extraordinary circumstances will, however, be reviewed on a case-by-case basis. Requests for time extensions must be approved prior to expiration of the approved project period as set forth in the state/local agreement.
(h) Time Line Summary:
(A) January 1 - Complete application due;
(B) April 1 - Priority April selection by OORC;
(C) September 30 - Project certification;
(D) October 10 - Revise list;
(E) October 10 - Formal application submitted for federal obligation.

Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0050 - Oregon Outdoor Recreation Committee

(1) The Oregon Outdoor Recreation Committee (OORC) shall be composed of nine members appointed by the Oregon Parks and Recreation Department Director. The Committee membership, to serve nonconcurrent four-year terms, shall represent the following interests:
   (a) Counties east of the Cascade Mountains;
   (b) Counties west of the Cascade Mountains;
   (c) Cities under 15,000 people;
   (d) Cities over 15,000 people;
   (e) Park and Recreation Districts, Metropolitan Service District or Port Districts;
   (f) Oregon Parks and Recreation Department;
   (g) People with Disabilities;
   (h) Minorities; or Representatives from Tribal Governments; and
   (i) The public at large;
   (j) The chair shall appointed by the Director from the committee membership, considering the recommendations of the committee.

(2) Selection of committee members shall be from a list of not less than two candidates for each position to be supplied by:
   (a) County representation shall be from lists supplied by the Oregon Parks Association and the Association of Oregon Counties;
   (b) City representation shall be from lists supplied by the Oregon Recreation and Park Association and the League of Oregon Cities;
   (c) Park and Recreation District, Port District or Metropolitan Service District representation shall be from a list supplied by the Special Districts Association of Oregon;
   (d) Representatives for People with Disabilities, Tribal Governments, Minorities, Public at Large, and Parks Department shall be selected by the Director.

(3) The travel, meals and lodging expenses of all members of the Committee will be reimbursed by the Department according to the rates established by the Department of Administrative Services and approved by the Director.

(4) Function of OORC:
   (a) The Committee shall meet in April of every even year, starting in 1996, and at other times upon the call of the Director. The committee will establish a priority order of eligible local government projects for Land and Water Conservation Funding assistance or provide other assistance as requested by the Department. The meeting will assure full and open project selection processes that will include an outreach to all citizens of the state.
   (b) In order to assure full citizen participation in the selection of local projects to be prioritized for funding, all projects submitted must be consistent with the recreation element of the local comprehensive land use plan. The prioritization process will provide the opportunity for the citizens of the state to address the degree to which each project meets the outdoor recreation needs of the state and local community. The Department will provide public notice of all projects to be presented to the OORC at least 30 days prior to their meeting.
   (c) Each sponsor shall be allowed to make a presentation under a procedure established by the Department.

(5) Priority Selection Criteria. Projects shall be prioritized by OORC based on at least the following:
   (a) Department review and recommendations, including a technical scoring of each project that will include the extent to which projects satisfy basic outdoor recreation needs and/or urgent needs identified in SCORP, the extent the project meets the recreation needs identified in the local comprehensive land use plan, and sponsor's past performance in their ability to complete and bill projects, maintain existing facilities, and whether there are any outstanding conversions;
   (b) The committee shall review all applications using project selection criteria, including but not limited to the following:
      (A) Extent the project demonstrates user benefits, public interest and support;
      (B) Extent the project demonstrates conformance with local and state planning guidelines, the Statewide Comprehensive Outdoor Recreation Plan (SCORP) and local Park Master Plans; all projects must be identified in local comprehensive plans and current master plans;
      (C) Financial considerations, including cost/benefit ratio;
      (D) Environmental assessment as defined in Oregon Application Procedures Manual.
      (E) Extent the project increases outdoor recreation opportunity in the service area.
      (F) How well the project's design accommodates people with disabilities.

Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

736-008-0055 - Emergency Procedure

(1) Under extreme conditions such as severe cut backs of federal funds or complete elimination of these funds an emergency procedure may be initiated at the discretion of the Oregon Parks and Recreation Department Director.
(2) The emergency procedure will establish new time lines and funding strategies to coincide with the time delay created at the federal level. The Director may delay or abolish time lines, and fund projects on the existing priority list with under runs and cancellations until either projects or money is exhausted.
(3) Under the emergency procedure the Director will notify prospective sponsors of any anticipated time changes and assure sponsors of adequate lead time in developing new time lines.

Stat. Auth.: ORS 390.180
Stats. Implemented: ORS 390.180

Note: The official copy of an Oregon Administrative Rule is contained in the Administrative Order filed at the Archives Division, 800 Summer St. NE, Salem, Oregon 97310. Any discrepancies with the published version are satisfied in favor of the Administrative Order. The Oregon Administrative Rules and the Oregon Bulletin are copyrighted by the Oregon Secretary of State.

Download the report online at:

http://egov.oregon.gov/OPRD/PLANS/SCORP.shtml

Oregon Parks and Recreation Department

725 Summer Street NE, Suite C

Salem, OR 97301-1271

503-986-0707

For the hearing impaired: 1-800-735-2900

This publication is available in alternative formats upon request.

Printed on recycled paper.
February, 2008