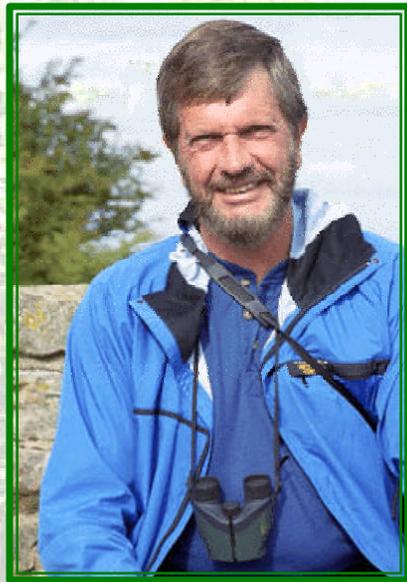


WILDERNESS IN THE CONTEMPORARY AMERICAN MIND



Ken Cordell
Senior Scientist
Forest Service Research
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PACIFIC NORTHWEST WILDERNESS
STEWARDSHIP WORKSHOP

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Graphics by Shela Mou

Humans Were Meant to Rule Over Nature

29%

14%
Strongly Agree

15%
Somewhat Agree

61%

(6% Neutral)

19%
Somewhat Disagree

42%
Strongly Disagree

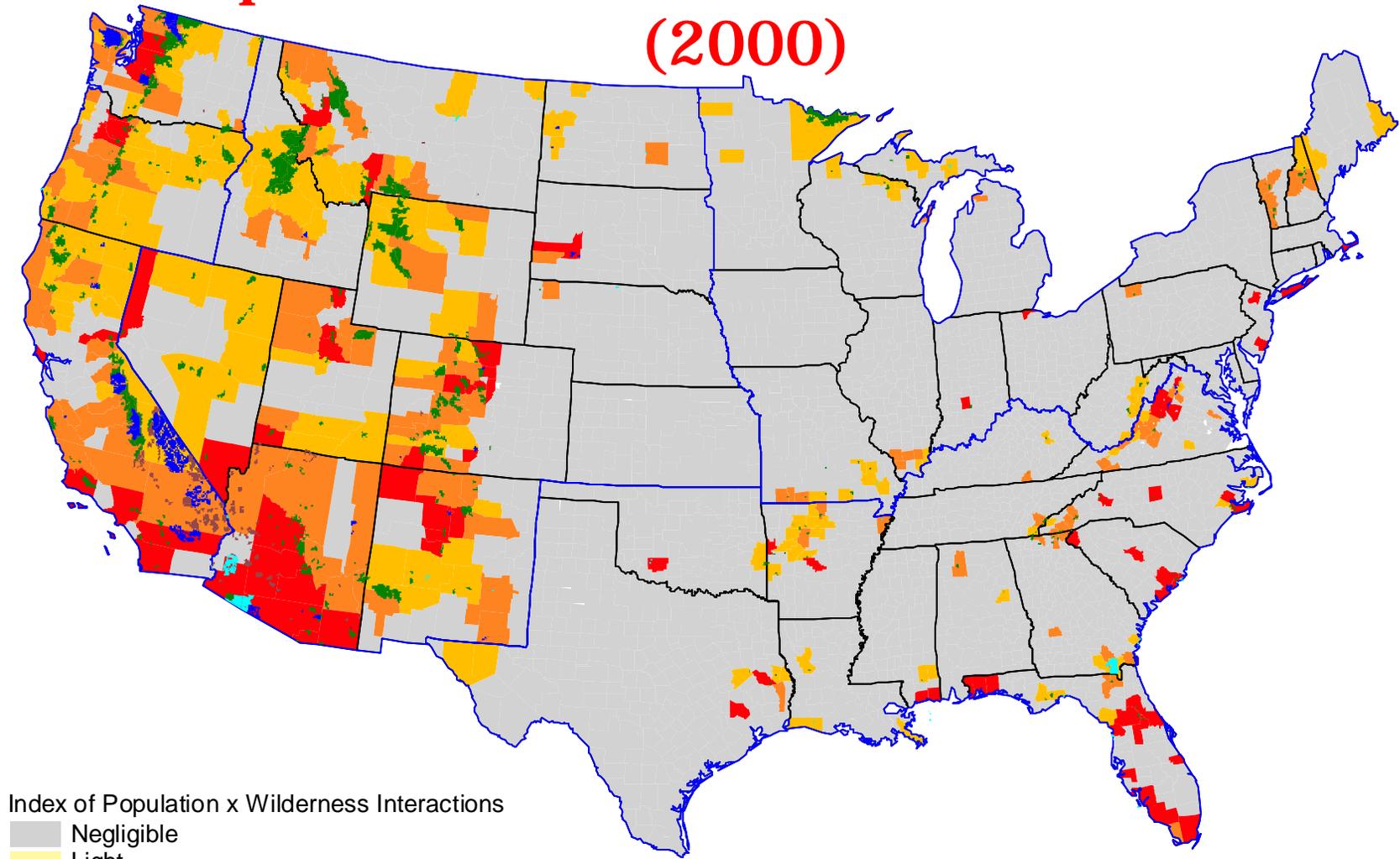
Basic Environmental Values Led to Creation of the NWPS

- The United States has designated 628 areas totaling about 105 million acres.
- On Federal lands, an additional 20 million acres are recommended for designation; between 16 and 18 million other roadless acres are not recommended.
- The Congress is not likely to add substantially to the NWPS, but the Administration is moving to protect and restore roadless conditions.
- Alpine, forest, desert, and water systems are better represented than grassland and subtropical ecosystems.
- Recreational use, nearby development, pollutants, and political winds are among the threats to the NWPS.

Public Views on Wilderness

- Nationally about 1/2 of American's 16+ report knowing about the NWPS
- Only 4.4% feel we have put too many acres into the NWPS:
 - Not enough, 52.6%
 - About right, 26.9%
 - Too much, 4.4%
 - Not sure, 15.4%

Population Pressures on Wilderness (2000)



Index of Population x Wilderness Interactions

- Negligible
- Light
- Moderate
- Moderately heavy
- Heavy
- National Forest Wilderness
- Bureau of Land Management Wilderness
- Fish & Wildlife Service Wilderness
- National Park Service Wilderness



What is the Biggest **Threat** to the NWPS

- Climbing Anchors?
- Invasive exotics?
- Nearby population and development growth
- Air and water pollutants?
- Recreation use?
- Political vulnerability?
- Something else?

A Changing America

A Changing America



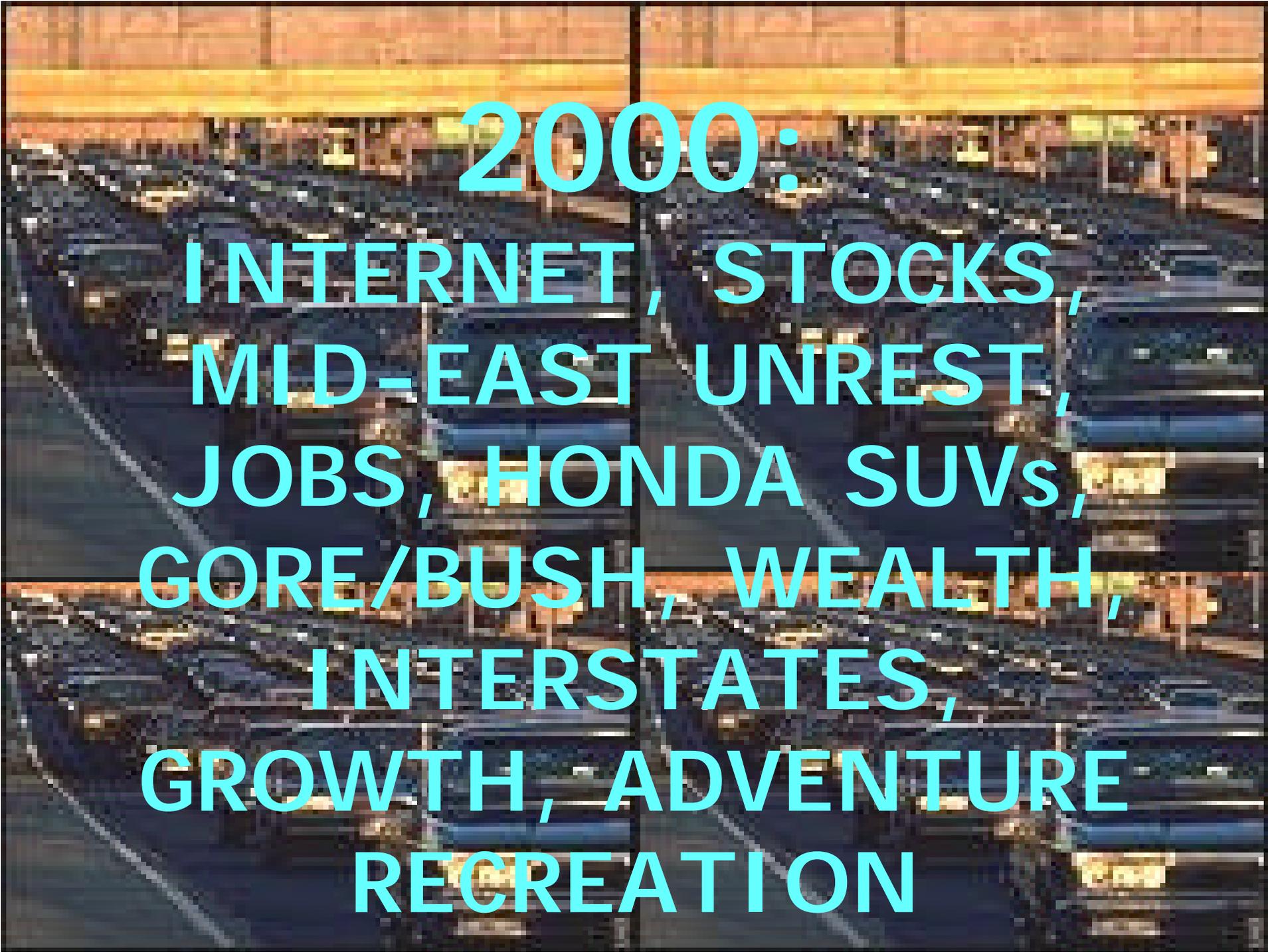
1960:
Flower Children,
VW Camper Vans,
Elvis and The Beatles,
Vietnam, Kennedy,
Family Vacations,
Chevy Impala V8



In 1960

**The Outdoor Recreation
Resources Review
Commission found:**

- **“The simple activities are the most popular” – driving, walking, swimming, picnicking**
- **“Water is a focal point of outdoor recreation,” to sit by, swim in, ski across, and run boats over.**
- **“Outdoor recreation is a major leisure time activity and it is growing in importance,” 90% participated in the summer of 1960.**

An aerial night photograph of a city, showing a grid of streets and numerous illuminated buildings. The lights create a warm, golden glow against the dark sky. The text is overlaid in a bright cyan color.

2000:
INTERNET, STOCKS,
MID-EAST UNREST,
JOBS, HONDA SUVs,
GORE/BUSH, WEALTH,
INTERSTATES,
GROWTH, ADVENTURE
RECREATION

In 2000

The Forest Service
RPA Assessment
found:



- Outdoor recreation continues to be immensely popular, 97 percent age 16+ participate in 2000.
- The four most popular single activities are walking, going to the beach, family gatherings out-of-doors, and sightseeing.
- Almost all outdoor activities are forecast to grow in number of people participating and in travel.

Demographic Percentages: 1960 and 2000

		<u>1960</u>		<u>2000</u>	
Residence in MSA		60.5		80.2	
Over 1 million		26.1		21.4	
Under 1 million		34.5		58.8	
<u>Not</u> in MSA		39.5		19.8	
Race	<u>White</u>	89.5		82.9	
	<u>Non-White</u>	10.5		17.1	
Age		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
All		47.9	52.1	48.4	51.6
12-17		7.3	7.0	5.3	5.0
18-24		5.3	6.2	5.9	5.7
25-44		16.6	18.1	17.9	18.2
45-64		13.4	14.3	13.0	13.8
65+		5.3	6.5	6.3	8.9

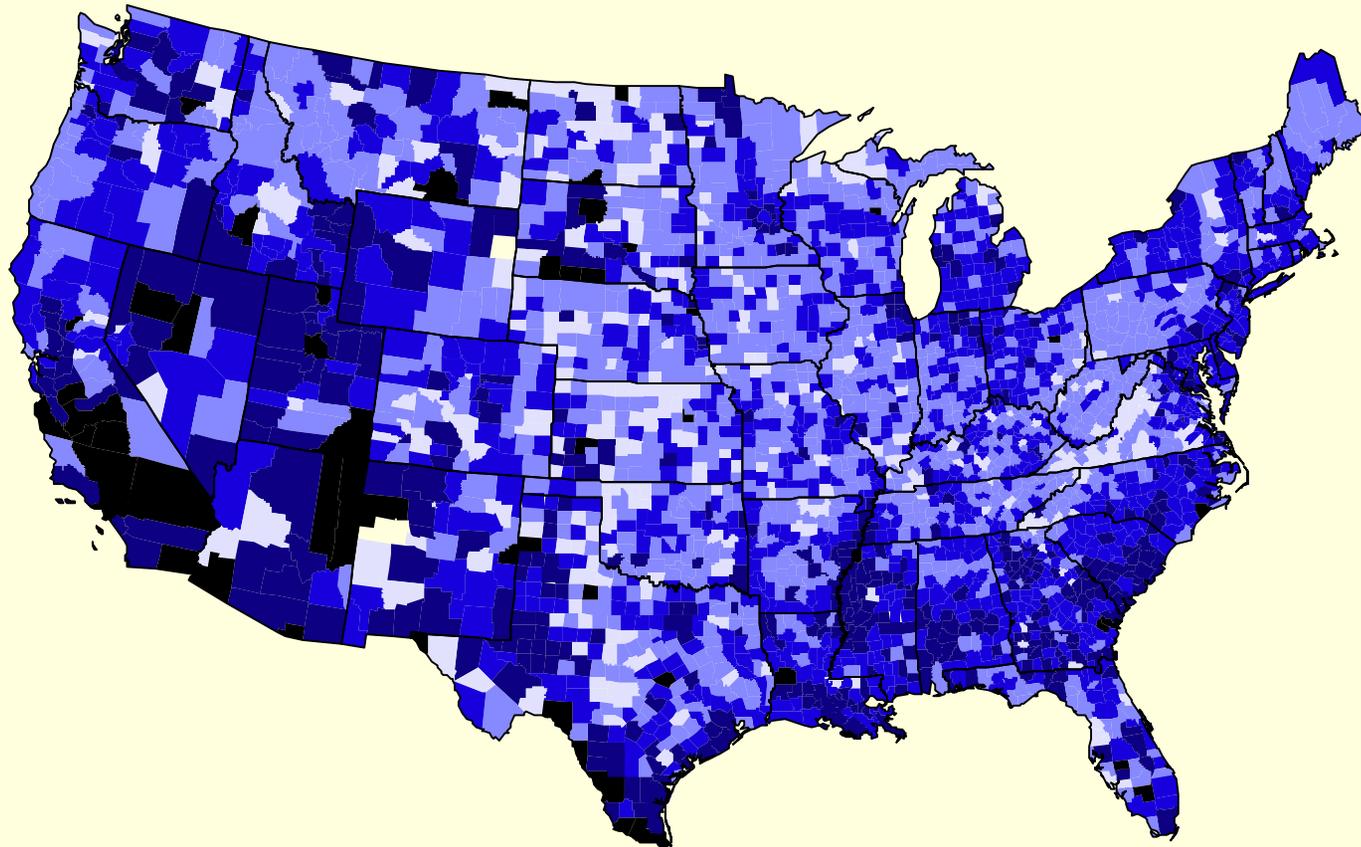
(Continued)

Demographic Percentages: 1960 and 2000

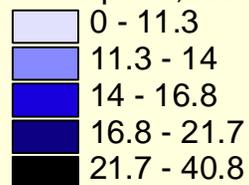


	<u>1960</u>	<u>2000</u>
Family Income (1998\$) (Note: 45.54 million U.S. families in 1960. 71.55 million families in 1998.)		
Percentiles		
20 th	14,093	21,600
40 th	24,298	37,692
60 th	32,215	56,020
80 th	44,547	83,693
95 th	68,521	145,199
Educational Attainment, Age 25 and Over		
8 th grade or less	37.5	7.4
9-11 th grade	18.5	9.7
High school graduate	27.1	33.8
Some college	9.1	24.7
College degree or higher	7.7	24.4

Filling the West: Distribution of U.S. Birth Rate



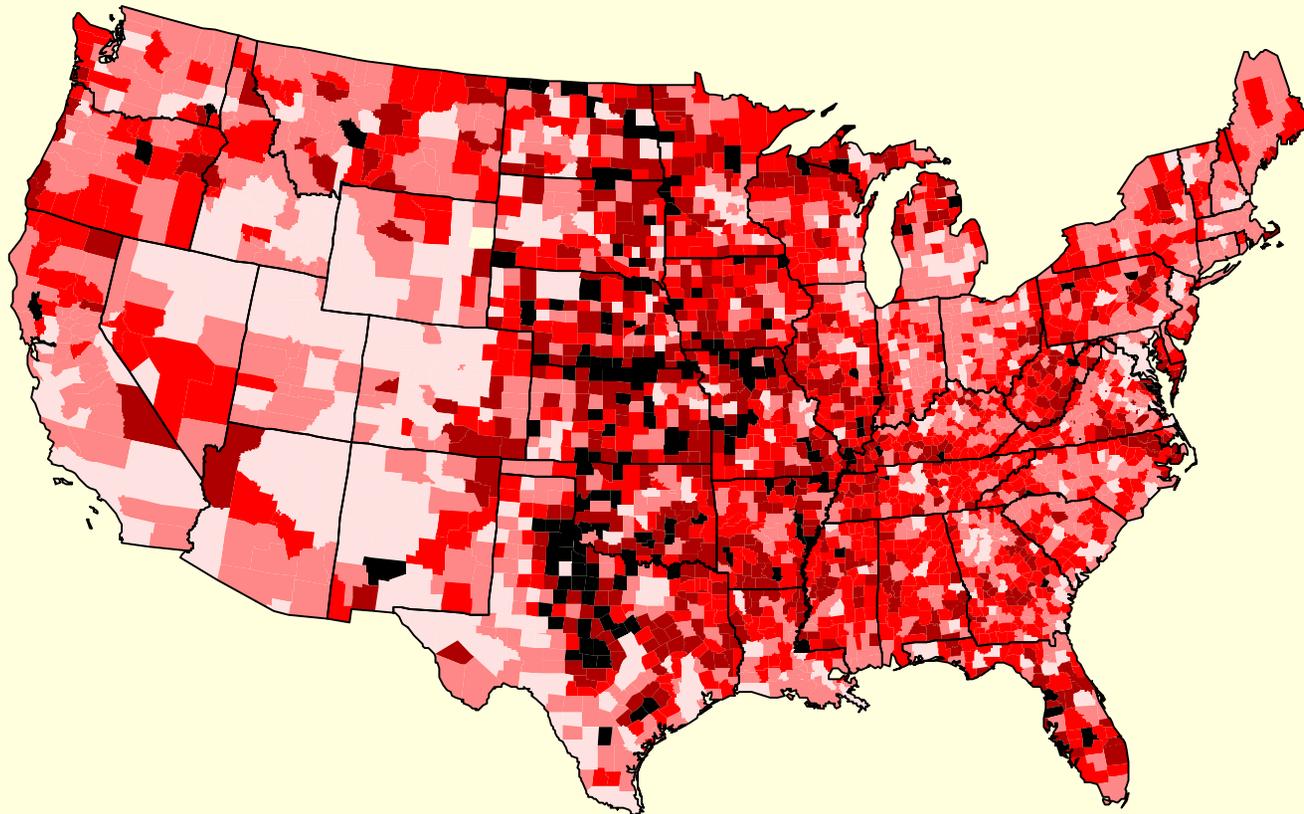
Births per 1,000 Population



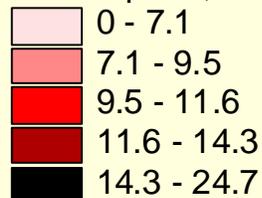
Births per 1,000 Population by
Region and Conterminous U.S.

North	15.8
Pacific Coast	19.6
South	16.5
Rocky Mountains	17.1
Conterminous States	16.7

Emptying the Midwest: Distribution of U.S. Death Rates



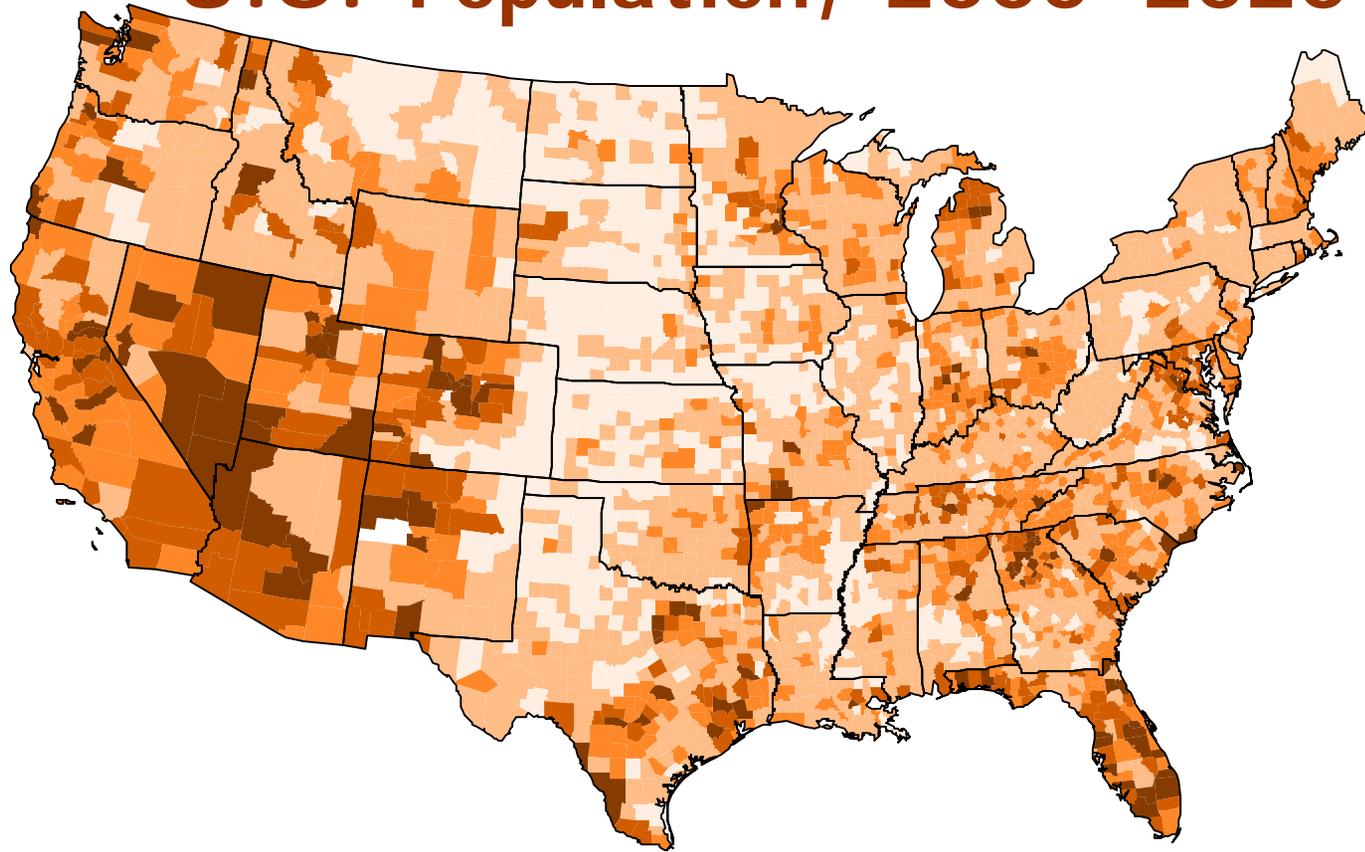
Deaths per 1,000 Population



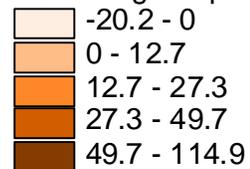
Deaths per 1,000 Population
by Region and Conterminous U.S.

North	10.2
Pacific Coast	8.9
South	10.2
Rocky Mountains	9.8
Conterminous States	10.1

The Geography of Projected Change in U.S. Population, 2000-2020



Percentage Population Change



Percentage Population change by Region and Conterminous U.S.

North	8.2
Pacific Coast	23.7
South	23.8
Rocky Mountains	28.5
Conterminous States	17.4

The Changing American Society

➤ About 1 million new immigrants per year

➤ More people:

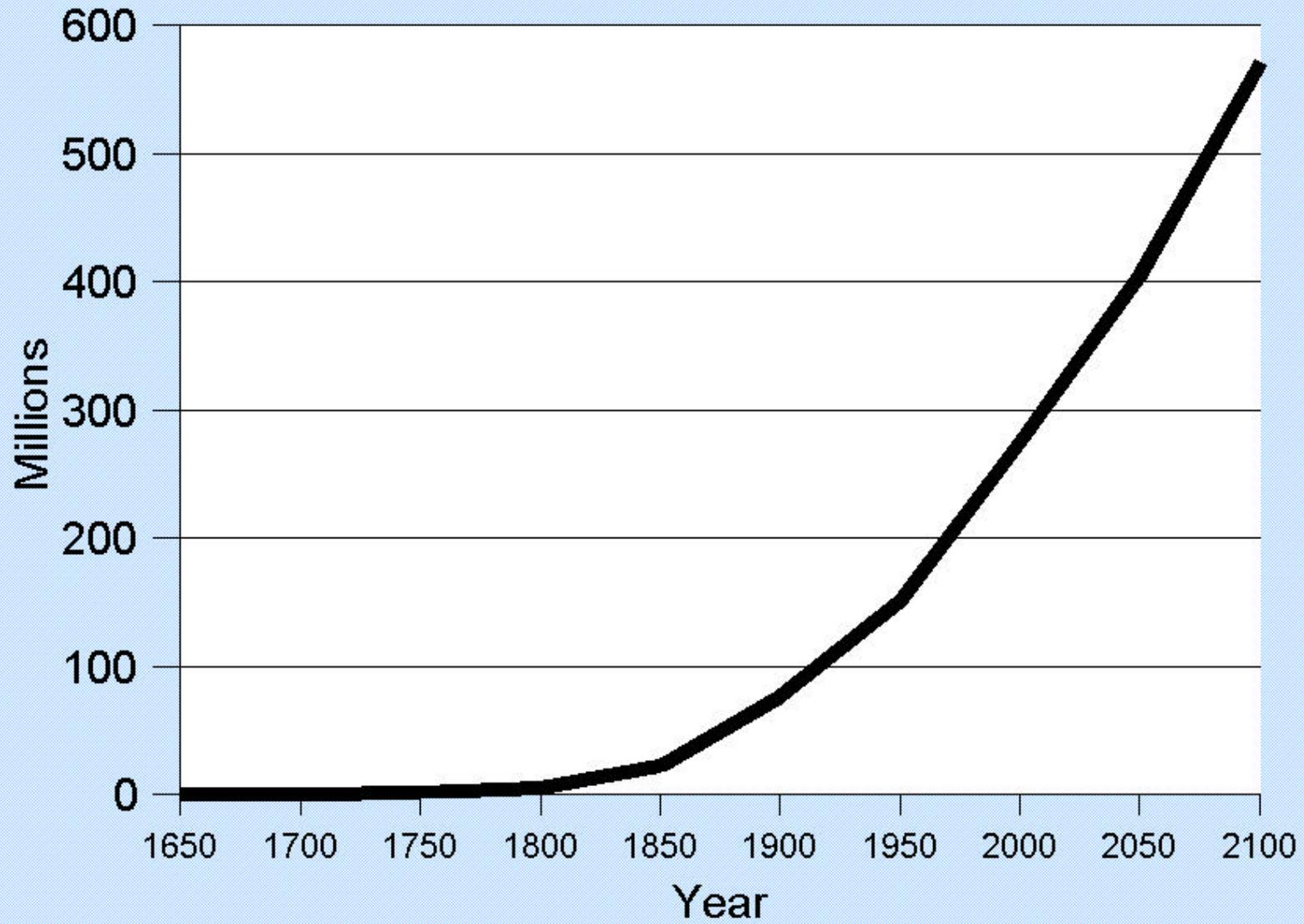
1990	248 mm
2000	275 mm
2020	325 mm
2050	404 mm
2075	481 mm
2100	571 mm

➤ Getting older: Median age 35 → 38 (by 2020)

➤ Changing ethnicities by 2050:

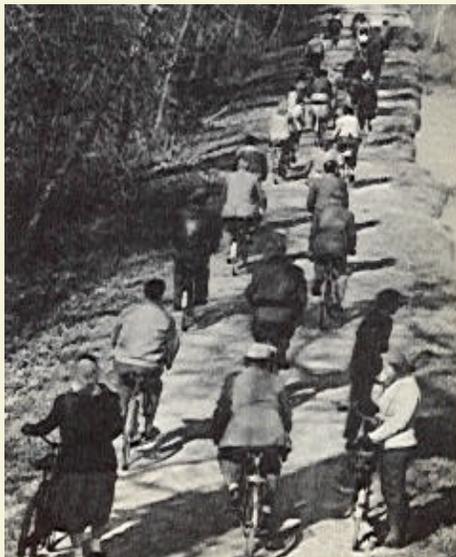
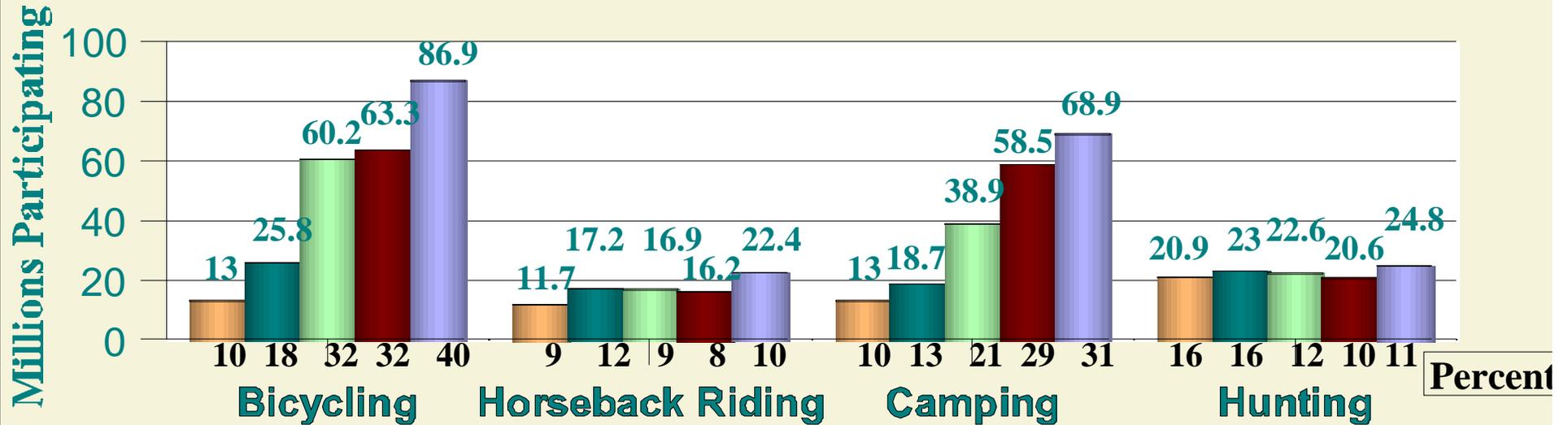
Anglo Americans	76% → 50%
African Americans	12% → 15%
Hispanic Americans	9% → 21%
Asian Americans	4% → 11%

Historic U.S. Population Growth



Long-Term Trends - Land

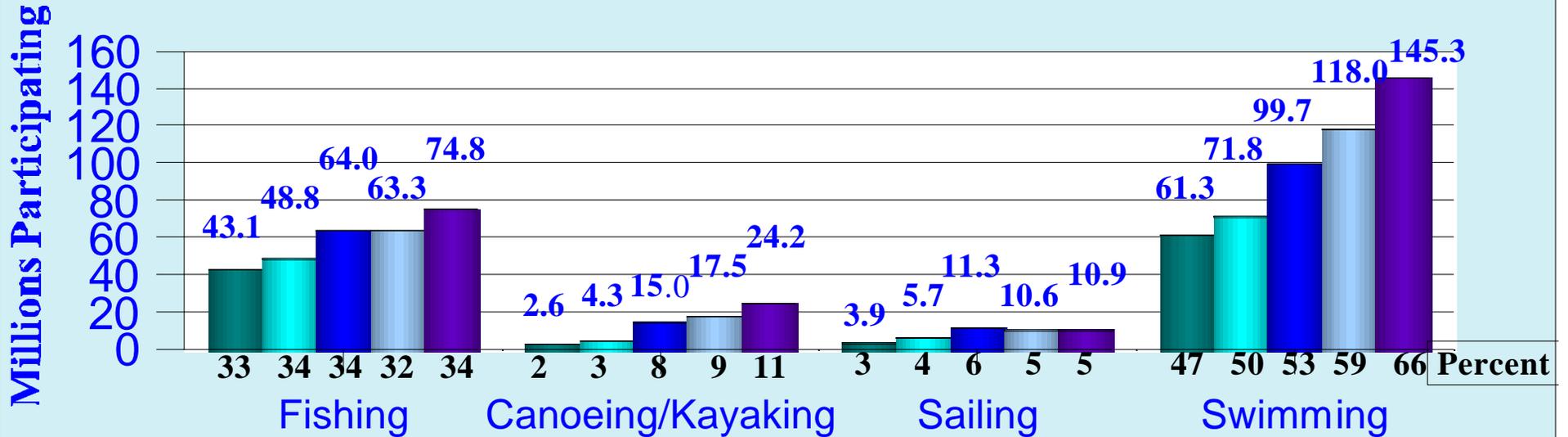
(12 or older)



- 1960 (131 million)
- 1965 (144 million, 10% more)
- 1982-83 (188 million, 44% more)
- 1994-95 (216 million, 65% more)
- 1999-2000 (220 million, 68% more)

Long-Term Trends - Water

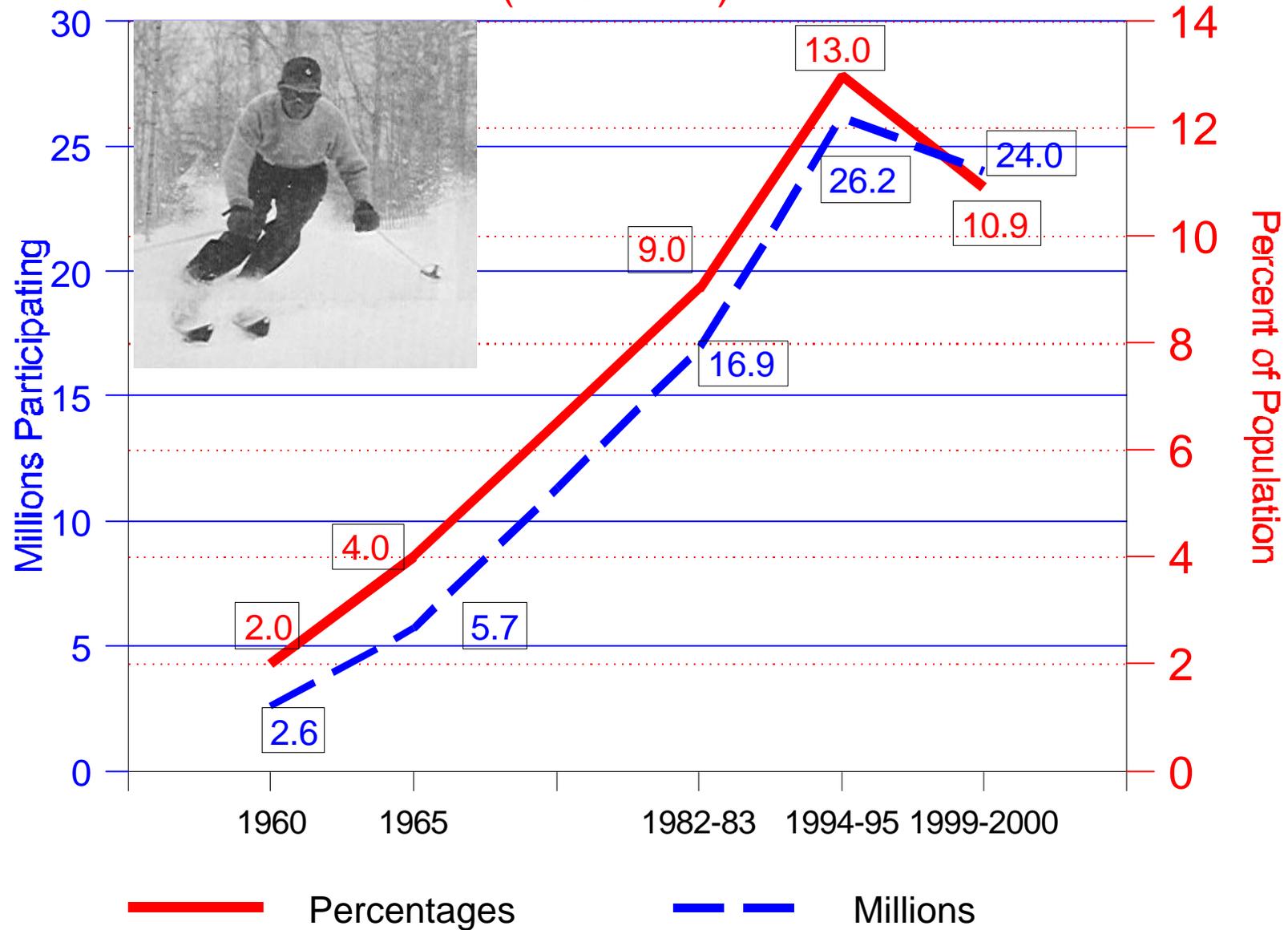
(12 or older)



- 1960 (131 million)
- 1965 (144 million, 10% more)
- 1982-83 (188 million, 44% more)
- 1994-95 (216 million, 65% more)
- 1999-2000 (220 million, 68% more)

Long-Term Trends - Snow

(12 or older)





Activities Rising Fastest By Percentage (1982 to 2000) (16 or older)

	<u>% Growth</u>	<u>No. in 2000</u>
Bird watching	235.9	71.2
Hiking	195.9	73.1
Backpacking	165.9	23.4
Snow-mobiling	107.5	66.9
Walking	91.2	179.0
Off-road driving	89.2	27.9
Primitive camping	81.9	32.2
Developed camping	76.0	52.8
Downhill skiing	66.9	17.7
Swimming/river, lake or ocean	64.4	78.1



Activities Rising Slower By Percentage (1982 to 2000) (16 or older)

	<u>% Growth</u>	<u>No. in 2000</u>
Motor boating	52.9	51.4
Cross-country skiing	50.9	8.0
Bicycling	48.5	83.9
Sightseeing	40.2	114.0
Picnicking	37.5	116.6
Horseback riding	35.9	21.6
Fishing	20.6	72.5
Hunting	12.7	23.9
Outdoor team sports	10.6	46.9
Water skiing	9.4	17.4
Sailing	-0.9	10.5



Activities Adding the Most Participants (1982-2000) (16 or older)

	<u>Millions</u>	
	<u>Growth</u>	<u>No. in 2000</u>
Walking	85.4	179.0
Bird watching	50.0	71.2
Hiking	48.4	73.1
Swimming/river, lake, or ocean	36.4	92.9
Sightseeing	32.7	114.0
Picnicking	31.8	116.6
Bicycling	27.4	83.9
Developed camping	22.8	52.8
Motor boating	17.8	51.4
Off-road driving	17.3	36.7
Backpacking	14.6	23.4

Estimating Total Trips to NWPS

- Nationally, proportion of all recreational trips to public lands where Wilderness was the destination = 0.934%
- Estimates of total Wilderness trips range from:
15.7 mm (\pm 3.5 million)
to
34.7 mm (\pm 7.8 million)
- Range reflects assumptions about activities occurring in Wilderness -- permitted only versus respondent reported.

Americans

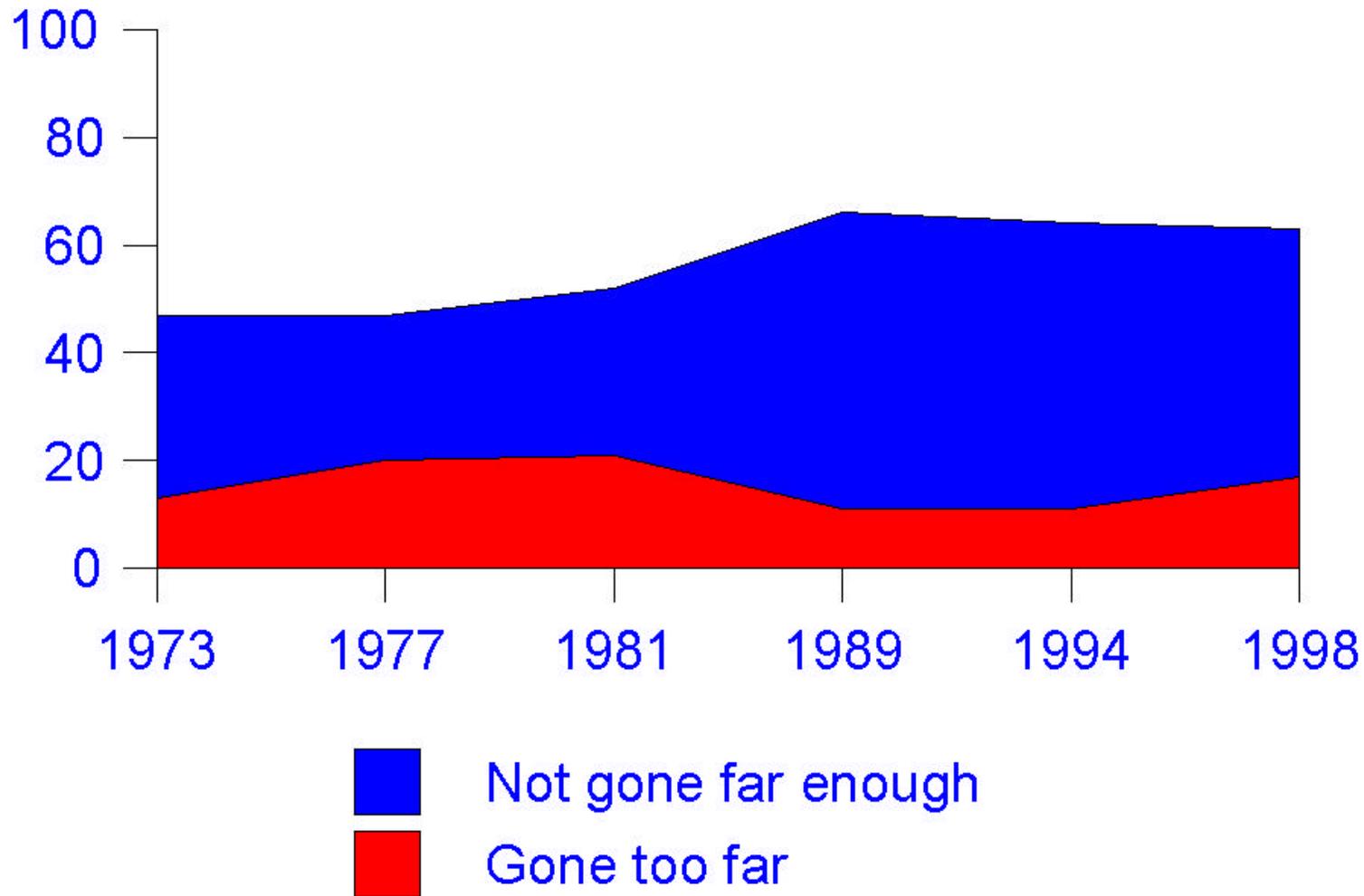
ARE

An

Environmental

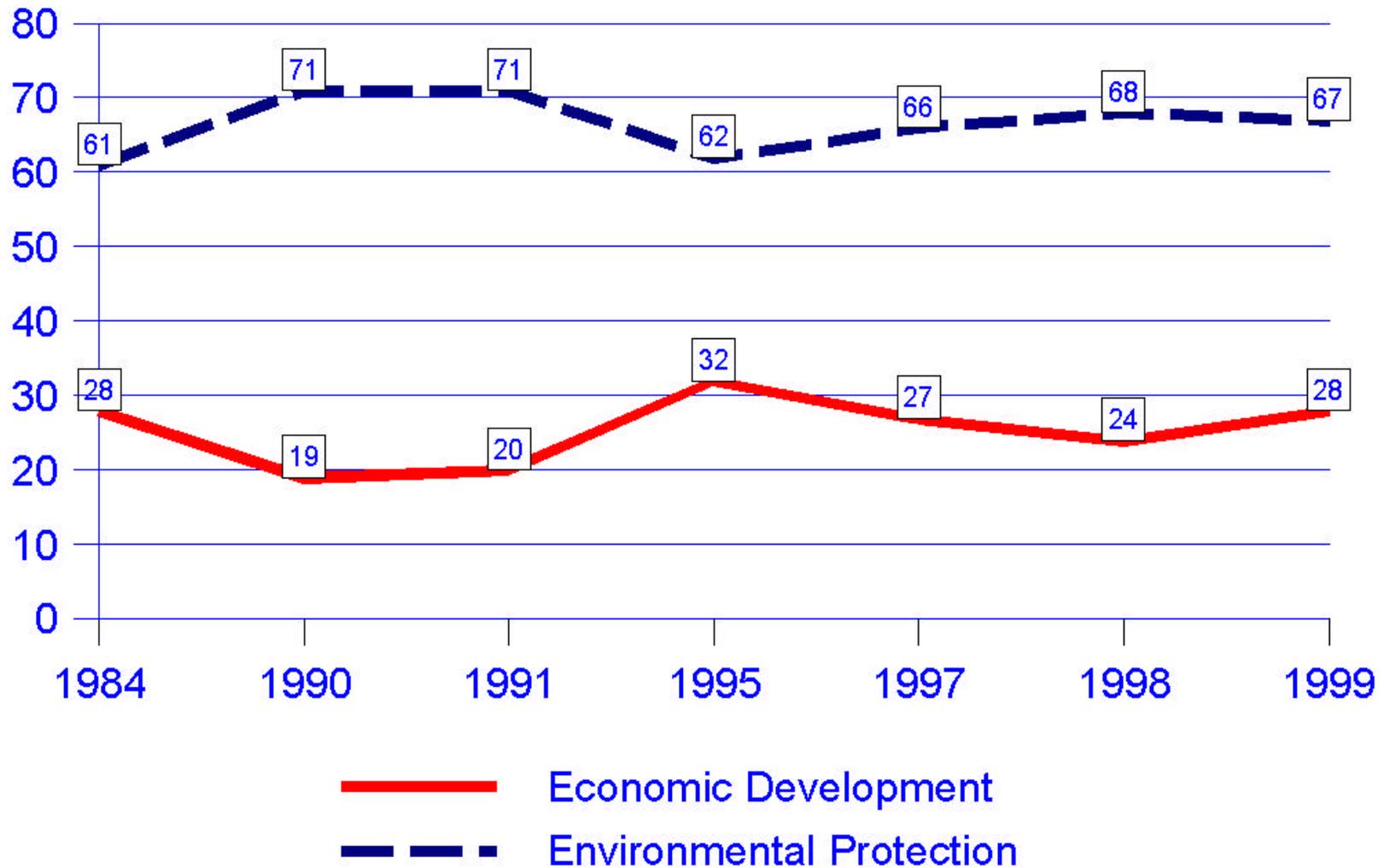
Group

Environmental Protection Laws and Regulations Have:



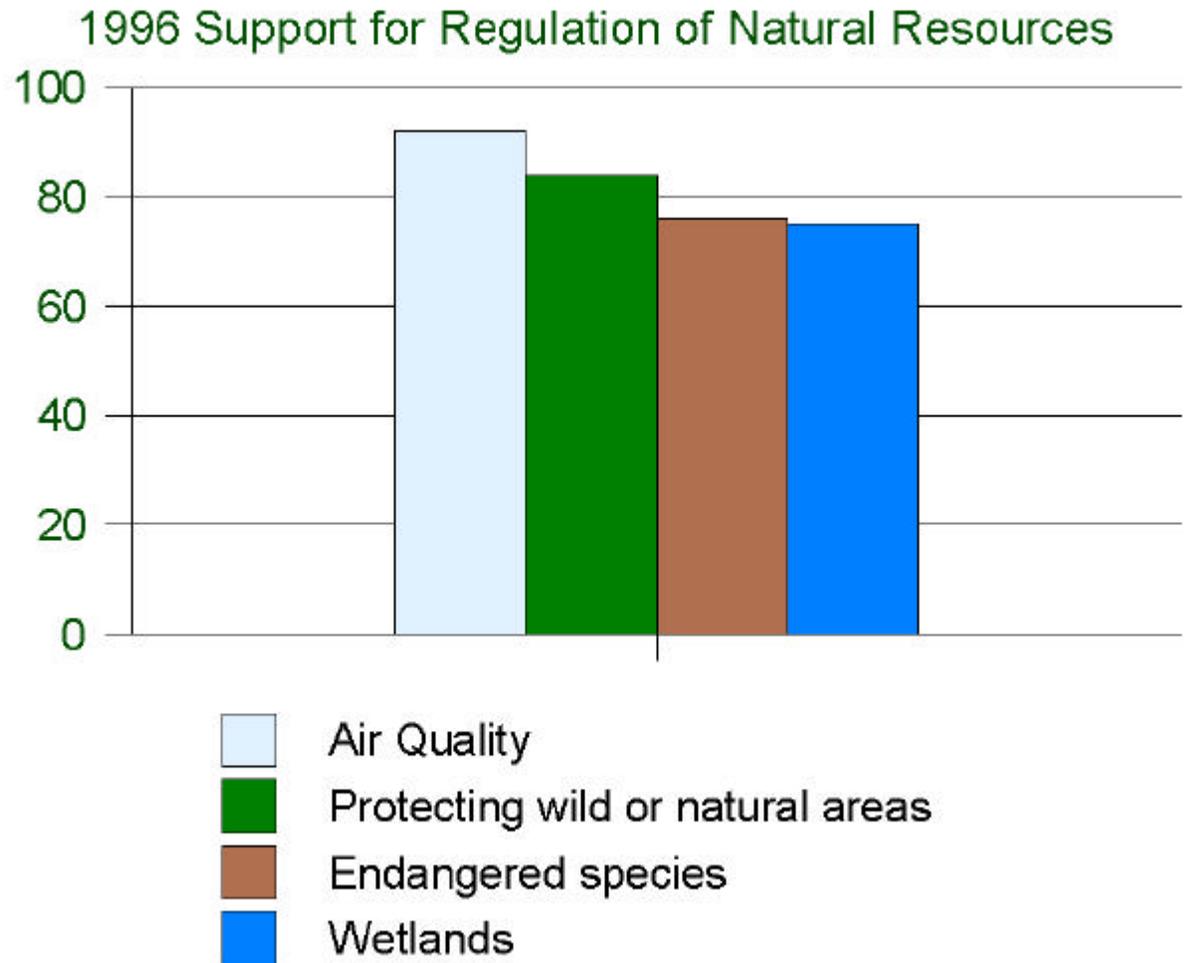
Source: Roper Organization, 1990; Times Mirror, 1994; NEETF, 1998.

Percentages Indicating Environmental Protection or Economic Development are Highest Priority



Source: Gallup/CNN/USA Today Poll, April 13-14, 1999.

Percentage of Americans Reporting Regulation of Natural Resources is "Just the Right Amount" or has "Not Gone Far Enough."



Source: Dujack, 1997.

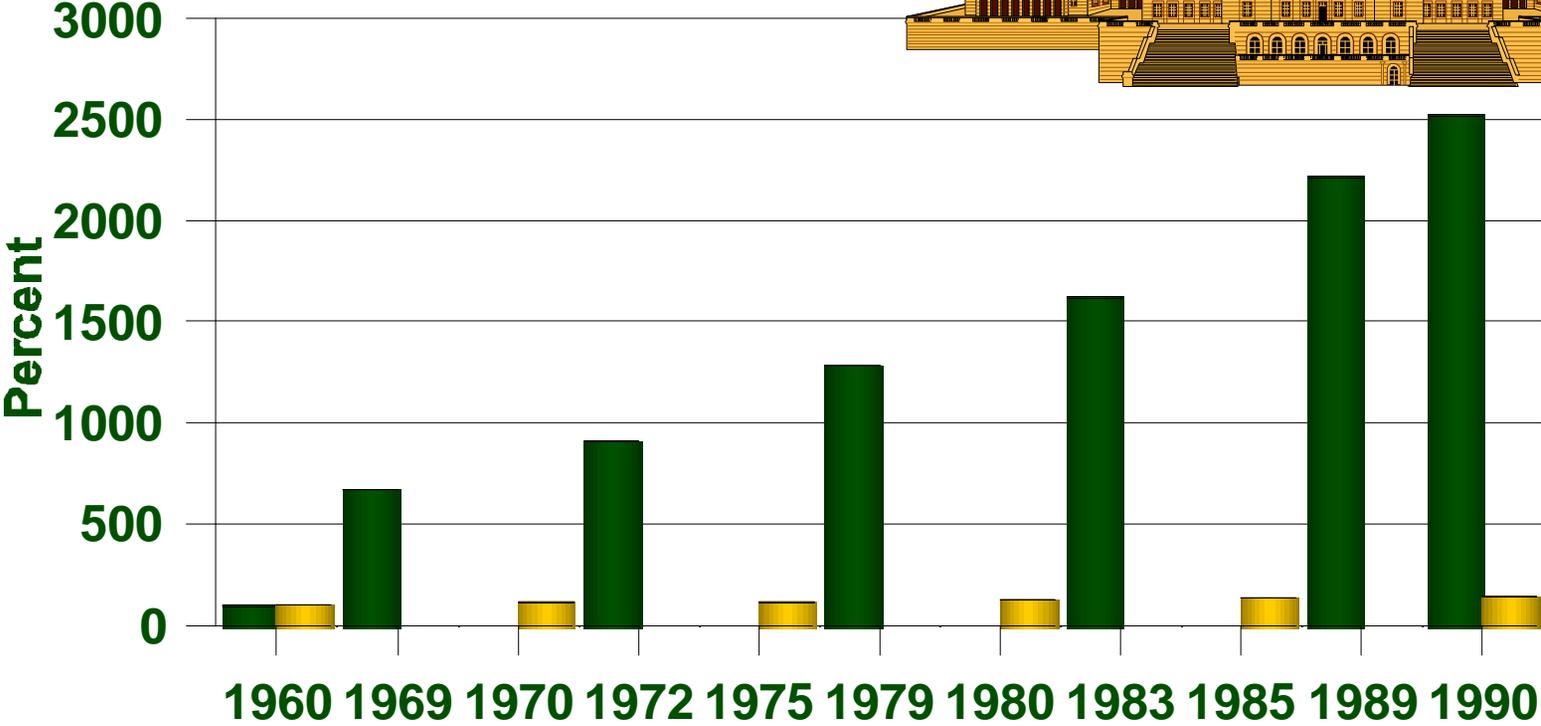
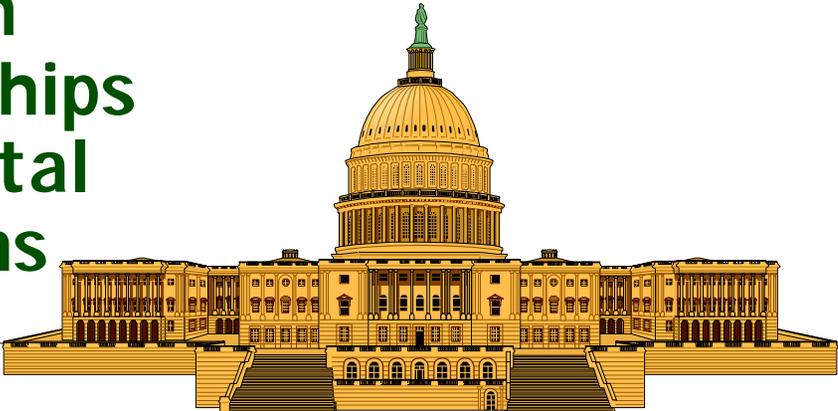
Voting on the Most Important Issue

	First Choice	Second Choice
Reducing Crime	29	23
Reforming Health Care	22	22
Saving Social Security	21	21
Protecting the Environment	16	23
Reducing the Public Debt	9	10
Don't Know	3	1

Spending on the Environment

Too Much	7%
Too Little	49%
About Right	28%
(Don't Know)	(15%)

Thirty Year Trend in Population and Memberships in National Environmental Lobbying Organizations



 Change in Membership
 Change in Population

**Public
Thoughts on
Public
Lands**

Importance of Preserving Natural Lands for Our Grandchildren



Importance of Preserving Areas as They Were in the Past



(Americans Are An Environmental Group)

Ranking of Reasons Why We Should Protect Some Federal Lands

REASONS	Very Important	Of Little Importance
Preserve most significant places for future generations	88	1
Protect wildlife habitat	78	5
Preserve natural ecosystems	73	6
Protect air and water quality	73	7
Opportunities to experience peacefulness and sounds of nature	72	5
Preserve cultures and history	70	7
Opportunities to learn about nature, cultures, and history	69	7
Preserve historic places	66	8
Demonstrate environmentally sound management	53	12
Opportunities for recreation	49	12
Opportunities for scientific study	46	18
Income for tourist industry	14	56

Source: Haas, 1998.

Objectives for Managing Public Lands

(Percent saying important to very important)

Expanding access for motorized vehicles (20%)

Developing trail systems for motorized uses (29%)

Developing trail systems for non-motorized rec. (57%)

Conserving/protecting sources of water (91%)

Designating more wilderness areas (58%)

Developing paved roads for cars (19%)

Preserving resources through policies (75%)

Preserving wilderness experience (74%)

Protecting ecosystems/habitats (86%)

Providing resources to help local communities (51%)

Increasing acres in public land (53%)

Expanding commercial recreation (28%)

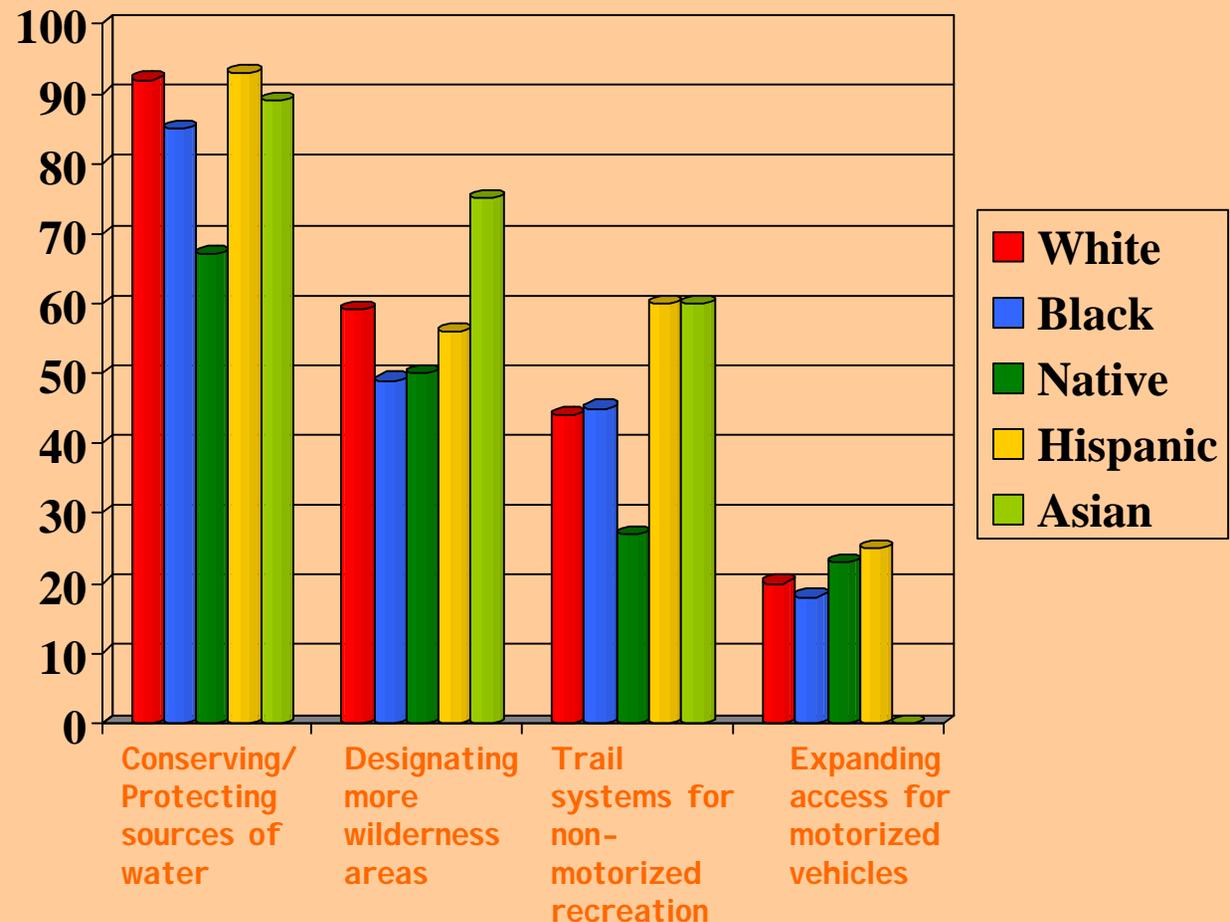
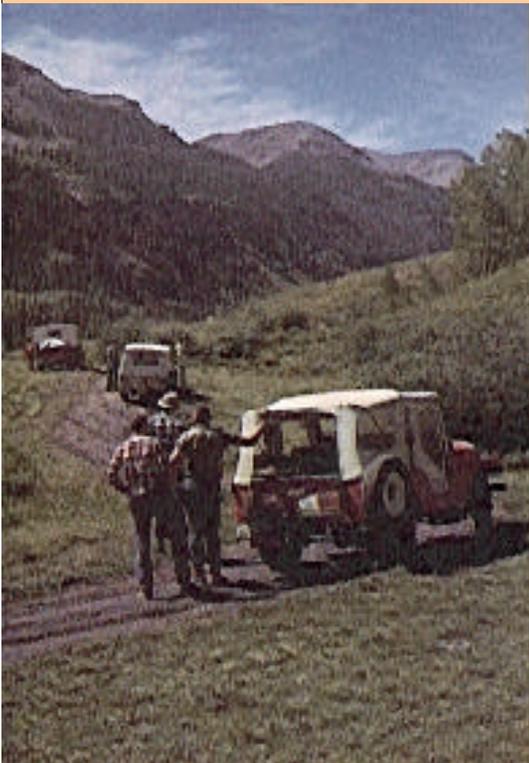
Informing public on potential environmental impacts (81%)

Some Selected Values Concerning Public Lands

	Percentage Strongly Agreeing				
	North	South	Great Plains	Rocky Mtns	Pacific Coast
People should be more concerned about how our public lands are used	85	87	76	78	81
Future generations should be as important as current ones in decisions about public lands	78	74	73	61	74
People can think public lands are valuable even if they do not actually go there themselves	76	76	79	63	69
Wildlife, plants, and humans have equal rights to live and grow	62	65	54	62	60

Source: NSRE/Shields VOBA Module

COMPARING IMPORTANCE OF PUBLIC LAND OBJECTIVES BETWEEN ETHNIC GROUPS

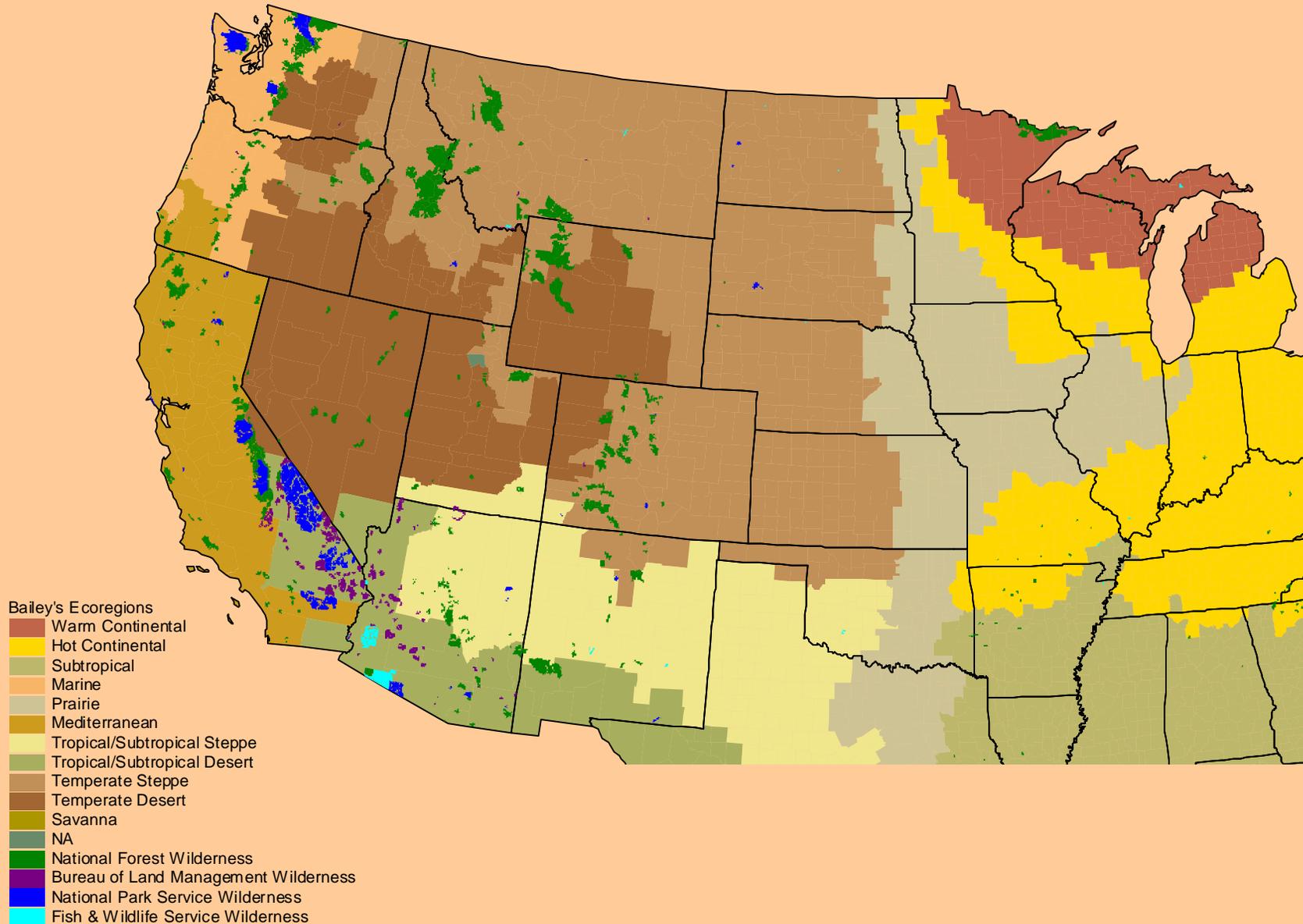


Wilderness

in the

American Mind

Wilderness Protection for Remaining Wild Portions of the Nation's Ecosystems



Social Group Differences in Awareness

		Percent <u>Aware</u>
AGE	16-30	32
	31-55	48
	Over 55	57
RACE	Non-White	38
	White	45
RESIDENCE	Metro	43
	Non-Metro	41
REGION	East	38
	West	54



Overflights

Banned 17%

Limited 70%

Not Banned or Limited 11%

Don't Know 2%

Snowmobiles

Banned 34%

Limited 55%

Not Banned or Limited 9%

Don't Know 2%



**Limit Visitors
If Too Crowded**

= 89%

**Limit Visitors
If Resources
Being Harmed**

= 95%



What Americans Value About Wilderness

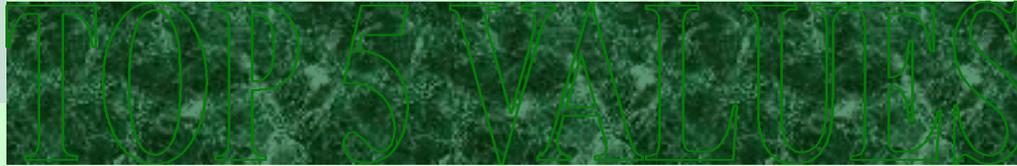
Wilderness Value

Protecting air quality
 Protecting water quality
 Protecting wildlife habitat
 Protecting endangered species
 Legacy for future generations
 Preserving unique ecosystems and genetics
 Future option to visit
 Just knowing it is preserved
 Providing scenic beauty
 Providing recreation opportunities
 Providing spiritual inspiration
 Undisturbed area for scientific study
 Providing income for tourism industry

Percentage Saying It Is
Extremely Slightly or Not
Important Important

58.4	1.5
55.9	1.5
52.7	3.1
49.8	5.0
49.1	3.1
44.3	5.1
37.5	7.1
36.9	6.4
35.4	5.5
27.8	7.2
25.9	16.7
23.9	11.6
9.7	33.5

TOP 5 VALUES



-
- **Protecting air quality**
 - **Protecting water quality**
 - **Protecting wildlife habitat**
 - **Protecting T&E species**
 - **Legacy for future generations**
- (By Majority Vote)**

Lowest 4 Values

- Providing recreation opportunities
- Providing spiritual inspiration
- Using areas for scientific study
- Stimulate income for tourism industry

(All Ballots Counted)



Should designate more Wilderness within Federal lands

Important/ Very Important

Urban	62%
Suburban	56%
Rural	47%



Should designate more Wilderness within Federal lands

Important/ Very Important

White	59%
Black	49%
Hispanic	56%
Asian	75%



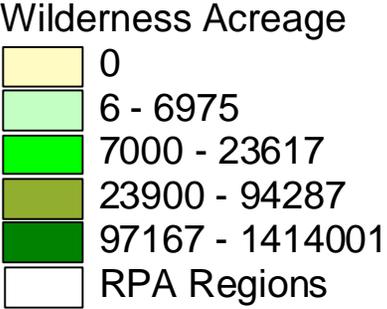
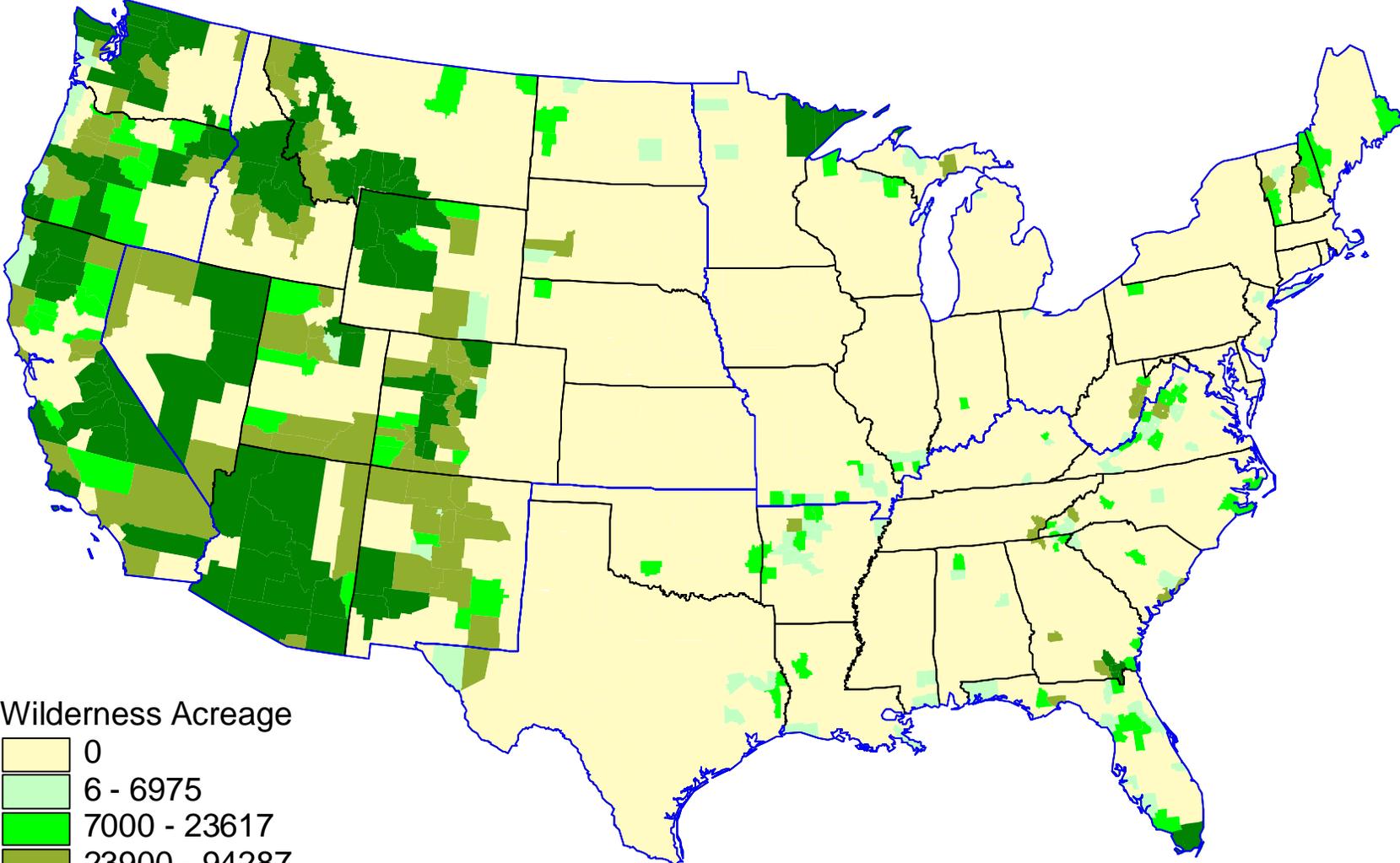
Should designate more Wilderness within Federal lands

Important/ Very Important

North	66%
South	55%
Great Plains	50%
Rockies	59%
Pacific Coast	59%

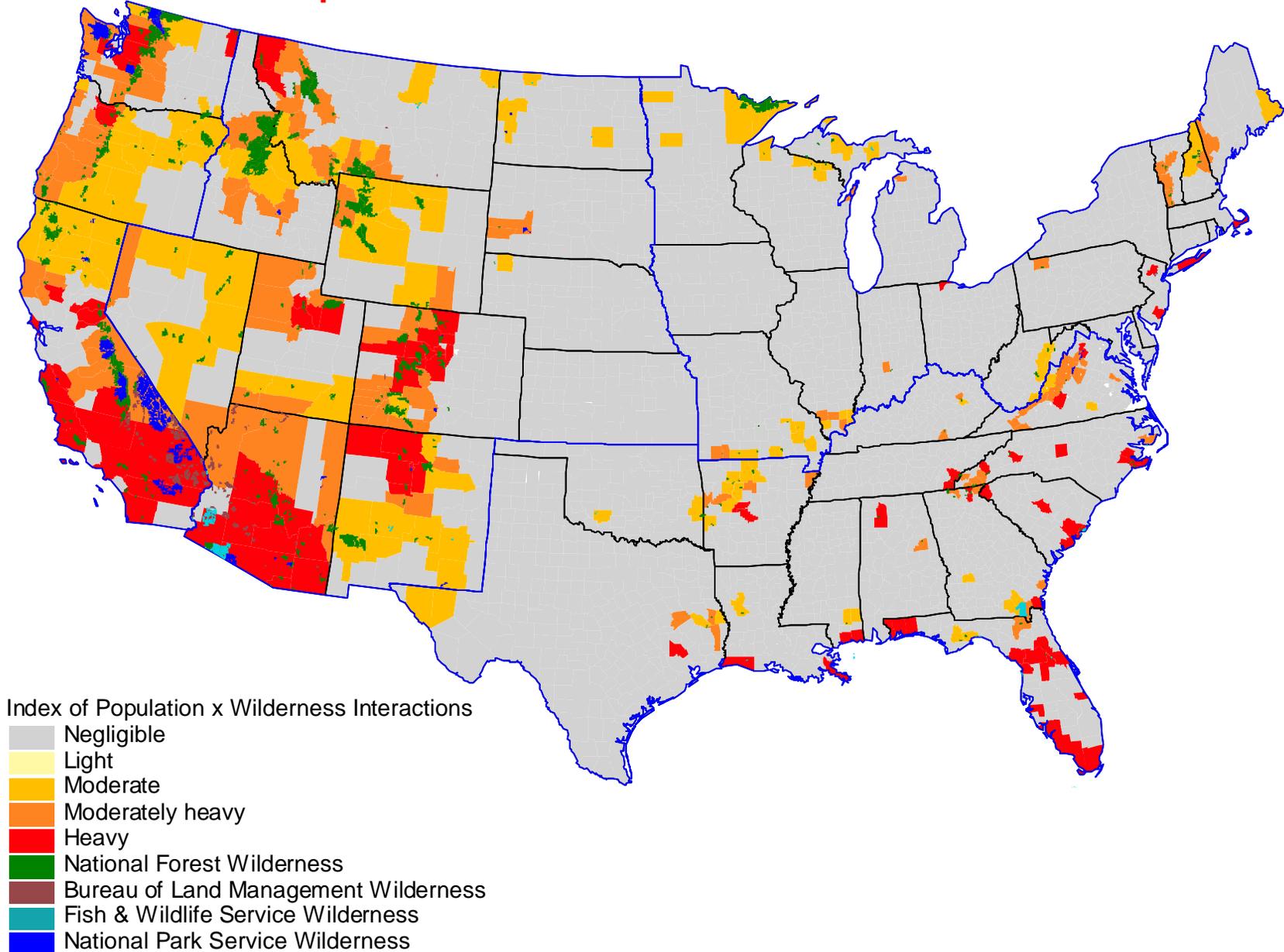
**Population Growth
And
Wilderness
Stewardship**

Counties with Wilderness

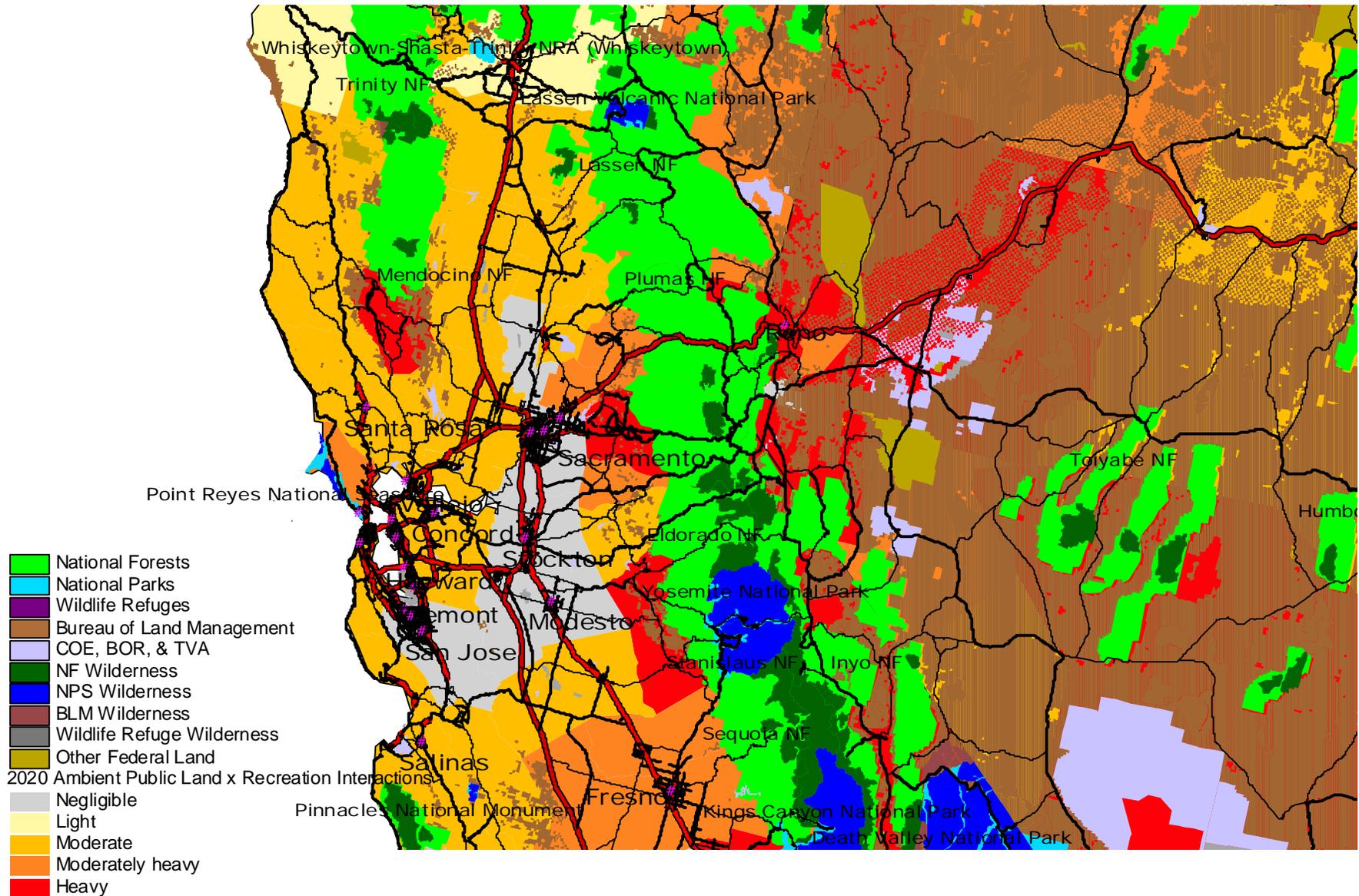


Future Wilderness Hotspots (2020)

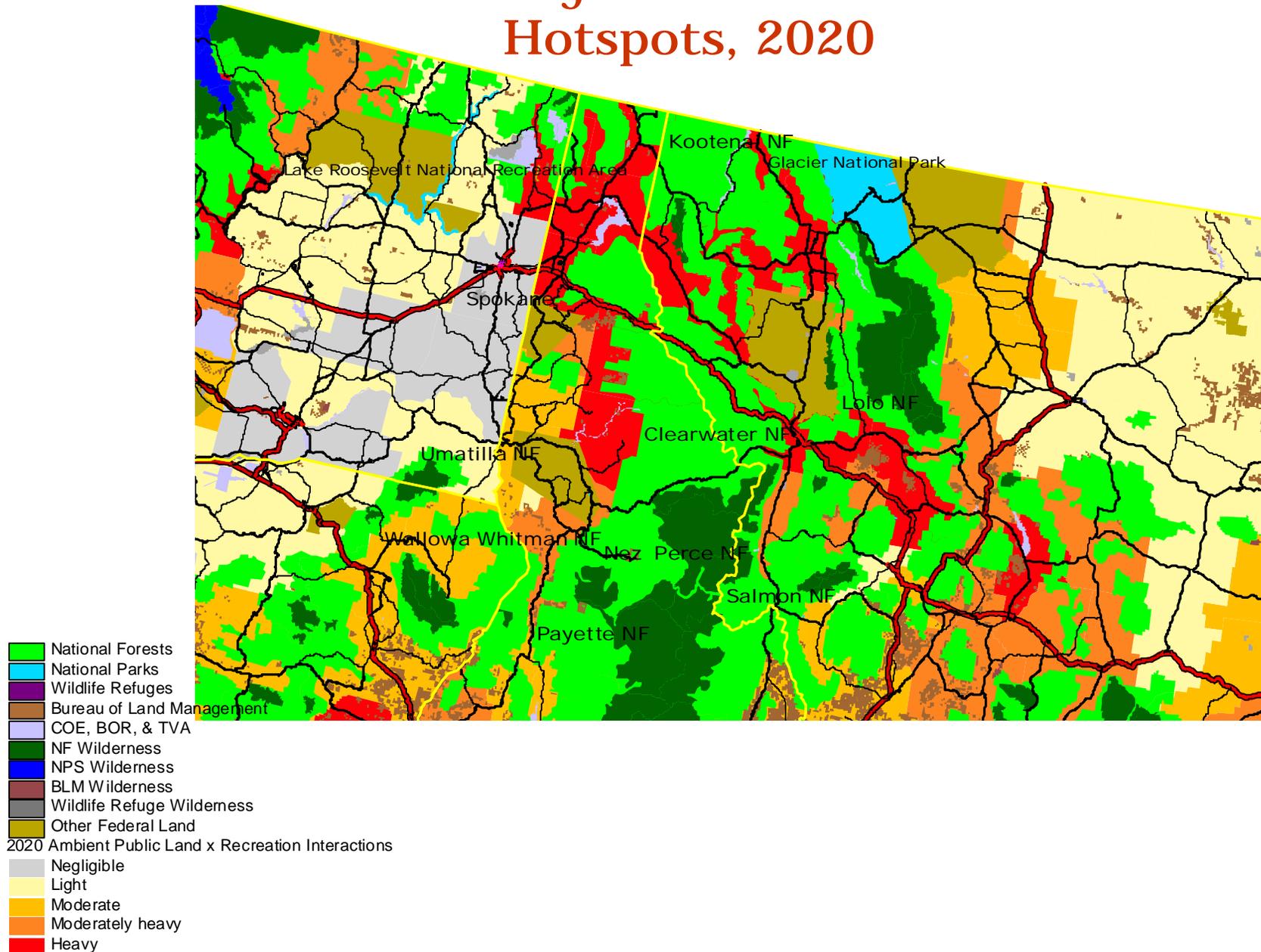
Ambient Population Pressures on Counties with Wilderness



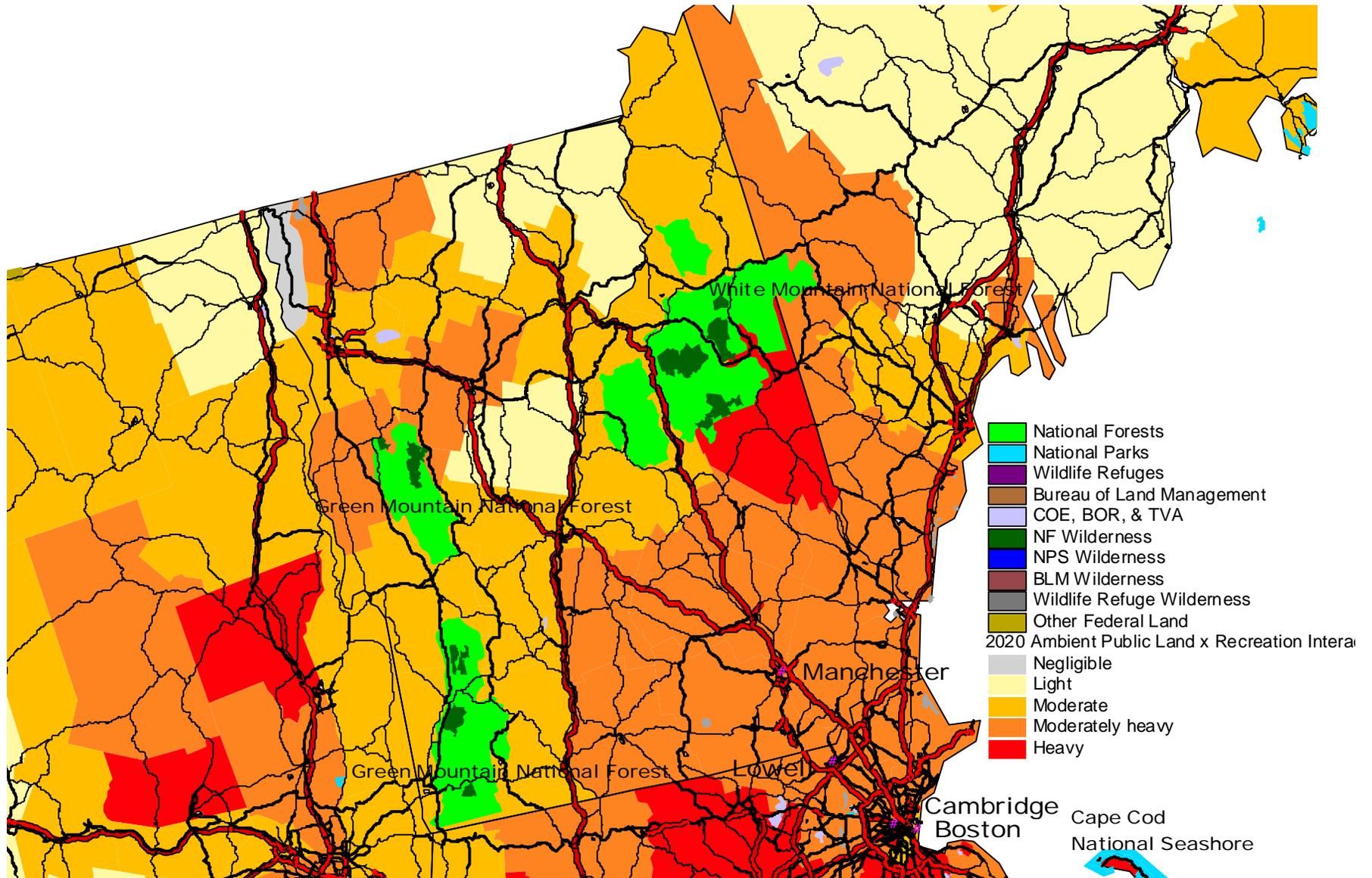
Public Lands in Central California and Projected Recreation Demand Hotspots, 2020



Public Lands in Northern Idaho and Northwest Montana and Projected Recreation Demand Hotspots, 2020



Public Lands in New England and Projected Recreation Demand Hotspots, 2020





What is the Biggest **Threat** to the NWPS

- Climbing Anchors?
- Invasive exotics?
- Nearby population and development growth
- Air and water pollutants?
- Recreation use?
- Political vulnerability?
- Something else?

ANSWER

PROBLEM

ACTION

HOW?

- The biggest threat is loss of the NWPS altogether, combined with “chipping away”
- Low awareness, no public voice, lack of Congressional support, and little collective energy
- Provide wilderness information in places and in forms where people will encounter and digest it
- Start with marketing research and lifestyle segmentation
- Design educational programs
- Monitor results and refine programs

NSRE 2000 and Marketing Research

- NSRE 2000 will ask knowledge, attitudes, sensitivities, uses, and values of wilderness across all of American society
- Segment the public using differences in environmental attitudes, recreation participation patterns, lifestyles, demographics and region of the country
- Use significant factors in the design of tailored marketing and educational strategies.

Nature Lovers

Well-off, highly-educated, older, mostly white females in small households with no kids and who like to:

Picnic

Visit Nature Centers

Walk

Sightsee

And

Watch Wildlife and Birds

Early Results from NSRE 2000

(for People 16+)

- ❖ Education and marketing strategies need to be based on linkages between knowledge lifestyles, behaviors, and demographics, for example:
 - ❖ Most backpackers (76%) visit wilderness
- ❖ If we want communication with Wilderness visitors, backpacking is a viable path.
 - ❖ Backpacking participation (behavior) is:
 - a. Not associated with watching sports on TV (lifestyle)
 - b. Moderately associated with regularly reading nature magazines
 - c. Strongly associated with regular use of PC at home (2/3).
- ❖ Linking behaviors with lifestyles identifies best media.
 - ❖ Most backpackers are 31-50 years
- ❖ Linking behaviors, lifestyles, media, and demographics identifies delivery.

Varied Lifestyles Varied Lifestyles

Activity	Percent Participating Regularly				
	North	South	Great Plains	Rocky Mtns	Pacific Coast
Belong to environmental group	7.3	9.0	8.6	8.9	8.0
Have a vacation home	15.1	15.1	11.3	15.3	15.5
Youth volunteer	19.9	20.4	20.2	19.8	17.3
Read nature magazines	25.1	27.1	27.6	23.6	26.1
Eat out	37.9	50.6	43.0	44.7	44.6
Exercise	40.6	41.2	39.4	45.4	46.7
Follow sports	44.3	48.9	43.5	43.5	45.3
Attend church	46.5	57.3	49.7	44.1	36.0
Use computer at home	56.0	51.8	50.5	55.6	58.7
Recycle	75.9	52.4	64.7	54.3	77.1

Does Level of Knowledge of the NWPS Affect Opinions?

	Knowledgeable (36.1%)	Not Knowledgeable (63.9%)
Overflights should be banned	22.6%	22.8%
Overflights should be allowed	15.0%	10.0%
Not seeing others important	25.3%	16.3%
Not seeing others unimportant	44.6%	55.1%
Seeing management does not detract at all	68.5%	69.8%

Do Wilderness Visitors Feel Differently About the NWPS?

	Visit (38.9%)	Do Not Visit (61.1%)
Overflights should be banned	19.2%	22.1%
Overflights should be allowed	11.9%	10.5%
Not seeing others important	23.5%	18.5%
Not seeing others unimportant	42.3%	52.1%
Seeing management does not detract at all	64.1%	68.1%

Are Feelings Toward the Environment Related to Opinions About the NWPS?

	Environmental Protection a Top Issue (38.3%)	Environmental Protection Not a Top Issue (61.7%)
Overflights should be banned	25.3%	16.5%
Overflights should be allowed	5.9%	11.3%
Not seeing others important	30.3%	17.8%
Not seeing others unimportant	37.0%	52.6%
Seeing management does not detract at all	61.3%	65.5%

Does Lifestyle or Education Influence NWPS Opinions?

	Regularly Use PC (49.4%)	Don't Use PC (50.6%)	College Degree (32.5%)	No Degree (67.5%)
Overflights should be banned	19.5%	22.0%	21.1%	20.8%
Overflights should be allowed	11.5%	10.2%	10.0%	11.5%
Not seeing others important	20.4%	20.0%	21.8%	19.7%
Not seeing others unimportant	44.9%	51.8%	42.0%	51.2%
Seeing management does not detract at all	66.2%	66.3%	68.7%	65.6%

- 
- ✓ Americans Support and Value Wilderness
 - ✓ How do we account for those values?

Better Understanding the Value of Wilderness

What are the values and the value of sustainably managed Wilderness?

- With TWS, convene national workshop of thought leaders to define a Framework of Wilderness Values
- From NSRE 2000, identify the benefits from Wilderness that people value most
- Develop estimates of use, bequest and existence values
- Develop estimates of economic returns to local and subregional communities
- Provide estimates of NF and System-wide recreational use of wilderness

NATIONAL WORKSHOP ON WILDERNESS VALUES:

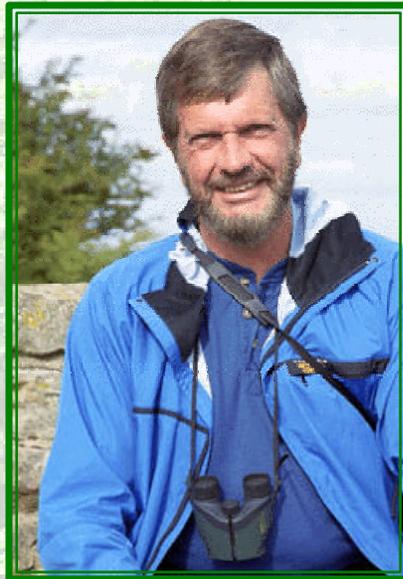
**Conceptualize a multidisciplinary
Wilderness Values Framework that
includes use and non-use values,
contemporary and future.**

**Summarize our state of knowledge
about Wilderness values.**

**Propose an agenda of research to
improve our understanding of Wilderness
values and to fill gaps in science.**

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WILDERNESS IN THE CONTEMPORARY AMERICAN MIND



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THANKS FOR LETTING
ME JOIN YOU!

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