

AMERICA'S WILDLIFE VALUES THE SOCIAL CONTEXT OF WILDLIFE MANAGEMENT IN THE U.S.



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Study Team



HUMAN DIMENSIONS
OF NATURAL RESOURCES
COLORADO STATE UNIVERSITY



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Data Collection**

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Loren Chase, Oregon DFW



**Multi-State Conservation Grant
Through
MAFWA and WAFWA**



The many challenges of wildlife management in a changing society...



Issues Rooted in Cultural Shift

Reflected in *Social Values*



Values Are Motivational Goals That Direct Behavior

Values Are Formed Early in Life and Do Not Change in an Individual

Values Are Embedded in Everything Around Us

Values Adapt Us to Our Social and Environmental World

Underlying Questions

- How do agencies adapt and remain relevant, in the face of societal change, to an increasingly diverse constituency?
- What are ways for them to more effectively engage new audiences while still being responsive to the needs of traditional stakeholders?
- How can they garner broad-based support to ensure sustainable funding exists in the future?





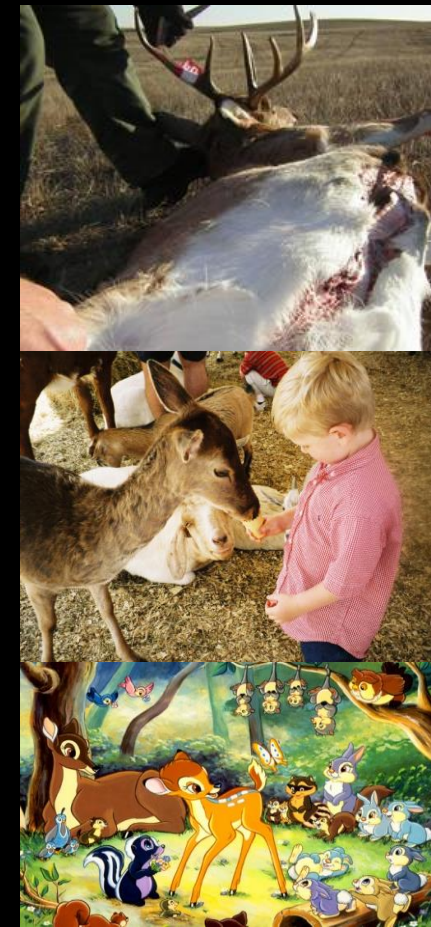
Conditions of Modernization



Changing Social Life



Changing Values & Behavior



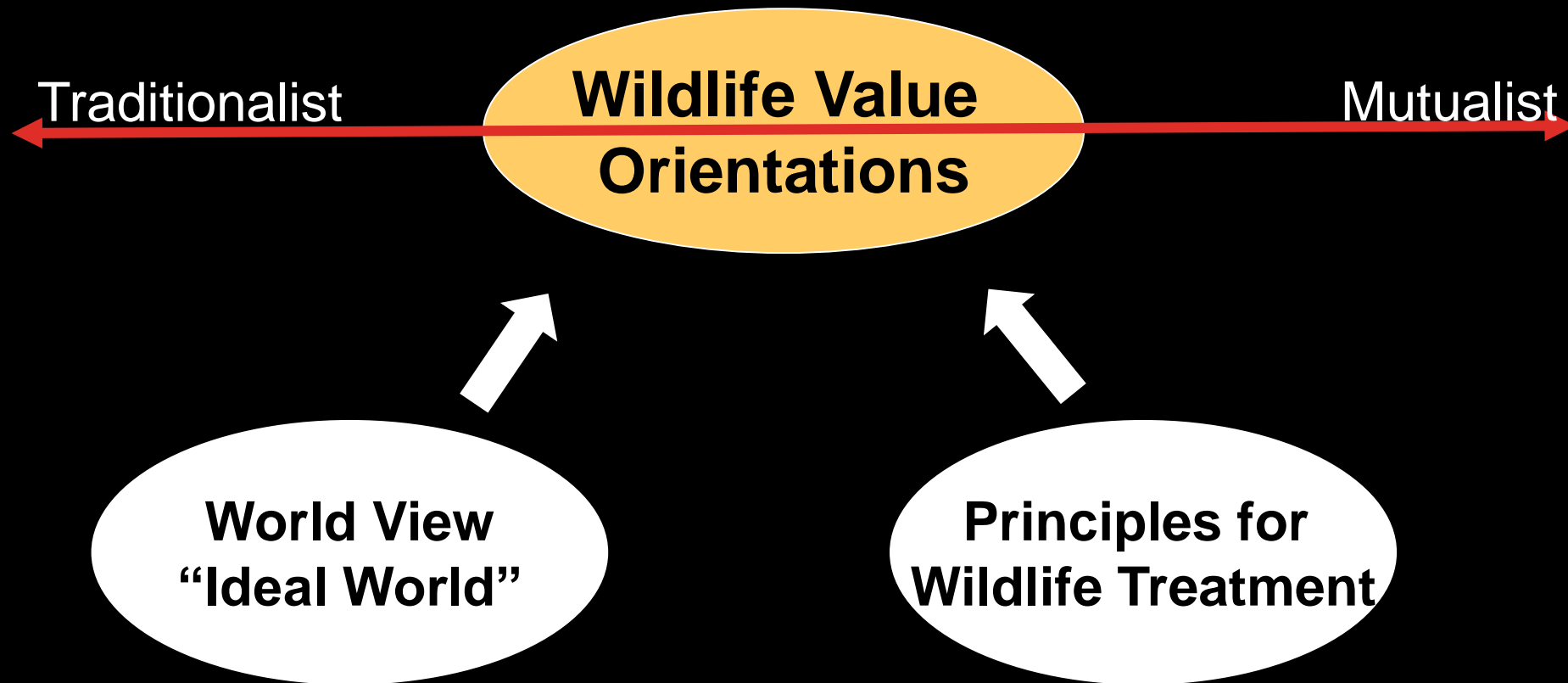
Social Values



- Social values are key – cognitive foundation
- Fundamental, stable human goal structures
 - Shape how people orient to the world
- Research has identified wildlife values as a construct
 - Reliably measured
- Wildlife values shown to effectively predict a person's position across issues
- Value differences among people are the foundation for conflict over issues in fish and wildlife management

Wildlife Value Orientations are...

Enduring beliefs regarding wildlife



Value Dimensions



TRADITIONALISTS / Utilitarian (Domination)

- Wildlife are subordinate
- Wildlife should be used in ways that benefit humans
- Using animals in research and hunting are two ways these benefits accrue
- Wildlife should be killed if they threaten safety or to protect property
- Vision where there are abundant populations of fish and wildlife for hunting and fishing

Value Dimensions



MUTUALISM

- Wildlife are seen as part of an extended social network of life
- Wildlife are viewed as family or companions
- Care for wildlife as they might for humans
- Wildlife are deserving of rights like humans
- Vision of humans and wildlife living side by side without fear

TRADITIONALISTS/Utilitarian

Low

High

Less interested in
wildlife

Low

Distanced

Use of wildlife is appropriate
Behaviors: Hunting, fishing

MUTUALISM

High

Mutualist

Both a traditionalist & a
mutualism orientation

Animals are like family
Behaviors: Feeding, care

Pluralist

Traditionalists

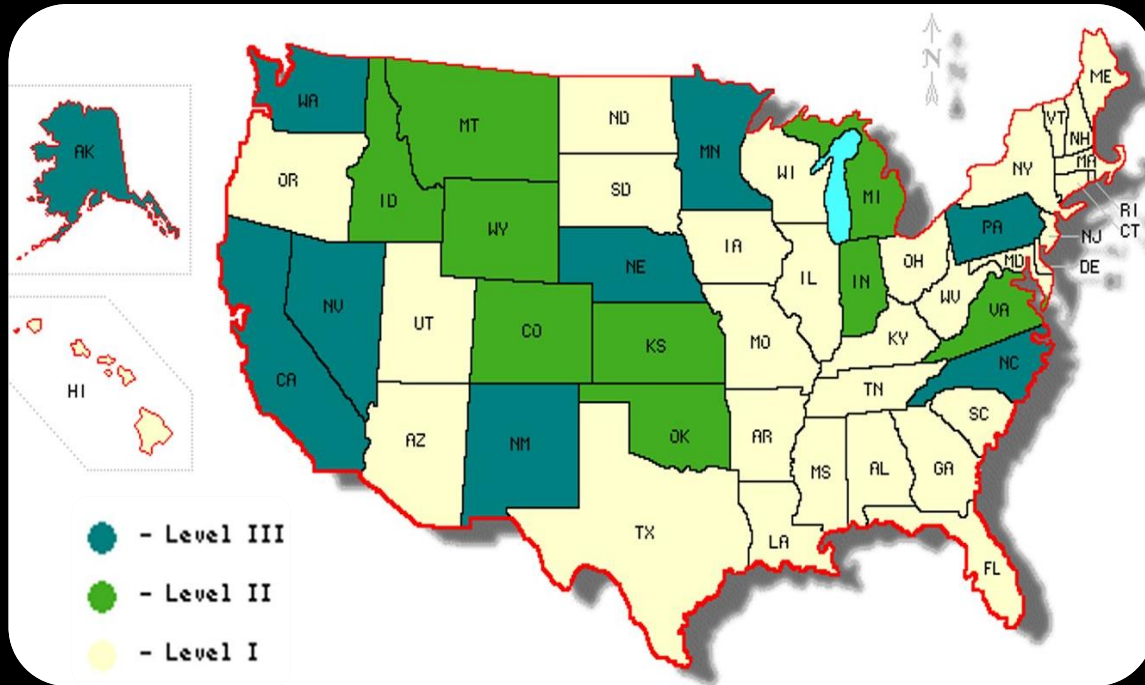
Outline

- Provide highlights of National Public Survey study results
 - Comparing National to WA State results
 - WDFW specific questions
- Overview of Agency Culture Results
- Won't be able to cover all the data today
- National and WA Survey Reports are available and laid out with descriptives, graphs, and geographic distribution of results by County

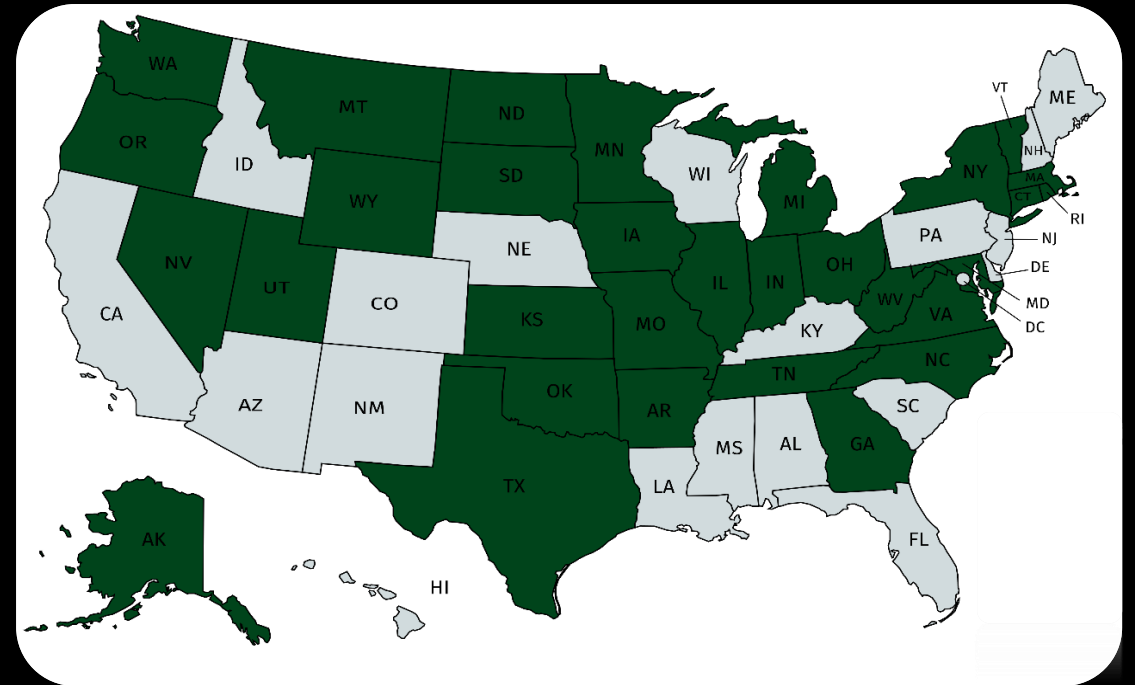


State Fish and Wildlife Agency Participation

Public Survey



Agency Culture Survey



Summary of Study Methods



Data

- 2004 *Wildlife Values in the West* (19 states, n > 12,000)
- 2009 *People and Places* (4 states)
- 2018 *America's Wildlife Values* (50 states)
- 2018 *Agency Culture Survey* (30 States)

2018 Survey Methods

- Two extensive pilot tests to compare and test phone, mail, and e-mail
- Public – combined mail & e-mail panel (2 waves, one for boosting numbers overall, one targeting diverse populations; total n = 43,949)
- Agency Culture Survey – e-mail administered to agency employees (n = 10,669)



NATIONAL PUBLIC SURVEY AND WA RESULTS



WA residents – Fall 2017/Spring 2018

18 years of age or older

Sampling unit: County

n = 18,492; response rate = 15.4% (2,755)

90% CI \pm 9-11% error for each county*

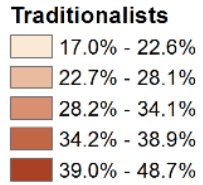
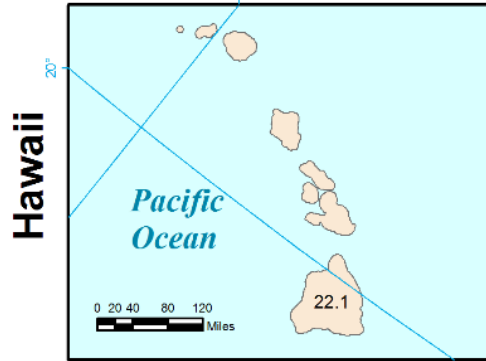
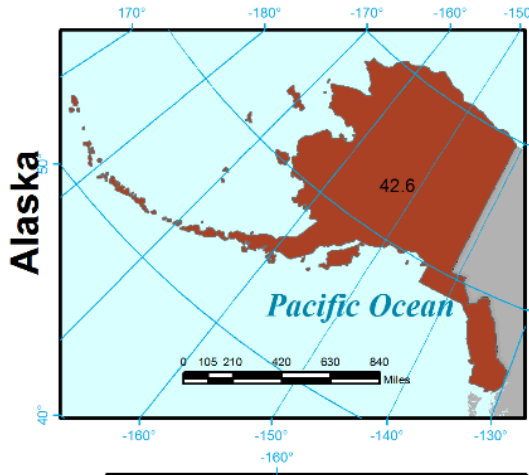
Data weighted by race, gender, age, F&W recreation



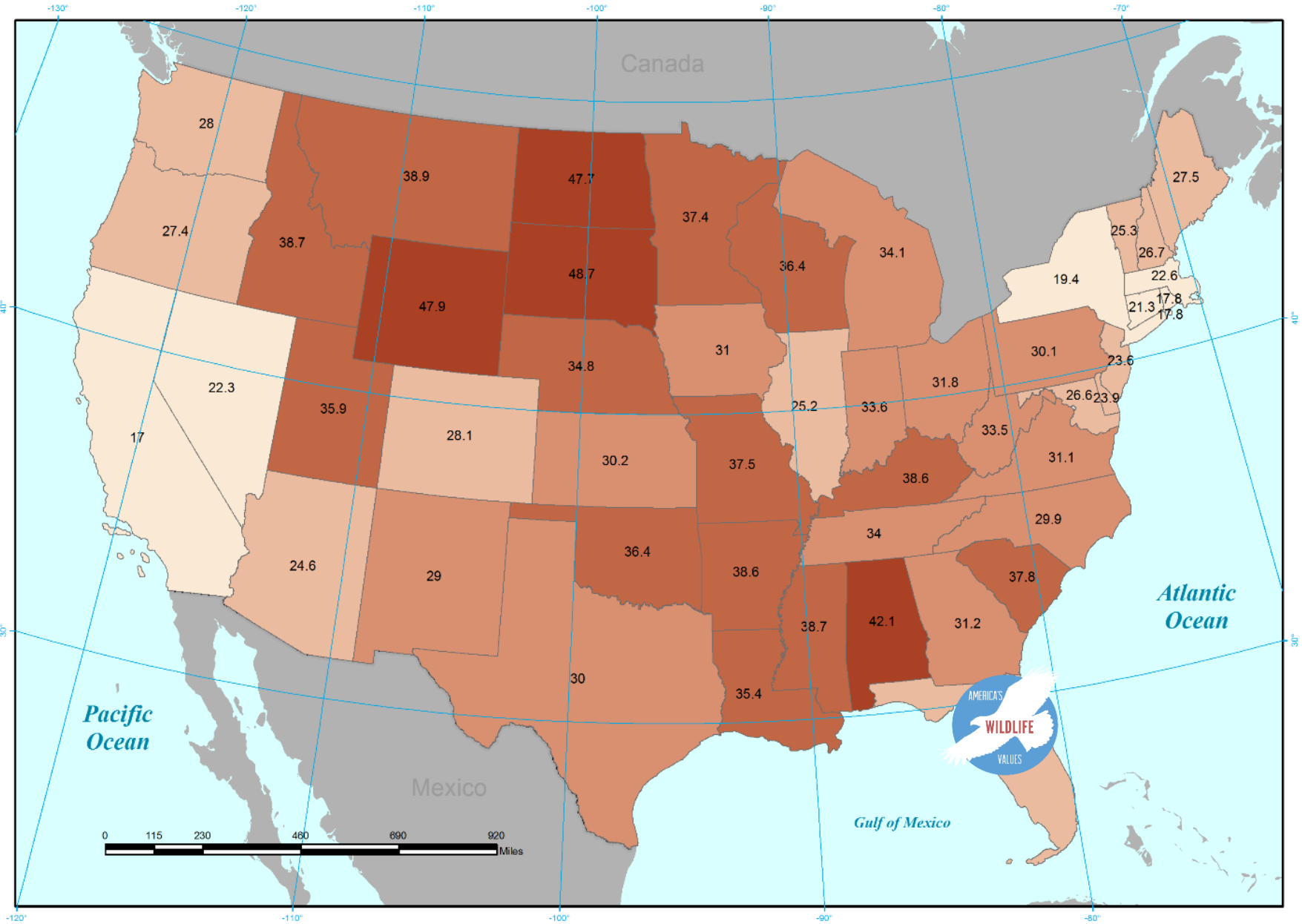


**DISTRIBUTION OF WILDLIFE VALUE
TYPES IN THE U.S.**

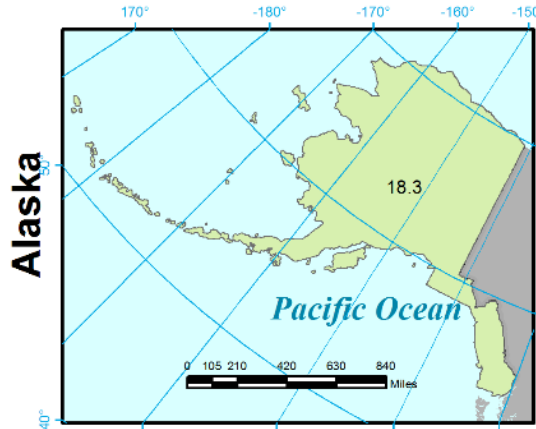
America's Wildlife Values - Traditionalists (%)



Coordinate System: Albers
 Central Meridian: 96°0'0"W
 1st Std Parallel: 20°0'0"N
 2nd Std Parallel: 60°0'0"N
 Latitude of Origin: 40°0'0"N



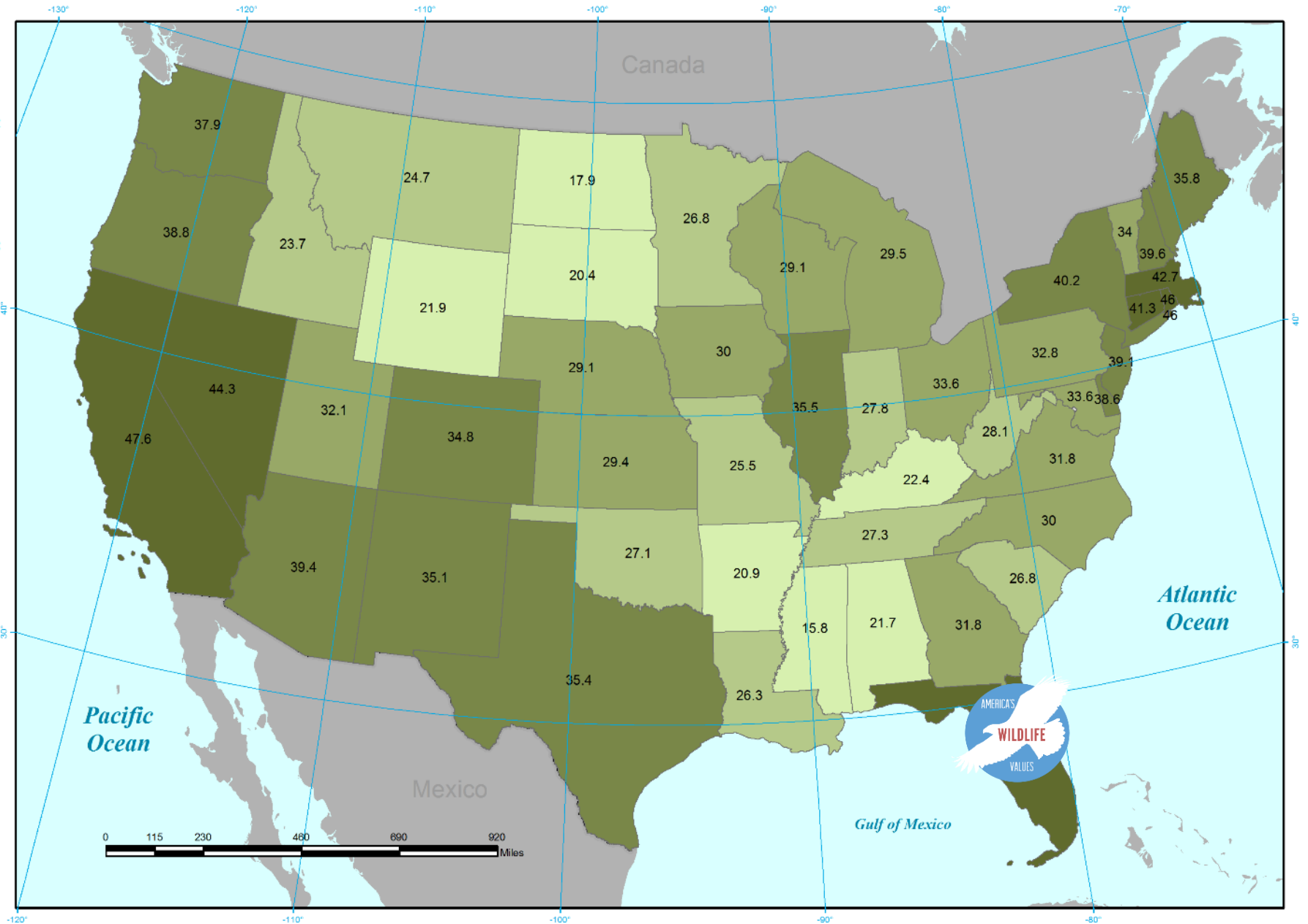
America's Wildlife Values - Mutualists (%)



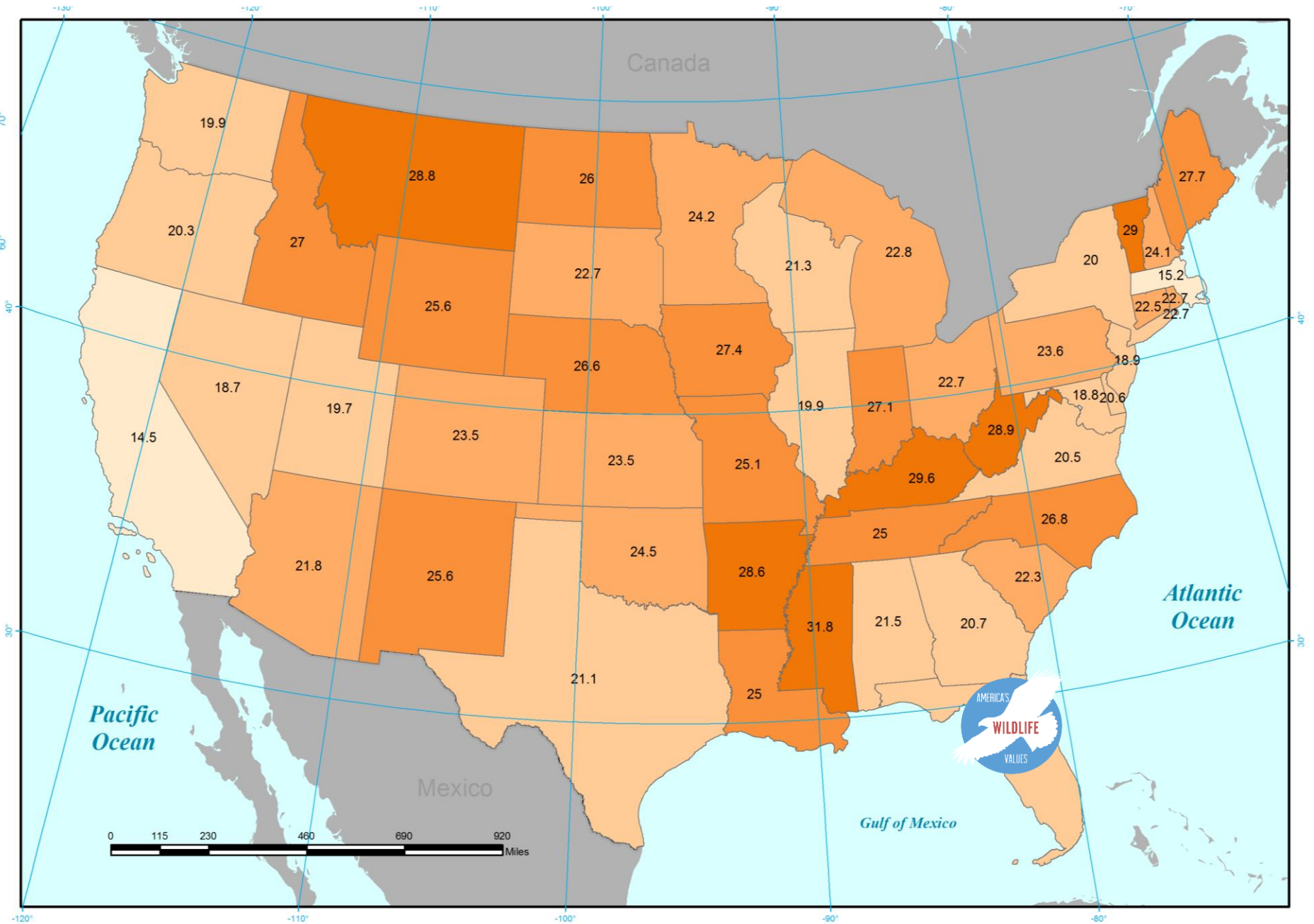
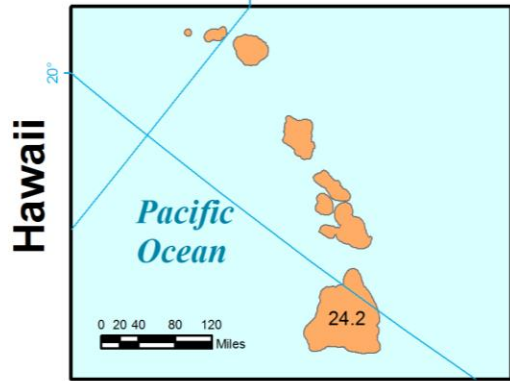
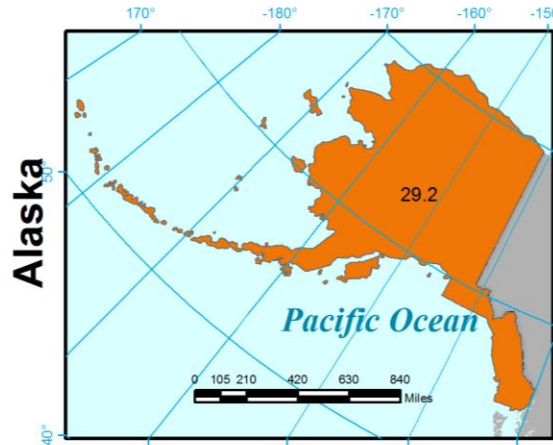
Mutualists

- 15.8% - 22.4%
- 22.5% - 28.1%
- 28.2% - 34.0%
- 34.1% - 40.2%
- 40.3% - 47.6%

Coordinate System: Albers
 Central Meridian: 96°0'0"W
 1st Std Parallel: 20°0'0"N
 2nd Std Parallel: 60°0'0"N
 Latitude of Origin: 40°0'0"N



America's Wildlife Values - Pluralists (%)



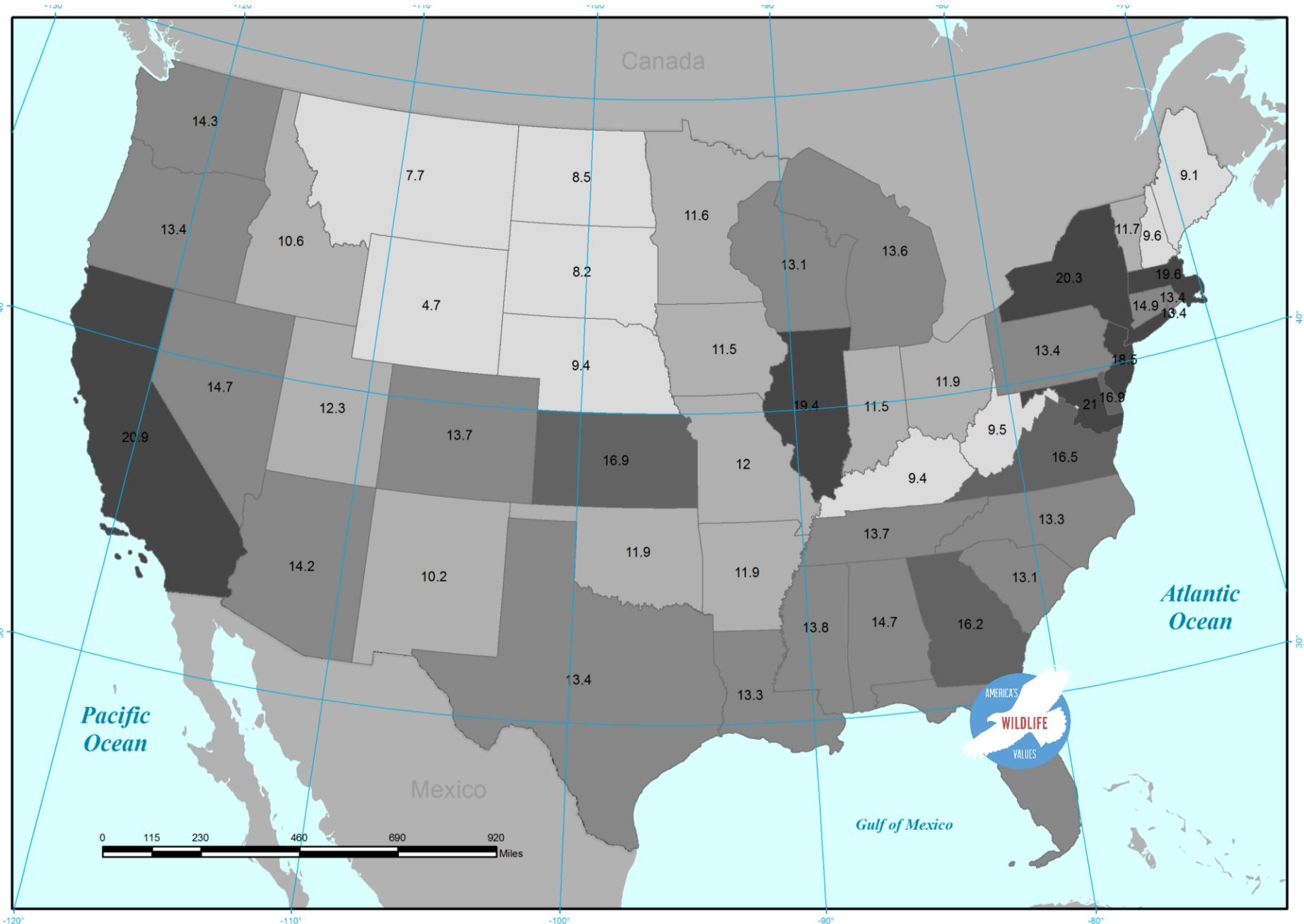
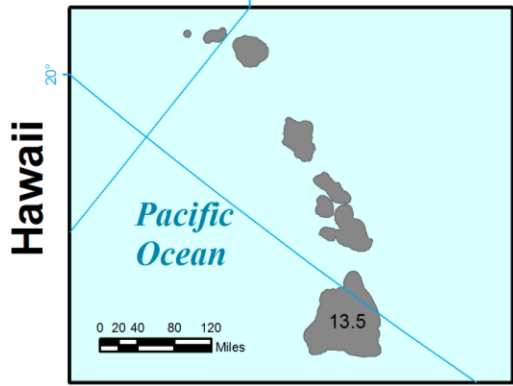
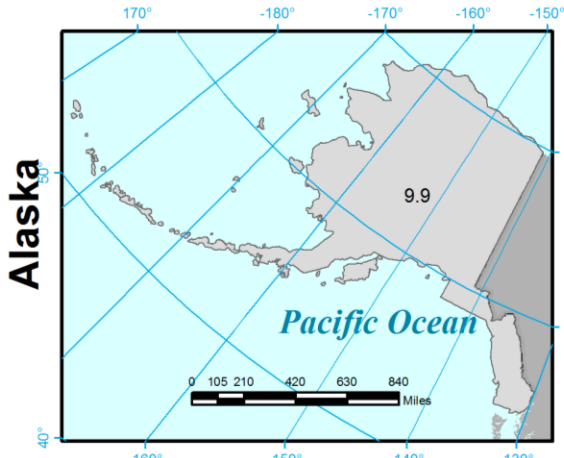
Pluralist

- 14.5% - 15.2%
- 15.3% - 21.5%
- 21.6% - 24.5%
- 24.6% - 27.7%
- 27.8% - 31.8%

Coordinate System: Albers
 Central Meridian: 96°0'0"W
 1st Std Parallel: 20°0'0"N
 2nd Std Parallel: 60°0'0"N
 Latitude of Origin: 40°0'0"N



America's Wildlife Values - Distanced (%)



Distanced

- 4.7% - 9.9%
- 10.0% - 12.3%
- 12.4% - 14.9%
- 15.0% - 16.9%
- 17.0% - 21.0%

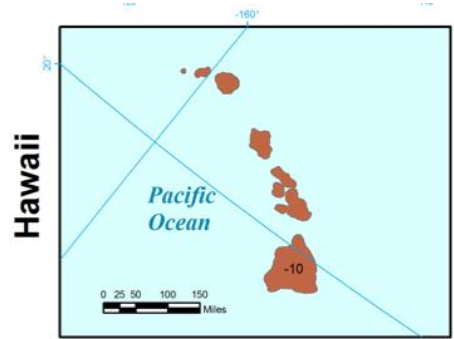
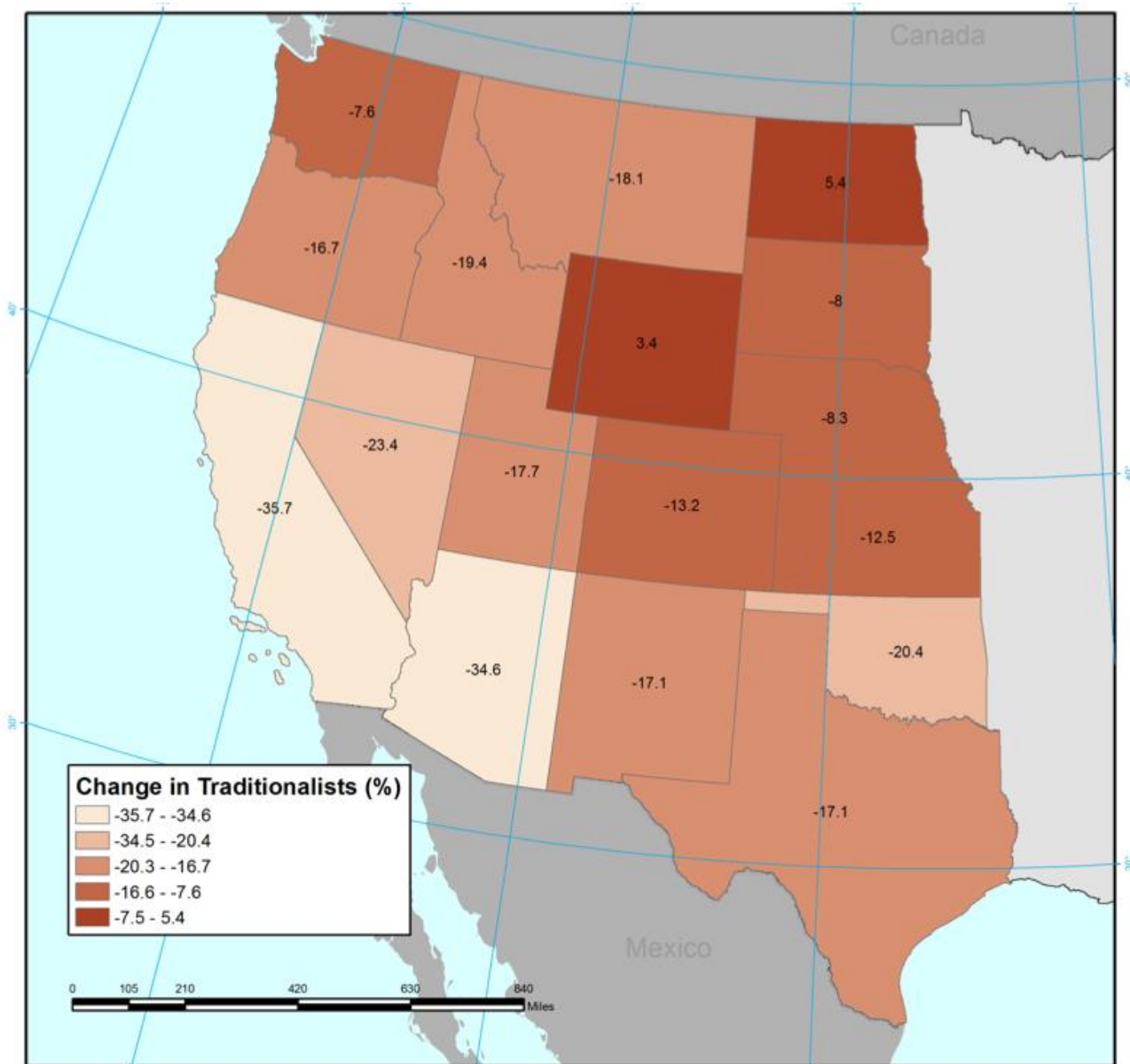
Coordinate System: Albers
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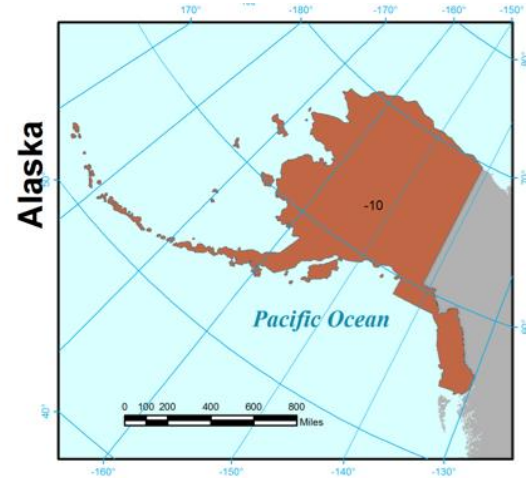


MODERNIZATION AND SHIFTING WILDLIFE VALUES

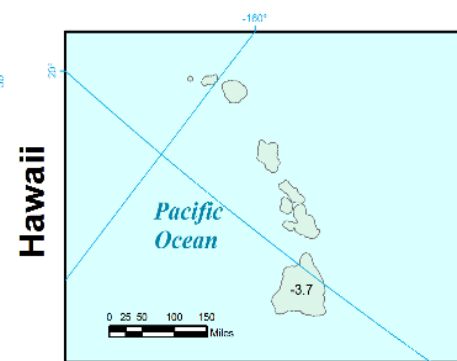
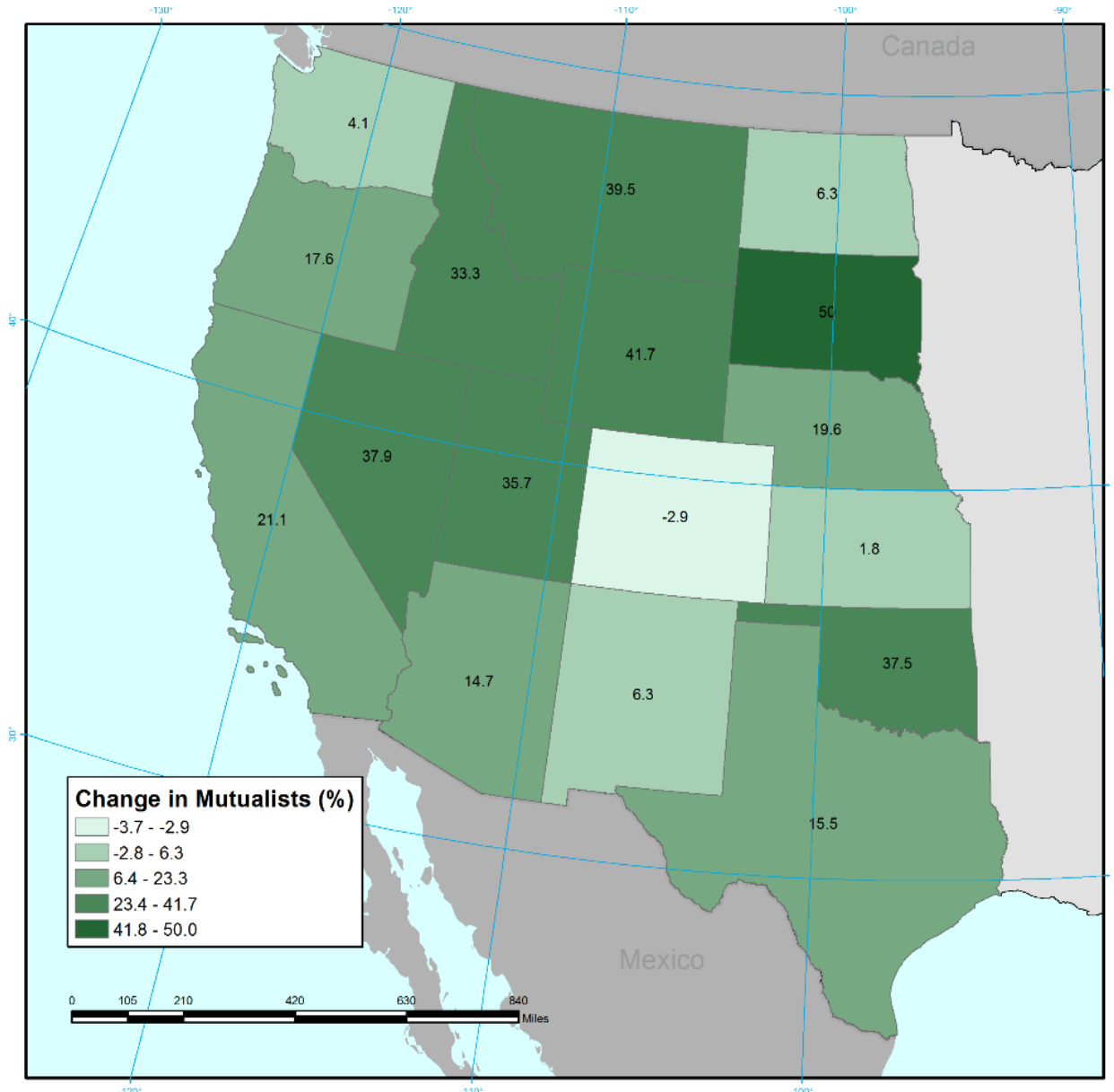
Rate of Change in Traditionalists in the West, 2004-2018



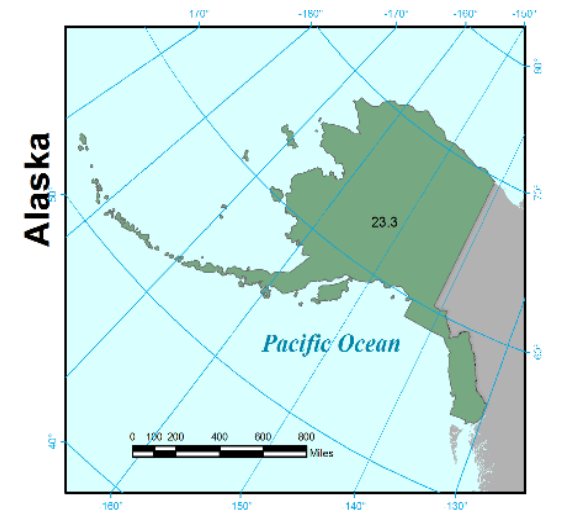
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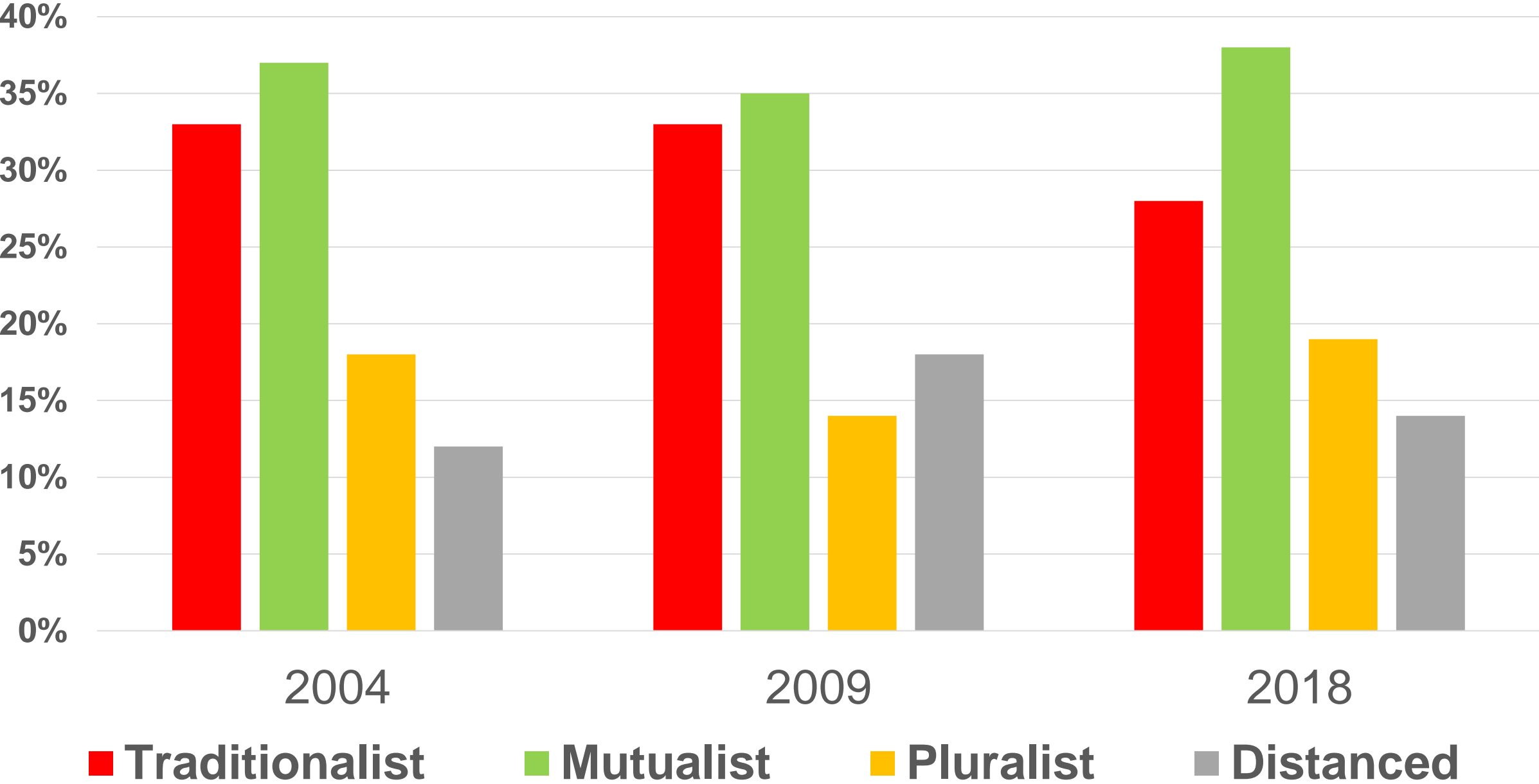
Rate of Change in Mutualists in the West, 2004-2018



Coordinate System: Albers
 Central Meridian: 96°0'0"W
 1st Std Parallel: 20°0'0"N
 2nd Std Parallel: 60°0'0"N
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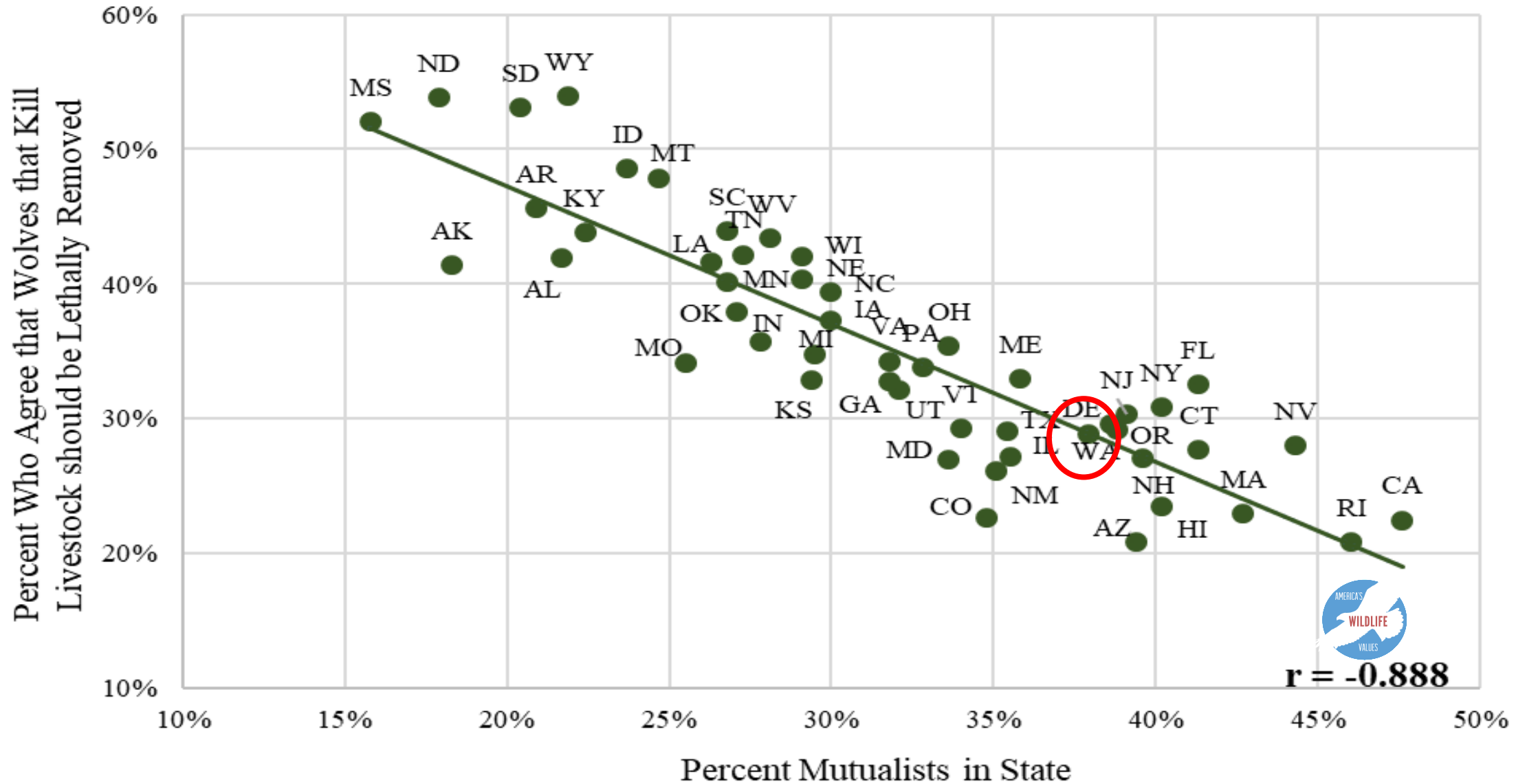
Wildlife Value Types in Washington: 2004 to 2018



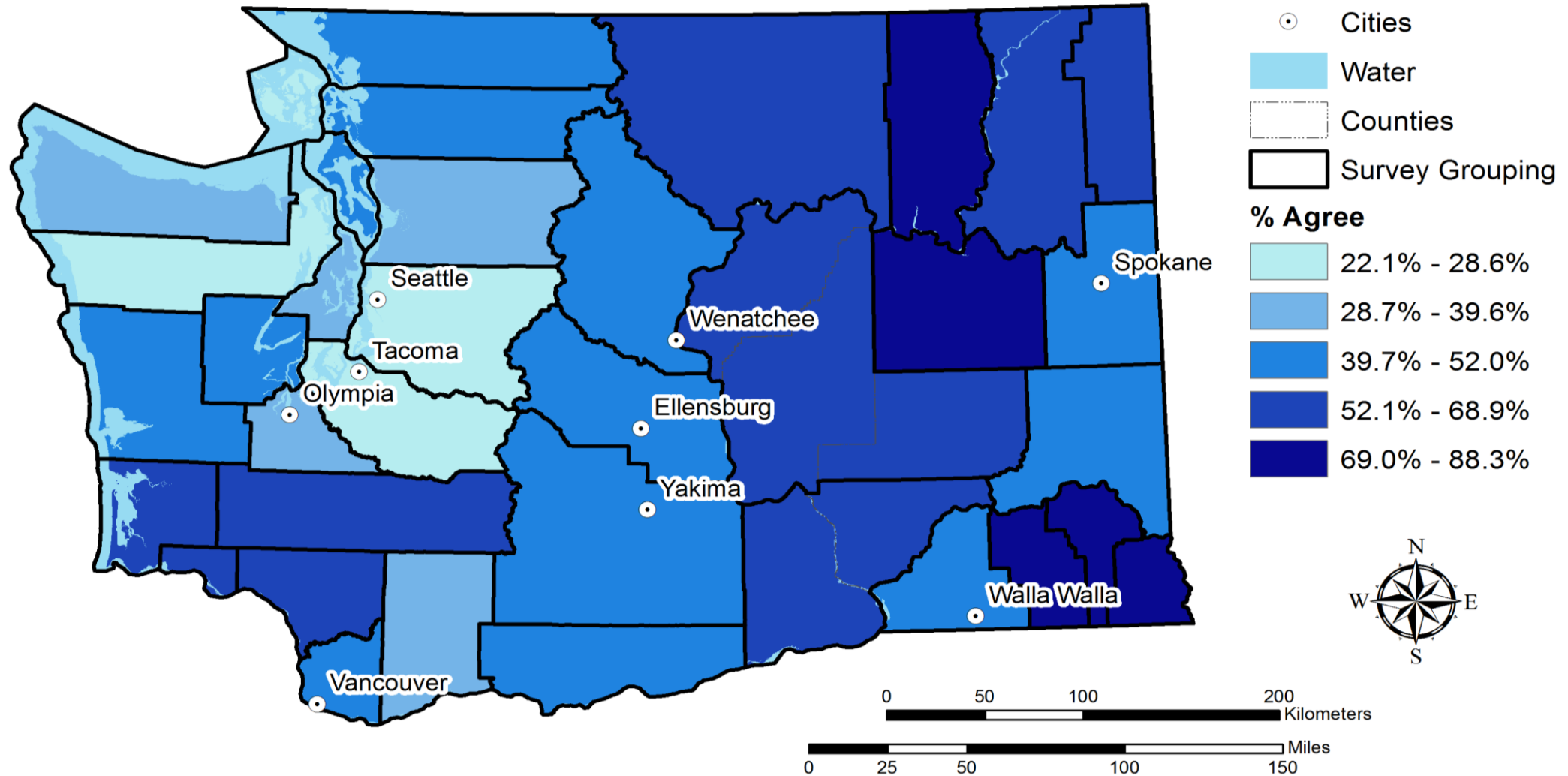


WILDLIFE VALUES RELATE TO AND
AFFECT ATTITUDES AND
BEHAVIORS

Percent Mutualists in state by percent who agree that wolves that kill livestock should be lethally removed



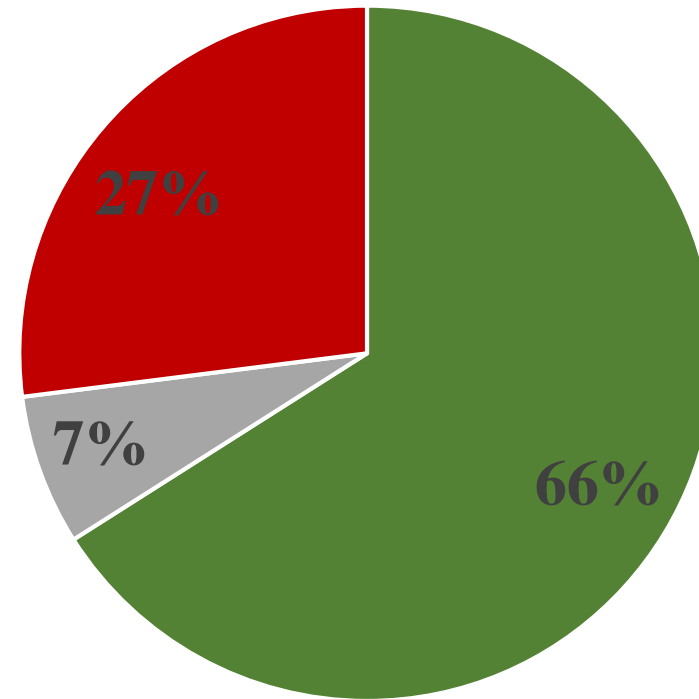
Percent who agree that wolves that kill livestock should be lethally removed



Support for lethal removal of wolves that prey on livestock in Washington in 2009

Question on Survey:

“Is it unacceptable or acceptable for WDFW to capture and lethally remove a wolf if it is known to have caused loss of livestock.”

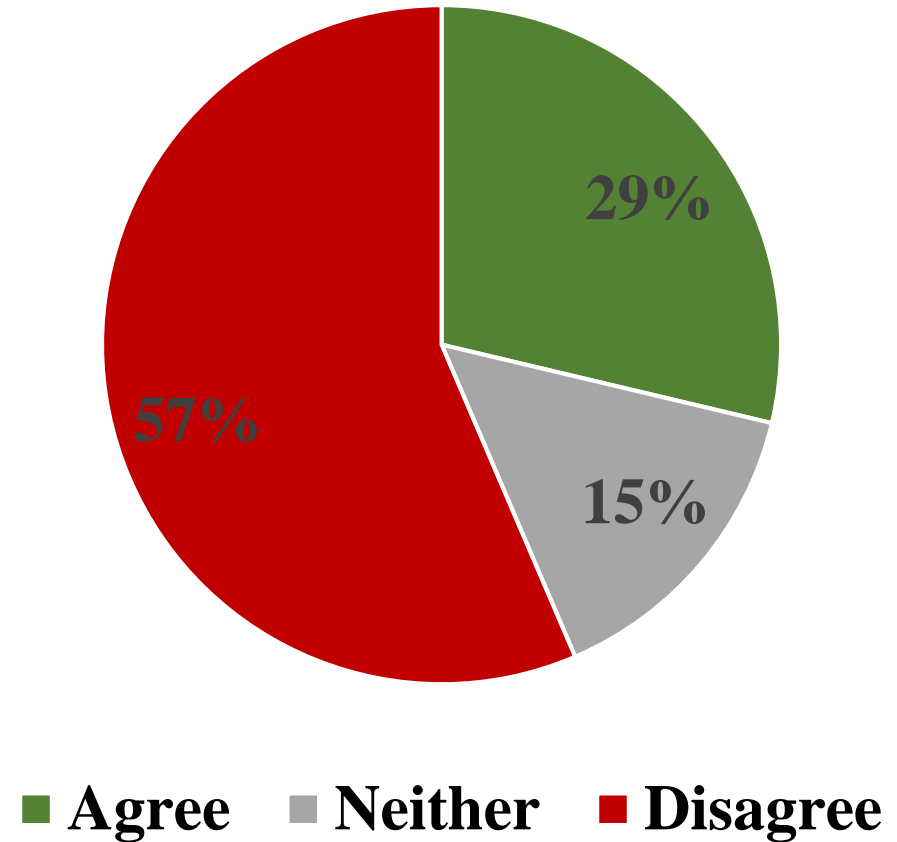


■ Acceptable ■ Neither ■ Unacceptable

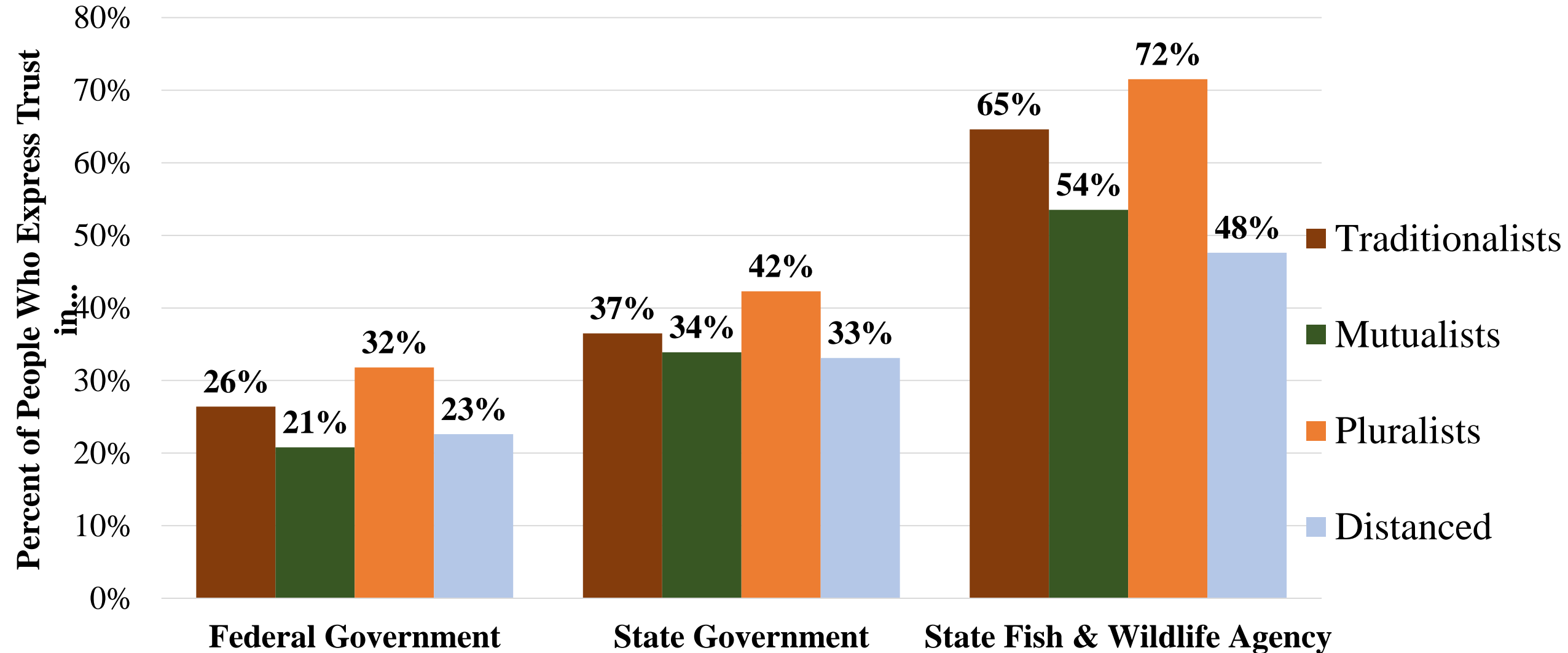
Support for lethal removal of wolves that prey on livestock in Washington in 2018

Question on Survey:

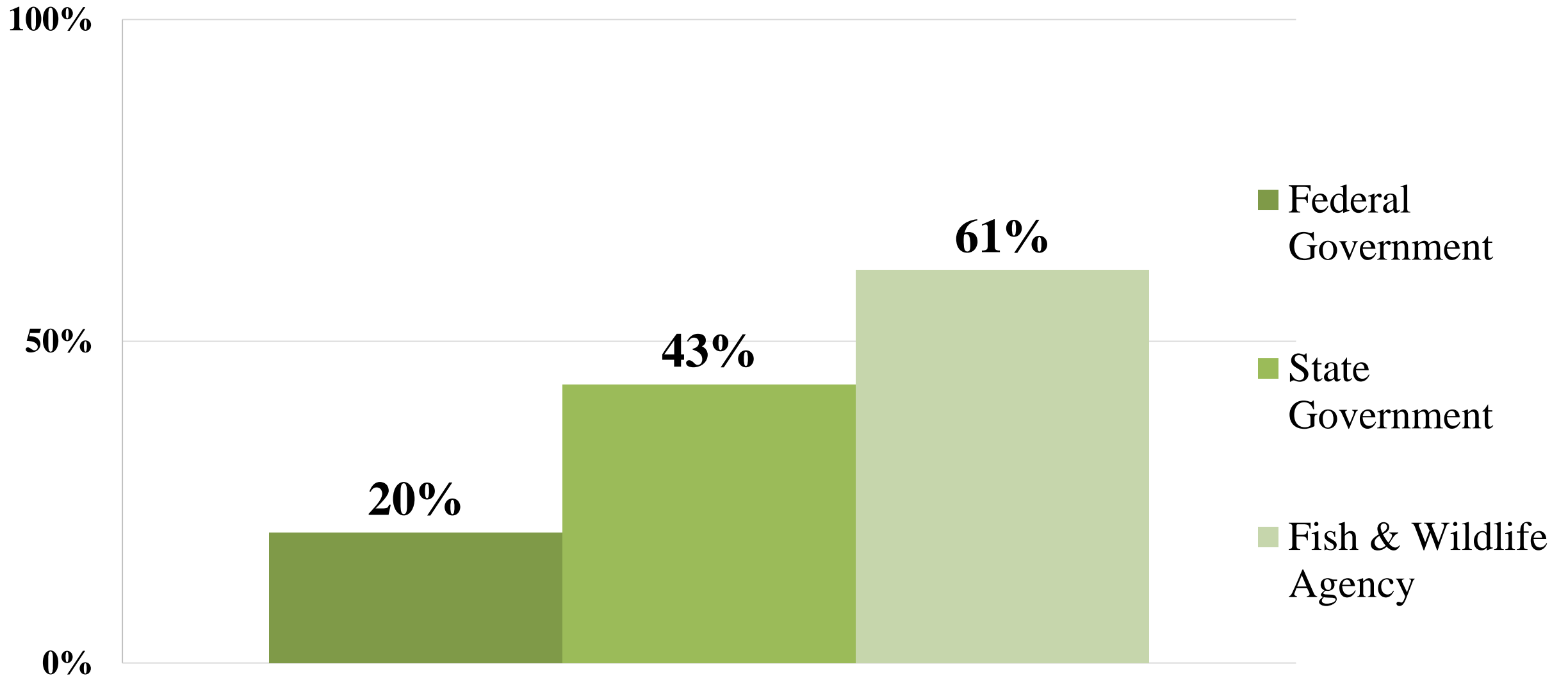
“Wolves that kill livestock should be lethally removed”



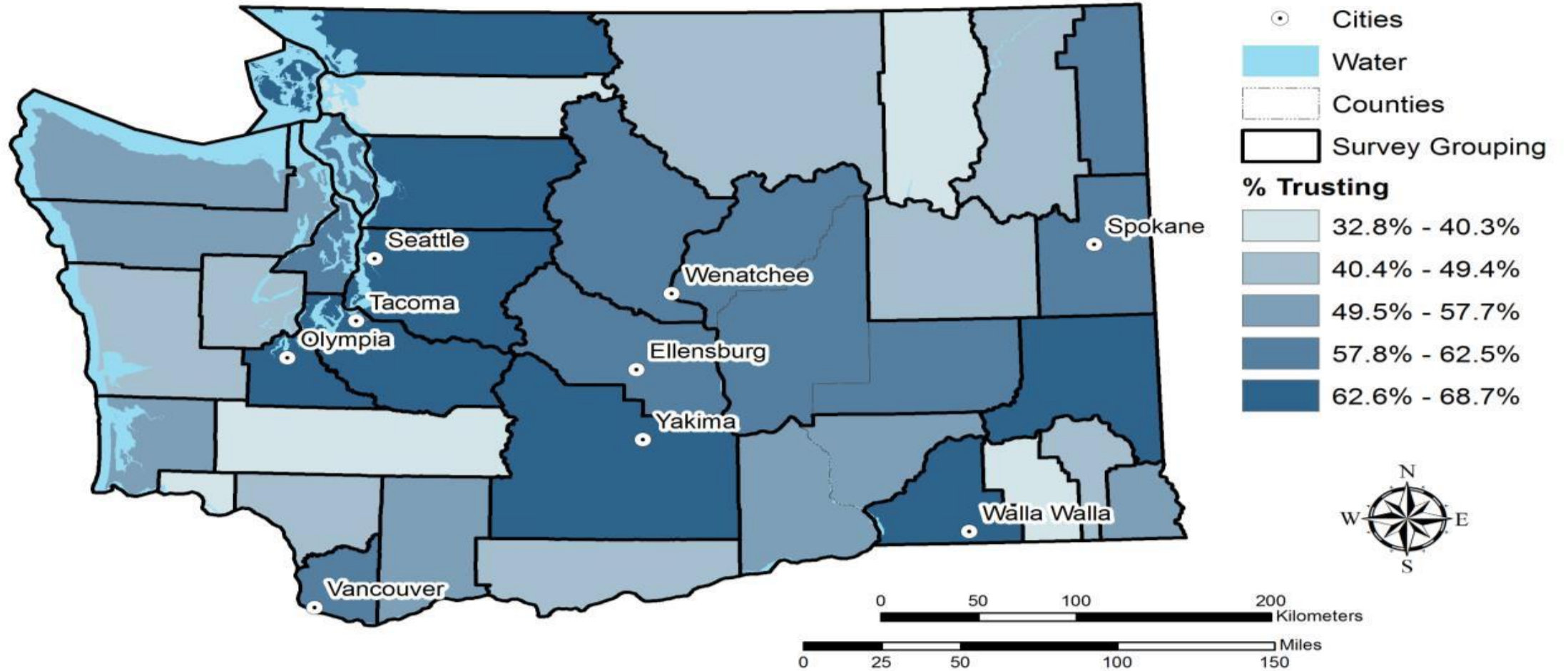
Trust in different levels of government across the U.S. by wildlife value orientation



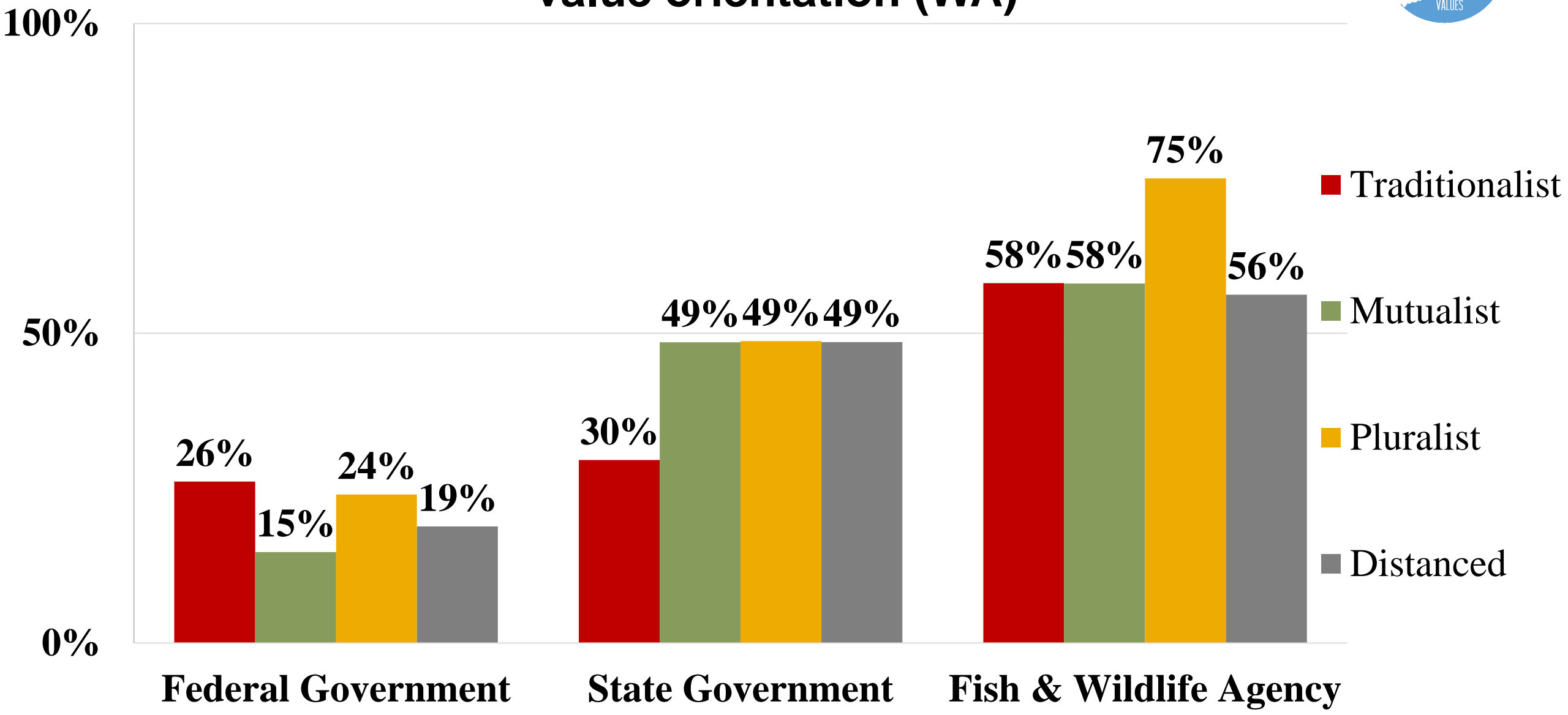
Trust in different levels of government (WA)



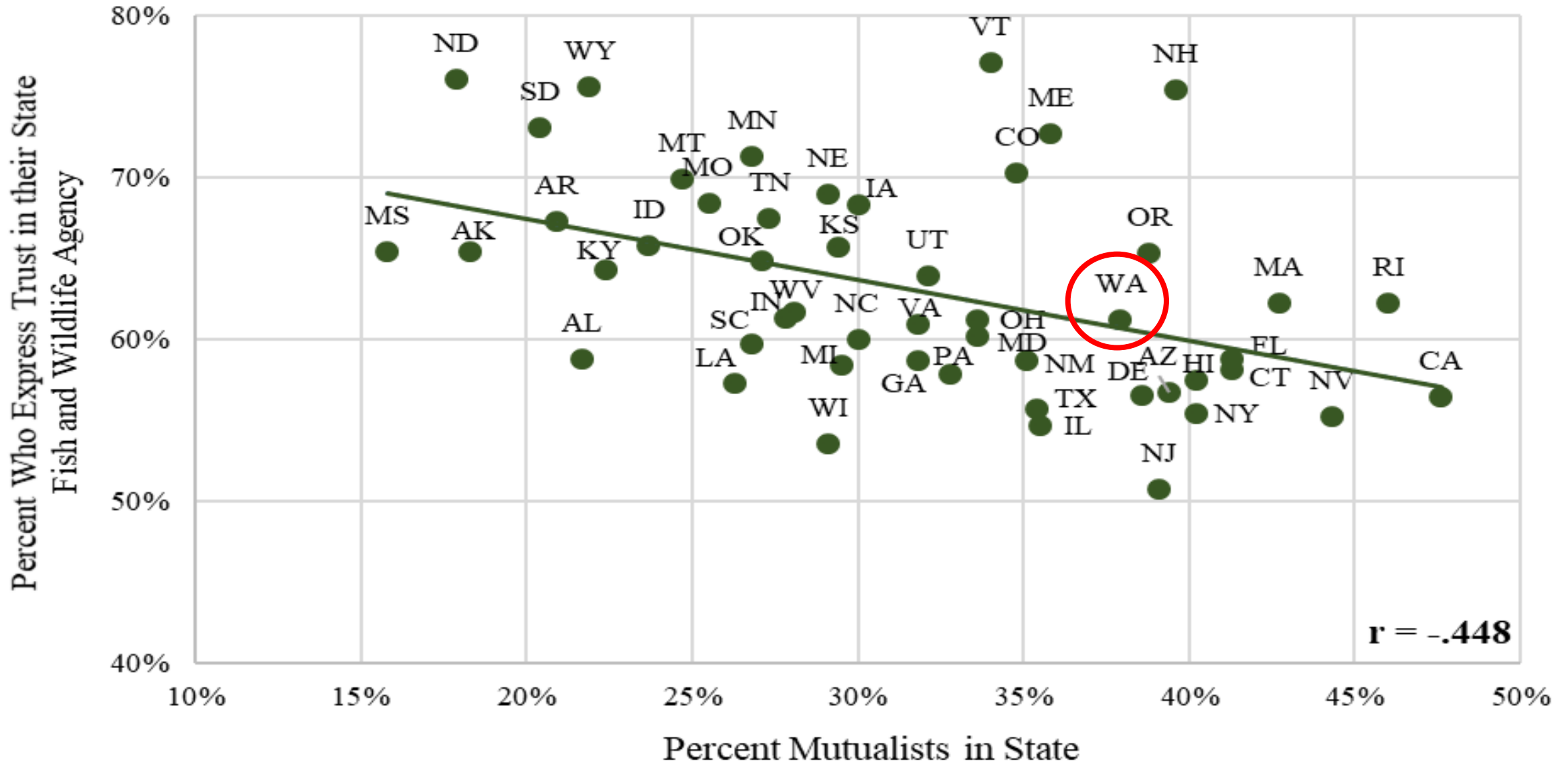
Public trust in State Fish & Wildlife Agency



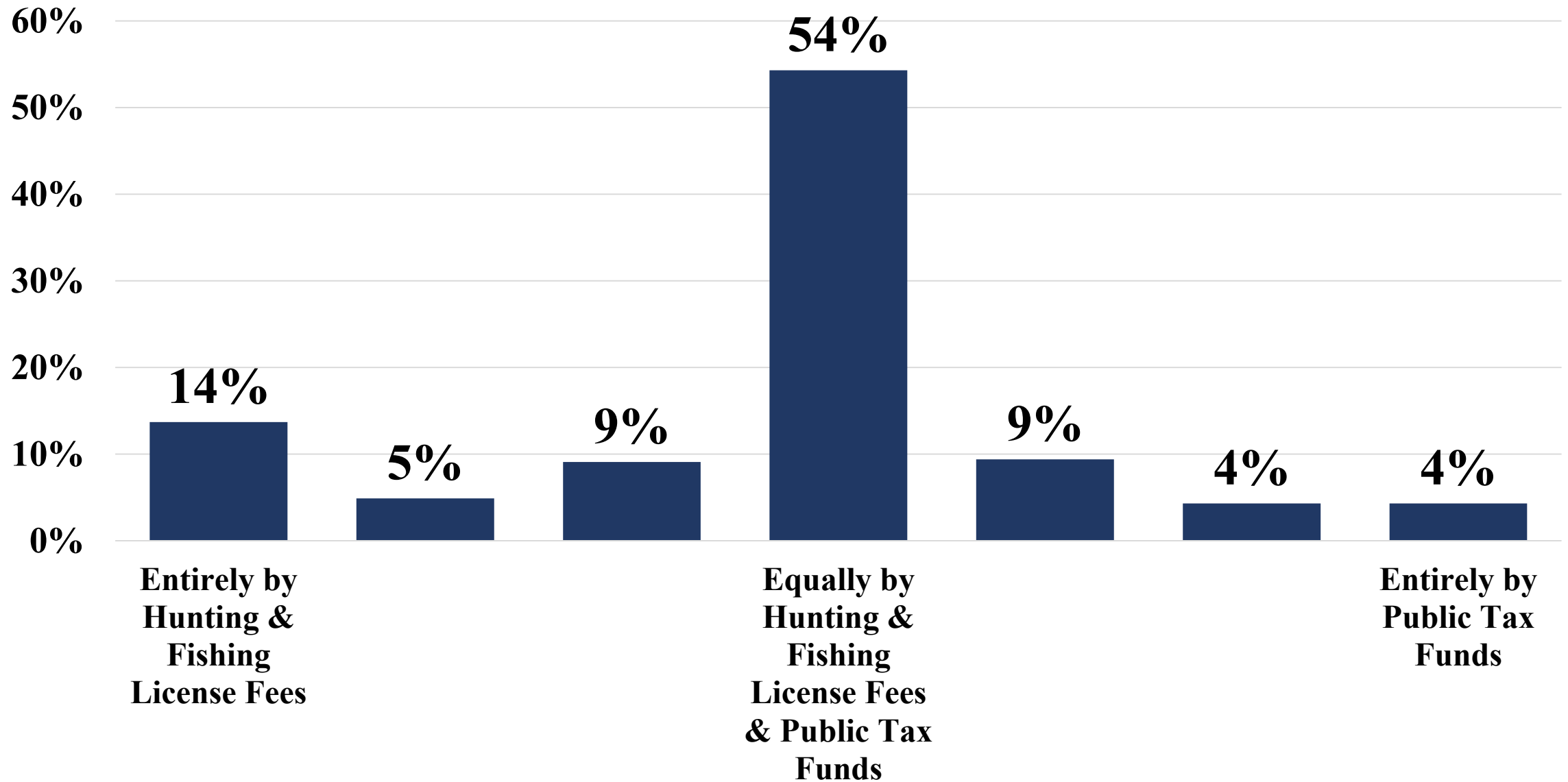
Trust in different levels of government by wildlife value orientation (WA)



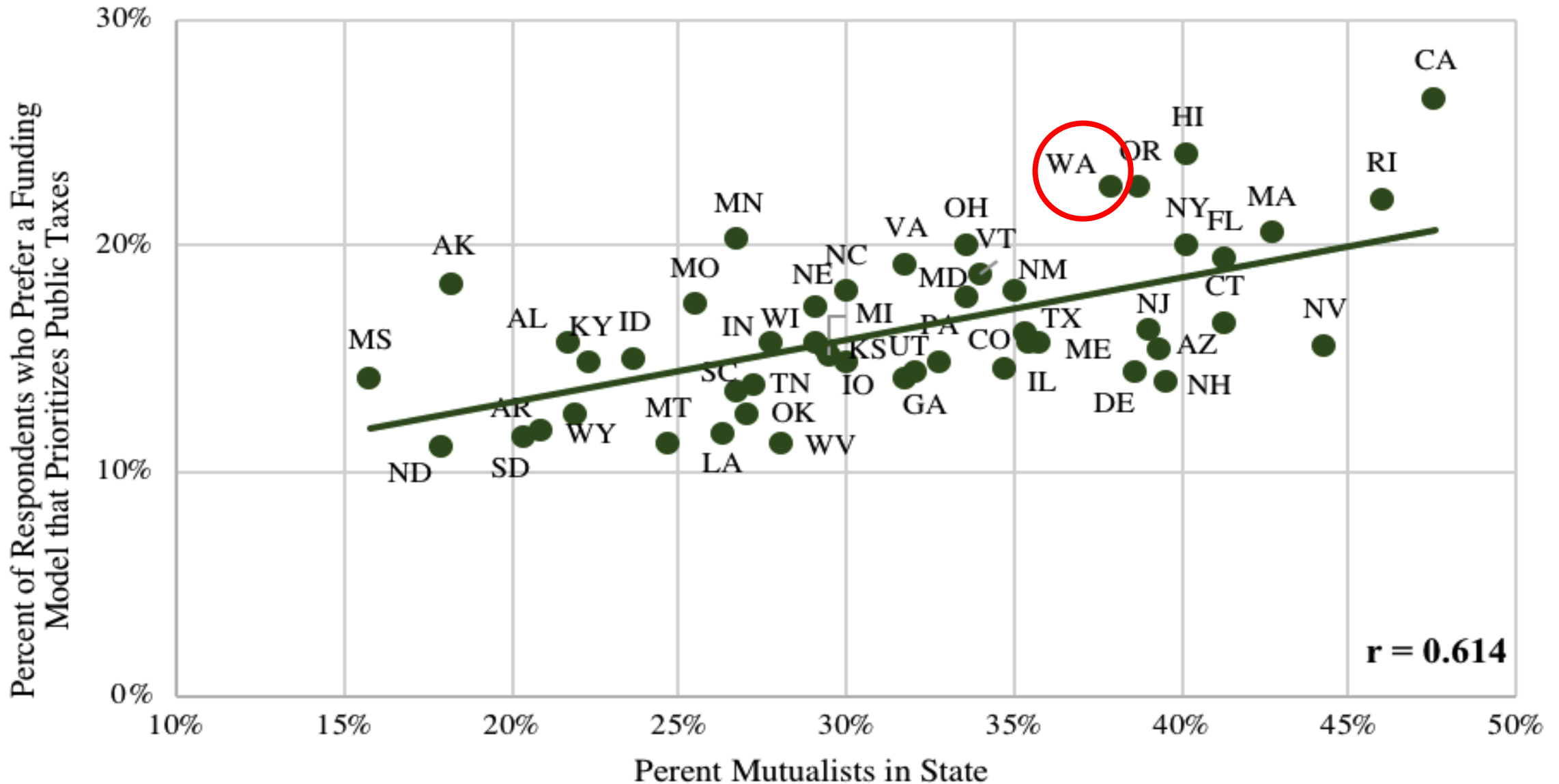
Percent Mutualists in state by percent who trust their state fish and wildlife agency



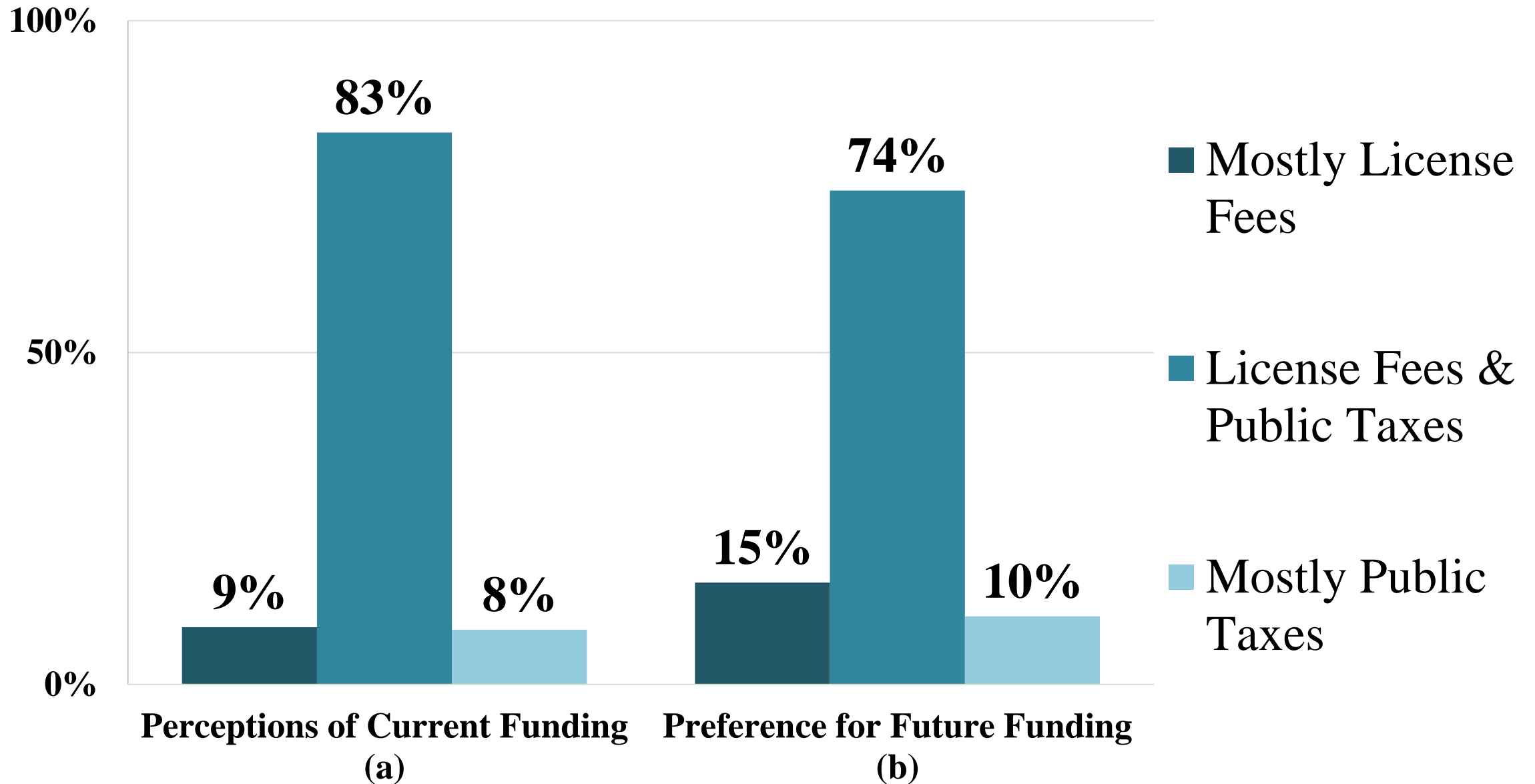
National preferences for state fish and wildlife agency funding



Percent Mutualists in state by percent who prefer a funding model that prioritizes public taxes



Current & future funding for F&W management (WA)





WASHINGTON STATE-SPECIFIC QUESTIONS

Summary of WA Item Development

- One page for WDFW specific items
- Identified 6 management issues and selected:
 - How different types of habitat protection support fish and wildlife and quality of life
 - Non-consumptive/non-game funding opportunities



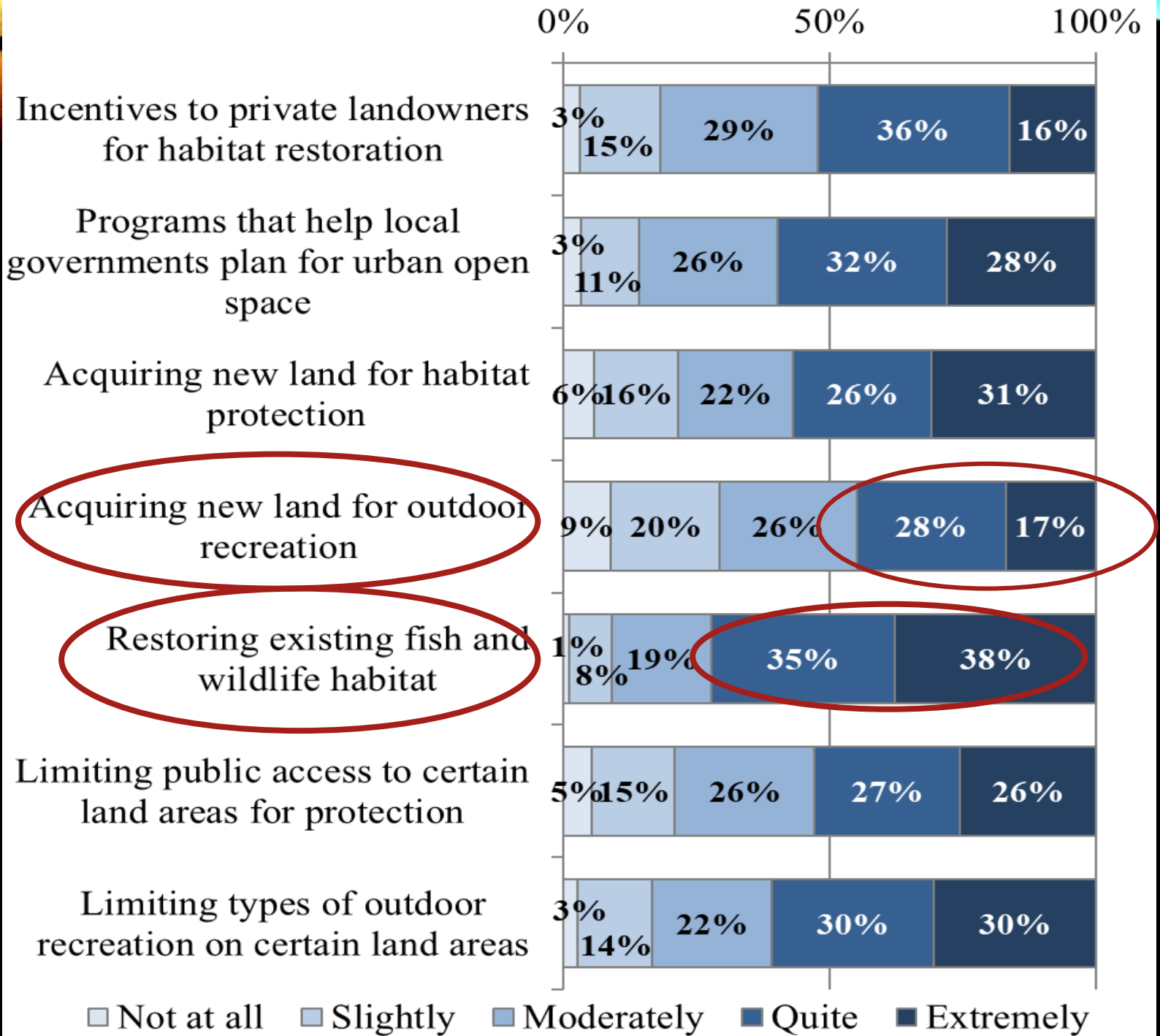
Q9. Your state fish and wildlife agency, the Washington Department of Fish and Wildlife (WDFW), has a variety of responsibilities when it comes to conserving the state's fish and wildlife resources and providing residents with fish and wildlife-related recreation opportunities. Below are examples of actions that WDFW may take for these purposes. Given limited funds, we're interested in *your* opinions about the importance of these actions. Please select one answer for each.

	Not at all Important	Slightly Important	Moderately Important	Quite Important	Extremely Important
A. Incentives to private landowners who restore fish and wildlife habitat (example: tax breaks, reimbursement for expenses)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Programs that help local governments plan for protection of open space and fish and wildlife populations in urban areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Acquiring new land areas to protect fish and wildlife habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D. Acquiring new land areas for outdoor recreation opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E. Restoring or enhancing existing land areas for fish and wildlife habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F. Limiting public access to certain land areas to protect fish and wildlife habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G. Limiting the types of outdoor recreation on certain land areas that may negatively impact fish and wildlife habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

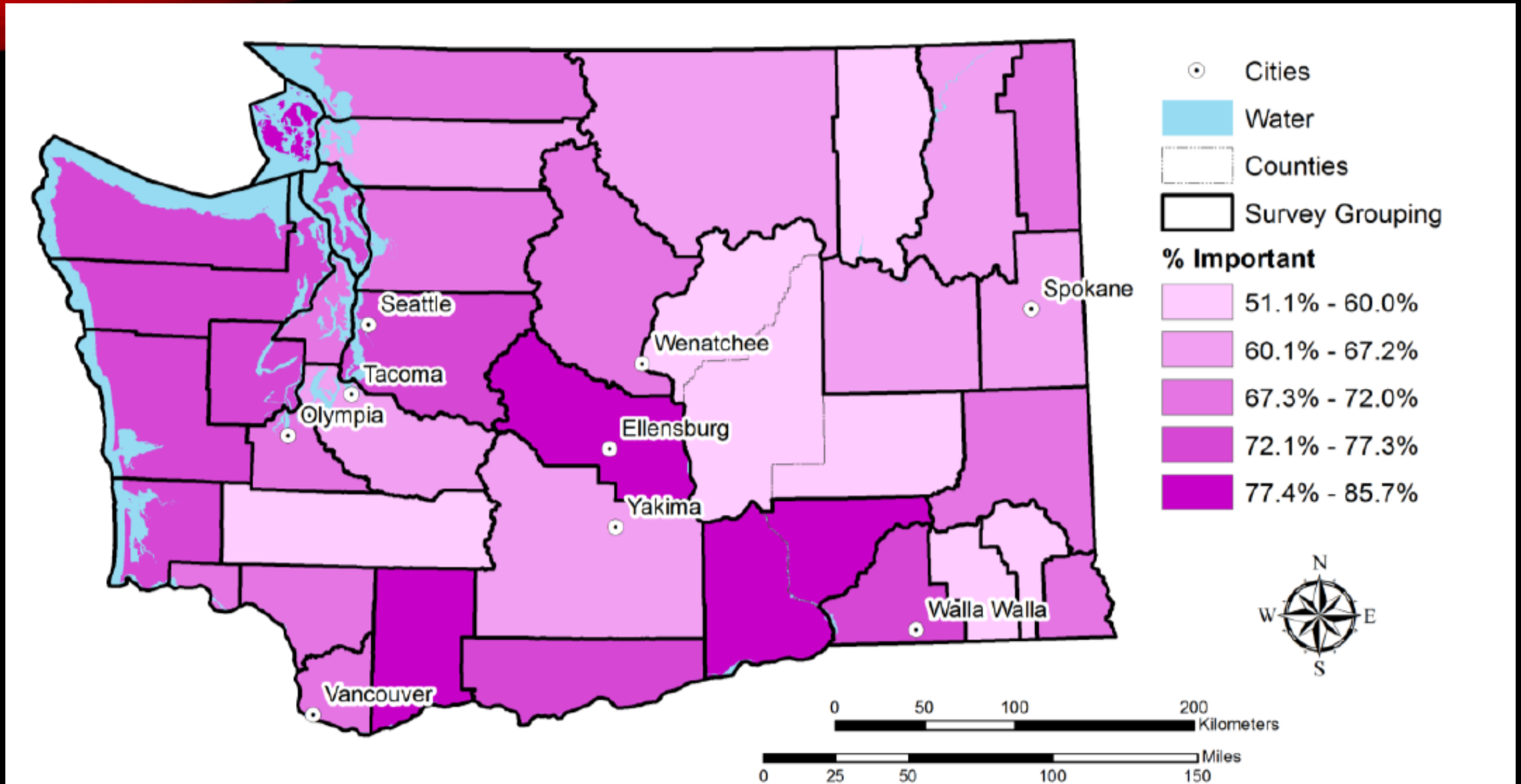
Q10. What do you consider to be the most important actions identified above? Write one letter, A - G, for each:

1st most important
 2nd most important
 3rd most important

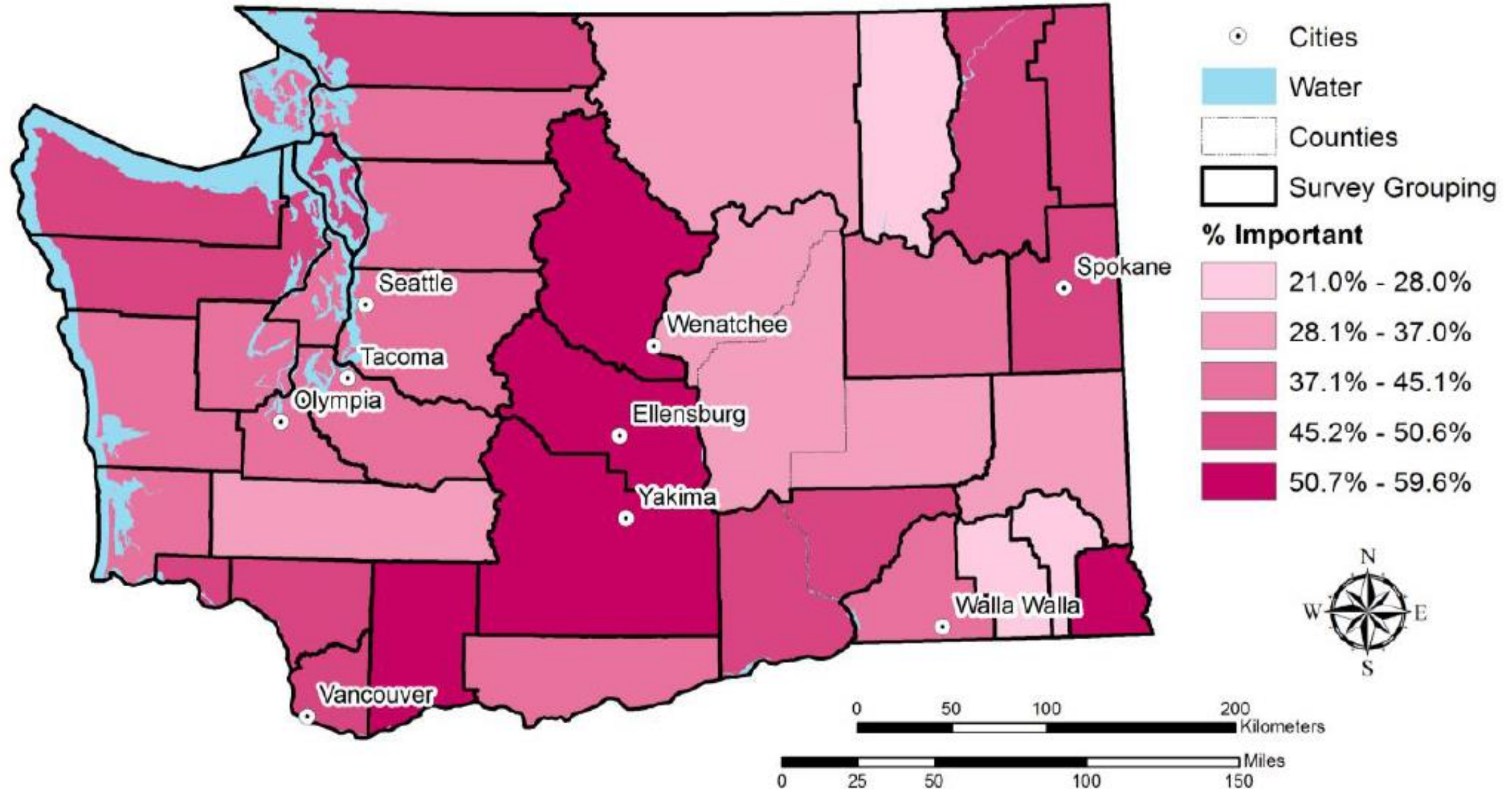
Importance of WDFW Priorities



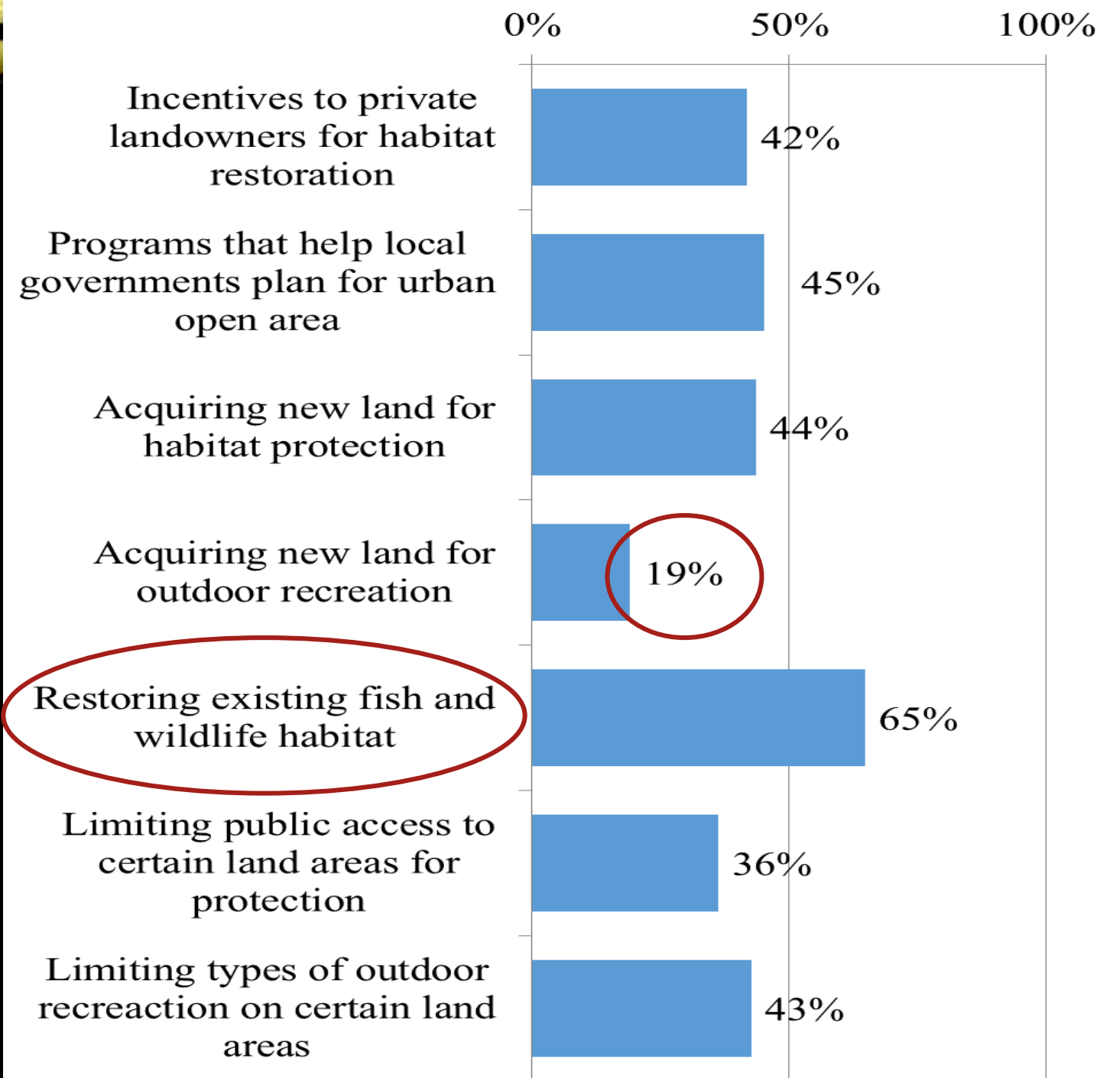
Restoring existing lands for fish and wildlife habitat



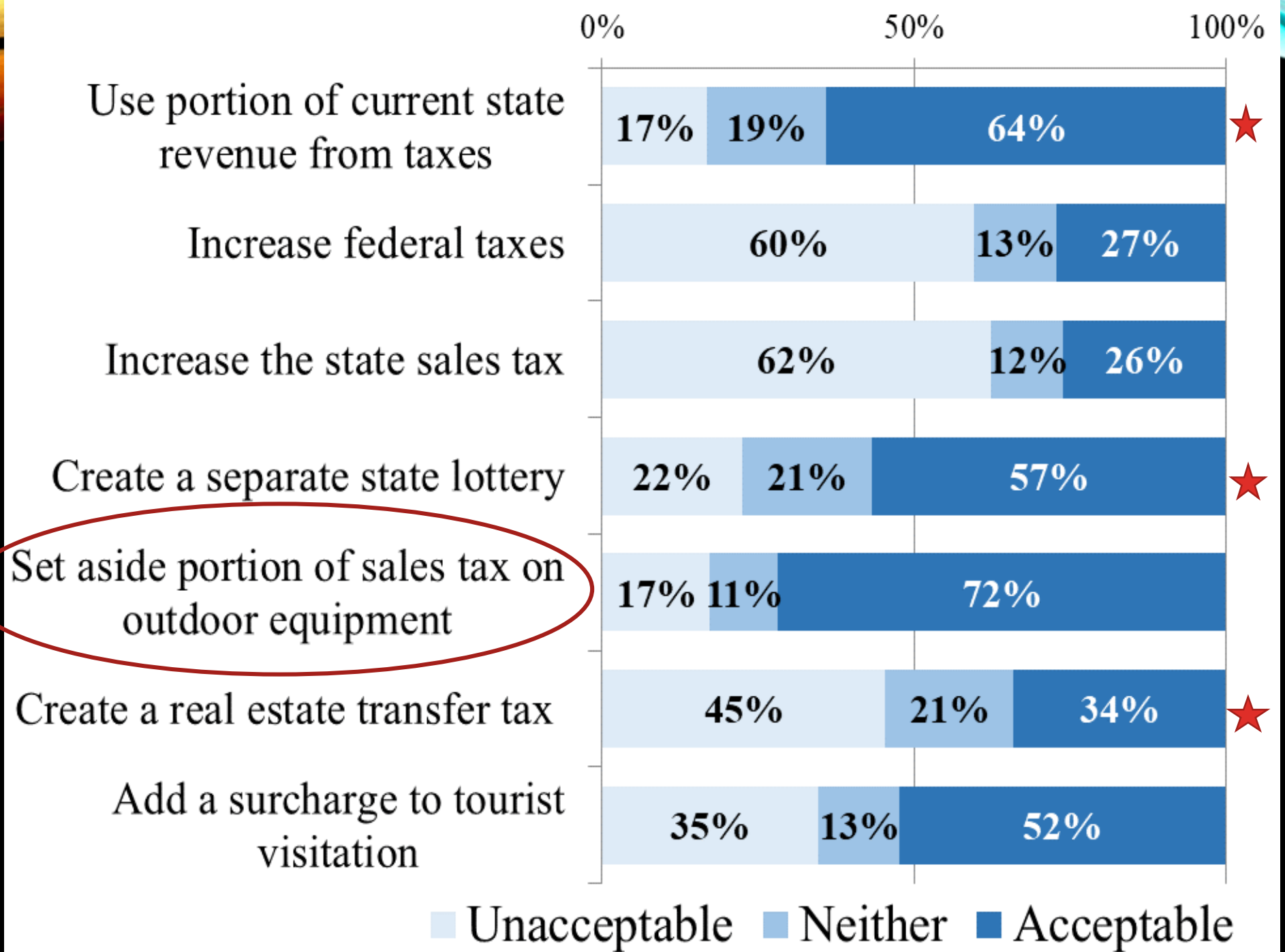
Acquiring new lands for outdoor recreation



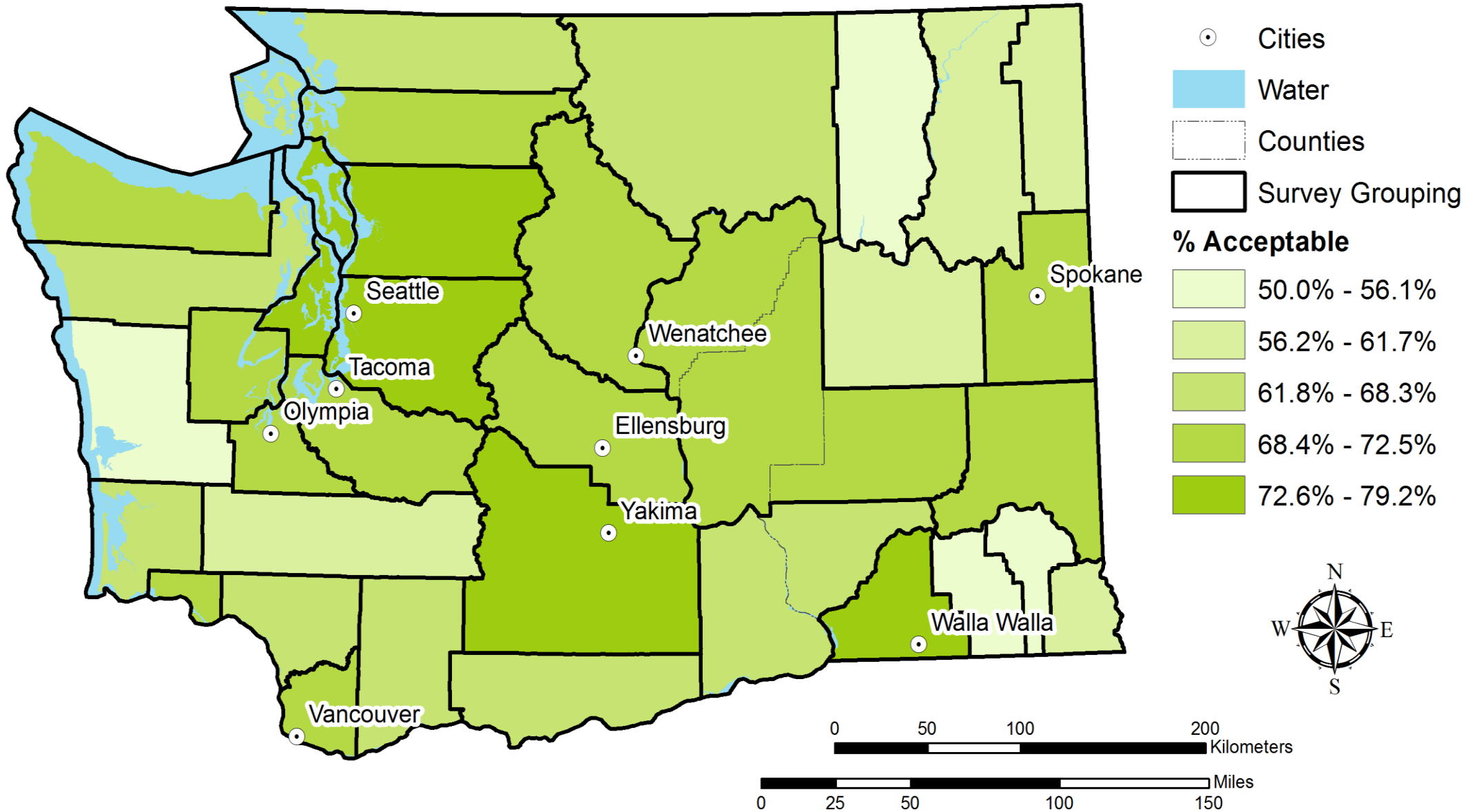
Ranking
WDFW
management
priorities as
one of the top
three most
important



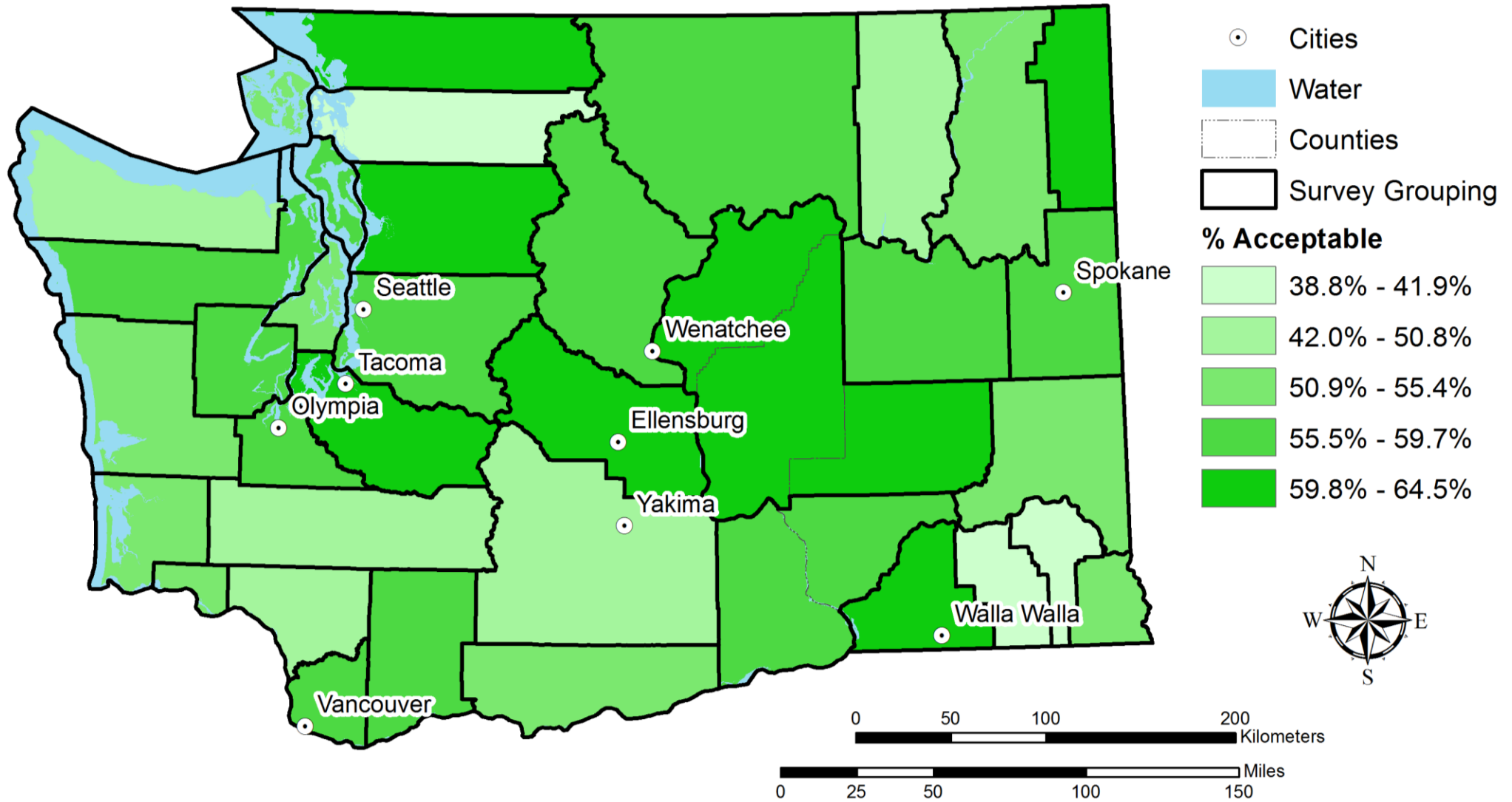
Acceptability of Potential Future Funding Sources for Non-Game



Set aside portion of sales tax on outdoor equipment



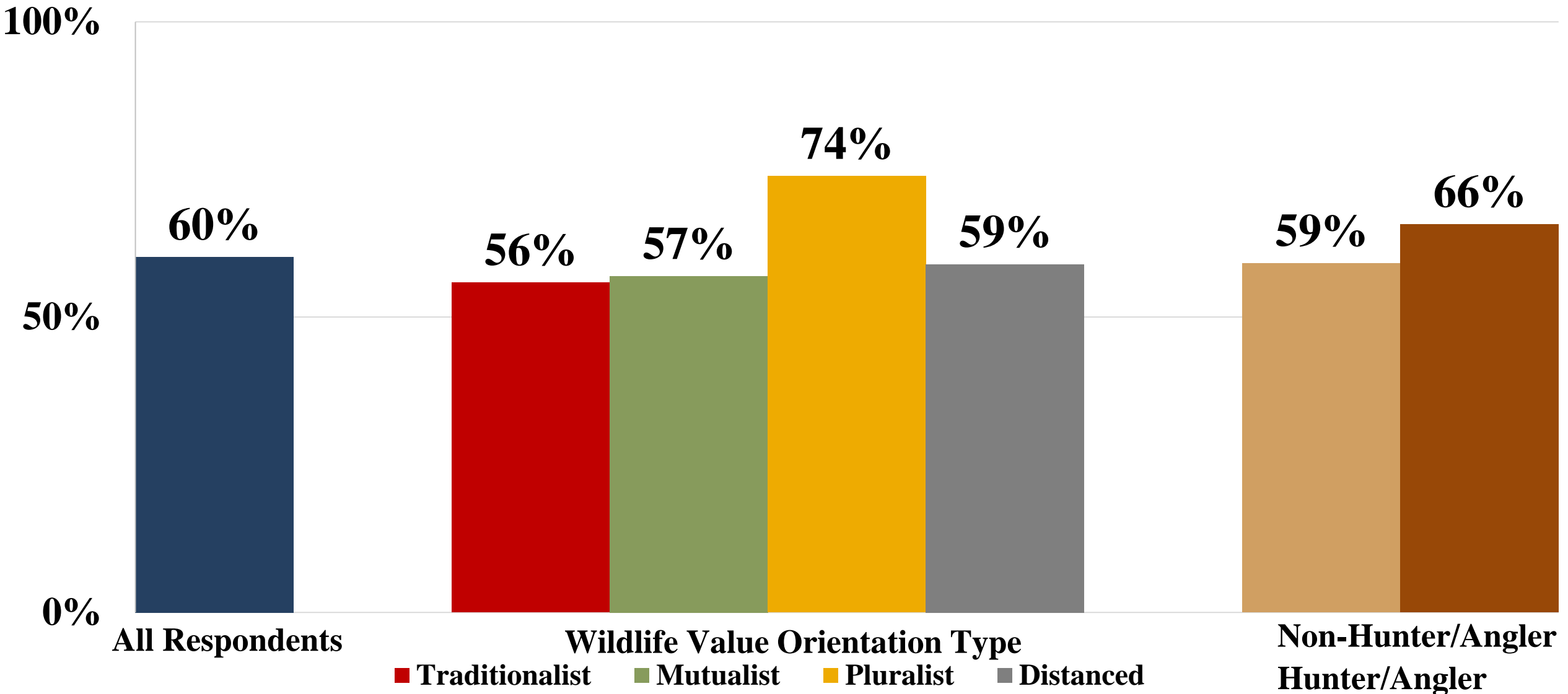
Create a separate lottery



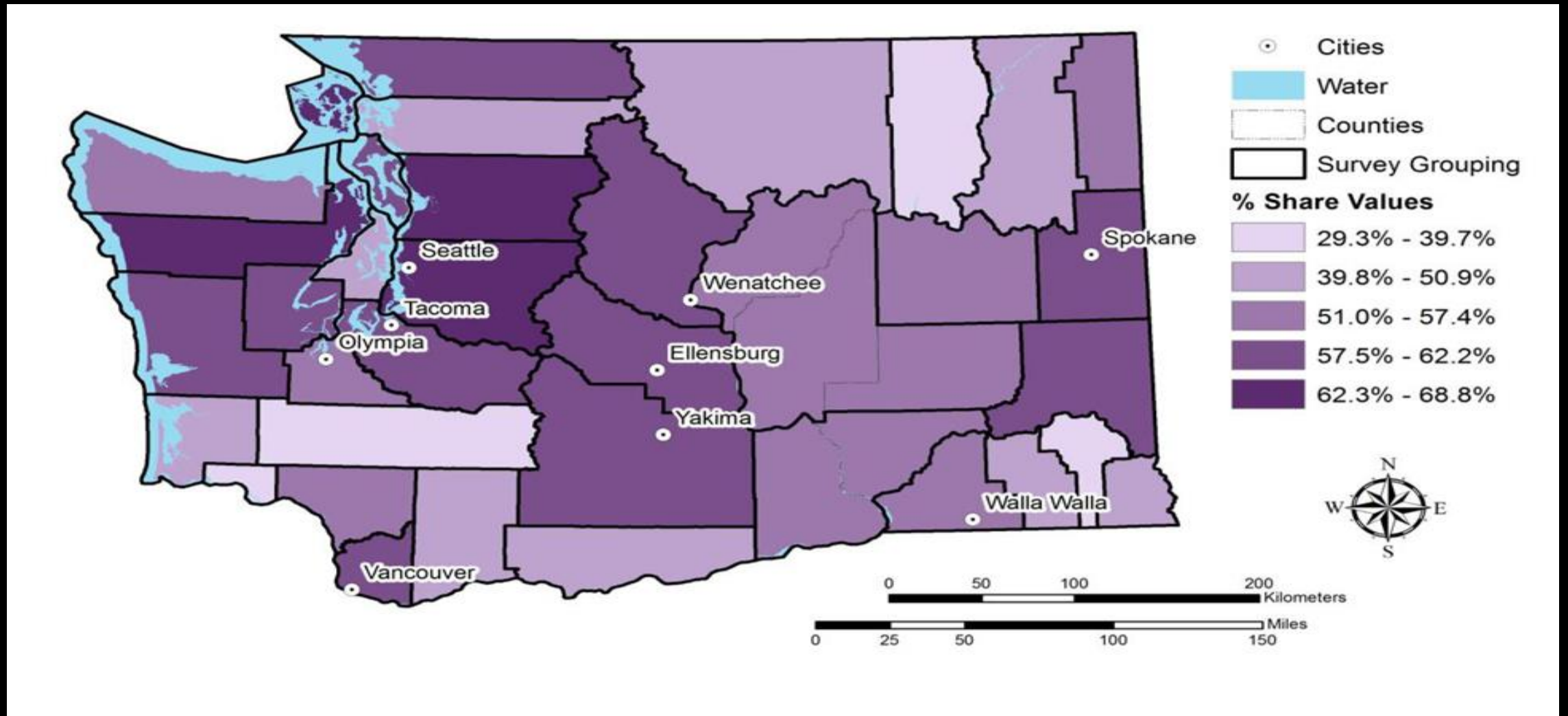


ADDITIONAL ITEMS OF INTEREST WA

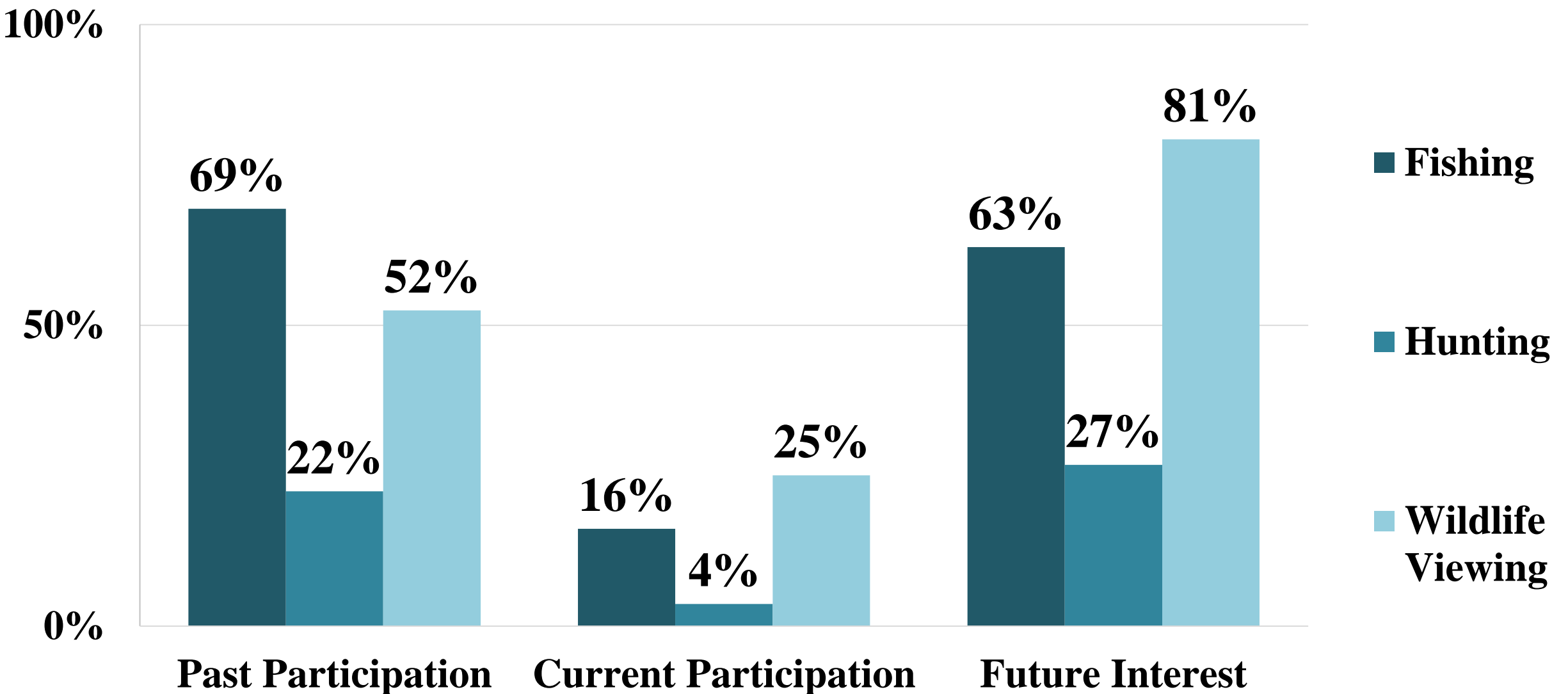
Percent of individuals by group who believed they shared values with agency (WA)



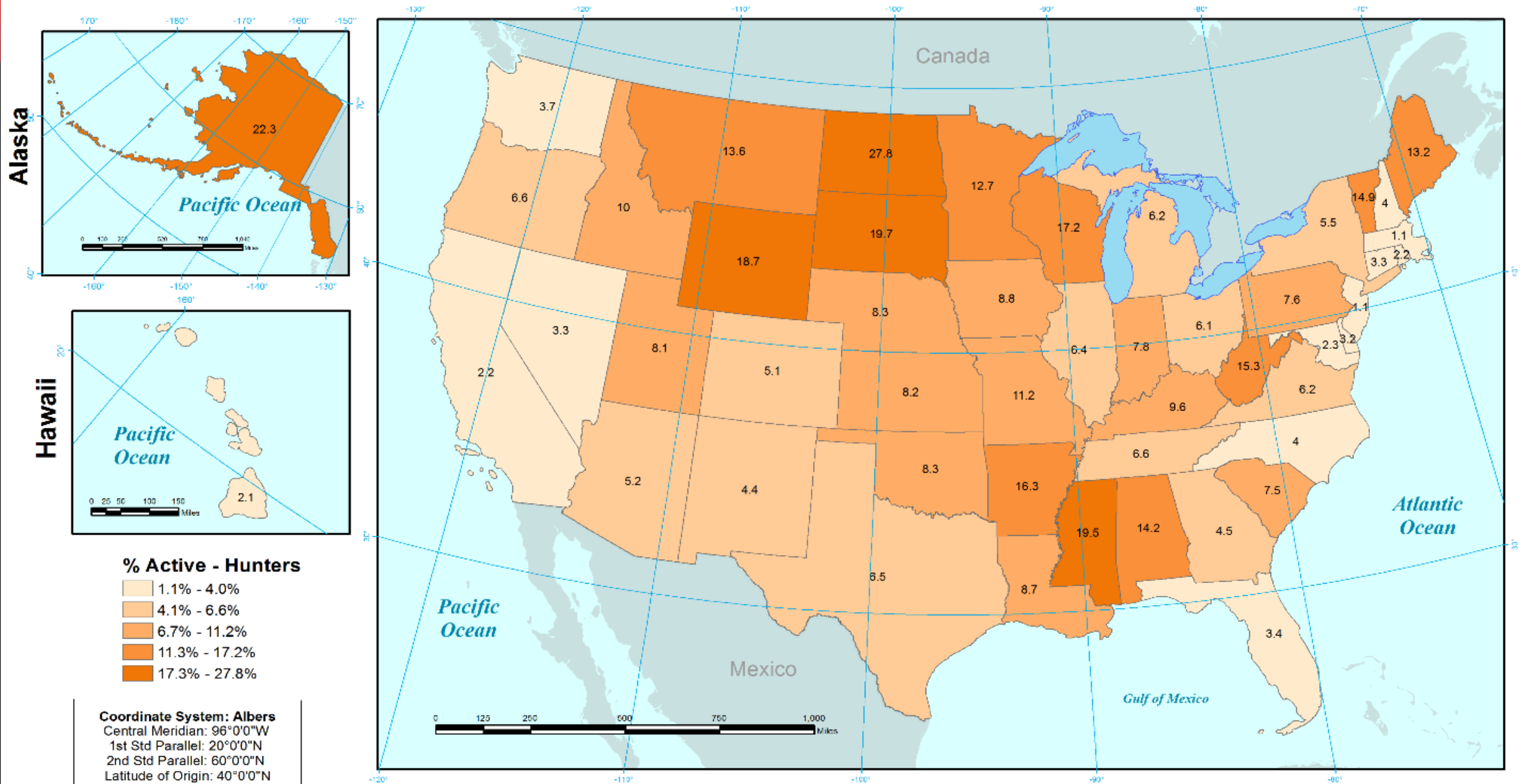
Percent of individuals who believed they shared values with agency



Participation and interest in wildlife-related recreation (WA)

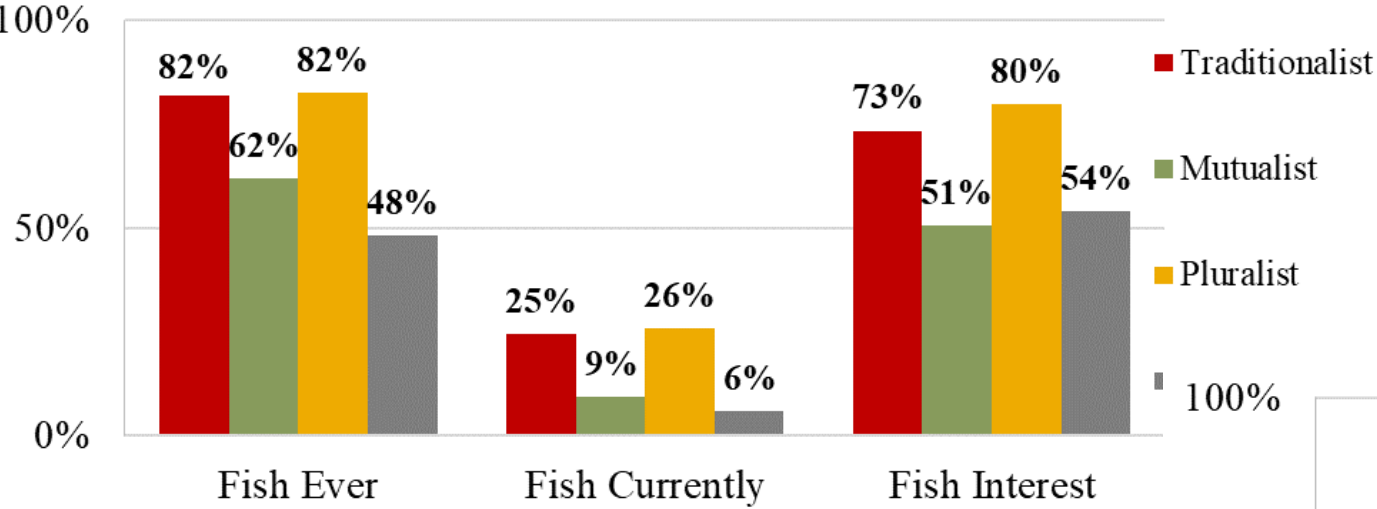


Percent Active Hunters by State

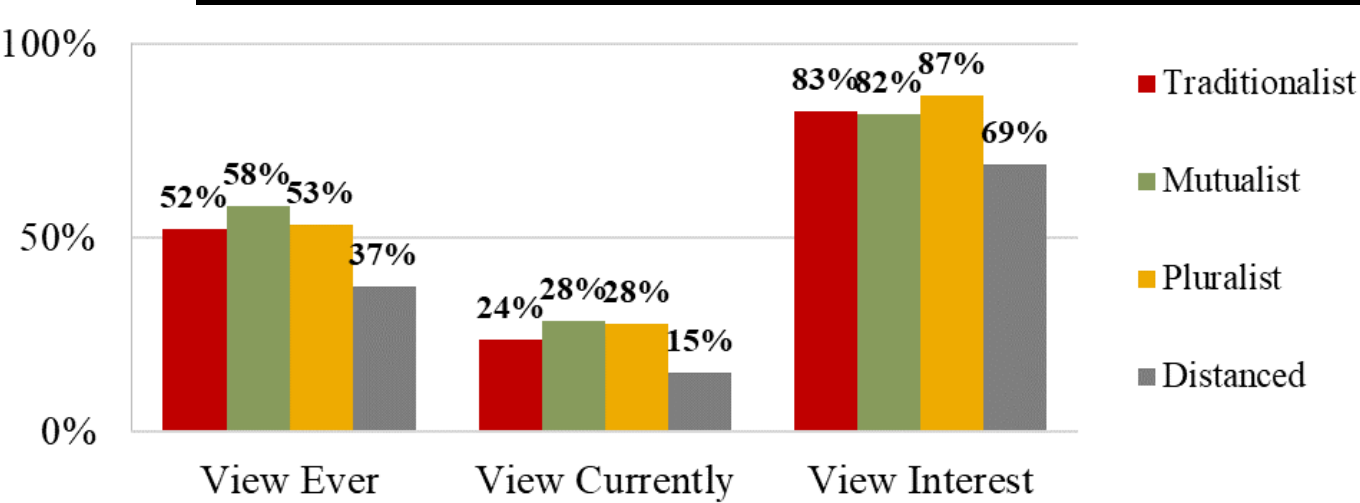


Participation and interest in wildlife-related recreation by value orientation (WA)

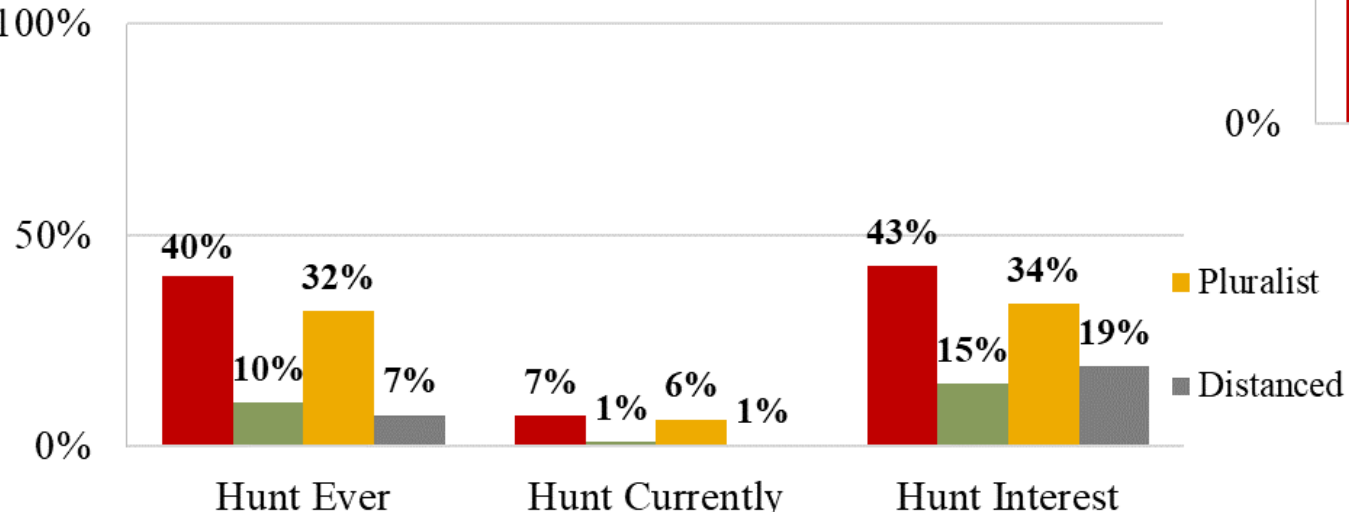
Fishing



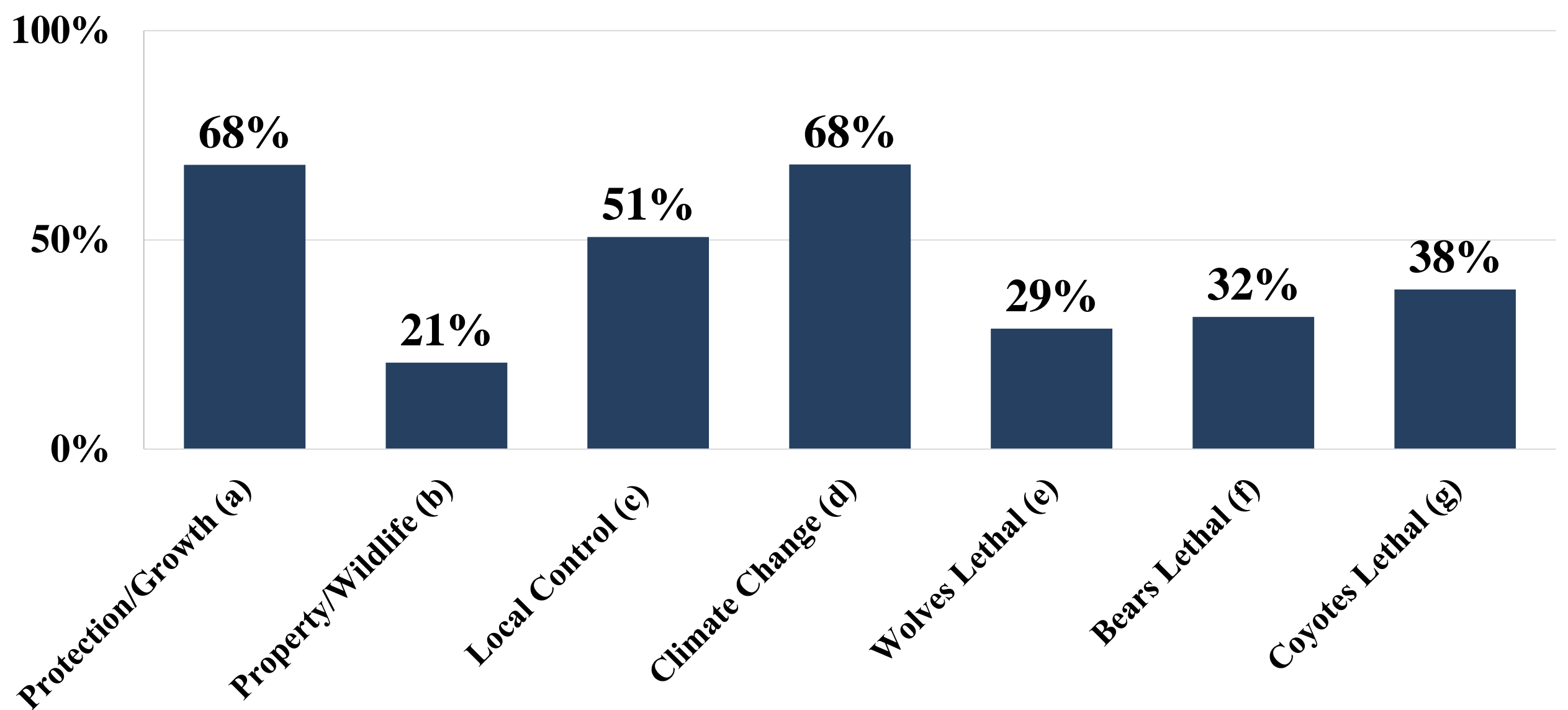
Wildlife Viewing



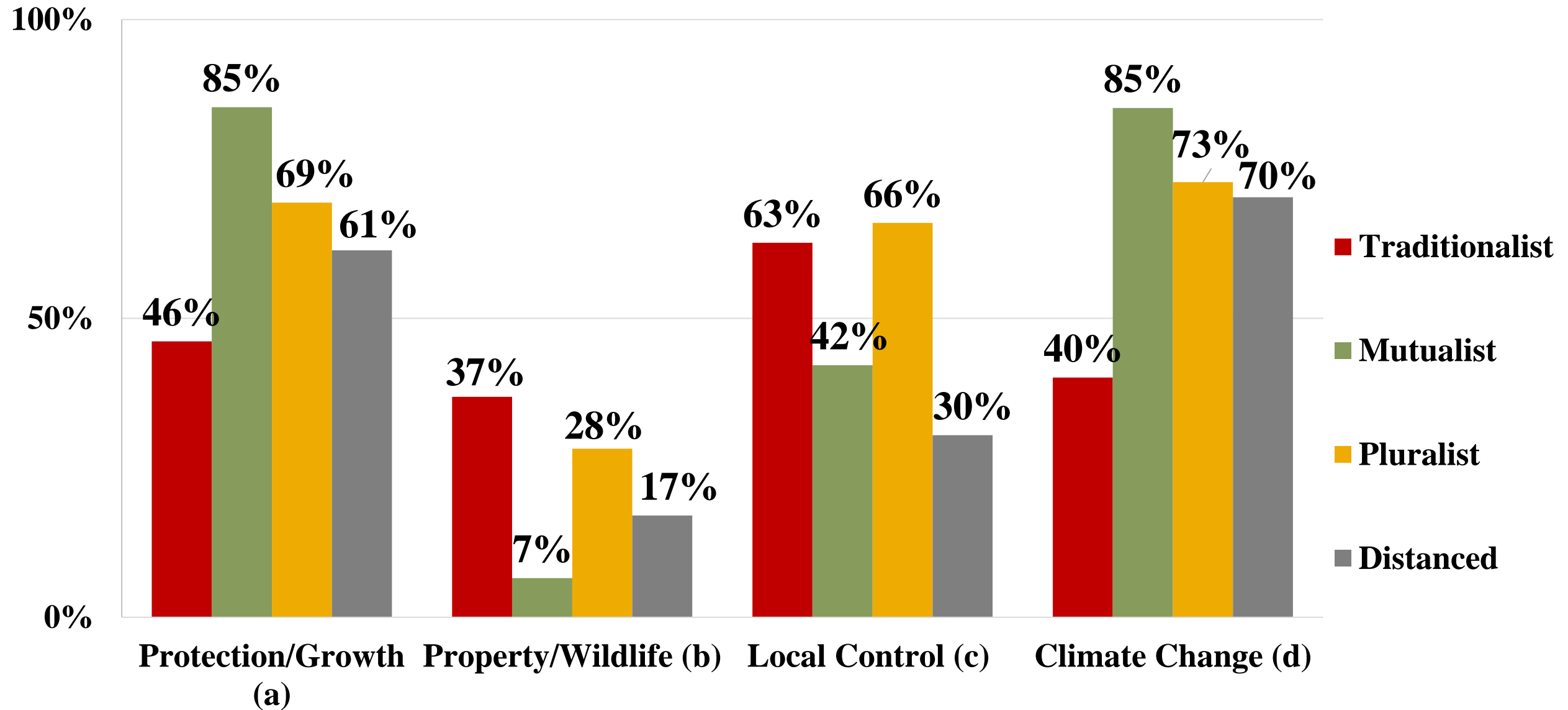
Hunting



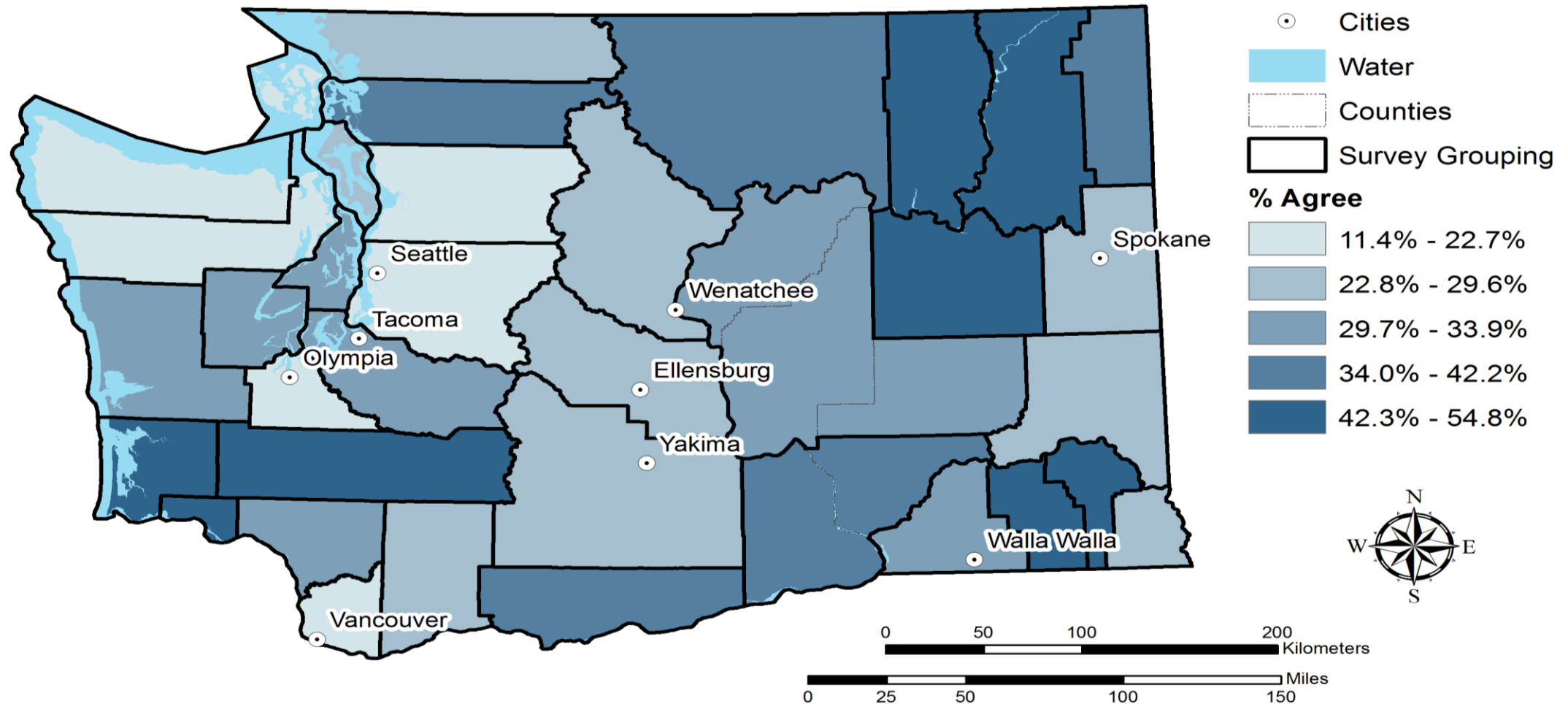
Fish and Wildlife Management Issues (WA)



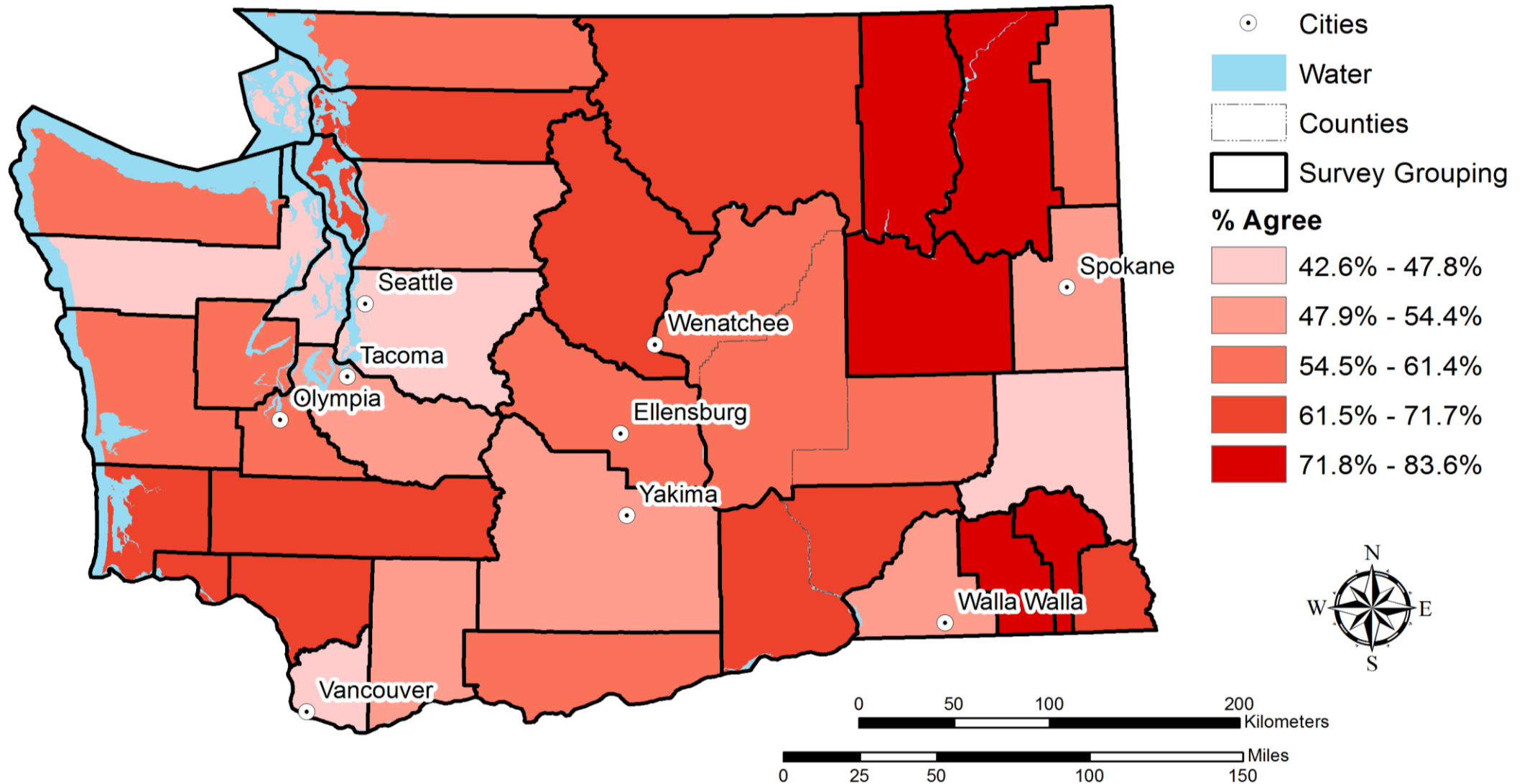
Fish and Wildlife Management Issues (WA)



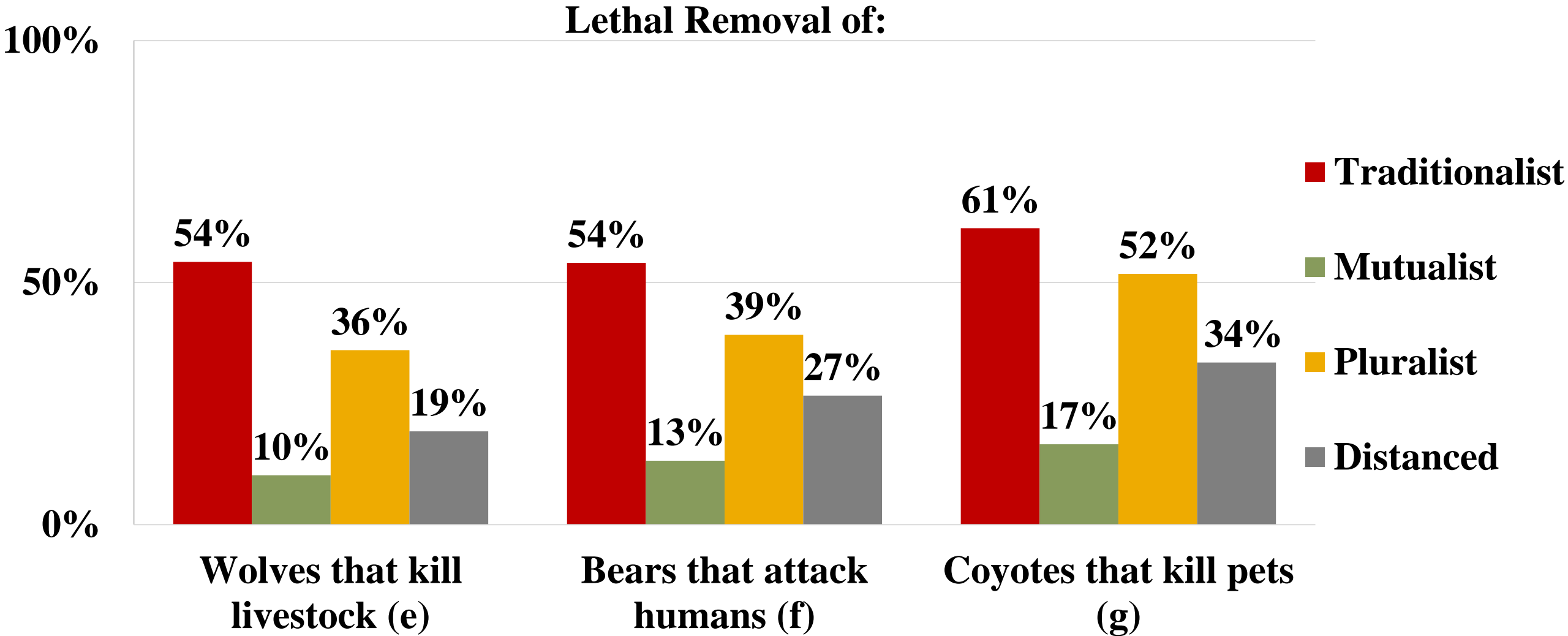
Private property rights are more important than protecting declining or endangered species



Local communities should have more control over the management of fish and wildlife



Fish and Wildlife Management Issues (WA)



Summary from National Survey.....

- Results illustrate the challenges managers will face amid a shift in values
- However, given WA slower rate of change in VOs, it might be easier to keep pace and adapt to change
 - E.g., Increased pluralists
- Importance of Agency priorities
 - Restoring fish and wildlife habitat, funding sources



Summary from National Survey.....

- Important information to consider in future decision-making and implementation of management actions by WDFW
- Knowing geographic distribution and VO allows targeted marketing/messaging and/or action
- Results can be used to inform legislators and the legislative process
- Agency Culture Survey.....





AGENCY CULTURE SURVEY

Summary of Study Methods

Data

- 2004 *Wildlife Values in the West* (19 states, n > 12,000)
- 2009 *People and Places* (4 states)
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2018 Survey Methods

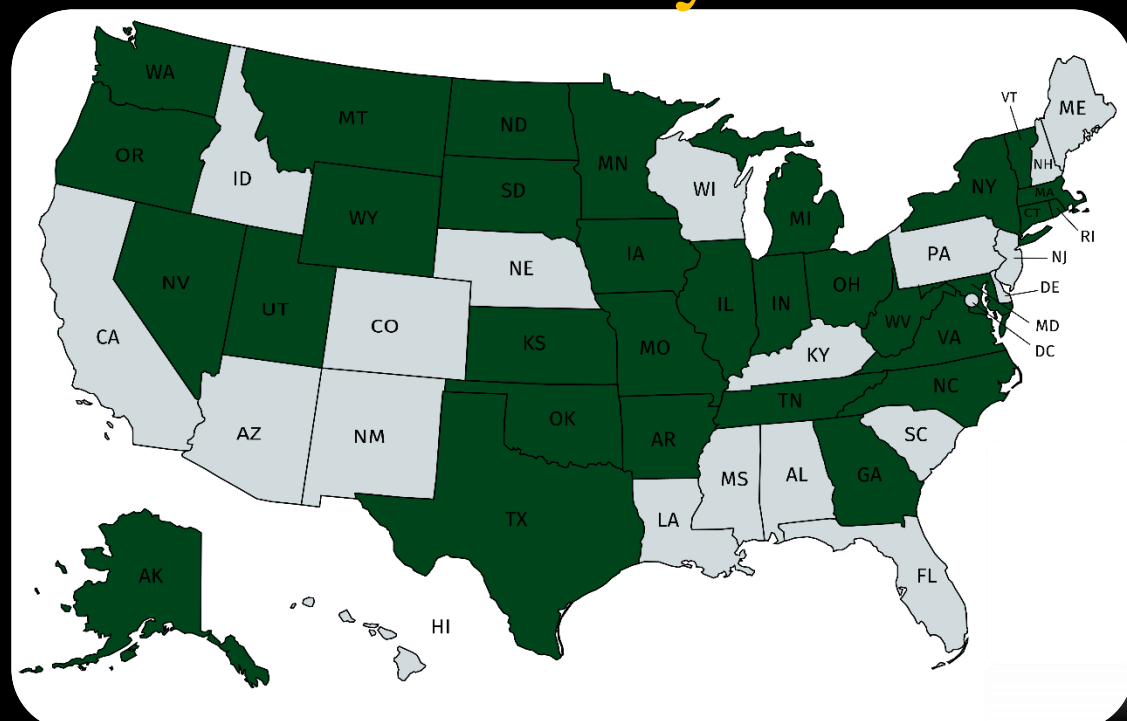
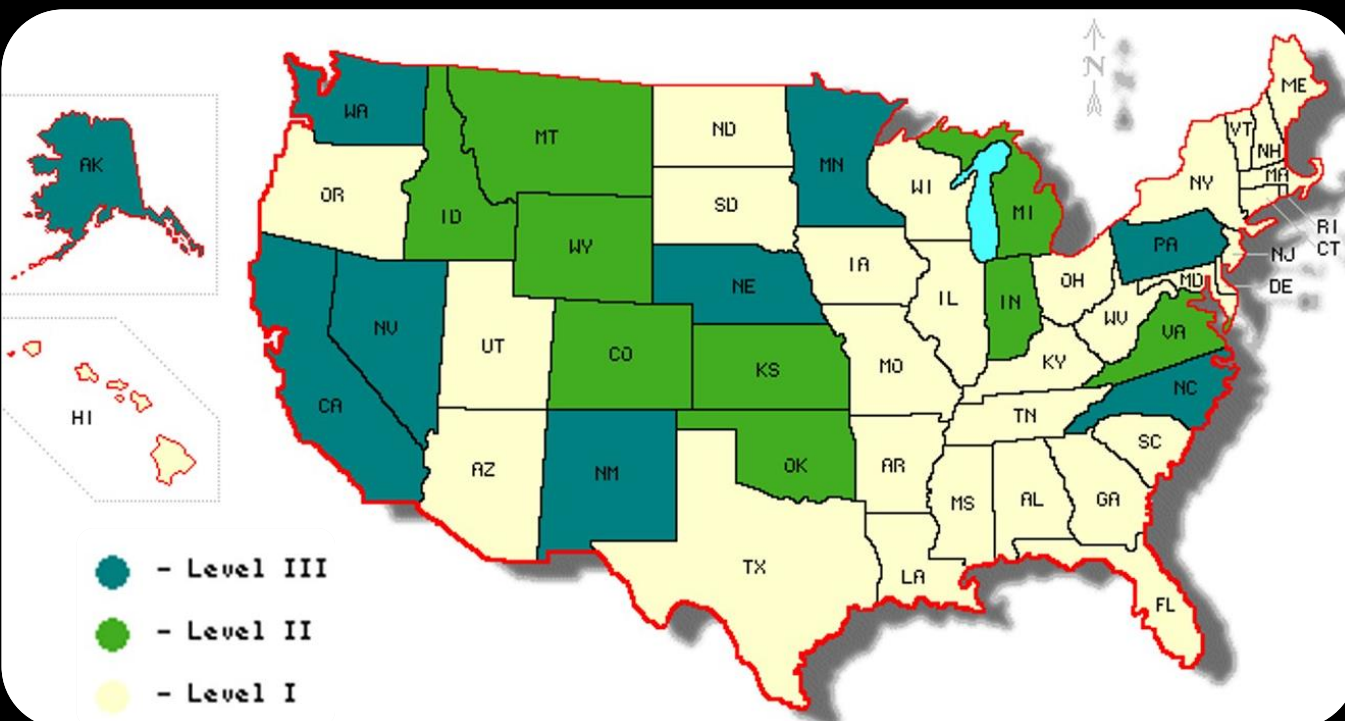
- Two extensive pilot tests to compare and test phone, mail, and e-mail
- Public – combined mail & e-mail panel (2 waves, one for boosting numbers overall, one targeting diverse populations; total n = 43,949)
- Agency Culture Survey – e-mail administered to agency employees (n = 10,669)



State Fish and Wildlife Agency Participation

Public Survey

Agency Culture Survey



F&W Culture Survey for WDFW

- Survey looked at:
 - Characteristics of WDFW
 - Management priorities of WDFW
 - Processes for public & stakeholder inclusion in decision-making
 - Employee perspectives on management and culture
 - Wildlife Value Orientations of employees
- Same survey across all participating States



- Online survey in July and August of 2018
- All permanent full-time WDFW employees were offered the opportunity to participate
- In total, **930** usable responses were obtained:
 - 59% response rate





AGENCY CULTURE IN THE CONTEXT OF VALUE SHIFT

Unifying Mission

- Across States, employees of state fish and wildlife agencies share a unified vision of their agency's mission
- Centers around:
 - protecting natural resources (95%AA; 91%WDFW),
 - serving as management experts (94%AA; 89%WDFW)
 - enforcers of natural resource law (89%AA; 89%WDFW),
 - promoting stewardship (82%AA 72%WDFW), and
 - showing compassion toward wildlife (87%AA; 81%WDFW)

Differences in Fish and Wildlife Governance Style

- Continuum.....
- One end, employees view their agency placing priority:
 - Clientele model of management ,centering around
 - Attending to stakeholders and providing recreational opportunities
- Other end, employees view their agency placing priority:
 - Expert model of management, centering around
 - Sound science and meeting needs of fish and wildlife

Types of Models of Wildlife Management

Agency places greater priority on:

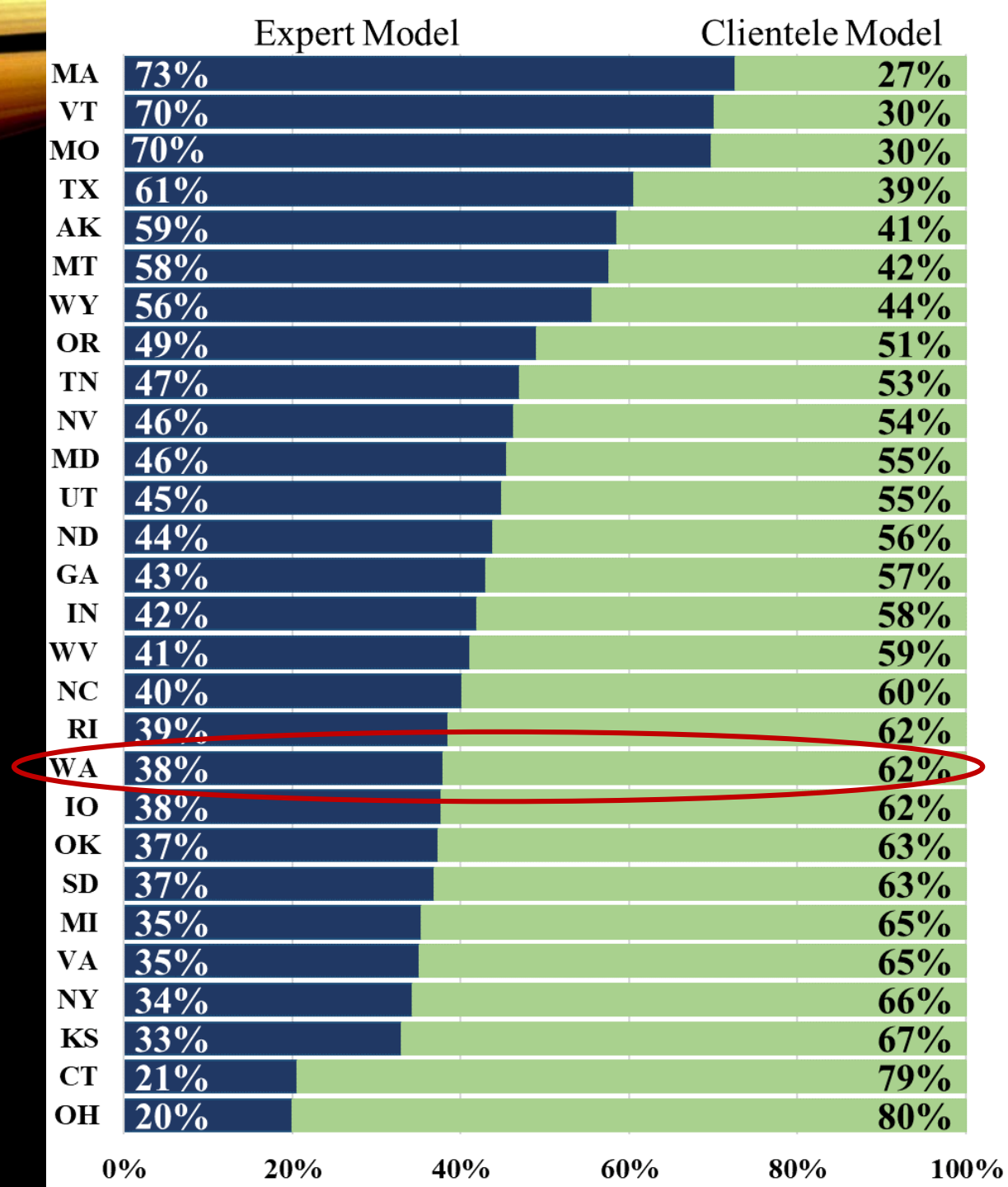
- Science
- Innovation
- Meeting the Needs of Wildlife Resources
 - Protecting Habitat
 - Focusing on the Future
 - Being Proactive

- Politics
- Tradition
- Meeting the Needs of the Public
- Providing Recreational Opportunities
- Focusing on the Present
 - Being Reactive

Expert Model

Clientele Model

Varying Results by State



Value Composition

- How value composition may influence perceptions of different approaches to management
- Average mutualism score (1-7) relates to the percent of employees who view agency as prioritizing expert model
- While no agency average was on the positive side of a mutualism score, agencies with higher mutualism scores have more employees viewing their agency as prioritizing an expert model

Mutualist by Expert Model



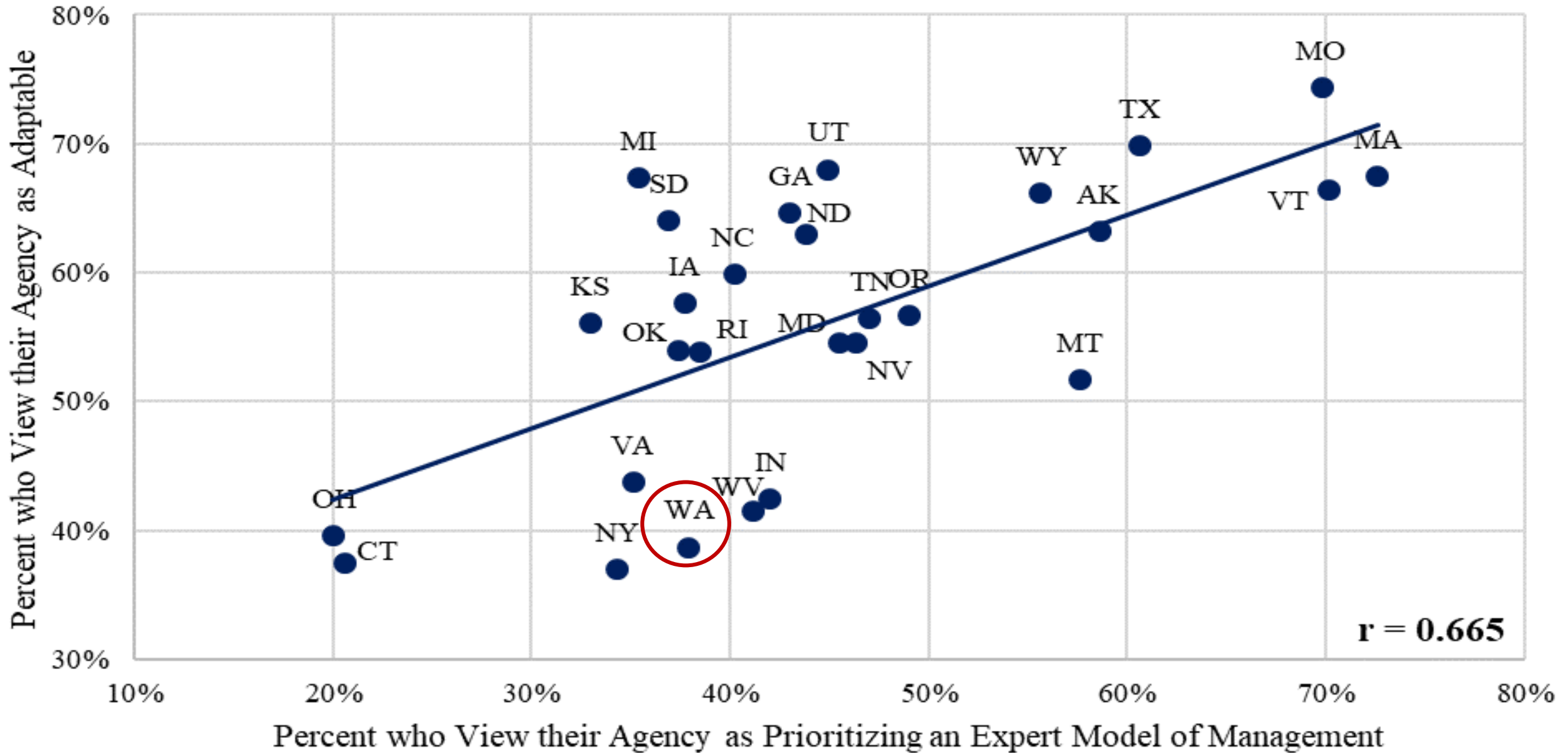
Adaptability, Accountability, and Public Engagement

- How different management models (Expert v. Clientele) affect employee perceptions of an agency's:
 - adaptability,
 - accountability, and
 - engagement with the public

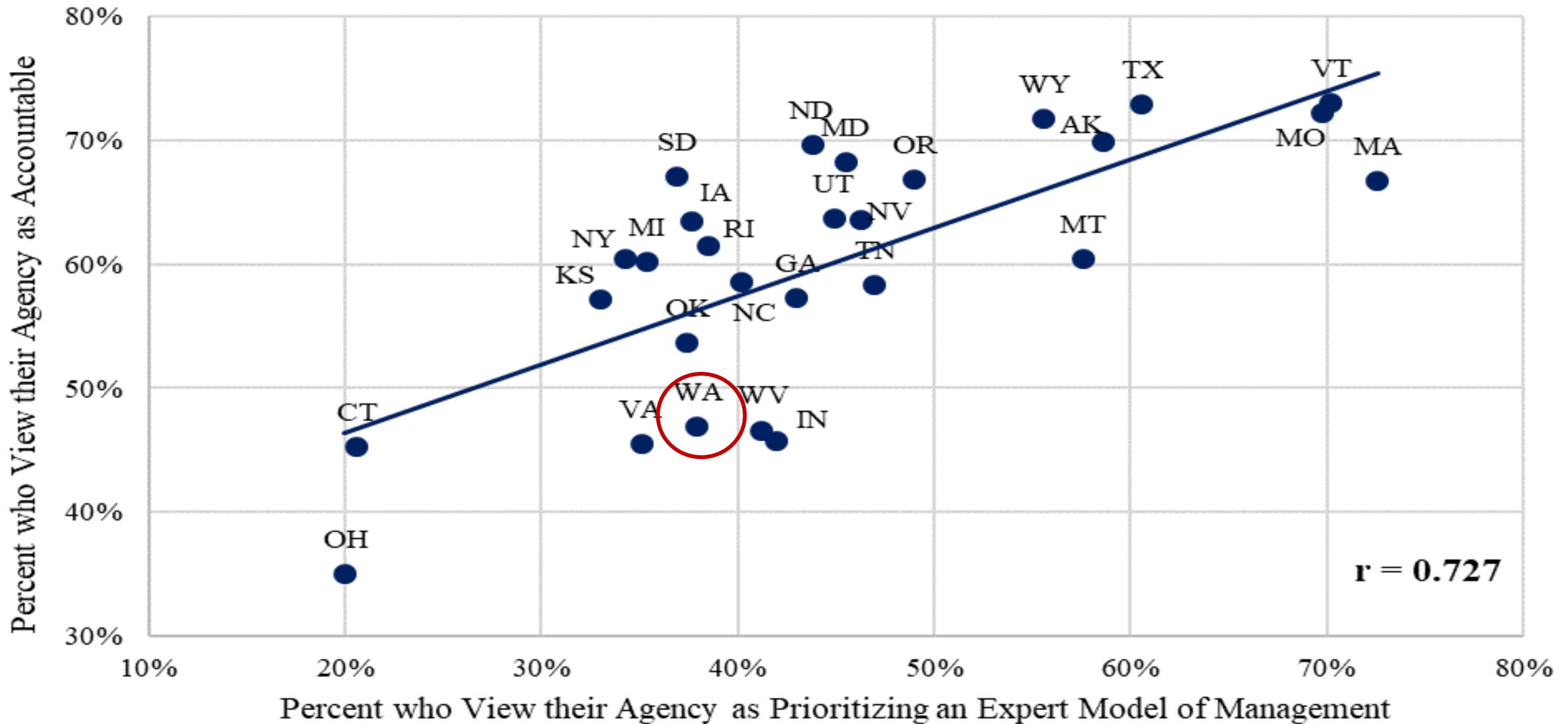
Adaptability, Accountability, and Public Engagement

- Agency with prioritization of expert model
 - Employees are more likely to see their agency as adaptable and accountable
- Agency with prioritization of clientele model
 - Employees see need to increase engagement with public and stakeholders
- Where employees view their agency along this model spectrum,
 - Shapes employee perceptions of the agency as being adaptive in the face of change & accountable and transparent to the public

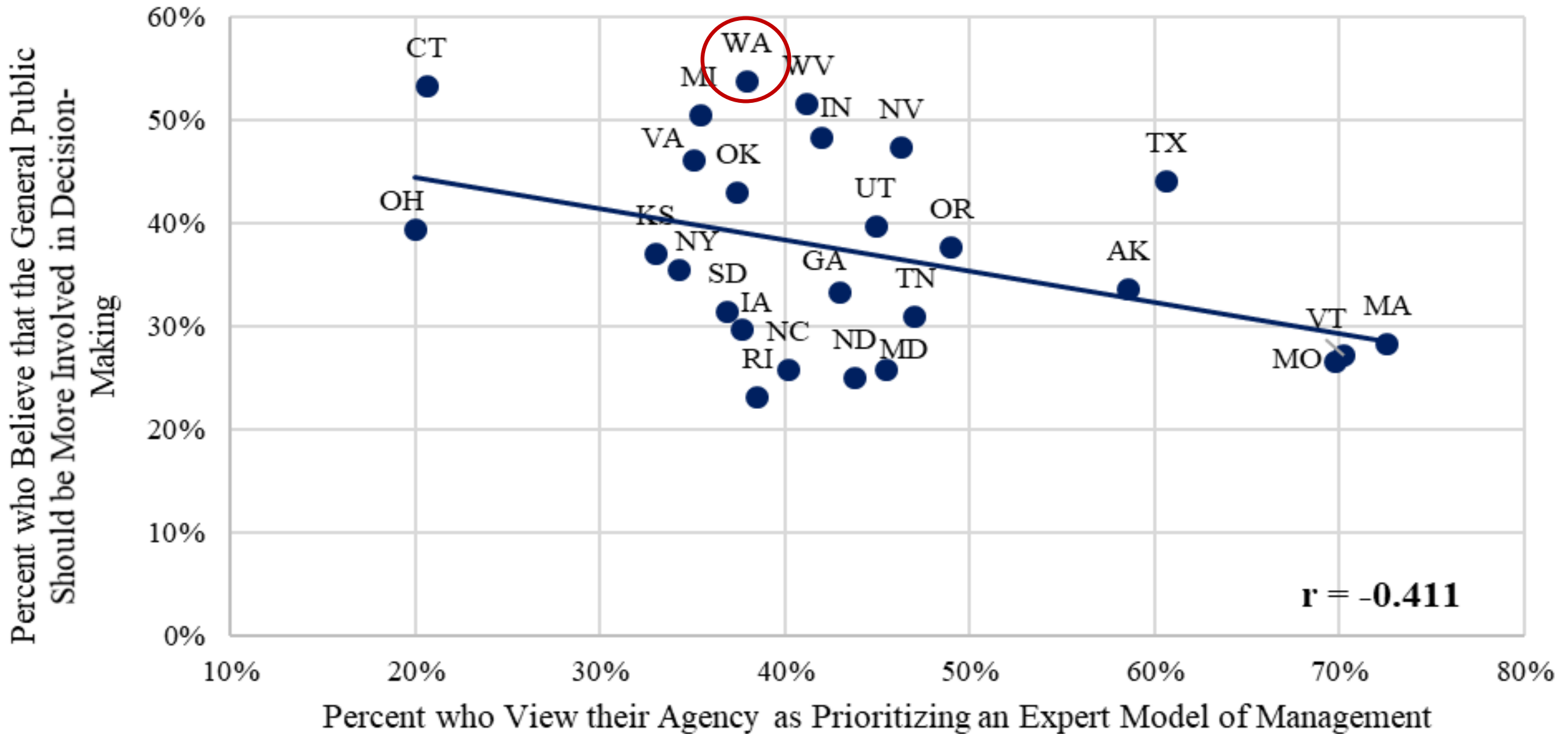
Expert Model by Adaptability



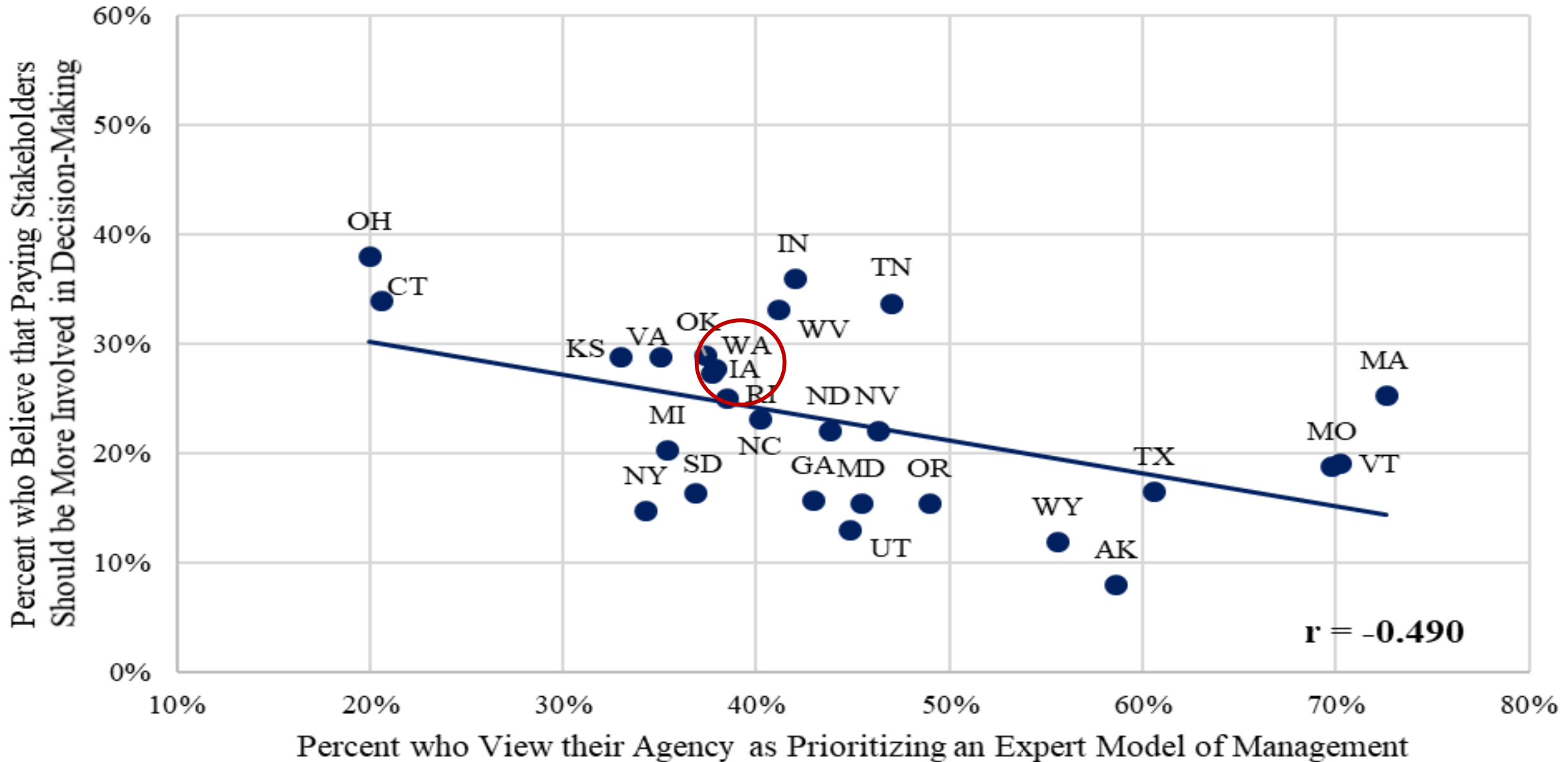
Expert Model by Accountability



Expert Model by Public Involvement in Decision Making



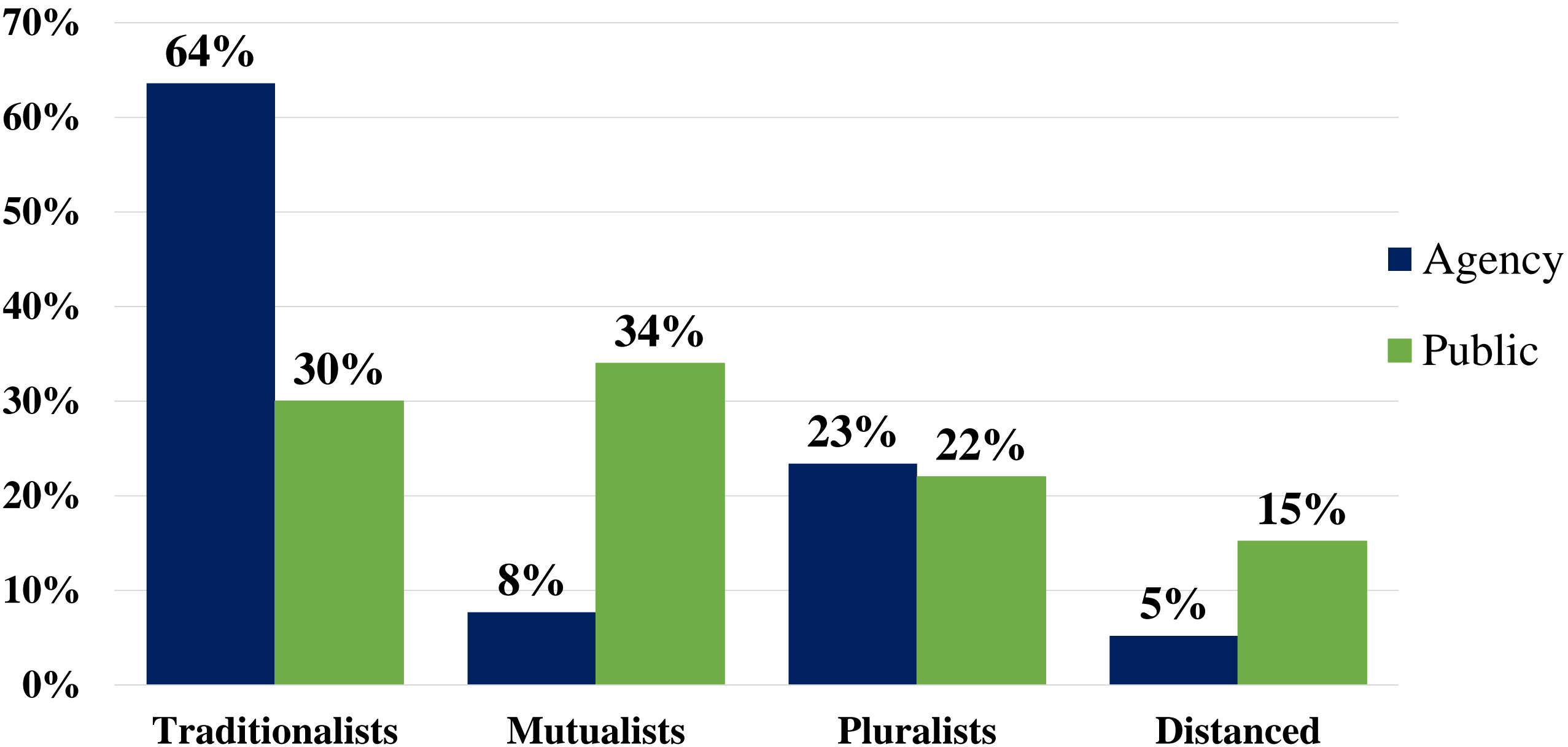
Expert Model by Stakeholder Involvement in Decision Making



Composition of Values in Agency Compared to Public

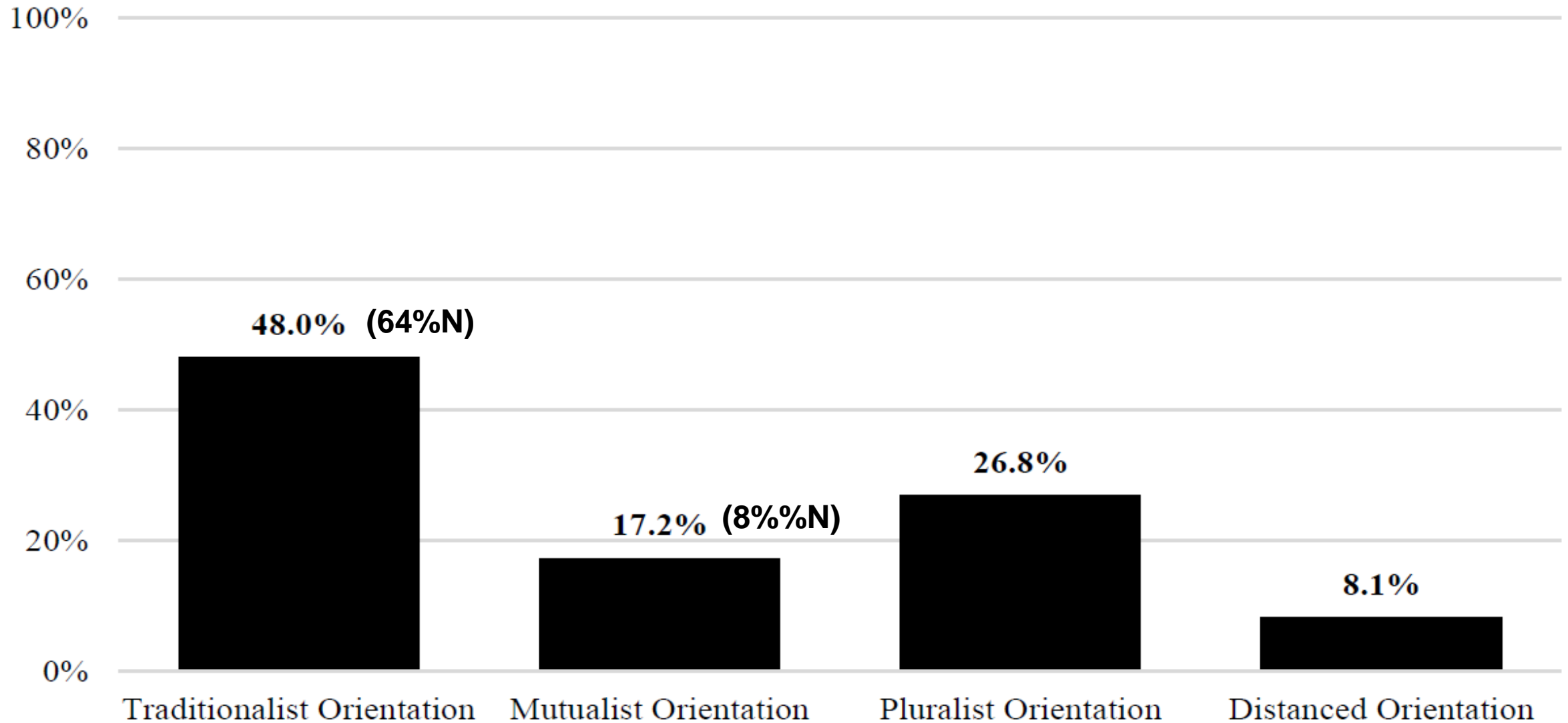
- Does the value profile of the public affect the character of the agency?
- How the composition of wildlife values in the agency compares with that of the public
- While mutualist views become more prominent among members of the public,
- Agencies still comprised primarily by utilitarian (domination) values
 - 87% either of Traditionalist or Pluralists

Composition of Values in All Agencies Compared to Public



Values in WDFW

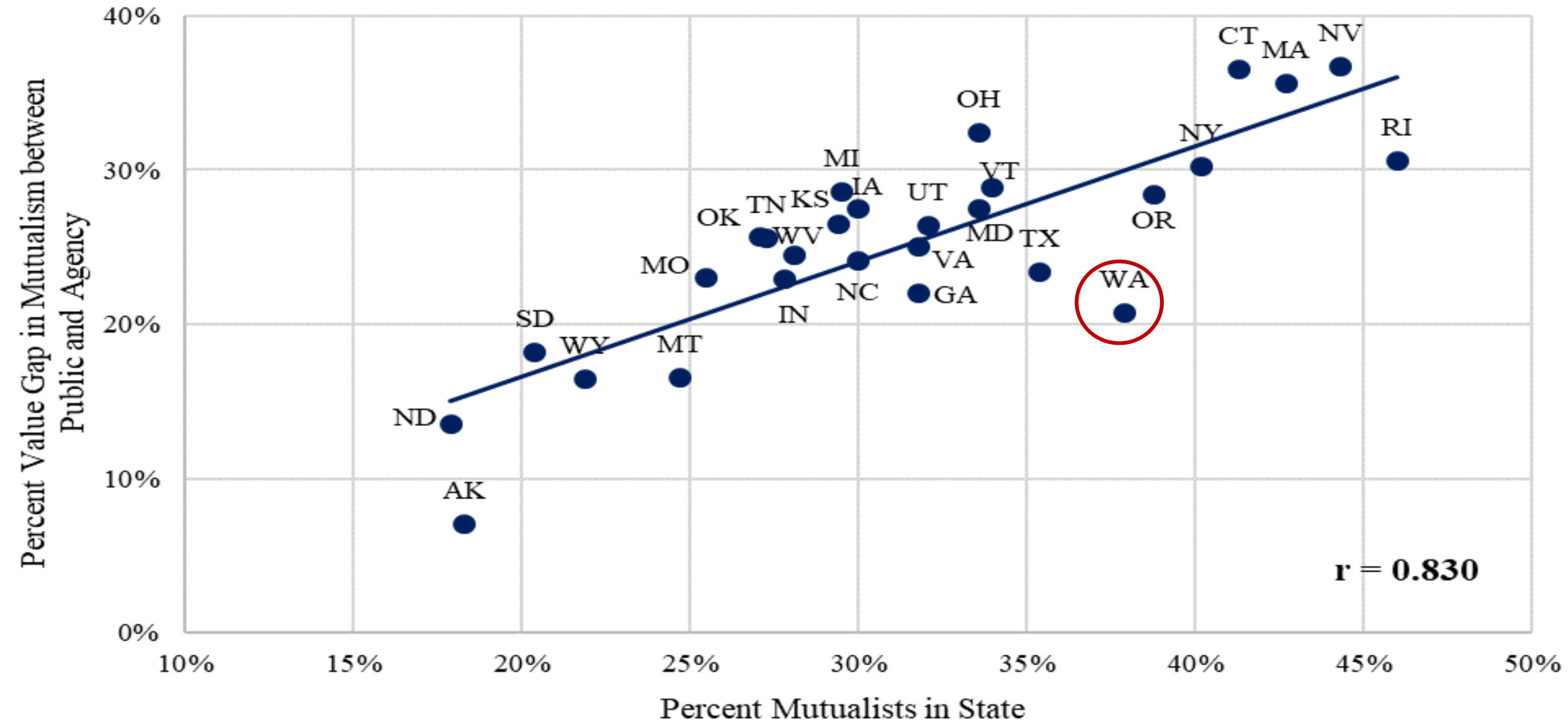
Wildlife Value Orientations - Washington Department of Fish & Wildlife



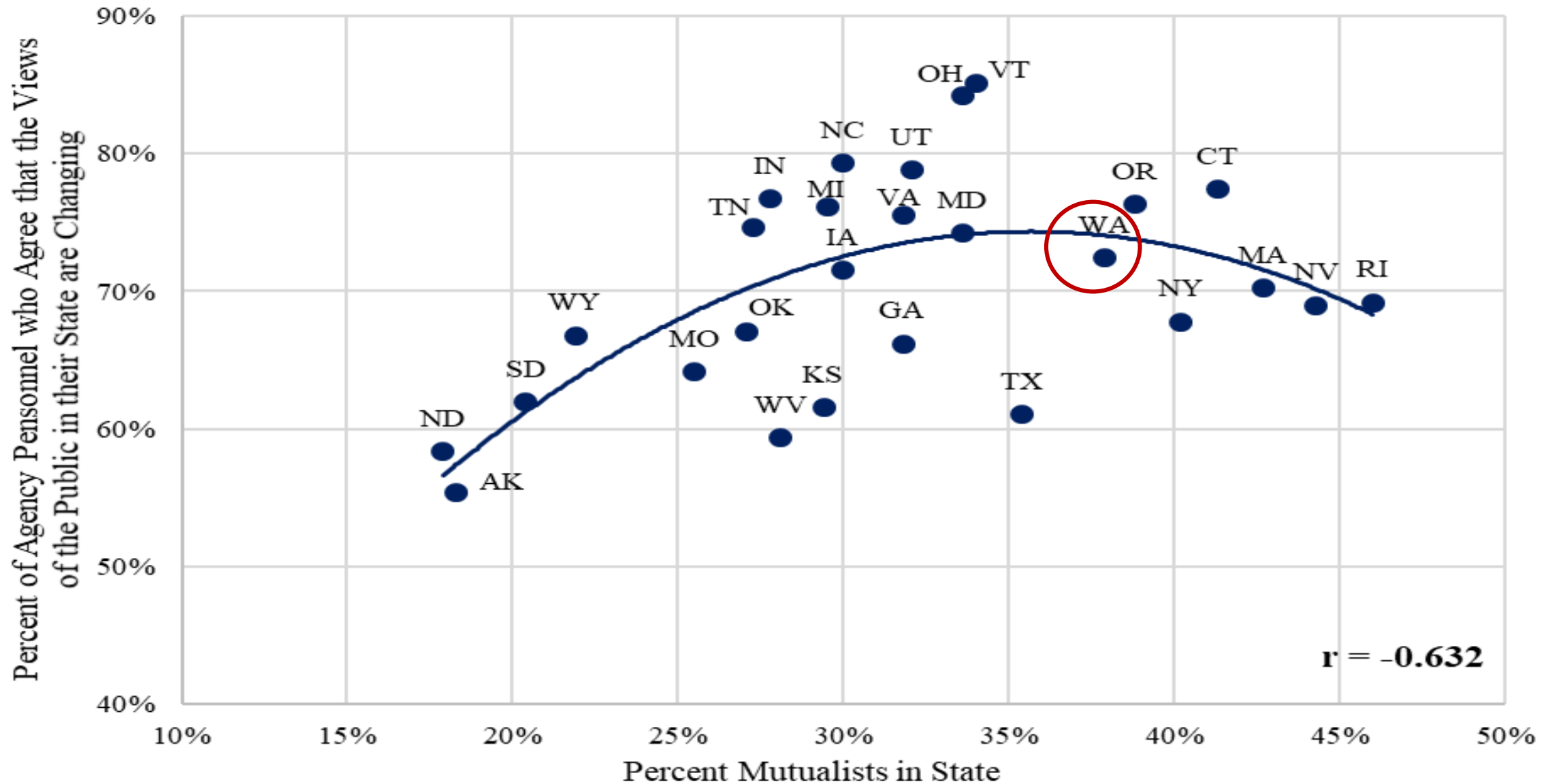
Composition of Values in Agency Compared to Public

- As States become more mutualist, the values gap between public and agency widens
- Composition of the agency does not appear to readily reflect the changing values of the public

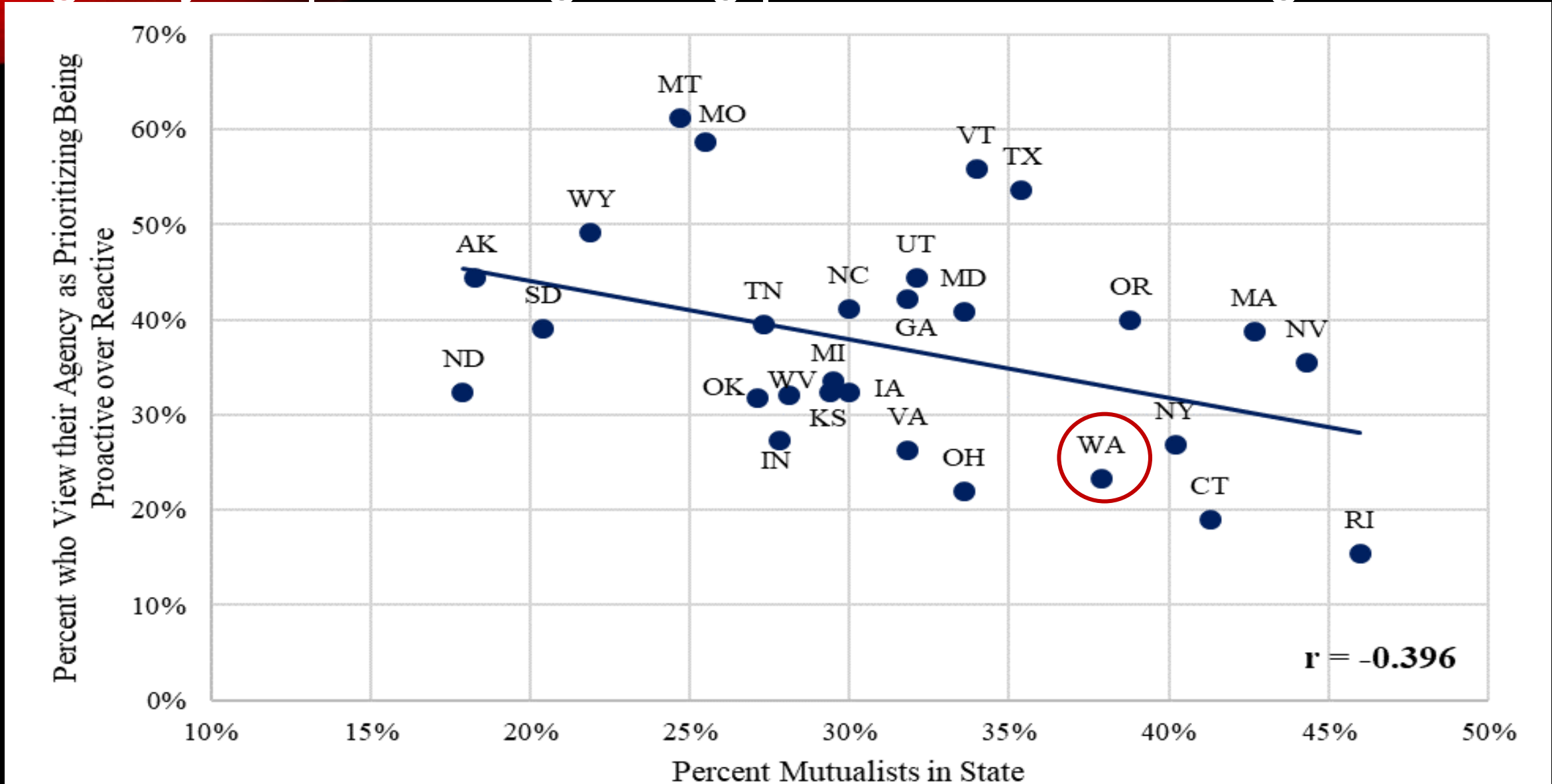
Values Gap



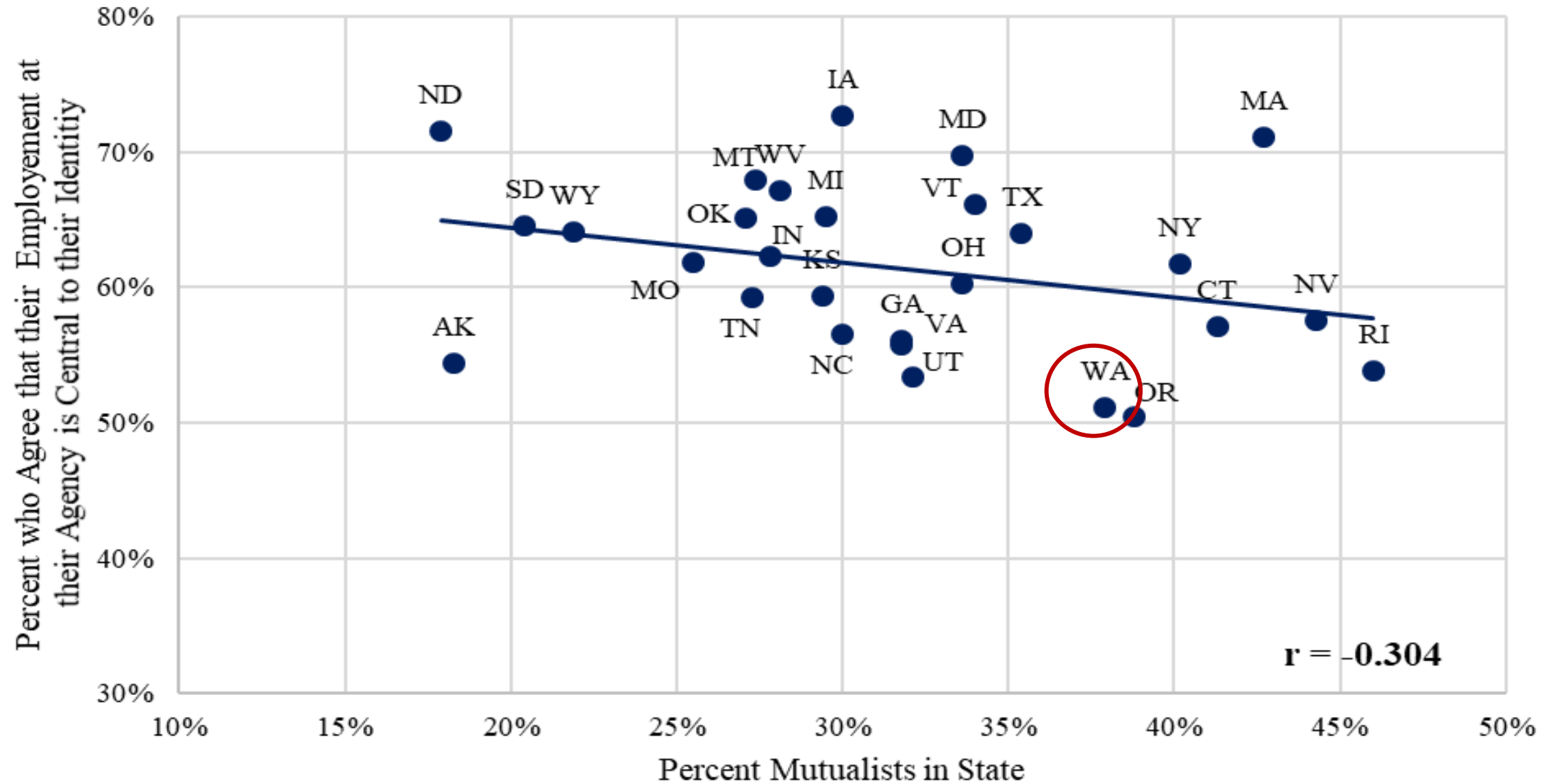
Mutualists in state by % of agency personnel who agree the views of the public in their state are changing



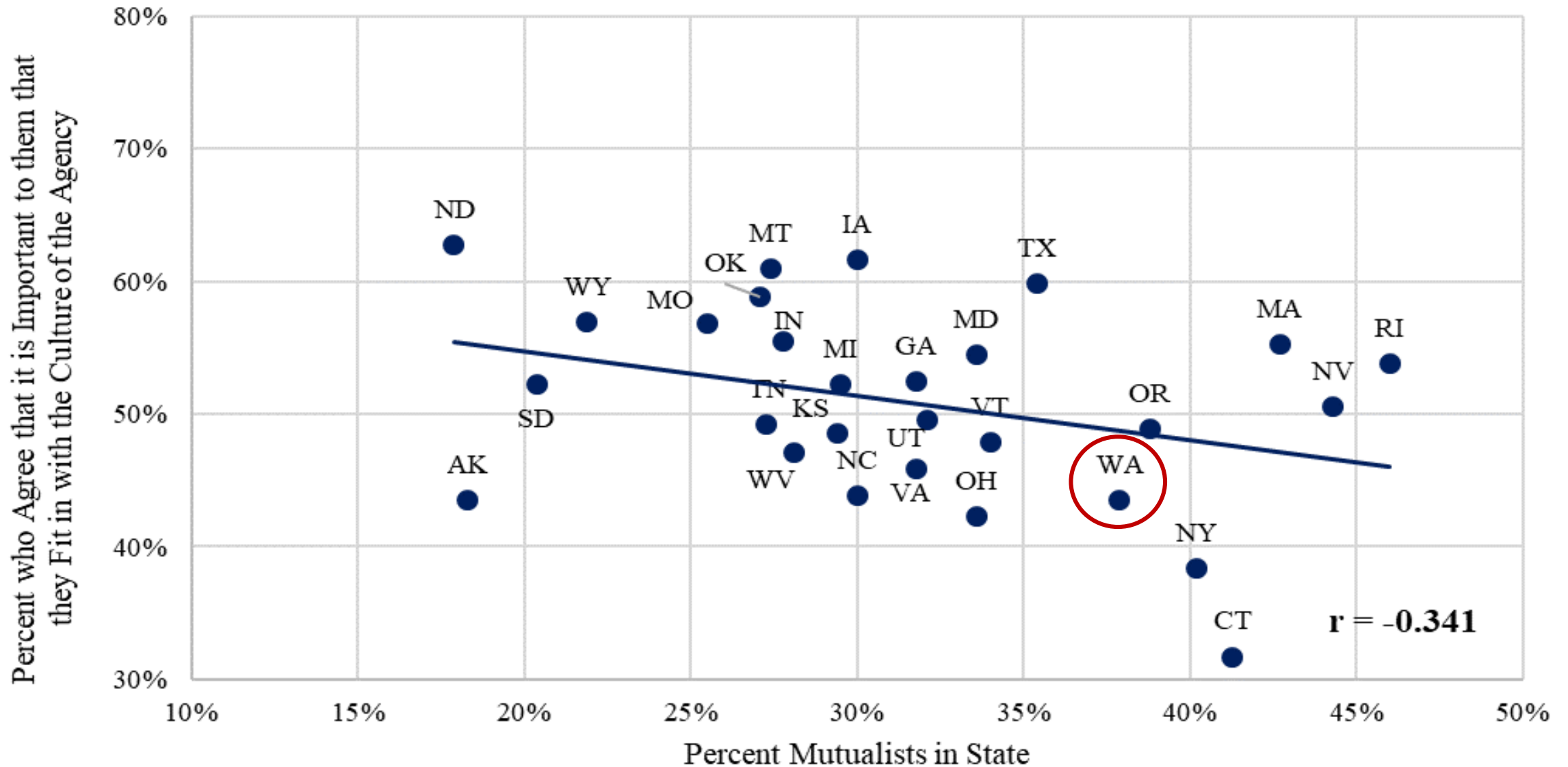
Mutualists in state by % of agency personnel who view the agency as prioritizing being proactive over being reactive



Mutualists in state by % of agency personnel who agree their employment is central to their identity



Mutualists in state by % of agency personnel who agree it is important that they fit in with the culture of their agency



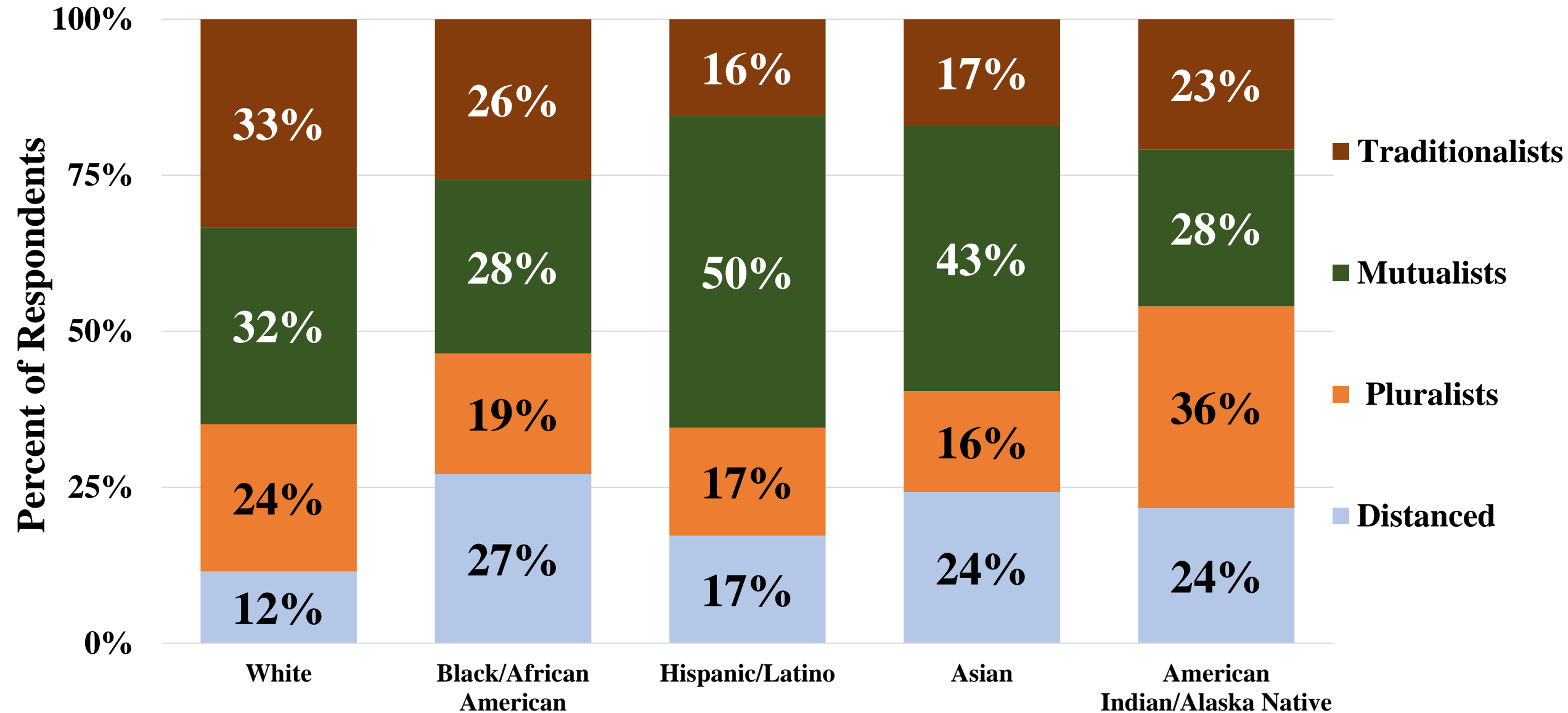
Exploring Diverse Audiences

- Governance models that are not in concert with contemporary societal needs or address only limited special interests, risk having the wildlife management enterprise lose relevance to society (Organ et al. 2012)
- Good wildlife governance models will seek and incorporate multiple and diverse perspectives (Decker et al. 2016)

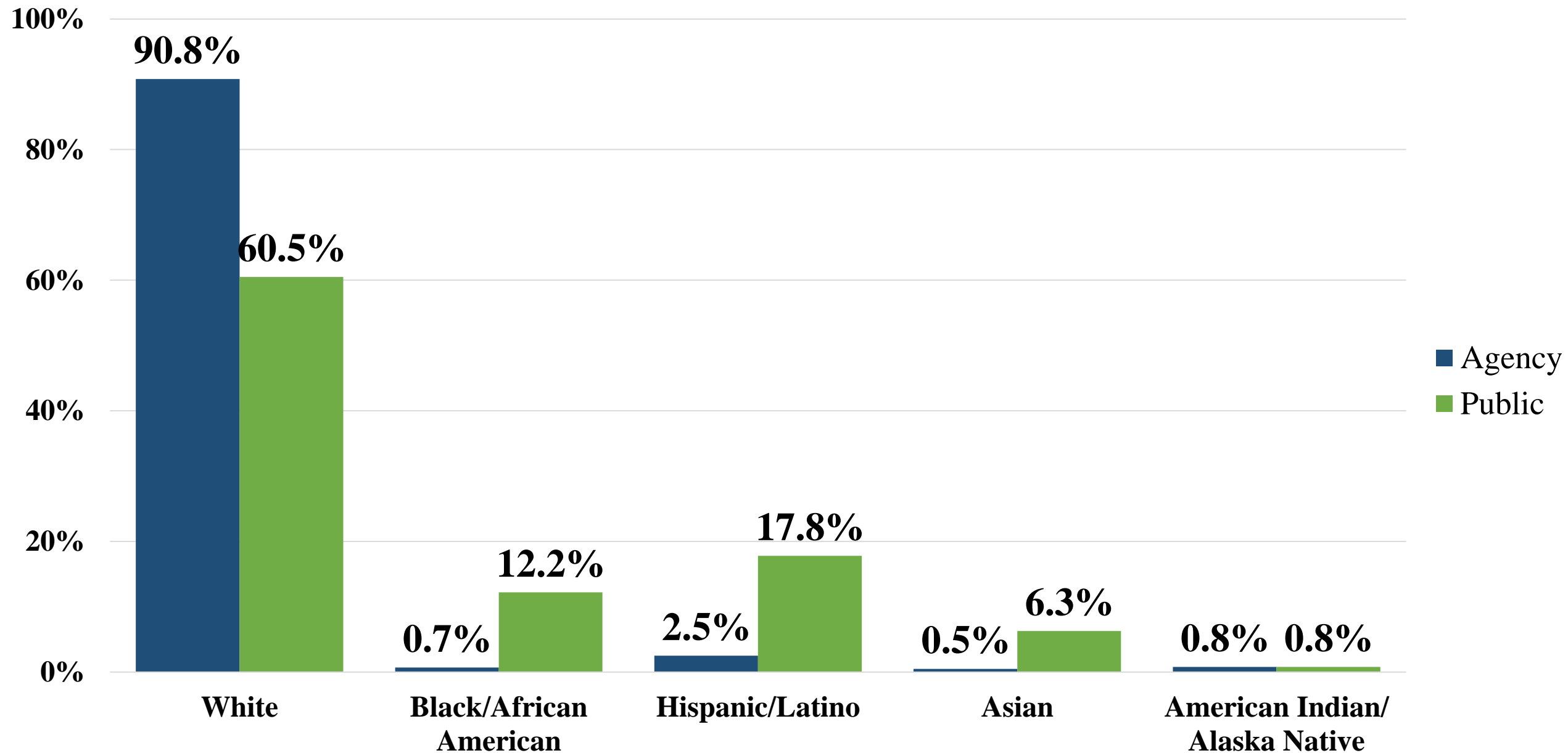
Exploring Diverse Audiences

- While diversity continues to grow across U.S.,
- Wildlife profession continues to be dominated by white (91%AA; 84%WDFW) males (72%AA; 65%WDFW)
- Key to engaging more diverse audiences begins with understanding and honoring diverse ideals of human-wildlife relationships (Peterson & Nelson 2017)
- Compare the wildlife values and wildlife-related recreation behaviors of minority and non-minority groups

Comparing wildlife values



Comparing race/ethnicity by agencies and the public



Conclusions

Insight into perception of WDFW governance model

- Understand values of WDFW and values of the public
 - Difference in values between WDFW and public
- Opportunity to use this information
 - Where on the model spectrum does WDFW want to be?
 - Use information to address areas of change (e.g., adaptability, accountability, pro-activeness)
 - Recognize culture and character of WDFW (e.g., identity)
 - Organizational values – a strength but also hard to change

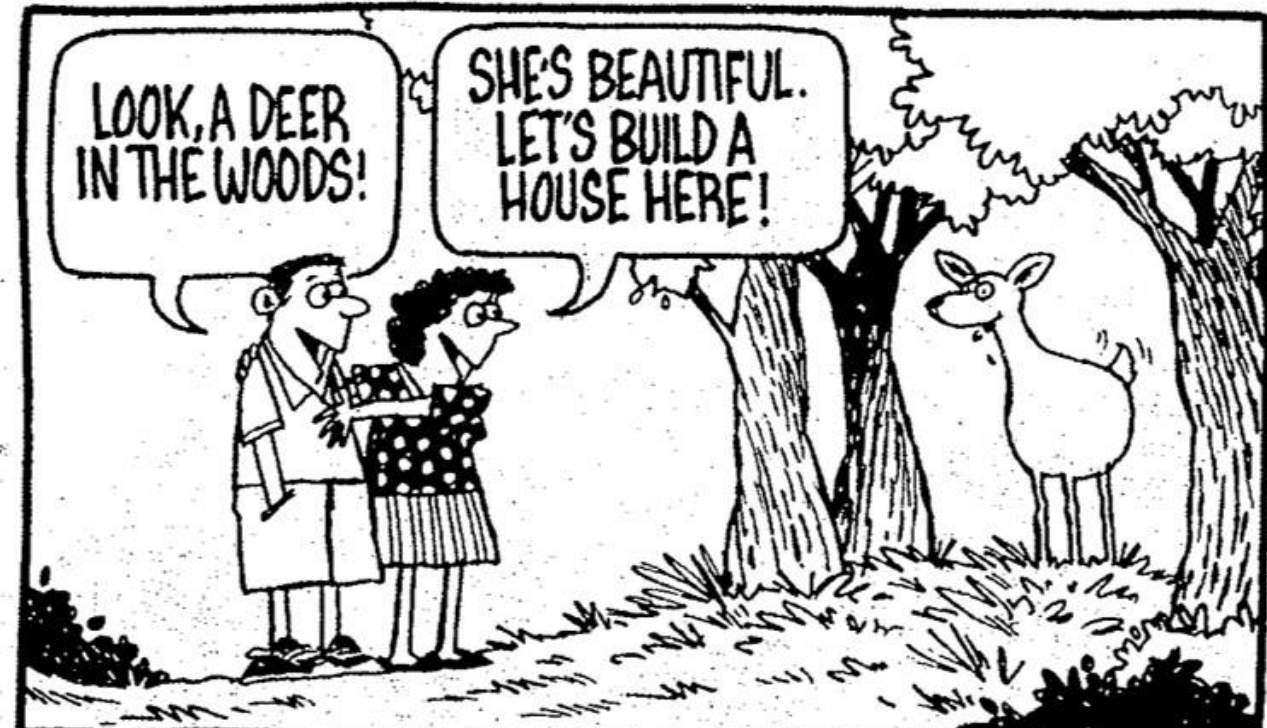
Next Steps



• Actions:

- Use data from AWV to inform strategic planning, management, outreach and education, and awareness of agency culture
- Outreach of AWV information to WDFW staff for use
 - Develop an action plan on how to use this information
 - Example: To explore opportunities to maximize hunting and fishing participation, Pluralist rich areas are focus areas for Marketing outreach
 - Key messages for external audience and use of study information outside the agency
- Opportunity for longitudinal look at results from 2004 – 2009 – 2018 study results ~ working with CSU on additional analyses

THE OTHER COAST



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