



HOW A SHIFT IN WILDLIFE VALUES CAN AFFECT WILDLIFE MANAGEMENT IN THE U.S.

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Study Team



**HUMAN DIMENSIONS
OF NATURAL RESOURCES**
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**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



VALUE DIMENSIONS



- 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

WILDLIFE VALUE “TYPES”

- *Traditionalist* – Score High on Domination, Low on Mutualism
- *Mutualist* – Score High on Mutualism, Low on Domination
- *Pluralist* – Score High on both Domination and Mutualism
- *Distanced* – Score Low on both Domination and Mutualism

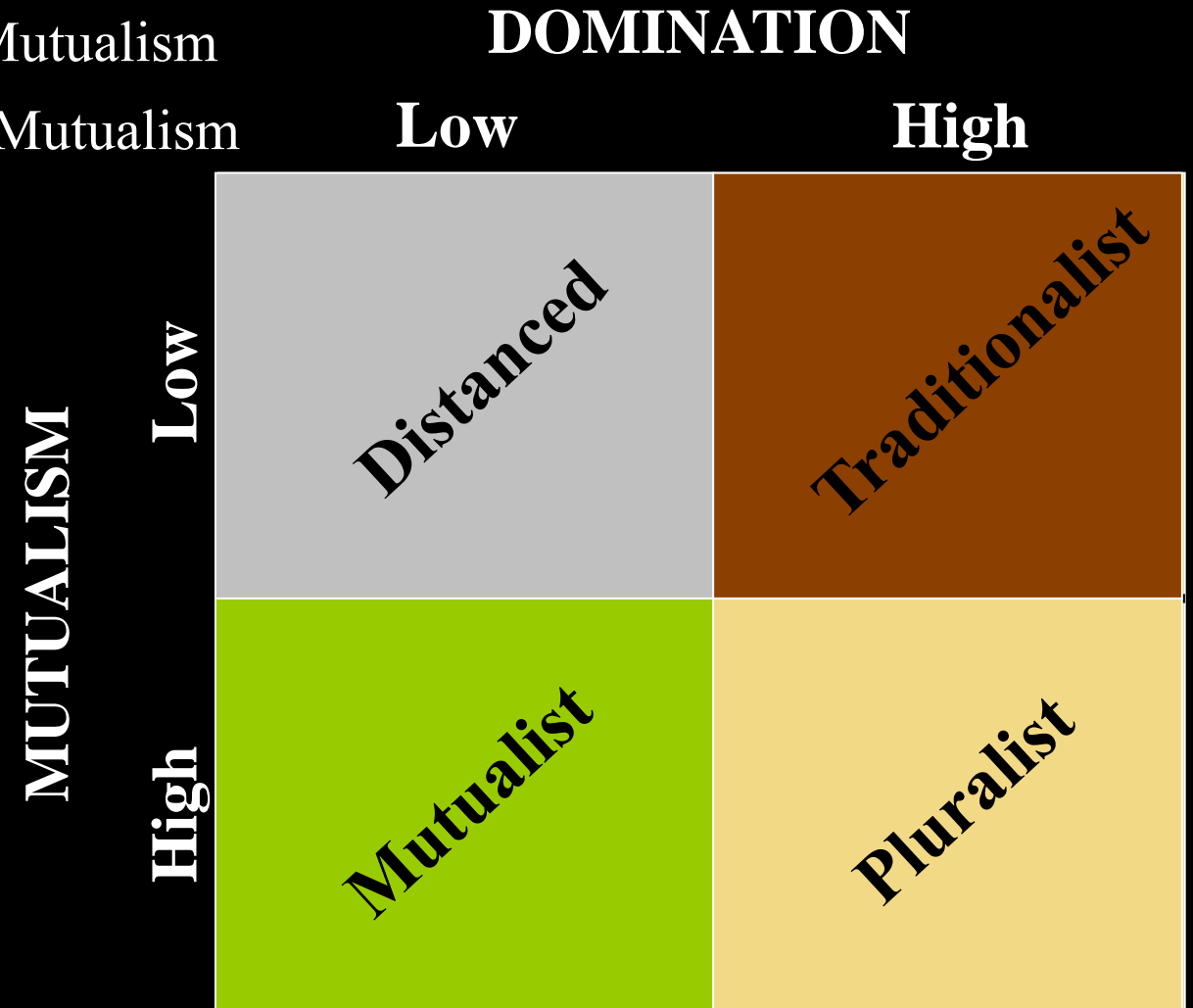
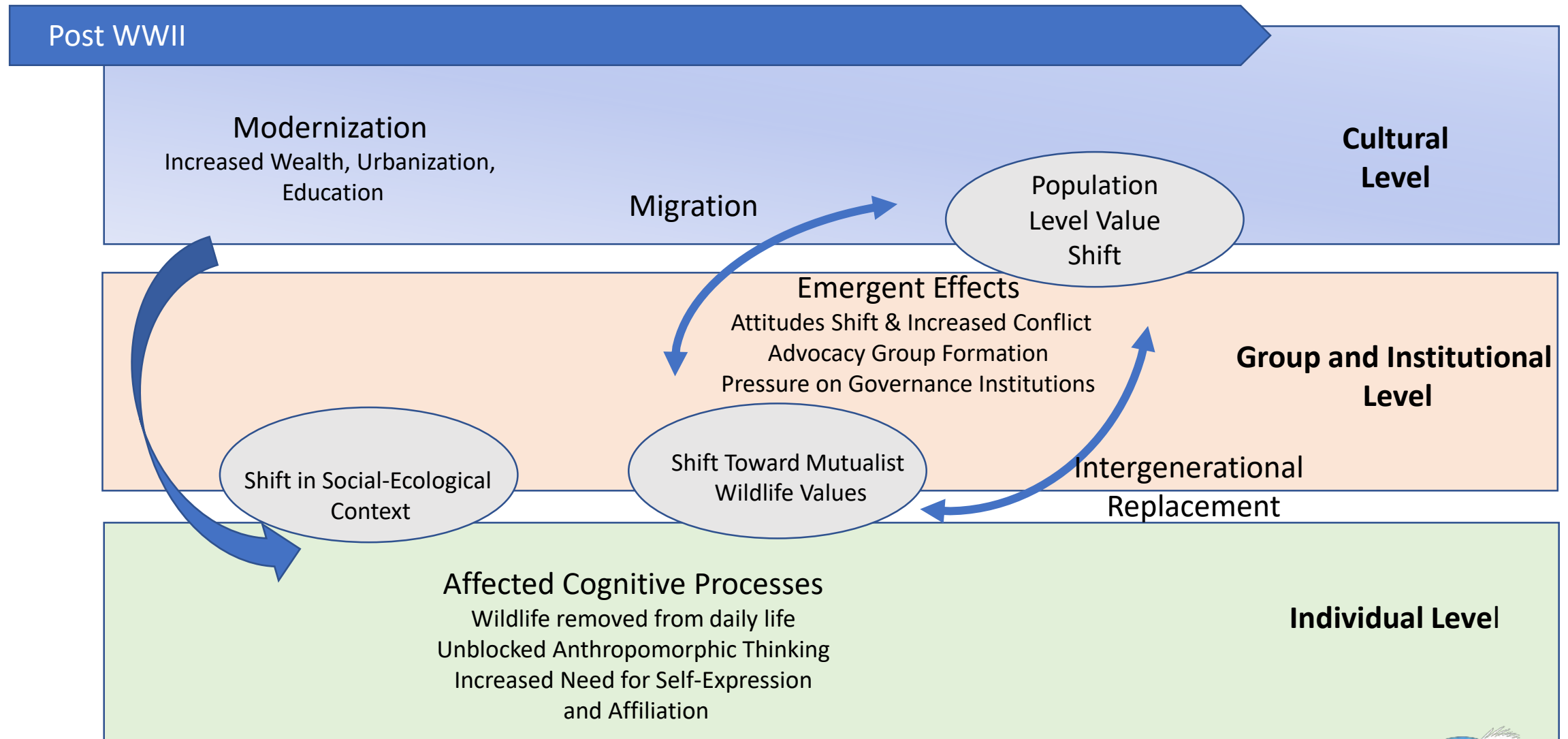


Figure 1. Cross-Level Model of The Effect of Social Change on Wildlife Management



SUMMARY OF STUDY METHODS

Data

- 2004 *Wildlife Values in the West* (19 states, $n > 12,000$)
- 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 – e-mail administered to agency employees ($n = 10,669$)



Agency Survey










DISTRIBUTION OF WILDLIFE VALUE TYPES IN THE U.S.

Map of the United States showing the percentage of land area in each state that is in public ownership. The map uses a color scale from light yellow (low percentage) to dark brown (high percentage). A scale bar at the bottom left indicates distances up to 900 miles. The map is labeled with 'Canada' to the north, 'Mexico' to the south, 'Pacific Ocean' to the west, and 'Atlantic Ocean' to the east. A logo in the bottom right corner reads 'AMERICA'S WILDLIFE VALUES'.

State	Percentage of Land in Public Ownership
Alaska	58.9
Arizona	24.6
California	17
Colorado	47.9
Connecticut	21.3
Delaware	23.8
District of Columbia	19.4
Florida	24.6
Georgia	42.1
Hawaii	28
Idaho	38.9
Illinois	31
Indiana	31.8
Iowa	34.8
Kansas	30.2
Kentucky	38.6
Louisiana	35.4
Maine	27.5
Maryland	30.1
Massachusetts	22.6
Michigan	34.1
Minnesota	37.4
Mississippi	28.7
Missouri	37.5
Montana	48.7
Nebraska	30.2
Nevada	22.3
New Hampshire	25.3
New Jersey	23.9
New Mexico	35.8
New York	28.7
North Carolina	29.8
North Dakota	47.7
Ohio	33.5
Oklahoma	36.4
Oregon	27.4
Pennsylvania	26.4
Rhode Island	21.3
South Carolina	37.8
South Dakota	37.8
Tennessee	34
Texas	30
Vermont	28.1
Virginia	31.1
Washington	28
West Virginia	38.6
Wisconsin	31.8
Wyoming	47.9

	17.0% - 22.6%
	22.7% - 28.1%
	28.2% - 34.1%
	34.2% - 38.9%
	39.0% - 48.7%

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 (%)

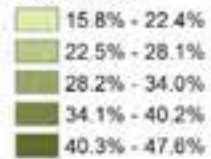
Alaska



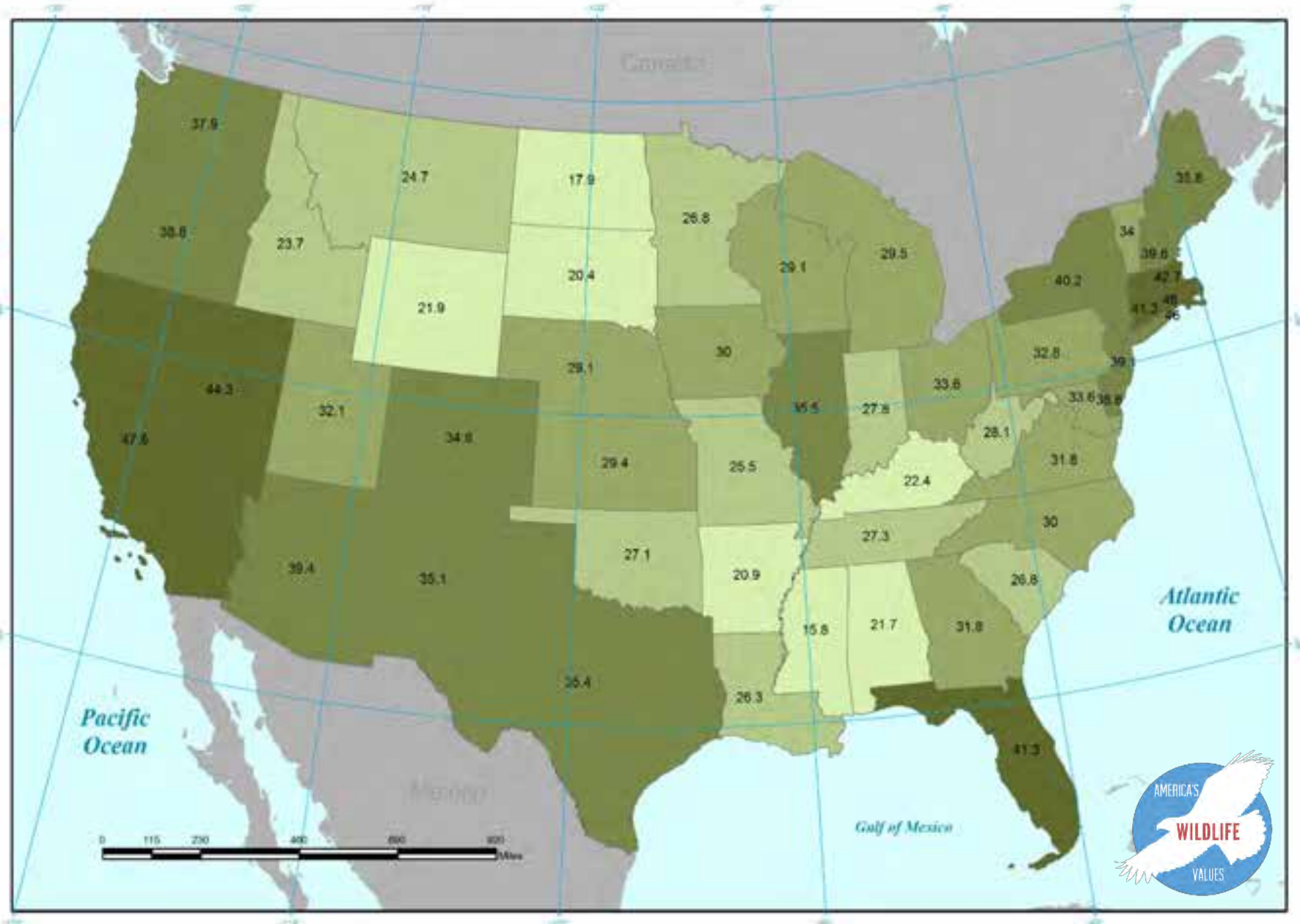
Hawaii



Mutualists



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America's Wildlife Values - Pluralists (%)

Alaska



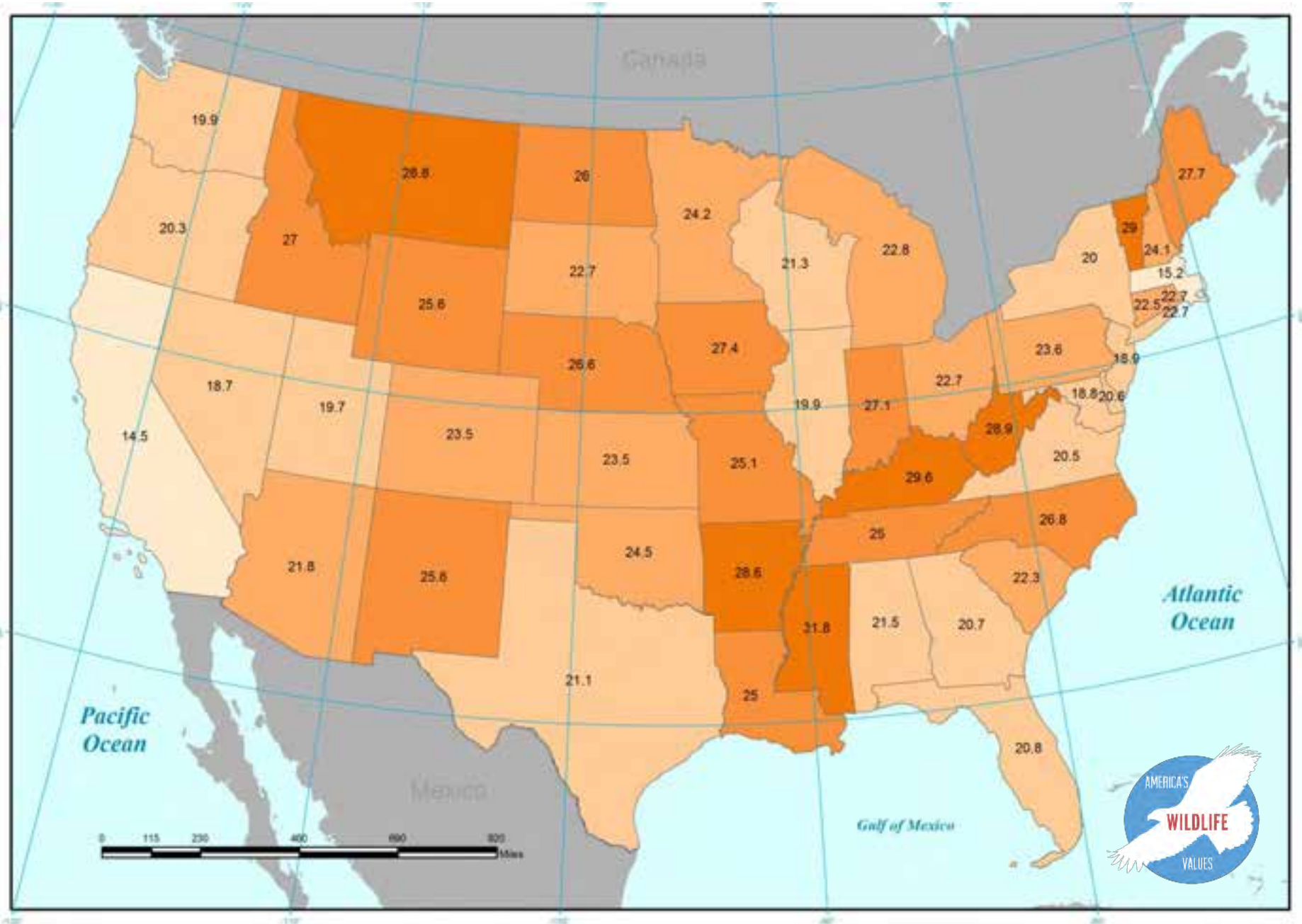
Hawaii



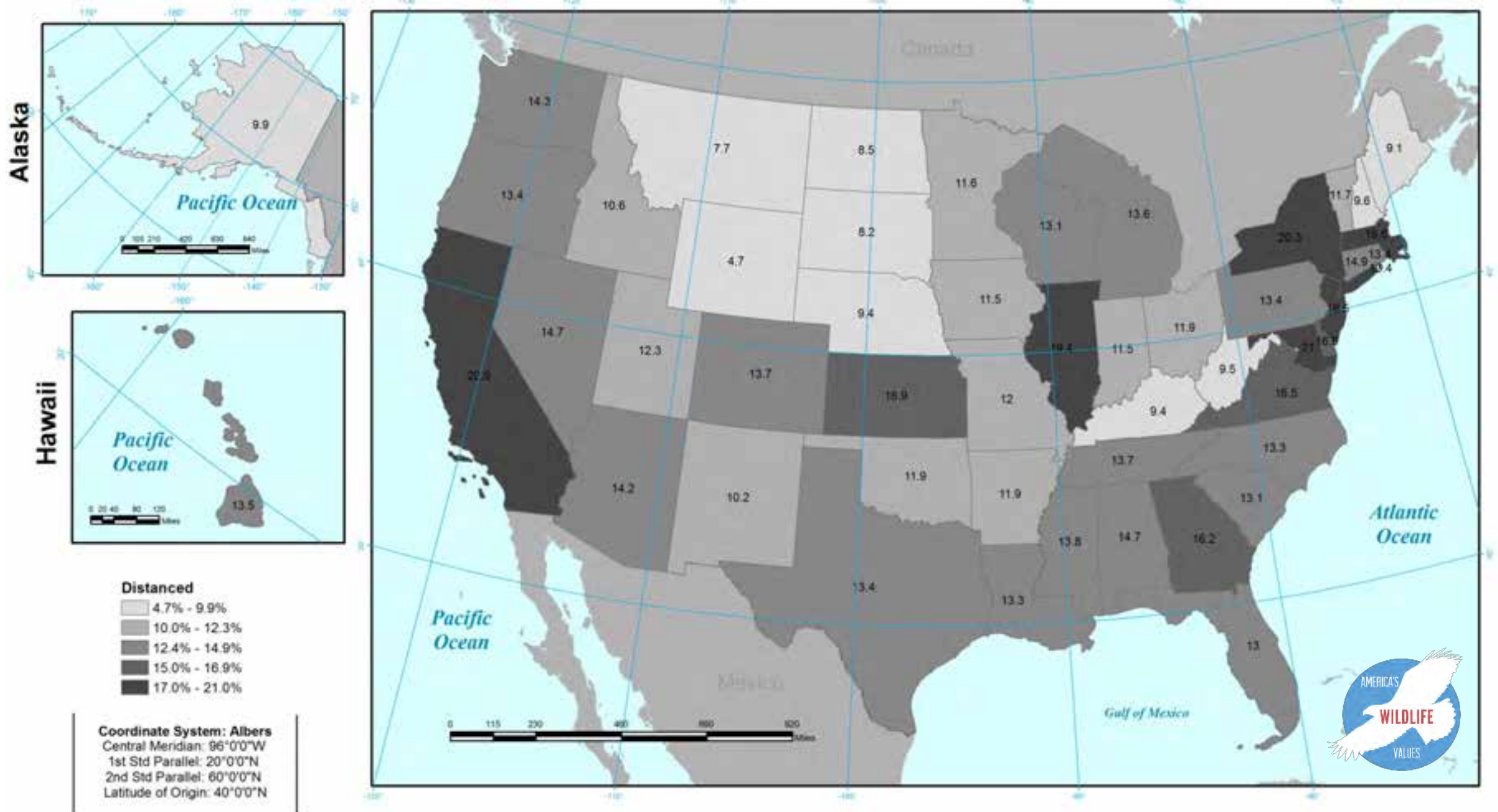
Pluralist

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

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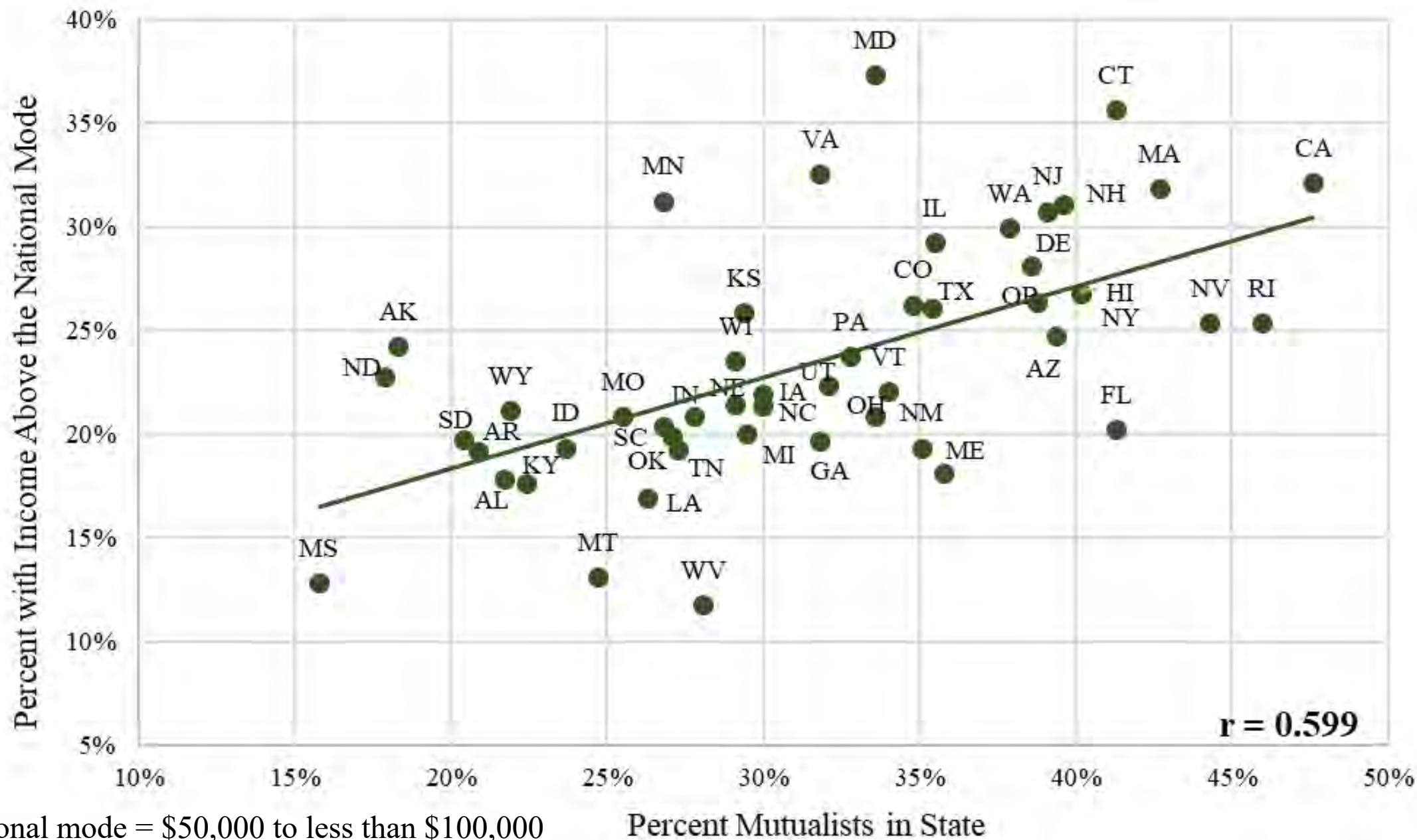
America's Wildlife Values - Distanced (%)



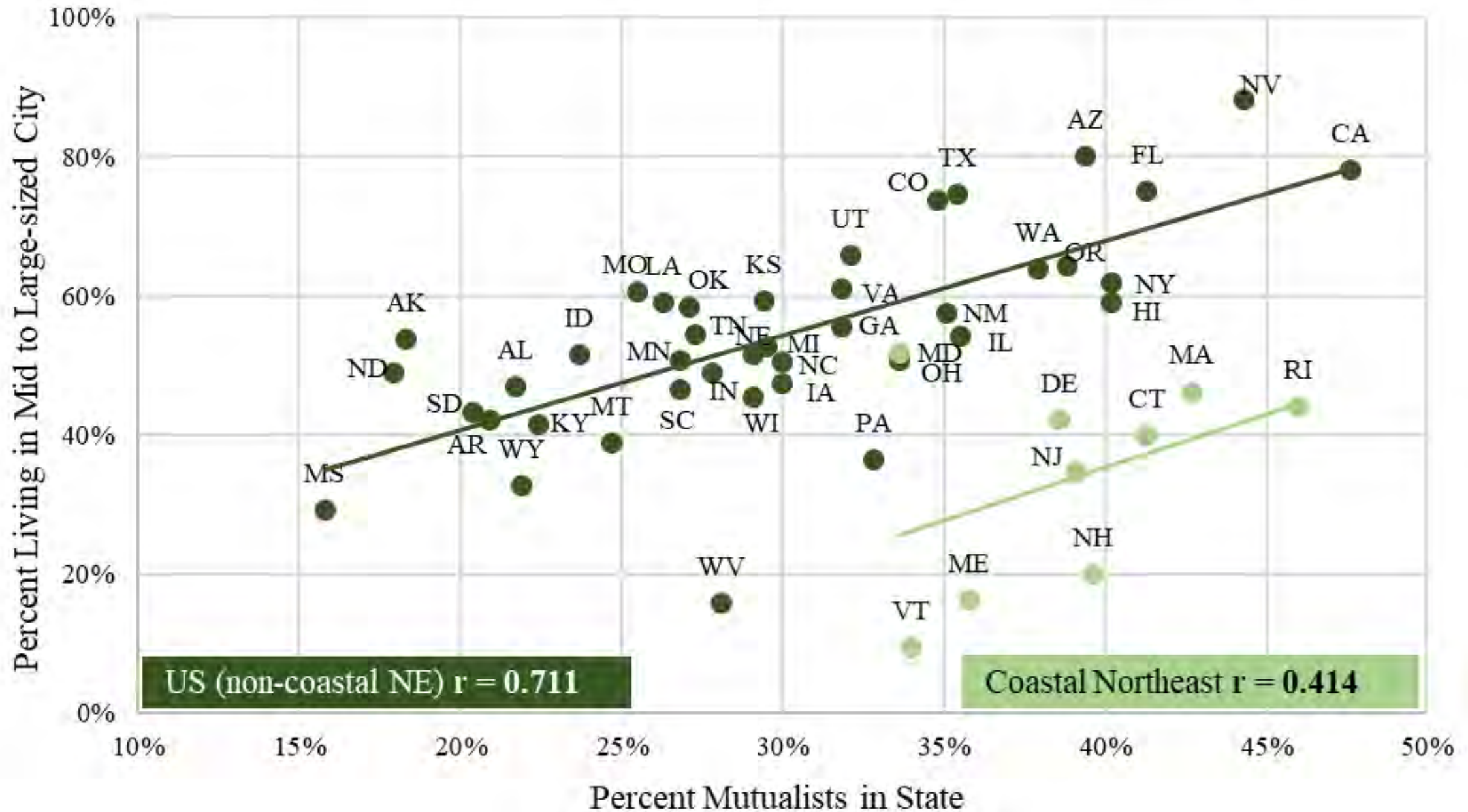


MODERNIZATION AND SHIFTING WILDLIFE VALUES

Percent Mutualists in state by percent with income above the national mode

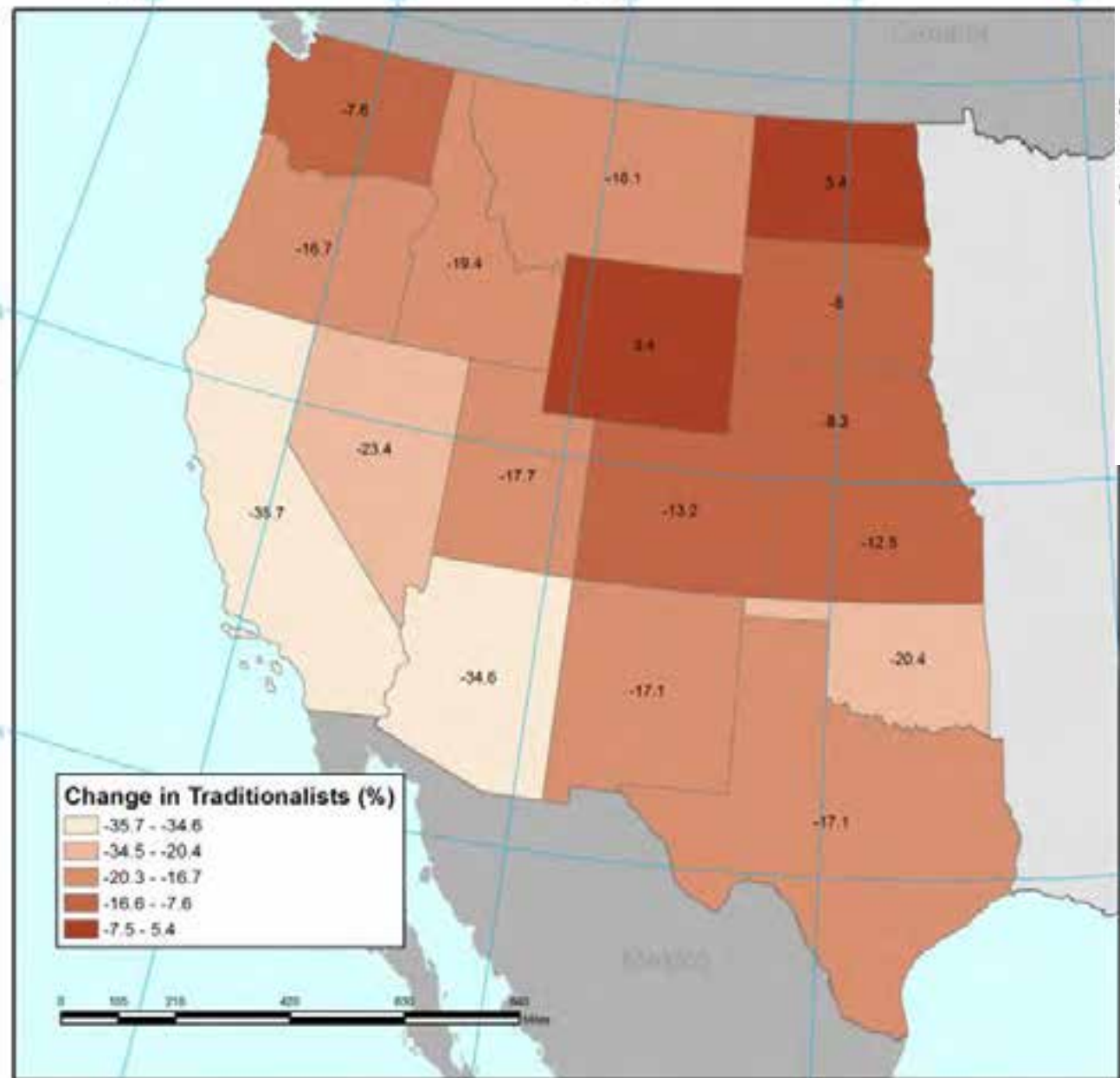


Percent Mutualists in state by percent residing in a mid to large-sized city



Mid to large-sized city = city with 50,000 or more inhabitants

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



Hawaii

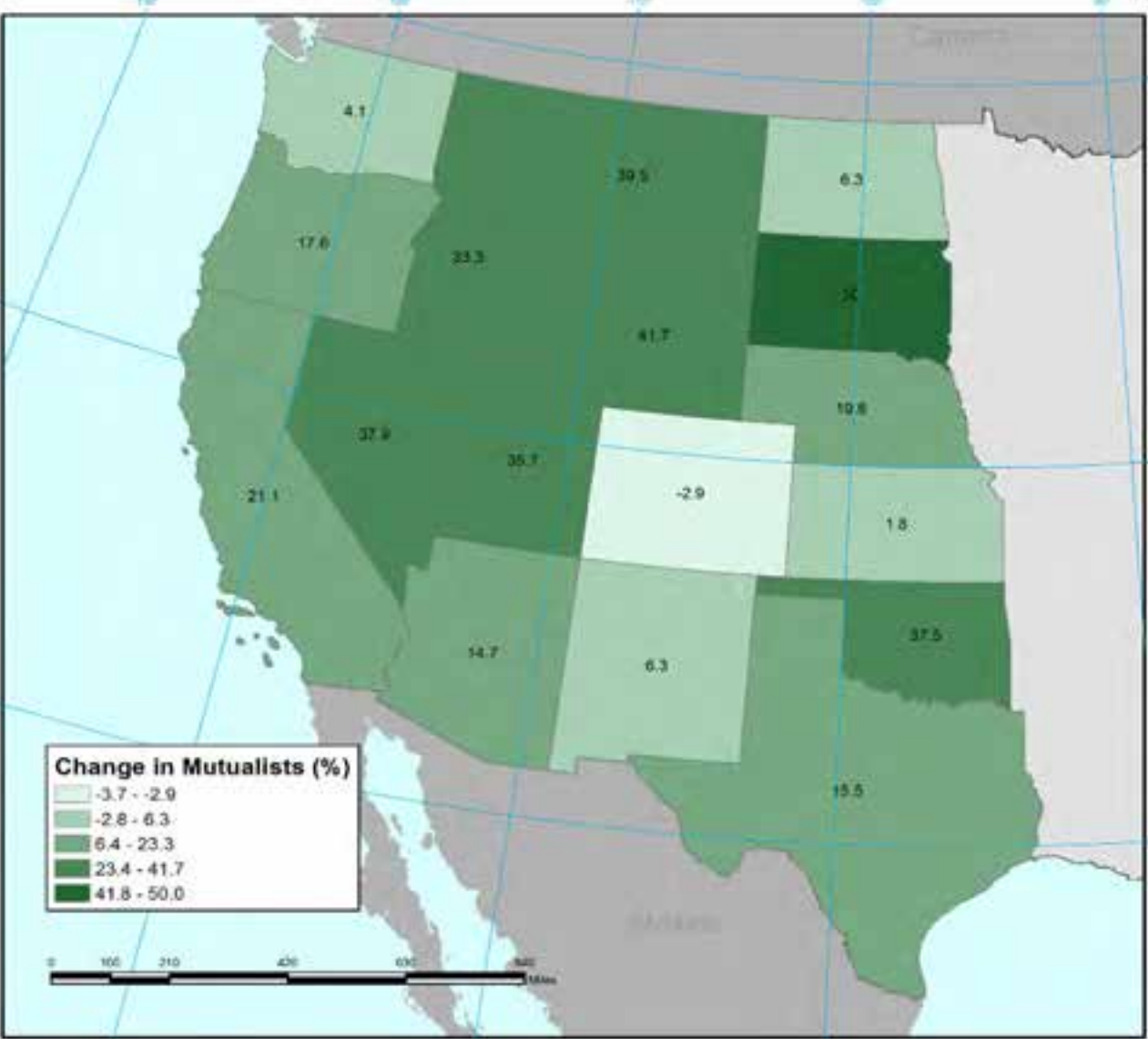


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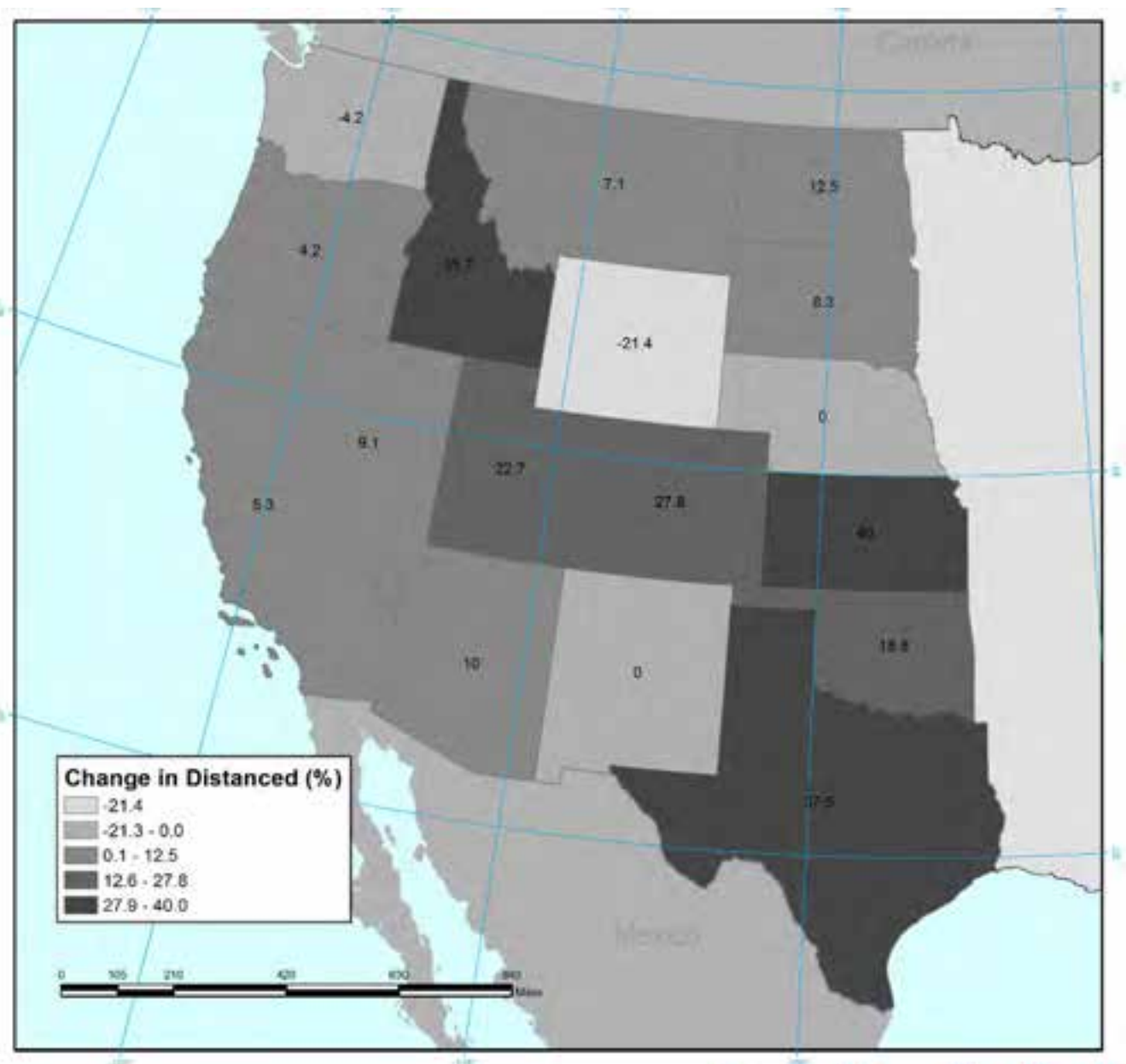
Alaska



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



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



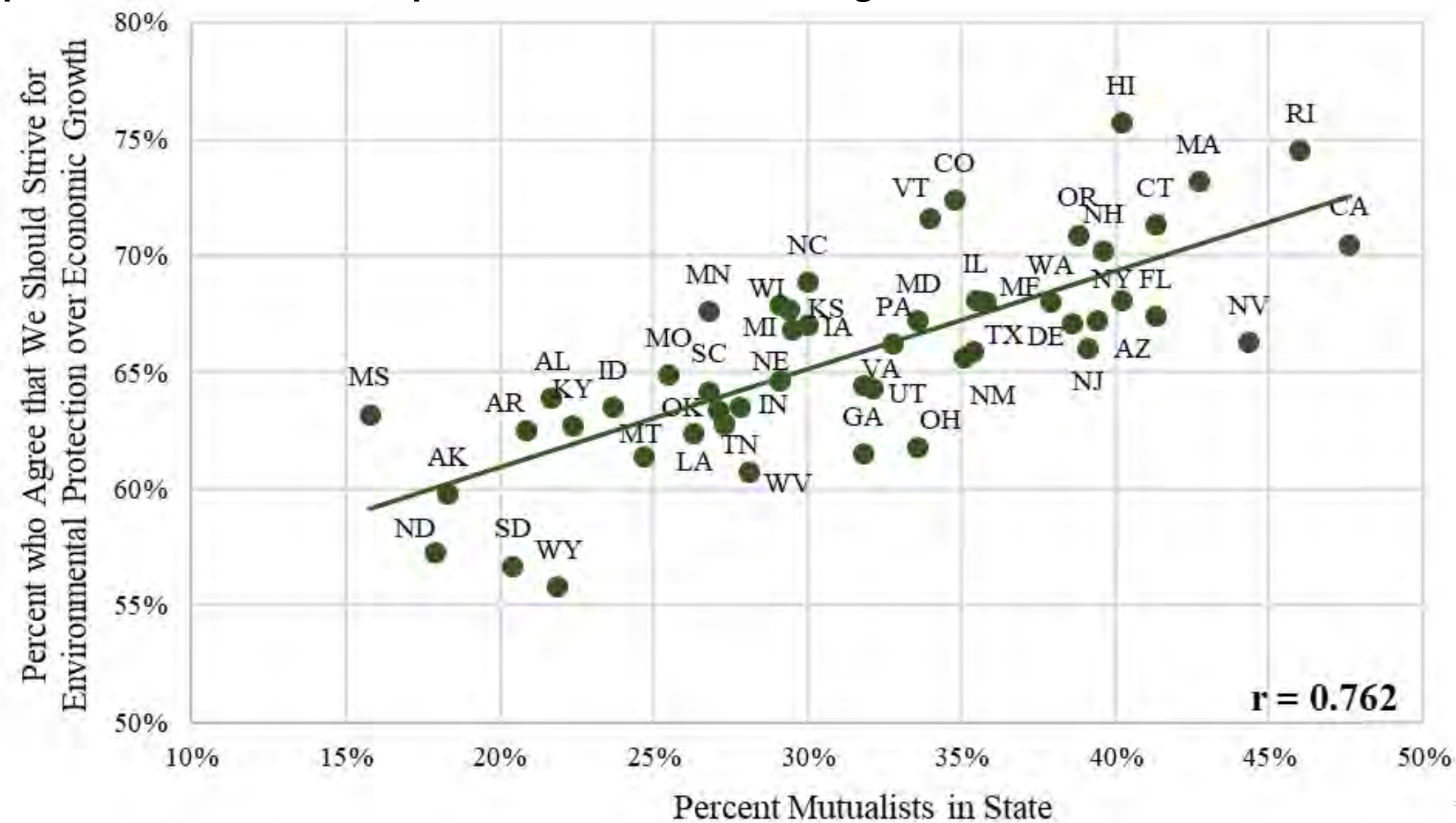
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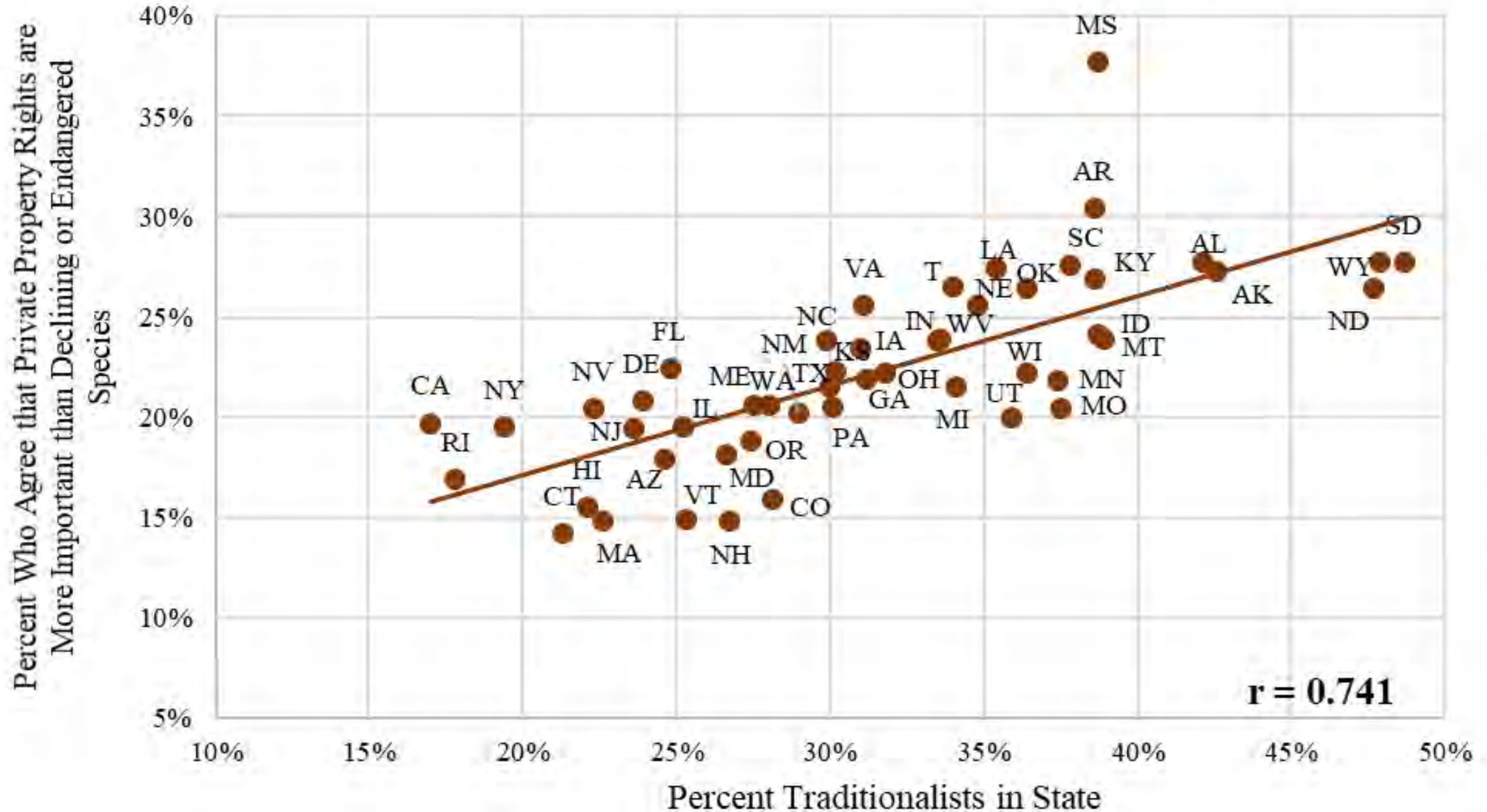


WILDLIFE VALUES RELATE TO AND
AFFECT ATTITUDES AND BEHAVIORS

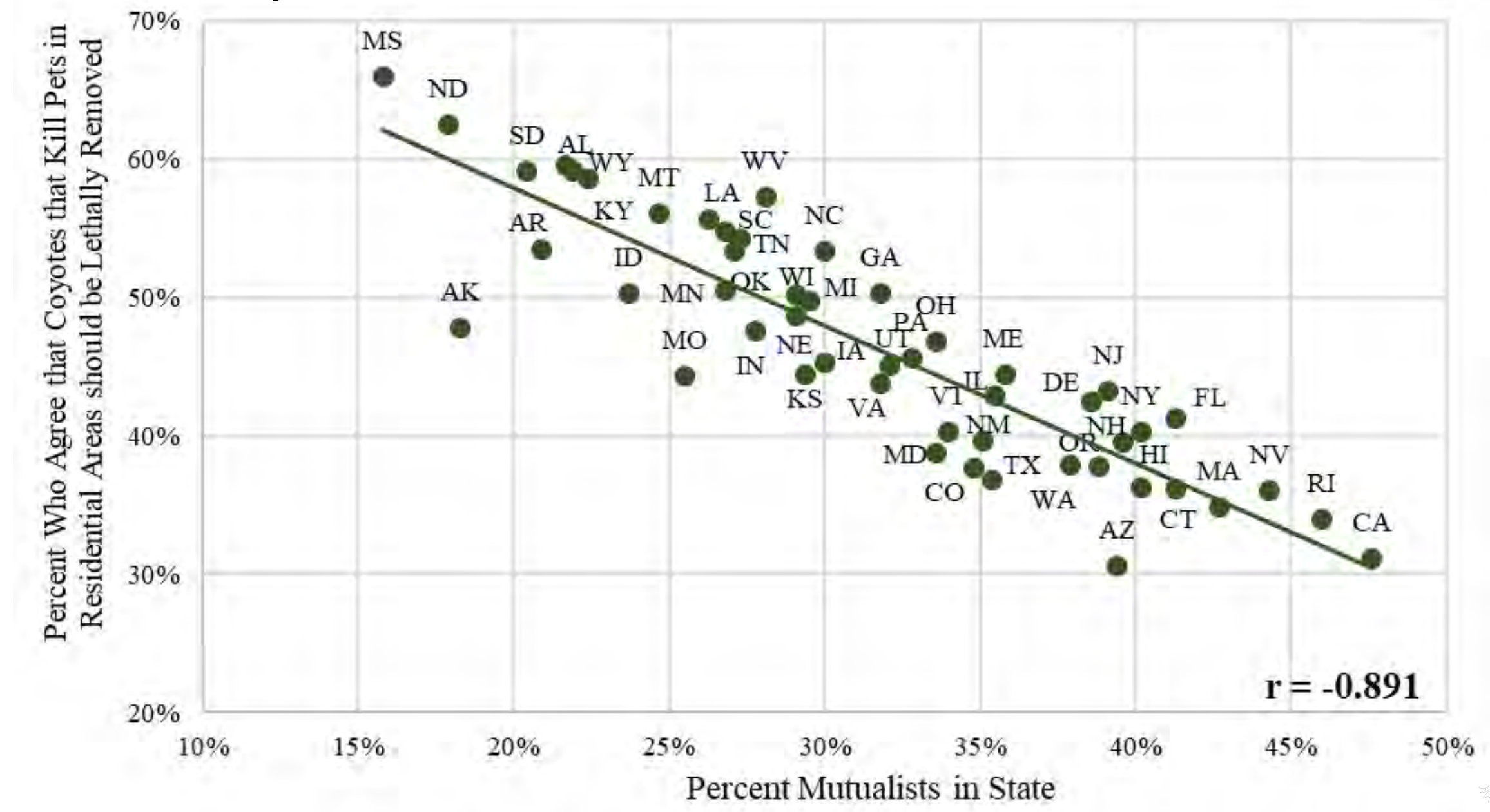
Percent Mutualists in state by percent who agree that we should strive for a society that emphasizes environmental protection over economic growth



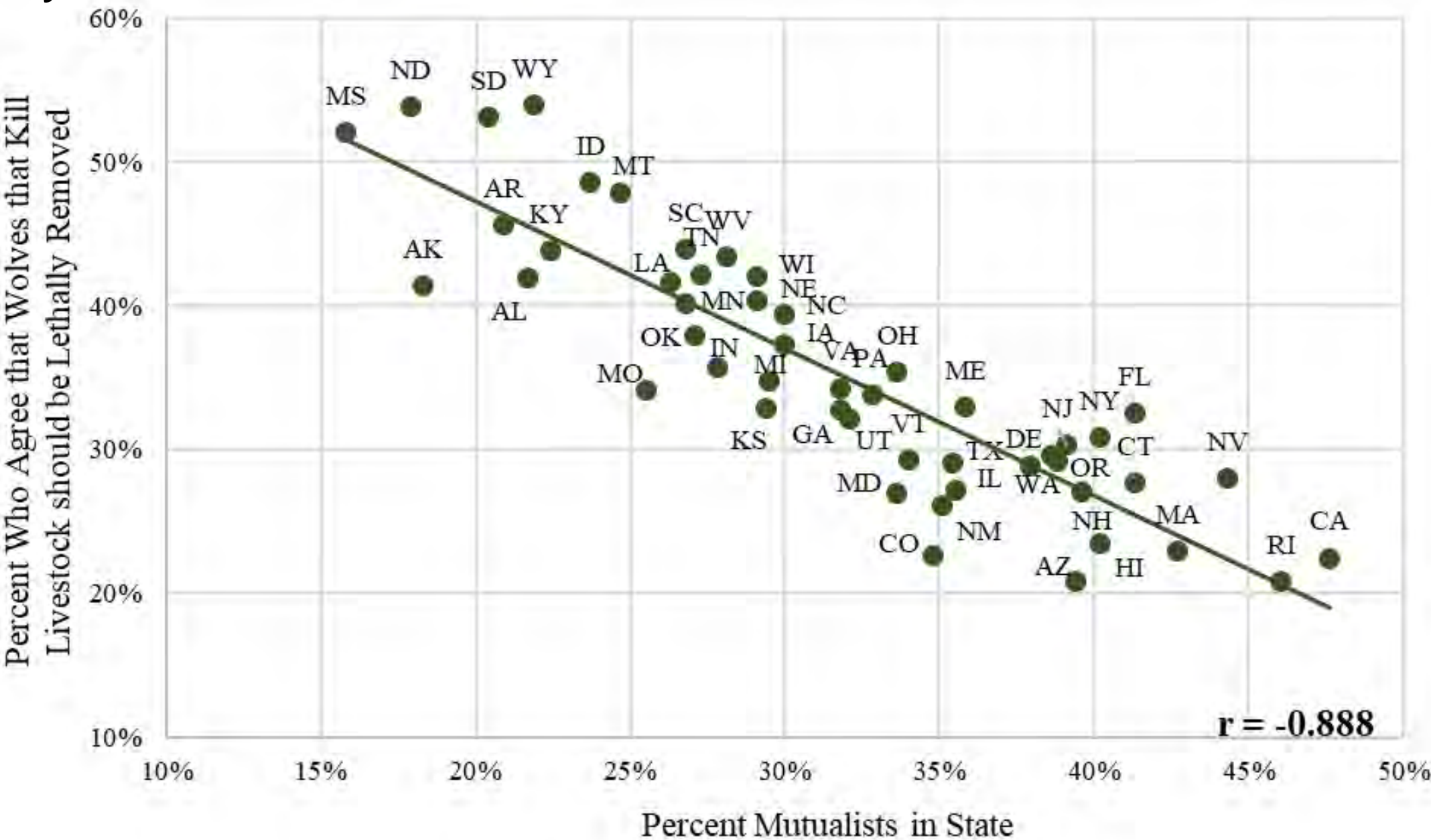
Percent Traditionalists in state by percent who agree that private property rights are more important than protecting declining or endangered fish and wildlife



Percent Mutualists in state by percent who agree that coyotes that kill pets in residential areas should be lethally removed

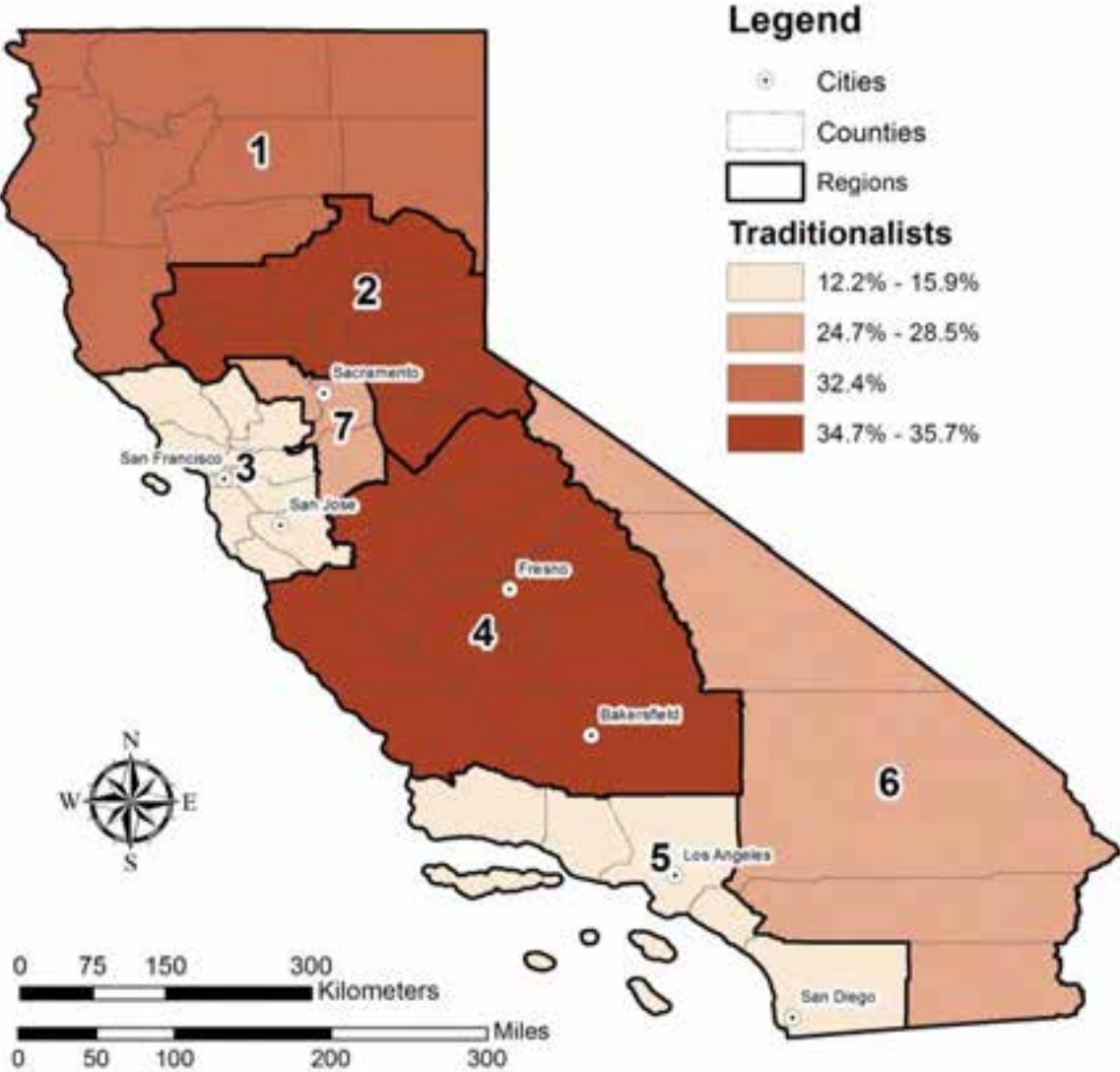


Percent Mutualists in state by percent who agree that wolves that kill livestock should be lethally removed

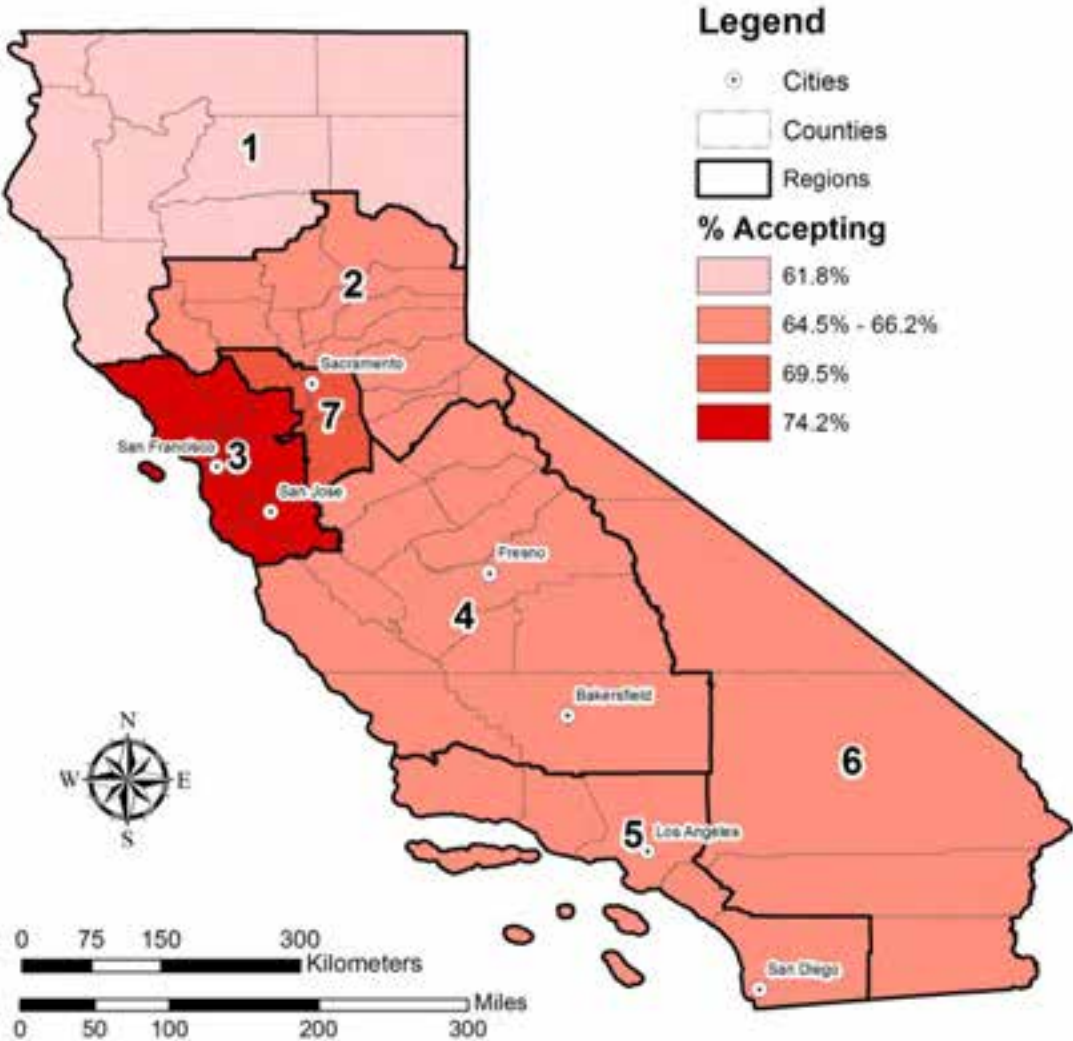


Carnivore Management: Wolves in California

Percent Traditionalists by Region



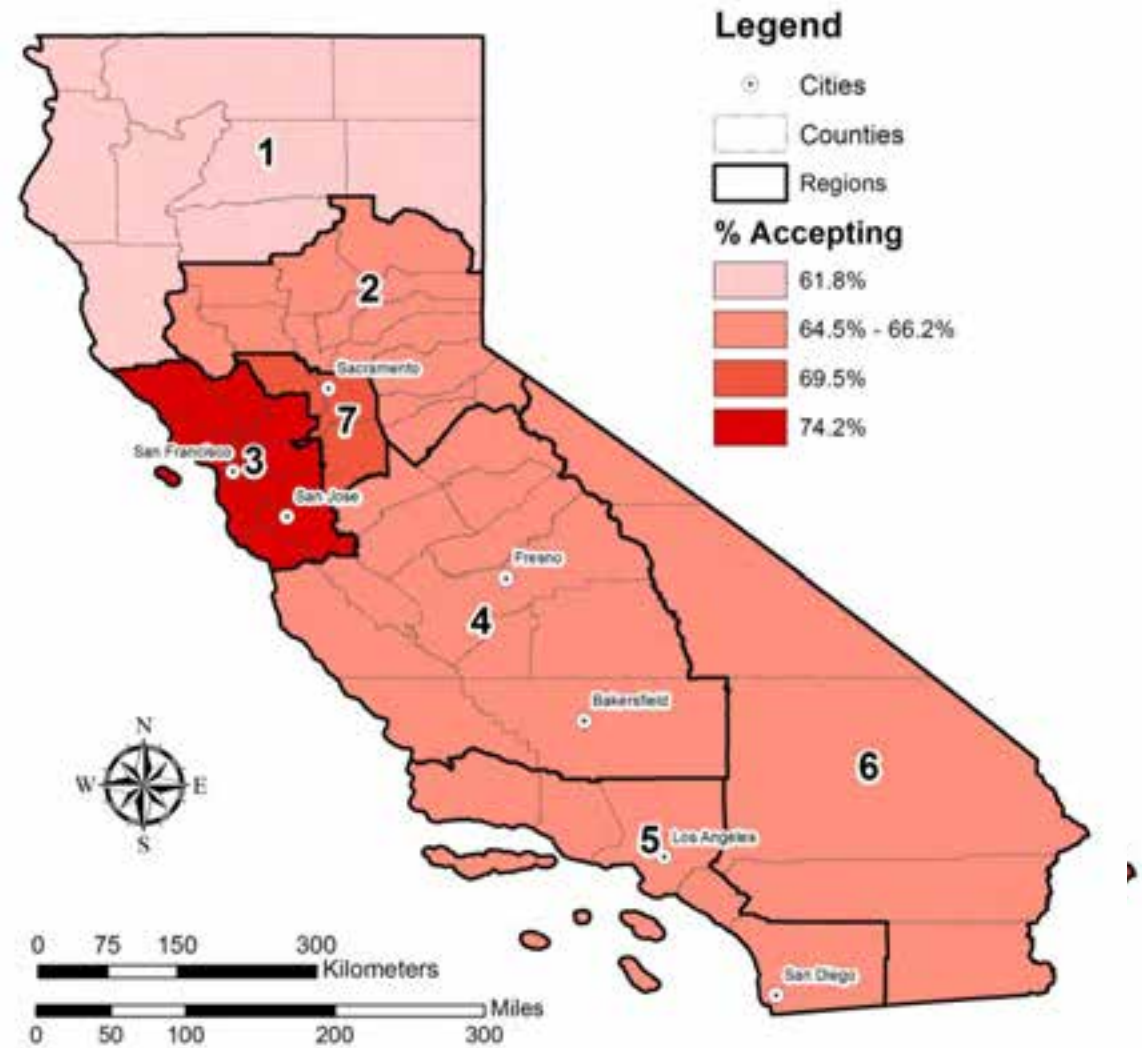
Percent Support for Wolf Recolonization



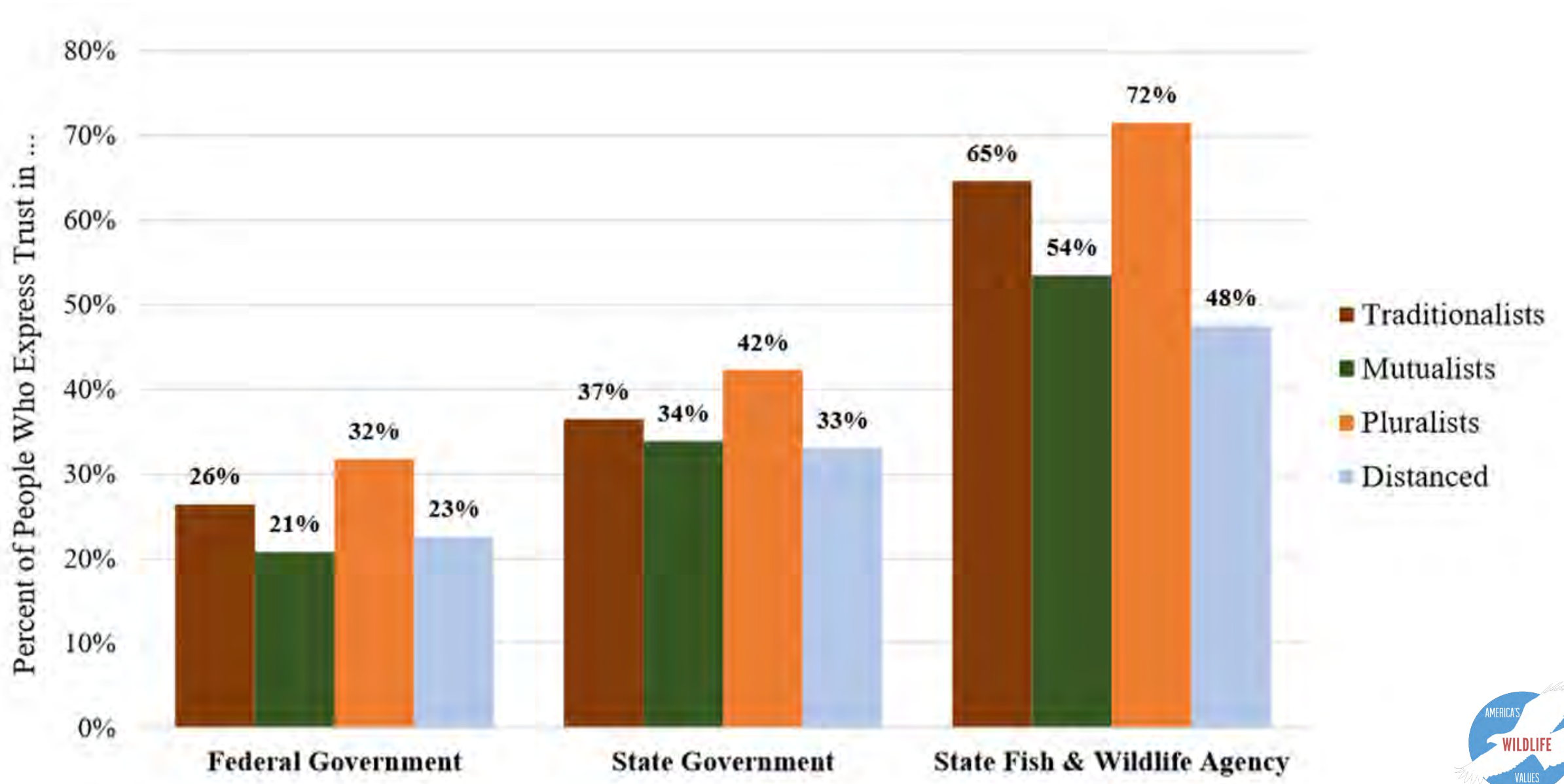
Wolf Habitat Suitability (CDFW, 2016)



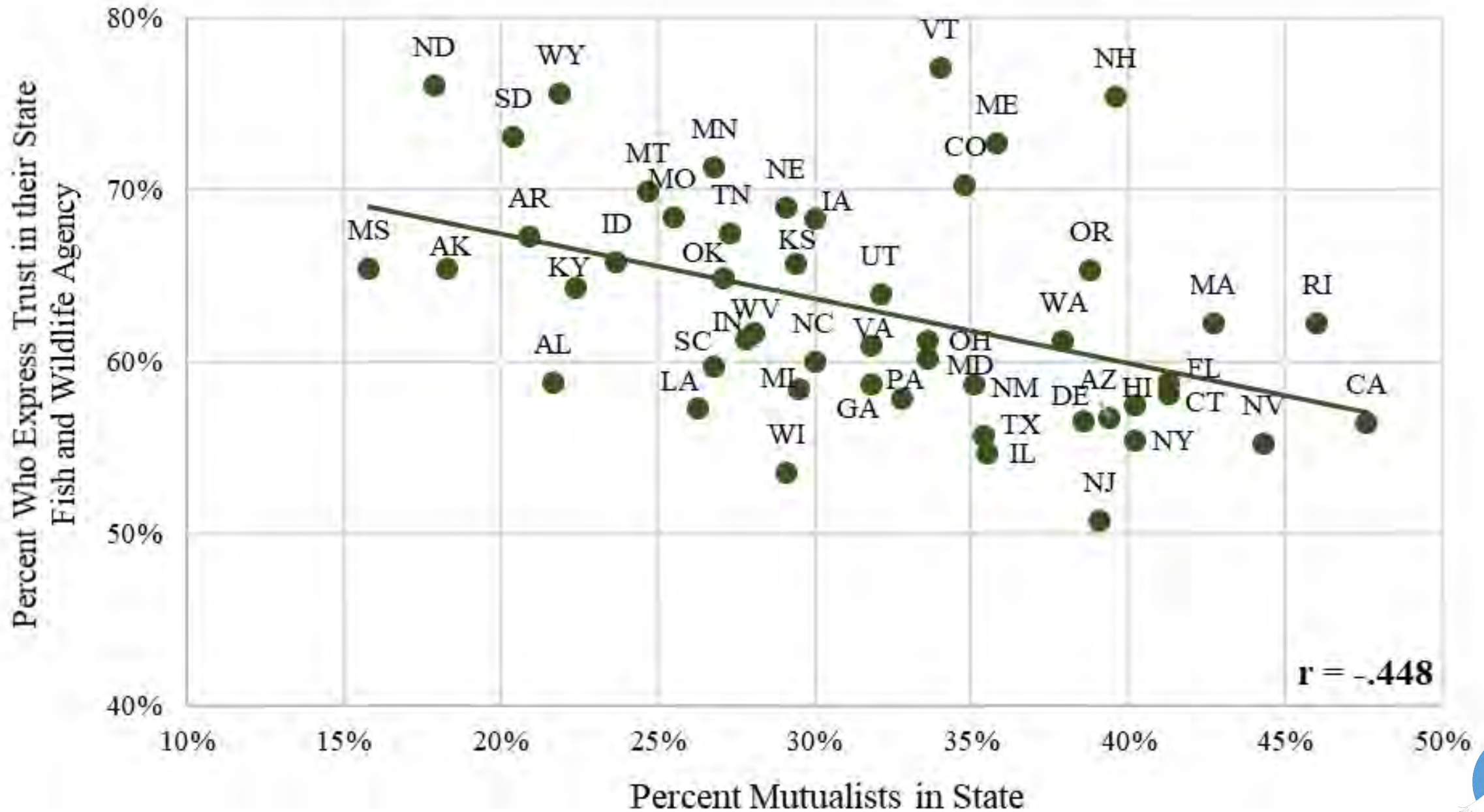
Percent Support for Wolf Recolonization



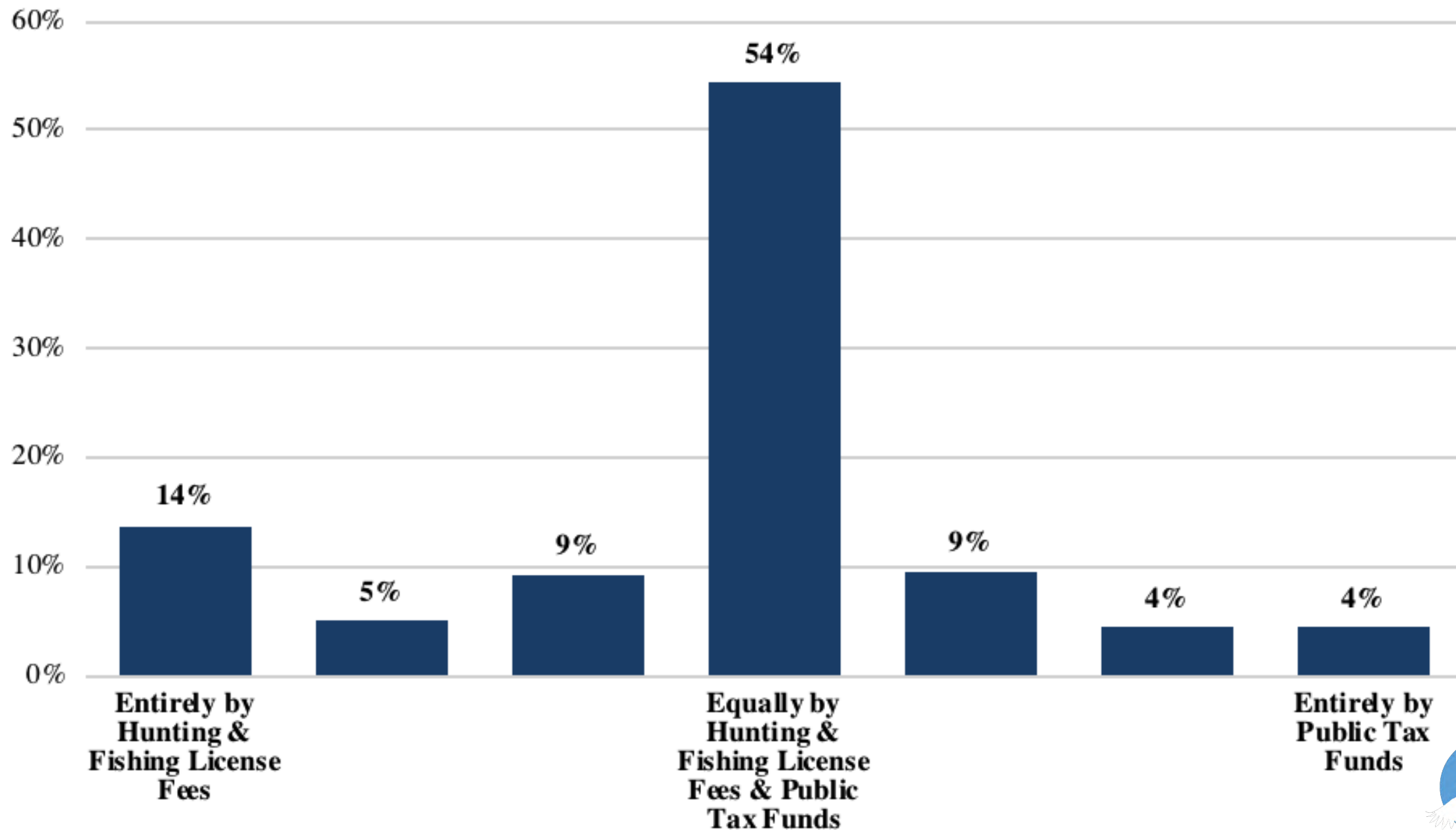
Trust in different levels of government by wildlife value type



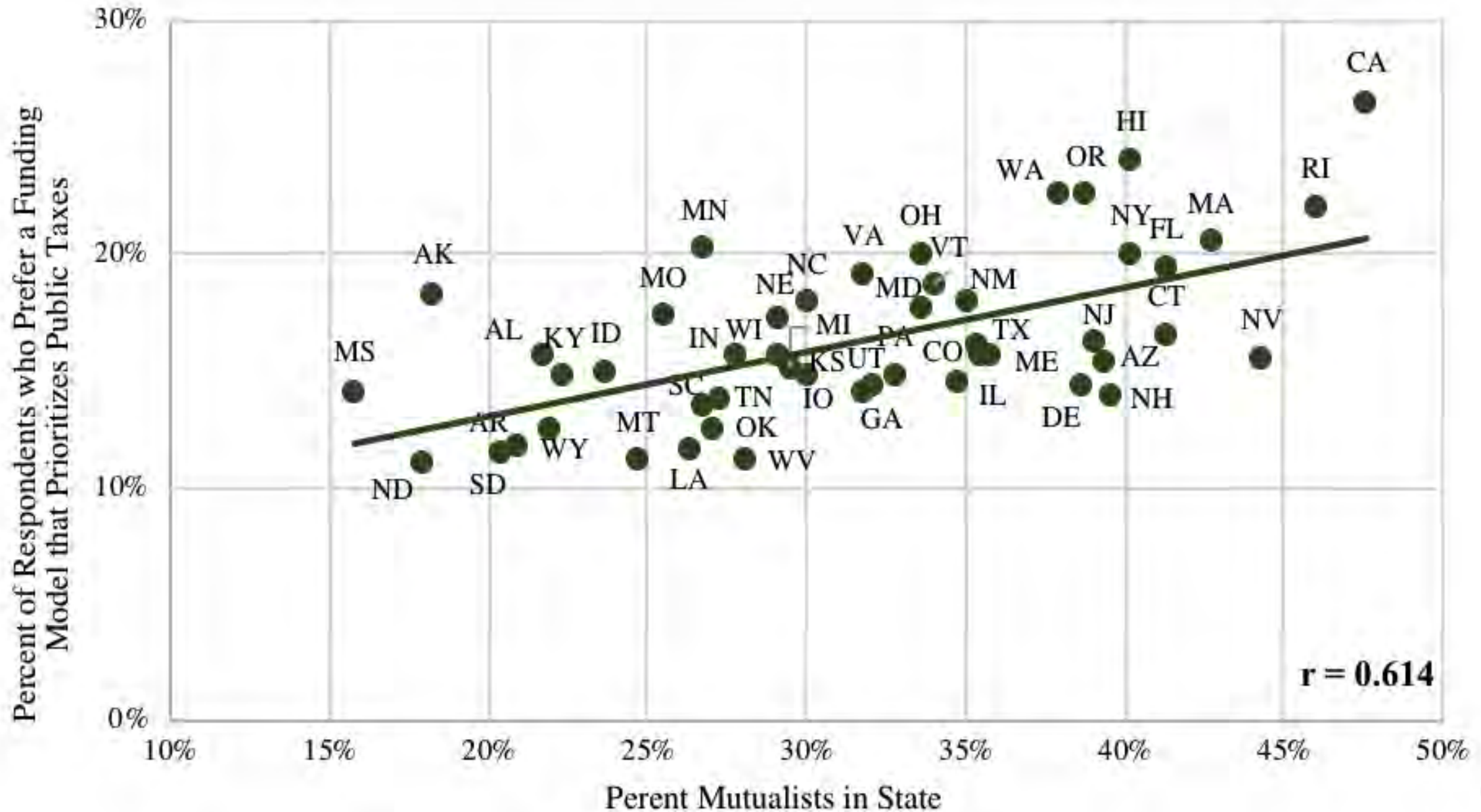
Percent Mutualists in state by percent who trust their state fish and wildlife agency



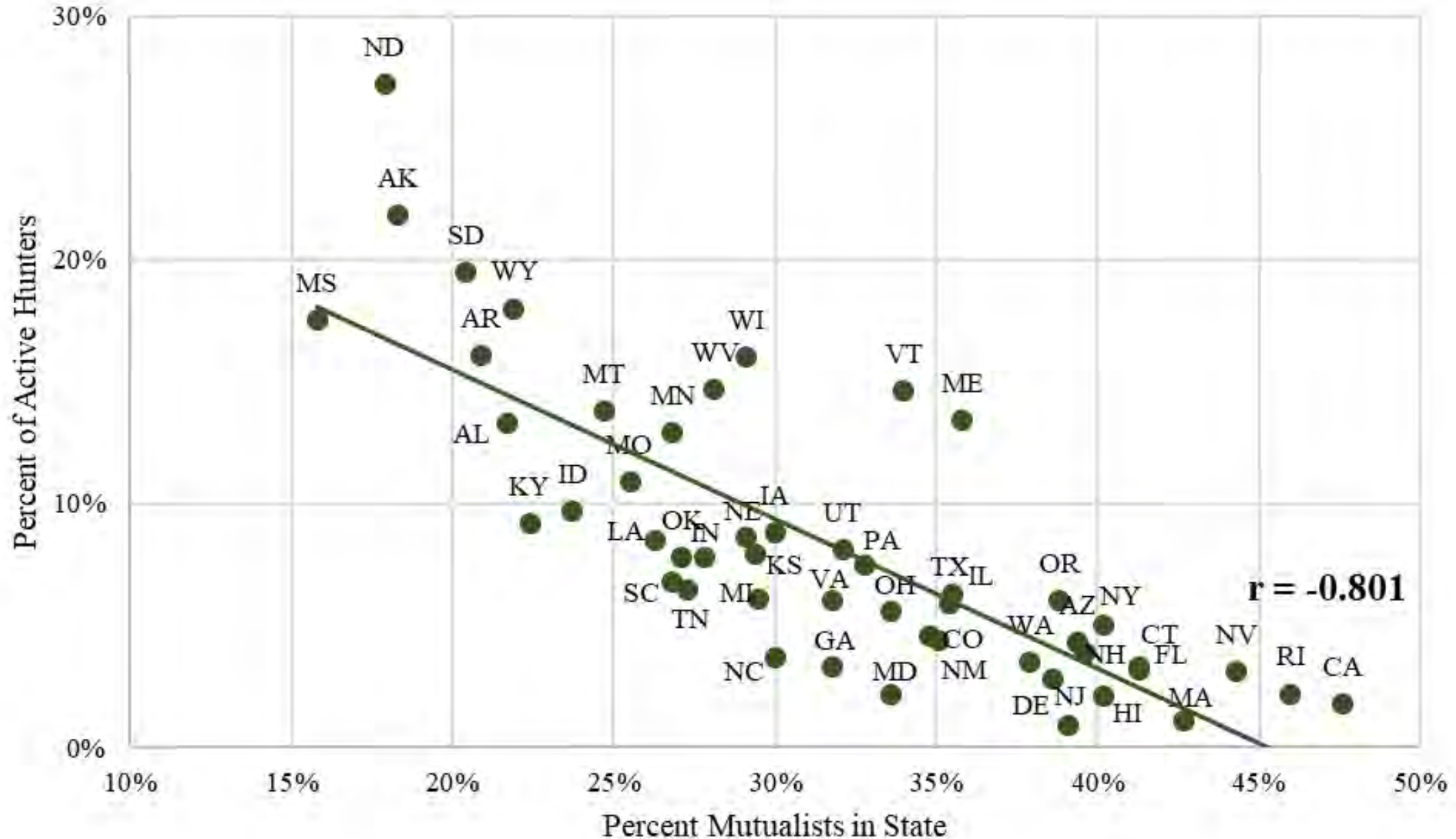
National preferences for state fish and wildlife agency funding



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



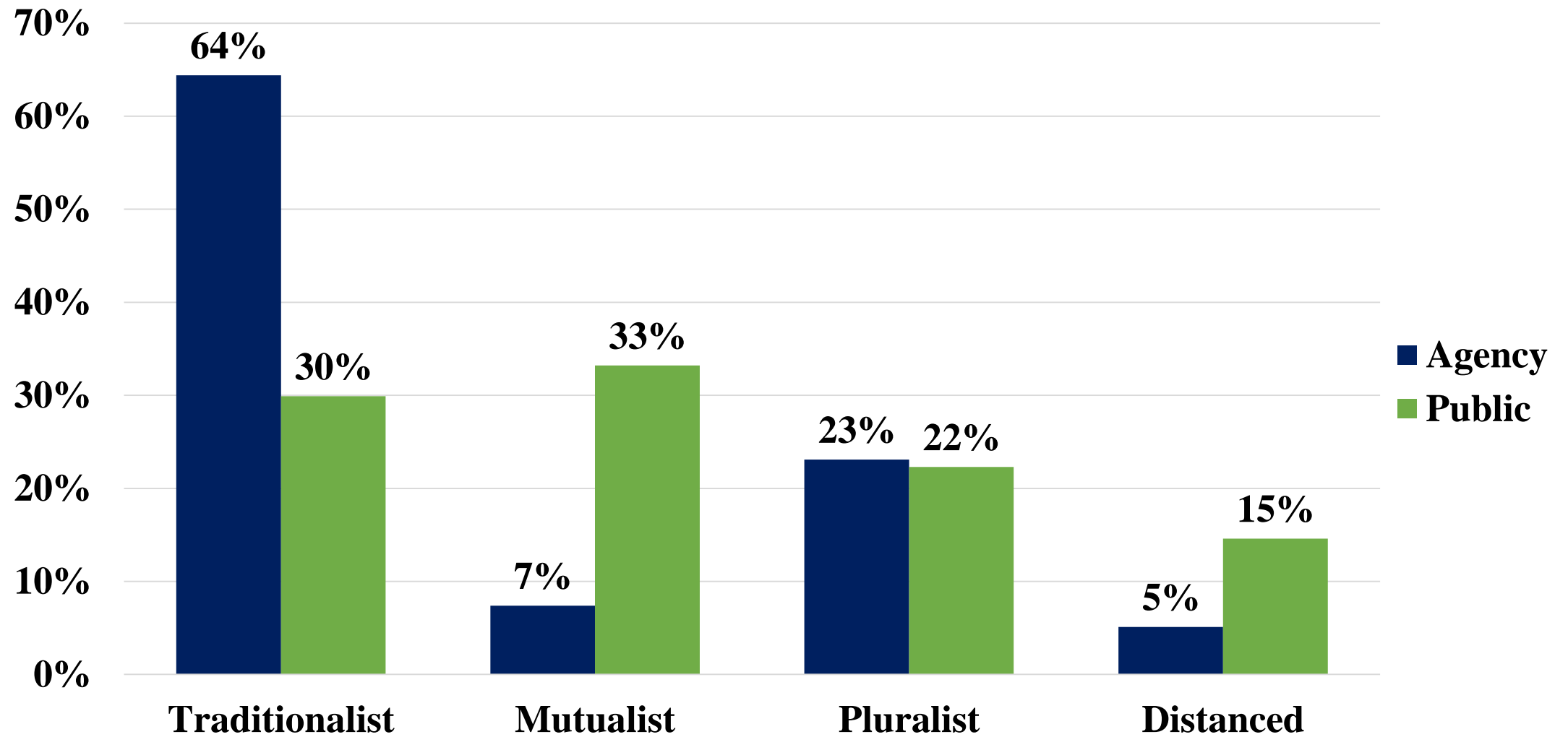
Percent Mutualists in state by percent of *active* hunters (those who had hunted in the past and in the last 12 months)



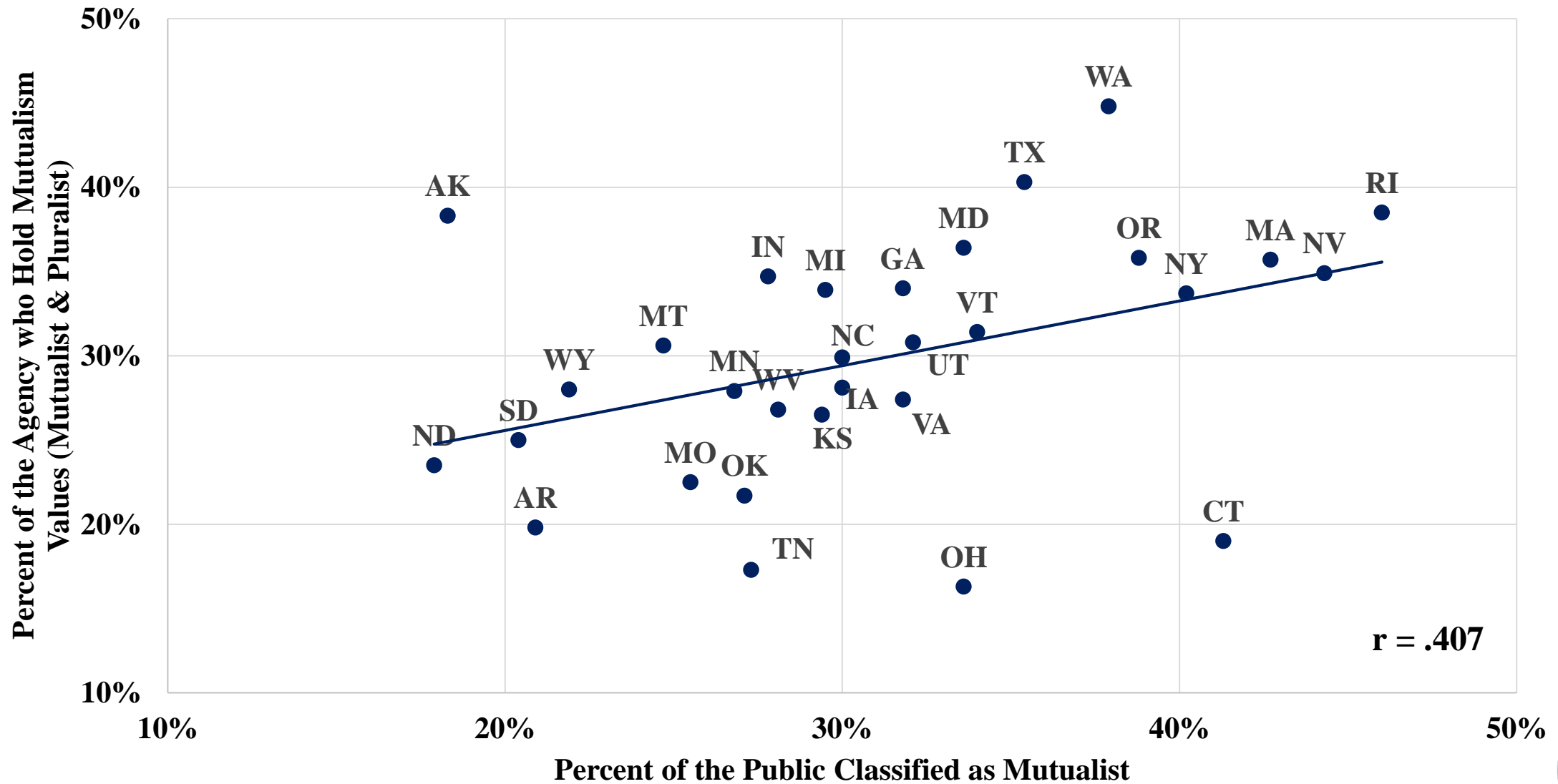


ARE AGENCIES AND THE
PUBLIC CO-EVOLVING?

Comparison of wildlife values in agencies and the public for 30 U.S. States



Towards Value Pluralism in Agencies?



A Strong Unifying Mission and Commitment

Uphold Values of the Agency

Advocates

Expert Scientists

Wildlife Protectors

Enforcers of Law

Compassionate

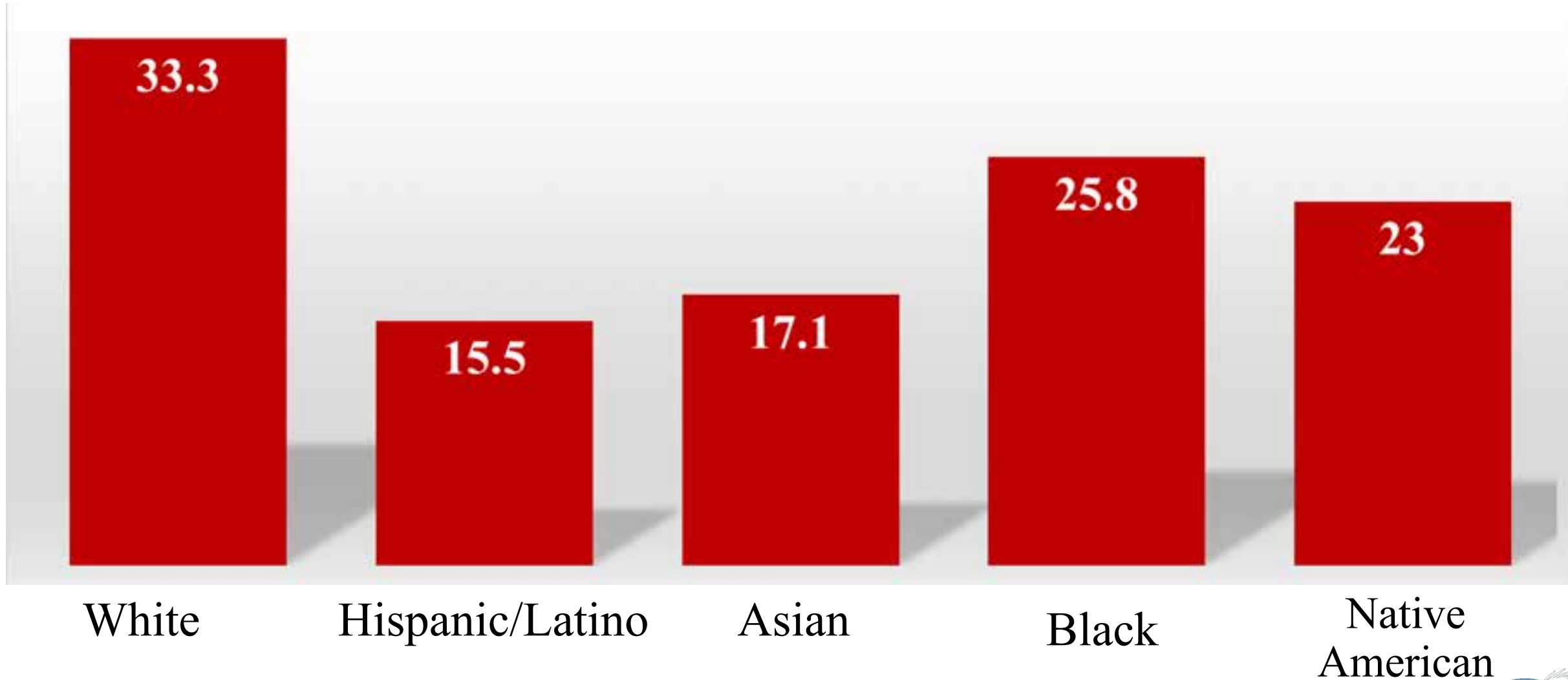
Model Employee





UNDERSTANDING DIVERSE AUDIENCES

Percent Traditionalist By Race/Ethnic Category



Percent Mutualist By Race/Ethnic Category

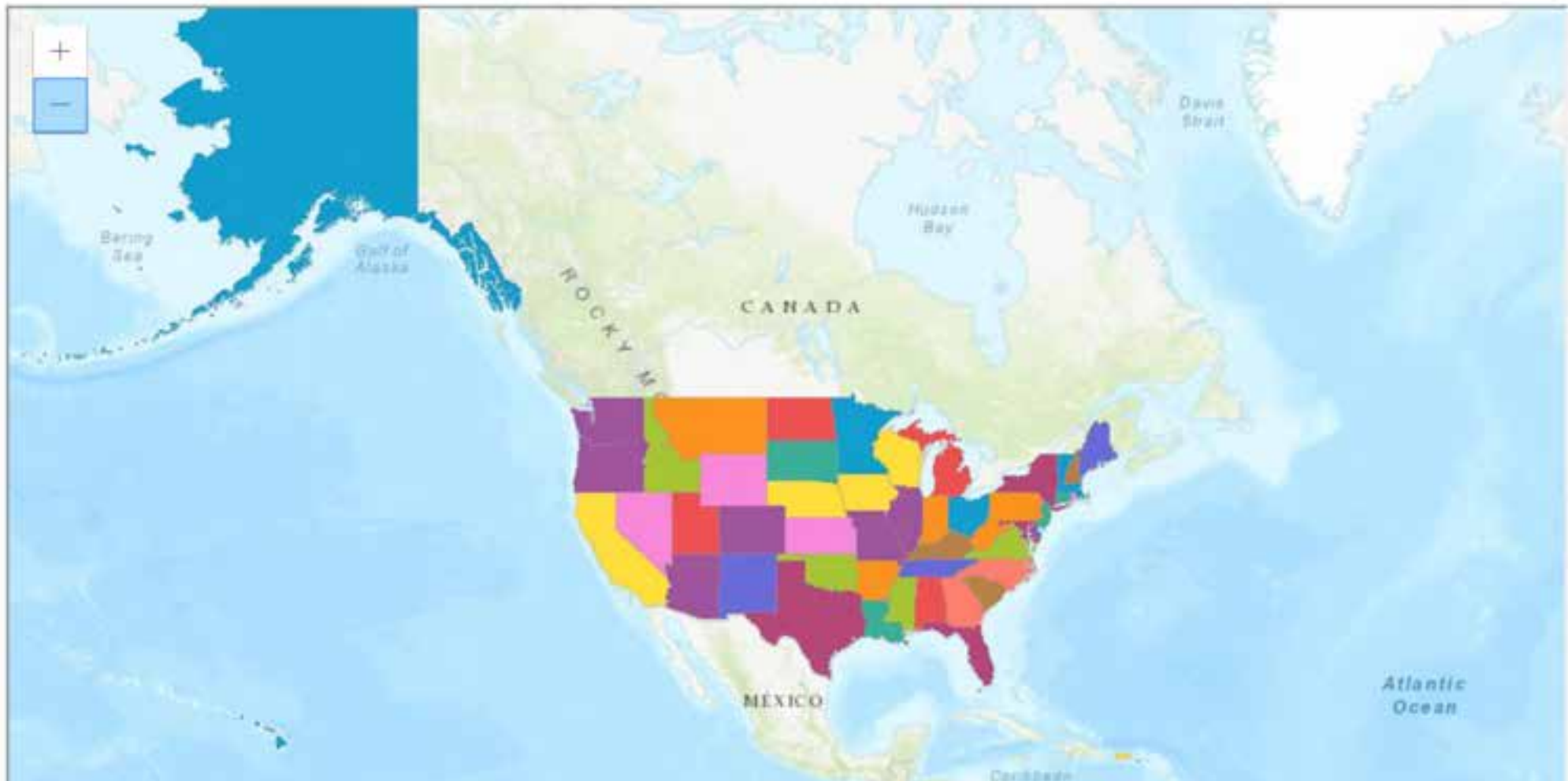


Website: www.wildlifevalues.org

State Level Reports

Detailed Findings For All 50 States And Governance/Agency Culture For 30 States Are Available Via The Interactive Map.

Click the state you wish to access reports for.



Questions?



For more information:
www.wildlifevalues.org