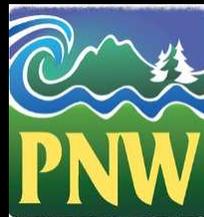


Public and Agency Perceptions about Smoke:

Interview and Survey Results from Four States

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Methods

- 4-phase project
 - 1: Site visits and interviews in 2011
 - 2: Public surveys in 2012
 - 3: Repeat survey in California in 2013
 - 4: Test out new communication ideas 2013-14

Interviews

- 60 individuals across 4 sites
- Land and air quality managers, NGOs, industry, private burners, local govt, local fire protection
- Questions about fire and smoke management, experiences, regulations, communication

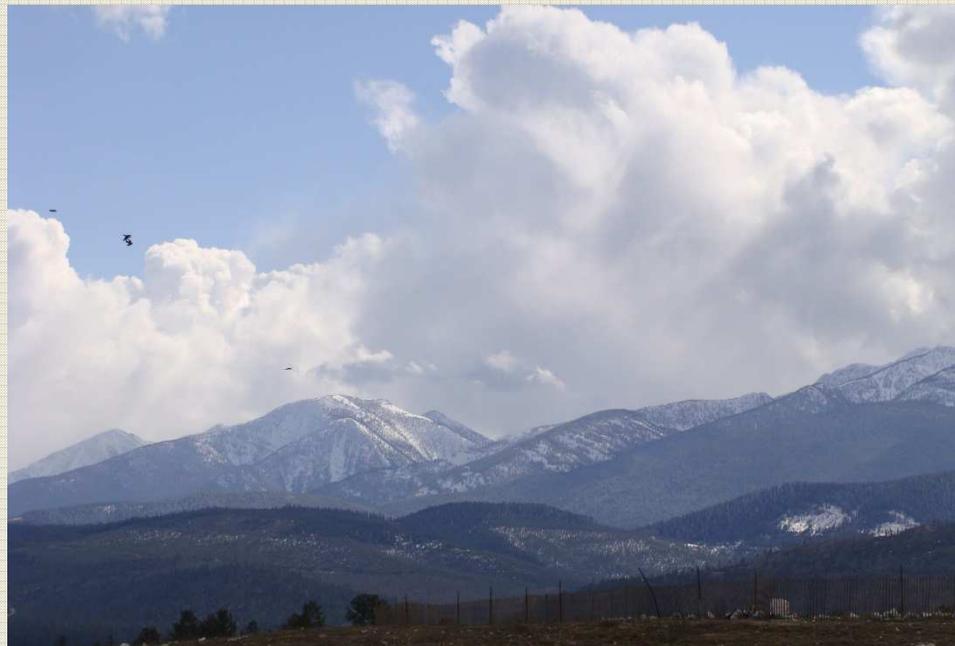
South Carolina

- Cultural acceptance of fire vs. newcomers
- Public disconnected with wildfire risk
- Liability associated with vehicular accidents
- Large partnership network



Montana

- Non-attainment status
- Misunderstanding about regulation boundaries
- Cross-boundary smoke drift
- Airshed coordinating group



Oregon

- Non-attainment status
- Misunderstanding about boundaries and regs
- Insufficient communication
- 2010 PF smoke event
- Biomass may help



California

- Misunderstanding about policy
- Impacts on recreation, economies
- Airshed coordinating group
- WUI very patchy and widespread



Cross-Cutting Issues

- Liability – escapes
- Openness and honesty
- Track record of personnel
- Updated information
- Clear scientific guidance
- Hindered economies
- More communication and outreach!

Agency Perceptions

- Conflicts between agencies
- Lack of resources
- Need internal support
- Need better communication
- Lack of consistent messaging
- Interest in novel ways to communicate

Communication

- Challenges
 - Uncertainty about effectiveness
 - Conflicting and confusing messages
 - Internal priorities
- Addressing Challenges
 - Consistent/coordinated mgmt across boundaries
 - Improving communication
 - Institutional priority
 - Coordinating messages across/within agencies
 - Utilizing social networks
 - Optimizing resources
 - Fostering relationships with public
 - Engage in-person
 - Get involved in partnerships

Mail Surveys

- Over 1000 responses total – 24% response rate
- Respondents:
 - 58% male
 - Mean age of 61
 - 88% Caucasian
 - 33% some college or more
 - Middle class (\$40-60k)

Public Opinions about Smoke from Wildfire and Land Management Activities



A Survey of Citizens in Southern Oregon

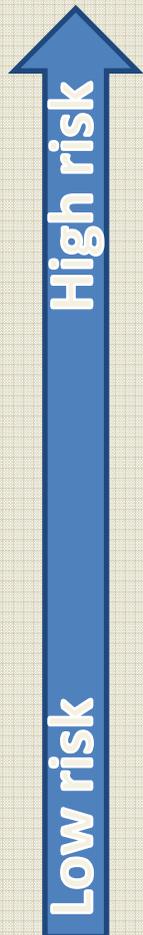
This questionnaire was developed by researchers at The Ohio State University and Oregon State University. The findings will be summarized to help forest managers and scientists better understand citizens' opinions of smoke management from fires. We are asking for your help because you live near public and private lands where management practices may result in smoke.

The first set of questions is about general land and smoke management. These are followed by questions about your trust in and communication with land and air management agencies. Finally, we ask a few questions about you so that we can better understand who our respondents are. All responses are confidential.

Perceptions of Risk

- 8 risk items - likelihood (1-7) X severity (1-7)

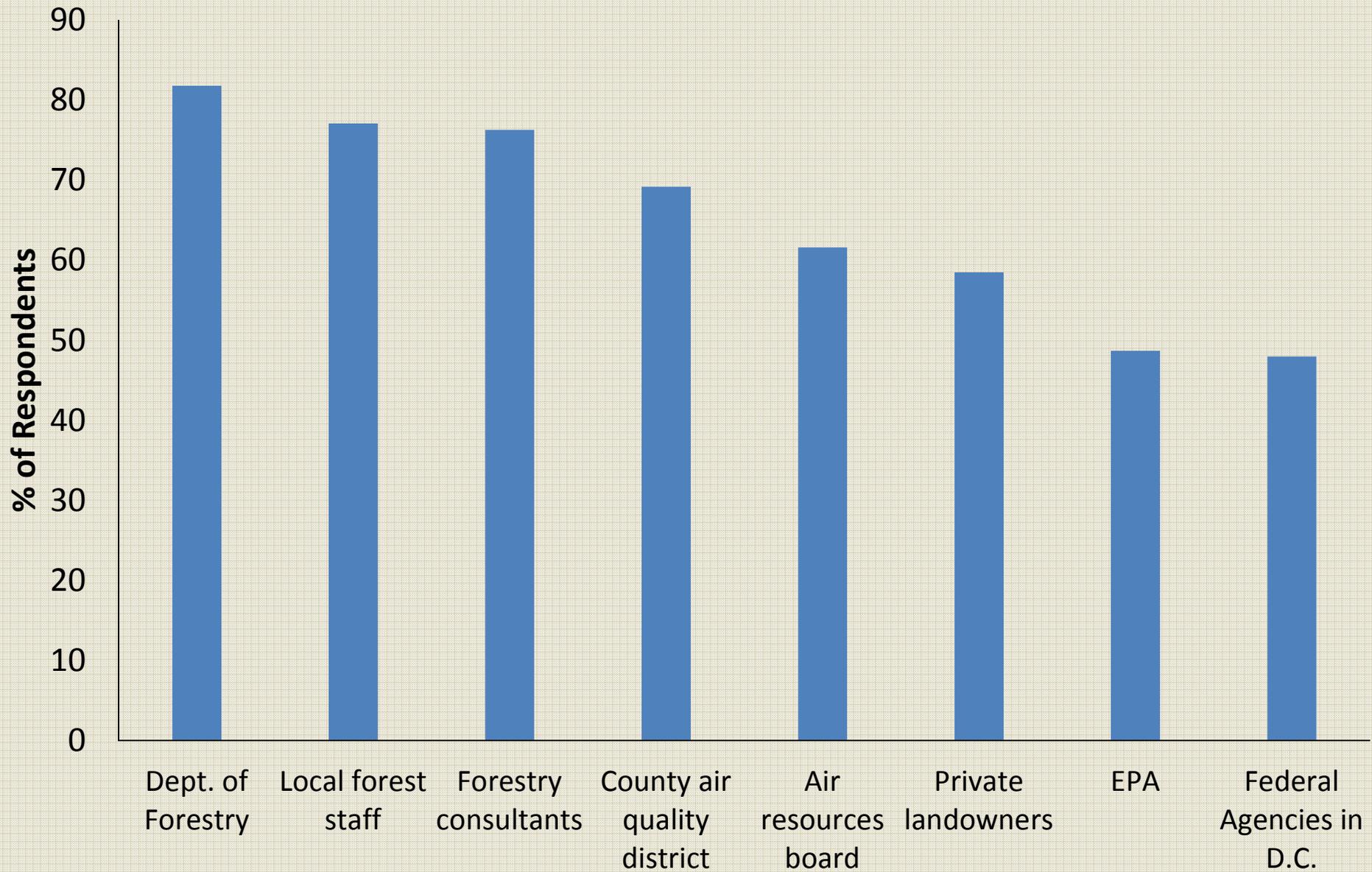
1 = No Risk, 49 = High Risk



1. Family's health ($m = 21$)
2. My health
3. Negative impacts to scenery
4. Reduced tourism
5. Reduced opportunities for rec participation
6. Reduced ability to accomplish activities on my property
7. My travel (road closures)
8. My ability to work ($m = 11$)

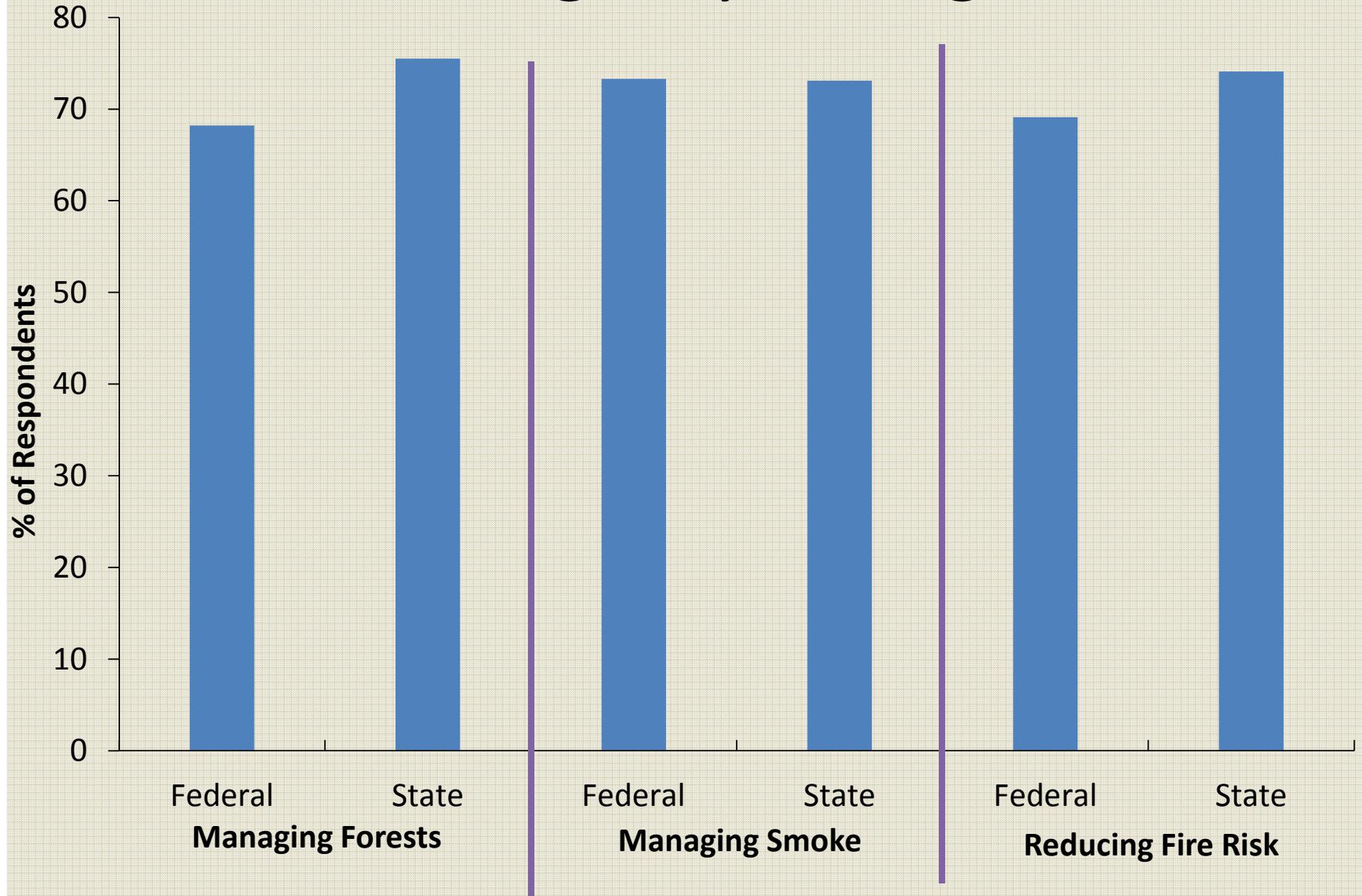
1 = No Trust, 7 = Full Trust
4+ is graphed

Trust

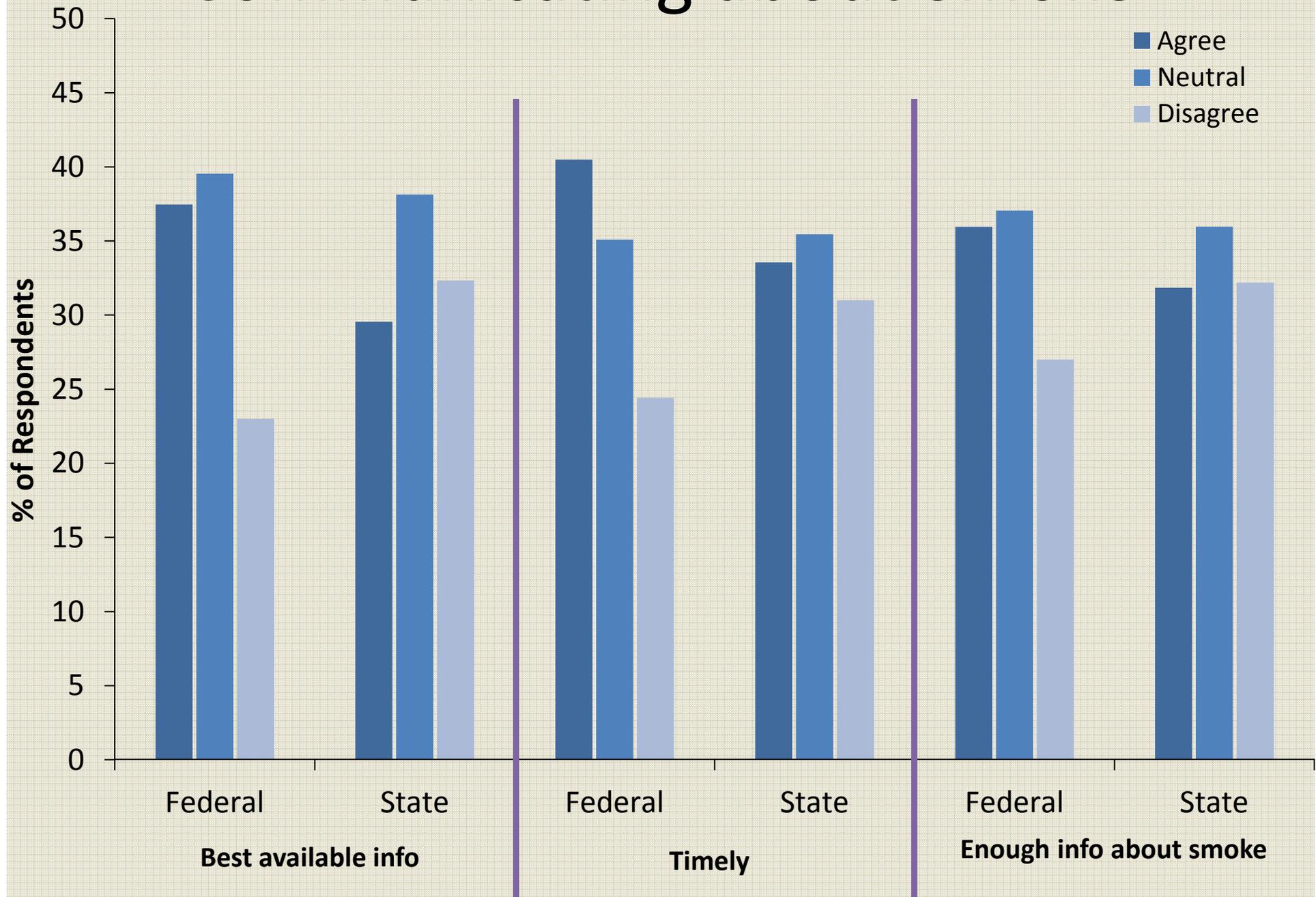


Agency Ratings

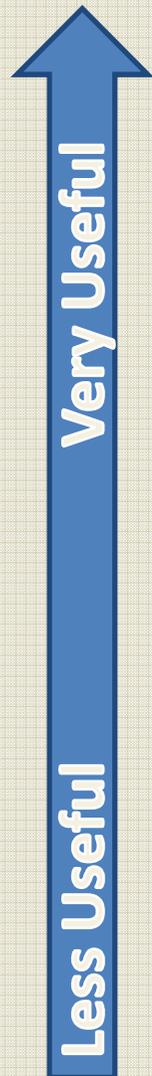
1 = Poor, 7 = Excellent
4+ is graphed



Communicating about Smoke



Communication Source Usefulness



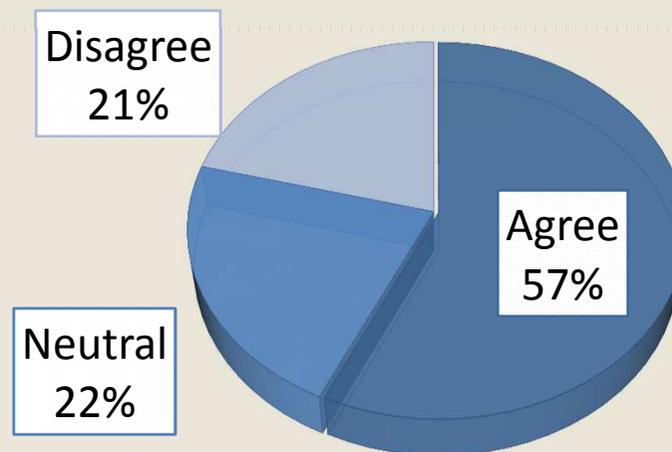
1. TV and radio public service messages ($m = 3.4$)
2. Newspapers/ Magazines
3. Family/Friends/Relatives
4. Billboards and road signs
5. Visitor center/ interpretive signs
6. Informational brochures
7. California air quality call line
8. Conversations with agency staff
9. General web pages
10. Forest Agency web pages
11. California air quality website
12. Newsletters
13. Educational workshops
14. Government public meetings
15. Environmental Protection Agency website
16. Flyers or door-hangers ($m = 2.1$)

1 = Not Useful,
5 = Very Useful

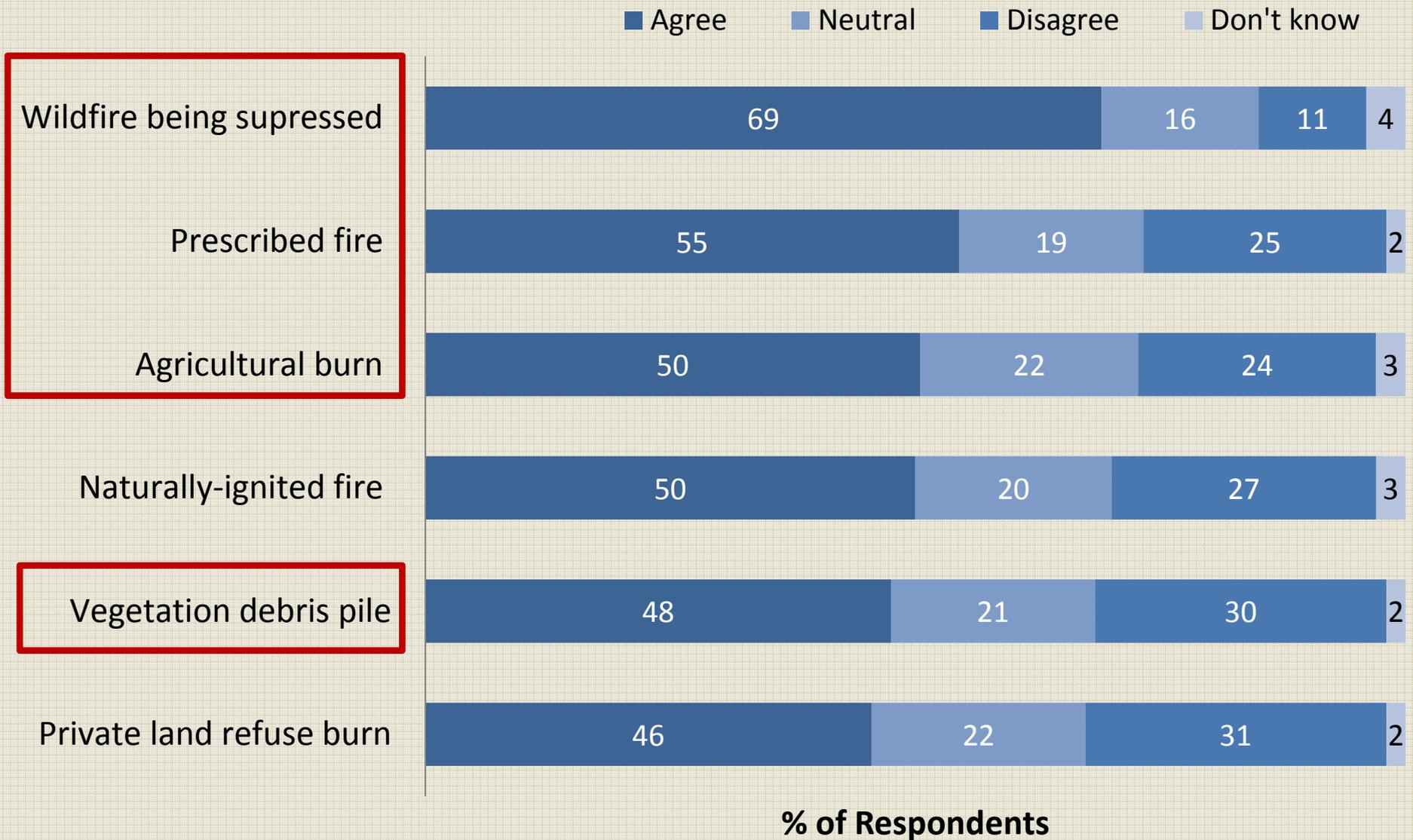
Acceptance of Smoke

- What is acceptability?
 - Affective (values, emotions) and cognitive (knowledge, lack of understanding) comparison of alternatives
- Most (71%) can figure out source of smoke

Acceptance of smoke influenced by fire type



Acceptance of Smoke: Origin



What Influences Acceptance?

	Wildfire	Prescribed	Let Burn	Pile
Smoke confidence	++	+++	+	
Smoke risk	---	---	---	---
Smoke impacts				
Fire type	+++			
Education			+++	
Age		-	-	
Comm experience				+
PF benefits		+++		
Adjusted R ²	.12	.41	.17	.19

p < 0.05, 0.01, 0.001

Summary

- Information needs are high
- Communication needs to be better
- Impacts on health are of great concern
- Risk perception influences acceptance
- Competence managing smoke important



Shasta-Trinity NF Fire