

Valuation of Non-Market Services Provided by Gulf of Mexico Habitats

Cristina Carollo

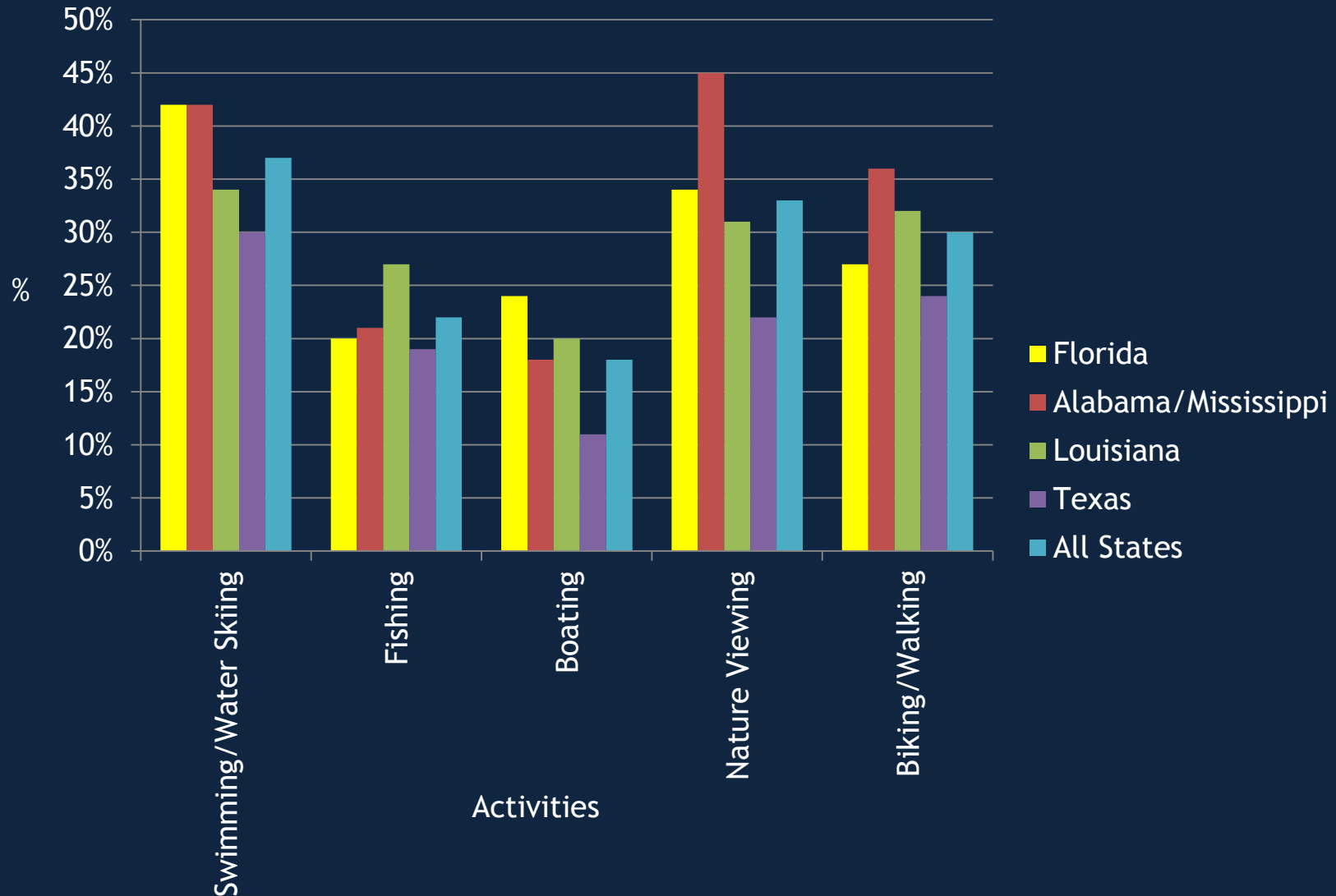
David Yoskowitz, Alan Krupnick, Juha Siikamäki, Lauren Hutchison



The geographic location of the study is the
US Gulf of Mexico coast



People engage in different activities along the US Gulf coast



Quantify preferences of ecosystem services provided by marshes, mangroves, and oyster reefs



Source: NOAA

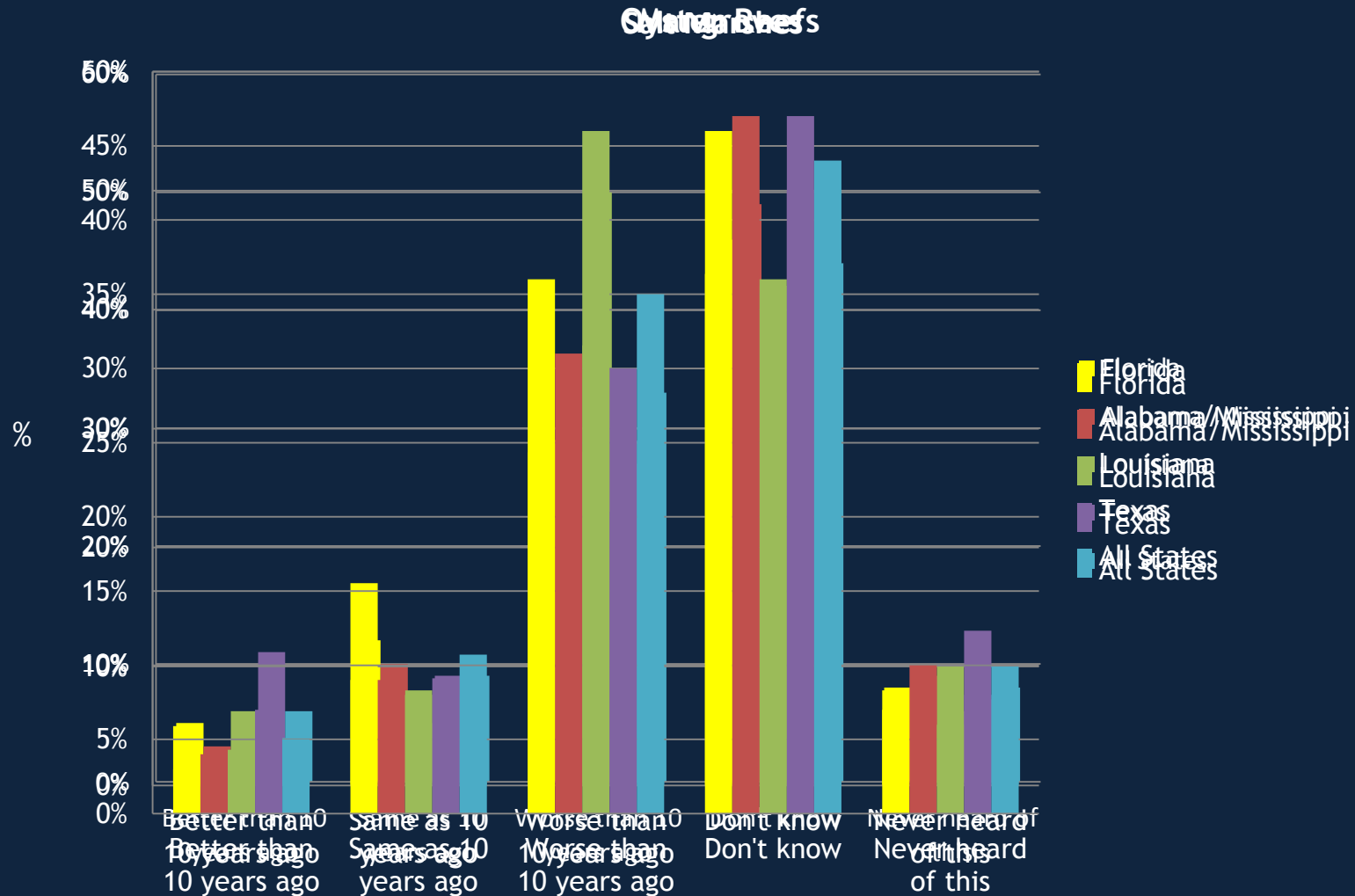


Source: USGS



Source: oysterrestoration.org

People think environmental conditions are worse now than in the past



Quantify preferences of ecosystem services provided by marshes, mangroves, and oyster reefs

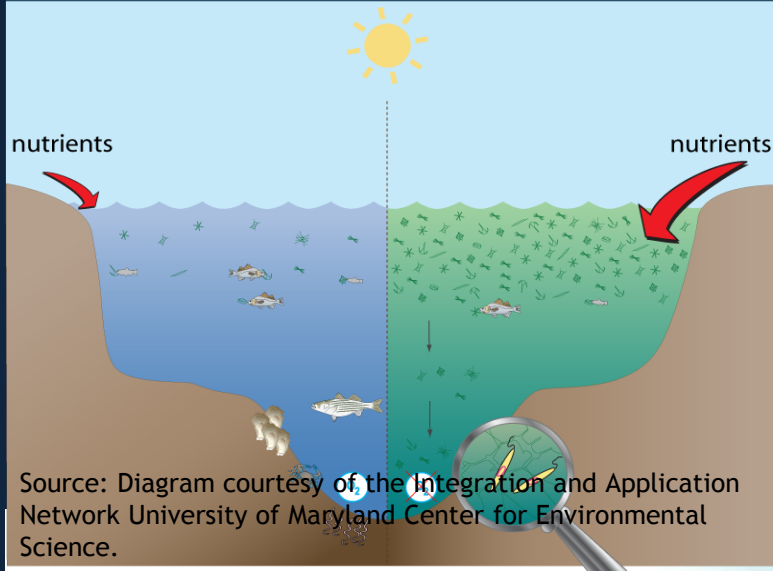


Habitat
Water Quality
Aesthetic and existence
Spiritual and historic
Recreation

} Passive use value



Passive use values are not associated with any direct use of the ecosystem; they cannot be estimated using information on actual behavior



The technique for eliciting and estimating passive use values employs choice experiments

This implicitly requires tradeoffs, since no single alternative will perform better on all attributes



Mark the box at the bottom to indicate which program you would vote for



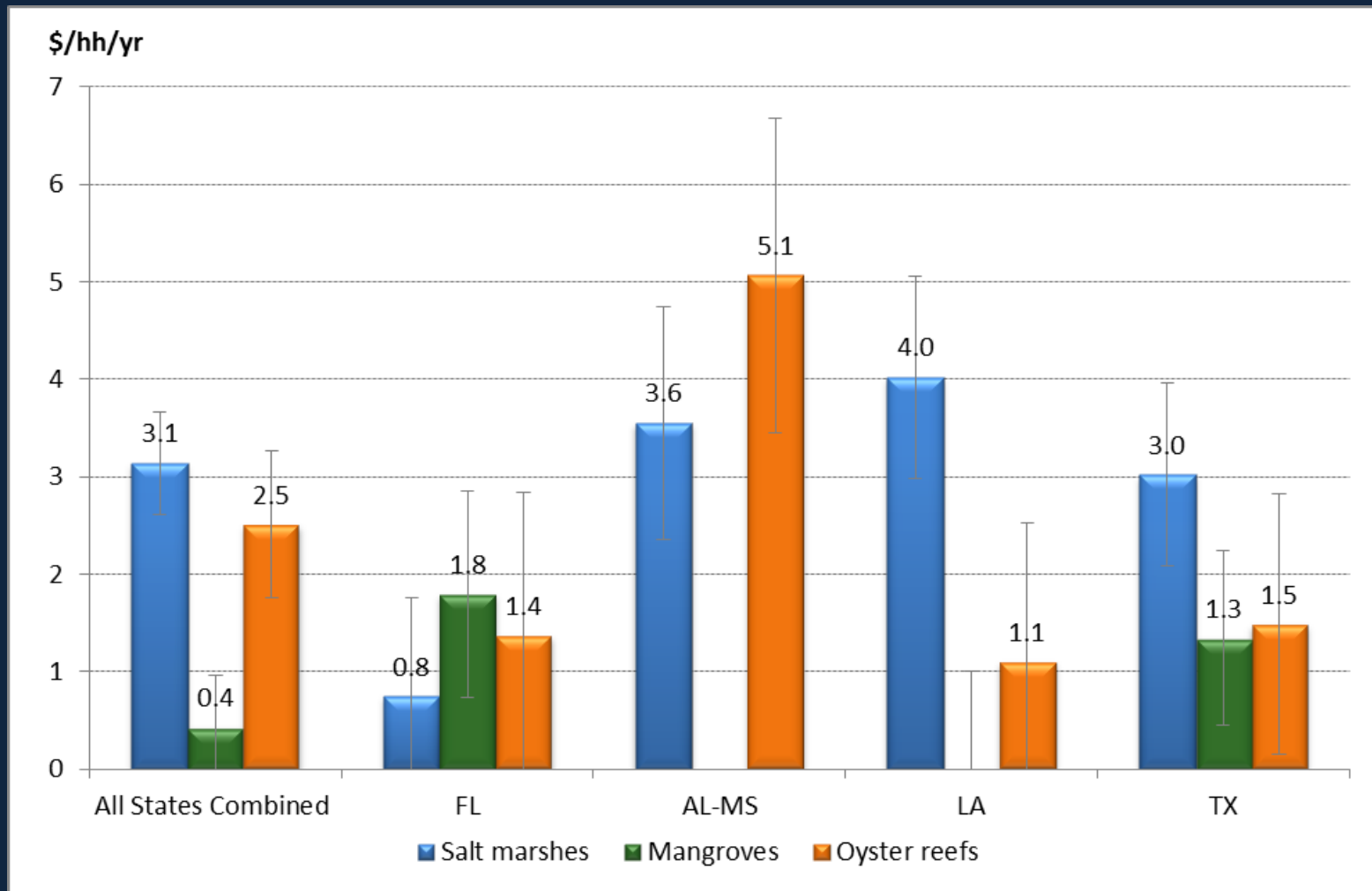
Present Conditions (area in square miles)	Conditions in 2050		
	No Further Action	Program A	Program B
Marshes <i>1300 square miles</i>	1000 square miles	1150 square miles ↑15%	1050 square miles ↑5%
Mangroves <i>120 square miles</i>	100 square miles	105 square miles ↑5%	110 square miles ↑10%
Oyster Reefs <i>14 square miles</i>	10 square miles	12 square miles ↑20%	11 square miles ↑10%
Increase in your electric bill for the next 10 years	\$0 per year	\$240 per year or \$20 per month	\$120 per year or \$10 per month
Your Vote Please mark <u>one</u> of the boxes to the right	<input type="checkbox"/> No Further Action	<input checked="" type="checkbox"/> Program A	<input type="checkbox"/> Program B

The quality of valuation estimates from a choice experiment critically depends on the quality of the survey

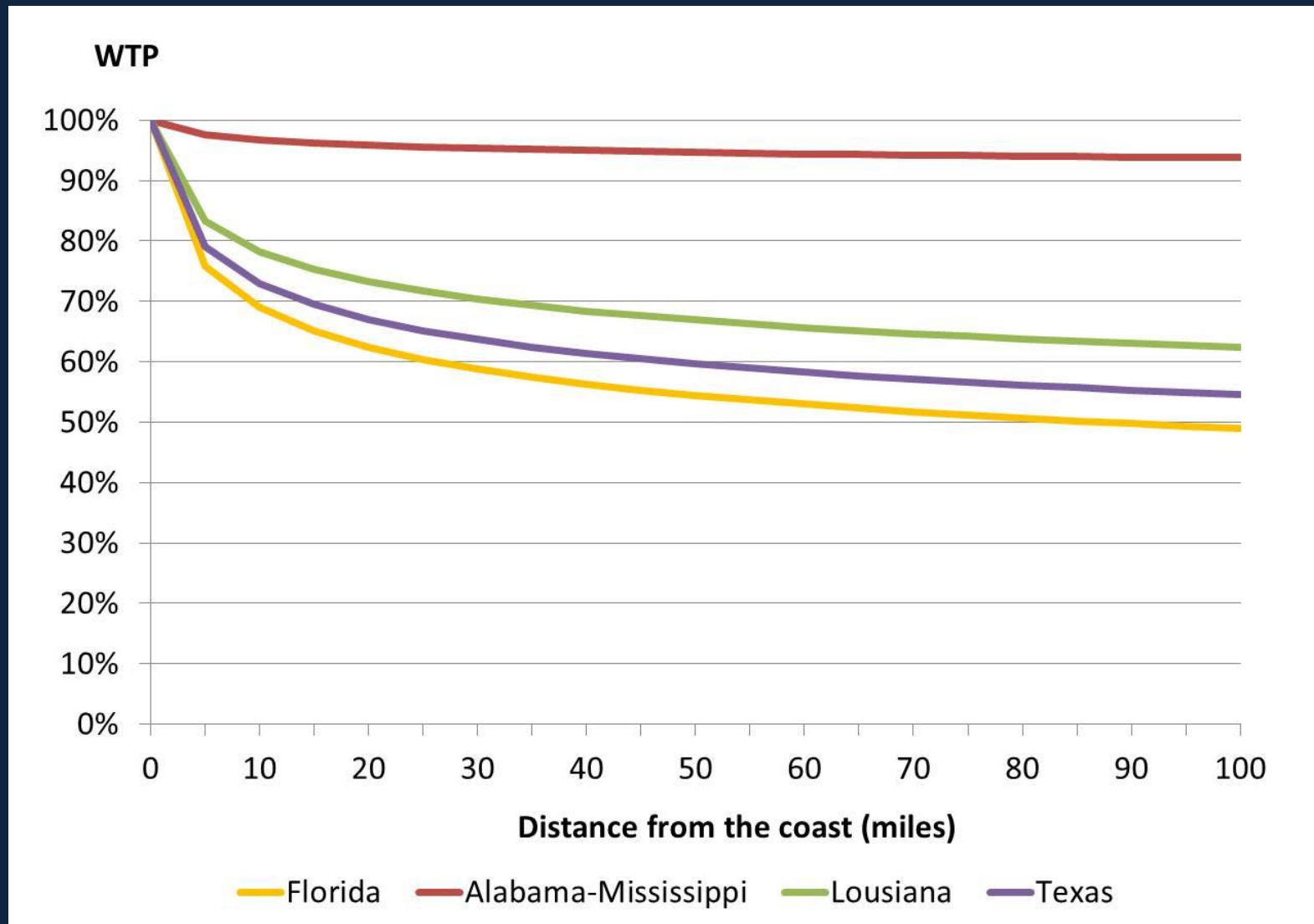
- Number of respondents: 1274
 - Florida: 316
 - Alabama/Mississippi: 318
 - Louisiana: 297
 - Texas: 343
- Rigorously developed respondent panel used broadly for academic research
- Representative samples at the state level
- Computerized survey



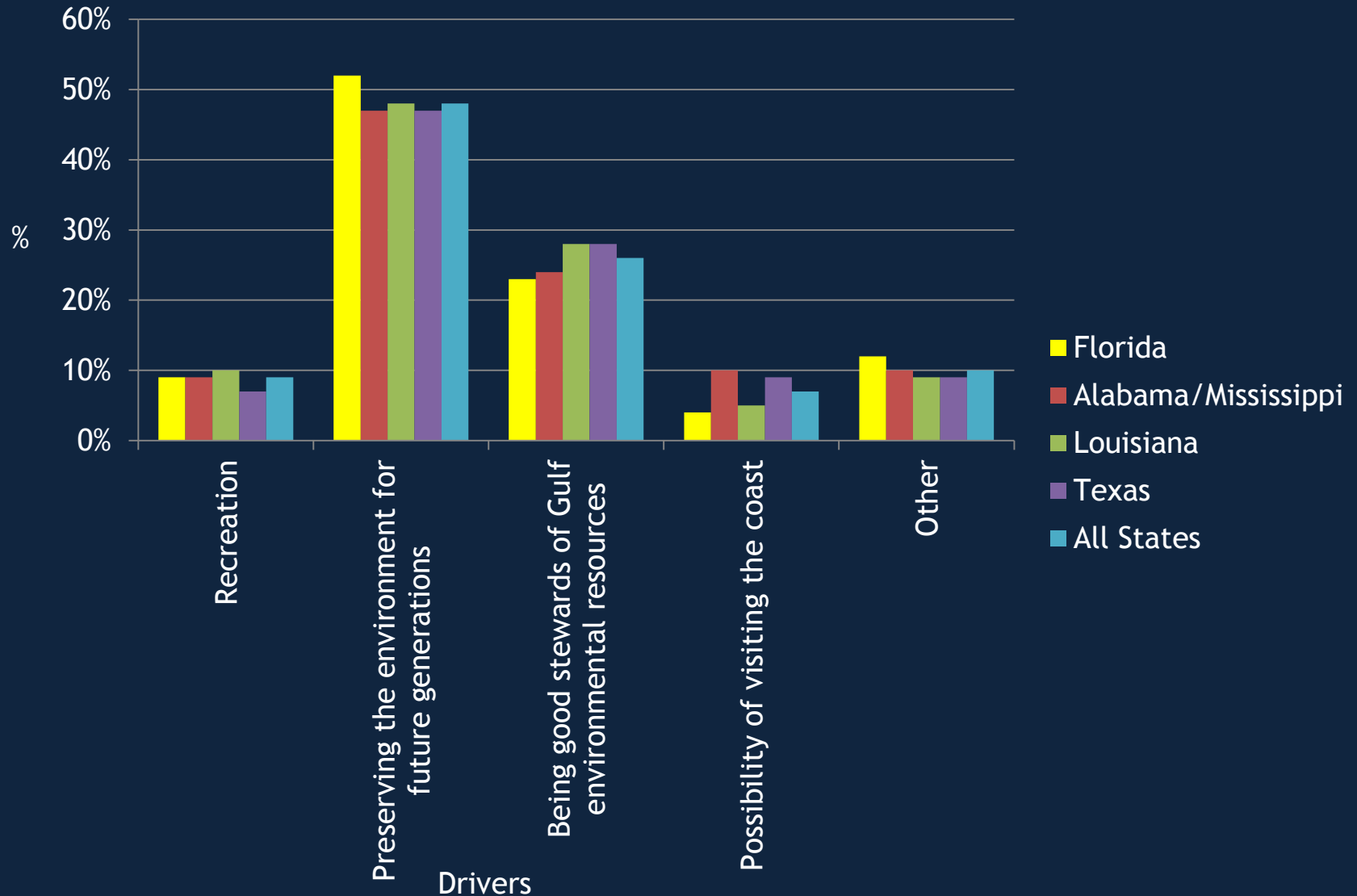
Willingness to pay for improved habitat protection by habitat type and state



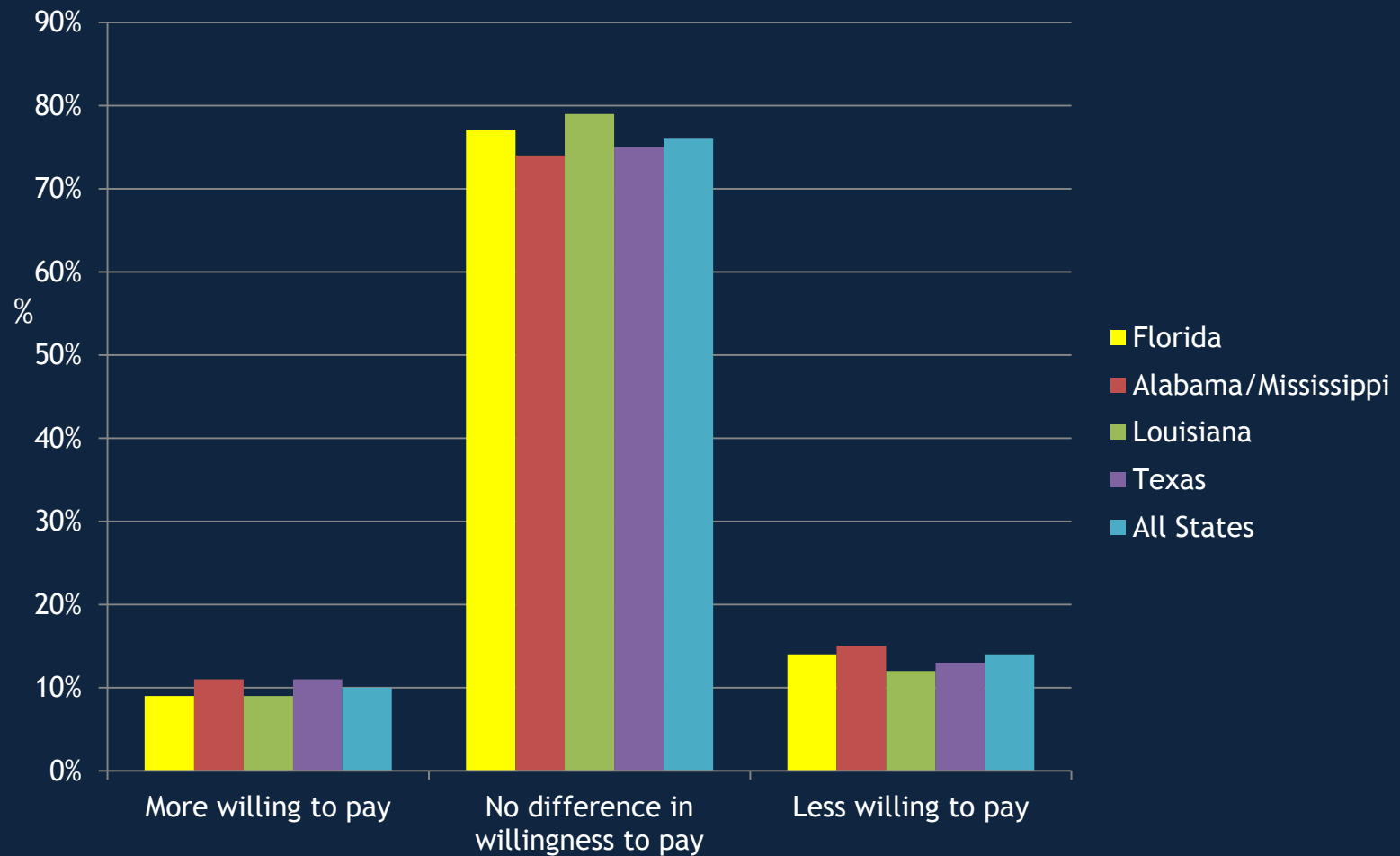
WTP for improved habitat protection decreases with increasing distance from the Gulf Coast



Preserving the environment for future generations is the primary driver



DWH oil spill did not affect respondents' willingness to pay



Project sponsors

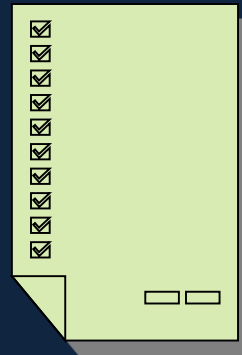
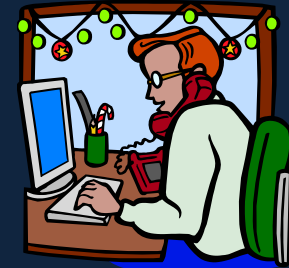


Thank you

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Survey Development

- 5 focus groups:
 - 2 Washington D.C. (pre-survey)
 - 2 Texas
 - 1 Mississippi/Alabama
- Final survey testing
 - Mississippi/Alabama
 - 6 surveys and 4 follow up one-on-one interviews
- Pilot survey:
 - 50 in Mississippi/Alabama
 - 50 in Florida



Survey Development - Voting



“Please think carefully about how you would actually vote in these situations. We urge you to respond as though costs for your household really would go up if the program were implemented.”

“Please take time to consider both the benefits of the program and the costs to your household.”

“Paying the costs means your household would have less money to spend on other things such as food, clothes, trips, and even towards resolving other environmental problems you care about.”