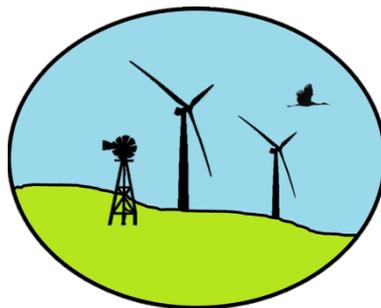




# **Nebraskans' views of wind energy development and wildlife: Results of the 2012 and 2013 Nebraska Annual Social Indicators Survey**



**Caroline Jezierski, Craig Allen, Michelle Koch, Joseph Fontaine, Rick Schneider, Tim McCoy**

# SURVEY INTRODUCTION

- The Nebraska Wind and Wildlife Project contributed to the [Nebraska Annual Social Indicators Survey \(NASIS\)](#)
- The NASIS is an omnibus survey of quality of life in the state of Nebraska conducted by the [Bureau of Sociological Research](#) at the University of Nebraska - Lincoln.
- The purpose of the questions was to gather information about Nebraskan's views and opinions of wind energy development and wildlife.

# SURVEY NUMBERS

	2012	2013
Addresses Sampled	3,600	6,000
Number of Responses	954	1,067
Response Rates	29%	27%*
Wind – Wildlife Questions	8	5

# QUESTION FORMAT

## Likert – type Scale

**Strongly Disagree - Disagree - Neither Disagree nor Agree - Agree - Strongly Agree  
- Do Not Know**

**For Analysis, Do Not Know responses were not included**





# VARIABLES

- Male & Female
- Urban – Zip Codes for Metropolitan Areas
  - Grand Island
  - Lincoln
  - Omaha
  - Sioux City (south)
- Rural – All Other Zip Codes

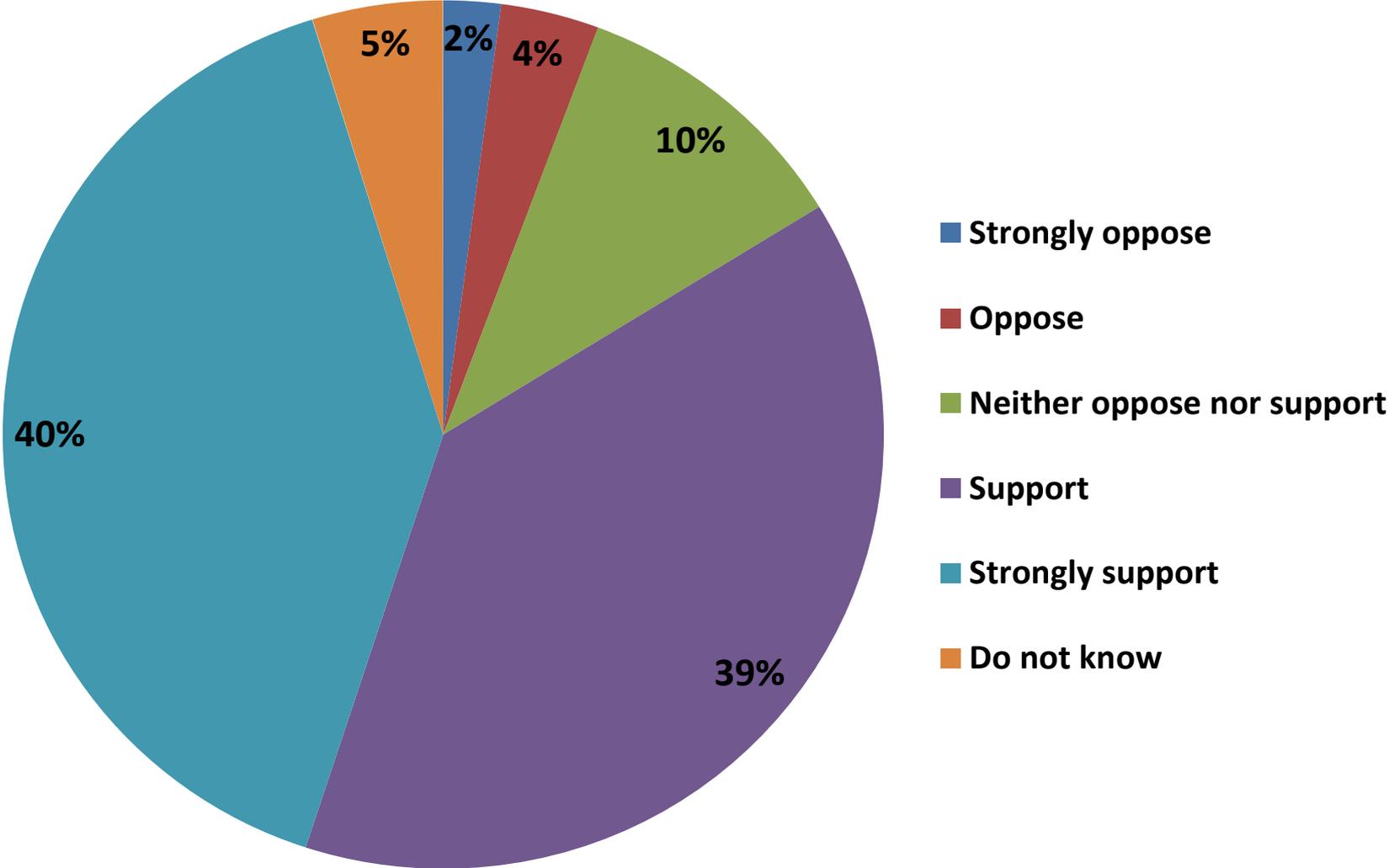


# ANALYSIS

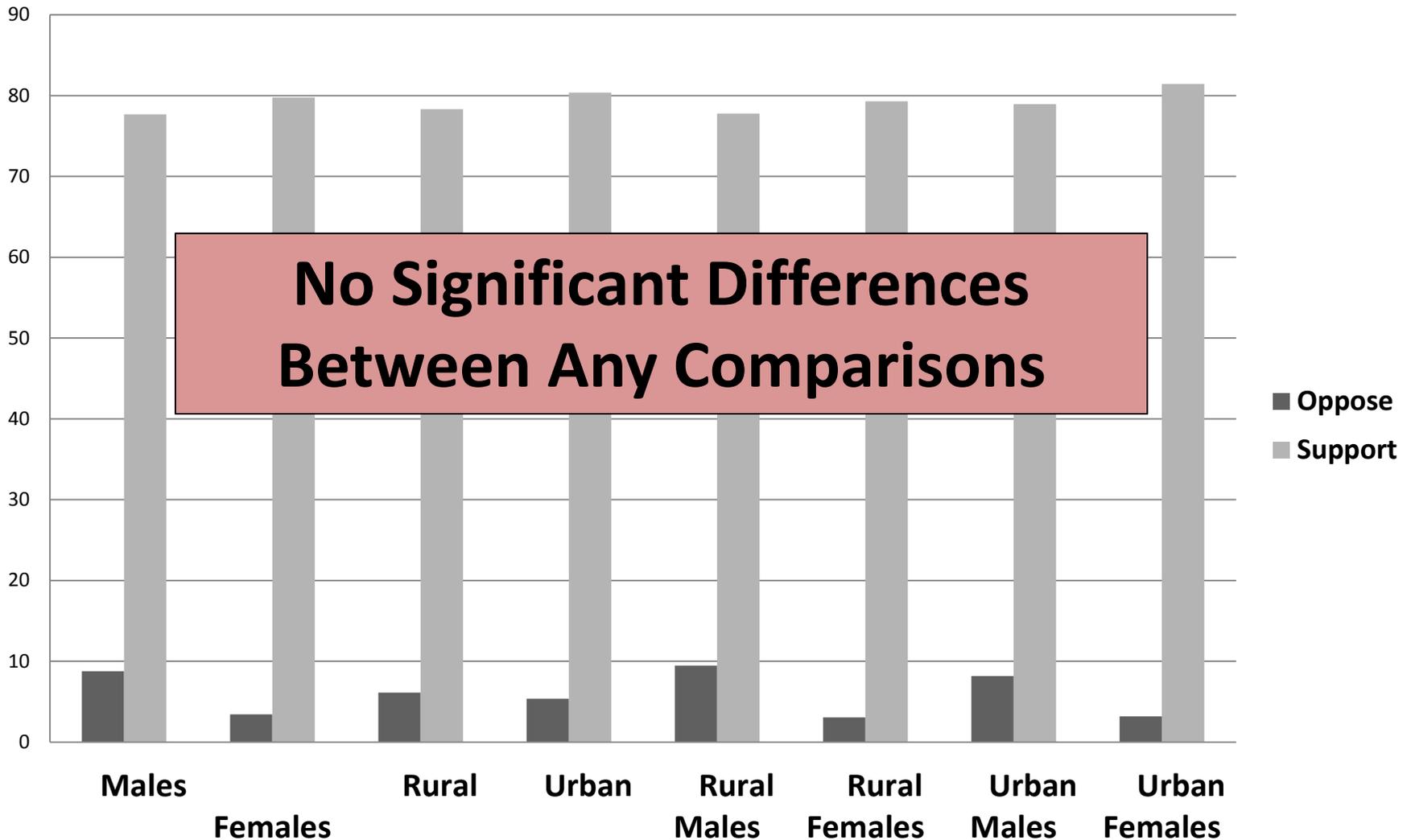
- Pairwise Comparisons
  - Male & Female
  - Rural & Urban
  - Rural Males & Rural Females
  - Urban Males & Urban Females
  - Rural Males & Urban Males
  - Rural Females & Urban Females
- Mann-Whitney Rank Sum Test
- Significant –  $p \leq 0.05$

	2012		2013	
Variable	Frequency	%	Frequency	%
Gender				
Male	428	45.8	457	42.8
Female	506	54.2	604	56.6
Location Designation				
Rural	516	56.3	560	52.5
Male	247	48.1	243	43.4
Female	266	51.9	314	56.1
Urban	400	43.7	508	47.6
Male	174	43.5	213	41.9
Female	226	56.5	290	57.1

# Do you support or oppose wind energy development in Nebraska?

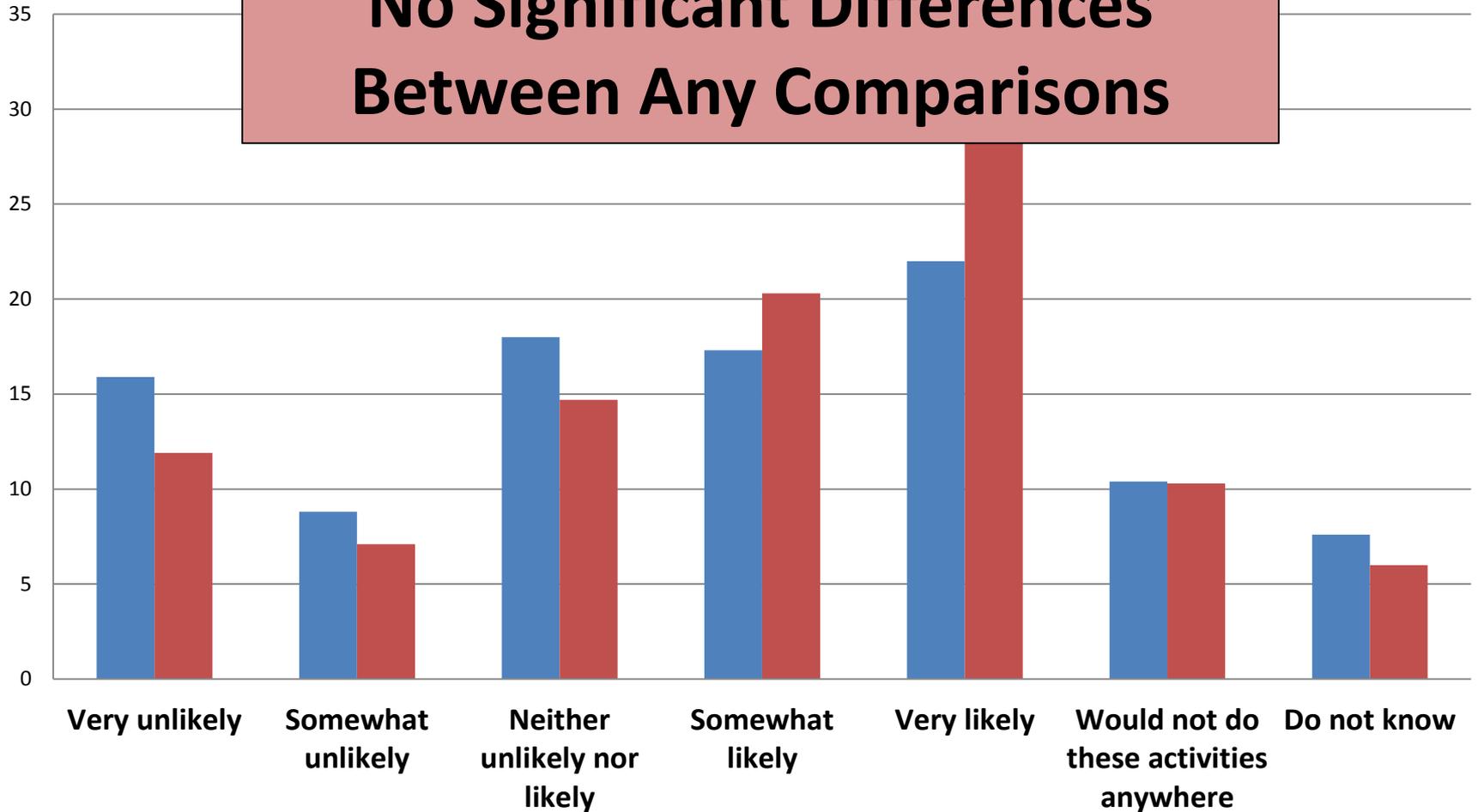


# Do you support or oppose wind energy development in Nebraska?



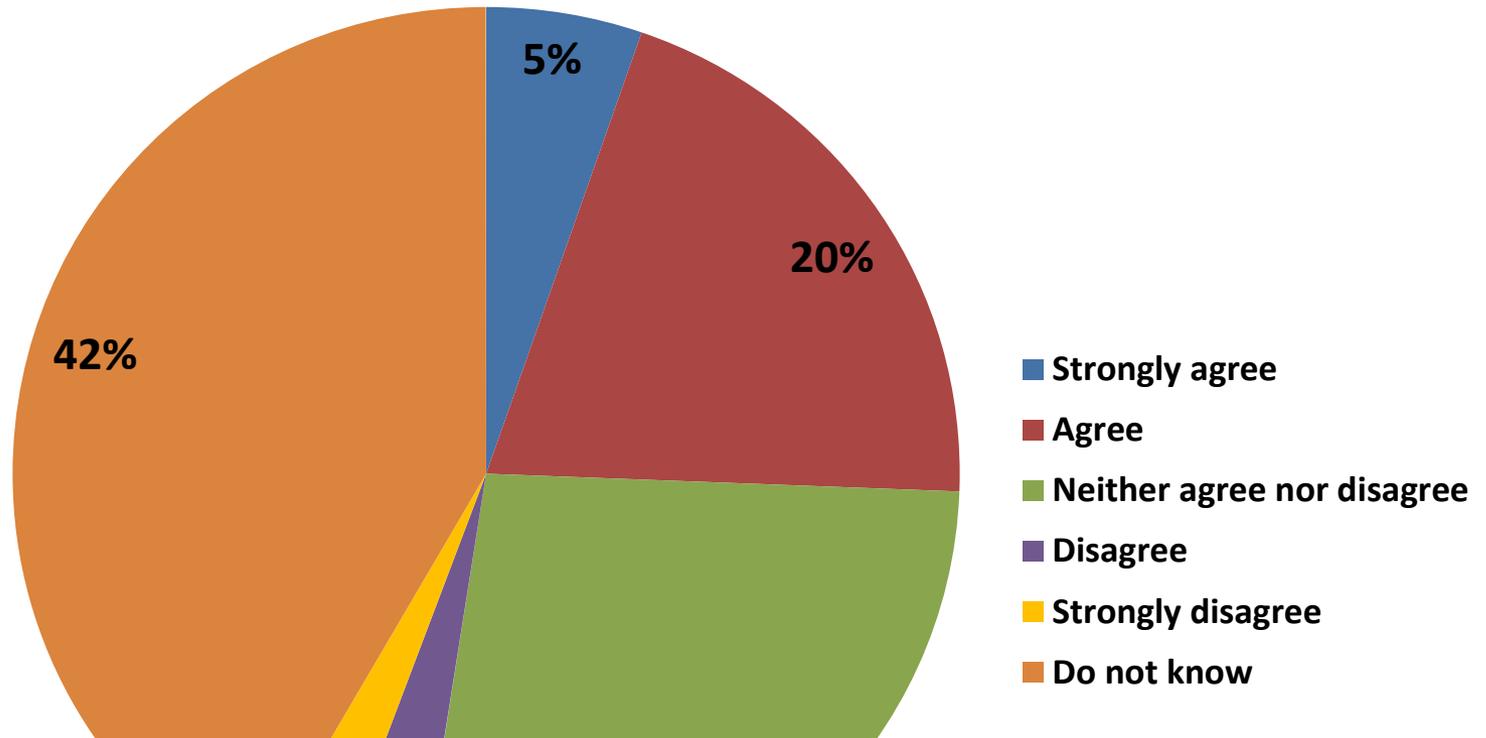
# How likely or unlikely are you to go fishing, hunting,

**No Significant Differences  
Between Any Comparisons**



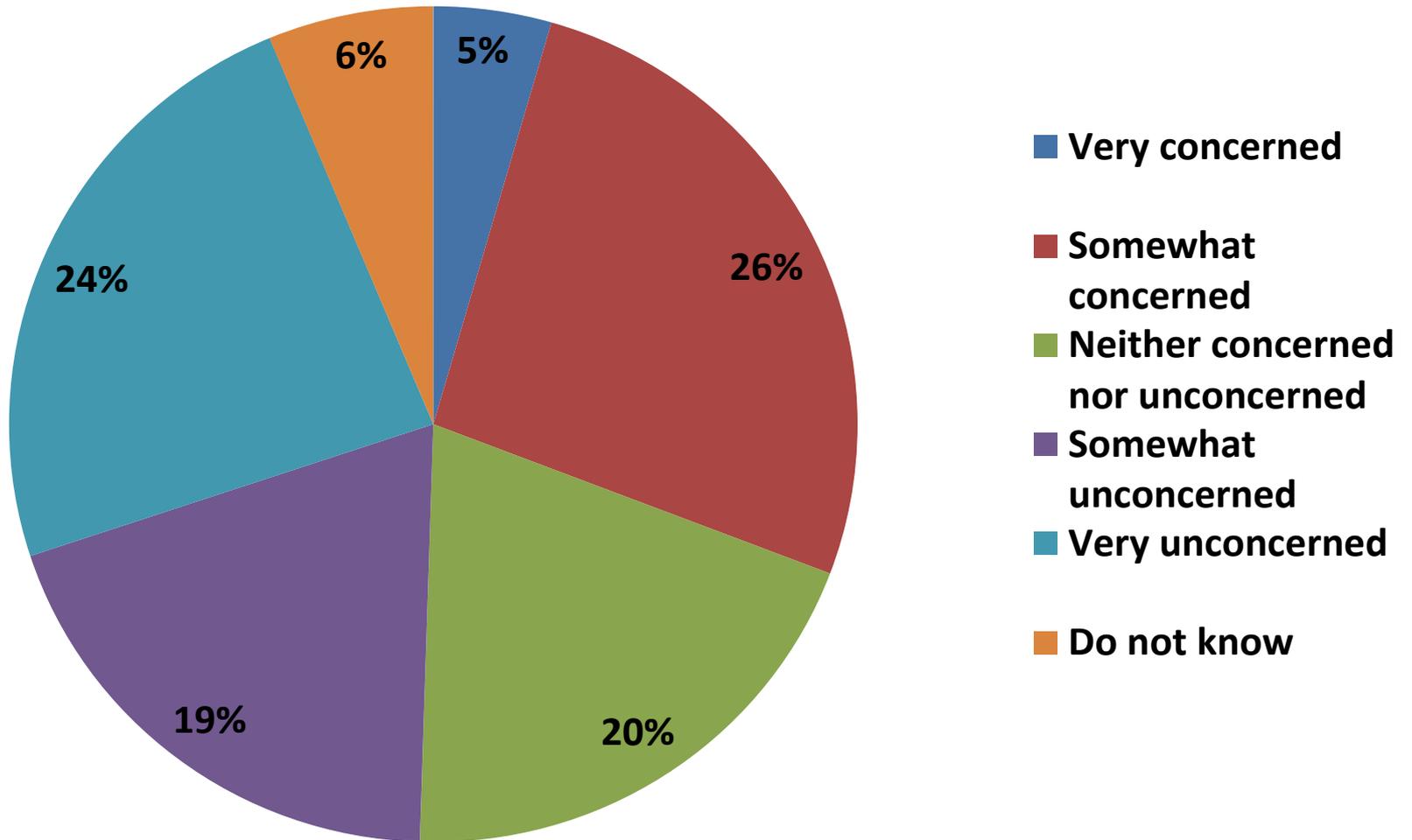
**More likely to recreate within sight than  
within 1 mile of a turbine.**

# How much do you agree or disagree that current wind energy regulations in Nebraska adequately protect wildlife?

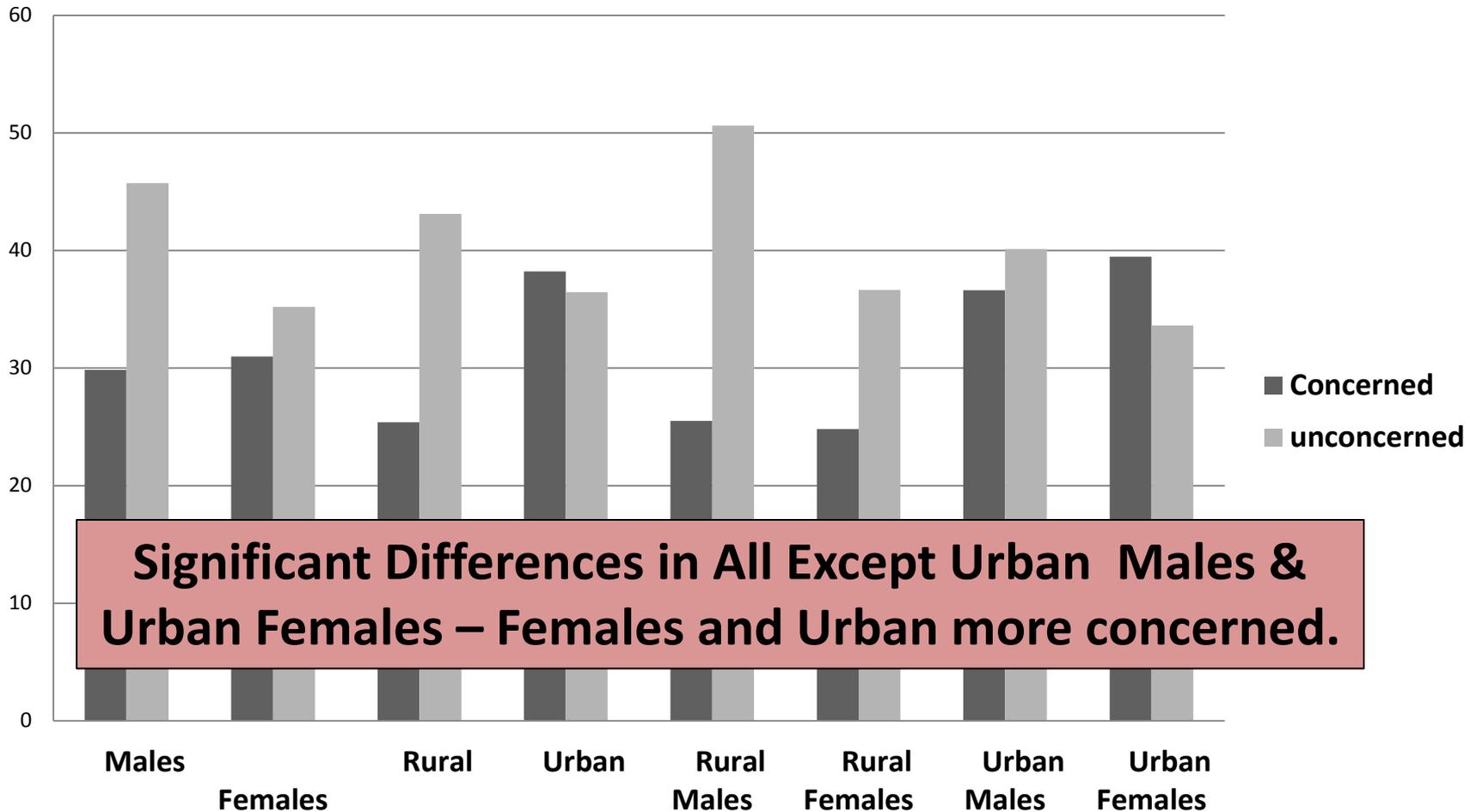


**Urban Females Disagree More than Urban Males and Rural Females**

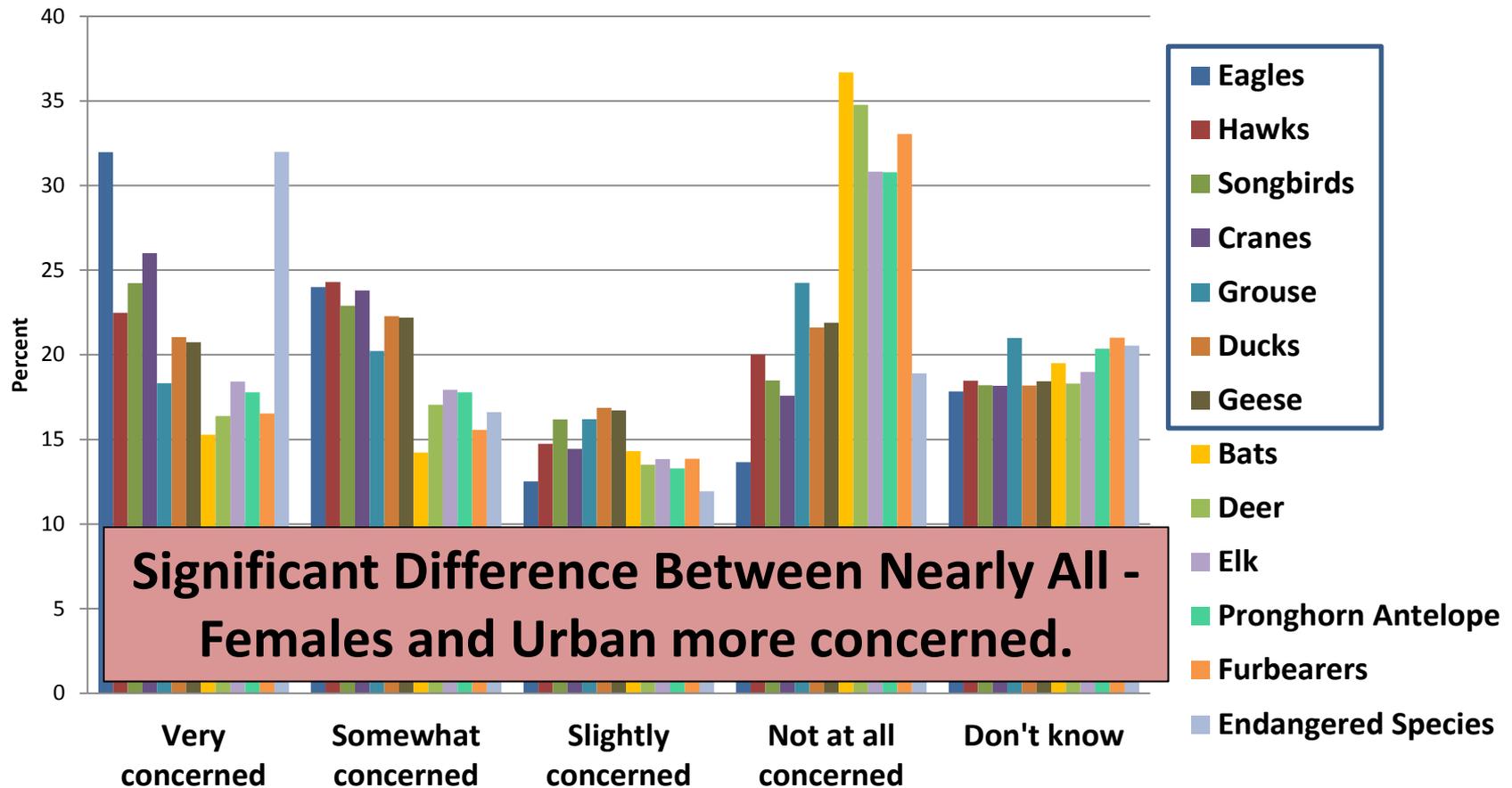
# Are you concerned or unconcerned that birds and bats are killed as a result of wind energy development?



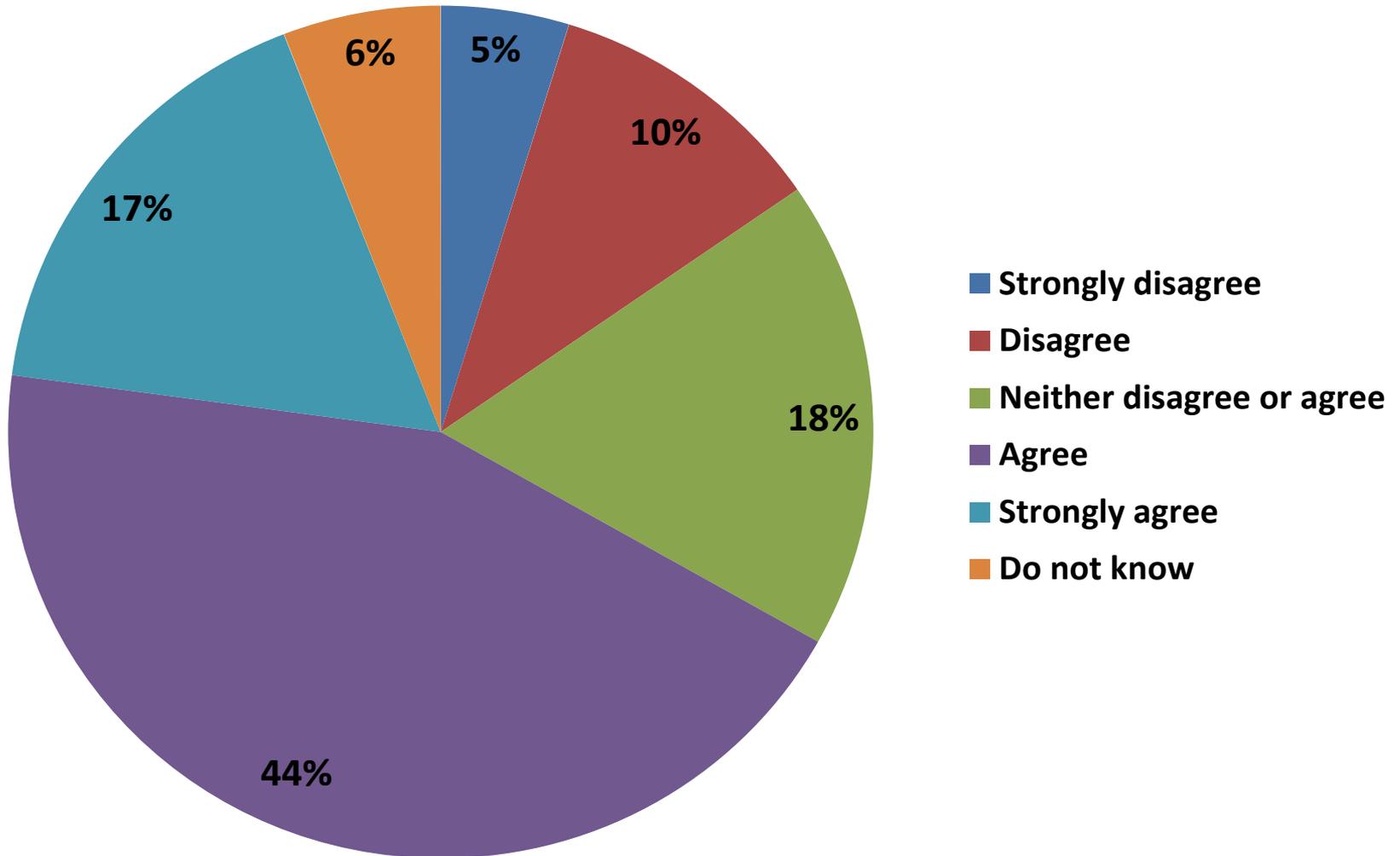
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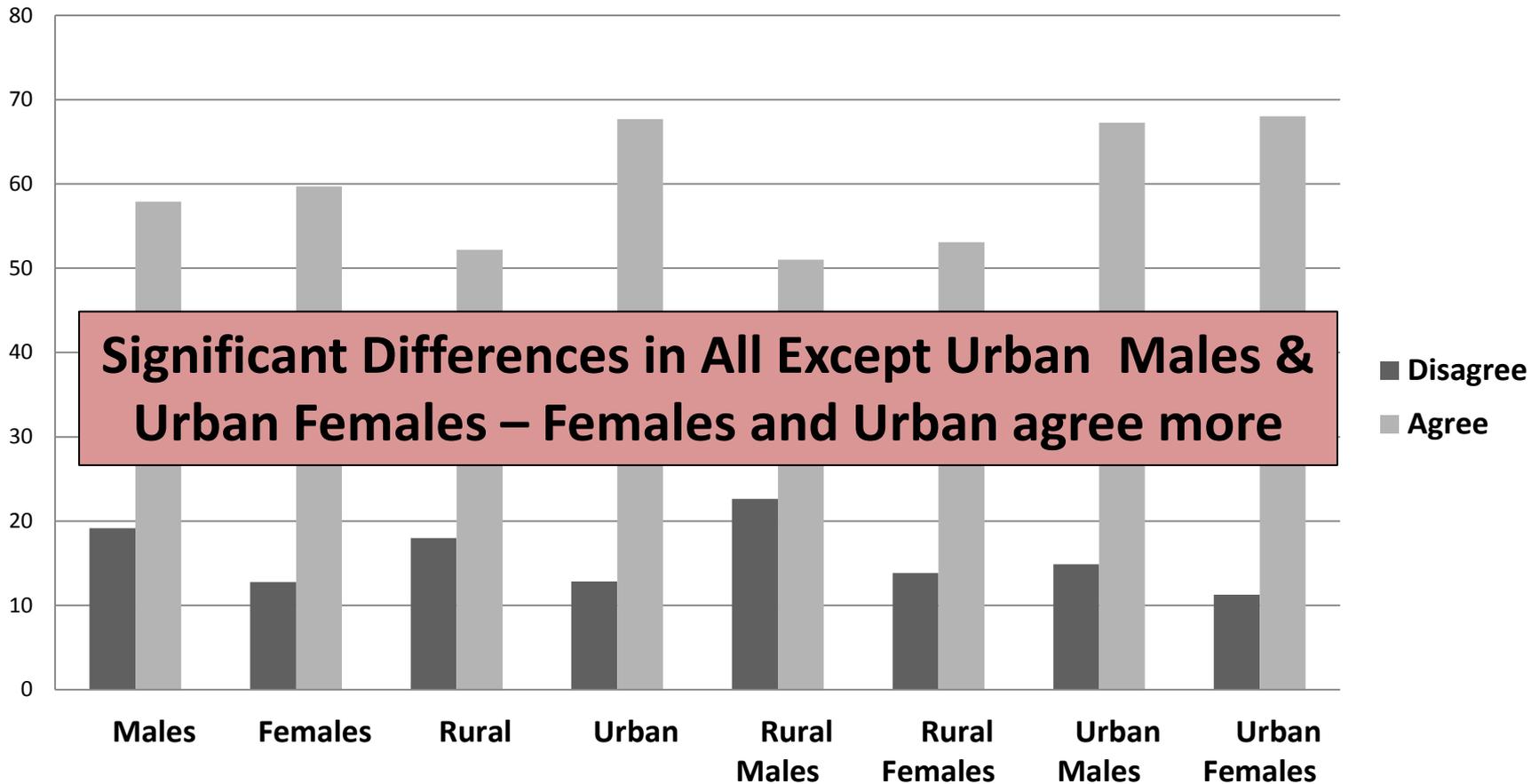
# How concerned are you that each of the following types of wildlife listed below can be negatively impacted or killed as a result of wind energy development and/or operation?



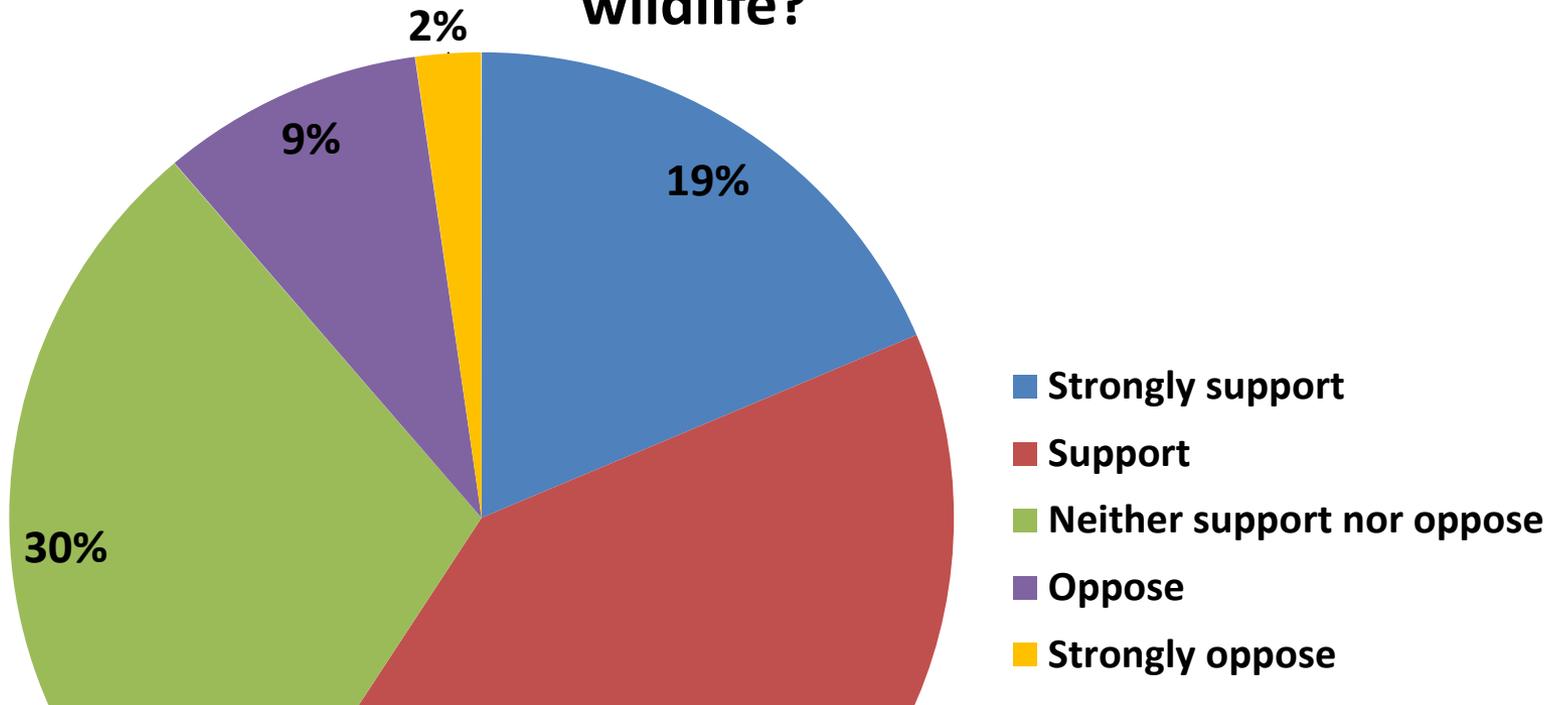
# Do you agree or disagree that wind energy facility development and operation should have to take precautions to reduce impacts on wildlife?



# Do you agree or disagree that wind energy facility (i.e. wind farm) development and operation should have to take precautions to reduce impacts on wildlife?

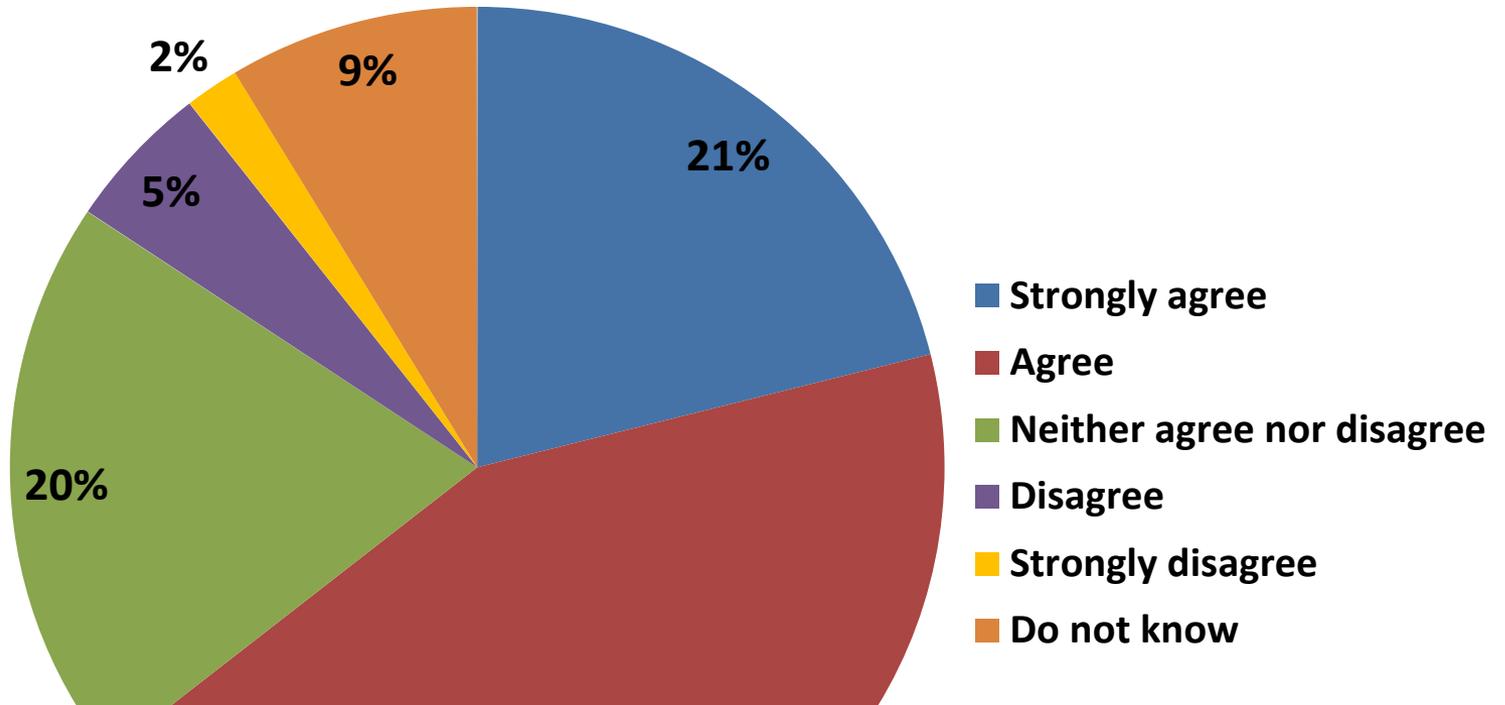


**How much would you support or oppose regulations in Nebraska that require wind energy development and operation to minimize impacts to wildlife?**



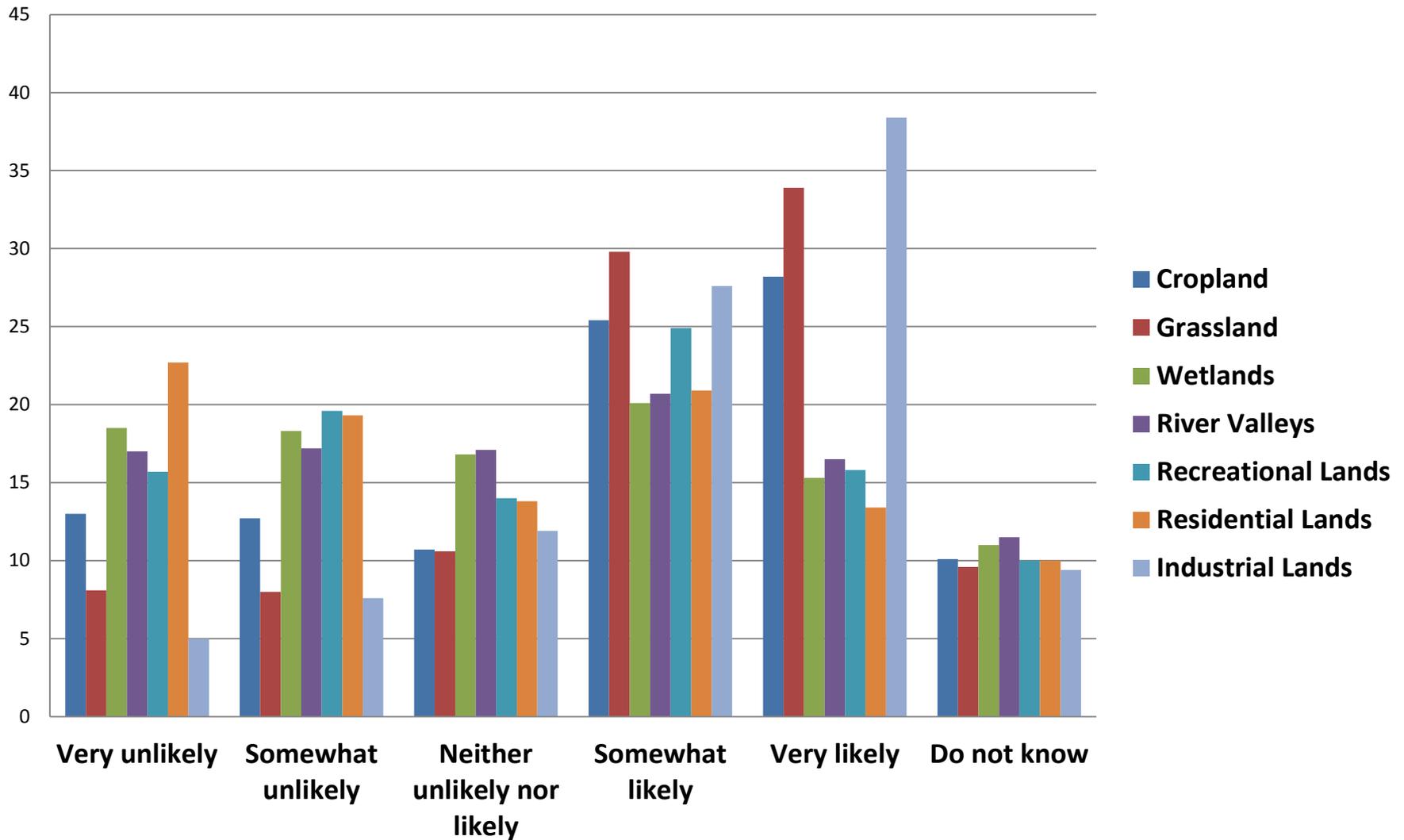
**Significant Difference in All But Rural Males & Rural Females – Females and Urban support more**

**How much do you agree or disagree that developers should pay for impacts of wind energy developments to native Nebraska habitats?**

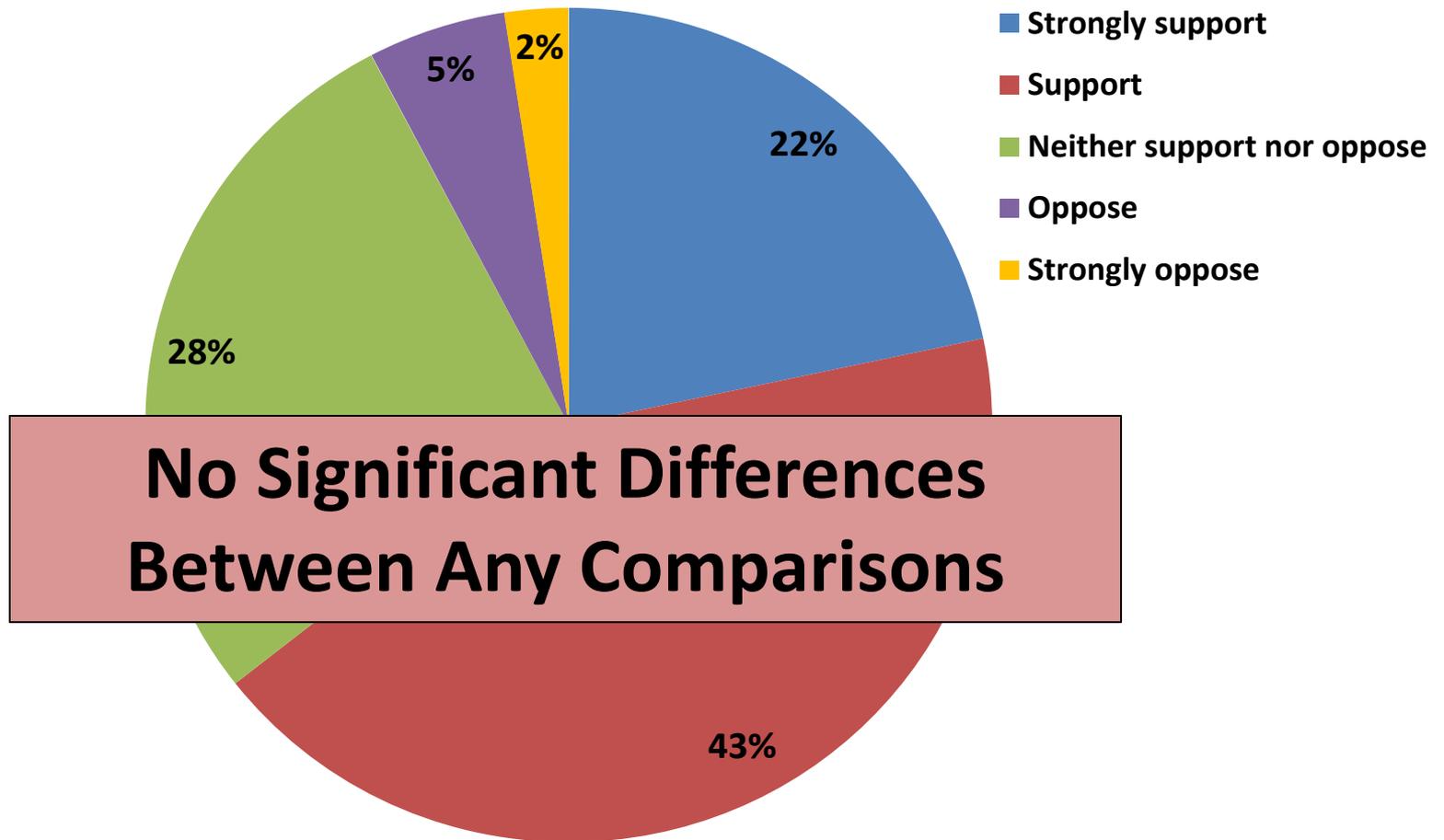


**Significant Difference Between Rural & Urban -  
Urban Agrees More**

# How likely or unlikely are you to support placement of wind turbines on the following...

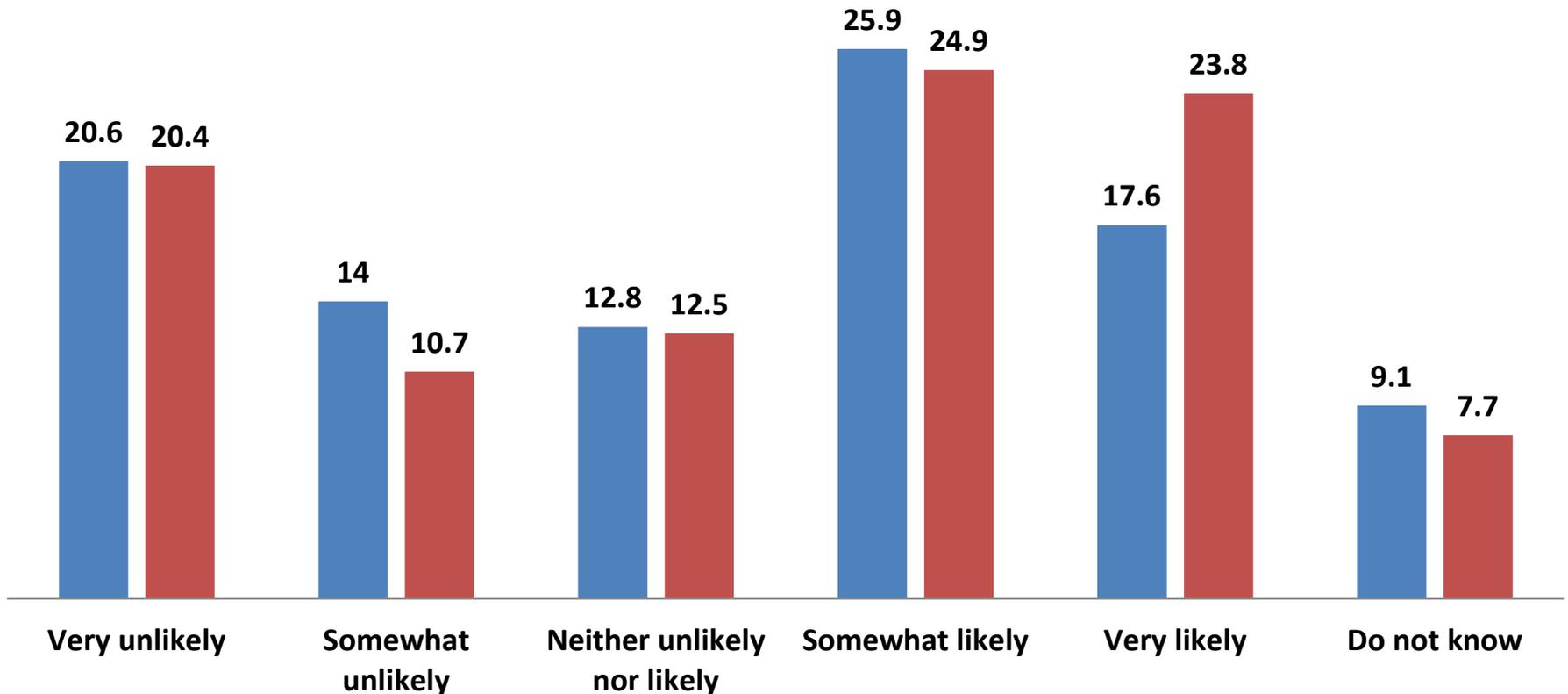


# How much do you support or oppose wind energy development in remote, un-fragmented landscapes in Nebraska?

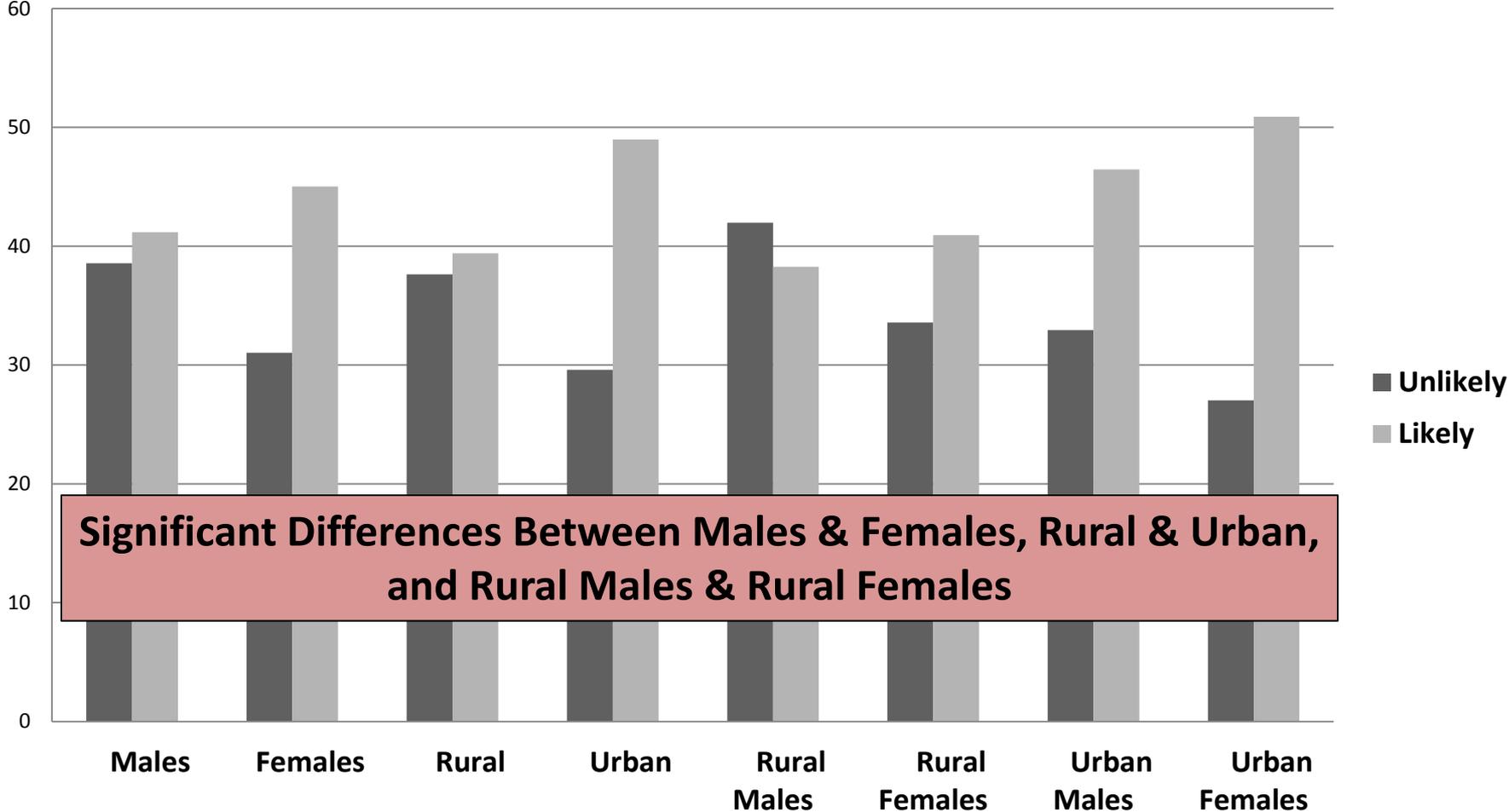


■ How likely or unlikely are you to pay \$2 more a month on your electricity bill to support wind energy development?

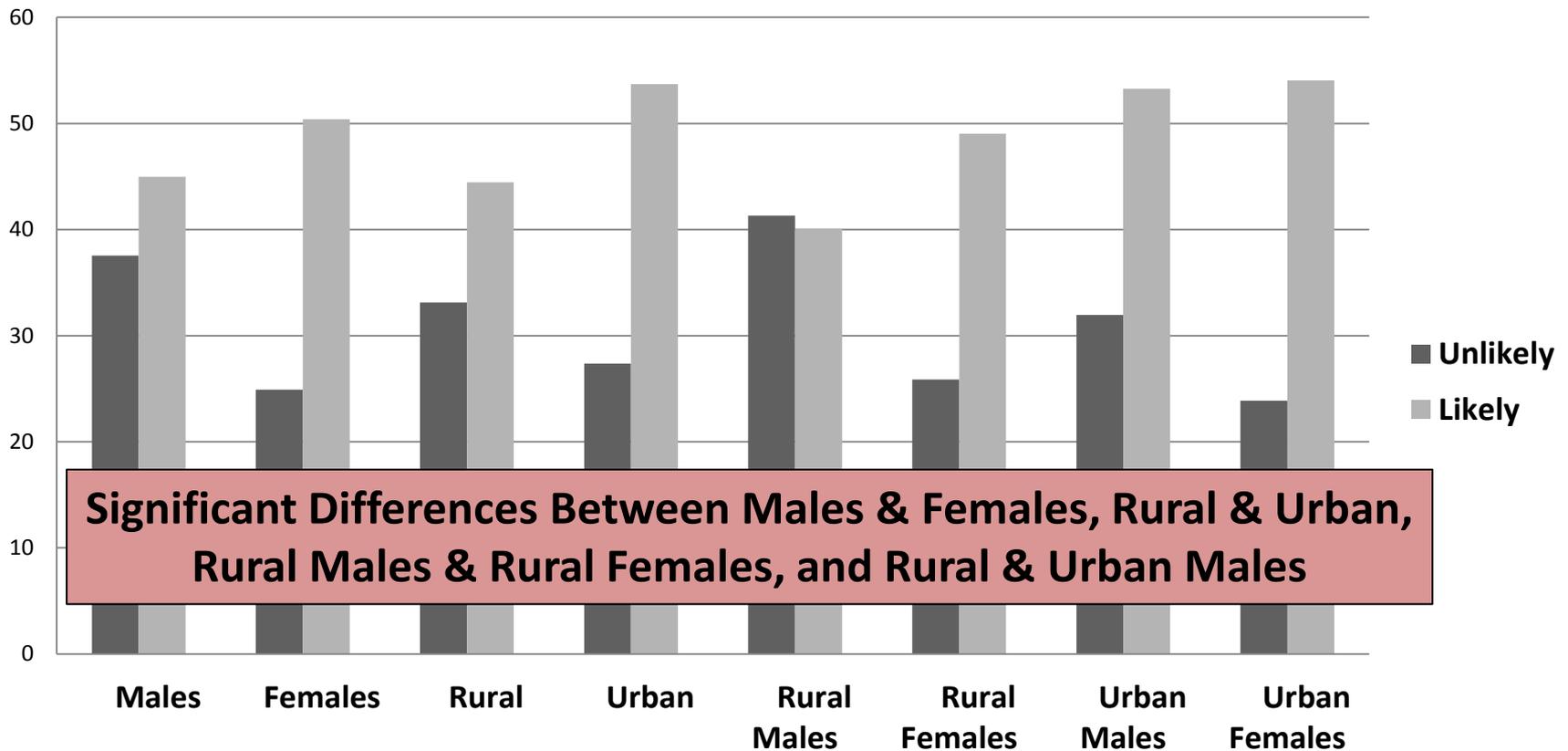
■ If wind energy development was planned in a manner that reduces impacts on wildlife resources, how likely or unlikely would you be to pay \$2 more per month on your electricity bill to support wind energy development?



# How likely or unlikely are you to pay \$2 more a month on your electricity bill to support wind energy development?



**If wind energy development was planned in a manner that reduces impacts on wildlife resources, how likely or unlikely would you be to pay \$2 more per month on your electricity bill to support wind energy development?**





# SUMMARY - 1

- The majority of participants:
  - Support wind energy development.
  - Agree that precautions should be taken to minimize impacts to wildlife.
  - Agree that developers should pay for impacts to habitat.
  - Would support regulations requiring wind energy development and operation to minimize impacts to wildlife.
  - Support development in unfragmented landscapes such as grasslands.



# SUMMARY - 2

- There were some questions for which there were no significant differences found between the pairs.
- In general, females and urban participants are more concerned about impacts to wildlife and feel more strongly that developers should take precautions and pay for impacts.



Survey results can be found at:

<http://snr.unl.edu/renewableenergy/wind/research.asp#surveys>

Reports on survey responses for the Public Power Districts are available online & handouts at the project booth.

Questions?? Contact [windwildlife@unl.edu](mailto:windwildlife@unl.edu)