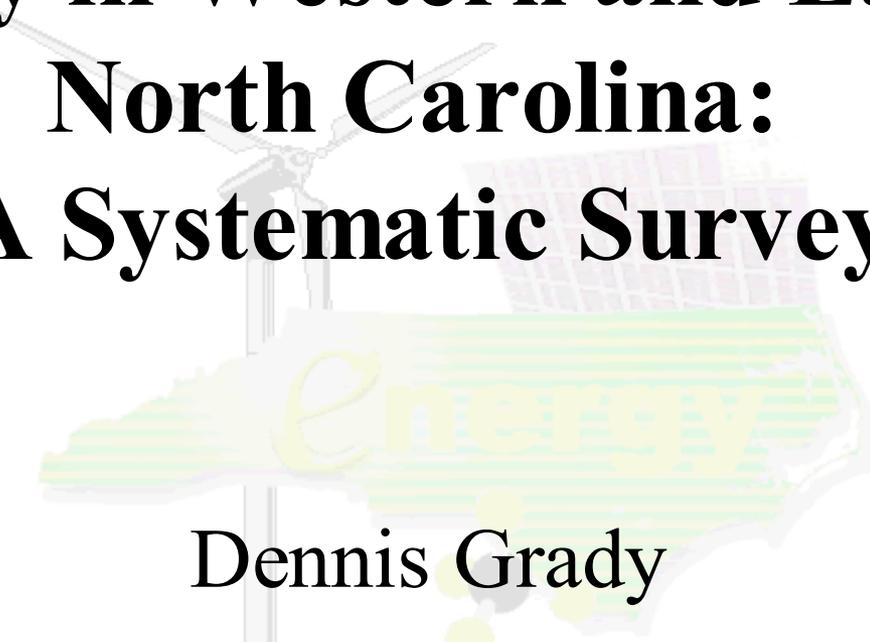


# **Public Attitudes Toward Wind Energy in Western and Eastern North Carolina: A Systematic Survey**



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# Demographics of Respondents

## Western NC

- 53% female
- Average age = 51 yrs
- 62% with less than a college degree
- 49% incomes less than \$40,000 per year
- Average residency = 30 yrs
  - 94% permanent

## Eastern NC

- 54% female
- Average age = 50 yrs
- 66% educated beyond high school
- 47% incomes less than \$60,000 per year
- Average residency = 25 yrs
  - 96.5 % permanent

# Demographics, cont.

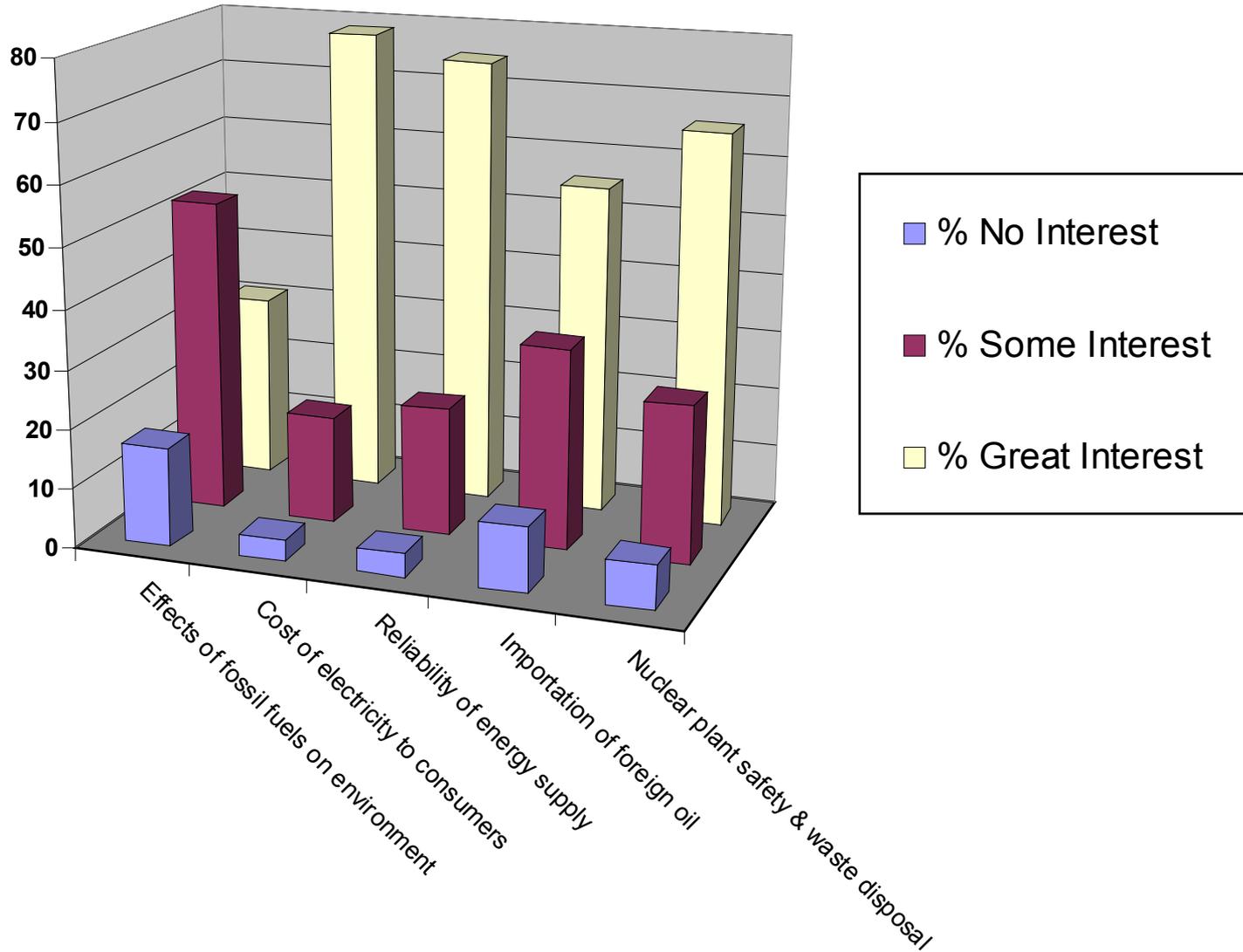
## Western NC

- 82% homeowners
- 85% registered NC voters
- 29% have seen a utility scale turbine

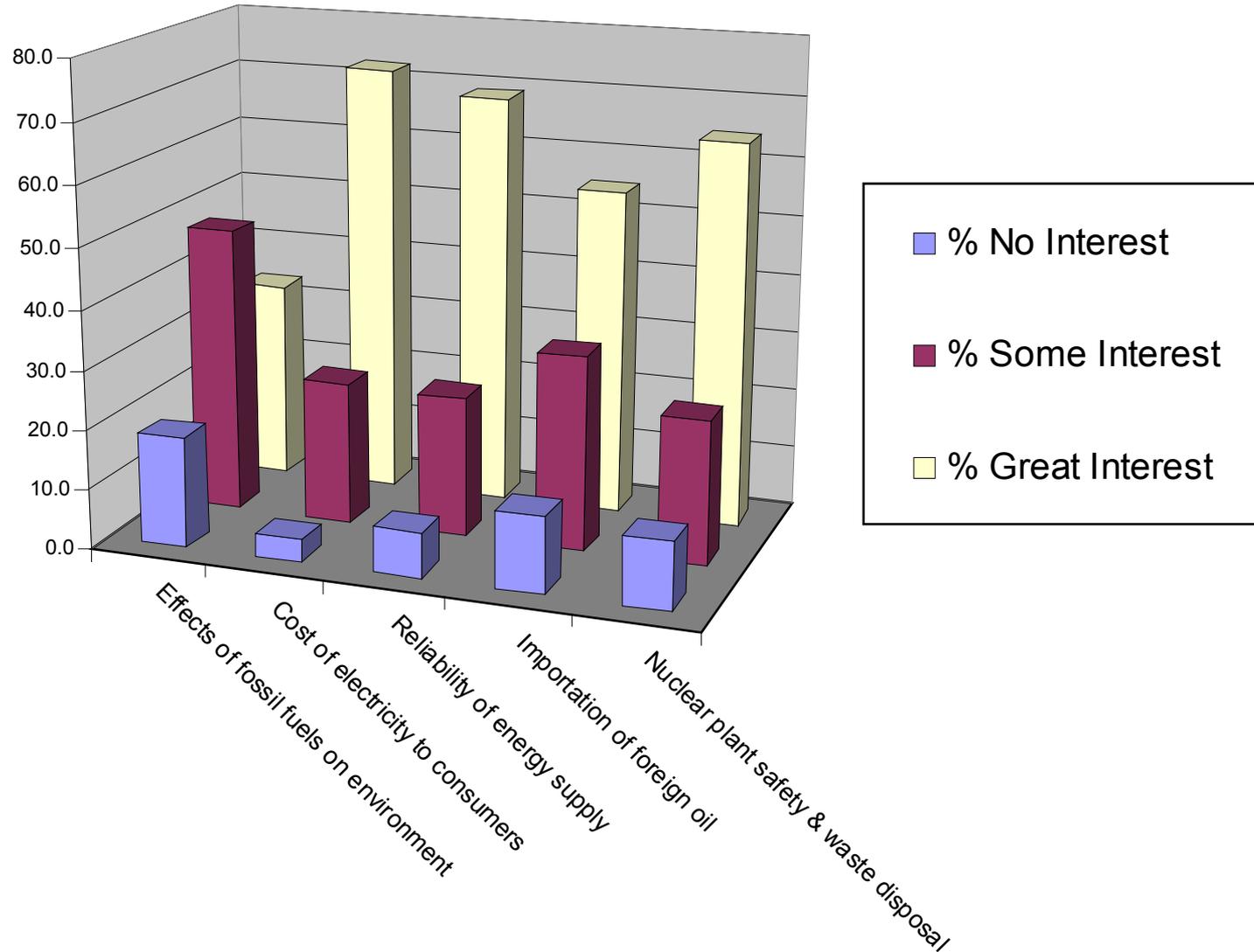
## Eastern NC

- 83% homeowners
- 84% registered NC voters
- 33.4% have seen a utility scale turbine
- 26% politically active

# Eastern NC Attitudes toward Energy Issues

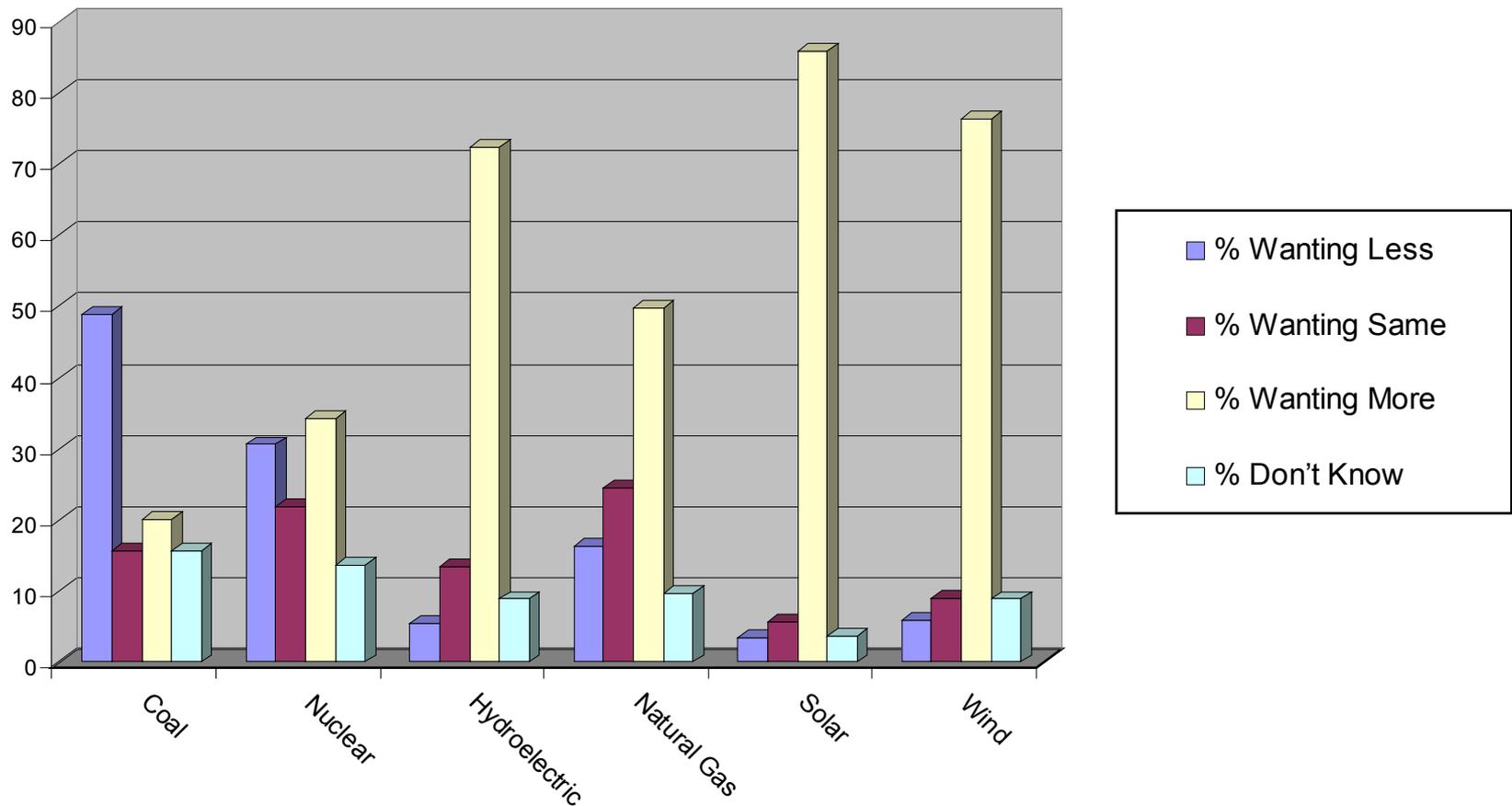


# Western NC Attitudes toward Energy Issues

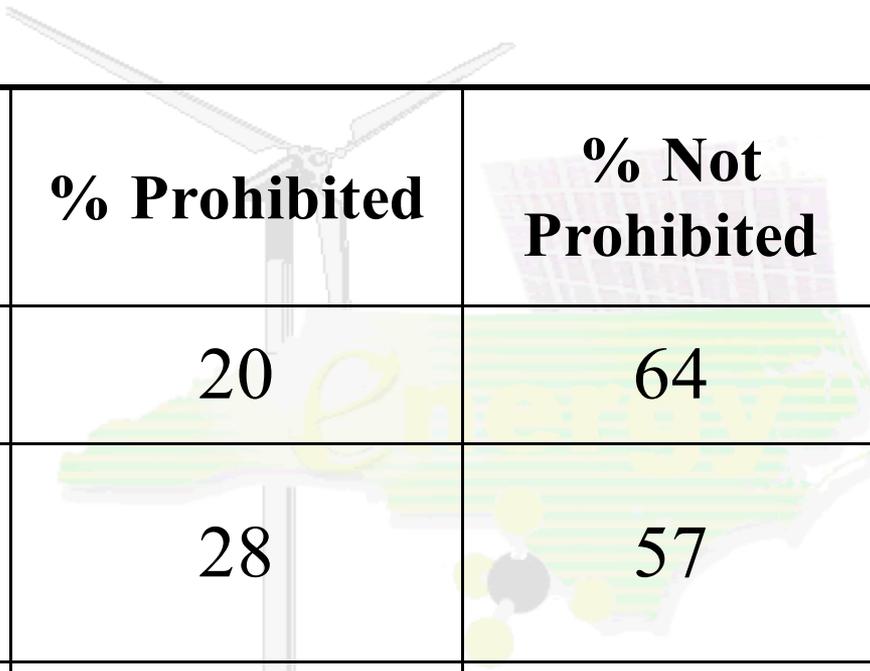


# Western and Eastern Attitudes

- WNC & ENC respondents had very similar attitudes towards future sources of fuel; this chart represents an average of the two sets of respondents



# Western NC Wind Turbine Placement Issues



<b>Placement</b>	<b>% Prohibited</b>	<b>% Not Prohibited</b>	<b>% Don't Know</b>
Ridgetops	20	64	17
Ridgetops Clustered	28	57	15
Ridgetops with other towers	16	75	10

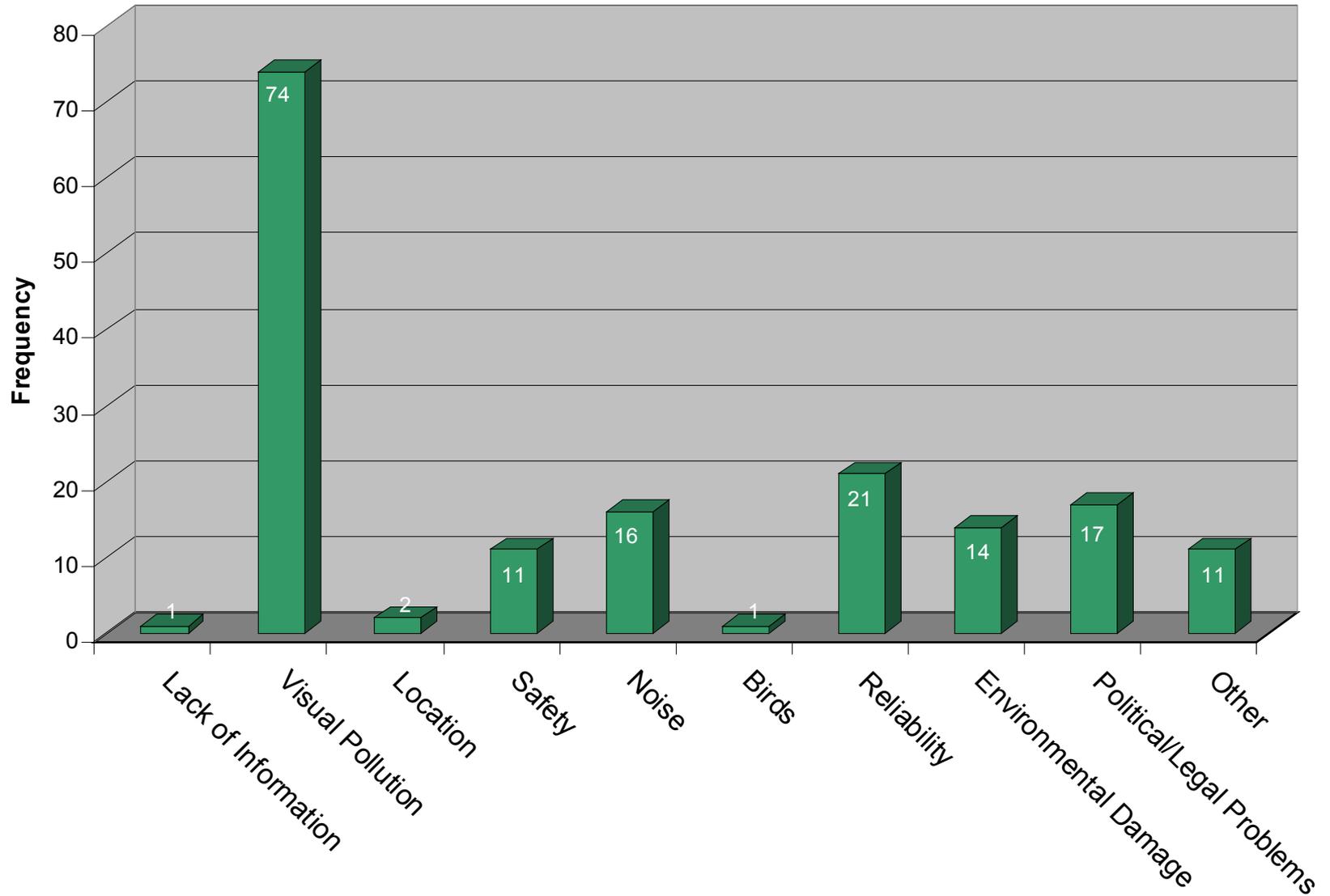
# Eastern NC Wind Turbine Placement Issues

<b>Placement</b>	<b>% Prohibited</b>	<b>% Not Prohibited</b>	<b>% Don't Know</b>
Mainland	11.9	72.8	15.3
Mainland Clustered	14.1	69.6	15.1
Sounds	16.6	63.6	19.8
Sounds Clustered	28.0	50.2	20.5
Offshore	13.9	68.6	17.6
Offshore Clustered	14.4	68.6	15.8

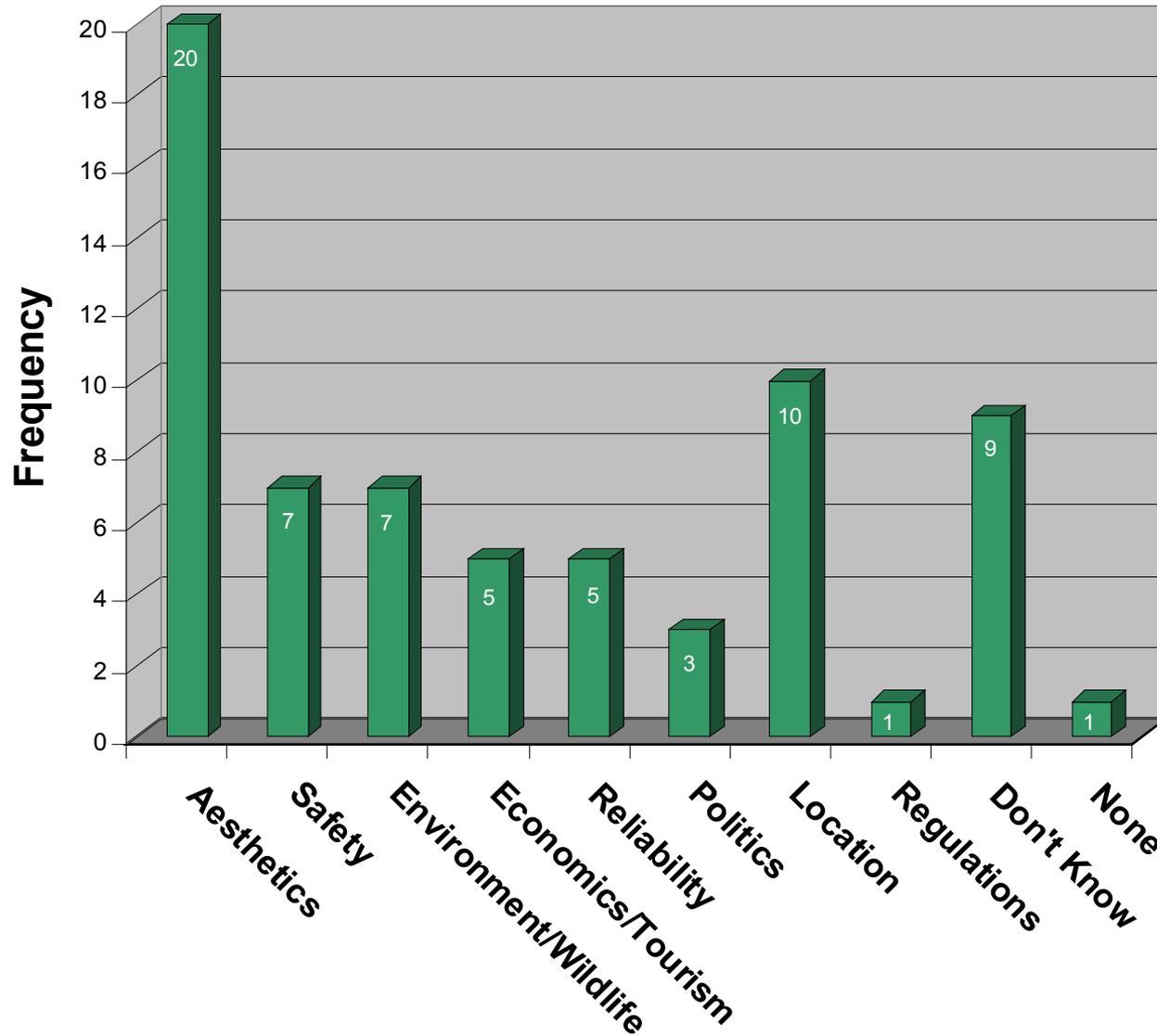
# Turbine Placement Issues, cont.

Placement	% Prohibited		% Not Prohibited		% Don't	
	<u>WN</u> <u>C</u>	<u>ENC</u>	<u>WNC</u>	<u>ENC</u>	<u>WN</u> <u>C</u>	<u>ENC</u>
National Forests	36	36.6	50.5	45.8	14	17.6
Visible from Home	22	20	66	66.6	13	12.4
With Other Towers	16	17.3	75	69.3	10	12.1
A Residential Turbine	9	6.2	79	90.1	11	2.5

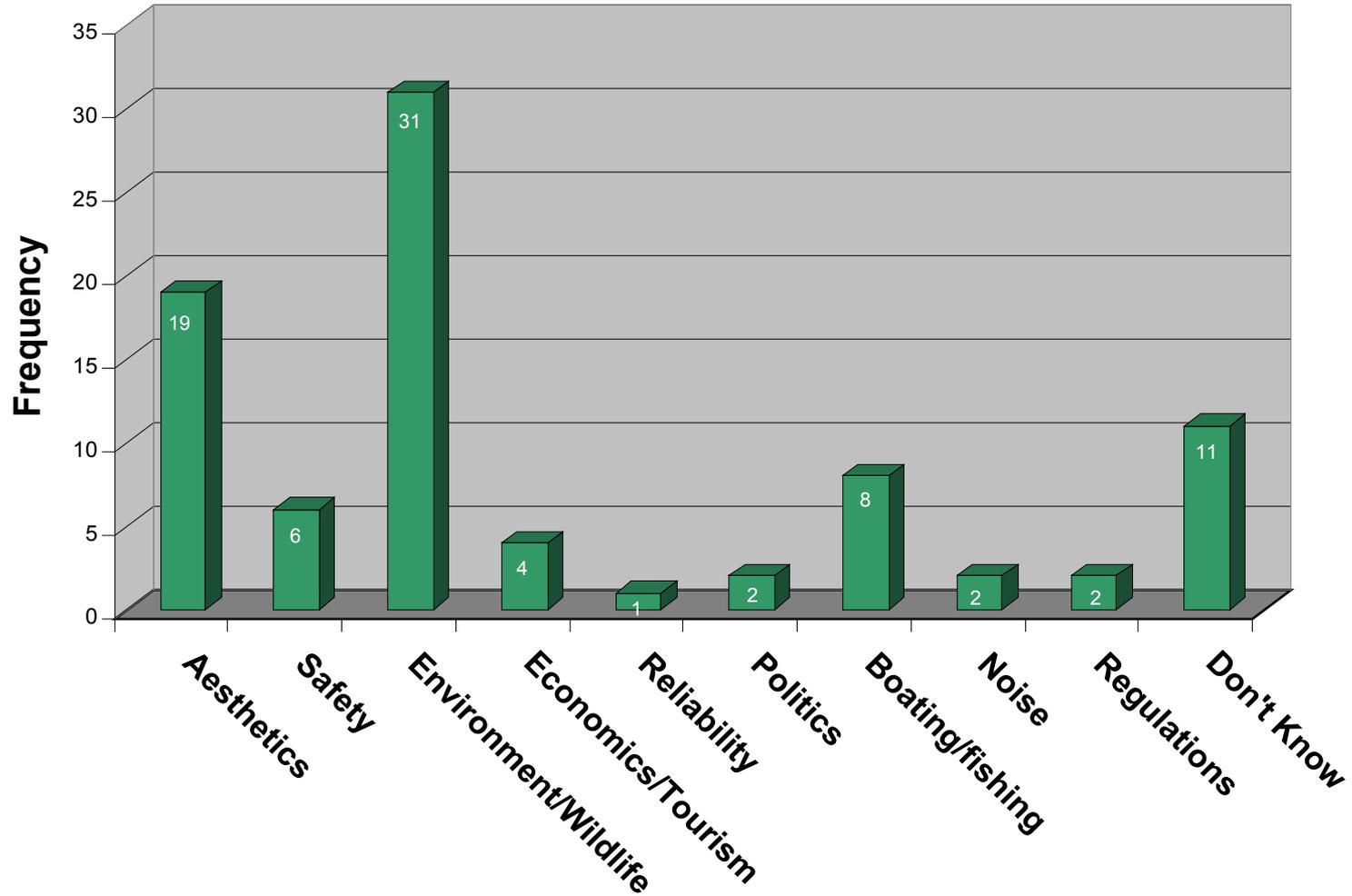
# WNC Problems with Turbines



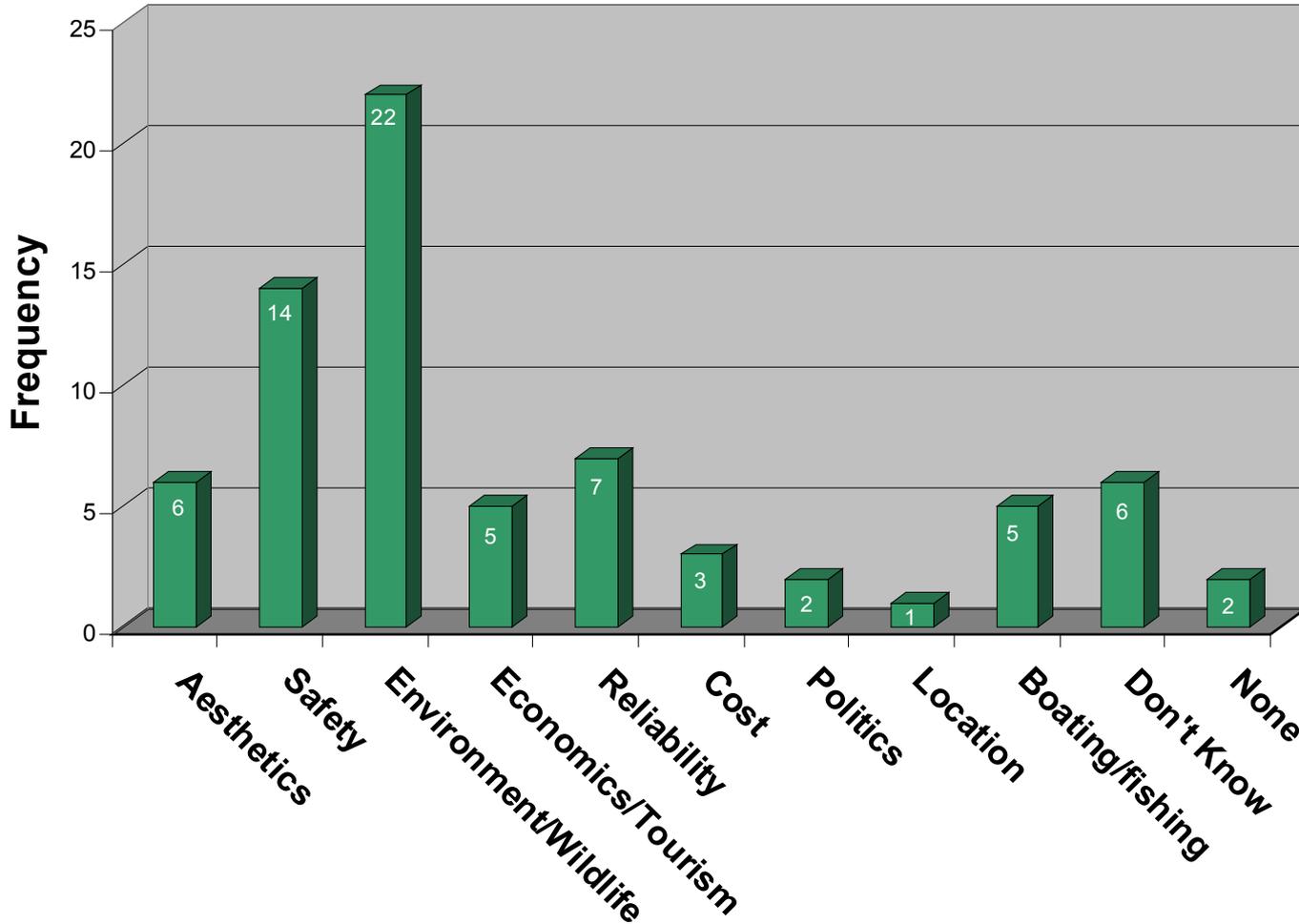
# Mainland Problems



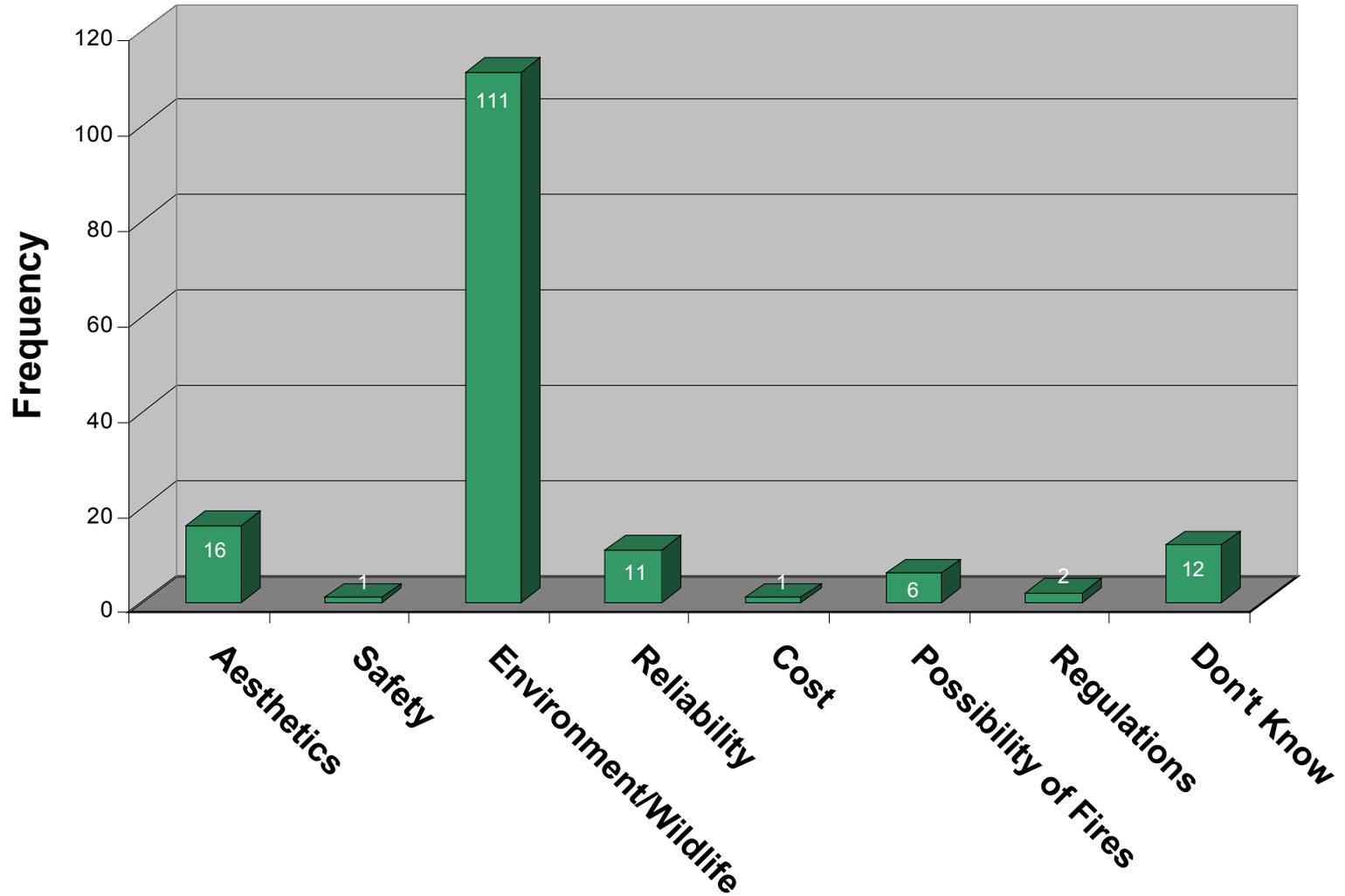
# Sounds Problems



# Offshore Problems



# National Forests Problems



# Summary

- *Among these groups of middle aged, middle class, pragmatic, year round residents of the mountain and coastal regions of NC, there is support for developing renewable energy as a future source of fuel for electricity generation.*
- More than 3 out of 4 would prefer to see more future electricity derived from solar and wind
- Less support for turbines in sounds or national forests
- 2 out of 3 support turbines visible from home
- Over 80% support turbines for residential use

# Summary, cont.

## Western NC

- Attitudes toward turbine placement are unaffected by income, education, previous experience with utility scale turbines, or knowledge of energy issues.

## Eastern NC

- When controlling for experience with seeing modern turbines at work, knowledge of energy issues, and level of civic engagement:
  - support for turbine placement increased for every location

# Summary, cont.

## Western NC

- By a margin of 2 to 1, respondents do not think ridge top placement of turbines should be prohibited.
- By a margin of 3 to 1, respondents believe that placing a turbine with other existing towers should be allowed.

## Eastern NC

- 7 out of 10 support turbines on coastal mainland, offshore, and with existing towers
  - support does not decline significantly when 10 or more turbines are clustered together at these locations

# Summary, cont.

## Western NC

- The greatest barrier to developing a wind industry in the mountains is aesthetic – especially how it could affect tourism and property values near the turbines.

## Eastern NC

- Major problems expressed were with national forests
- Much smaller minorities expressed problems with other turbine placement options