

PKAL Workshop – October 2008

# **ASSESSING STATISTICAL LITERACY @ AUGSBURG COLLEGE**

# STATISTICAL LITERACY @ AUGSBURG COLLEGE

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- ✘ Statistical Literacy:
  - + Ability to read, write and reason about numbers and statistics in everyday contexts including tables, pie charts, and bar graphs.
  
- ✘ Background:
  - + Statistical Literacy for Managers Course
  - + Management Information Systems Course
  
- ✘ Methodology:
  - + Activity done as a pair for undergraduates ( n = 13 pairs)
  - + Activity done as individuals for MBA students (n = 11 students)
  
- ✘ Context:
  - + Data Source: 2006 US Census Bureau Survey of Fishing, Hunting and Wildlife Watching.

# READING TABLES OF COUNTS / PERCENTS

## Fishing

### Anglers and Days of Fishing

(In millions)

	Anglers		Days	
	Number	Percent	Number	Percent
<b>Total fishing . . . . .</b>	<b>30.0</b>	<b>100</b>	<b>517</b>	<b>100</b>
Freshwater, total . . .	25.4	85	433	84
Freshwater, except				
Great Lakes . . . . .	25.0	84	420	81
Great Lakes . . . . .	1.4	5	18	3
Saltwater . . . . .	7.7	26	86	17

Q: Write out a statement comparing the number of days spent Freshwater fishing vs. Saltwater fishing.

# READING TABLES OF COUNTS / PERCENTS

## Anglers Pursuing Selected Fish by Type of Fishing

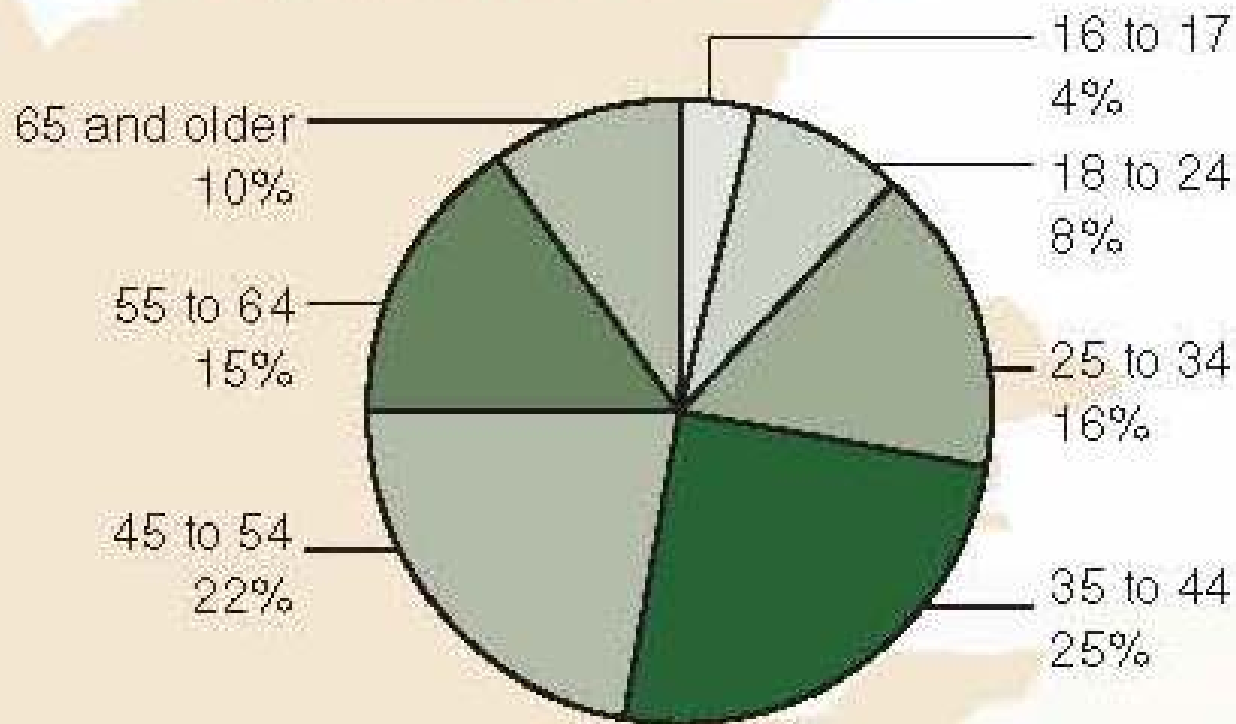
(In millions)

Fish sought	Number of anglers	Percent
<b>Anglers, total</b>	<b>30.0</b>	<b>100</b>
<b>Freshwater except Great Lakes</b>	<b>25.0</b>	<b>83</b>
Black bass	10.0	33
Panfish	7.5	25
Catfish/bullhead	7.0	23
Trout	6.8	23
<b>Great Lakes</b>	<b>1.4</b>	<b>5</b>
Walleye, sauger	0.5	2
Perch	0.5	2
Salmon	0.4	1
Lake trout	0.3	1
<b>Saltwater</b>	<b>7.7</b>	<b>26</b>
Flatfish (flounder, halibut)	2.1	7
Red drum (redfish)	1.8	6
Sea trout	1.5	5
Striped bass	1.4	5

Q: What percentage of Great Lakes anglers fished for perch?

# READING / INTERPRETING PIE CHARTS

**Percent of Anglers by Age Group**

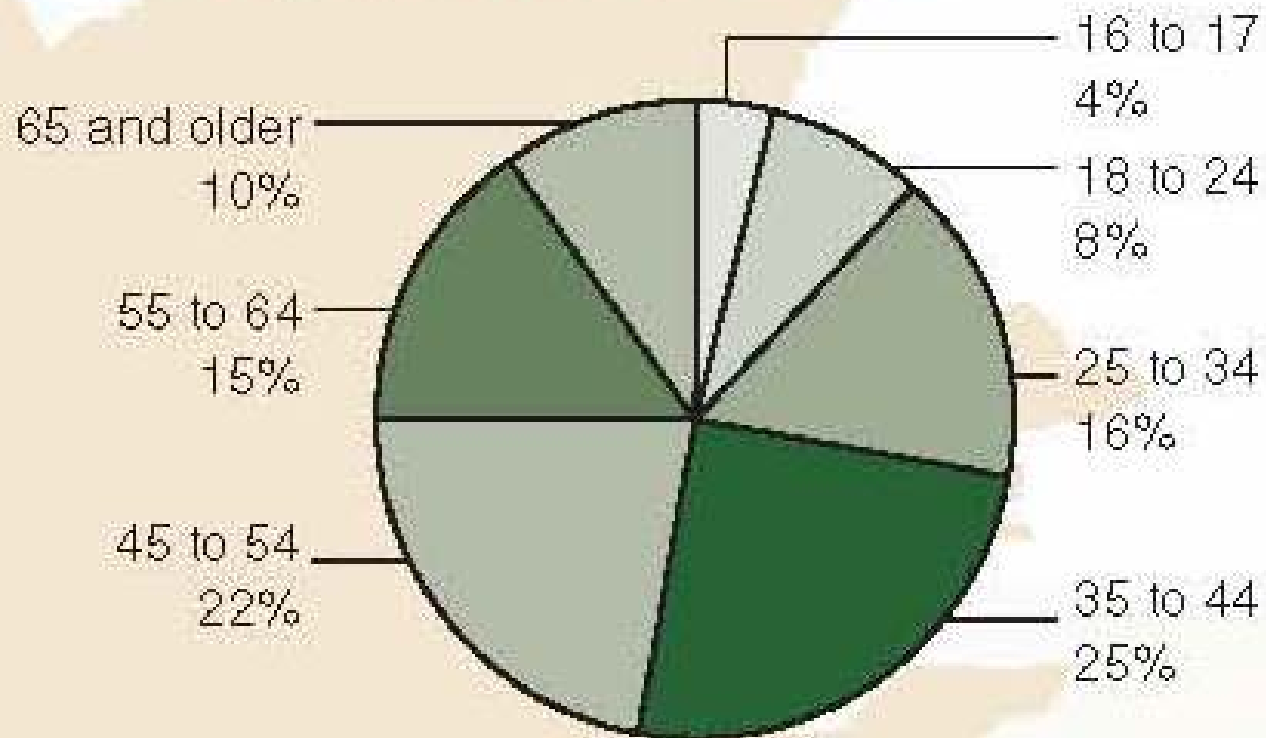


Q: What Percentage of Anglers are less than age 35?

Q: What Percentage of Anglers are between 35 and 54?

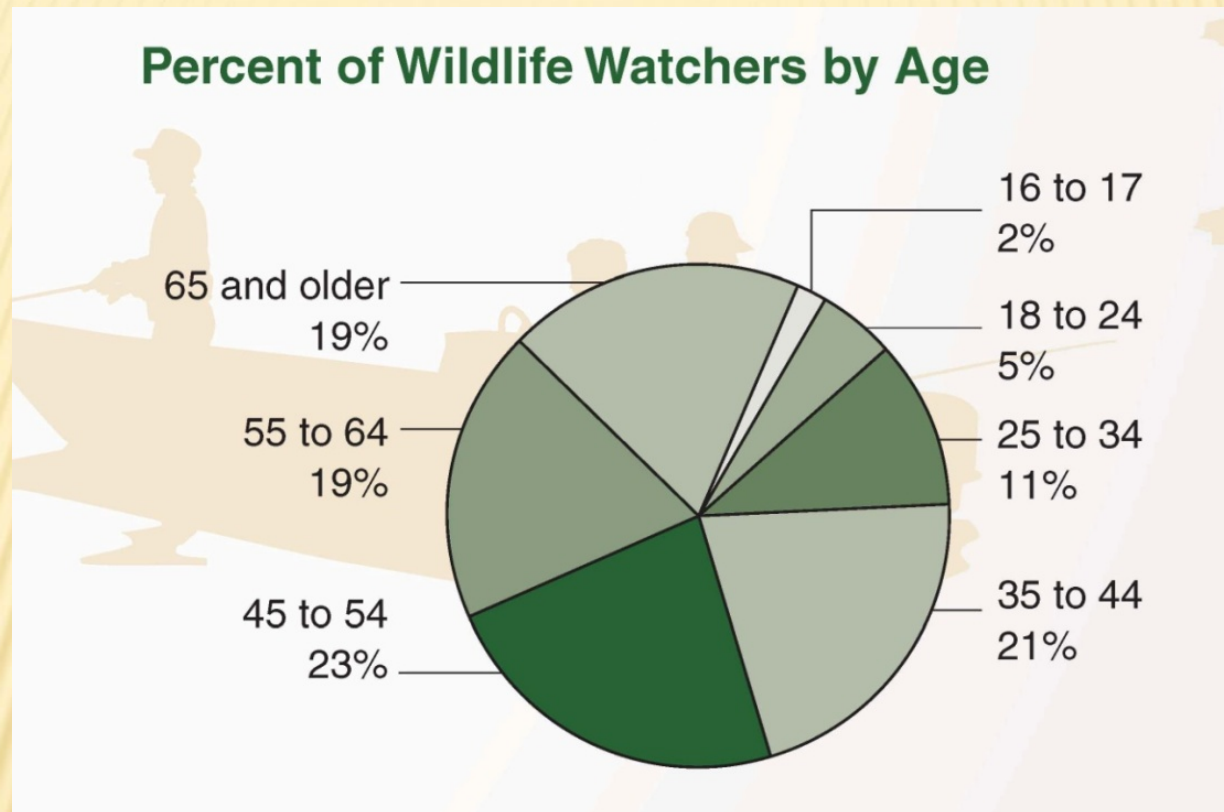
# READING / INTERPRETING PIE CHARTS

**Percent of Anglers by Age Group**



Q: What percentage of 18 to 24 year olds are anglers?

# READING / INTERPRETING PIE CHARTS



Q: What is the definition of a wildlife watcher in this pie chart?

Q: What percentage of 35 to 44 year olds are wildlife watchers?

Q: What percentage of wildlife watchers are between 35 & 44 yrs of age?

# READING / INTERPRETING BAR CHARTS

**Percent of U.S. Population Who Wildlife Watched by Household Income**



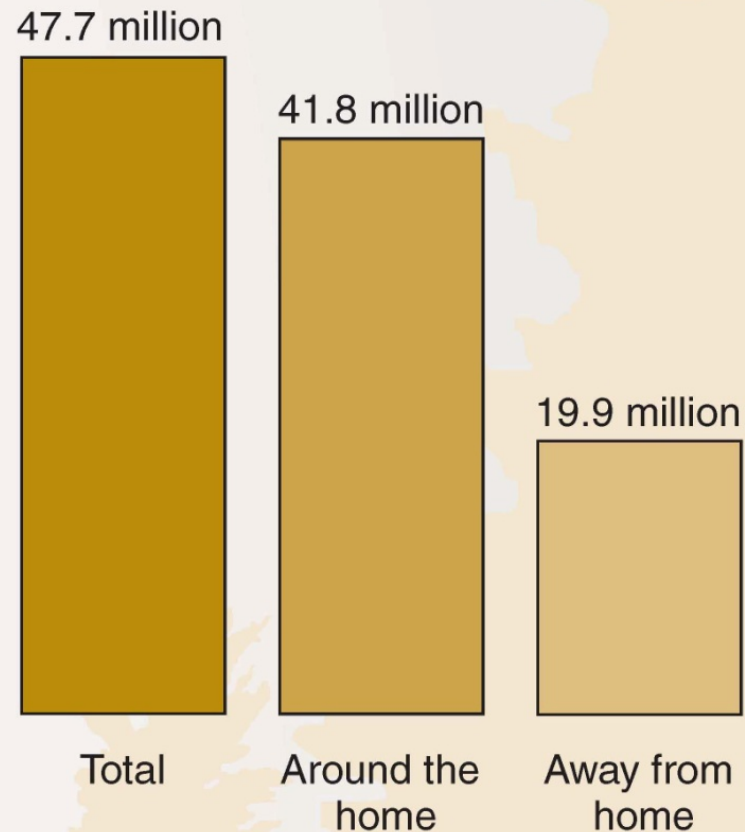
Q: What percentage of low income (<\$20k) households are wildlife watchers?

Q: What percentage of those under \$35k households are wildlife watchers?



# READING / INTERPRETING BAR CHARTS

## Bird Watchers



Q: How many bird watchers participate in that activity both around the home and away from home?

# CONCLUSIONS / DISCUSSION

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- ✘ This is not rocket science!
  - + Reading Tables, Pie Charts and Bar Graphs
  - + Writing Statements including #'s
  - + Interpreting Summary Data
  
- ✘ Test it out with your students!
  - + Link to Census Brochure:
    - ✘ [www.census.gov/prod/2008pubs/fhw06-qkfact.pdf](http://www.census.gov/prod/2008pubs/fhw06-qkfact.pdf)
  - + Link to 10 item sample survey:
    - ✘ [www.StatLit.org/pdf/2008IsaacsonQuestionsPKAL.pdf](http://www.StatLit.org/pdf/2008IsaacsonQuestionsPKAL.pdf)
  
  - + Questions / Comments?
  
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