

Appendix table 7-13

Public understanding of nature of scientific inquiry, by respondent characteristic: 2004

(Percent)

Characteristic	Inquiry	Scientific study	Experiment	Probability
All adults	39	23	46	64
Male	43	25	49	67
Female	36	22	43	62
Formal education				
<High school	10	3	15	35
High school graduate	32	16	39	63
Baccalaureate	61	39	67	77
Graduate/professional	70	51	75	79
Science/mathematics education ^a				
Low	19	8	27	52
Middle	40	23	46	68
High	62	41	67	77
Family income (quartile)				
Top	62	39	66	77
Second	48	28	54	73
Third	34	19	41	62
Bottom	22	11	30	51
Age (years)				
18–24	43	29	55	66
25–34	47	27	50	71
35–44	49	33	53	73
45–54	43	26	46	69
55–64	34	20	44	58
65+	20	6	30	48
With minor children at home				
Yes	46	28	48	73
No	35	20	43	59

^aLow = ≤5 high school and college science/math courses; middle = 6–8 courses; high = ≥9 courses.

NOTES: Level of understanding of nature of scientific inquiry estimated by combining each survey participant's responses to three questions. To be classified as understanding nature of scientific inquiry, respondent had to answer all probability questions correctly and either provide "theory-testing" response to question about what it means to study something scientifically or correct response to open-ended questions about experiment, i.e., explain why it was better to test a drug using a control group. Responses to:

- *When you read news stories, you see certain sets of words and terms. We are interested in how many people recognize certain kinds of terms, and I would like to ask you a few brief questions in that regard. First, some articles refer to the results of a scientific study. When you read or hear the term scientific study, do you have a clear understanding of what it means, a general sense of what it means, or little understanding of what it means? If the response is "clear understanding" or "general sense," in your own words, could you tell me what it means to study something scientifically?*

- *Now, please think of this situation: Two scientists want to know if a certain drug is effective in treating high blood pressure. The first scientist wants to give the drug to 1,000 people with high blood pressure and see how many experience lower blood pressure levels. The second scientist wants to give the drug to 500 people with high blood pressure and not give the drug to another 500 people with high blood pressure and see how many in both groups experience lower blood pressure levels. Which is the better way to test this drug? Why is it better to test the drug this way?*

- *Now think about this situation: A doctor tells a couple that their "genetic makeup" means that they've got one in four chances of having a child with an inherited illness. Does this mean that if their first child has the illness, the next three will not? Does this mean that each of the couple's children will have the same risk of suffering from the illness?*

SOURCE: University of Michigan, Survey of Consumer Attitudes (2004).