



RUTGERS
BIOMEDICAL AND
HEALTH SCIENCES

Science and Society

Topics In Advanced Biotechnology

September 29, 2017

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Science Advocacy

What is Your Responsibility as a Scientist?



What Are We Advocating For?

How does the public perceive science?

Is it different than the way scientists perceive science?

Public and Scientists' Views on Science and Society

(Pew Research Center, January 2015)

<http://www.pewinternet.org/2015/01/29/public-and-scientists-views-on-science-and-society/>

Pair of Surveys (collaboration of Pew Research Center and AAAS)

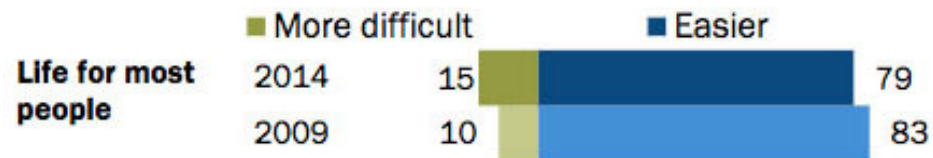
- Public Survey
 - telephone survey
 - 2,002 participants (≥ 18 years old)
- AAAS Survey
 - online survey (email invitation)
 - random sample of AAAS members
 - 3,748 participants (48% bio/med; 11% chem; 7% earth; 6% eng)

Biotech Class Survey

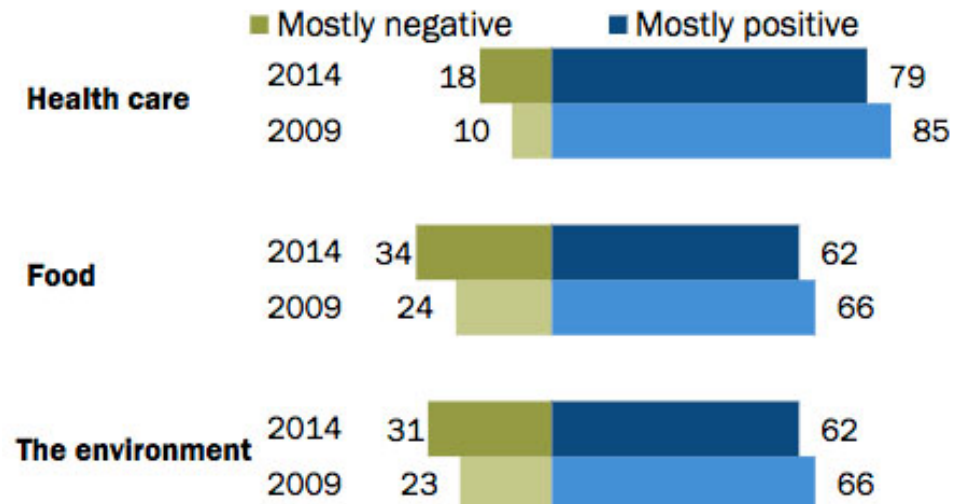
- 29 participants

Public is Largely Positive About the Contribution of Science to Society

% of US adults saying science has made life easier or more difficult for most people

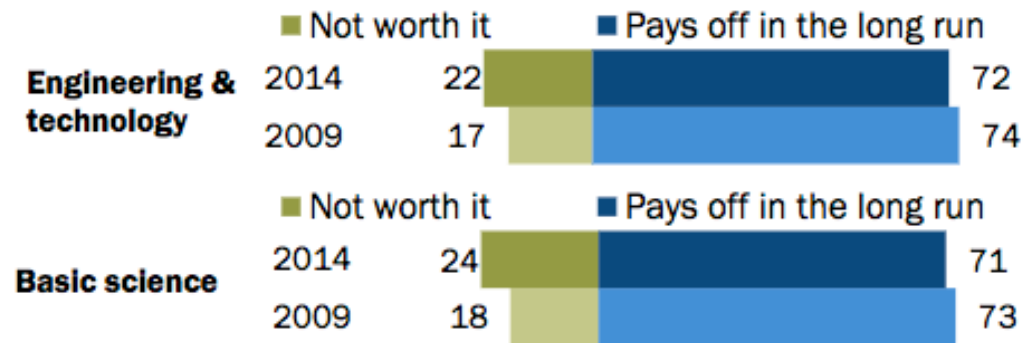


% of US adults saying effect of on the quality of each area in the US has been mostly positive or negative

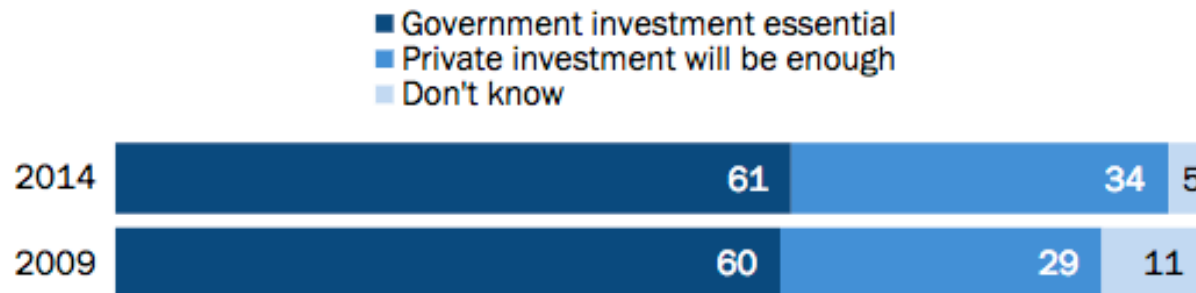


Public is Largely Supports Government Funding for Science

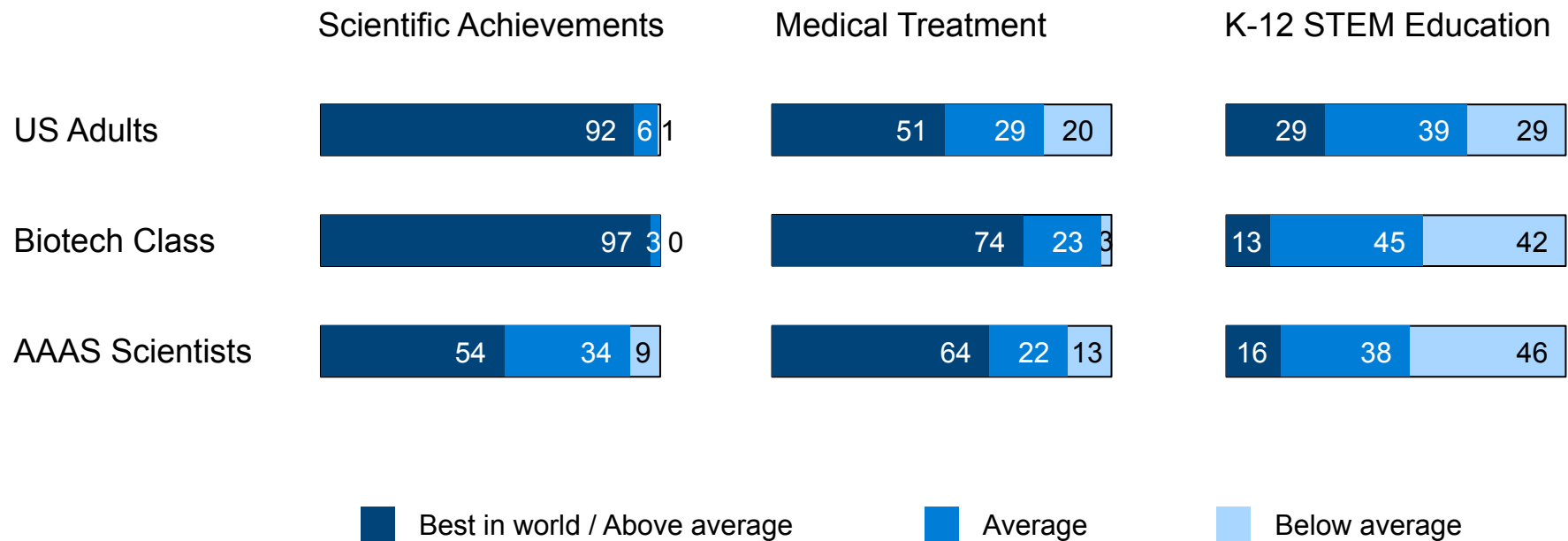
% of US adults saying that government investments in each area usually pay off in the long run or are not worth it



% of US adults saying that government investment is essential for scientific progress or that private investment will ensure that enough scientific progress is made, even without government investment

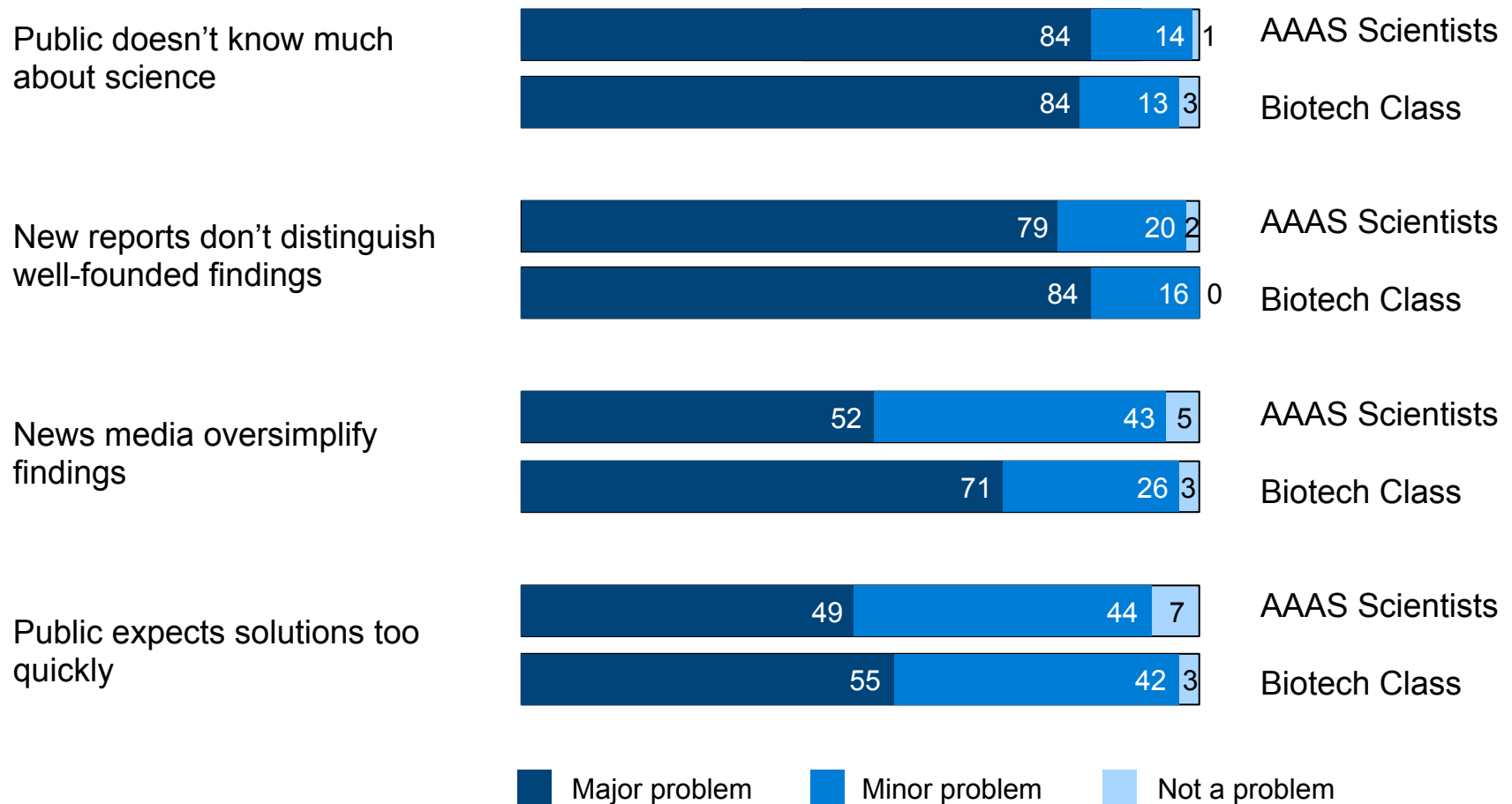


Public and Scientists Are Positive about Achievements, Critical of K-12 Stem Education



Scientists Fault Public Knowledge and Media Reports as Problems for Science

% of AAAS scientist saying each is a major/minor or not a problem for science in general



John Oliver – Scientific Studies

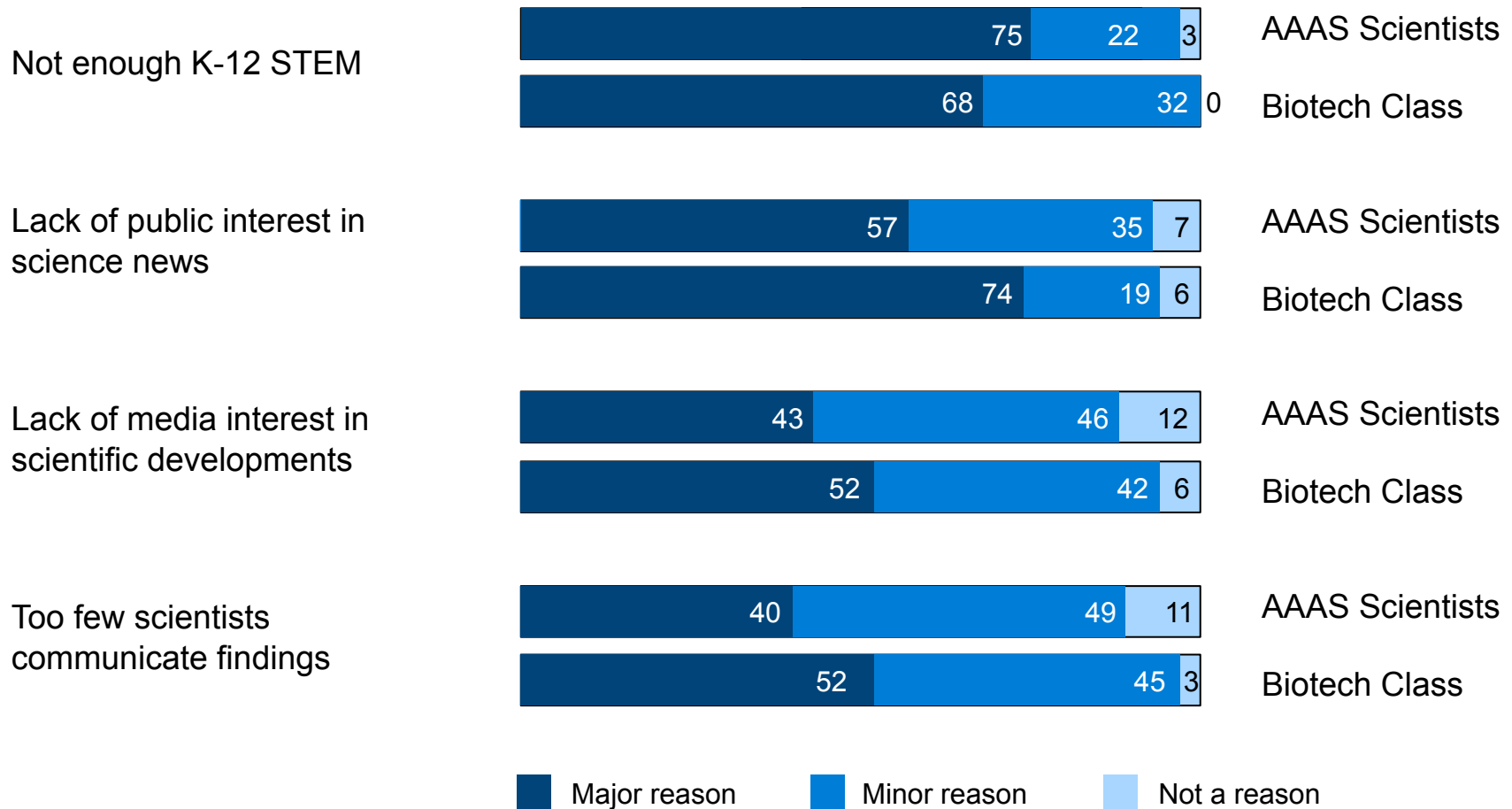


Scientific Studies: Last Week Tonight with John Oliver (HBO) - YouTube

<https://www.youtube.com/watch?v=0Rnq1NpHdmw>

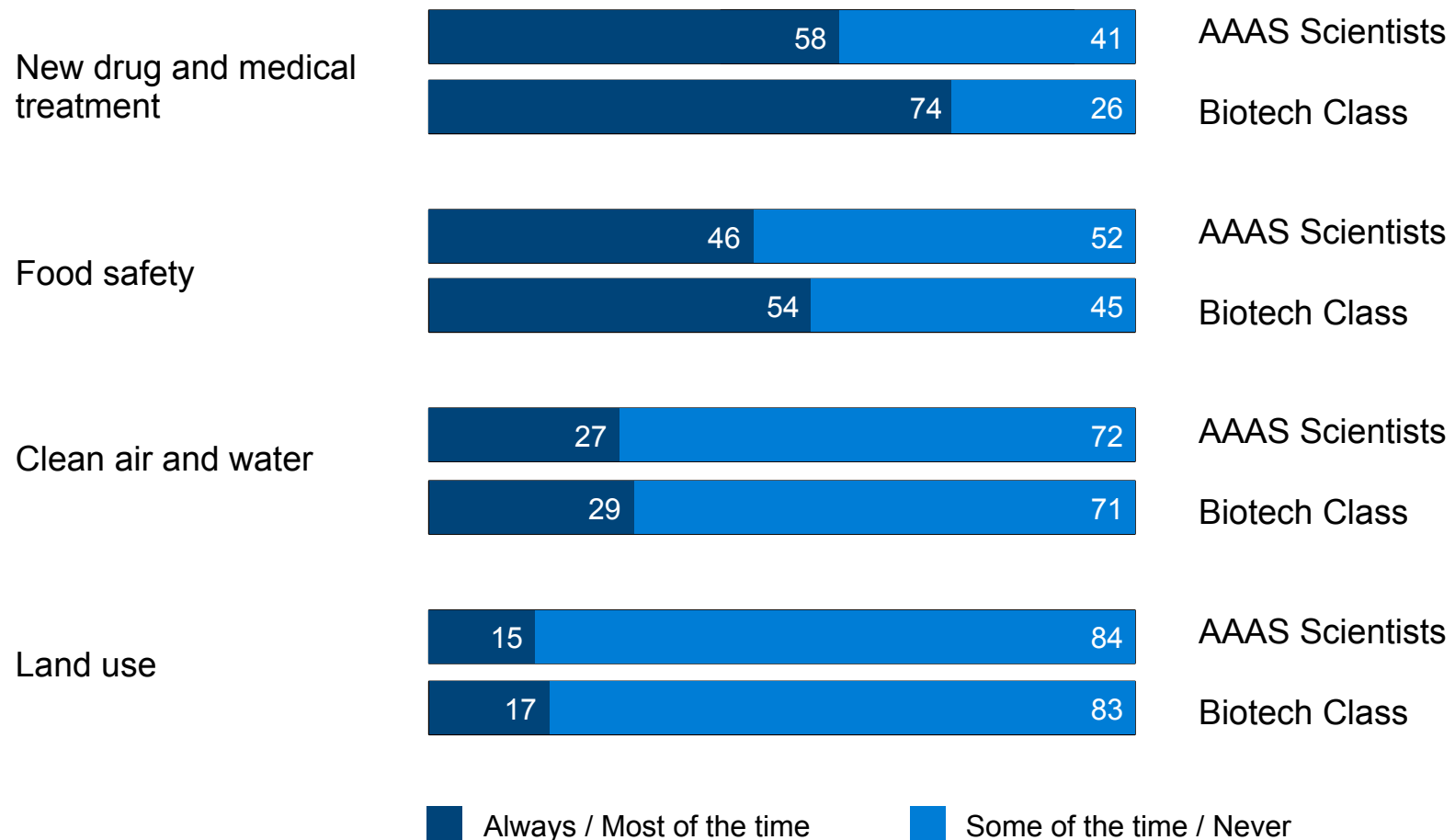
Scientists Say More K-12 STEM Would Help Raise Public Science Knowledge

% of AAAS scientist saying each is a major/minor or not a reason for the U.S. public having limited knowledge about science



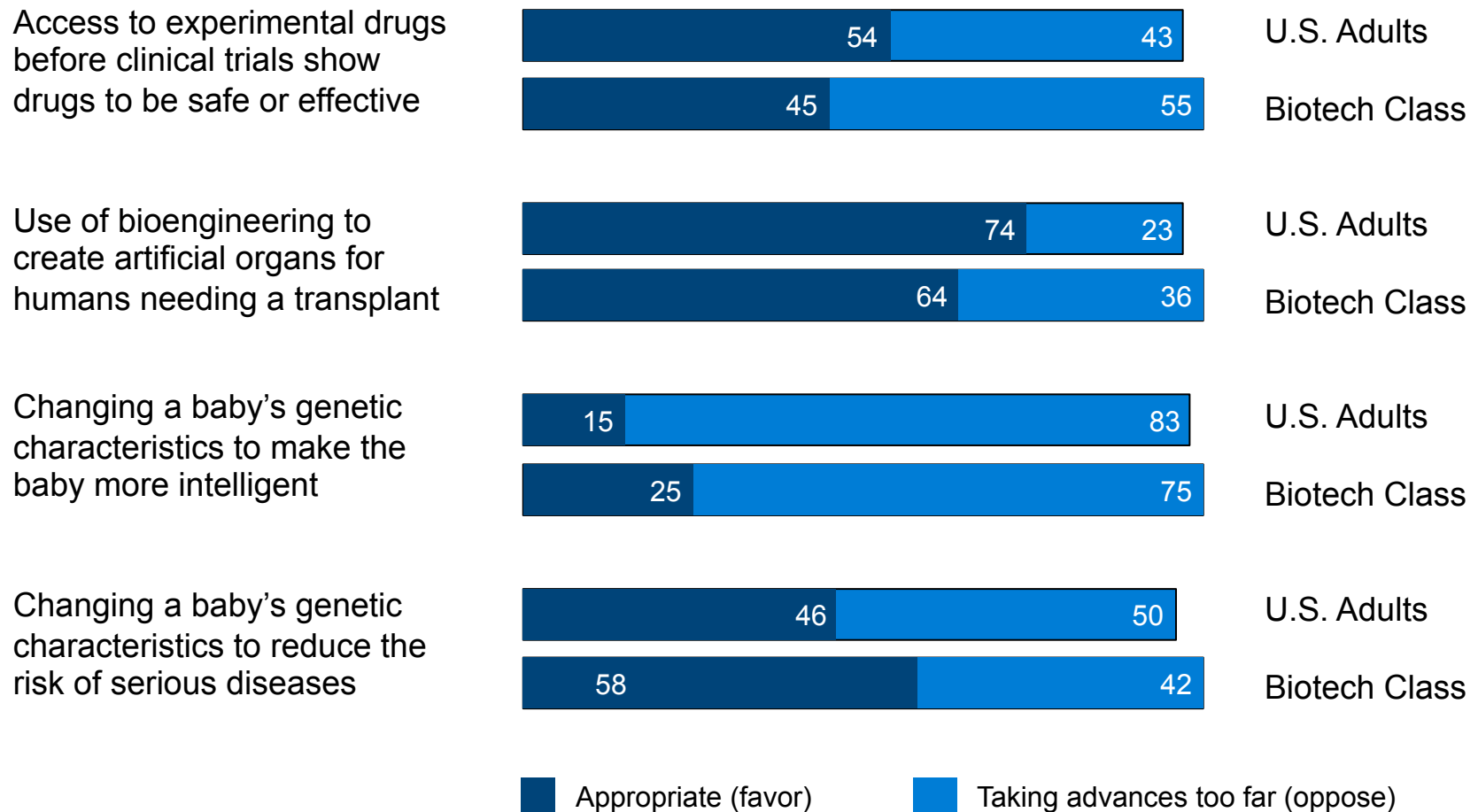
How Often Does the Best Research Inform Government Regulations?

% of AAAS scientist saying the best scientific information guides regulations in each area



How Well Do You Know the Public's Views on Biomedical and Bioengineering Issues?

% of U.S. adults who view the following technologies as appropriate or taking advances too far



Group Discussions and Presentations

Major Gaps Between the Public & Scientists on Key Issues

Access the Interactive Page of the Pew Report website

<http://www.pewinternet.org/interactives/public-scientists-opinion-gap/>

DISCUSSION

Each group has been assigned two issues to explore

Use the tabs to see the distribution of views by gender, age race, education, etc.

Do you find the results to be surprising, interesting, important?

Do you think you can rationalize why certain groups of people hold certain views?

Do you think the gaps in views are a problem for science, or for society?

If so, can you suggest ways to decrease the gaps?

Each group also has printed copies of slides that compare the PEW survey responses to the Biotech Class responses – how well do these align?

PRESENTATIONS

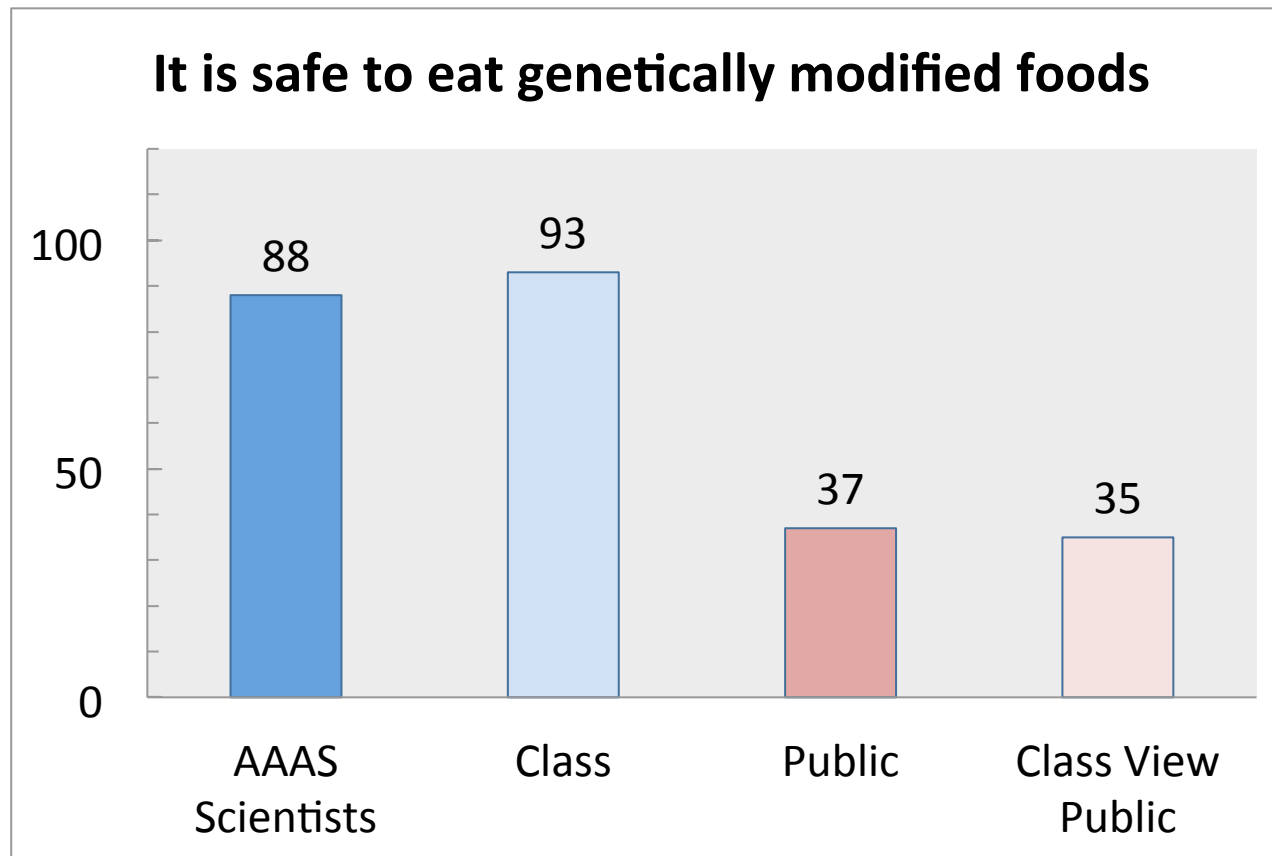
We will proceed down the list of topics in order

As we get to each topic, one member of each group will present the findings

Use the slides to show how the Biotech Class responses relate to the Pew responses

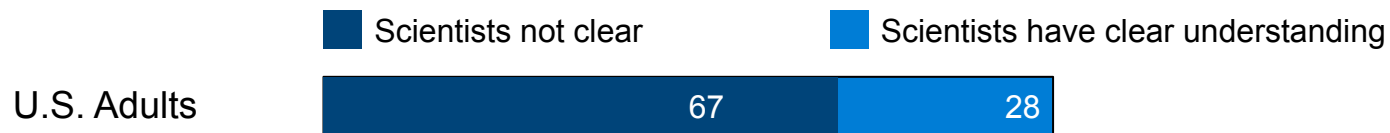
Then tell us some highlights of your discussion – no need to be comprehensive – tell us what you found to be most interesting

Keep your presentations of each topic to <2 minutes!

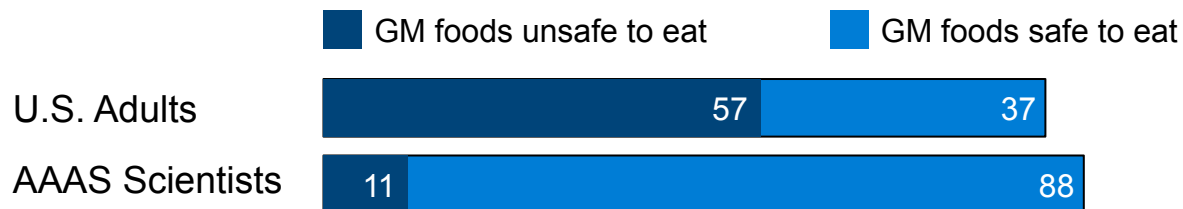


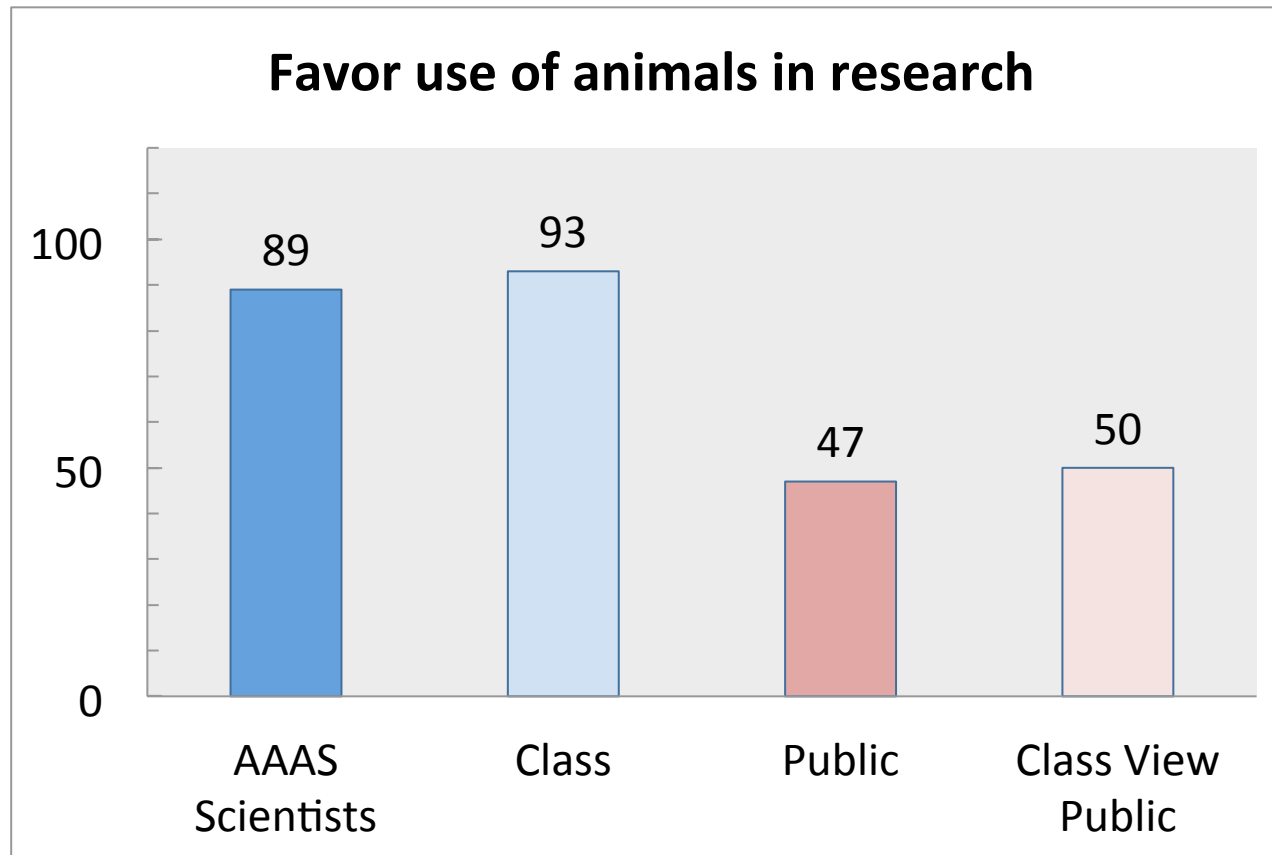
The Public is Largely Skeptical of Scientific Understanding of Health Effects of GM Crops

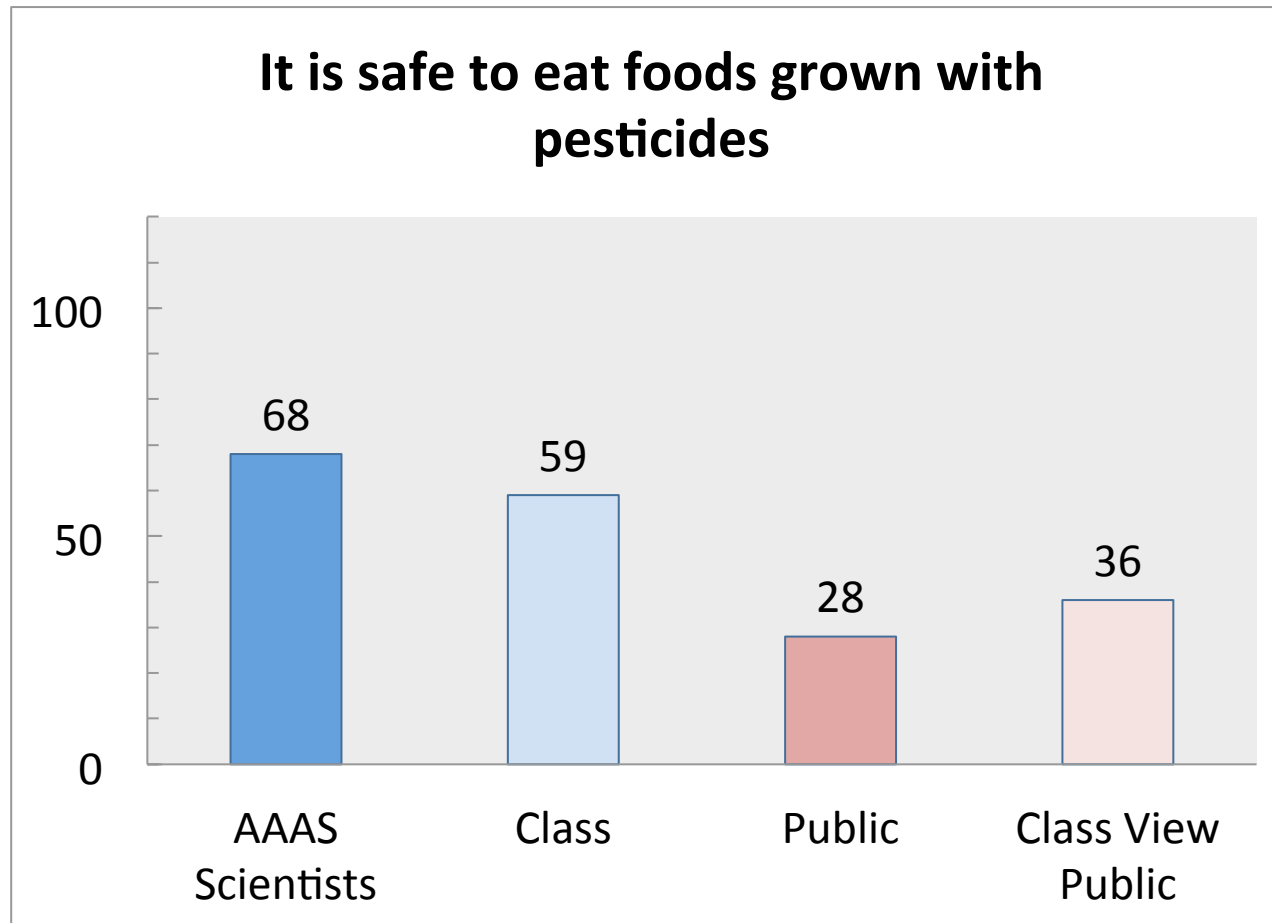
% of U.S. adults saying that scientists have or do not have a clear understanding about the health effects of Genetically Modified crops

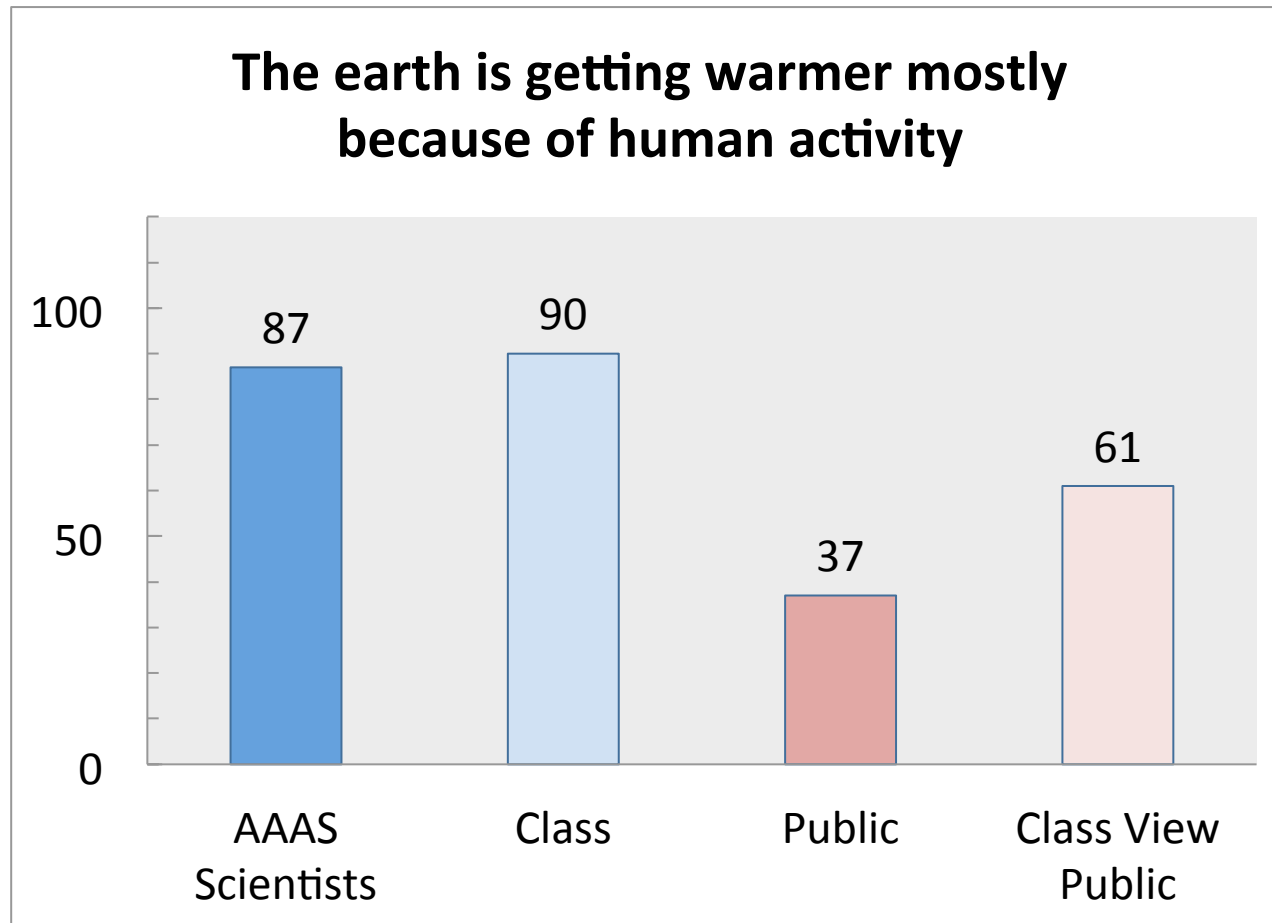


The public's view of scientists' knowledge correlates with their own views



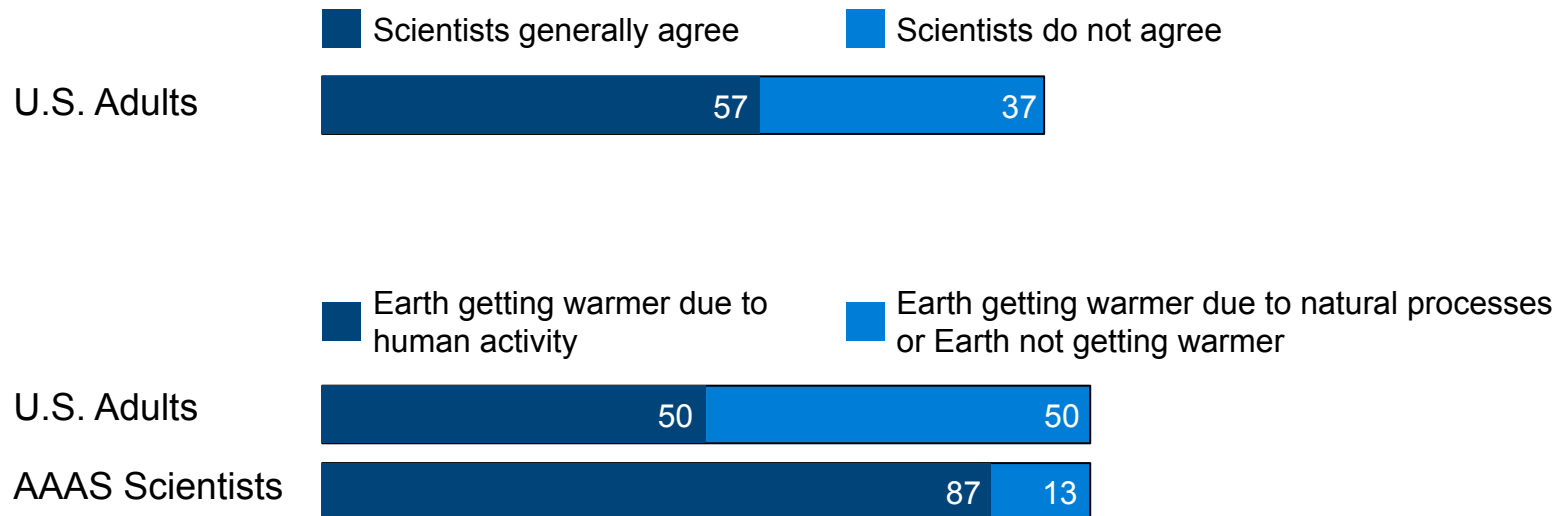


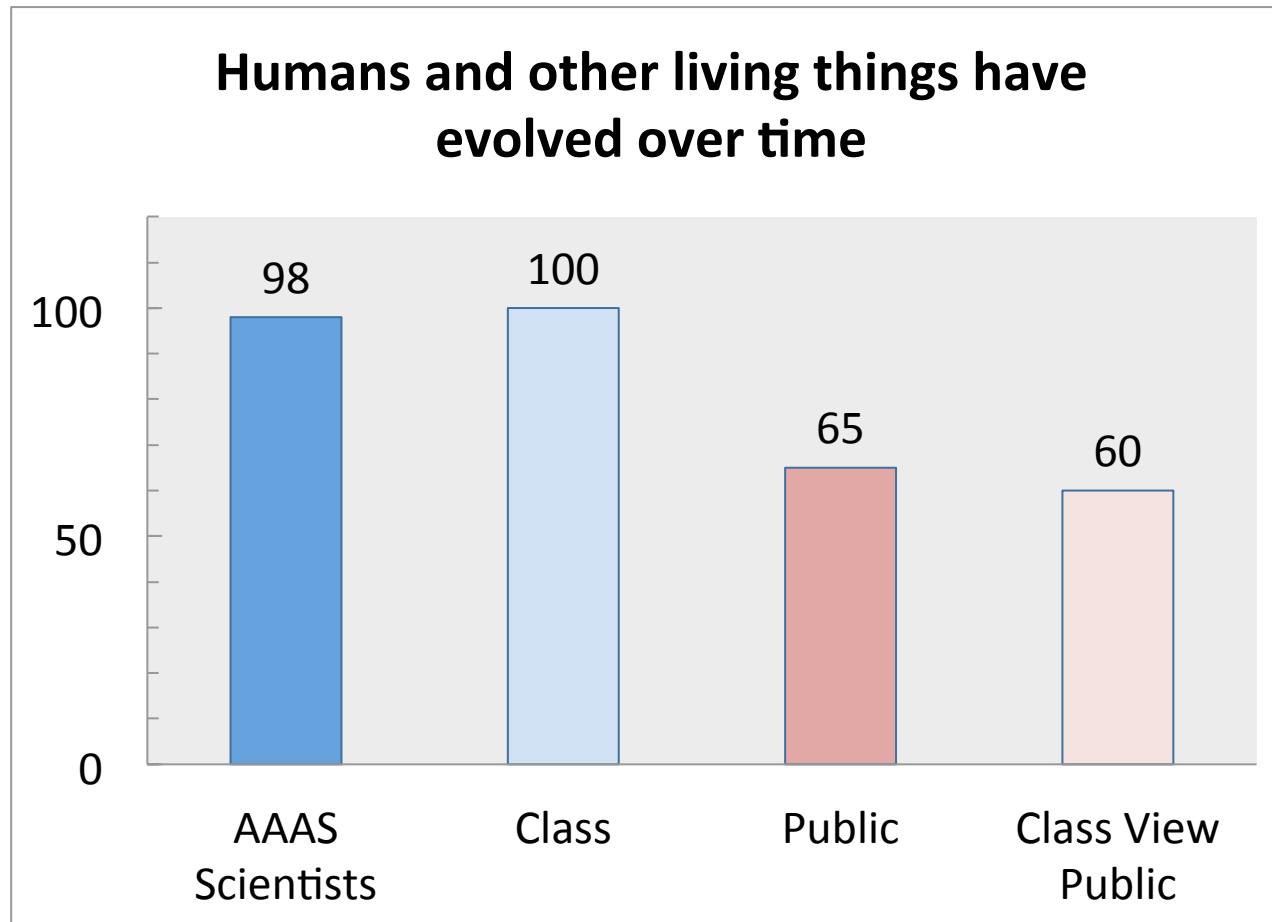




The Public's Perception of Scientists' Views About Climate Change Is Associated with Their Own Views

% of U.S. adults saying that scientists generally agree or do not agree that the earth is getting warmer due to human activity





The Public's Perception of Scientists' Views About Evolution Are Associated with Their Own Views

% of U.S. adults saying that scientists generally agree or do not agree that humans have evolved over time

