

Survey Methods and Results

Jon A. Krosnick
Stanford University

Survey Data Collection

- Contemporary Surveys
 - Face-to-face
 - Telephone (Random digit dialing)
 - Internet
- Knowledge Networks (Menlo Park, CA)
 - Approach developed in the Netherlands in the 1980s.
 - Random digit dial telephone calls.
 - Panel of respondents to complete questionnaires weekly.
 - The only American representative national sample on the internet.

Introduction

In recent decades, people have been putting large amounts of “greenhouse gases” such as carbon dioxide into the air, mostly by burning gasoline, coal, and natural gas.

Most scientists who study the Earth’s climate believe that these greenhouse gases trap heat from the Sun on Earth.

So these scientists believe that by adding carbon dioxide to the air in recent years, people have been making the Earth warmer.

These scientists also say that the Earth will continue to get warmer in the future.

If the Earth keeps getting warmer, this could hurt people and nature: scientists say, for example, that there are likely to be more droughts, flooding of coastal areas where people live, more severe storms, and many plants and animals will become extinct

The scientists who study the Earth's climate say that the warming and its effects can be reduced if people put less carbon dioxide into the air in the future.

For this reason, some people in the U.S. federal government are thinking about ways to reduce the amount of carbon dioxide that Americans put into the air.

In this survey, we would like to ask for your opinion about six possible ways to do this.

You might think they are all good ideas. You might think they are all bad ideas. Or you might think some are good and others are bad.

We want to know what you think, so that we can inform policy-makers in Washington about which, if any, of these policies the American public would favor and which they would oppose.”

Overview of the Questionnaire

- Quick summaries of policies
Random order
- Longer descriptions of the policies
Vote in favor of or against each one
- Rank the six policies
- Questions to predict voting behavior

Overview of Policies

Brief description of each policy.

Random order:

Vehicle fuels

Electricity

Random order:

Low-carbon standard

Emissions tax

Cap-and-trade program.

Example of Overview

Low-Carbon Standard for Vehicle Fuels

“Require oil companies to change the way they make fuel for cars and trucks. This will reduce the amount of greenhouse gases put out by vehicles, increase the price of fuel, and cause people to use less of it.”

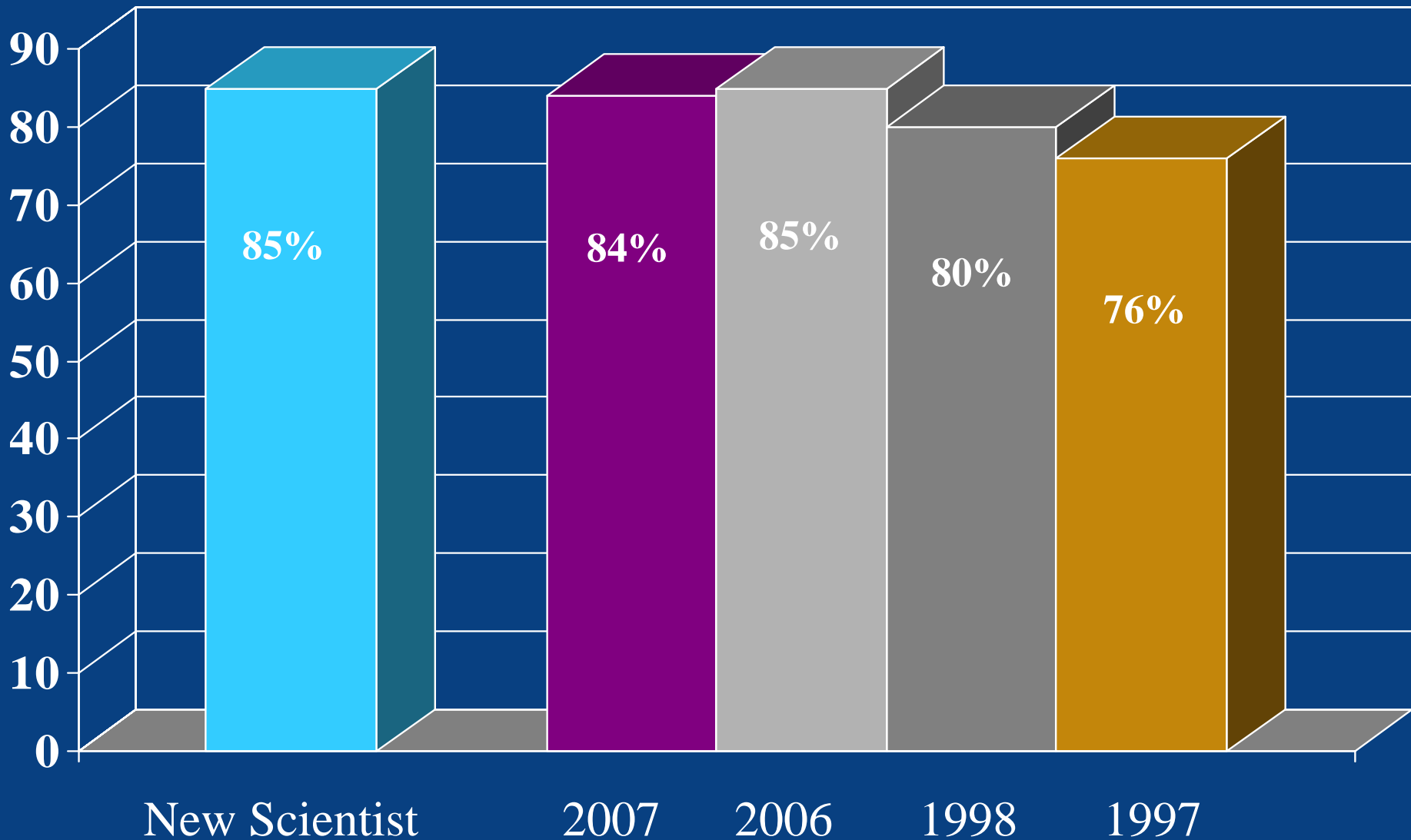
Example of Policy Description

- The government could require each oil company to change the way they make fuel.
- By 2020, 30% of the fuel each company sells would have to be a type that produces less greenhouse gases than gasoline. Oil companies can do this by mixing gasoline with ethanol, which is a kind of alcohol usually made from plants.
- This requirement would cause fuel prices to go up, because oil companies would pass on to their customers the cost of the ethanol, and the cost of setting up their factories to mix the new fuel.
- The increased price of fuel would also cause people to drive less and/or to buy cars that use less fuel.

- Compared to current gasoline prices the price of fuel will go up about [10/30/70] cents per gallon each year until it reaches about [\$4/\$7/\$15] per gallon in 2020.
- This will reduce the amount of greenhouse gases put out by the U.S. in 2020 by 5%.
- If an election were being held today, would you vote in favor of this policy or would you vote against it?

Results

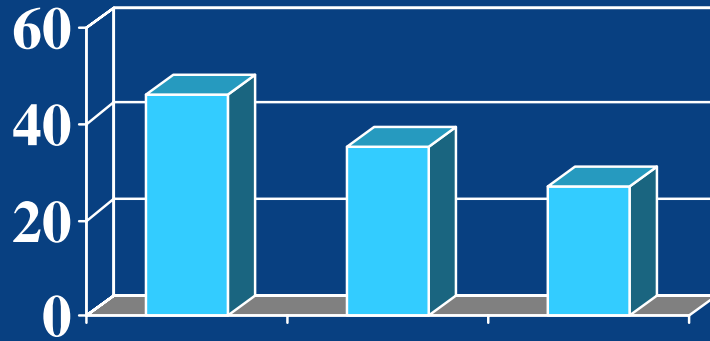
Has the world's temperature been heating up?



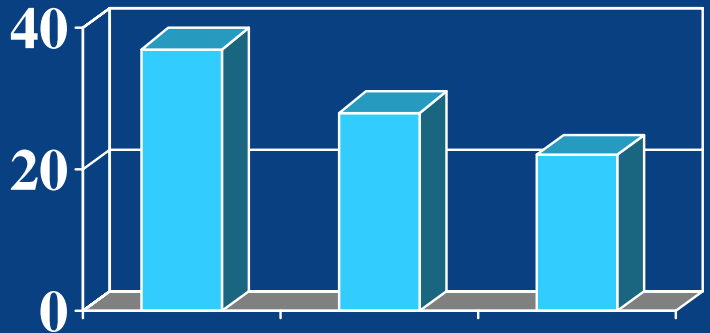
Are People Less Favorable Toward
More Expensive Policies?

Vehicle Fuel

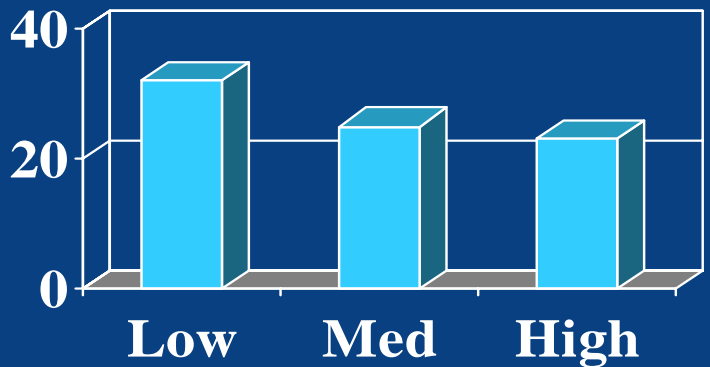
Low-
Carbon
Standard



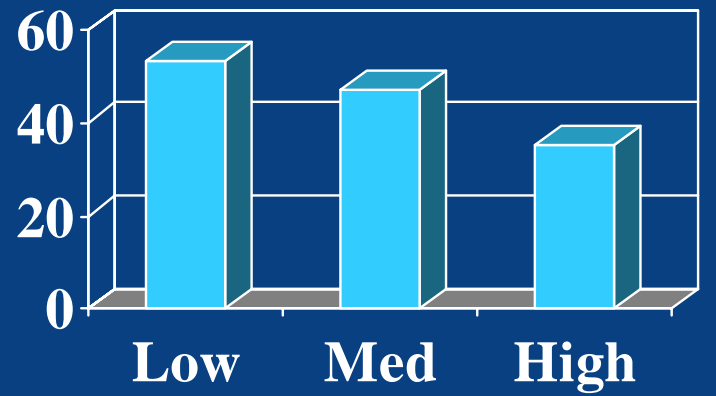
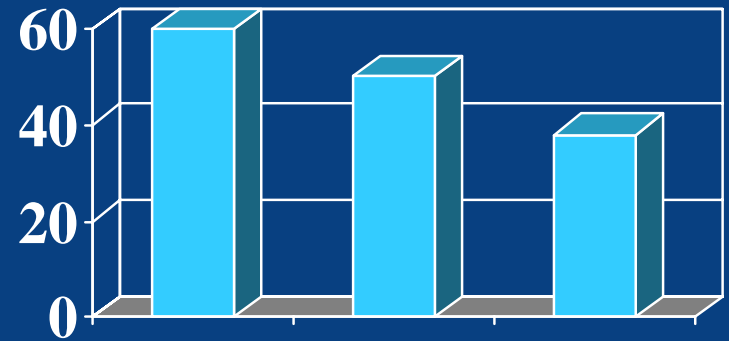
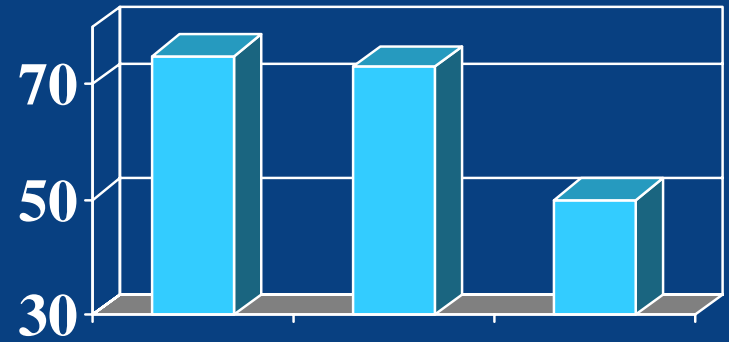
Tax



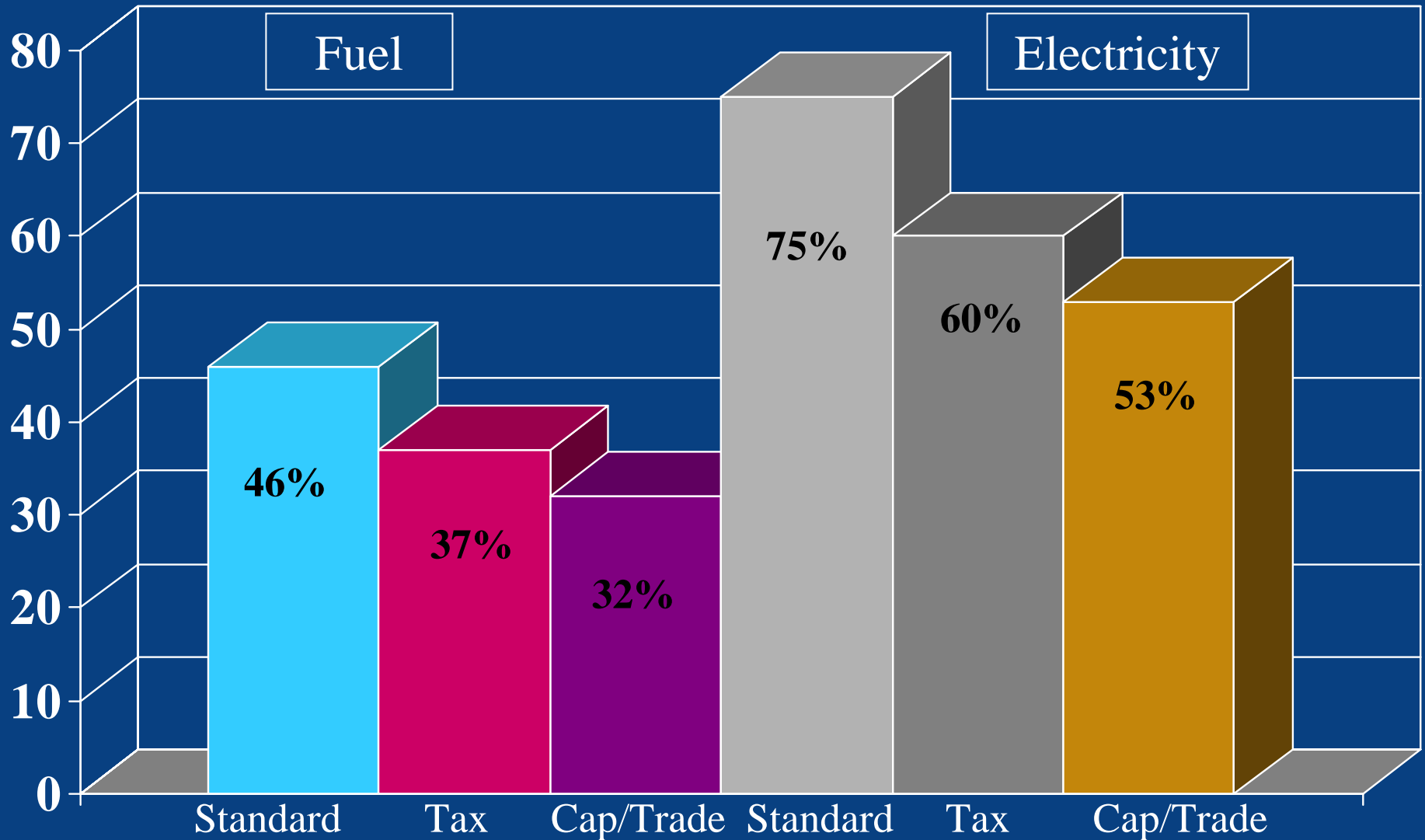
Cap-and-
Trade



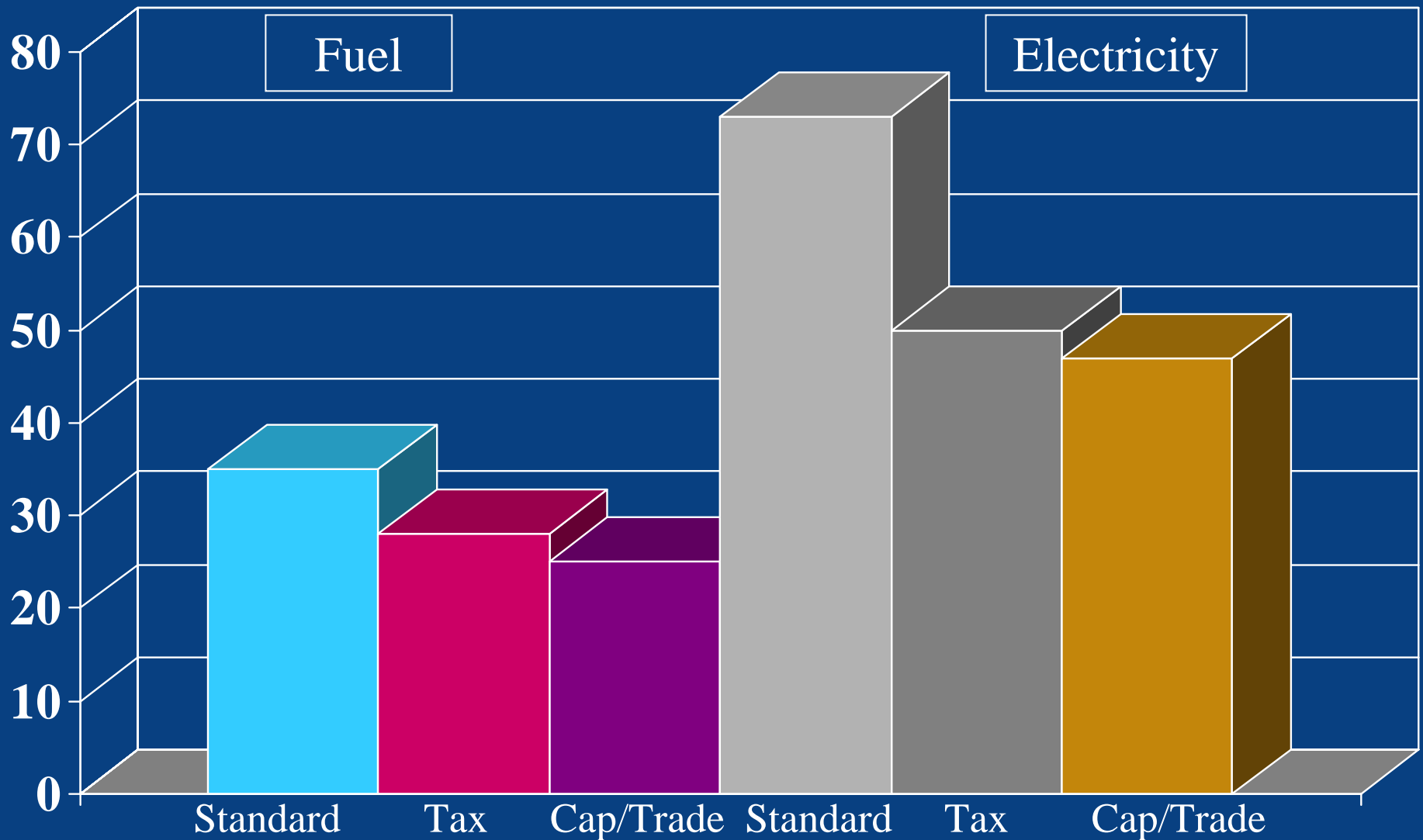
Electricity



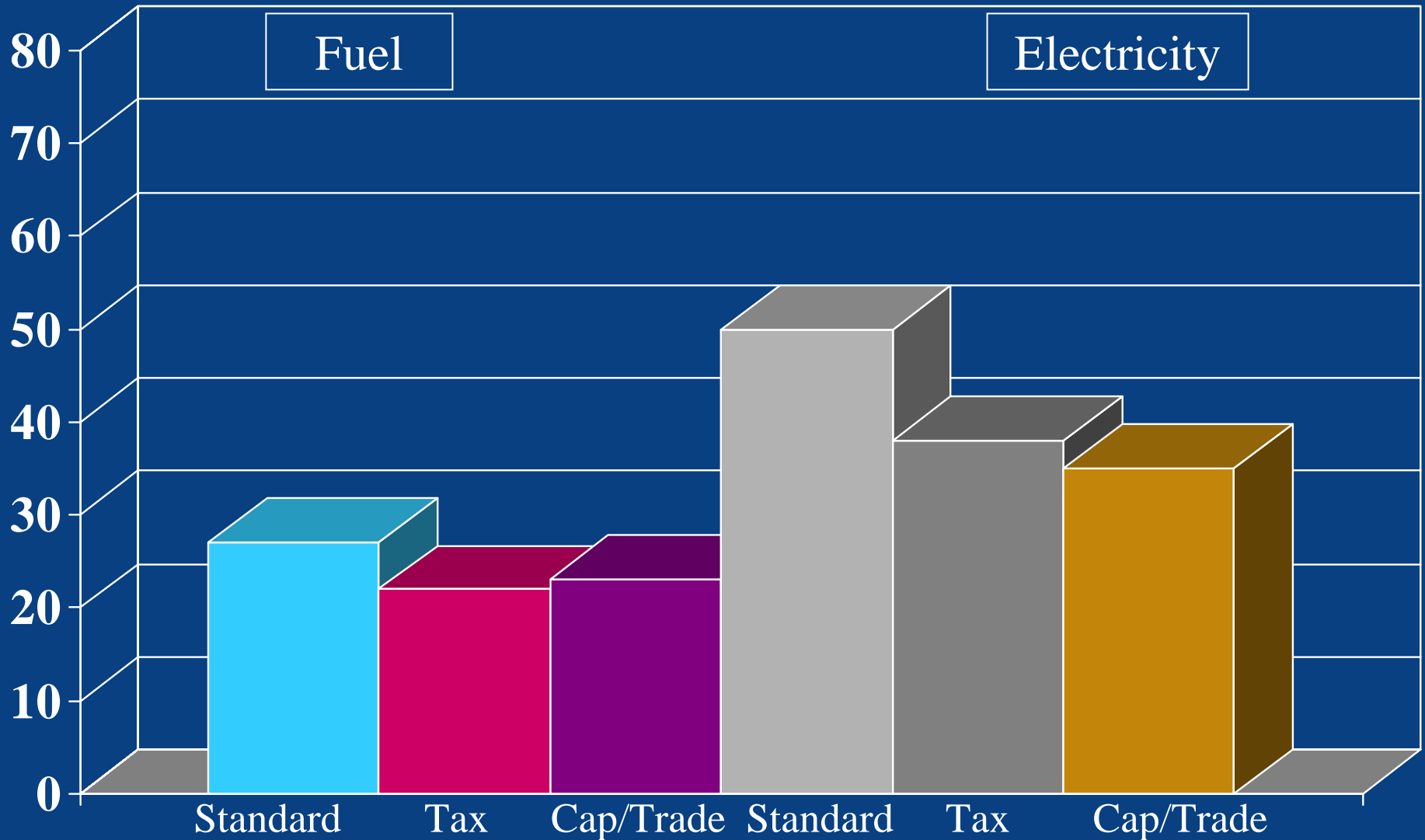
Percent Voting in Favor at the Low Price



Percent Voting in Favor at the Medium Price



Percent Voting in Favor at the High Price



Who Votes in Favor of More Policies?

<u>Predictor</u>	<u>Regression Coefficient</u>
Geographically adjusted vehicle fuel spending increase	-.0001**
Geographically adjusted electricity spending increase	-.0007*
Believe global warming probably has probably been happening	.57***
Environmentalist	.41***
Political party identification = Democrat	.05***
Income (in thousands of dollars)	.001*
Age	-.003+
Parent or guardian of children or teens in the household	.14*
Region = West	.12*

Conclusions

- Electricity preferred over vehicle fuels
- Low-carbon standard preferred the most
- Tax preferred moderately
- Cap-and-trade preferred the least

Future Research

- More policy approaches.
- More ambitious greenhouse gas reduction targets.
- Measure sensitivity to the particulars of the descriptions.
 - What happens to the revenues raised by taxes?
 - What evidence suggests that cap-and-trade works?
 - What are the costs and benefits of each policy approach?
- Focus on the attitudes of the most passionate citizens.