Collective Action and Environmental Behavior

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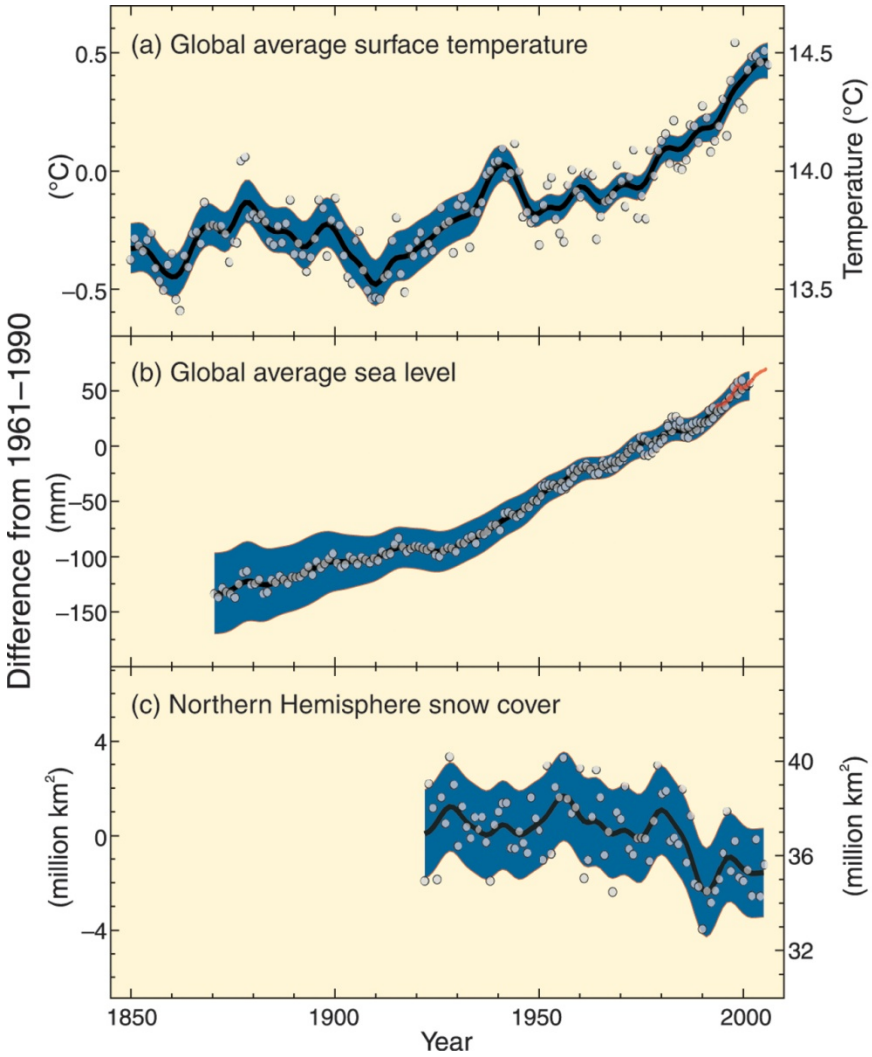
From Global….



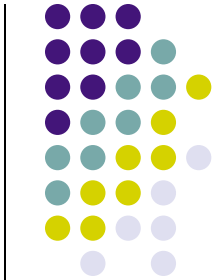
Source: IPCC 2007 AR4 Synthesis Report

To Local…


YOUR MOM DOES NOT LIVE HERE!!
IF YOU MAKE A MESS IN THE MICROWAVE, PLEASE CLEAN IT UP.
IF YOU USE THE LAST OF THE WATER, PLEASE REPLACE THE BOTTLE OR GET SOMEONE TO HELP YOU REPLACE IT.
THANK YOU
GENERAL ELECTRIC

A Message from the EPA!

http://yosemite.epa.gov/oar/globalwarming.nsf/content/ActionsIndividual.html



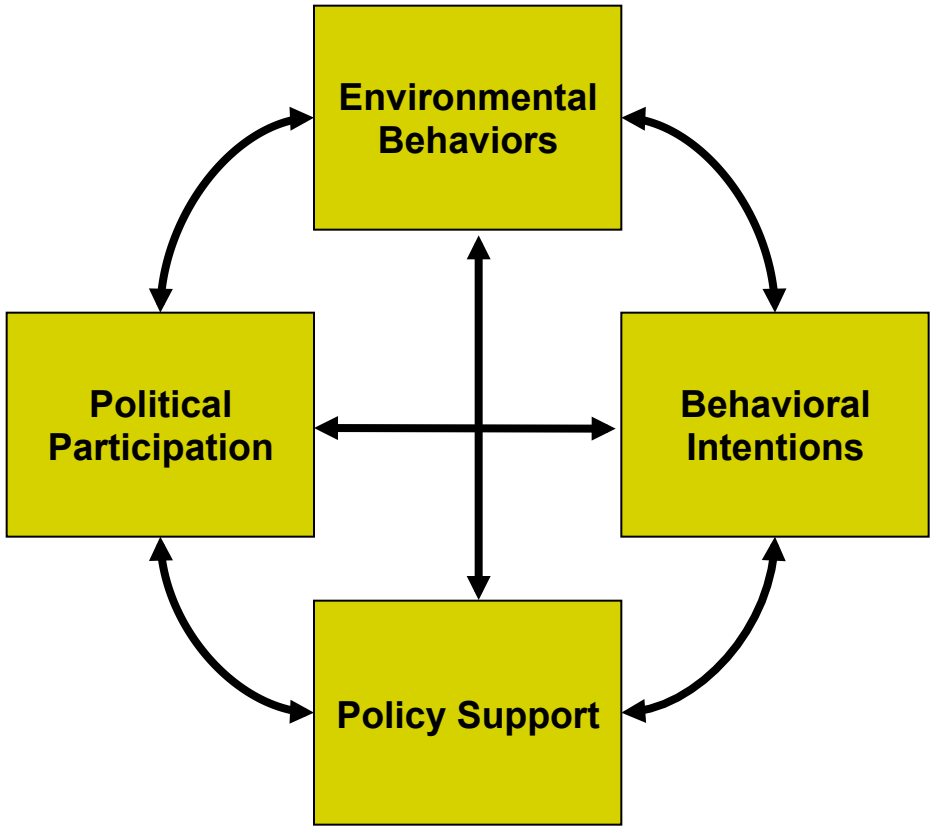
What difference can I make? When faced with this question, individuals should recognize that collectively they can make a difference. Think back to the days before recycling became popular – when everyone threw everything out in the trash. In less than 20 years, most households have gone from recycling little to nothing to recycling newspapers, plastics, glass and metal. Many businesses recycle paper and buy recycled products and many industries practice source reduction in their packaging efforts. An entire mindset has changed in one generation!

Taking action on global warming (or climate change) is similar. In some cases, it only takes a little change in lifestyle and behavior to make some big changes in greenhouse gas reductions. For other types of actions, the changes are more significant. When that action is multiplied by the 270 million people in the U.S. or the 6 billion people worldwide, the savings are significant.

"Individuals Can Make A Difference" identifies actions that many households can take that reduce greenhouse gas emissions in addition to other benefits, including saving you money! The actions range from changes in the house, in the yard, in the car, and in the store. Everyone's contribution counts, so why not do your share?

For Additional Information

Climate Change Activism as a Collective Dilemma



- Benefits of climate change activism are non-excludable
- Individuals have small influence on collective outcomes, and pay costs
- Leads to substantial free-riding

The Collective Interest Model

$$EV(\text{Climate Change Activism}) = [(p_g + p_i)^* V] - C + B$$

p_g= probability of group success

p_i= probability individual makes a difference

V= Value of public good

C=Selective Costs

B= Selective Benefits

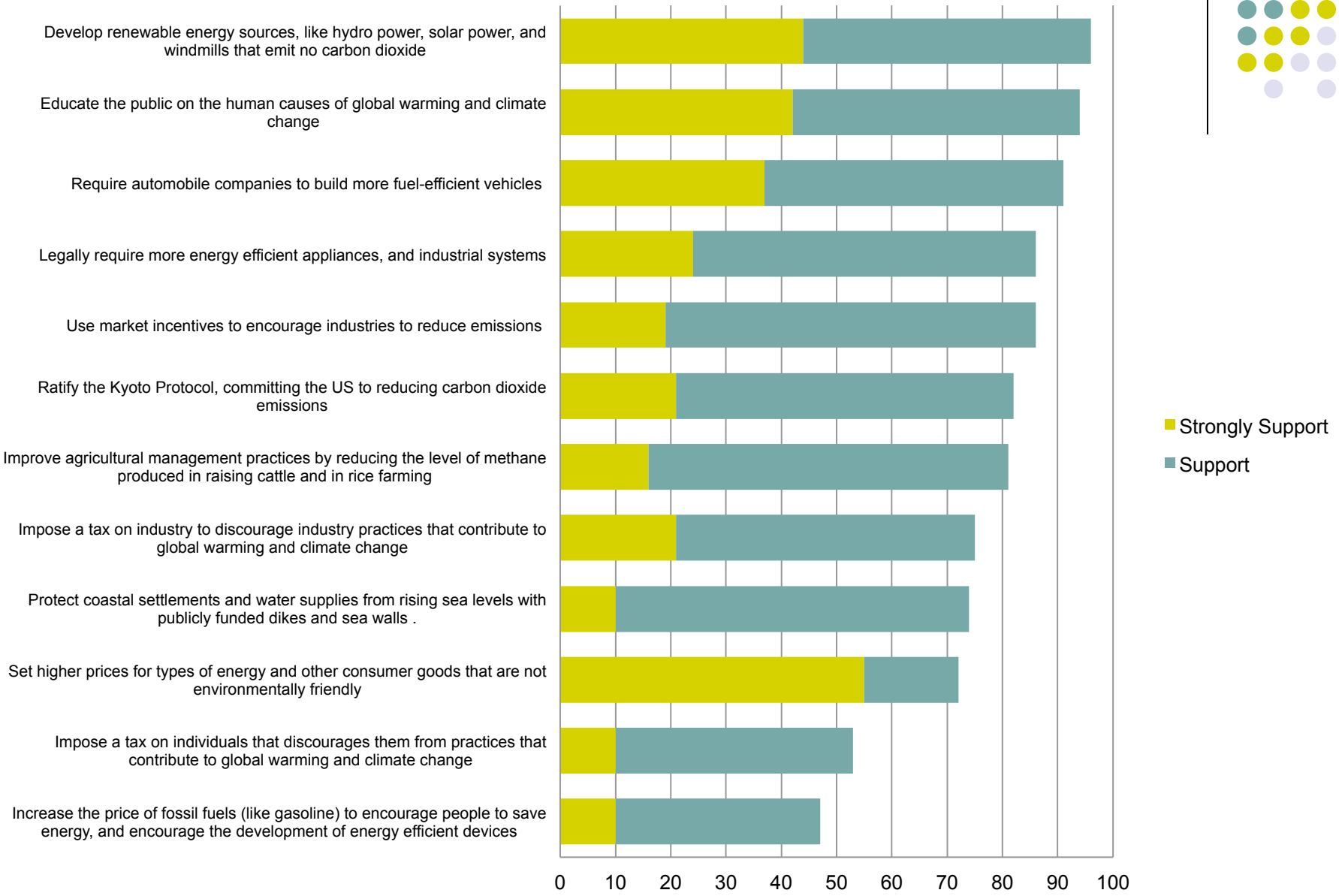
Variables Influencing Global Warming Activism

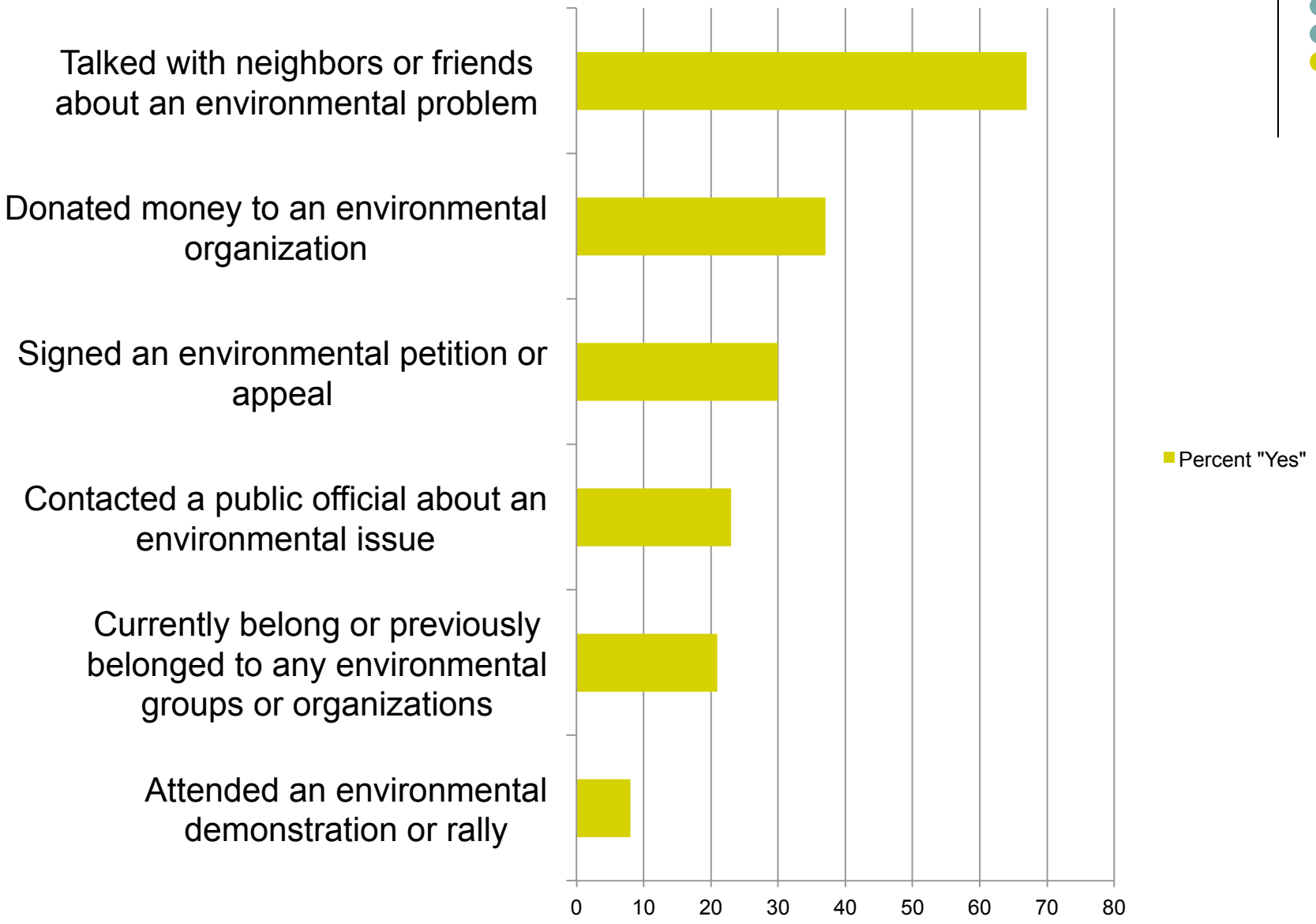
Collective Interest Variables	**(B) Selective Benefits**	**(C) Selective Costs**
(V) Perceived Risk (+)	*Environmental Values (+)*	*Global Warming Knowledge(+)*
(p_i) Outcome Influence (+)	*Political Discussion*	*Income (+)*
(p_g) Expected Reciprocity (+)	*Networks (+)*	*Education (+)*
(p_g) Policy Elite Competence (+)		*Age (+)*
(p_{g-}) County Civic Engagement(+)		*Male (-)*
		Minority (-)

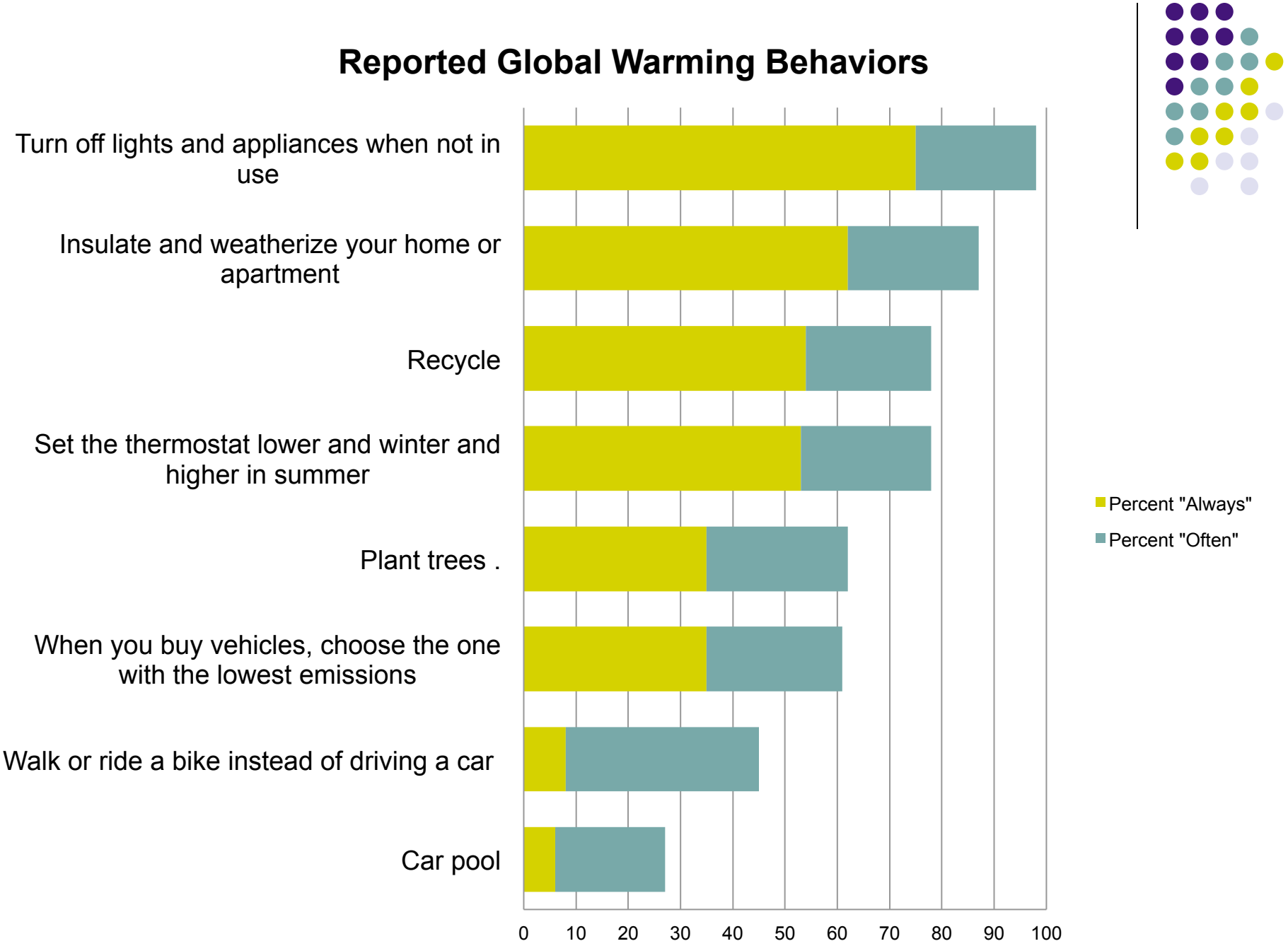
NOAA Global Warming Survey

- National telephone survey in 2004
- 1093 respondents
- 37% response rate, +/- 3% error
- Survey biased towards older, more educated citizens (typical)
- Other surveys: Air policy; GSS environment battery 1993; local citizens in Peconic Bay, NY

Support for Climate Change Policies



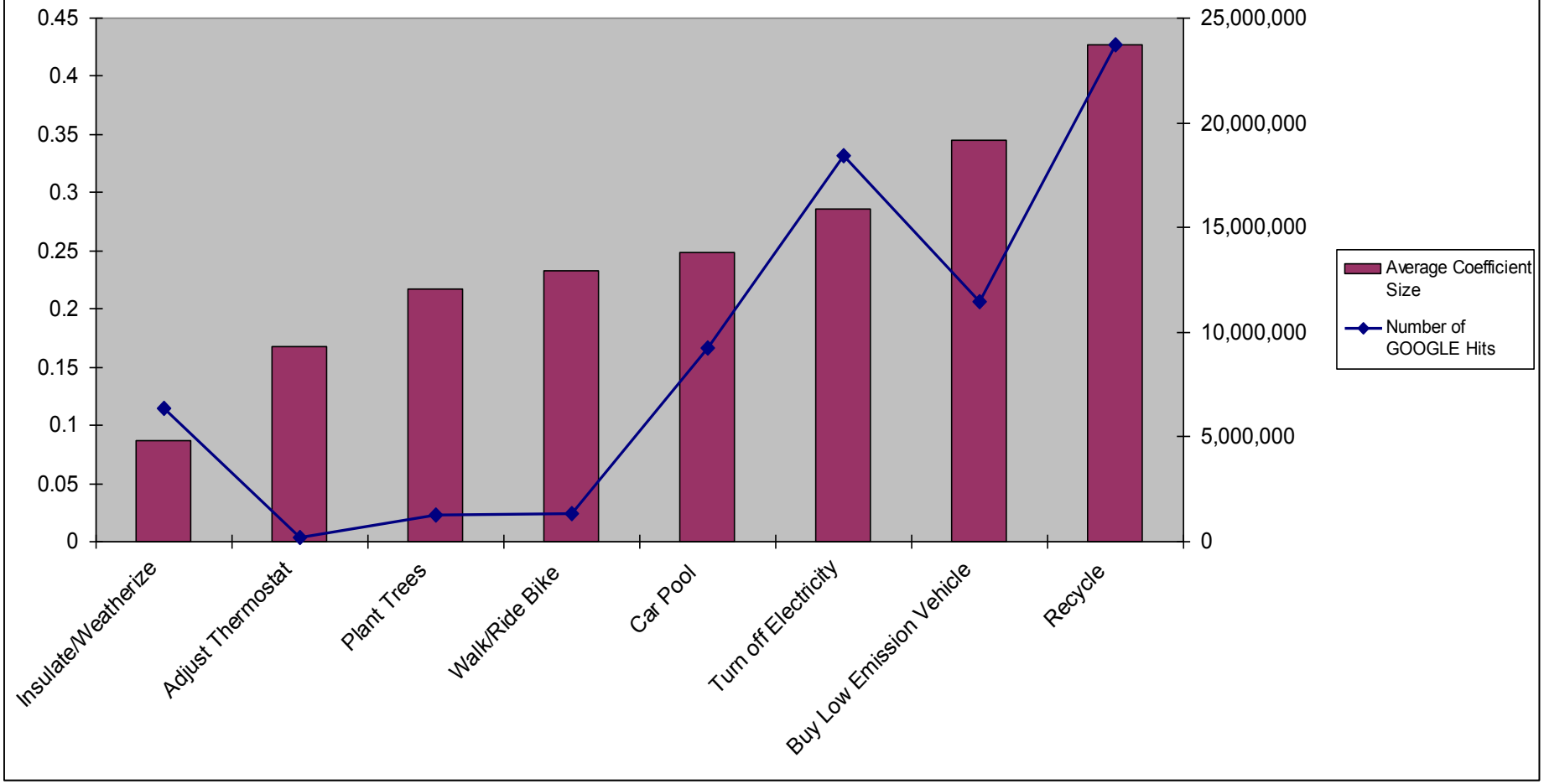

Environmental Political Participation
Talked with neighbors or friends about an environmental problem
Donated money to an environmental organization
Signed an environmental petition or appeal
Contacted a public official about an environmental issue
Currently belong or previously belonged to any environmental groups or organizations
Attended an environmental demonstration or rally
0
10
20
30
40
50
60
70
80
Percent "Yes"


Reported Global Warming Behaviors
Turn off lights and appliances when not in use
Insulate and weatherize your home or apartment
Recycle
Set the thermostat lower and winter and higher in summer
Plant trees .
When you buy vehicles, choose the one with the lowest emissions
Walk or ride a bike instead of driving a car
Car pool
0
10
20
30
40
50
60
70
80
90
100
Percent "Always"
Percent "Often"

Regression Models for Climate Change Activism

	Policy Support	*Political Participation*	*Environmental Behaviors*
Collective Interest Variables			
Perceived Risk	.18 (.02)**	.16(.04)**	.05 (.03)*
Personal Influence	.09 (.02)**	.11(.04)**	.07(.03)**
Expected Reciprocity	-.005(.02)	.11 (.04)**	.08(.03)**
Policy Elite Competence	.12 (.02)**	.02 (.04)	.05(.03)

Figure 1: Average Size of Ordered Probit Coefficents for Collective Interest Variables (Perceived Risk, Personal Influence, Expected Reciprocity) and Number of GOOGLE Hits for Environmental Behaviors



Deeper Understanding of the CI Model

- The CI model is a good predictor of enviro. behavior
- We don’t know much about the inputs into the model
- Most known about risk perception (V)
- Not much know at all about environmental efficacy—where does it come from?

Possible Approaches to Environmental Efficacy

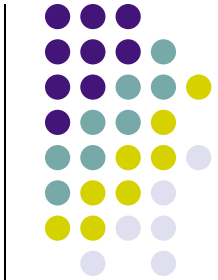
- Unabashed empiricism: Demographic variables, environmental values
- Psychology: Maslow on self-efficacy
- Media context
- Cultural evolution and social learning
- What else?

Some raw empiricism…

Predicting Environmental Efficacy			
	My actions matter	Other people are taking action	My actions influence others
Environmental Values	.64	-.32	.34
Education	NS	NS	NS
Age	-.002	NS	NS
Income	.002	NS	NS

Suggests environmental values lead people to tolerate free riding.

Conclusions



- Collective interest model is useful
- Important factors: Perceived risk, perceived personal influence, expectations of others, environmental values, education, race
- Top-down influences for policy support; bottom-up for behaviors
- Relevance of collective-interest model tracks level of public discourse

For More Information…

Lubell, M., S. Zahran, and A. Vedlitz. 2007. "Collective action and citizen responses to global warming." *Political Behavior 29 (3): 391-413.*

Lubell, M. 2002. "Environmental activism as collective action." *Environment and Behavior 34 (4): 431-454.*

Lubell, M., A. Vedlitz, S. Zahran, and L.T. Alston. 2006. "Collective action, environmental activism, and air quality policy." *Political Research Quarterly 59 (1): 149-160.*

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Table A1: Descriptive Statistics for Collective Interest Model Variables

	Mean (Standard deviation)	Minimum	Maximum
Dependent Variables: Three Dimensions of Global Warming Activism			
*Policy Support**	.66 (.14)	0	1
*Environmental Political Participation**	.31 (.27)	0	1
*Environmental Behaviors**	.62 (.15)	.12	1
Collective Interest Variables			
*Perceived Risk**	.57 (.22)	0	1
*Personal Influence**	.59 (.24)	0	1
*Expected Reciprocity**	.50 (.21)	0	1
*Policy Elite Competence**	.63 (.18)	0	1
County Civic Engagement	11.80 (1.27)	7.61	15.28
Selective Benefits			
*Environmental Values**	.63 (.14)	0	1
Discussion Networks	2.5 (1.4)	0	5
Selective Costs			
Global Warming Knowledge	.52 (.31)	0	1
Education	4.15 (1.40)	1	6
Age	47.31 (16.39)	18	90
Income	6.30 (3.16)	1	11
Male	.44 (.50)	0	1
African American	.08 (.27)	0	1
Hispanic	.03 (.17)	0	1
Other Minority	.04 (.20)	0	1

*Attitude variables are linearly rescaled value to range between [0,1]. See Appendix A for original question wording and scale values.

Full Regression Results for Climate Change Activism

	Policy Support	*Political Participation*	*Environmental Behaviors*
Collective Interest Variables			
Perceived Risk	.18 (.02)**	.16(.04)**	.05 (.03)*
Personal Influence	.09 (.02)**	.11(.04)**	.07(.03)**
Expected Reciprocity	-.005(.02)	.11 (.04)**	.08(.03)**
Policy Elite Competence	.12 (.02)**	.02 (.04)	.05(.03)
County Civic Engagement	-.006 (.003)**	.01 (.006)*	.006(.004)
Selective Benefits			
Environmental Values	.27 (.03)**	.36(.07)**	.10 (.04)**
Political Discussion	.004 (.003)	.06 (.01)**	.01(.004)**
Selective Costs			
Global Warming Knowledge	.02 (.01)*	-.01(.02)	.0003(.02)
Education	.01 (.003)**	.03 (.006)**	.012(.004)**
Age	.0004(.0002)	.0007 (.0005)	.001(.0003)**
Income	.0003(.001)	.006 (.002)**	.007(.002)**
Male	-.005 (.008)	-.01 (.02)	-.02(.01)
African American	-.02 (.01)	-.06 (.03)**	-.06(.02)**
Hispanic	.05 (.02)**	-.11 (.05)**	-.01(.03)
Other Minority	-.01 (.02)	.01 (.03)	-.02(.02)
Constant	.25(.04)**	-.64 (.09)**	.17(.06)**
Model Fit	F= 41.854**	F=31.77**	F=13.64**
	Adj. R^2= .45	Adj. R^2=.38	Adj. R^2=.20

Note: Cell entries are unstandardized OLS regression coefficients, with standard errors in parentheses. Null