



Transportation and Climate Change Resource Center

REAL SOLUTIONS FOR CLIMATE CHANGE

## How can State DOTs Communicate Climate Change and Energy Challenges to the Public?

DECEMBER 2, 2010

CONNIE ROSER-RENOUF, George Mason University

JOAN ROHLFS, Metropolitan Washington Council of Governments

LIZ HORMANN, Oregon Department of Transportation





Transportation and Climate Change Resource Center

REAL SOLUTIONS FOR CLIMATE CHANGE

**Global Warming's Six Americas:  
Audience Segmentation for Effective Communication  
On Climate Change**

DECEMBER 2, 2010



*Presented by:*

Connie Roser-Renouf, PhD  
Research Professor,  
Center for Climate Change Communication  
George Mason University



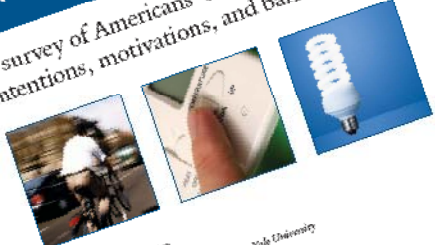
George Mason University  
Center for Climate Change Communication



# Public Opinion Research on Global Warming Attitudes, Beliefs & Behaviors

REAL SOLUTIONS FOR CLIMATE CHANGE


**SAVING ENERGY AT HOME AND ON THE ROAD:**  
 A survey of Americans' energy saving behaviors, intentions, motivations, and barriers





Alibonny Liberman, PhD  
 Yale Program on Climate Change  
 School of Forestry and Environmental Studies, Yale University  
 (203) 432-4163  
 alibonny@fas.yale.edu

Edward Masbach, MPA, PhD  
 Center for Climate Change Communication  
 Department of Communication, George Mason University  
 (703) 993-1519  
 emasbach@gmu.edu

Genette Rose-Buttard, PhD  
 Center for Climate Change Communication  
 Department of Communication, George Mason University  
 (703) 993-0604  
 grose@georgetown.edu



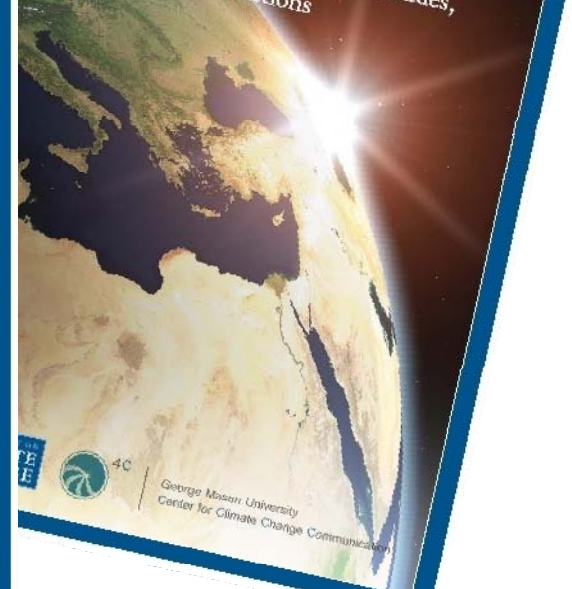
**GLOBAL WARMING'S SIX AMERICAS 2009:**  
 An Audience Segmentation Analysis

Yale Program on Climate Change

George Mason University  
 Center for Climate Change Communication

**CLIMATE CHANGE IN THE AMERICAN MIND**  
 Americans' climate change beliefs, attitudes, policy preferences, and actions

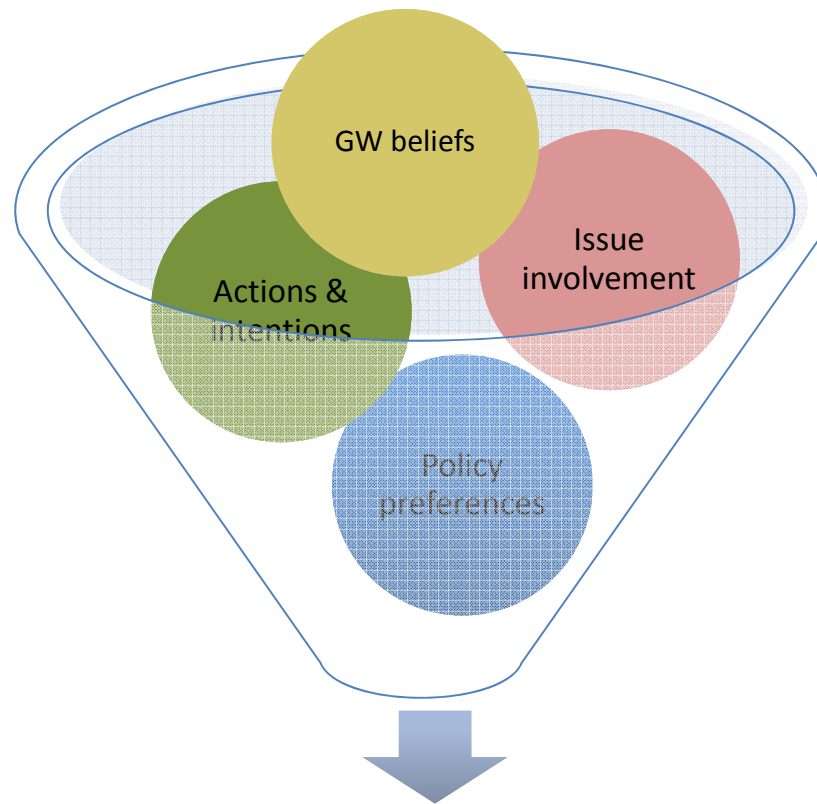


George Mason University  
 Center for Climate Change Communication



# People *differ* in their concern, their levels of knowledge, their values & beliefs

REAL SOLUTIONS FOR CLIMATE CHANGE



*Effective communications provide people with information targeted to their informational needs.*

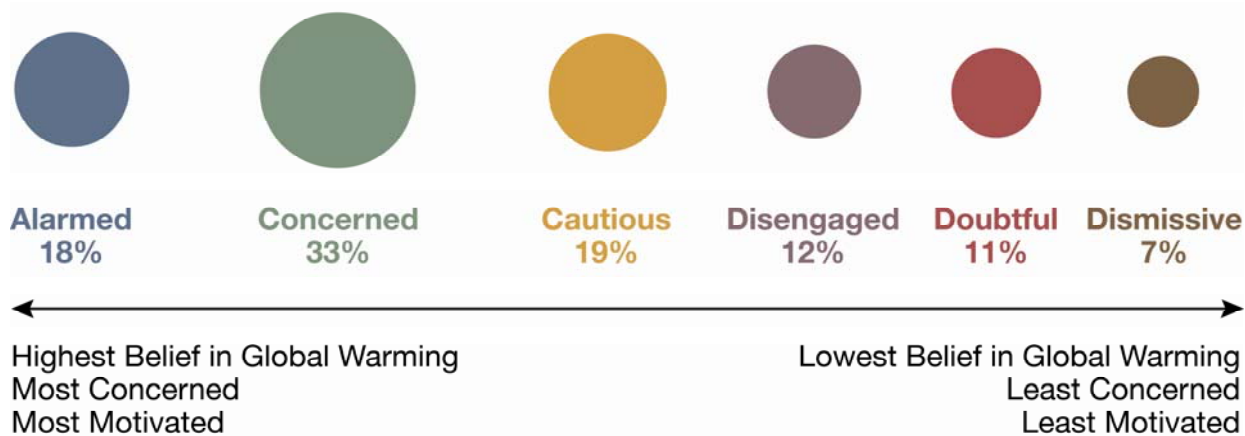
Global Warming's 6 Americas Audience Segments

# Global Warming's Six Americas Audience Segments

REAL SOLUTIONS FOR CLIMATE CHANGE

**Figure 1:** Proportion of the U.S. adult population in the Six Americas

*Proportion represented by area*

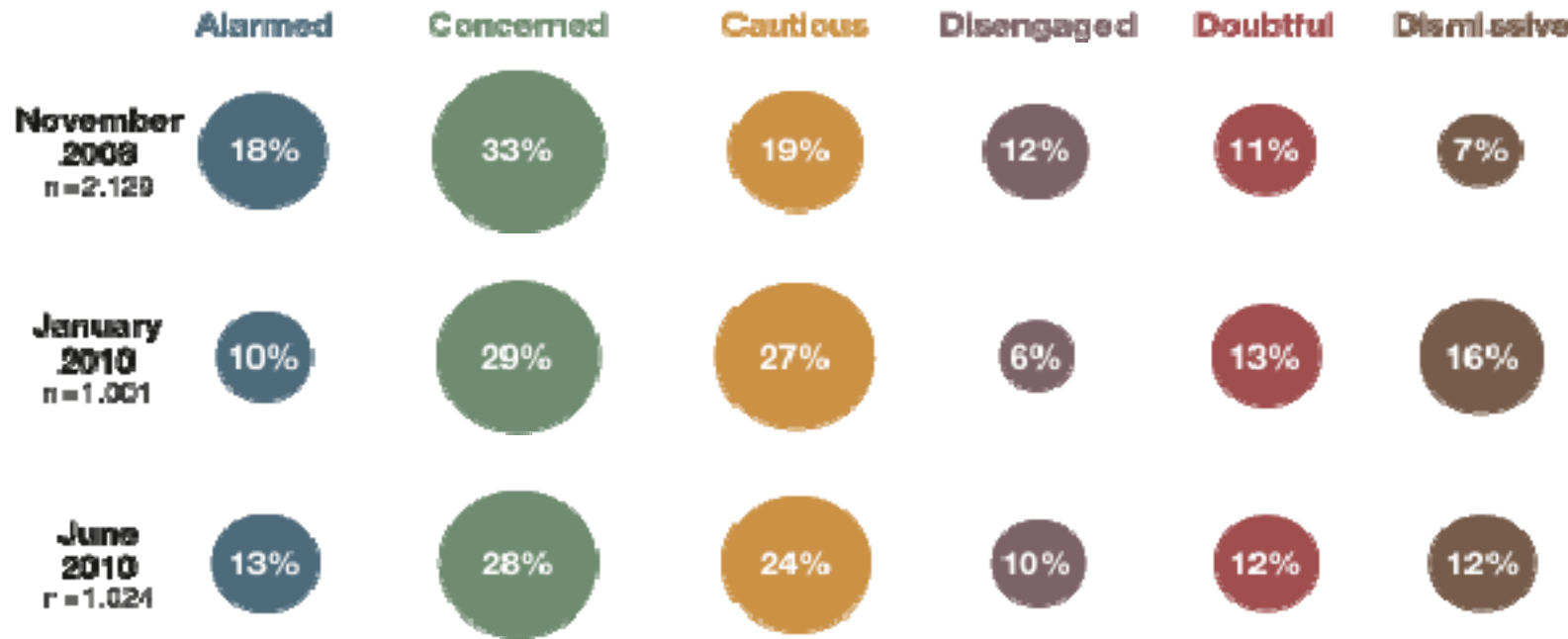


n=2,129



# Change in Segment Sizes, 2008 - 2010

REAL SOLUTIONS FOR CLIMATE CHANGE



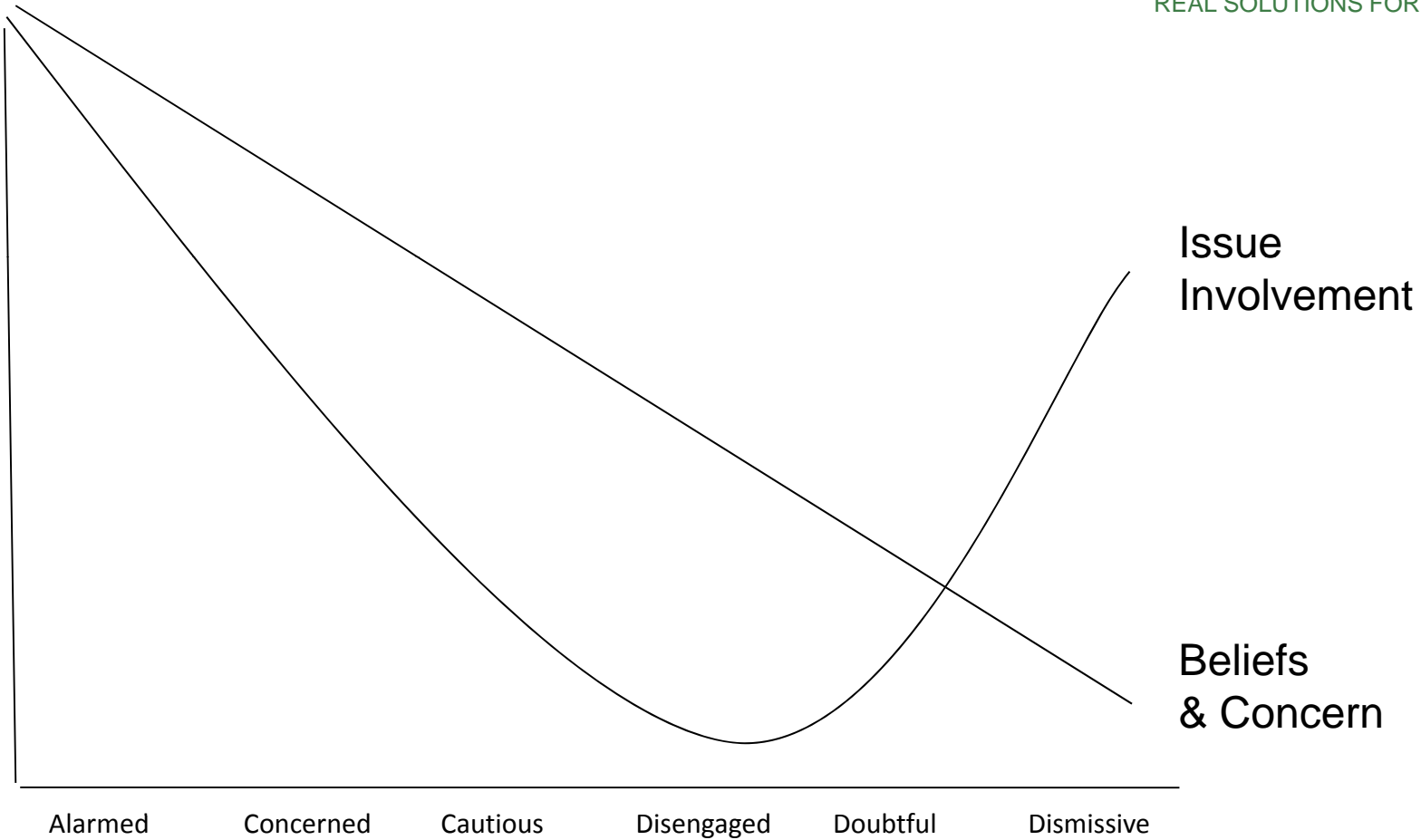
← **Highest Belief in Global Warming**  
Most Concerned  
Most Motivated

**Lowest Belief in Global Warming**  
Least Concerned  
Least Motivated →

Proportions represented by area  
Source: Yale Project on Climate Change Communication

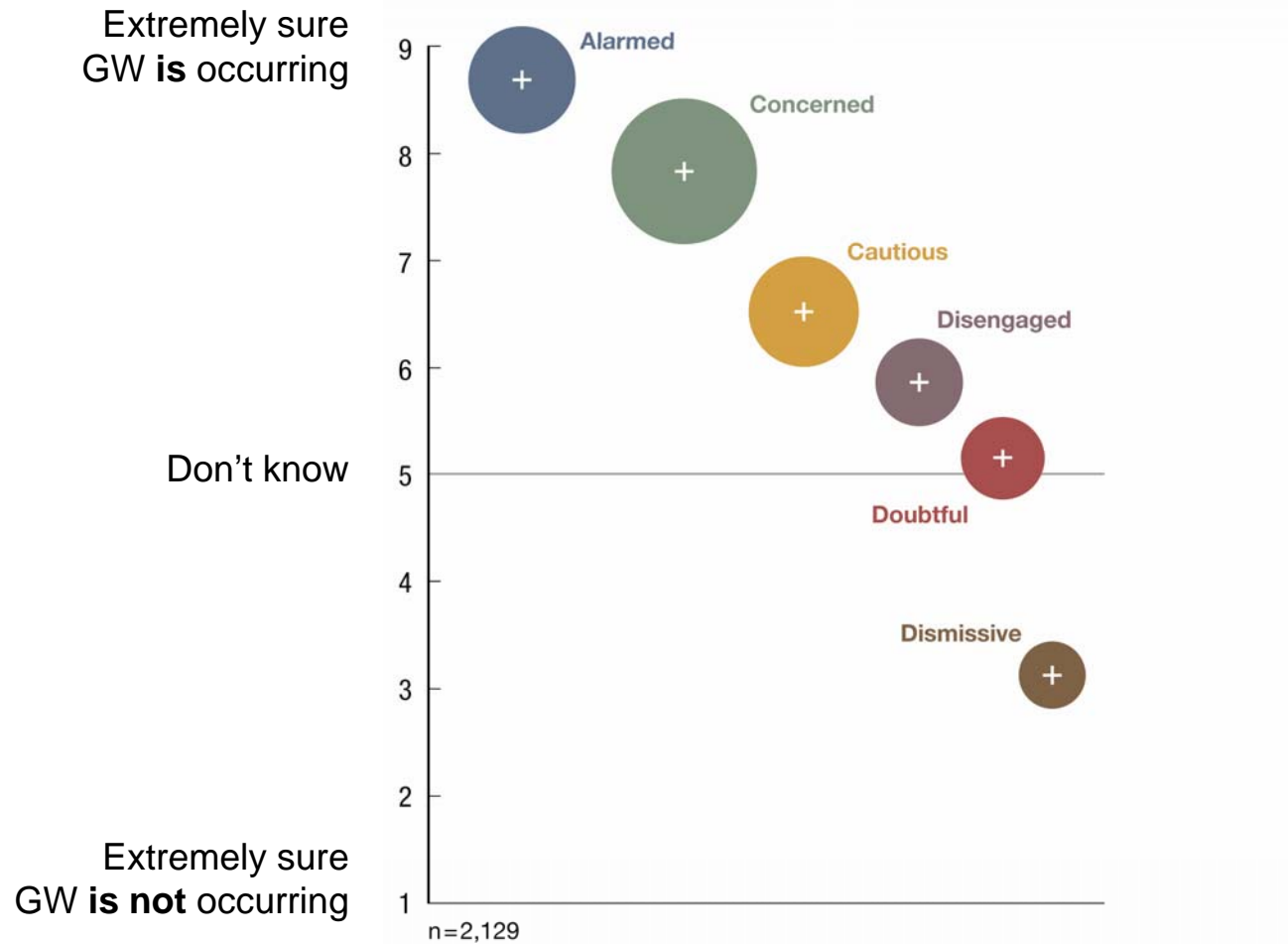
# Patterns Distinguishing the Segments

REAL SOLUTIONS FOR CLIMATE CHANGE



# Certainty about the reality of global warming

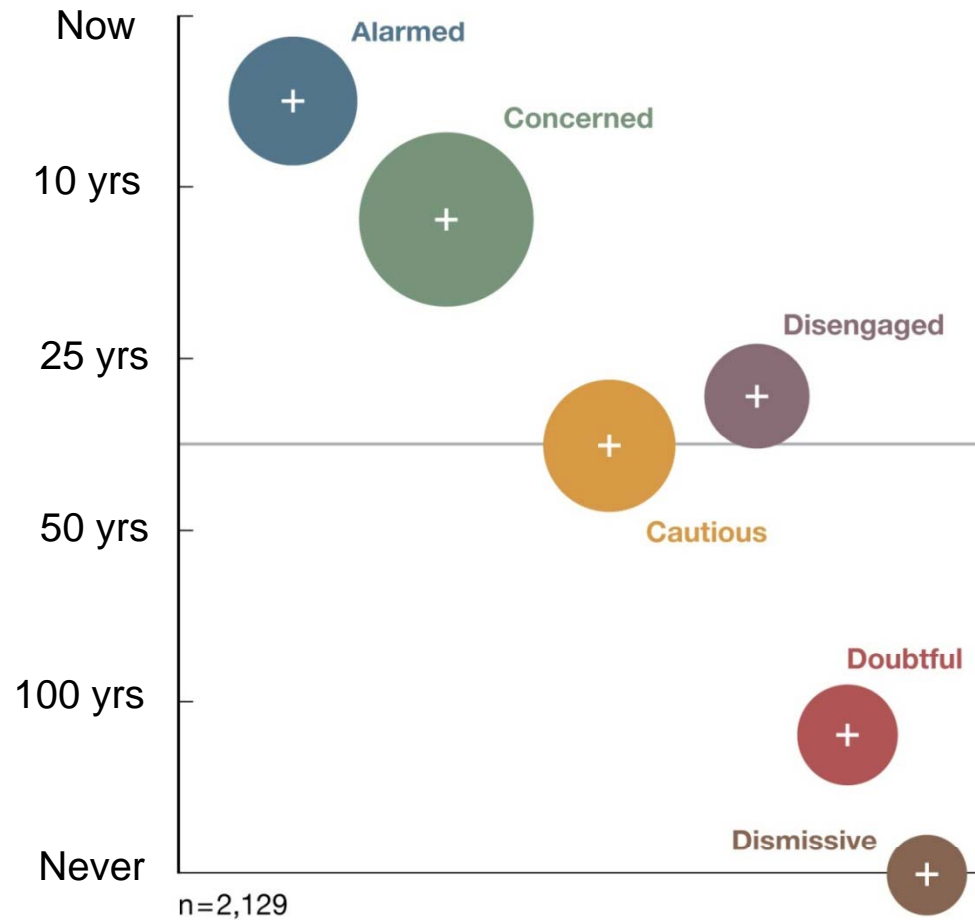
REAL SOLUTIONS FOR CLIMATE CHANGE





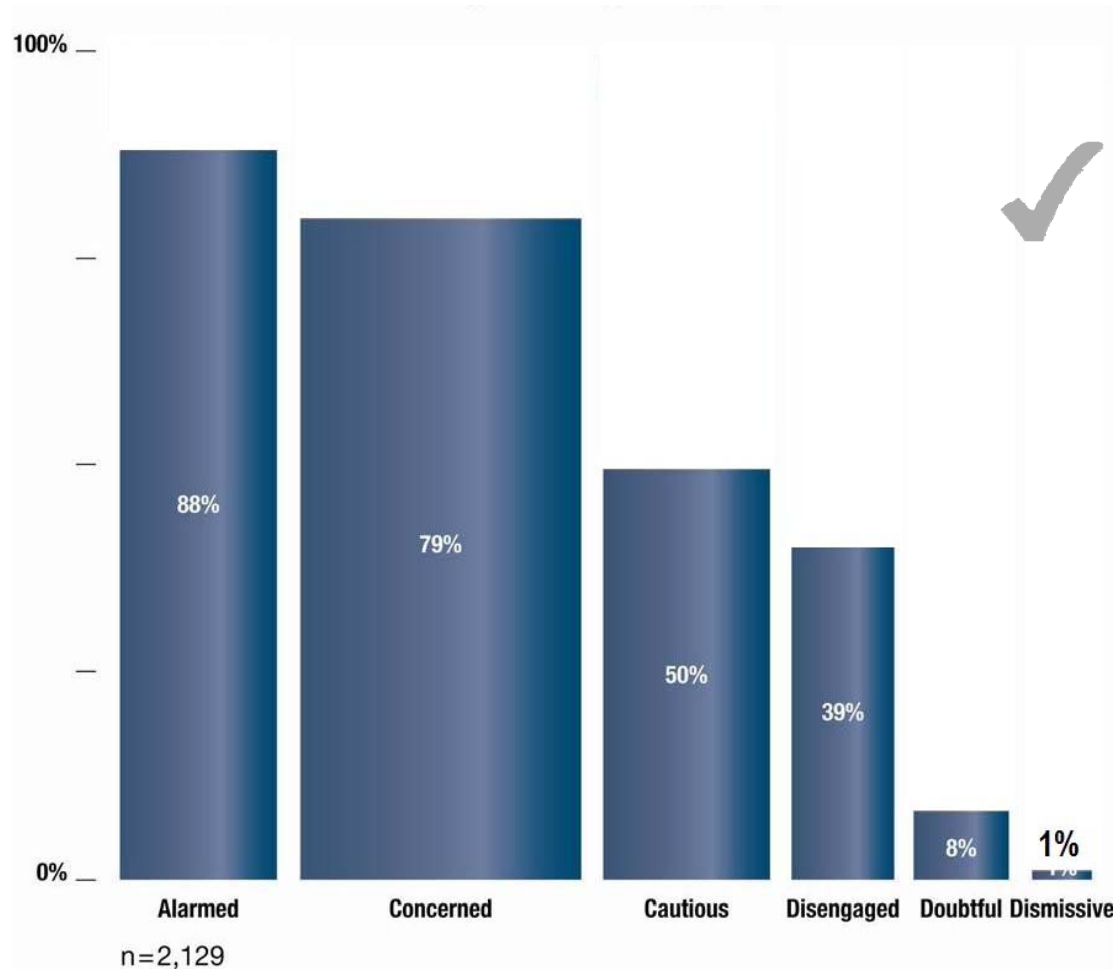
# When will global warming harm people in the US?

REAL SOLUTIONS FOR CLIMATE CHANGE



# Assuming global warming is occurring, what's causing it?

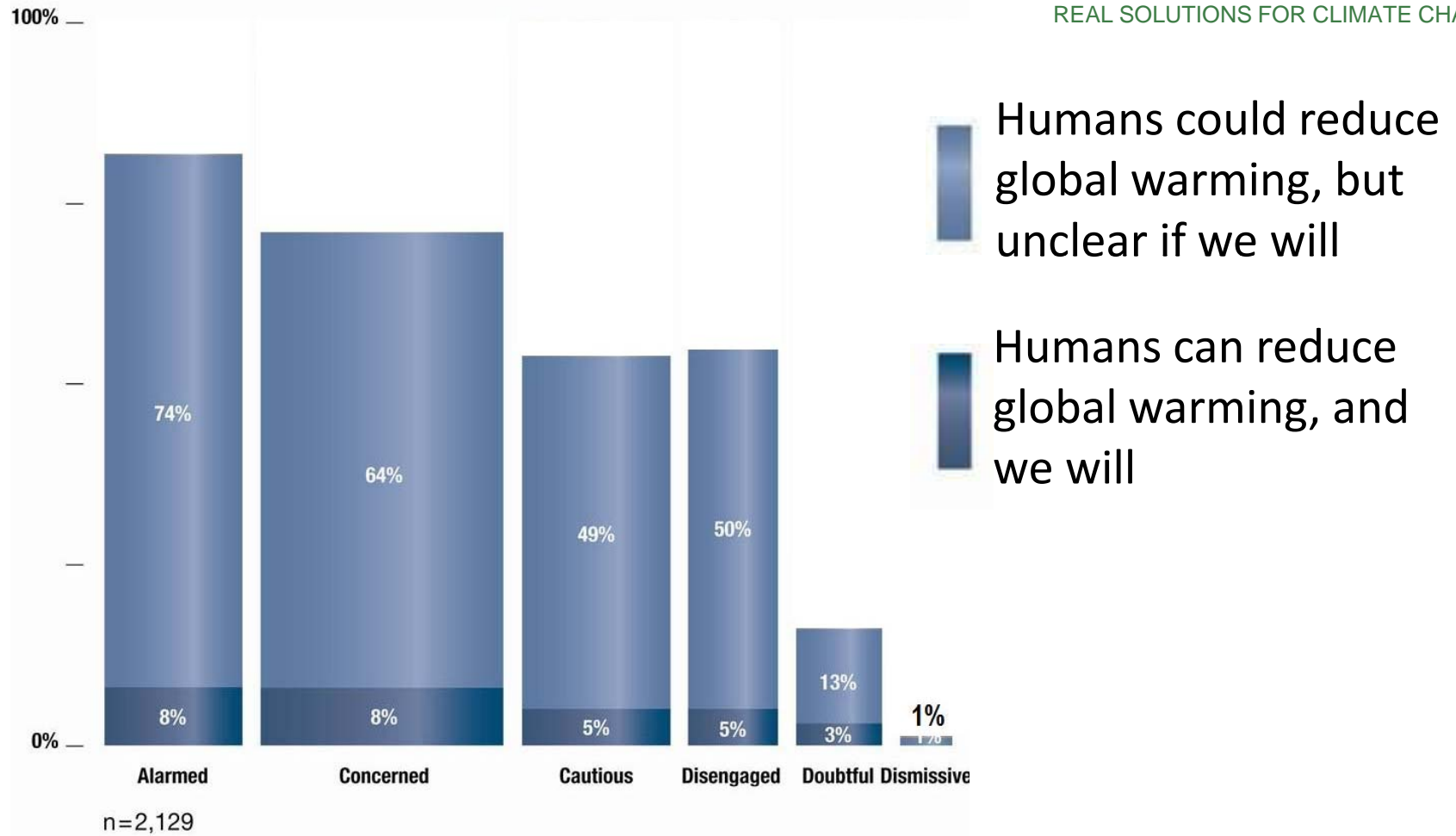
REAL SOLUTIONS FOR CLIMATE CHANGE



Caused mostly by human activities

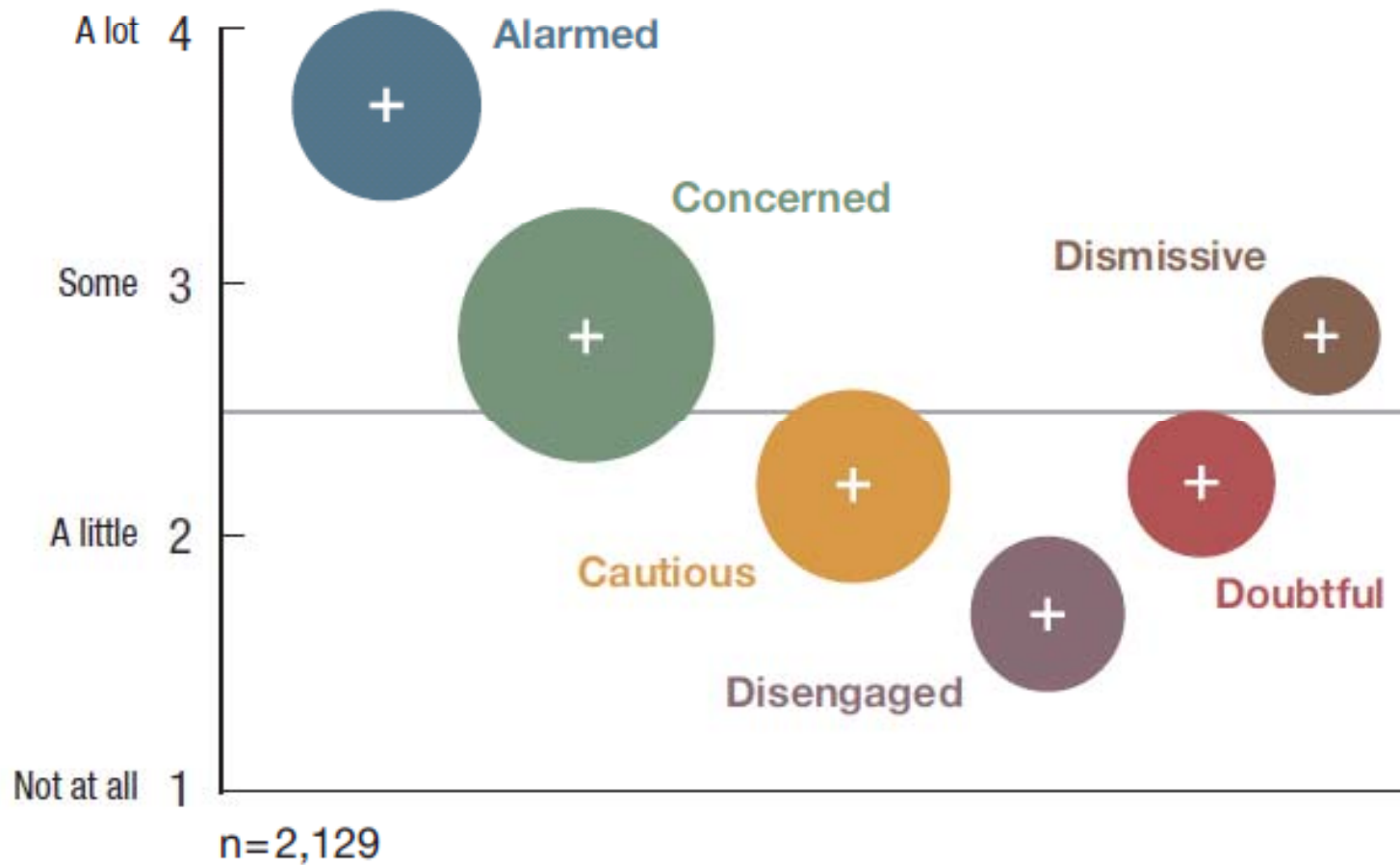
# Can we reduce global warming?

REAL SOLUTIONS FOR CLIMATE CHANGE



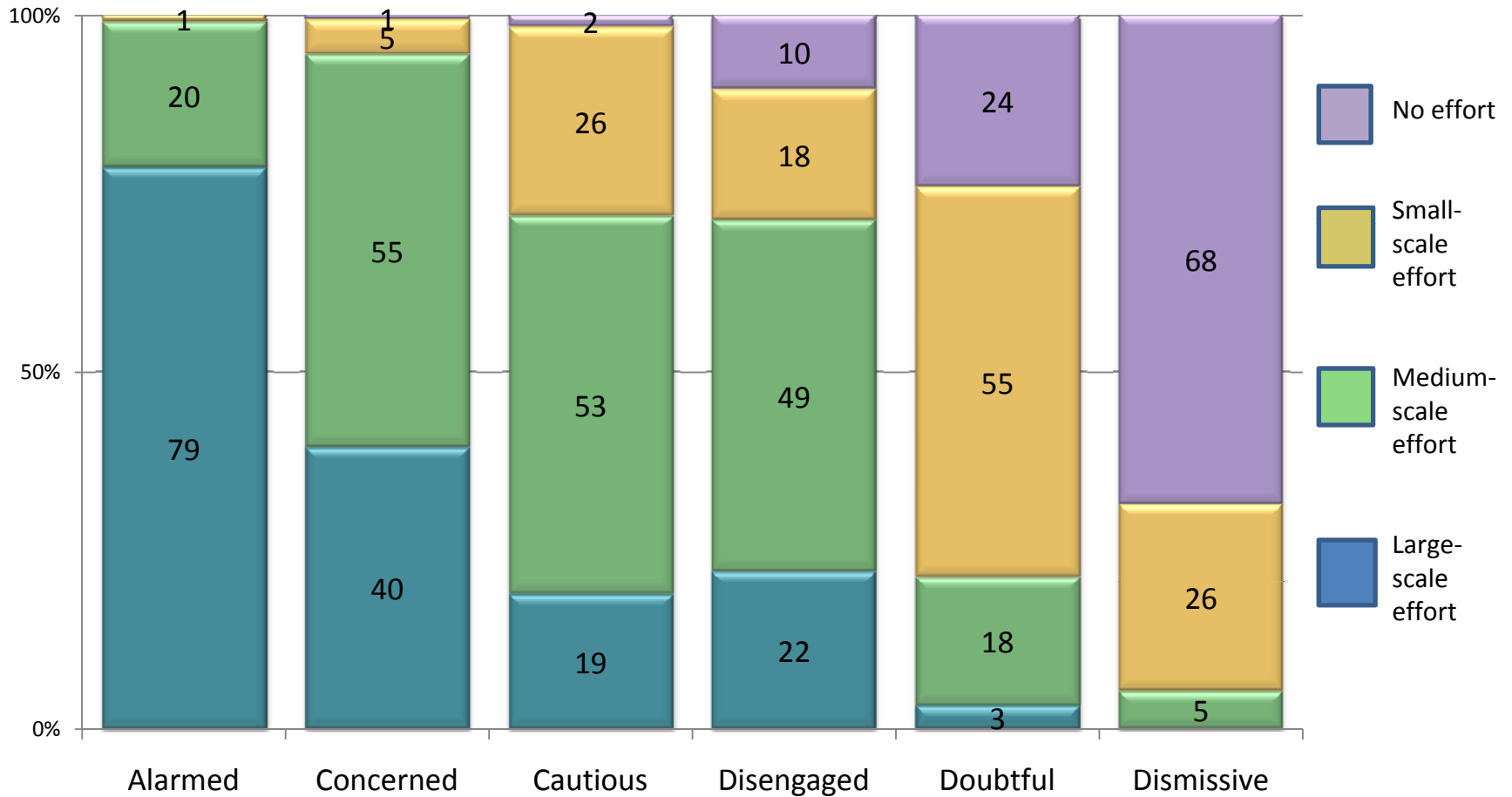
# How much had you thought about global warming before today?

REAL SOLUTIONS FOR CLIMATE CHANGE



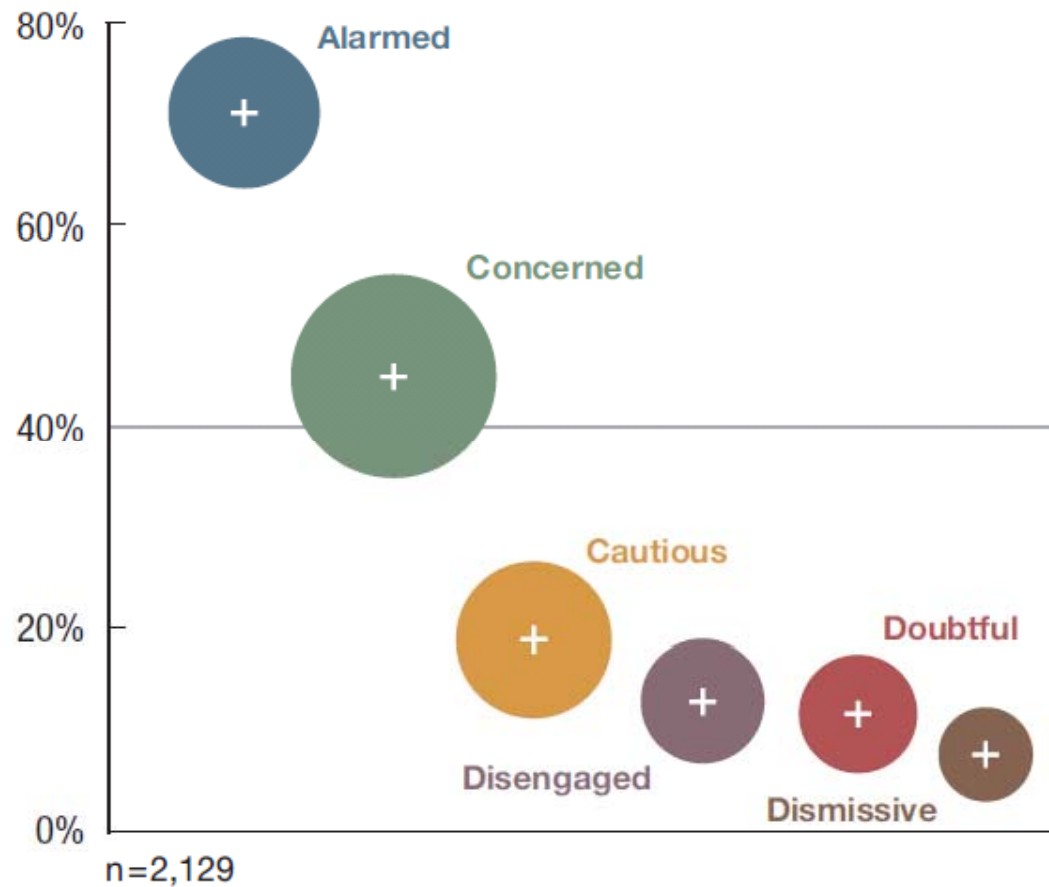
# How much effort should US make to reduce global warming?

REAL SOLUTIONS FOR CLIMATE CHANGE



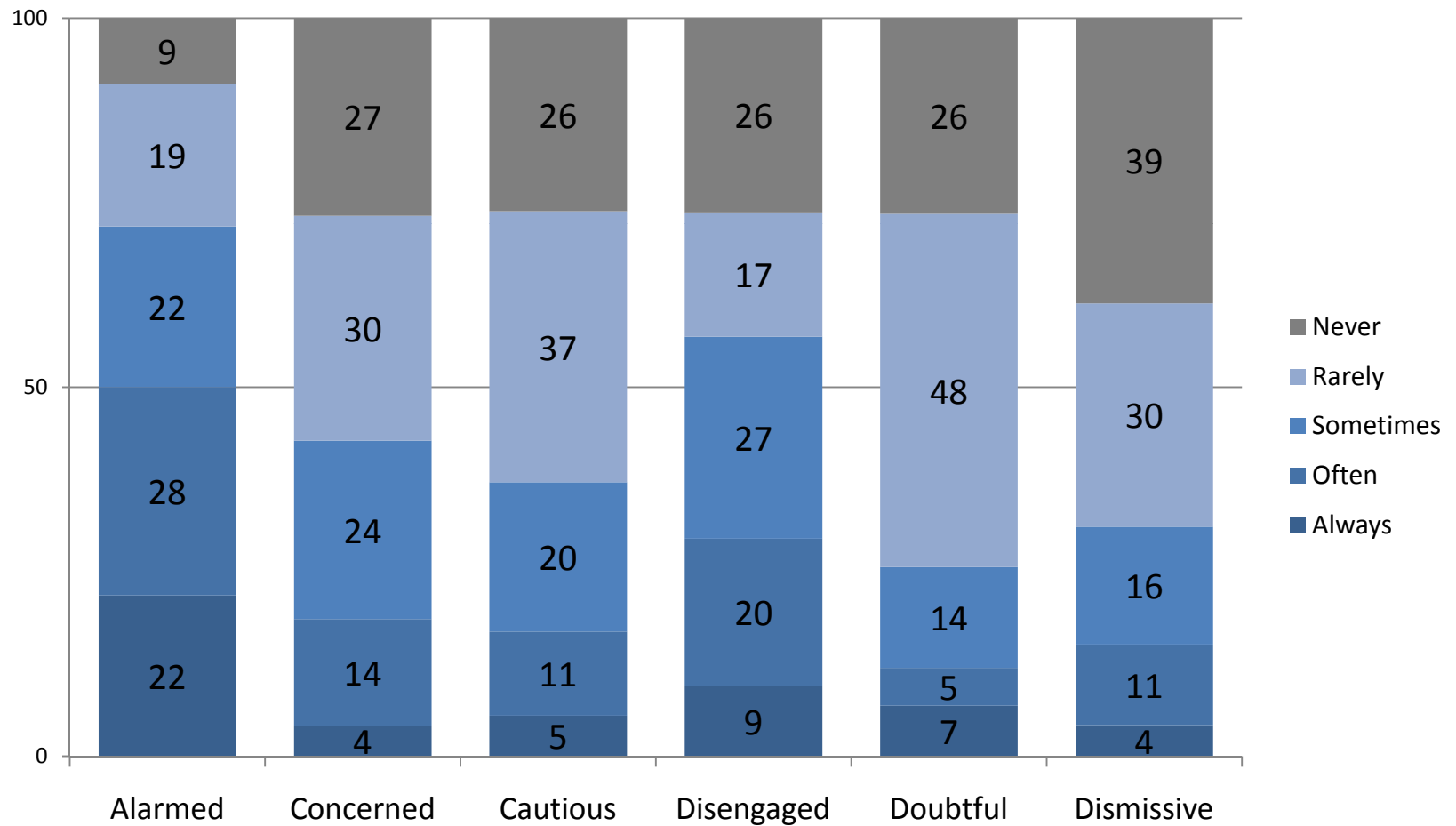
# Consumer Activism: Proportion that has rewarded companies that are taking steps to reduce global warming

REAL SOLUTIONS FOR CLIMATE CHANGE



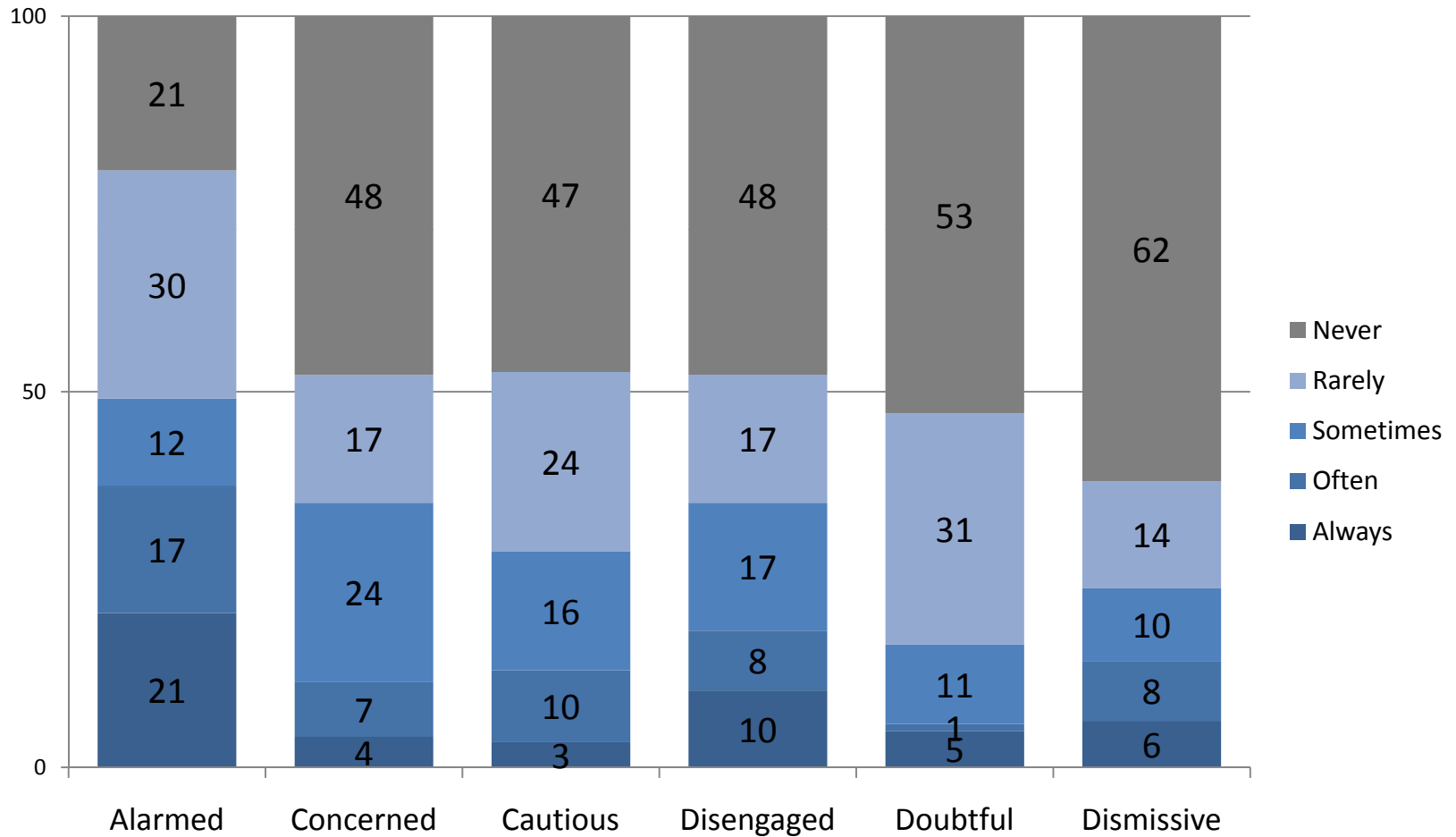
# How often bikes or walks instead of driving

REAL SOLUTIONS FOR CLIMATE CHANGE



# How often takes public transportation

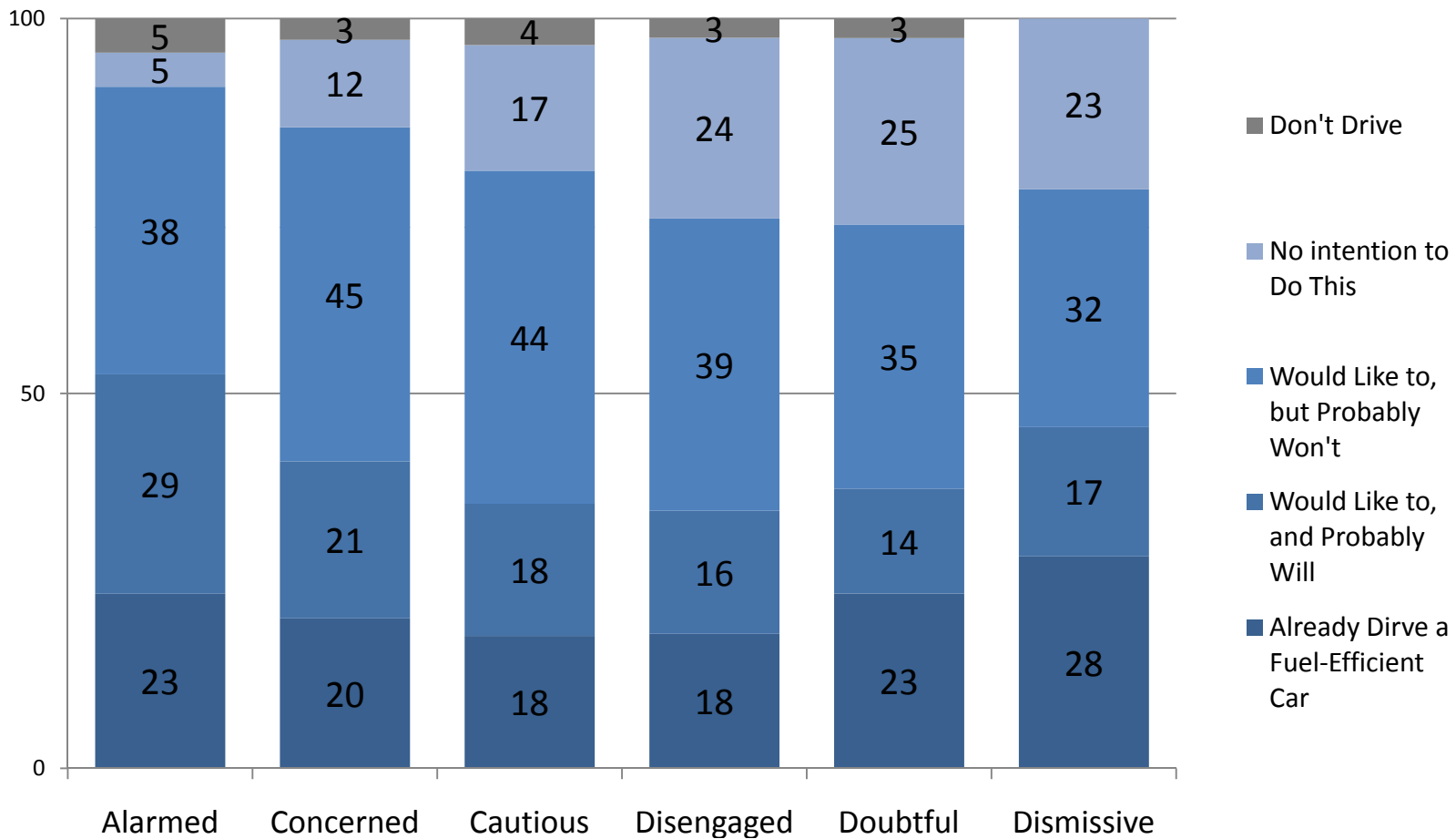
REAL SOLUTIONS FOR CLIMATE CHANGE





# Readiness to Purchase Fuel-Efficient Car

REAL SOLUTIONS FOR CLIMATE CHANGE



What can we infer from these data?  
What do we know about social marketing to help us  
influence the 6 target audiences?

REAL SOLUTIONS FOR CLIMATE CHANGE

- Beliefs, issue involvement & policy support vary a great deal among the segments, but...
- ***Transportation behaviors do not.***
- The same behaviors can arise from entirely different sets of beliefs.
- To change the transportation behaviors of the segments, provide them with the information & attitudinal support they need to build their desire to change.

# Alarmed Alice

REAL SOLUTIONS FOR CLIMATE CHANGE

- I'm certain that global warming is real: *very high*
- It will be bad for people: *very high*
- People caused it: *very high*
- People can fix it: *very high*
- My actions make a difference: *could but aren't*



***Focus on conservation behaviors and activism:*** Alice is an opinion leader. Teach her what she can do, help her understand that it will make a difference, & encourage her to talk to others about actions we can take to reduce the threat

# Concerned Claudia

REAL SOLUTIONS FOR CLIMATE CHANGE

- I'm certain that global warming is real: *high*
- It will be bad for people: *high*
- People caused it: *very high*
- People can fix it: *high*
- My actions make a difference: *could but aren't*



## ***Focus on what she can do & how it will help:***

Help her understand the immediacy & human risks. She's willing to reduce her emissions, but doesn't know how & worries that it won't make a difference. Teaching her about the impacts of her actions will increase her reduction efforts.

# Cautious Carl

REAL SOLUTIONS FOR CLIMATE CHANGE

- I'm certain that global warming is real: *weak*
- It will be bad for people: *weak*
- People caused it: *weak*
- People can fix it: *low*
- My actions make a difference: *low*



***Normative messages may change what he does:*** Carl will follow the crowd. Don't talk about the number of people doing the wrong things – instead point out & praise the right actions. The more he believes others are concerned & are changing their behavior, the more he will as well.

# Disengaged Diane

REAL SOLUTIONS FOR CLIMATE CHANGE

- I'm certain that global warming is real: *low*
- It will be bad for people: *low*
- People caused it: *low*
- People can fix it: *low*
- My actions make a difference: *low*



***Narratives may capture her:*** Diane isn't aware of the danger. She needs to understand the impacts on people here and now, for her children & for future generations. Try narratives that increase her emotional involvement with the issue using a female heroine who becomes aware & takes action to protect herself & her loved ones.

# Doubtful David

REAL SOLUTIONS FOR CLIMATE CHANGE

- I'm certain that global warming is real: *divided opinions*
- It will be bad for people: *very low*
- People caused it: *very low*
- People can fix it: *low*
- My actions will make a difference: *low*



***Focus on energy independence, economic opportunity, and responsible stewardship:*** David is not likely to be persuaded on the issue, but may be influenced by framing in terms of his core values .

# Dismissive Dan

REAL SOLUTIONS FOR CLIMATE CHANGE

- I'm certain that global warming is real: *very low*
- It will be bad for people: *very low*
- People caused it: *very low*
- People can fix it: *very low*
- My actions make a difference: *very low*



***Not a promising target audience:*** Dan is unlikely to change his beliefs about climate change, but may be willing to reduce his energy use to save money.



All 4C reports can be downloaded at:  
[climatechange.gmu.edu](http://climatechange.gmu.edu)

REAL SOLUTIONS FOR CLIMATE CHANGE



Connie Roser-Renouf, Edward Maibach,  
George Mason Center for Climate Change  
Communication  
Anthony Leiserowitz,  
Yale Project on Climate Change Communication

***Many thanks to the funders who are making this research possible:***

*The Yale Center for Environmental Law and Policy;  
the Betsy and Jesse Fink Foundation; the 11<sup>th</sup> Hour  
Project; the Pacific Foundation; and an RWJF  
Investigator Award in Health Policy Research from the  
Robert Wood Johnson Foundation.*





## Transportation and Climate Change Resource Center

REAL SOLUTIONS FOR CLIMATE CHANGE

### **Model for Climate Communication: Clean Air Partners**

December 2, 2010

*Presented by:*



Joan Rohlf  
Environmental Resources Program Director  
Metropolitan Washington Council of Governments



# Outline

REAL SOLUTIONS FOR CLIMATE CHANGE

- Air Quality Communication Challenge, 1992
  - Metropolitan Washington Region AQ Planning
- Transportation and AQ agencies adopt Public Education Campaign
  - Ozone Action Days, Forecasting
  - Color-coded Ozone Map
  - Media Campaign, Surveys
  - Ride Free on Code Red
- Lessons Learned

# Metropolitan Washington, DC-MD-VA Air Quality Planning Region

REAL SOLUTIONS FOR CLIMATE CHANGE



- ☀ Approximately 3,000 square miles
- ☀ Includes 5.2 million people and 3.2 million jobs
- ☀ The Metropolitan Washington Air Quality Committee (MWAQC) develops SIPs for the Washington, DC-MD-VA Nonattainment area

# Air Quality Planning in Metropolitan Washington Region

REAL SOLUTIONS FOR CLIMATE CHANGE

- 1992: The Metropolitan Washington region was classified as a non-attainment area for ozone
- A regional air quality planning committee was certified by Maryland, Virginia and the District
- Members include 21 local governments, and the state air quality agencies and state DOTs (MDOT, VDOT, DDOT)

# Metropolitan Washington Air Quality Committee (MWAQC)

REAL SOLUTIONS FOR CLIMATE CHANGE

## Effective coordination between transportation and air quality issues

- Overlapping membership between MPO and MWAQC local elected officials
- Coordination between transportation and air quality staff

# Air Quality Communication Challenges in the Early 90s

REAL SOLUTIONS FOR CLIMATE CHANGE

- Confusion between ground-level ozone and stratospheric ozone.
- Mandate to reduce ozone pollution in region
- Public unaware of their contribution to ozone pollution
- Common behaviors contributed to pollution (single occupancy driving, use of polluting consumer products)
- Engaging business community to act

# Collaboration: Air and Transportation

REAL SOLUTIONS FOR CLIMATE CHANGE

- A joint task force was created between MDOT, DDOT, VDOT and the state air agencies in MD, VA and the District
- State transportation agencies funded a joint public education/outreach campaign with private partners (utilities)
- Metropolitan Baltimore nonattainment area contiguous to Washington region, joined campaign



# Clean Air Partners Region

REAL SOLUTIONS FOR CLIMATE CHANGE



# ENDZONE Partners

REAL SOLUTIONS FOR CLIMATE CHANGE

- ENDZONE Partners created to promote voluntary actions to reduce emissions (1995)
- Partnership consists of state air and transportation agencies, advocacy groups and major employers across the region.
- Funding from MDOT, VDOT and DDOT in the Washington and Baltimore regions to support the partnership.



# Public Education Campaign

REAL SOLUTIONS FOR CLIMATE CHANGE

- **Purpose:** Promote voluntary actions to reduce emissions
- **Campaign:**
  - Develop a daily air pollution forecast
  - Use color-coded forecast to convey health risk
  - Recruit employers to notify employees during episodes of bad air (“Ozone Action Days”)
  - Develop summer media campaign (TV, radio)

# Color Coded Action Guide

REAL SOLUTIONS FOR CLIMATE CHANGE



## AIR QUALITY ACTION GUIDE

Your "how to" guide for cleaner air

Air Quality Rating	Steps to Protect Your Health and Our Environment
<b>GOOD</b> 0-50	Enjoy the great outdoors. <ul style="list-style-type: none"> <li>- Rather than drive - bike or walk when possible.</li> <li>- Conserve energy. Replace incandescent bulbs with CFLs.</li> <li>- Plant a tree to improve health and air quality.</li> </ul>
<b>MODERATE</b> 51-100	Some pollution. Even moderate levels pose risks to highly sensitive groups. <ul style="list-style-type: none"> <li>- Bundle errands. Eliminate unnecessary trips.</li> <li>- Check AirAlerts to see if tomorrow's forecast is unhealthy.</li> <li>- Perform regular maintenance on your car.</li> </ul>
<b>UNHEALTHY</b> For Sensitive Groups 101-150	Pollution levels are harmful to children, older adults and anyone with a respiratory or heart condition. Limit physical outdoor activity. <ul style="list-style-type: none"> <li>- Don't drive alone. Carpool, take public transit.</li> <li>- Refuel your car in the evening.</li> <li>- Put off lawn care until air quality improves.</li> <li>- Use a gas or electric grill instead of charcoal.</li> </ul>
<b>UNHEALTHY</b> 151-200	Everyone should limit strenuous outdoor activity when the air is unhealthy to breathe. <ul style="list-style-type: none"> <li>- Telework and take public transit.</li> <li>- Turn off lights and electronics when not in use.</li> <li>- Avoid lawn mowing or use an electric mower.</li> <li>- Sign up for health alerts at <a href="http://cleanairpartners.net">cleanairpartners.net</a>.</li> <li>- Don't use chemicals on your lawn and garden.</li> </ul>
<b>VERY UNHEALTHY</b> 201-300	Pollution levels are very unhealthy for everyone. Avoid any physical outdoor activity. <ul style="list-style-type: none"> <li>- Follow all of the action steps above.</li> </ul>

### Do Your Share for Cleaner Air.

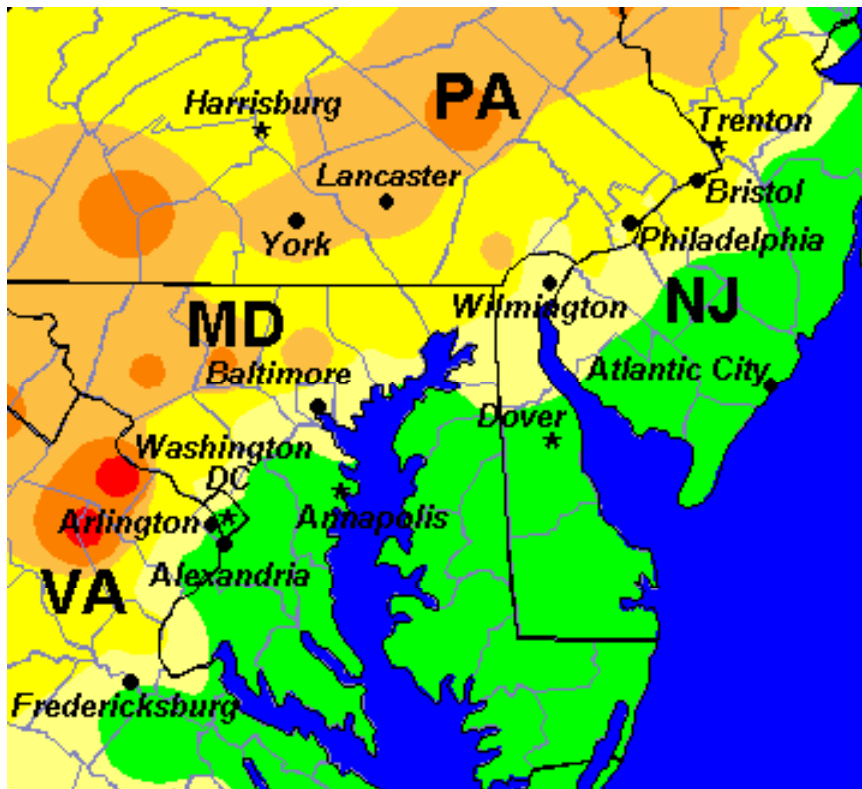
Visit [Cleanairpartners.net](http://Cleanairpartners.net) to get your daily AirAlerts and discover additional steps you can take each day to improve our region's air quality, protect your health, and reduce the risks of climate change.



# Ozone Map: September 2, 2002

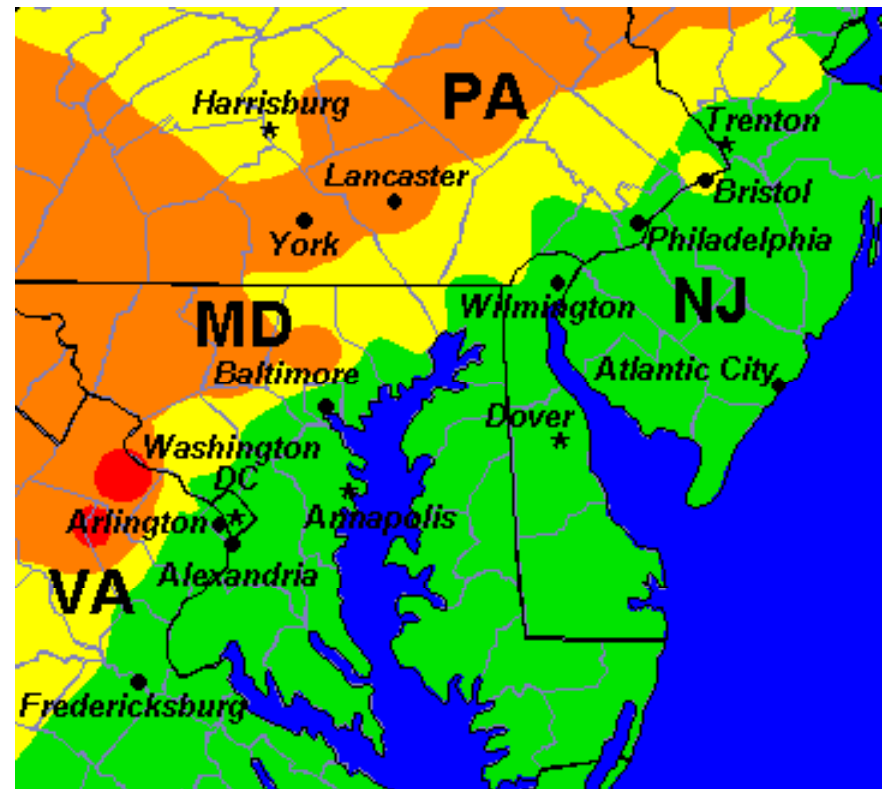
REAL SOLUTIONS FOR CLIMATE CHANGE

1-hr peak



September 10, 2002

8-hr peak



September 10, 2002

# Media Campaign

REAL SOLUTIONS FOR CLIMATE CHANGE

- Television meteorologists announced the air quality forecast during the summer
  - A few meteorologists used the ozone map during bad air episodes
- Drive-time radio advertising was major focus
- Radio weather forecasters announced the air quality forecast
- Campaign was funded by sponsors like BG&E, Commuter Connections (ride-share program)

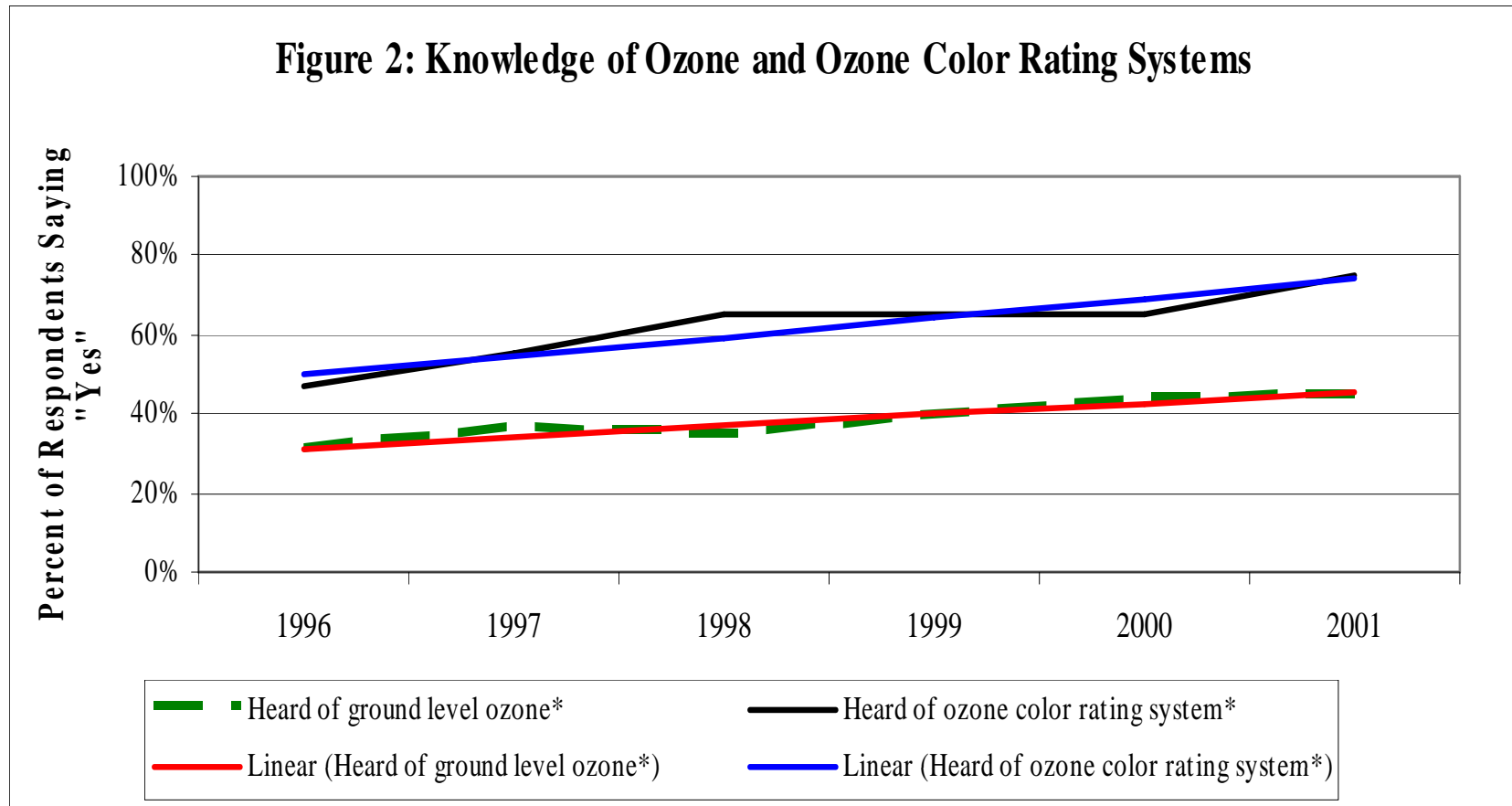
# Surveys Used to Measure Effectiveness of Campaign

REAL SOLUTIONS FOR CLIMATE CHANGE

- Knowledge of and awareness of air pollution
- Attitudes towards air quality issues
- Knowledge of health risks
- Awareness of Color code
- Willingness to change behavior
- Motivation for changing behavior

# Increased Awareness in 5 years

REAL SOLUTIONS FOR CLIMATE CHANGE



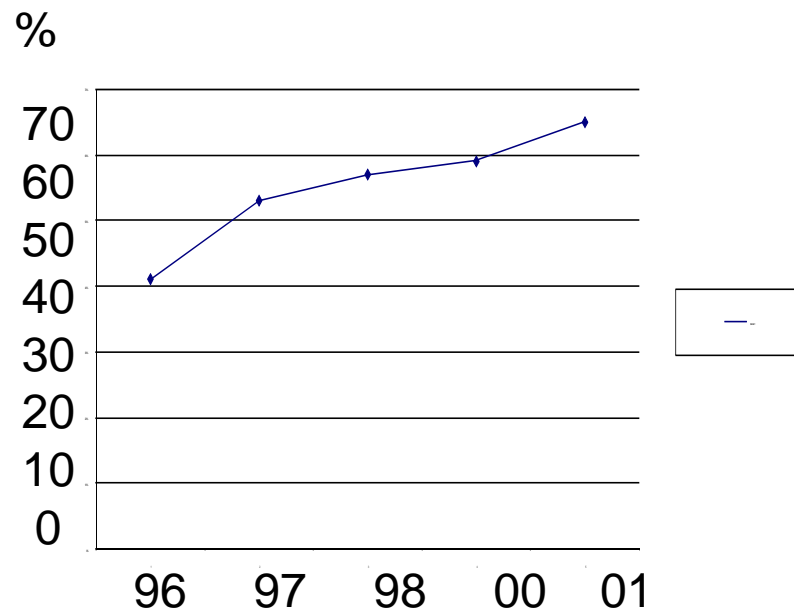


# Surveys of Attitudes and Behaviors

REAL SOLUTIONS FOR CLIMATE CHANGE

Respondents changed or limited their own or someone else's outdoor activities because of bad air quality

- 1996: 41%
- 1997: 53%
- 1998: 57%
- 2000: 59%
- 2001: 65%



# Ride Free on Code Red

REAL SOLUTIONS FOR CLIMATE CHANGE

- Local transit systems provided free bus rides on Code Red Days, 1999-2009
- Received media attention
- Cost estimated for one transit provider:
- \$100,000/day
- Program discontinued after two summers with few Code Red Days

# Clean Air Partners, 1997- present

REAL SOLUTIONS FOR CLIMATE CHANGE

From: Clean Air Partners [mailto:[airalerts@cleanairpartners.net](mailto:airalerts@cleanairpartners.net)]  
 Sent: Wednesday, September 01, 2010 3:23 PM  
 To: Jennifer Desimone  
 Subject: AirAlert: Unhealthy Air (Code Orange) Forecasted for Thursday, September 02, 2010



Contact Us: Metropolitan Washington Area (202) 962-3360 Metropolitan Baltimore Area (410) 732-9575

## Your Daily Air Quality Forecast

### Thursday, September 2

Metropolitan Washington	<b>Unhealthy</b> <small>for Sensitive Groups</small>	Code Orange:	Pollution levels harmful to children and anyone with breathing or heart conditions
Metropolitan Baltimore	<b>Unhealthy</b> <small>for Sensitive Groups</small>	Code Orange:	Pollution levels harmful to children and anyone with breathing or heart conditions
Western Maryland	<b>Moderate</b>	Code Yellow:	Some pollution - poses risks to highly sensitive
Eastern Shore	<b>Moderate</b>	Code Yellow:	Some pollution - poses risks to highly sensitive

### Extended Three-Day Forecast

#### Air Quality Action Tips


<b>Green</b>	<b>Good</b>	If you are considering purchasing new appliances and products for the home, look for the ENERGY STAR which use less energy and can save you money.
<b>Yellow</b>	<b>Moderate</b>	Use a hybrid or fuel-efficient car.
<b>Orange</b>	<b>Unhealthy</b> <small>For Sensitive Groups</small>	Put off lawn care for a day or two until the air is healthier.
<b>Red</b>	<b>Unhealthy</b>	Check the AirAlert for your extended forecast to see if tomorrow's air quality is going to be unhealthy.
<b>Purple</b>	<b>Very Unhealthy</b>	Postpone outings on gasoline or diesel-powered recreational boats because they are high pollution sources.



# Clean Air Partners' Media Campaign

REAL SOLUTIONS FOR CLIMATE CHANGE

- Private sponsorship funds support media campaign.
- Radio, Online, Transit, and Social Media.
- Cross promote other programs, such as Commuter Connections.



The screenshot shows the Facebook profile for Clean Air Partners. The profile picture is the organization's logo, which consists of three wavy lines in green and blue above the text "CLEAN AIR PARTNERS". The page includes a "Like" button, navigation tabs for "Wall", "Info", "AirAlerts", "Twitter", "Events", and "Photos", and a "Filters" option. The main content area displays three posts:

- Post 1:** "Clean Air Partners Reduce, Reuse, Recycle! America Recycles Day is November 15th." It includes a link to "yosemite.epa.gov" and a text snippet: "PHILADELPHIA (November 9, 2010) -- Everyday Americans recycle their trash because they know it's an important activity that can have a positive impact on the environment. But once a year the U.S. Environmental Protection Agency sets aside November 15 to remind everyone that recycling plays a dramatic role in our lives." It was posted on November 10 at 11:32am.
- Post 2:** "Clean Air Partners Need some extra cash....Carpool. Commuter Connections launches 'Pool Rewards.'" It includes a link to "www.mwcog.org" and a text snippet: "Participation is open to lifelong solo drivers who begin carpooling during peak rush hour periods in the Metropolitan Washington Statistical Area\*. Commuters who currently drive alone to work may be eligible for financial rewards when they agree to start or join a new carpool!" It was posted on November 10 at 9:04am.
- Post 3:** "Clean Air Partners Clean Air Partners Board Member Randy Mosier, his wife Jennifer, and dog Brewster took part in the 2nd annual Roland Park 'ciclovía' on Sunday, Oct 31. The neighborhood's main thoroughfare was closed for 1 mile between Cold Spring Lane and just south of Northern Parkway as a way to promote recreation, fitness, neighbo..." It includes a link to "www.explorebaltimorecounty.com" and a photo of people participating in the event.

# Web Site and Social networking

REAL SOLUTIONS FOR CLIMATE CHANGE

**Clean Air Partners** Like

Wall Info AirAlerts Twitter Events Photos >>

Filters

**Clean Air Partners** Reduce, Reuse, Recycle! America Recycles Day is November 15th.

**11/09/2010: America Recycles Day - November 15th**  
yosemite.epa.gov  
PHILADELPHIA (November 9, 2010) -- Everyday Americans recycle their trash because they know it's an important activity that can have a positive impact on the environment. But once a year the U.S. Environmental Protection Agency sets aside November 15 to remind everyone that recycling plays a dramatic

November 10 at 11:32am · Like · Comment

**Clean Air Partners** Need some extra cash....Carpool. Commuter Connections launches "Pool Rewards."

**Commuter Connections**  
www.mwcog.org  
Participation is open to lifelong solo drivers who begin carpooling during peak rush hour periods in the Metropolitan Washington Statistical Area\*. Commuters who currently drive alone to work may be eligible for financial rewards when they agree to start or join a new carpool!

November 10 at 9:04am · Like · Comment

**Clean Air Partners** Clean Air Partners Board Member Randy Mosier, his wife Jennifer, and dog Brewster took part in the 2nd annual Roland Park "ciclovía" on Sunday, Oct 31. The neighborhood's main thoroughfare was closed for 1 mile between Cold Spring Lane and just south of Northern Parkway as a way to promote recreation, fitness, neighbo...

See More

**Explore Baltimore County: Roland Avenue the way they like it: no cars**  
www.explorebaltimorecounty.com  
ord=Math.random()

Show your commitment to cleaner air by signing up for AirAlerts today.  
www.cleanairpartners.net

**Information**

Founded:  
1997

**305 People Like This**

Fran Schmalge meyer	Patrick Lee Geary Jr	James Henry Venker
Carole Excell	Tabitha Ware	Leashaun Aulton

# Education Curriculum

- Developed an air quality curriculum for 6<sup>th</sup> graders
- Activity kits, poster contests
- Introduced air quality curriculum to science teachers in Baltimore-Washington regions
- Summer camps, after school programs

REAL SOLUTIONS FOR CLIMATE CHANGE

**CLEAN AIR PARTNERS**

*Big and small changes can add up to make a real difference in our region's air quality.*

## Make a Difference Every Day

Do something every day to help improve the air we breathe. Here are a few suggestions from your friends at Clean Air Partners:

1. Sign up for AirAlerts to see if tomorrow's air quality is going to be unhealthy.
2. Limit driving. Telework, carpool or use public transit.
3. **Be an ENERGY STAR!** Make energy efficient changes around your house and workplace to reduce greenhouse gasses.
4. Park it. Commit to leaving your car parked for at least one day each week.
5. Turn in that gas guzzler. Replace gas powered lawnmowers with electric or push mowers.
6. Green your work space. Ask your office to designate a no idling zone or start a workplace "green" team.
7. Get exercise. Walking or riding a bike on short trips will save gas and help protect the air.

Talk to your kid's school to request Clean Air Partners' air quality curriculum, "On the Air".

For more information, visit [www.cleanairpartners.net](http://www.cleanairpartners.net).

# Climate Change Added to Mission

REAL SOLUTIONS FOR CLIMATE CHANGE

- In 2007, Board of Directors expanded the mission of the organization to include greenhouse gases and their contribution to climate change.
- Incorporated new messaging /actions to address climate change and energy efficiency.

# Climate Change Messaging

Developed a climate change unit as part of education curriculum.



## REAL SOLUTIONS FOR CLIMATE CHANGE

### UNIT 7

#### Climate Change

##### ACTIVITY DESCRIPTION

In Part I of this unit, students rotate through different Climate Change Information Stations to learn about the earth's atmosphere, greenhouse gases, the greenhouse effect, the carbon cycle, and rising carbon dioxide (CO<sub>2</sub>) and temperature levels. Students answer questions and complete a worksheet to reinforce key concepts presented at each station. Next, using illustrated information cards as a guide, the class conducts a discussion about the potential effects of increased global temperatures. In Part II of this unit, students investigate everyday actions we can all take to decrease CO<sub>2</sub> emissions.

##### curricular ties

See page xi for the list of this lesson's curricular ties to District of Columbia, Maryland, and Virginia education standards. All Education Standards are articulated in the Appendices.

##### time needed

Two, 45 minute class periods



# Lessons Learned

REAL SOLUTIONS FOR CLIMATE CHANGE

- State transportation agencies have funded education campaign for 16 years
- Audiences in Metropolitan Baltimore-Washington region are considered well-informed about air quality color-codes and actions needed
- Some successes (ozone map, color coded system, education curriculum)
- Some mixed results (Ride Free on Code Red)
- Air quality has improved!

# For Further Information

REAL SOLUTIONS FOR CLIMATE CHANGE



**CLEAN AIR  
PARTNERS**

[www.cleanairpartners.net](http://www.cleanairpartners.net)

[jrohlf@mwcog.org](mailto:jrohlf@mwcog.org)





## Transportation and Climate Change Resource Center

REAL SOLUTIONS FOR CLIMATE CHANGE

### **Communicating Climate Change: Oregon Department of Transportation's Approach**

December 2, 2010



*Presented by:*

Liz Hormann  
Sustainability Planner, Oregon Department of Transportation



# What is Transportation's Role in Climate Change?

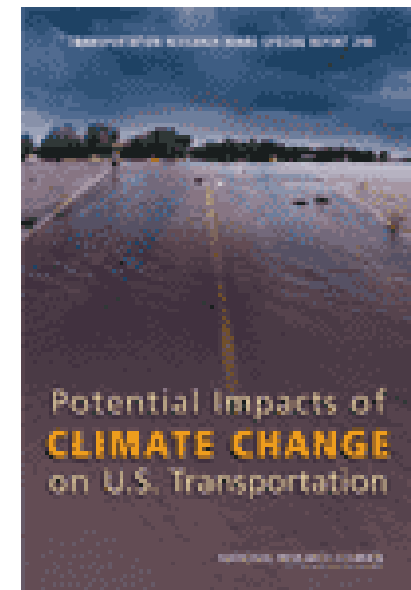
REAL SOLUTIONS FOR CLIMATE CHANGE

## Mitigation

The transportation sector accounts for about one-third of all greenhouse gas emissions in the United States.

## Adaptation

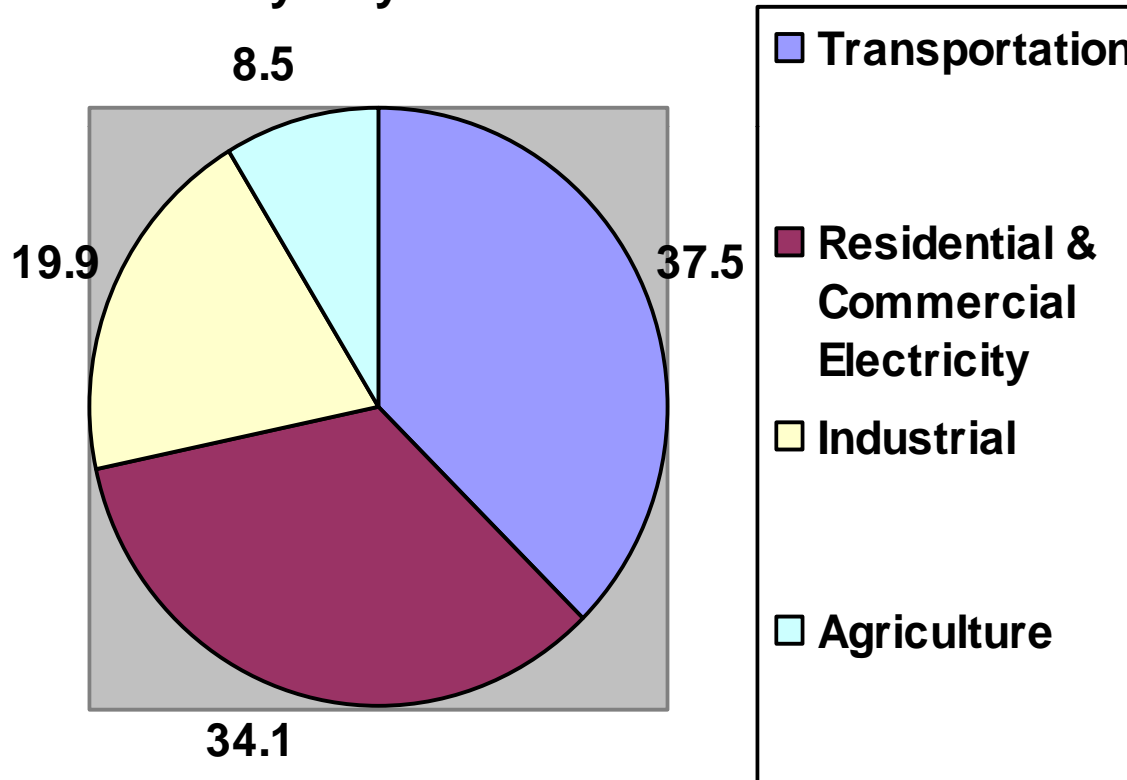
TRB Special Report 290 – the transportation system and infrastructure will be impacted by climate change.



# Climate Change and Transportation

REAL SOLUTIONS FOR CLIMATE CHANGE

## Oregon GHG Emissions Percentage By Key Economic Sector 2007



# Oregon Climate Change Law

REAL SOLUTIONS FOR CLIMATE CHANGE

House Bill 3543 (Climate Change Integration Act) created specific greenhouse gas emissions reduction goals for the state:

1. By 2010, arrest the growth of Oregon's greenhouse gas emissions and begin to reduce them.
2. By 2020, achieve greenhouse gas levels that are 10 percent below 1990 levels.
3. By 2050, achieve greenhouse gas levels that are at least 75 percent below 1990 levels.

# Climate Change Communication at ODOT

REAL SOLUTIONS FOR CLIMATE CHANGE

## 1. Internal Committees:

- ODOT Climate Change Executive Group
- ODOT Climate Change Technical Advisory Committee
- Sustainability Council and Plan
- Workshops

## 2. External and Communication Tools:

- Factsheets
- Websites, etc.

## 3. Legislative Requirements:

- SB 1059 and formal communication strategy done by outside consultant



# Who is the Audience?

REAL SOLUTIONS FOR CLIMATE CHANGE

- Public citizenry
- Internal ODOT staff
- External stakeholders
  - Other state agencies
  - Private businesses and companies
- Oregon University System and Research Centers
- Legislature





# Climate Change Executive Group

REAL SOLUTIONS FOR CLIMATE CHANGE

- Comprised of senior executive staff
- Provide overall direction within ODOT regarding climate change and transportation issues
- Directs the work of the Climate Change TAC:
  - Research
  - Communication



# ODOT Climate Change TAC

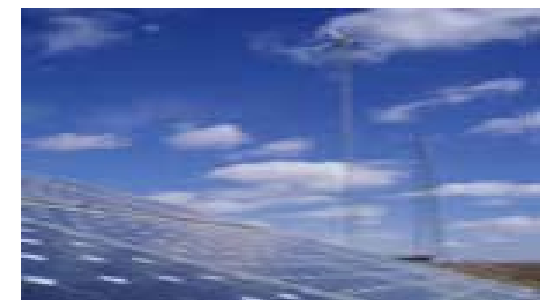
REAL SOLUTIONS FOR CLIMATE CHANGE

- Internal ODOT committee comprised of staff from various departments, including: environmental, policy, planning, maintenance, research, facilities and fleet, and freight.
- **Goal:** develop a communication plan, tools, and consistent message for ODOT regarding climate change.

# Focus Areas

- (1) Health And Safety
- (2) Social Responsibility
- (3) Environmental Stewardship
- (4) Land Use And Infrastructure
- (5) Energy And Climate Change**
- (6) Material Resource Flows
- (7) Economy

REAL SOLUTIONS FOR CLIMATE CHANGE



# Sustainability Plan and Climate Change

REAL SOLUTIONS FOR CLIMATE CHANGE

## Developing a Comprehensive Sustainability Plan:

- Volume I: *Setting the Stage*, the **Vision** for ODOT's Sustainability
- Volume II: Sustainability Management for ODOT's **Internal Operations**

## More to come...

- Volume III: Sustainability Management for Oregon's **Transportation System**



# ODOT Climate Change Website

REAL SOLUTIONS FOR CLIMATE CHANGE

The website acts as a clearinghouse for information on what ODOT is doing for climate change and how individuals can help reduce their GHG emissions.

[www.climatechangeodot.com](http://www.climatechangeodot.com)



# SB 1059 Requirements

REAL SOLUTIONS FOR CLIMATE CHANGE

ODOT and DLCD are to:

- Develop a state-level strategy to reduce greenhouse gases from transportation.
- Develop a greenhouse gas reduction toolkit.
- Develop guidelines for scenario planning.
- Provide information to support Land Conservation and Development Commission GHG reduction target rulemaking.
- Conduct outreach and education to the public.
- Report to the legislature about costs and progress.

# SB 1059 – Communication Plan

REAL SOLUTIONS FOR CLIMATE CHANGE

## **SECTION 6. The Department of Transportation and the Department of Land Conservation and Development, after consultation with and in cooperation with other state agencies and the Oregon University System, shall:**

- 1) Educate the public about the need to reduce greenhouse gas emissions from motor vehicles with a gross vehicle weight rating of 10,000 pounds or less; and
- 2) Educate the public about the costs and benefits of reducing greenhouse gas emissions.

# Opportunities to Partner with Others

REAL SOLUTIONS FOR CLIMATE CHANGE

- Oregon Global Warming Commission
  - Communications and Outreach Committee
- Other State Agencies involved in climate change efforts
  - Statewide Climate Change Adaptation Framework
  - Interagency Hazard Mitigation Team
- Other partnerships, organizations and universities
  - Oregon Climate Change Research Institute
  - Climate Leadership Initiative
  - Oregon Sustainability Board





For copies of these slides and webinar recording, go to AASHTO's website:  
[http://environment.transportation.org/center/products\\_programs/climate\\_change\\_webinars.aspx](http://environment.transportation.org/center/products_programs/climate_change_webinars.aspx)

These materials will also be available on AASHTO's climate change website,  
where you can also find more information on climate change:  
<http://climatechange.transportation.org/webinars/>

**Thank you!**