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A Reason to Believe: Examining the Factors that Determine Americans' Views on Global Warming

Christopher P. Borick and Barry G. Rabe

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During the past two years, public perceptions of global warming have shifted significantly in the United States. A number of 2007 national surveys reveal that Americans increasingly acknowledge global warming's existence and believe anthropogenic factors are its cause. Another national survey in spring 2008 shows that the number of Americans who believe that there is significant evidence of global warming may have declined. These shifts in public opinion have been widely discussed in the media and academia, but little is actually known about what drives individual views on global warming. Do personal experiences impact views (e.g. hotter temperatures in their state)? Does existing evidence presented in national media (e.g. melting glaciers), scientific projections (e.g. computer modeling), dramatic experiences (e.g. disastrous hurricanes or award-winning films), or some combination of these factors influence public beliefs?



© Reuters/Ho New - A NASA satellite image of the Arctic summer sea ice from September 16, 2007 and released on September 21, 2007.

This report, the first of a two-part series, seeks to measure the relative impact of an array of factors on individual perceptions of global warming. Results from a telephone survey of 1,500 individuals in multiple states indicate that individual experiences and existing evidence influence belief in global warming more than scientific projections or single event occurrences such as Hurricane Katrina. Numerous individual characteristics (e.g. partisan affiliation, gender, age) also affect belief in global warming. A later report, which draws from this survey analysis, will examine public receptivity to a range of policy options available to policymakers at both federal and state levels.

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National and State Interest: The Intergovernmental Reality of Climate Policy



Christopher P. Borick is an Associate Professor of Political Science and Director of the Muhlenberg College Institute of Public Opinion.



Barry G. Rabe is a nonresident senior fellow in Governance Studies at The Brookings Institution and visiting professor at the Miller Center of Public Affairs, University of Virginia.

With the American public's views on global warming quickly shifting, so has the federal government's involvement. Although Congress held 175 hearings on climate change between 1975 and 2006, the 110th Congress has dramatically accelerated the pace of these deliberations. This is reflected in numerous proposals, most notably the Climate Security Act, sponsored by Senators Joseph Lieberman (I-CT) and John Warner (R-VA). It would establish a national carbon cap-and-trade system and was opened for extended Senate debate in June 2008. Presumptive presidential nominees John McCain and Barack Obama have also been supportive of some version of greenhouse gas emissions reduction. Intensified congressional scrutiny of the Bush Administration's reluctance to engage the issue and the rapid growth of climate-relevant cases at all levels of the federal courts are also examples of expanded national interest.

On the other hand, state governments have continued to dominate American climate policy development and implementation for the past decade (Rabe 2004, 2008). Twenty-six states now have renewable portfolio standards that mandate steady increases in renewable energy. Twenty-one coastal and Great Lakes states have made commitments to regional emissions trading regimes and are moving toward implementing what the Lieberman-Warner bill is just beginning to contemplate. Eighteen states have endorsed in some form California's continuing efforts to secure a federal waiver to implement its 2002 bill, which would reduce greenhouse gas emissions from new vehicles. Virtually every conceivable policy option to reduce greenhouse gases is now in operation in multiple states, as well as municipalities. But this pattern is not universal. Many states have yet to develop any significant policy response to climate change, including some with emissions increases far above national averages.

Ultimately, federal policy will have to reconcile the varied degree of state policy engagement and, quite possibly, different views on the severity of global warming. Recent deliberations over the proposed Climate Security Act only begin to tackle this issue. Does federal action preempt prior state policy, essentially taking an eraser to current state law? Or does Washington set a minimum standard, which states can surpass if they choose? To date, there has been remarkably little serious discussion of this coming intergovernmental collision.

Given the intergovernmental reality of climate policy, this paper begins to test whether public attitude varies across states. Significant samples of public sentiment were taken in both Michigan and Pennsylvania. Both states are heavily-industrialized and face significant economic challenges. Their rates of greenhouse gas emissions growth are well below national averages, reflecting these economic realities. Michigan has been among the least active states in the nation in all policy areas relevant to global warming. In contrast, Pennsylvania

has been one of the more active states, with extensive programs in renewable energy and energy efficiency among others (Rabe 2008). This focus (see appendix for methodological details) allows for comparison between these two states as well as analysis that examines their responses in contrast with national averages. Of course, both states are also significant in that they are swing states, potentially within the grasp of either major presidential candidate.

Americans' Attitudes and Beliefs Toward Global Warming

Since the 1980s, there has been a growing body of data that examines the perceptions of Americans regarding the issue of global warming. This data paints a picture of generally increasing recognition, acceptance and concern in the United States regarding atmospheric heating of the Earth (Nisbet and Myers, 2007).

In the past two decades, the number of Americans who have heard of the "greenhouse effect" has steadily increased. In 1986, less than one in four respondents said they had heard of global warming. By 2006, over nine out of 10 recognized the issue (Nisbet and Myers, 2007). A growing number of Americans believe that the Earth is already experiencing increased heating, as Table One shows.

A growing number of Americans believe that the Earth is already experiencing increased heating.

TABLE ONE

American Beliefs Regarding the Existence of Global Warming

Year	Percent of Americans that Believe Global Warming Has Already Begun
1997	48%
2002	53%
2005	54%
2006	58%
2007	60%

Source: Gallup Polls, 1997-2007

Public concern about global warming has also significantly increased. Concern over the Earth's warming rose sharply over a one-year period, compared to the fairly gradual increase in public awareness and belief. A comparison of *Washington Post*-ABC News-Stanford University polls in 2006 and 2007 found a doubling (16% to 33%) in the number of Americans that identified global warming as the biggest environmental threat facing the world. The same polls also indicated a significant shift in the belief that increasing temperatures are caused by anthropogenic factors. Table Two shows a 10% increase from 2006 to 2007 in the number of Americans who think that increasing world temperatures are caused by human activity.



Public opinion research shows Americans are increasingly acknowledging global warming, however what isn't seen are the underlying causes of these beliefs.

TABLE TWO

“Do you think a rise in the world's temperatures is being caused mostly by things people do, mostly by natural causes, or about equally by things people do and by natural causes?”

	Things People Do	Natural Causes	About Equal
4/10/07	41%	17%	42%
3/14/06	31%	19%	49%

Source: *Washington Post-ABC News-Stanford University*

Public opinion research shows Americans are increasingly acknowledging global warming (Nisbet and Myers, 2007), however what isn't seen are the underlying causes of these beliefs. In particular, what type of evidence do Americans cite as having an important effect on their perceptions of global warming? Recent Pew Research Center polls have shown fairly significant short-term shifts in the number of Americans who believe there is evidence of global warming. Between June 2006 and January 2007, there was a 7% increase (70% to 77%) among U.S. residents who indicated there was “solid evidence” that the Earth is warming. However, between January 2007 and April 2008, the percentage decreased by 6% (77% to 71%). This decline in public acceptance of the evidence of global warming may be an aberration in a long-term trend of increasing belief. However, the shift does raise questions regarding the underlying factors affecting public acknowledgement of global warming. What types of evidence are individuals reacting to? In the remainder of this report, we explore some of the factors shaping Americans' views on climate change.

Factors Determining Individual Views on Global Warming

Increased physical evidence may be swaying Americans that global temperatures are rising. In the past two years, there has been increased evidence of declining polar ice and retreating glaciers throughout the planet. The 2007 Report of the United Nations Intergovernmental Panel on Climate Change (IPCC) indicates increasing evidence that “mountain glaciers and snow cover have declined in both hemispheres.” Additionally, land-based ice sheets in Greenland have experienced significant loss of mass, and have very likely contributed to sea level rises over the last decade (IPCC, 2007).

Growing confidence in computer models may help explain increased belief in global warming. The IPCC report stressed that computer models of the Earth's atmosphere have become increasingly aligned with the warming of the planet. According to the IPCC, “there is high agreement and much evidence” that there will be further warming in the 21st century that would “be larger than those observed during the 20th century” (IPCC, 2007).

Americans' personal experiences with higher temperatures may also be



adding to their belief in climate change. According to the National Oceanic and Atmospheric Administration (NOAA), 2006 was the hottest year on record (113 years) in the United States and 2007 was the eighth hottest. NOAA also noted prolonged heat waves during recent summers and record warm winters in many northern areas of the nation (NOAA, 2008). Although there is debate within the scientific community over the exact linkage between record warmth in recent years and the broader process of global warming, exposure to hotter than normal temperatures may be contributing to global warming acceptance.

Hurricane Katrina may also have affected individual perceptions of global warming. Climate scientists have hypothesized that hurricane strength would intensify as the planet's oceans became warmer due to global warming. Therefore, the likelihood of dangerous storms striking the United States would increase over time (Trenberth and Shea, 2005). When Katrina struck the Gulf Coast, the media discussed a great deal about the storm's intensity in relation to global warming.

Finally, the large international attention to Al Gore's 2006 documentary "An Inconvenient Truth" may have helped convince Americans that the Earth is indeed heating up. The film was seen by millions in the United States, earned a box office bonanza of 25 million dollars, and has spawned a cottage industry that trains citizens to replicate its key messages in seminars and workshops across the nation. The heavy attention given to the movie, including the awarding of the 2007 Nobel Peace Prize to its narrator and central character, could have shaped individual perceptions of the problem.

The remainder of this paper will examine in two states the self-identified effect of these five factors on individual beliefs regarding global warming. These factors were chosen because of their prominent role in the scientific theories of climate change, as reflected in the IPCC reports, or in the ongoing public discourse and media coverage. These factors are clearly not inclusive of all reasons that may cause an individual to believe the Earth is warming. The selected options provide an initial test of the factors that underlie beliefs on this matter. Table Three lists the five factors included in this study.

TABLE THREE

Factors Influencing Belief in Global Warming

1. Declining glaciers and polar ice throughout the globe
2. Warmer temperatures in your area during recent years
3. Computer models that indicate the earth is getting warmer
4. The strength of Hurricane Katrina
5. Al Gore's documentary, "An Inconvenient Truth"



A majority (55% in PA, 57% in MI) of survey respondents who believe the Earth is getting warmer indicated that declining glaciers and polar ice levels had a strong effect on their view.

Simultaneous surveys of Michigan and Pennsylvania residents were taken in late 2007 and tested public perceptions of these factors. The surveys were conducted via telephone with 1,001 Michigan residents and 581 Pennsylvanians through a random digit dialing (RDD) methodology. Full descriptions of the methods employed in gathering the data can be found in Appendix One. Respondents were asked the following question:

“For each factor I mention please indicate if it has had a strong effect, moderate effect, small effect, or no effect on your view that the Earth is getting warmer.”

The survey results indicate substantial variation in each factor’s role in determining individual views on global warming. In particular, longer-term observations of changes at both the local and global level had a greater effect on respondent’s views than other factors in the study. A majority (55% in PA, 57% in MI) of survey respondents who believe the Earth is getting warmer indicated that declining glaciers and polar ice levels had a strong effect on their view. Personal observations of increasing temperatures in their area were also significant. Four of ten individuals surveyed stated that higher temperatures in their localities strongly affected their belief.

Less significant factors were singular events such as Hurricane Katrina and the documentary “An Inconvenient Truth.” Only about three out of ten survey respondents stated that Katrina had a strong effect on their beliefs. Only about one quarter stated that the Gore documentary strongly affected their views.

TABLE FOUR

“For each factor I mention please indicate if it has had a strong effect, moderate effect, small effect, or no effect on your view that the Earth is getting warmer.”

Reason	Strong Effect (Pennsylvania)	Strong Effect (Michigan)
Declining glaciers and polar ice	55%	57%
Higher temperatures in local area	40%	42%
Computer modeling	32%	39%
Hurricane Katrina	26%	33%
“An Inconvenient Truth”	24%	28%

Note: This question was only posed to respondents who indicated there is solid evidence that the Earth is warming

Turning to the other extreme, respondents in both states were most likely to say that Katrina and the documentary had no effect on their belief that the Earth is warming. About one quarter of Michigan and Pennsylvania respondents said that the 2005 storm or the documentary had no effect on their belief in climate change. Conversely, only about 1 of 20 believers in global warming said that declining glaciers and polar ice had no effect on their views of this phenomenon.



TABLE FIVE

“For each factor I mention please indicate if it has had a strong effect, moderate effect, small effect, or no effect on your view that the Earth is getting warmer.”

Reason	No Effect (Pennsylvania)	No Effect (Michigan)
Declining glaciers and polar ice	5%	6%
Higher temperatures in local area	8%	12%
Computer modeling	9%	11%
Hurricane Katrina	24%	23%
“An Inconvenient Truth”	24%	30%

While the aggregate level results provide important information, it is also valuable to look at the individual-level relationship between factors that affect belief in global warming. As Table Six shows, when someone’s views on global warming are strongly affected by one factor (e.g. computer models) they are fairly likely to be strongly affected by other factors. For example, 83% of respondents in our Michigan sample whose views were strongly affected by “An Inconvenient Truth” also reported that they were strongly affected by declining glaciers and polar ice.

TABLE SIX

Individual Level Relationships Between Factors that Strongly Affect Belief in Global Warming (Michigan Sample)

If Individuals Identified Factor as Strongly Affecting Belief in Global Warming	They Also Identified These Issues as Strongly Affecting Their Belief in Global Warming				
	Declining Glaciers and Polar Ice	Higher Temps. In Local Area	Computer Modeling	Hurricane Katrina	“An Inconvenient Truth”
Declining Glaciers and Polar Ice	NA	62%	56%	44%	47%
Higher Temps. In Local Area	85%	NA	63%	54%	56%
Computer Modeling	81%	66%	NA	57%	59%
Hurricane Katrina	75%	67%	67%	NA	59%
“An Inconvenient Truth”	83%	69%	69%	58%	NA

Evidence, Individual Characteristics and Belief in Global Warming


This section will examine personal characteristics—such as partisan affiliation, gender, age—and their likely effect on these five factors’ effectiveness in convincing individuals of global warming.

Most public opinion research on belief in global warming finds a significant relationship between partisan affiliation and individual belief. Numerous recent studies (Pew Research Center, 2006; Novelli, 2008) have shown that Democrats and Republicans have substantially different views on global warming’s existence and threat. Unclear is whether partisanship has any effect on how various factors shape one’s belief in climate change. Partisan control of the executive and legislative branches of state governments has not been a good predictor of policy responsiveness. By looking at only “believers” we can determine if they arrive at their conclusions about global warming through similar means, or if they come to their conclusions through alternative pieces of evidence.

TABLE SEVEN

The Effect of Select Factors on Individual Belief in Global Warming by Party Affiliation (Pennsylvania Sample)

		Strong Effect	Moderate Effect	Small Effect	No Effect
Declining Glaciers and Polar Ice	D	56%	34%	5%	3%
	R	52%	31%	6%	7%
Warmer Temperatures in Your Area	D	41%	40%	10%	8%
	R	37%	39%	13%	5%
Computer Models Indicating Warming *	D	36%	37%	11%	8%
	R	26%	37%	15%	10%
Hurricane Katrina *	D	29%	29%	16%	20%
	R	19%	26%	18%	27%
“An Inconvenient Truth” *	D	27%	31%	8%	17%
	R	17%	14%	7%	40%

 = difference between Democratic and Republican of at least 10 percent

* = Statistically significant association at .95 level of confidence

Republicans and Democrats substantially varied in terms of the effect of these factors on their beliefs in global warming.

The results of the Pennsylvania (Table Seven) and Michigan (Table Eight) surveys demonstrate that the factors included in the study affect Republicans and Democrats differently. In all but two cases in the Pennsylvania sample, Republicans and Democrats substantially varied in terms of the effect of these factors on their beliefs in global warming. Democrats were significantly more likely than their Republican counterparts to indicate that the factors we included in the study strongly affected their views on global warming. Not surprisingly, the



biggest gap among Republicans and Democrats was the influence of “An Inconvenient Truth.” In both the Pennsylvania and Michigan sample, Democrats were much more likely than Republicans to say that the former Democratic Vice President’s movie strongly affected their views.

TABLE EIGHT

The Effect of Select Factors on Individual Belief in Global Warming by Party Affiliation (Michigan Sample)

		Strong Effect	Moderate Effect	Small Effect	No Effect
Declining Glaciers and Polar Ice*	D	64%	24%	3%	7%
	R	35%	50%	8%	6%
Warmer Temperatures in Your Area *	D	47%	33%	10%	9%
	R	16%	50%	15%	19%
Computer Models * Indicating Warming	D	49%	25%	14%	8%
	R	24%	31%	30%	12%
Hurricane Katrina *	D	41%	24%	13%	19%
	R	16%	24%	29%	28%
“An Inconvenient Truth” *	D	64%	26%	5%	4%
	R	16%	36%	19%	29%

□ = difference between Democratic and Republican of at least 10 percent
 * = Statistically significant association at .95 level of confidence

While partisanship appears to be a significant predictor of a factor’s effectiveness in convincing individuals that the Earth is warming, other demographic factors appear to have less obvious effects. First, gender seems to play a more modest role. The most significant difference between men and women was in terms of the impact of Hurricane Katrina and “An Inconvenient Truth.” Women respondents were more likely than men to report that these factors affected their belief in global warming.



TABLE NINE**The Effect of Select Factors on Individual Belief in Global Warming by Gender
(Pennsylvania Sample)**

		Strong Effect	Moderate Effect	Small Effect	No Effect
Declining Glaciers and Polar Ice	M	56%	29%	7%	7%
	F	55%	33%	4%	4%
Warmer Temperatures in Your Area*	M	39%	33%	13%	11%
	F	42%	43%	7%	5%
Computer Models Indicating Warming	M	30%	37%	15%	10%
	F	33%	38%	9%	9%
Hurricane Katrina*	M	23%	20%	17%	33%
	F	28%	33%	15%	16%
"An Inconvenient Truth"*	M	20%	23%	8%	29%
	F	27%	25%	9%	9%

= difference between Dem and Rep of at least 9 percent

* = Statistically significant association at .95 level of confidence

TABLE TEN**The Effect of Select Factors on Individual Belief in Global Warming by Gender
(Michigan Sample)**

		Strong Effect	Moderate Effect	Small Effect	No Effect
Declining Glaciers and Polar Ice	M	54%	28%	10%	6%
	F	59%	27%	4%	6%
Warmer Temperatures in Your Area *	M	40%	27%	17%	15%
	F	45%	38%	8%	9%
Computer Models Indicating Warming	M	42%	28%	17%	12%
	F	36%	29%	18%	10%
Hurricane Katrina*	M	31%	18%	22%	28%
	F	35%	27%	14%	19%
"An Inconvenient Truth"*	M	24%	15%	10%	35%
	F	32%	16%	11%	26%

= difference between Dem and Rep of at least 9 percent

* = Statistically significant association at .95 level of confidence

The age of survey respondents is also less significant than partisanship. However, as Tables 11 and 12 show, some interesting patterns emerge among age cohorts. While there is very little difference between individuals in the age groups of 30 to 49 and 50 and older, young residents (18-29) of Michigan and Pennsylvania were more likely to identify issues such as Hurricane Katrina and computer models as strongly affecting their belief in global warming.

TABLE ELEVEN

Percentage of Individuals Whose Belief in Global Warming was Strongly Affected by Selected Factors (By Age – Pennsylvania Sample)

	Declining Glaciers and Polar Ice	Warmer Temperatures in Your Area	Computer Models Indicating Warming	Hurricane Katrina	“An Inconvenient Truth”
18-29	58%	40%	50%	46%	22%
30-49	57%	38%	30%	30%	22%
50+	54%	41%	31%	22%	25%

TABLE TWELVE

Percentage of Individuals Whose Belief in Global Warming was Strongly Affected by Selected Factors (By Age – Michigan Sample)

	Declining Glaciers and Polar Ice	Warmer Temperatures in Your Area	Computer Models Indicating Warming	Hurricane Katrina	“An Inconvenient Truth”
18-29	63%	58%	60%	60%	29%
30-49	52%	33%	30%	24%	22%
50+	60%	39%	34%	27%	29%

Without public recognition of global warming, governments in the United States may not be able to garner support from elected officials to act.

Conclusion

Belief in global warming is a crucial component of any governmental effort. Without public recognition of global warming, governments in the United States may not be able to garner support from elected officials to act. Conversely, widespread public acknowledgement provides a platform by which policymakers can build their initiatives to mitigate global warming. As in other environmental policy areas, one question concerning global warming is whether a cataclysmic event—or a “trigger”—would be necessary to prompt a serious policy response or whether less dramatic factors would suffice (Pralle 2006).

The sharp increase in public acceptance has helped move forward the debate on policy responses. If elected president in November, both John McCain and Barack Obama have vowed to address global warming. The 110th Congress has begun to examine almost every conceivable policy option that might reduce greenhouse gas emissions. This activity coincides with continuing expansion of state and regional policy efforts from Florida to Washington State. Of course, the projected costs associated with any major response effort require substantial public support. It remains unclear whether public belief in global



warming translates into support for new policies that may impose long-term economic and behavioral changes. Our next report will examine the receptivity of Michigan and Pennsylvania residents to a diverse set of policy options at both federal and state levels, ranging from regulatory approaches such as renewable energy mandates to more market-based strategies such as cap-and-trade and carbon taxes.

This report offers preliminary evidence regarding the factors that lead individuals to believe that the Earth is warming. Declining polar ice and glaciers along with individual experience with warmer local temperatures appear to be significant reasons why Americans believe global warming is occurring. Dramatic events that receive massive media attention, such as horrific hurricanes and blockbuster documentaries, appear less consequential. But there are significant differences in responses of various subgroups divided by place of residence, partisanship, gender, and age, suggesting that no across-the-board consensus on climate change has emerged at the time when federal institutions are giving unprecedented attention to this issue. These patterns will also be evident as we turn to policy alternatives in our next report.

References

International Panel on Climate Change, 2007. *Climate Change 2007: The Physical Science Basis*, Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA

National Oceanographic Atmospheric Administration, 2008. Climate Monitoring Web Page, <http://www.ncdc.noaa.gov/oa/climate/research/monitoring.html>

Nisbet, Matthew C. and Teresa Myers. 2007. "Trends: Twenty Years and Public Opinion about Global Warming." *Public Opinion Quarterly* 71 (3): 444-470.


Novelli, Peter, 2008. "What are Americans Thinking and Doing About Global Warming," George Mason University Center of Excellence in Climate Change Communication Research, January.

Oppenheimer, M. and Todrov, A, 2006. "The Psychology of Long Term Risk," *Climatic Change*, Volume 77, Numbers 1-2.

Pew Research Center, 2006. "Global Warming: A Divide on Causes and Solutions," <http://people-press.org/reports/display.php3?ReportID=303>

Pew Research Center, 2008. "An Increase in GOP Doubt About Global Warming Deepens Partisan Divide," <http://pewresearch.org/pubs/828/global-warming>

Pralle, Sarah B. 2006. *Branching Out, Digging In: Environmental Advocacy and Agenda Setting*. Washington, D.C.: Georgetown University Press.



Rabe, Barry G. 2004. *Statehouse and Greenhouse: The Emerging Politics of American Climate Change Policy*. Washington, D.C.: Brookings.

Rabe, Barry G. 2008. "States on Steroids: The Intergovernmental Odyssey of American Climate Policy," *Review of Policy Research* 25 (2): 105-128.

Saad, L. 2006. "Americans Still Not Concerned About Global Warming," Washington, DC: Gallup News Service.

Trenberth, Kevin and Dennis Shea. 2005. "Atlantic Hurricanes and Natural Variability," *Geophysical Research Letters*, Volume 33.

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The Brookings Institution
1775 Massachusetts Ave., NW
Washington, DC 20036
Tel: 202.797.6090
Fax: 202.797.6144
www.brookings.edu/governance.aspx

Editor

Gladys L. Arrisueno

Production & Layout

John S Seo

APPENDIX ONE: METHODOLOGY

PENNSYLVANIA METHODOLOGY: The data for Pennsylvania examined in this paper was collected in a telephone survey of residents of the state of Pennsylvania between October 17 and December 4, 2007. The surveys are based on a random sample of adults age 18 and older who reside in Pennsylvania. Interviewing and sampling was conducted by the Muhlenberg College Institute of Public Opinion. The final number of completed surveys was 581 with a resulting margin of error of +/- 4% at the 95% confidence interval. However the margin of errors for sub groups (i.e. women, Republicans, Catholics) is larger due to smaller sample size. Percentages throughout the survey have been rounded upward at the .5 mark, thus many totals in the results will not equal 100%. The survey questionnaire was designed by the authors of this report, in some instances linked directly with prior national survey questions to allow for comparison across various audiences. We are grateful to the Muhlenberg College Institute of Public Opinion for financial support.

MICHIGAN METHODOLOGY: The data for Michigan examined in this paper was collected in a telephone survey of residents of the state of Michigan between October 10 and November 26, 2007. The surveys are based on stratified random samples of adults age 18 and older living in Michigan. Interviewing and sampling was conducted by the Institute for Public Policy & Social Research's Office for Survey Research at Michigan State University as part of their fall 2007 State of the State Survey (SOSS). A detailed description of the SOSS methodology can be found at www.ippsr.msu.edu/SOSS/SOSS.HTM. The final number of completed surveys was 1,001 with a resulting margin of error of +/- 3% at the 95% confidence interval. However the margin of errors for sub groups (i.e. women, Republicans, Catholics) is larger due to smaller sample size. Percentages throughout the survey have been rounded upward at the .5 mark, thus many totals in the results will not equal 100%. The survey questionnaire was designed by the authors of this report and we are grateful to the Center for Local, State, and Urban Policy at the University of Michigan for financial support.

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