

Acceptance of Global Warming Rising for Americans of all Religious Beliefs

a report from the National Surveys on Energy and Environment

Introduction

The release earlier this year of the Papal Encyclical, *Laudato Si'*, and the visit of Pope Francis to the United States have reinvigorated the discussion of the relationship between religion and perceptions of global warming. This report, pulling from eight years of survey data from the National Surveys on Energy and Environment (NSEE), traces the relationship between religious affiliation and belief in global warming, and the role that religion and morality play in shaping environmental attitudes. It also draws upon Fall 2015 survey data specifically about Pope Francis to better understand the impact of the Papal call-to-action on acceptance of global warming among Americans—Catholics and non-Catholics alike.

Key Findings:

1. Acceptance of global warming is up among all Americans, regardless of creed. The most notable gains in the last six months, however, have been among Evangelical Christians, whose belief rose 16 points from 49% in Spring 2015 to 65% this Fall, considerably narrowing the gap between Americans of different faiths.
2. Pope Francis and his call to action on the issue of climate change may have contributed to this rise in acceptance, with 15% of Americans saying they are now more convinced global warming is happening and that we should act to address this matter as a result of the Papal Encyclical.
3. Americans are more likely to tie their attitudes about climate change to moral convictions, rather than religious beliefs. While less than a quarter (23%) of Americans say their religious beliefs affect their views on how government should deal with the issue of global warming, 75% agree that rich countries like the US have a moral obligation to reduce their greenhouse gas emissions.
4. Fewer than half (49%) of Americans think religious leaders should discuss environmental issues within the context of their faith, but most (60%) support Pope Francis' call to action to address global warming.

Authors

Sarah B. Mills

Postdoctoral Fellow
Center for Local State, and Urban Policy
Gerald R. Ford School of Public Policy
University of Michigan
sbmills@umich.edu

Barry G. Rabe

J. Ira and Nicki Harris Professor of Public Policy
Director, Center for Local State, and Urban Policy
Gerald R. Ford School of Public Policy
University of Michigan
brabe@umich.edu

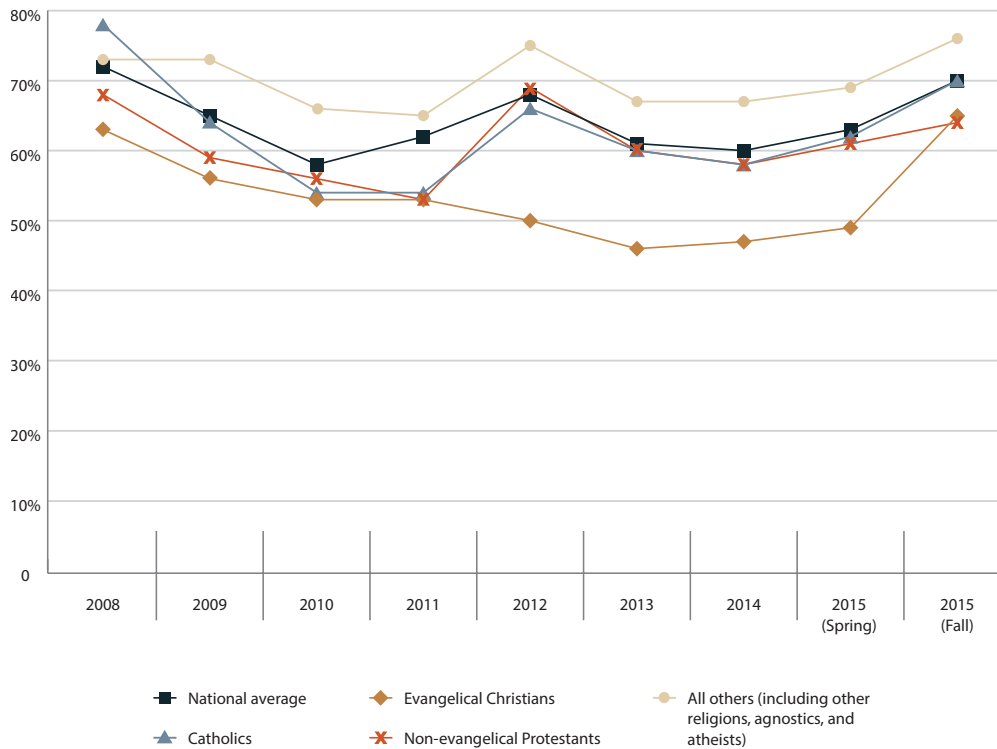
Christopher Borick

Professor of Political Science
Director, Muhlenberg Institute of Public Opinion
Muhlenberg College
cborick@muhlenberg.edu

Acceptance of global warming up among all Americans, most notably Evangelical Christians

As noted in an NSEE report last month,¹ American acceptance of global warming is at its highest level (70%) since the Fall 2008 survey. Further, the recent rate of change in acceptance has been particularly notable, rising seven points in just 6 months, and up 10 points from Fall 2014. This increase in acceptance is true of Americans of all creeds. Eight years of NSEE data show that there are differences between Americans based on religious affiliation, with non-Christians having consistently had the highest acceptance of global warming and Evangelical Christians having had the lowest (see *Figure 1*). The gap between these groups, though, is currently at its narrowest in the history of the survey, primarily as a result of a rapid increase in acceptance among Evangelical Christians, rising 16 points in just six months. Acceptance among Evangelicals is now at an eight-year high (65%), and only 11 points lower than non-Christian respondents, down from a 25-point gap in Fall 2012.

Figure 1
Acceptance of global warming, by religious affiliation



Note: “No” and “Not sure” responses not shown. While the survey asks about 7 religious categories, small sample sizes for all but the religions shown in the graph produce large margins of error for estimates of these others, so they have been grouped together.

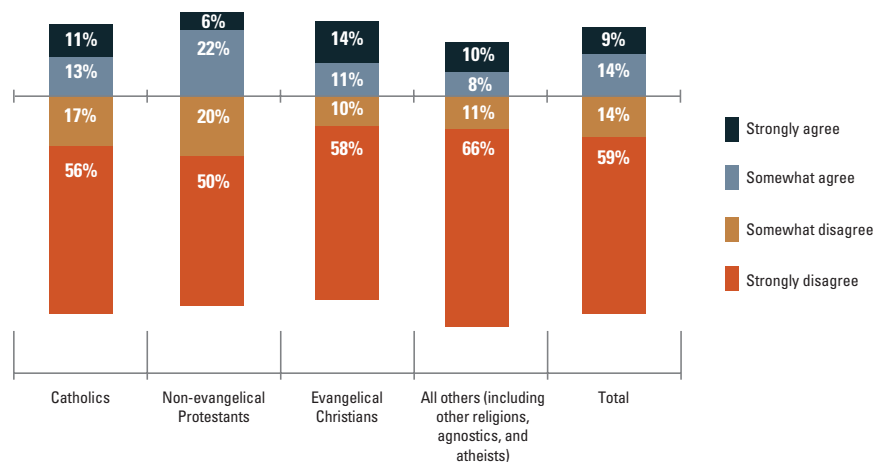
Question: “From what you’ve read and heard is there solid evidence that the average temperature on earth has been getting warmer over the past four decades?”



The role of religion in shaping attitudes about climate change

There is conflicting evidence for the role that religious beliefs may have played in this increase in acceptance of global warming. In the latest survey, most (73%) Americans disagree—and a majority (59%) quite strongly—with the statement that their religious beliefs affect their views on how government should deal with the issue of global warming, including majorities of all creeds (see *Figure 2*). Further, fewer than 1% of respondents in the Fall 2015 survey cited religious beliefs as the primary factor in their belief that temperatures on earth are rising.

Figure 2
Agreement that respondent’s religious beliefs affect their views on global warming



Note: “Not sure” responses are not shown.

Question: “For each of the statements that I read, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement... My religious beliefs affect my views on how government should deal with the issue of global warming.”

While religious beliefs have never been widely cited as a primary reason for one’s acceptance of global warming, past NSEE results have shown that significant portions of Americans who are skeptical of global warming cite religious factors as the main reason for their doubt. However, for the first time in the history of the NSEE not a single respondent mentioned religious beliefs as the primary reason for not believing in climate change (see *Table 1*).

Alongside the declining effects of religion on skepticism of global warming in the latest survey, there is also some evidence that Pope Francis might have played at least some role in increasing acceptance of climate change among Americans. When asked what impact the Papal encyclical has had on their thinking about global warming, 15% of Americans say they are more convinced that global warming is happening and we should act, while only 3% say the opposite (see *Figure 3*).

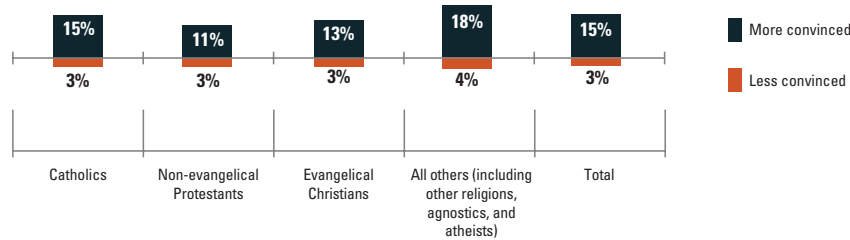
Table 1
Primary factor effecting belief that temperatures on Earth are NOT increasing

	Fall 2008	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall 2013	Spring 2014	Fall 2014	Spring 2015	Fall 2015
Personal Observation	42%	N/A	43%	29%	40%	33%	20%	21%	31%	31%	38%	41%	45%	32%
Natural Patterns	19%	N/A	22%	32%	29%	22%	21%	24%	21%	17%	20%	19%	23%	26%
Lack of Evidence	11%	N/A	13%	7%	8%	14%	11%	12%	7%	5%	8%	7%	3%	10%
Media has Misled	3%	N/A	2%	3%	2%	2%	4%	3%	4%	1%	<1%	<1%	<1%	0%
Evidence Disproves	8%	N/A	9%	9%	5%	6%	10%	7%	8%	20%	9%	10%	6%	5%
Religious Factors	<1%	N/A	4%	3%	4%	8%	10%	11%	16%	7%	6%	6%	4%	0%
Politically Driven	2%	N/A	<1%	2%	1%	<1%	9%	12%	4%	6%	4%	2%	4%	4%
No Particular Reason	5%	N/A	4%	5%	3%	6%	6%	6%	1%	2%	3%	3%	2%	6%
Not Sure/ Other	9%	N/A	3%	10%	10%	11%	10%	5%	8%	11%	13%	14%	12%	18%

Note: Open ended responses have been coded into a consistent set of categories across waves. This question was not asked in Fall 2009 but has been asked in all of the other bi-annual NSEE surveys.

Question: "What is the primary factor that makes you believe that temperatures on earth are not increasing?"

Figure 3
Impact of Pope's encyclical on belief in climate change



Note: "No Impact" and "Not sure" responses are not shown.

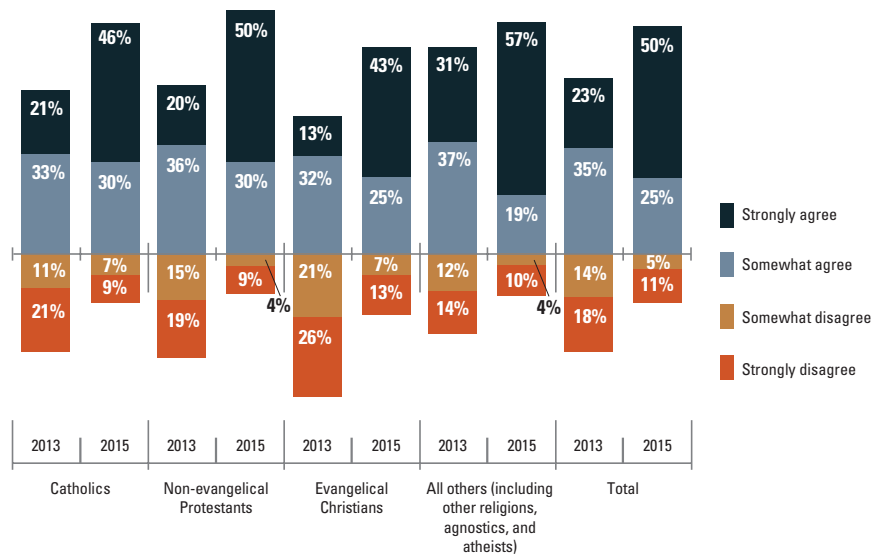
Question: "Which of the following best describes the impact that the Pope's encyclical on the environment has had on your thinking about global warming? Are you now... More convinced that global warming is happening and we should act; less convinced that global warming is happening and we should act; or has the Pope's announcement not changed your thinking about global warming?"



Morality, doubt in free market more often cited

Rather than citing religious beliefs, Americans are more likely to note their own moral convictions in explaining their attitudes about action to mitigate climate change. In the latest survey, an overwhelming 75% of Americans agree that “Rich countries like the US have a moral obligation to show international leadership by reducing their greenhouse gas emissions.” This is notably up from 58% who agreed with this statement just 2 years ago. Significant gains are evident across all Christian denominations, with smaller gains among non-Christians (see *Figure 4*).

Figure 4
Agreement that the US has a moral obligation to reduce greenhouse gas emissions, 2013-2015, by religious affiliation

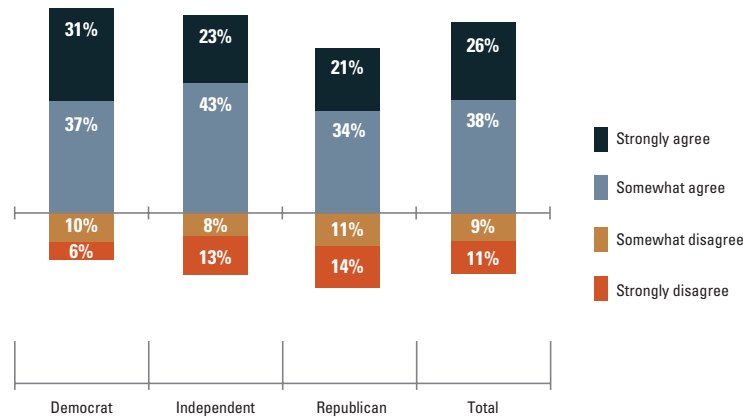


Note: “Not sure” responses are not shown.

Question: “For each of the statements that I read, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement... Rich countries like the US have a moral obligation to show international leadership by reducing their greenhouse gas emissions.”

In addition, a majority (63%) of Americans—and majorities of Americans of each religious affiliation—agree that the free market alone is ill-equipped to address climate change, a theme highlighted in the Papal encyclical. There are expected differences in agreement with this statement along party lines, although majorities of both Republican (55%) and Democratic (70%) respondents agree that there are limitations of the free market in addressing global warming (see *Figure 5*).

Figure 5
Agreement that the free market cannot by itself address climate change (2015)



Note: "Not sure" responses are not shown.

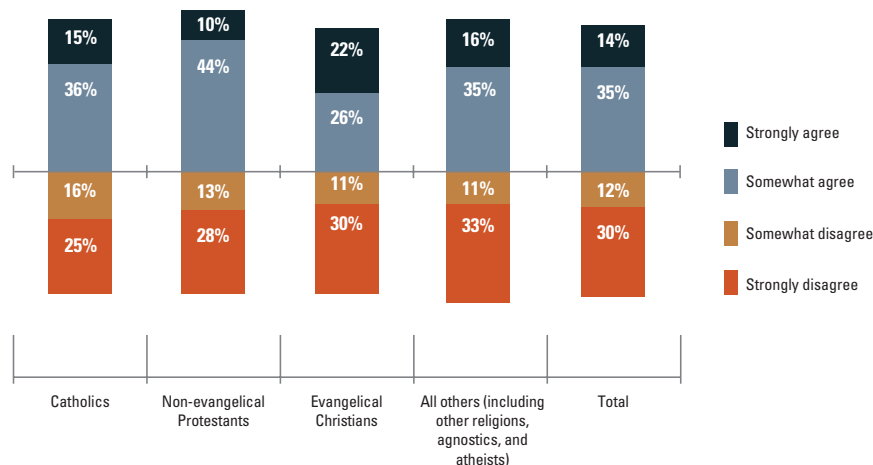
Question: "For each of the statements that I read, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement... That the free market cannot by itself address climate change."

Opinion split on the role of religious leaders in environmental issues

Fewer than half (49%) of Americans think religious leaders should discuss environmental issues within the context of their faith, with similar breakdowns across creeds (see *Figure 6*). Perhaps surprisingly, though, most (60%) Americans support Pope Francis' call to action to address global warming. This support is strongest among Catholics (69%) and non-evangelical Christians (66%), but even a plurality (46%) of Evangelical Christians support the Papal call-to-action (see *Figure 7*). Looking at the 21% of Americans who oppose Pope Francis' encyclical, this group includes roughly even numbers of those who doubt the existence of climate change and those who believe in global warming but do not think religious leaders should discuss environmental issues.

Consequently, only 6% of Americans (and 5% of American Catholics) say that their opinion of the Pope has worsened as a result of his encyclical, compared to 27% of Americans (and 36% of American Catholics) who say that their opinion of the Pontiff has improved (see *Figure 8*).

Figure 6
Agreement that religious leaders should discuss global warming within the context of their faith (2015)

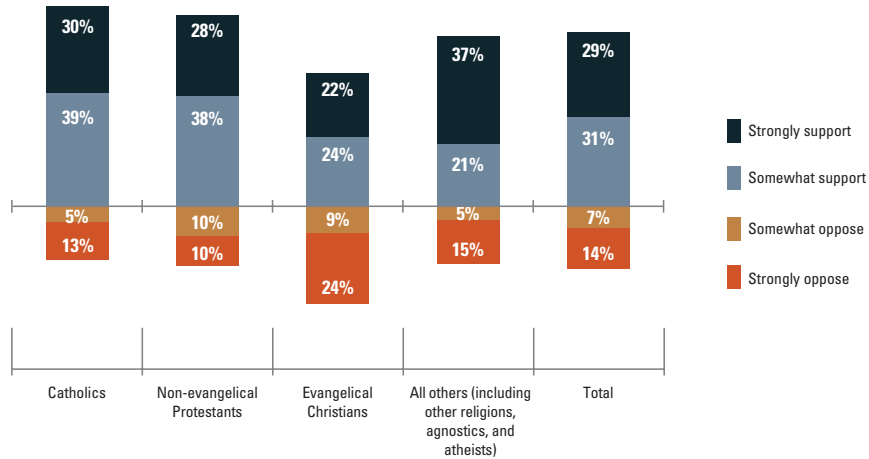


Note: "Not sure" responses are not shown.

Question: "For each of the statements that I read, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement... Religious leaders should discuss environmental issues, including global warming, within the context of their faith."



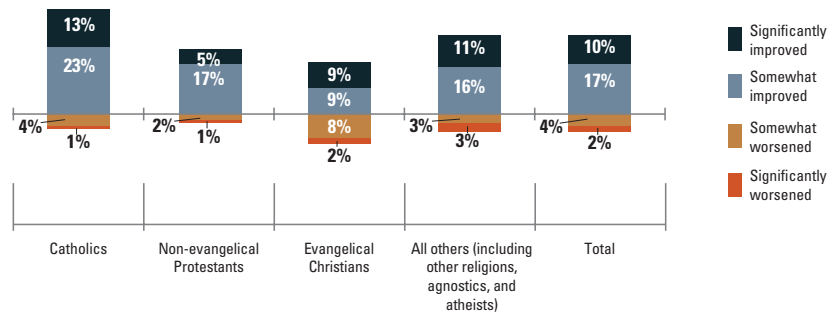
Figure 7
Support and opposition for Pope’s encyclical, by religious belief



Note: “Not sure” responses are not shown.

Question: “Now I would like to ask a few questions regarding Pope Francis and his positions on the issue of climate change. This summer the Pope released an encyclical that called for action to address the threats posed by climate change. In general do you strongly support, somewhat support, somewhat oppose or strongly oppose the Pope’s call to action to address climate change?”

Figure 8
Impact of the encyclical on American opinions about the Pope



Note: “No Change” and “Not sure” responses are not shown.

Question: “How has the issuing of his encyclical on climate change affected your opinion of the Pope, if at all? Would you say your opinion of the Pope has significantly improved, somewhat improved, somewhat worsened, or significantly worsened?”

Conclusions

Data from the last eight years show that acceptance of climate change among Americans varies by creed, with Evangelical Christians most consistently emerging as the most doubtful. In the past six months, however, Evangelical Christians have seen a dramatic rise in their acceptance of global warming, significantly narrowing the gap in acceptance along religious lines. Few Americans directly attribute their attitudes towards climate change to their faith and instead are more likely to point to moral convictions that the US, as a rich nation, has a moral obligation to address the problem. Similarly, fewer than half of Americans think that religious leaders should be discussing environmental issues in the context of their faith. Even so, Pope Francis' encyclical on the environment was seen as a positive, supported by a majority of Americans, some of whom said that they are now more convinced of global warming. The NSEE will continue to track acceptance of global warming by religious affiliation in coming years to determine whether Pope Francis' visit contributed to a temporary spike in acceptance of global warming or will have lasting effects on American attitudes towards climate change.

Methods

The following report contains the results of a telephone survey of 911 adult (age 18 or older) residents of the United States between September 2 and September 24, 2015. Respondents were interviewed in English on both landlines (353) and cell phones (558) by the staff of the Muhlenberg College Institute of Public Opinion (MCIPO) in Allentown, Pennsylvania on the Institute's Computer Aided Telephone Interviewing (CATI) system. Of the 558 cell phone respondents, 428 had no landlines in their household. Both the landline and cell phone samples were provided by the Marketing Systems Group (MSG), Horsham, Pennsylvania. Both landline and cell phones were chosen randomly from sampling frames of United States landline and cell numbers provided by MSG.

With a randomly selected sample of 911 respondents the margin of error for the surveys is +/- 3.5% at a 95% level of confidence. Margins of error for questions with smaller sample sizes will be larger. In addition to sampling error, one should consider that question wording and other fielding issues can introduce error or bias into survey results. The sample data has been weighted by age, race, educational attainment, income and gender to reflect 2013 population parameters for these factors provided by the United States Census Bureau. The calculation of sampling error takes into account design effects due to the weighting identified above. In order to reach a representative sample of adult Americans both landlines and cell phones are called up to 10 times. The response rate for this survey as calculated using the American Association of Public Opinion Research (AAPOR) RR3 formula is 12%. Due to rounding, the totals provided in tables may not equal 100. The full instrument will be available upon release of subsequent reports in summer 2015. The instrument was designed by Christopher Borick of Muhlenberg College, Barry Rabe of the University of Michigan, Erick Lachapelle of the University of Montreal, and Sarah Mills of the University of Michigan. For more detailed information on the methods employed please contact the MCIPO at 484-664-3444 or email Dr. Borick at cborick@muhlenberg.edu.

Funding, Financial Disclosure, and Research Transparency

The NSEE does not accept agenda-driven or advocacy-based funding. Funding for the NSEE surveys to-date has been provided by general revenues of the University of Michigan Center for Local, State, and Urban Policy, and the Muhlenberg College Institute of Public Opinion. The authors did not accept any stipend or supplemental income in the completion of the survey or this report.

The NSEE is committed to transparency in all facets of our work, including timely release and posting of data from each survey wave. A grant from the Office of the Provost at the University of Michigan will enable us to expand and accelerate this work, including providing online access to NSEE frequency tables and survey instruments, followed by our datasets.

Notes

1. Borick, C., Rabe, B. G., & Mills, S. B. (2015). *Acceptance of global warming among Americans reaches highest level since 2008*. Ann Arbor, MI: The Center for Local, State, and Urban Policy at the Gerald R. Ford School of Public Policy, University of Michigan. Retrieved from <http://closup.umich.edu/issues-in-energy-and-environmental-policy/25/acceptance-of-global-warming-among-americans-reaches-highest-level-since-2008/>.



Reports from Issues in Energy and Environmental Policy

- Acceptance of Global Warming Among Americans Reaches Highest Level Since 2008 (October 2015)
- Belief in Global Warming Among Americans Gradually Increases Following the Winter of 2015 (July 2015)
- Cap-and-Trade Support Linked to Revenue Use (June 2015)
- Widespread Public Support for Renewable Energy Mandates Despite Proposed Rollbacks (June 2015)
- Neighbors Diverge: An Explanation for the Differences in Silica Sand Mining Activity in Wisconsin and Minnesota (May 2015)
- Public Perceptions of Hydraulic Fracturing in Three Marcellus Shale States (May 2015)
- Acceptance of Global Warming Among Americans Moderately Increases in Late 2014 (February 2015)
- Public support for regulation of power plant emissions under the Clean Power Plan (January 2015)
- Public Opinion on Hydraulic Fracturing in the province of Quebec: A Comparison with Michigan and Pennsylvania (October 2014)
- Opportunity, Risk, and Public Acceptability: The Question of Shale Gas Exploitation in Quebec (October 2014)
- Shale Governance in the European Union: Principles and Practice (October 2014)
- Public Perceptions of Shale Gas Extraction and Hydraulic Fracturing in New York and Pennsylvania (September 2014)
- Public Views on a Carbon Tax Depend on the Proposed Use of Revenue (July 2014)
- American Acceptance of Global Warming Retreats in Wake of Winter 2014 (June 2014)
- Public opinion on climate change and support for various policy instruments in Canada and the US:
Findings from a comparative 2013 poll (June 2014)
- Environmental Policy in the Great Lakes Region: Current Issues and Public Opinion (April 2014)
- Shale Gas and Hydraulic Fracturing in the Great Lakes Region: Current Issues and Public Opinion (April 2014)
- Wind Energy Development in the Great Lakes Region: Current Issues and Public Opinion (April 2014)
- The Decline of Public Support for State Climate Change Policies: 2008-2013 (March 2014)
- Using Information Disclosure to Achieve Policy Goals: How Experience with the Toxics Release Inventory Can Inform Action on Natural Gas Fracturing (March 2014)
- State of the Debate: Natural Gas Fracking in New York's Marcellus Shale (January 2014)
- The Chilling Effect of Winter 2013 on American Acceptance of Global Warming (June 2013)
- Public Opinion on Fracking: Perspectives from Michigan and Pennsylvania (May 2013)
- NSEE Findings Report for Belief-Related Questions (March 2013)
- NSEE Public Opinion on Climate Policy Options (December 2012)

All IEEP reports are available online at: <http://closup.umich.edu/ieep.php>

The Center for Local, State, and Urban Policy

University of Michigan

Center for Local, State, and Urban Policy

Gerald R. Ford School of Public Policy

Joan and Sanford Weill Hall

735 S. State Street, Suite 5310

Ann Arbor, MI 48109-3091

The **Center for Local, State, and Urban Policy (CLOSUP)**, housed at the University of Michigan's Gerald R. Ford School of Public Policy, conducts and supports applied policy research designed to inform state, local, and urban policy issues. Through integrated research, teaching, and outreach involving academic researchers, students, policymakers and practitioners, CLOSUP seeks to foster understanding of today's state and local policy problems, and to find effective solutions to those problems.

web: www.closup.umich.edu

email: closup@umich.edu

twitter: @closup

phone: 734-647-4091



Regents of the University of Michigan

Michael J. Behm

Grand Blanc

Mark J. Bernstein

Ann Arbor

Laurence B. Deitch

Bloomfield Hills

Shauna Ryder Diggs

Grosse Pointe

Denise Illitch

Bingham Farms

Andrea Fischer Newman

Ann Arbor

Andrew C. Richner

Grosse Pointe Park

Katherine E. White

Ann Arbor

Mark S. Schlissel

(ex officio)