



Americans on the Global Warming Treaty
(Full text version)
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Overview

The US debate surrounding global warming continues to intensify as stances on action plans become part of US presidential primary debates and as congressional leaders further delay a ratification vote on the Kyoto Treaty signed by the Clinton administration in November 1998. Both Democratic presidential candidates strongly endorse the Kyoto Treaty, while both Republican frontrunners say they have serious reservations about the fairness and severity of the treaty.

At the same time, scientists seem closer to answering the question of whether global warming is indeed "real." In January 2000, an independent scientific panel organized by the National Academy of Science concluded that worldwide increases in the Earth's surface temperature are "undoubtedly real" and have been accelerating in recent decades (Washington Post, Joby Warrick, "Global Warming Is 'Real,' Report Finds", Jan. 13, 2000). A vocal minority of scientists still maintains that earth surface and atmospheric temperature changes are a natural trend and do not warrant drastic action. Additionally, a recent set of data countered one argument against emissions control that held that action would necessarily hinder America's economic growth. Data for FY 1998 revealed that, for the first time, carbon-dioxide emissions actually held steady while the US economy grew by 4%. "Previously, many economists argued that emissions and economic growth moved in lockstep" (Wall Street Journal, John Fialka, "Kyoto Treaty's Foes in U.S. Could Kill Pact Around the World," Nov. 19, 1999). The questions remain as to whether to take action now and in what form. While some prominent policymakers take a wait-and-see approach, others maintain that acting now will reduce the severity of consequences later.

Since 1997, 84 countries have signed the Kyoto Treaty, which committed 38 developed countries to make cuts of 5% to 8% below their 1990 levels of greenhouse gas emissions by 2008. Only 13 of the original signatories have ratified the Treaty. In November 1998, the signatories reconvened in Buenos Aires to continue work on a number of unresolved questions, some of which are the key to controversies in the United States, which produces about one-quarter of the world's greenhouse gas emissions. Another round of talks is scheduled for 2001. The two most prominent controversies have been:

- Whether developing countries will be required to limit their emissions as part of the treaty. Some developed countries (especially in Europe), as well as many developing countries, say developing countries should be exempt because their greenhouse gas emissions per capita are much lower and their economies are still undeveloped. The US disagrees on the basis that in the future these countries will contribute a significant and growing portion of emissions. The US Senate has passed a non-binding resolution stating that the US should not sign any agreement that does not require limits or reductions for all signatories.
- Whether to establish an international system for trading emissions rights. If developed countries like the US are able to fulfill some of their requirements by purchasing such rights, this would dramatically lower the costs of cutting emissions for the developed countries. The US has been

as strong advocate of such a system, while many voices inside and outside the US are dubious or critical.

- To find out more about how the American public feels about these issues, the Program on International Policy Attitudes conducted a study that included a comprehensive review of existing polling data, a poll of a sample of 648 randomly selected Americans in February-April 1998 (hereafter called the "April 1998 poll") and a poll of a sample of 800, conducted October 22-27, 1998. The margin of error ranges from 3.5 to 4%. Findings were weighted for educational level. Briefly stated, the findings suggest:
- A majority of Americans believes that global warming is a real problem that requires action and favors the Senate ratifying the Kyoto Treaty.
- A majority favors requiring developing countries to limit (though not necessarily reduce) their emissions, but nonetheless favors ratifying the Treaty if the developing countries do not agree.
- A majority is willing to accept increases of \$25 per month in household energy costs -- an amount sufficient to comply with the Treaty according to government estimates -- but only if the plan includes a regime for trading emissions.
- A majority initially opposes the idea of an emission rights trading regime, but shifts to support after hearing pro and con arguments and the economic trade-offs entailed.

Below is a report of the findings with emphasis on the 1998 PIPA polls.

Findings

1. An overwhelming majority of the US public embraces the idea that global warming is a real problem that requires action. However, this majority divides on the question of whether the problem is pressing and should include steps with significant costs or whether the problem can be dealt with more gradually through low-cost steps. Politicians who favor taking steps on global warming are viewed favorably. Awareness is high for global warming, but not for the Kyoto conference.

In April and October 1998, PIPA asked respondents to choose from among three statements about "what the countries of the world, including the US, should do about the problem of global warming." One statement expressed an argument frequently made by those who are skeptical about global warming: "Until we are sure that global warming is really a problem, we should not take any steps that would have economic costs." This position was massively rejected. Instead, an overwhelming majority chose one of two statements that described global warming as a real problem requiring attention. However, this majority was divided between those who believe that the effects of global warming will be gradual and only require low cost steps and those who regard the problem as pressing and thus requiring steps with significant costs (box 1).¹

Most Favor Acting on Global Warming, But Divide on Urgency

Until we are sure that global warming is really a problem, we should not take any steps that would have economic costs.



The problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually by taking steps that are low in cost.



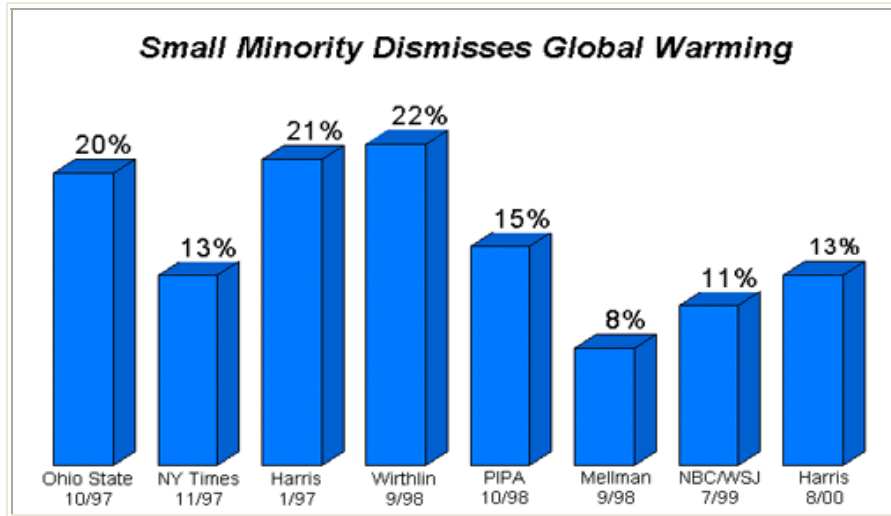
Global warming is a serious and pressing problem. We should begin taking steps now even if this involves significant costs.



Source: PIPA

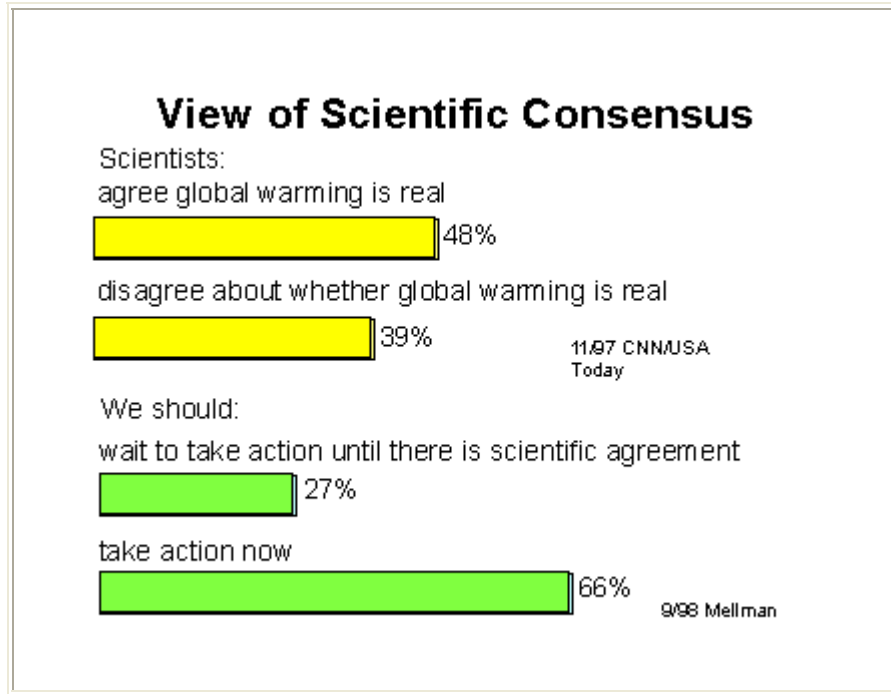
Only a Small Minority Dismisses Global Warming

Virtually all polls taken have found that only a very small minority -- less than a quarter of the public -- doubts the reality of global warming (box 2). In a July 1999 NBC News/Wall Street Journal poll, only 11% took the position that "concern about global climate change is unwarranted."² In a September 1998 Wirthlin poll, 74% embraced the belief that "global warming is real" even when the belief was defined in terms of global warming having "catastrophic consequences," while just 22% said they did not believe in it.³ In a December 1997 Harris poll, 67% said they "believe[d] the theory" of global warming, while 21% said they did not.⁴ An October 1997 Ohio State University survey asked about "the idea that the world's temperature may have been going up slowly over the last 100 years" and found that 77% thought "this has probably been happening," while 20% thought "it probably hasn't been happening."⁵ Likewise, 74% thought the world's average temperature would go up in the future, while 22% thought it would not.⁶ The September 1998 Mellman Group poll of voters found 70% thought global warming was a "very serious" (31%) or "somewhat serious" (39%) threat. Only 8% said that the threat of global warming is "not serious at all." When global warming was defined for respondents, the percentage saying that the problem is serious went up another 4-10%.⁷



Interestingly, the public has arrived at this consensus about the existence of global warming even though only a plurality has the impression that scientists have come to a consensus on the question. In a November 1997 CNN/USA Today poll, respondents were asked what they believe is the most common scientific opinion on the subject of global warming. A 48% plurality thought that "most scientists believe that global warming is occurring," while 39% thought "most scientists are unsure about whether global warming is occurring or not."⁸ However, the perception of a consensus is dramatically up from 1994, when in a poll by Cambridge Reports just 28% thought that "there is a consensus among the great majority of scientists that global warming exists and could do "significant damage" while 58% said that scientists are divided on the existence of global warming and its impact. The number who believed most scientists think global warming does not exist was virtually unchanged -- 8% in 1994 and 7% 1997.⁹

This perceived lack of scientific consensus, however, does not mean that Americans want to wait for further research before taking steps. By more than a two-to-one margin, the majority favors taking steps now (box 3).¹⁰



Economic Argument Against Action Unpersuasive

Most Americans are not persuaded by the argument that taking action to reduce global warming will incur unacceptable economic costs. Asked to choose between two statements in a January 1999 Zogby poll of likely voters, only 24% opted for the one that said, "The US (United States) should avoid any Global Warming treaties that put the US at a competitive disadvantage. Taking drastic steps to reduce fossil-fuel emissions could be bad for our economy and way of life." Rather, 63% opted for the strongly stated argument that "Global warming is a serious threat. We should take all necessary actions to cut down on fossil-fuel emissions and cooperate with other nations to make that happen."¹¹

Other polls also have found Americans to be generally not persuaded by the fear that efforts to protect the environment will pose unacceptable costs. Presented two statements in a January 2000 CNN/USA Today poll, 70% opted for the one that said, "Protection of the environment should be given priority, even at risk of curbing economic growth." Only 23% opted for, "Economic growth should be given priority, even if the environment suffers to some extent."¹² Some of this readiness, though, may be rooted in optimism that the economic costs of environmental protection do not have to be severe. An overwhelming 83% said it is "possible to have both a growing economy and a healthy environment" in an April 1999 Rasmussen poll.¹³

Majority Divided Between Moderate and Urgent Response

Similar to the PIPA 1998 findings, other polls have found most Americans divided between those who see the problem as requiring a moderate response and those who have a greater sense of urgency. A September 1998 Mellman Group poll of voters found that only 8% thought "global warming will not happen," while 26% thought that global warming would happen in the future and 57% thought "global warming is an environmental problem that is happening now."¹⁴ A November 1997 New York Times poll found only 13% thought "global warming won't have a serious impact at all," while 43% thought "the impact of global warming won't happen until sometime in the future" and 23% thought it is

"causing a serious impact now."¹⁵ Apparently, the New York Times poll found a lower number saying that the impact was occurring in the present because it described the impact in the present as "serious."

Those who take the middle position that global warming's impact will not be felt until some time in the future are not necessarily saying they think action should be put off. In the above-mentioned 1997 New York Times poll, the 43% who took the more moderate position that "the impact of global warming won't happen until sometime in the future" were then asked whether it was necessary or not to "take steps to counter the effects of global warming right away." Eighty-one percent of this group (35% of the full sample) thought immediate steps were necessary.¹⁶

When respondents are not given a middle option and simply asked to choose between two options, a much more modest majority or even just a plurality shows a readiness to embrace the need to take action on global warming. In an April-May 1999 Environics poll, respondents were presented the following question,

As you may know, scientists are uncertain how much impact human activities have on the world's climate. Some people say that we should not take major action to reduce human impacts on climate until we know more, because of the great economic costs involved. Other people say we should assume the worst and take major action now to reduce human impacts on climate, even if there are major costs.

In this question, the option in favor of action is portrayed as involving "great economic costs" based on a premise of "assum[ing] the worst." The question also makes the factually questionable assertion that "scientists are uncertain" about the human role in global warming. In this context, just 48% endorsed taking major action, while 45% were opposed.¹⁷ Similarly, in a September 1998 Research/Strategy/Management poll, 55% chose the one in favor of the need to take action ("we know enough and should take action now"), while 42% chose the one in favor of first doing more research ("we don't know enough and should do nothing until we know more").¹⁸ In the August 1997 Mellman Group poll, given two options, 56% of voters thought "President Clinton should take action on global warming now, because the problem is only getting worse and we cannot afford to take a wait-and-see approach," while 30% thought "President Clinton should not take action on global warming because there are too many real problems that need attention right now."¹⁹

Given Two Options, Majority Is Lower

Which opinion is closer to yours, we know enough and should act now, or we don't know enough and should do nothing until we know more?

Act now



Do nothing until we know more



Research/Strategy/Management (September 1998)

This inclination to a moderate position on the issue can also explain seemingly anomalous findings. An October 1997 NBC/Wall Street Journal poll offered three options and found a strong majority of 59% favoring the middle option: "We don't know enough about global climate change, and more research is necessary before we take action." Taken literally, this may seem to suggest a majority favoring no action, but the only other options were the strong statement that "global climate change is a serious problem and immediate action is necessary," chosen by 28%, or the statement that "concern about global climate change is unwarranted," chosen by just 9%.²⁰ In the context of the other available data, it appears more likely that the majority was looking for a middle position that expressed a need for some action, in this case research, while rejecting both a position of alarm and of non-concern. Also as discussed below, when NBC/Wall Street Journal used the same question but added a fourth option in a June-July 1999 poll, the percentage favoring the research-only position dropped from 59% to 32%, and a majority favored taking action.²¹

Even in a question with two response options, if the one favoring strong action is portrayed as extreme or possibly rash, a strong majority will reject it. In a November 1997 poll just 15% supported the one calling for "immediate steps" when they were described as being taken "even if environmental benefits are not assured and costs would be high." Instead, an overwhelming majority of 78% opted for a more moderate position that the US should "continue voluntary programs now underway" and "do more research."²²

This moderate response to global warming is also apparent from questions that asked respondents to prioritize global warming within a set of other current environmental issues. In a September 1998 Wirthlin poll, when asked to rate a list of 14 environmental problems in terms of how high a priority they are, respondents ranked global warming 13th.²³ However, the spread between the items was not very large. The highest-rated item -- water pollution -- was given a mean rating of 8.8 while global warming was rated 6.5 (with 1 being a low priority and 10 being a high priority). Similarly, in a March 1999 Gallup poll, given a list of six environmental issues and asked to say how much they worried about it, only 28% said they worried about global warming "a great deal" -- the lowest percentage of the

six issues.²⁴

Finally, there is one more anomalous poll finding which appears to suggest that only a bare majority is willing to support taking action now. As mentioned, in July 1999, NBC News/Wall Street Journal asked a question that offered four response options. Only 51% endorsed positions favoring action with 23% choosing "Global climate change has been established as a serious problem, and immediate action is necessary" and 28% choosing "there is enough evidence that climate change is taking place and some action should be taken." Thirty-two percent chose "we don't know enough about global climate change, and more research is necessary before we take any actions" and 11% chose "concern about global climate change is unwarranted."²⁵ On its face, this suggests only a bare majority favors taking action now because the question did offer a moderate action option. However, it is important to remember that when respondents choose an option they are not necessarily endorsing every part of the statement but may choose it because they feel strongly about one part of it. Some of those who chose the option "we don't know enough about global climate change, and more research is necessary before we take any actions" may have been seeking to emphasize the importance of research and were not necessarily endorsing the point about delaying any action. Other data suggests that this is likely. As discussed above, when Mellman asked in September 1998, "Do you think we should wait to take action on global warming until there is agreement in the scientific community, or do you think we should take action to stop global warming now?" 66% favored taking action now, while 27% favored waiting.²⁶

These findings do, however, call into question whether among the 83% in the October 1998 PIPA study who said they were willing to take at least low cost steps to address global warming, some of them might have preferred to limit those steps to research. The September 1998 Mellman question found only two-thirds ready to proceed with taking action now instead of waiting for the research to produce scientific consensus. However, the support for action in response to the Mellman question may also have been the question's implicit assertion that there is no agreement in the scientific community on global warming.

Support for Politicians Who Seek Action

Americans tend to feel positively toward politicians who express concern and seek action on global warming. In the Mellman Group's September 1998 poll, 58% said they would view "a candidate for political office" who "spoke out in support of reducing the threat of global warming" as "forward-looking and speaking to a real problem," while only 23% said they would view such a candidate as "too interested in environmental issues and ignoring bigger problems."²⁷

Positive Response to Politicians Who Support Action

"If candidate for political office spoke out in support of reducing the threat of global warming would you think he was..."

forward-looking and speaking to the real problem



too interested in environmental issues and ignoring bigger problems



Mellman (September 1998)

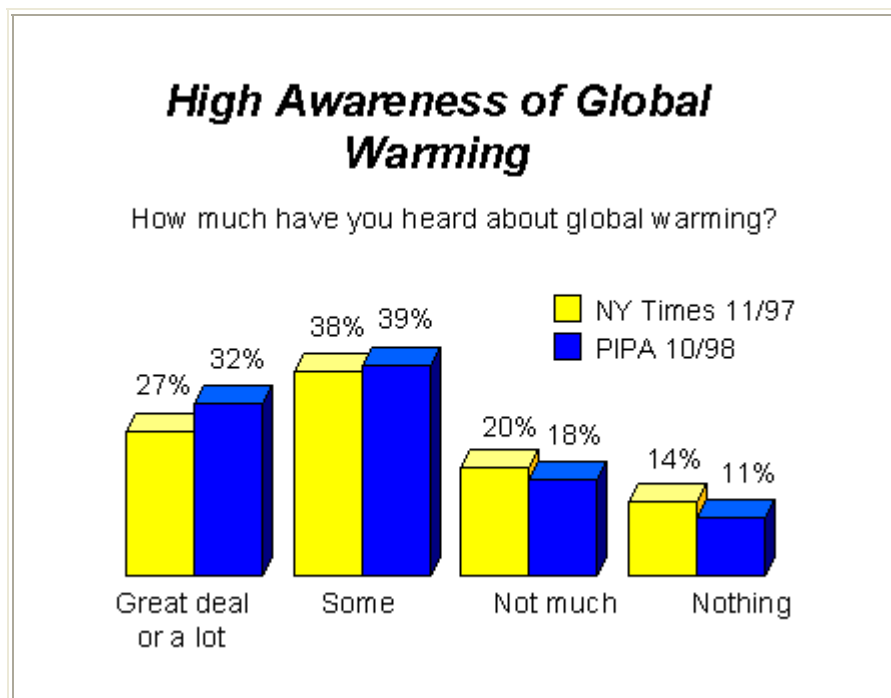
However, it does not appear that most voters regard this issue as decisive. When asked to assume that "you agreed with a particular candidate on most issues and were of the same political party, however, that candidate voted against efforts to reduce the threat of global warming," a plurality of 41% said they would still be likely to vote for that candidate, while 38% said they would not. Nonetheless, the fact that 38% said they would change their vote over this issue is still quite high.²⁸

This positive response to candidates who support taking steps on global warming has been in place for some time. In 1992, when Al Gore was a vice-presidential candidate, an overwhelming majority of 72% -- said that they felt more favorably about him because he "has spent much of his time in Congress working on environmental issues such as global warming." Only 5% said this made them look on Gore less favorably (Time/CNN, July 1992).²⁹

Awareness High for Global Warming, But Not For Kyoto Conference

Awareness of the global warming issue is relatively high. When PIPA asked in October 1998, 71% said they had heard "a great deal" (32%) or "some" (39%) about global warming, while only 29% said they had heard "not very much" (18%) or "nothing at all" (11%) about the issue.³⁰

In a November 1997 New York Times poll, 65% said they had heard "a lot" (27%) or "some" (38%) about global warming, while only 34% said they had heard "not much" (20%) or "nothing" (14%) about the issue.³¹ The August 1997 Mellman survey of voters found 71% had heard "a great deal" (25%) or "some" (46%) about global warming, while 29% said they had heard "not too much" (21%) or "nothing at all" (8%) about it.³² In a November 1997 CNN/USA Today poll, a 61% majority said it understood the issue of global warming "very well" (16%) or "fairly well" (45%), while 38% felt they understood it either "not very well" (28%) or "not at all" (10%).³³



However, awareness of the Kyoto conference itself has not been widespread. In PIPA's April poll study, just 25% had heard "a great deal" (5%) or "some" (20%) about the Kyoto conference, while 74% had heard "not very much" (39%) or "nothing at all" (35%).³⁴ A December 1997 Harris poll simply asked whether respondents were aware or not of the Kyoto conference on global warming; 55% said they were aware of it while 45% said they were not.³⁵ However, a September 1998 Wirthlin poll asked, "Have you heard of the Kyoto Protocol on global warming?" In response to this more technical-sounding question, only 14% said they had, while 86% said they had not.³⁶ In a subsequent question that gave some of the details of the conference, the number saying they had heard about the treaty rose to 31%, with 69% saying they had not heard of it.³⁷

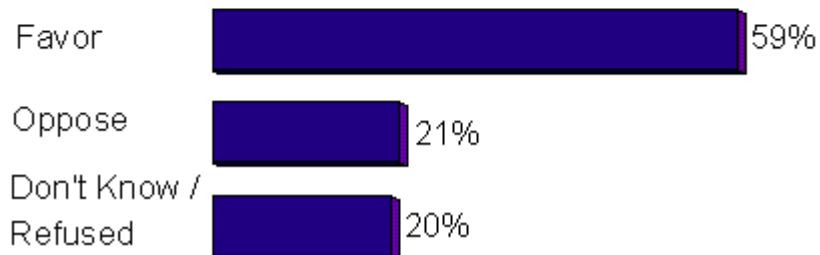
Curiously, awareness of the 1992 Rio de Janeiro "Earth Summit" conference was more widespread than was awareness of the 1997 Kyoto conference. In a July 1992 Wirthlin Group poll, 79% said they had heard something about the Rio conference while PIPA's corresponding figure for the Kyoto conference was 63%.³⁸ This may be partly due to the fact the Rio conference was attended by many heads of state, while the Kyoto conference was conducted by officials of lesser rank.

2. A majority of Americans favors Senate ratification of the Kyoto Treaty. A strong majority also supports the level of emissions cuts proposed, even when informed that the US had originally sought less-deep cuts, and a plurality leans toward deeper cuts.

In October 1998, respondents were given a few details about the Kyoto Treaty and asked whether they favored the US Senate ratifying it. A majority of 59% said they would favor it, with just 21% opposed (box 7).³⁹

Strong Support for Ratifying Kyoto Treaty

Late last year, there was a world conference in Kyoto, Japan on global warming. At this conference, the major industrialized countries—including the US—agreed that they would reduce their greenhouse gas emissions by 5 to 8% below the levels they were emitting in 1990. Just based on what you know, would you say you favor or oppose the Senate ratifying the Kyoto treaty, based on this agreement?



A September 1998 Mellman poll found 79% support for the Kyoto Treaty, with just 7% opposed.⁴⁰ Their percentage may be higher than the PIPA percentage for a number of reasons. The Mellman question said "the US agreed to reduce its emissions by 7% by the year 2010," while the PIPA question clarified that this reduction was below 1990 levels, not current levels. The Mellman poll mentioned that such reductions would not need to occur until 2010, while the PIPA question did not give a time frame. Also, the Mellman poll included only registered voters, which produced a sample with higher levels of education. Those with higher levels of education tend to be more supportive of ratification (See Appendix B).

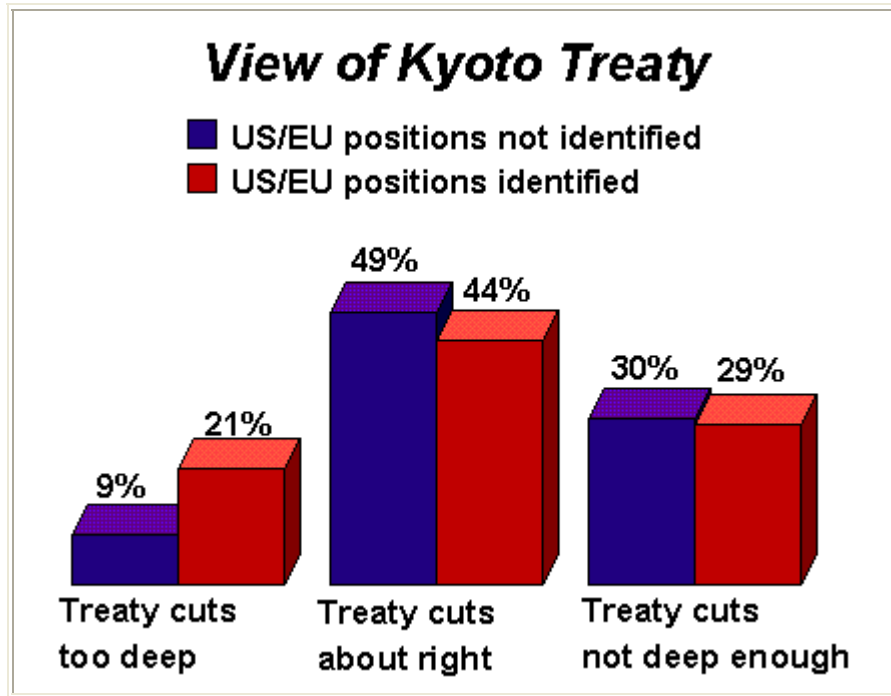
A strong majority also supports the level of cuts proposed in Kyoto. In PIPA's April 1998 poll, respondents were also asked to evaluate the proposed levels of cuts for the Kyoto Treaty. The Kyoto agreement was described to respondents as follows:

At the conference there was a dispute about how much to reduce the emission of gasses that produce global warming. The debate was about how much the industrialized countries should commit to reduce their emissions by about the year 2010. [Some] [The US] wanted to see reductions to the level these countries were emitting in 1990. [Others] [The European Union] wanted to see reductions of 15% below the levels these countries were emitting in 1990. At the conference in Kyoto, it was agreed that most industrialized countries would reduce their greenhouse gas emissions by 7-8% below 1990 levels.

As noted, for half the sample, the differing positions were described as the positions of "some" and "others," while for the other half, they were described as positions of the US (1990 levels) and the EU (15% below 1990 levels).

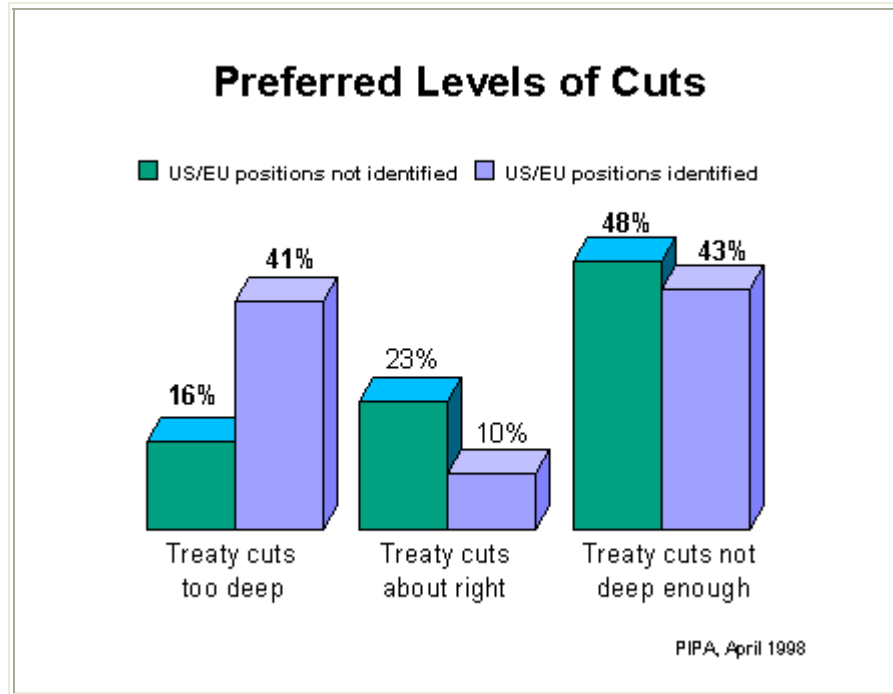
Even when the US position was identified, few favored it. Among the half-sample who did not hear the US and EU positions identified, only 9% thought the treaty's reductions in emissions are too deep; 30% thought they are not deep enough; and 49% thought the agreement is about right. Among the half-sample who heard the US and EU positions identified, support for the US position that had wanted less

deep reductions in emissions was 21%, support for the EU position that had sought deeper cuts was 29%, and 44% thought the agreement was "about right." Among the half-sample who did not hear the US and EU positions identified, only 9% thought the treaty's reductions in emissions are too deep; 30% thought they are not deep enough; and 49% thought the agreement is about right (box 8).⁴¹



Thus a strong majority expressed support for the Kyoto Treaty, even when informed that it called for significantly deeper cuts than the original US position. Among those not informed of the US position, 79% said the Treaty was either "about right" or "not deep enough." Among those who were informed, 73% held these positions.

When pressed to be more precise about their preferred levels, a plurality favors deeper cuts. Respondents who said the Kyoto Treaty was "about right" were asked in a follow-on question which way they leaned. Among those who did not have the US and EU positions identified, 8% (of the total sample) said they leaned toward feeling the reductions were too deep, raising the total to 16%; while 18% said they were not deep enough, raising the total to 48%. Twenty-three percent held to the view that the reductions are "about right." Among those who were informed of the US and EU positions, 20% migrated to the "too deep" position, raising the total to 41%; 14% migrated to the "not deep enough" position, raising the total to 43%; while 10% held to the "about right" position (box 9).⁴²



Thus, even when the US position was identified, a plurality of 43% leaned in favor of the European position calling for deeper cuts, though not quite as high as the 48% leaning in that direction when the positions were not identified. However, when the positions were identified, support for the position calling for less deep cuts was dramatically higher (41%) than when the US position was not identified (16%).

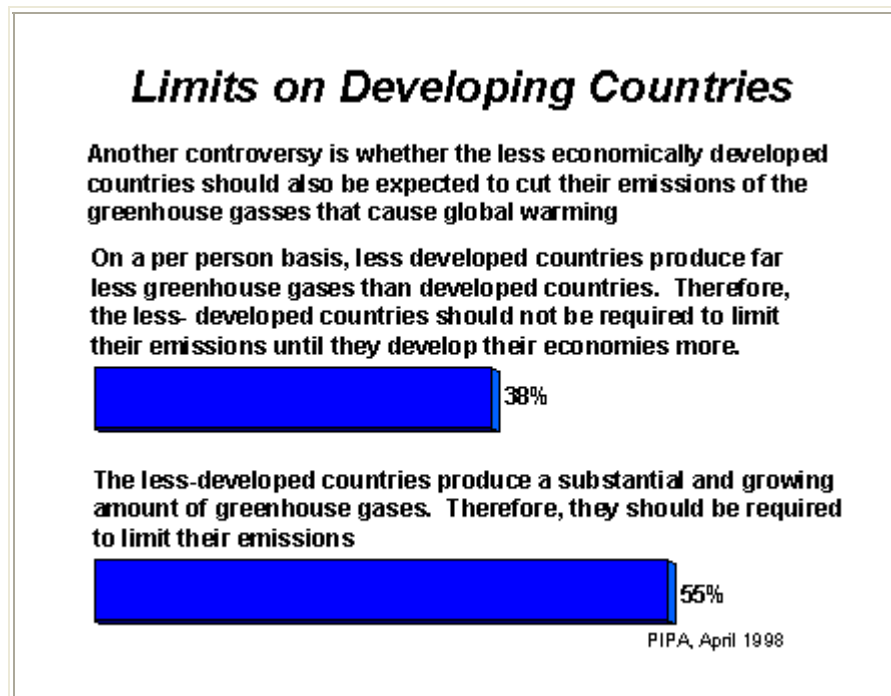
The Mellman Group has found similar results. In September 1998, after a description of the Kyoto Treaty as calling for the US to reduce its emissions 7% by the year 2010, 41% said this amount seemed about right, 9% said it goes to far, while 34% said it does not go far enough.⁴³ In August 1997, before the Kyoto conference, Mellman asked about a proposal for an international agreement on emissions cuts: "It has been proposed that the nations of the world agree to reduce their CO2 emissions by 20% by the year 2005 in order to significantly slow down the rate of global warming." Seventy-two percent said they favored this proposal, while 9% said they opposed it (19% were undecided).⁴⁴

In the week following the December 1997 Kyoto conference, Harris asked questions about the treaty to respondents who said they had been aware of the conference (55% of the total sample). Within this group, 74% said they approved "of the tentative treaty which would require industrialized countries to reduce their emissions of carbon dioxide and other gases to below the 1990 level of emissions" (21% disapproved); 72% of this group found the agreement either "about right" (41%) or "not strict enough" (31%), while 18% said the agreement was "too strict."⁴⁵

3. A majority believes that the developing countries should be expected to limit their greenhouse gas emissions, but a majority feels these countries should not have to reduce emissions. If the developing countries do not accept such limits, a majority nonetheless favors proceeding with the treaty. If the developing countries are willing to limit their emissions, an overwhelming majority would support providing technology and training to help them.

In April 1998, respondents were told: "Another controversy is whether the less-economically developed

countries should also be expected to cut their emissions of the greenhouse gasses that cause global warming." Respondents were then offered a choice between two statements. One statement presented the position taken by many developing countries: "On a per-person basis, less-developed countries produce far less greenhouse gases than developed countries. Therefore, the less-developed countries should not be required to limit their emissions until they develop their economies more." Only a minority -- 38% -- chose this statement. A majority of 55% preferred the opposing argument: "The less-developed countries produce a substantial and growing amount of greenhouse gases. Therefore, they should be required to limit their emissions" (box 10).⁴⁶



However, in the October 1998 poll, it became clear that a large majority did not expect developing countries to reduce their emissions. Respondents were given a question with three response options. A minority of 31% chose the option of requiring cuts. A majority of 64% either chose the option of requiring that the developing countries minimize the rate of the growth of their emissions (45%) or of not requiring any limits (19%). At the same time, an overwhelming majority of 76% wanted to require some kind of limits either by cutting emissions (31%) or minimizing the growth of emissions (45%) (box 11).⁴⁷

Attitudes on Requiring Limits on Developing Countries

The less-developed countries produce a substantial and growing amount of greenhouse gas emissions. Therefore they should be required to CUT their emissions.

 31% agree

On a per person basis, less-developed countries produce far less greenhouse gas emissions than more-developed countries. Therefore, they should NOT be required to limit their emissions until they develop their economies more.

 19% agree

Because the less-developed countries are poor and produce far lower emissions per person, they should not be required to cut back. But they should be required to MINIMIZE the increase of their emissions through greater energy efficiency.

 45% agree

Other recent polls from other organizations strongly confirm that strong majorities think developing countries should be expected to limit their emissions. However, in all cases the question was presented with only two options, thus not allowing the respondent to distinguish between the requirement to reduce or to limit. In a November 1997 Pew Research Center poll, only 19% concurred with the view that "since poorer countries did not cause much pollution, they should not have to bear as much of the burden in dealing with global warming," while 70% concurred with the view that "every country, rich or poor, should make the same changes now in order to limit future global warming, no matter how much of the pollution they created originally."⁴⁸ In a USA Today/Sankei Shimbun October 1997 poll, 73% of US respondents said "The same energy regulations to reduce global warming should apply to all countries around the world," while just 21% thought "There should be strict energy regulations for the United States and other advanced countries, and less strict regulations for Third World countries that have not yet achieved economic development."⁴⁹ Finally, a November 1997 Charlton Research poll asked respondents to agree or disagree with this statement: "Global warming concerns need to be addressed on a global scale by all countries including China, India, and Mexico and not just by a select few countries such as the US and Europe." An overwhelming 89% agreed (72% strongly), while only 8% disagreed.⁵⁰

Readiness to Ratify Even Without Limits on Developing Countries

Even if the developing countries do not agree to limits, a majority of 53% feels the US should nonetheless sign the Kyoto Treaty -- contrary to the position of the US Senate. Given that 59% initially approved of ratification, it appears that support for the treaty is only diminished 6% if the developing countries refuse to accept limits (box 12).⁵¹

Support for Kyoto Treaty even Without Limits on Developing Countries

At present, some less-developed countries feel that they should not have to commit to limits on their emissions until their economies are more developed. If these countries refuse to make such a commitment do you think

The more-developed countries should proceed with the Kyoto Treaty with as many countries as will commit to limits



The US should refuse to sign the Kyoto Treaty until all the less-developed countries commit to limits



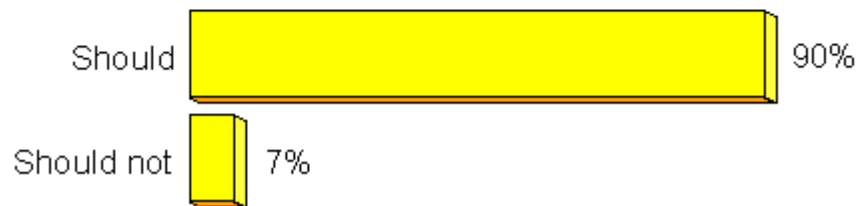
Other polls have also found that the majority feels the US should take steps to reduce global warming -- a less specific action than ratifying the Kyoto Treaty -- whether or not it succeeds in getting other countries to take steps. The November 1997 CBS/New York Times poll asked those who had heard something about global warming (85% of the sample): "Should the United States take steps now to cut its own emissions of greenhouse gases, regardless of what other countries do, or should the US wait for many countries to agree to take steps together to cut down on greenhouse gases?" An overwhelming 76% said the US should take steps regardless of what other countries do.⁵² In a September 1998 Mellman poll, 66% said the US "should take action to reduce its carbon dioxide emissions regardless of what other countries do," while another 14% said it should agree to do so "as long as other industrialized countries also agree to reduce." Only 11% said the US should reduce "only if all the other industrialized and all the developing countries agree to reduce," while 5% said the US "should not take any action to reduce."⁵³

Readiness to Give Assistance

In the April 1998 poll, respondents were asked, "If the less-developed countries are willing to limit their emissions, do you think the developed countries should provide the technology and training necessary to help them make their industries less polluting?" A nearly unanimous 90% said that the developed countries should provide this technology and training (7% said "should not") (box 13).⁵⁴

Overwhelming Support for Providing Assistance to Developing Countries

If the less-developed countries are willing to limit their emissions, do you think the developed countries should provide the technology and training necessary to help them make their industries less polluting?



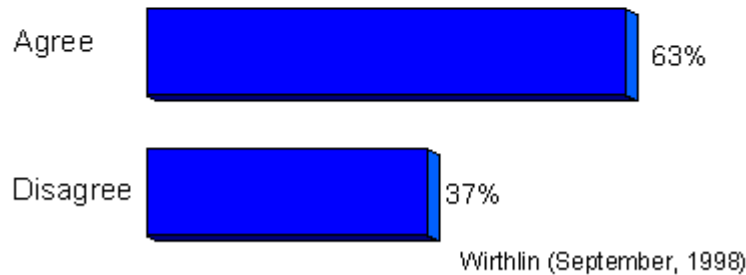
Even when placed in the context of foreign aid, assistance for environmental purposes does well. In PIPA's January 1995 poll, respondents were asked their views on ten different categories within the US foreign aid budget and told how much money went to each. For "environmental aid to poor countries to help them preserve their environment and to reduce pollution, especially pollution that may contribute to global warming," 79% wanted to either maintain (41%) or increase (38%) spending. Only 20% wanted to cut it. Environmental aid was the fourth most popular form of foreign aid -- after child survival programs, the Peace Corps and humanitarian relief. Only 20% wanted to cut environmental aid.⁵⁵

4. Americans show a readiness to accept a moderate increase in their energy costs to deal with the problem of global warming and to comply with the Kyoto Treaty. A strong majority would accept increases in energy costs of \$25 per month per household, but a plurality would not accept \$50 a month. Overall, Americans show an optimism that reducing greenhouse gas emissions can be achieved without a harmful economic impact and that technological innovations will be effective.

Overall, Americans show a readiness to accept some increased costs to deal with environmental problems. In a September 1998 Wirthlin poll, 63% agreed with a strikingly unequivocal statement in favor of accepting costs (box 14).⁵⁶

Acceptance of Costs for Environment

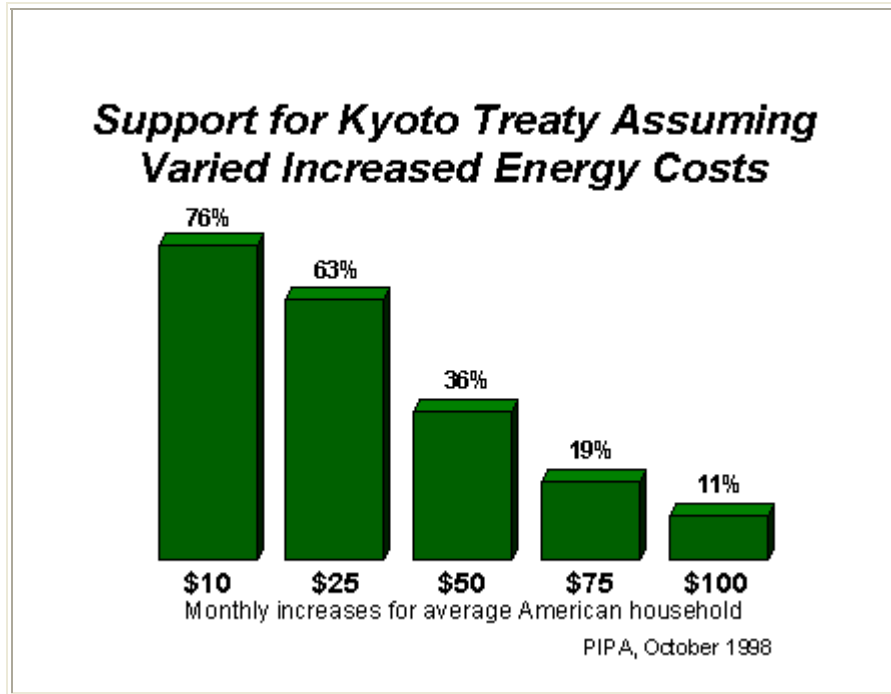
Protecting the environment is so important that requirements and standards cannot be too high and continuing environmental improvements must be made regardless of cost.



Shortly before the 1992 Rio conference -- at the time the Rio Treaty was under consideration -- 58% said then-President Bush should "sign the treaty if it harms our economy now, but helps the environment in the long run" (26% opposed; USA Today).⁵⁷ The same number expressed support even if it "would increase the cost of gasoline and electricity(33% opposed).⁵⁸

Various organizations have attempted to estimate how compliance with the Kyoto Treaty would impact the costs of energy for the average American household. Estimates vary, primarily according to assumptions about how much the US would be able to fulfill some of the requirements through making reductions in other countries (See Appendix A).

To find out how Americans would respond to these costs, PIPA asked respondents how they would feel "if in fact it appears that it would cost an extra \$50 a month for an average American household" (This amount was chosen as representing a middle point among current estimates. See Appendix A). A plurality of 52% said it would oppose signing the treaty at this presumed cost level, with 36% saying it would be acceptable. Those who said they were opposed or were unsure were asked how they would feel about \$25, and then \$10. Those who were ready to accept \$50 were asked about \$75, and then \$100. As shown in the box below, strong majorities were ready to accept costs of \$10 or \$25 while only small minorities were ready to accept costs of \$75 or \$100 (box 15).⁵⁹



Other polls also have found a significant willingness to incur costs toward reducing global warming even when the cost is quantified in concrete terms. In a September 1998 Mellman Group poll, majorities were willing to pay an extra \$5 (73%), \$10 (75%) or \$20 (64%) monthly "to buy environmentally clean energy such as solar and wind power from your electric utility company in order to cut down on emissions of carbon dioxide and reduce the threat of global warming."⁶⁰ Similarly, a September 1997 Ohio State University National Survey found 68% said they were willing to pay more for energy to reduce pollution, with 51% volunteering an amount of \$10 or more per month.⁶¹

A September 1998 Wirthlin poll even found that a strong majority did not back away from a possible increase in costs of \$1,000 a year per household. Presented a description of the attitudes of two hypothetical individuals, only 39% said they were more like the one described as "worried" that compliance with the Kyoto Treaty "would add up to more than \$1,000 a year for the average American household." Sixty percent said they were, instead, more like an individual who "believes that some increases in the cost of gas, energy and consumer products are expected and worth the price if it can reduce the threat of global warming."⁶²

As the chart below illustrates, Americans even show a willingness to pay more for the price of gasoline, provided that it is not presented as a tax increase. A November 1997 Pew poll found 73% willing to "pay 5 cents more per gallon of gasoline if it would significantly reduce global warming." Sixty percent said they would be willing to pay 25 cents more.⁶³ However, in the August 1997 Mellman poll, only 48% favored "increas[ing] the tax on gasoline by 10 cents per "gallon" (emphasis added) (box 16).⁶⁴

Increases in Cost of Gasoline

Willing to "pay 5 cents more per gallon of gasoline if it will significantly reduce global warming"



Willing to "pay 25 cents"



Pew (November 1997)

Favor "increas[ing] the tax on gasoline by 10 cents per gallon"



Mellman Group (August 1997)

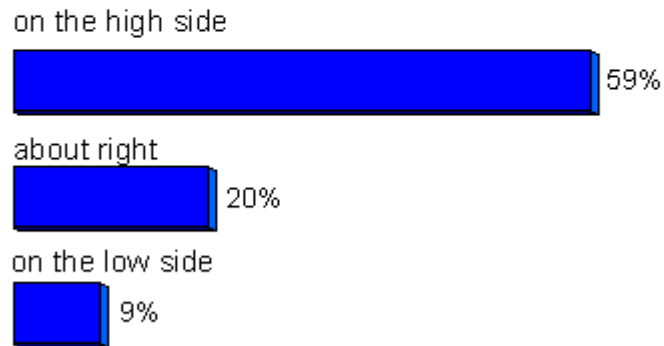
Optimism About Economic Impact

On the surface, it may seem inconsistent that the majority of the public believes global warming is a serious problem and only a minority is willing to take steps that are costly. However, this is not really a contradiction if the majority assumes that the problem can be dealt with at a moderate cost and without real harm to the economy. And, indeed, this does appear to be the case.

In the October 1998 PIPA poll, before respondents were asked if they would accept a certain level of costs, they were asked: "Do you tend to feel that this estimate [\$50 a month] is on the high side, on the low side, or approximately correct?" A strong majority of 59% said they thought it was on the high side, while only 9% said it was on the low side and 20% said that it was approximately correct (box 17).⁶⁵

Optimism that Cost Will Be Low

Do you tend to feel that this estimate of \$50 a month is...



PIPA, October 1998

This optimism has been demonstrated in other polls. In fact, in a number of polls, the majority has supported the view that making the necessary changes to reduce greenhouse gas emissions will even help the economy. In the November 1997 New York Times poll, when those who had heard something about global warming (85% of the sample) were asked to choose between two arguments, just 20% thought "reduc[ing] greenhouse gases will cost too much money and hurt the US economy," while 67% thought "the US economy will become more competitive" (box 18).⁶⁶

Optimism that Changes Will Help Economy

"efforts in the United States to reduce the release of greenhouse gases will cost too much money,"



"the US economy will become more competitive because these efforts will result in more energy efficient use, saving money in the long run"



NY Times (November 1997)

Similarly, in the August 1997 Mellman Group poll, only 18% agreed "stricter regulations on the emissions of carbon dioxide from the use of oil, coal and gasoline would go too far, and hurt the economy and cost jobs," while 60% preferred the statement "stricter regulations will help stop global warming, protect our health and safety, create new jobs through new technologies, and are worth the cost" (22% were not sure).⁶⁷ In the September 1998 Mellman poll, only 21% thought compliance with the Kyoto Treaty will "hurt the economy and cost jobs," while 38% said it will "help the economy by creating new jobs through new technologies," and 24% said it would have no effect.⁶⁸

This optimism is part of a broader confidence that addressing environmental problems need not be taxing on the economy. In a September 1998 Wirthlin poll, an overwhelming 75% took the position that economic growth does not have to be sacrificed for environmental quality.⁶⁹

This optimism appears to be rooted in the belief that technological innovations will be highly effective and that the best approach is for the government to promote them through mandates or incentives. In the August 1997 Mellman poll, respondents were asked to evaluate 14 different approaches for seeking the reduction of greenhouse gases. The four that were seen as being most likely to be effective all involved technological solutions. These approaches and the percentages that believed they would be effective included to "require higher fuel efficiency and cleaner-burning engines in all new cars" (88%); "require" or "provide tax incentives to" ... "utility companies to offer alternative energy services that are more efficient and environmentally clean, such as solar and wind power" (85% in both cases); "give cash incentives ... to individual households that upgrade to more energy-efficient appliances like refrigerators and air conditioners" (84%).⁷⁰

Consistent with this optimism, there is evidence that a substantial number of Americans believe that many of the needed innovations to deal with global warming economically already exist, but that these development and their distribution are being held back by business interests. Asked to choose between two statements in the August 1997 Mellman poll, 52% chose the following: "The technology already exists to solve many of the problems that cause global warming, but big businesses like the oil and auto industries are preventing them from reaching consumers because it is more profitable to keep things the way they are." Just 29% chose the statement, "Solving the problems that cause global warming will mean developing new technologies to reduce our use of oil, coal and gasoline, which will cost billions of dollars" (19% had no opinion).⁷¹

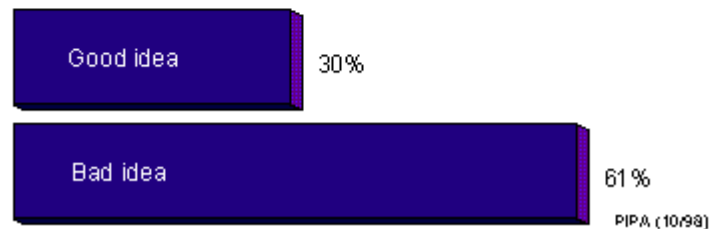
5. The level of additional energy costs most Americans find acceptable is sufficient to fulfill the requirements of the Kyoto Treaty (according to US government estimates), but only if the US can get credit for purchasing emission rights from other countries. When Americans are presented the idea of such an emissions trading regime, initially the majority responds negatively. However, when Americans are presented arguments on both sides of the issue as well as the actual cost tradeoffs, a strong majority favors such a regime.

According to US government estimates, by increasing energy costs the amount most respondents said was acceptable -- \$25 per month per household -- the US would be able to fulfill its Treaty requirements. However, this would only be true if the treaty allows the US to fulfill its requirements by also buying emissions rights from other countries where it is cheaper to control emissions, rather than making all the cuts in the US (See Appendix A).

However, in the April PIPA poll, most respondents reacted negatively when presented with the idea of such an emission rights trading regime (box 19).⁷²

Initial Opposition to Trading Emission Rights Regime

At the global warming conference, countries discussed whether there should be an international system of trading emissions permits. In such a system, a country which reduces its emissions even more than promised gets credits it can sell. Other countries could buy these credits instead of reducing their own emissions. Some say this system is a good idea because it would encourage reductions to happen where they can be done most cheaply and efficiently. Others say it is a bad idea because it would allow rich countries to pay for reducing emissions abroad while doing less to reduce them at home.



Other polls have also found a decided lack of enthusiasm for the idea. In the August 1997 Mellman poll, respondents were presented with a list of possible means to deal with global warming. One proposal was for the UN to "establish a worldwide limit on carbon dioxide emissions that is lower than current levels," with each member country "allocated the right to discharge a certain amount ... Countries could buy and sell these pollution rights to one another. This would allow them to choose between reducing their carbon dioxide emissions or paying to continue to pollute." Fifty-six percent opposed this idea, and 32% favored it. Domestic emissions trading systems do not do much better.⁷³ In the Mellman poll, when a proposal was presented for having a US domestic emissions trading rights system, support was about the same -- 57% were opposed and 29% favored.⁷⁴

However, other poll questions show Americans expressing more uncertainty about how they feel about such trading rights regimes. In a November 1997 New York Times poll, respondents were presented the idea of a domestic trading rights system as follows:

The government would issue permits that allow companies to give off a certain amount of greenhouse gases. Companies that do better than required would be allowed to sell at a profit their leftover permits to companies that do worse than required. These permits would give companies a financial reason to reduce their emissions of greenhouse gases. Do you think that is a good idea, a bad idea, or don't you know enough about it to say?

Forty-nine percent said they didn't know enough, 15% thought it a good idea and 17% thought it a bad idea.⁷⁵

Also, when asked to choose between a market-based approach and the standard alternative of a government regulatory approach, the public does not take a clear position. The August 1997 Mellman poll asked, "In trying to reduce the threat of global warming, do you think we should rely mainly on strict regulations to limit emissions of carbon dioxide, or do you think we should rely mainly on incentives that will cause the free market to discourage carbon dioxide pollution?" Neither way won

majority support. Thirty-seven percent chose "strict regulations," while 32% chose market incentives (9% were undecided, 21% didn't know).⁷⁶

Evaluating Pro and Con Arguments

To delve deeper into the public's attitudes, in October PIPA first presented respondents with a series of pro and con arguments for the general principle of the US getting credit toward its treaty requirements by making reductions in other countries where it is cheaper to do so (sometimes called 'flexible implementation'). Despite the initial negative reaction to an emission rights trading regime (a form of flexible implementation), the pro arguments as well as the con arguments received majority endorsements. This suggests that the issue elicits conflicting values in respondents and that the public has not come to a clear judgment on the issue.

Consistent with the initial resistance to the idea, an overwhelming majority of 79% found convincing the argument "The US is emitting more greenhouse gases than any other country. To try to buy our way out of the responsibility to clean up our share of the problem just isn't right."⁷⁷ Seventy-four percent also found convincing the argument "Instead of spending our money to clean up air in other countries, we should clean up our own air and get these benefits here at home."⁷⁸

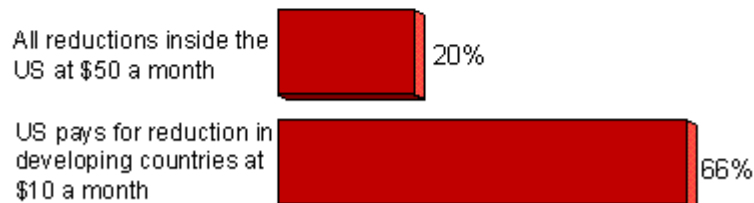
However, the arguments in favor of a trading regime were nearly as strong. An overwhelming 75% found convincing the argument in support of making reductions in developing countries because "If we help [the developing countries] start out with cleaner, more efficient technology now, it will be better for the world environment in the future."⁷⁹ Interestingly, a weaker majority (56%) found convincing the more self-interested argument that "Fulfilling the requirements of the Kyoto Treaty will increase the costs of energy and this will create hardships for some Americans. If we get credit for reducing emissions where it can be done most efficiently this will save Americans money on their energy bills."⁸⁰

Including Cost Tradeoffs

Naturally, it is not possible for respondents to fully evaluate the idea of making reductions in developing countries over making them in the US without attaching some economic assumptions. If nothing else, the ancillary benefits of making the reductions at home (e.g., cleaner air) make it more attractive unless the increased costs are significant. Using costs derived from a number of current estimates (see Appendix A), PIPA presented respondents with the following question that asked them to consider the question in the context of the economic tradeoffs entailed. By a three-to-one margin, the cheaper option with reductions made in the developing countries was preferred (box 20).⁸¹

Support for Making Cuts Elsewhere When Tradeoffs Considered

Some people have estimated that if the US is required to make all of the reductions inside the US, energy costs will have to go up about \$50 a month per household; While if the US gets credit for paying to help less developed countries reduce their emissions, the US can fulfill its treaty obligations while only increasing energy costs about \$10 per household. Assuming that these estimates are reasonably accurate [what] would you prefer to see ...

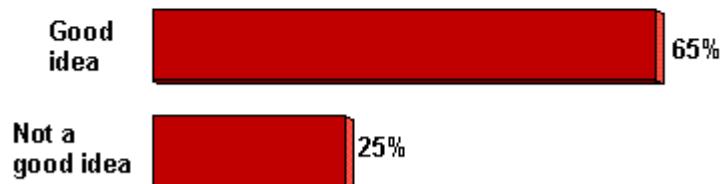


PIPA, October 1998

Respondents were subsequently presented different ideas for how to structure a flexible implementation regime for crediting developed countries for making reductions elsewhere. Once the majority of respondents had embraced the principle of flexibility, most also embraced the idea of an emissions trading regime.⁸²

Support for Trading Goes Up After Information

One idea is to give credits to the less-developed countries for the amount they keep their emissions below certain established levels. The developed countries could then buy these credits from the less developed countries if it would be a less expensive way to meet their treaty obligations. This would also create financial incentives in the less developed world to be more energy efficient.



PIPA, October 1998

Respondents were also presented another possibility for a flexible implementation regime that did not

but still constituted a majority:

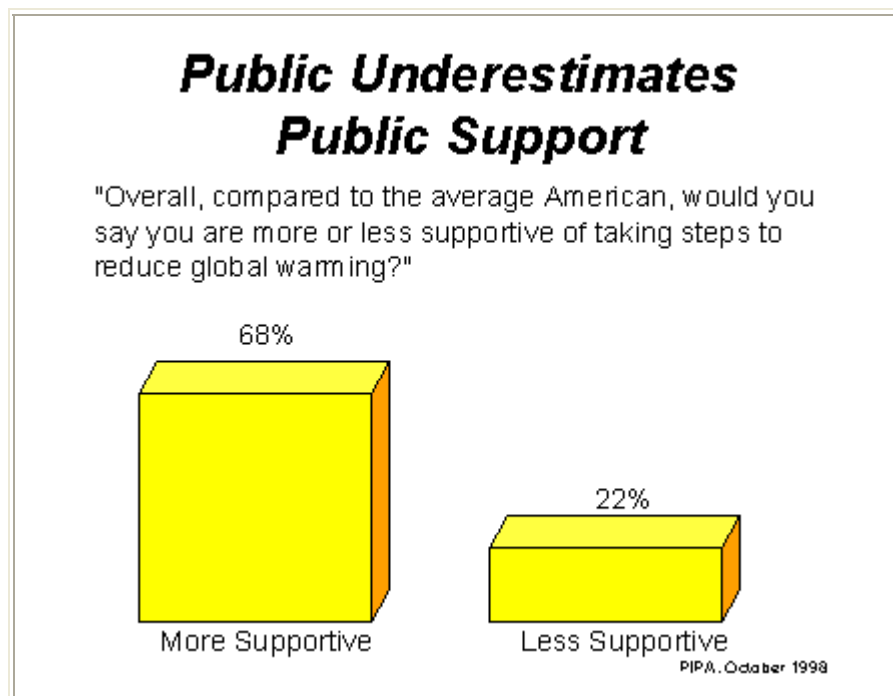
First a UN agency would determine how much it would cost to reduce emissions in less developed countries. Assuming this would be a less expensive way to make reductions, more developed countries could meet some of their treaty obligations by contributing to the UN agency. The UN agency would use the money to make reductions in the less developed countries.

Fifty-nine percent found this an attractive idea, with 32% opposed.⁸³

A related idea was also presented in the August 1997 Mellman poll and was found appealing, even when the cost benefits were not previously spelled out. Sixty-seven percent favored "requir[ing] companies to pay for the right to pollute at lower levels than they do now and use the money raised to develop new technologies that will reduce carbon dioxide emissions even further," while only 27% were opposed.⁸⁴ While this is not precisely an emissions trading regime, it is a form of flexible implementation. Presumably, this idea was particularly attractive because it emphasized developing new technologies. Clearly, the way that such an idea is framed is critical to its acceptance or rejection.

6. By a wide margin, most Americans believe they are more supportive of taking steps to reduce global warming than the average American. Thus it appears the public underestimates the public's support for taking such steps.

Respondents were asked whether they were more or less supportive of taking steps to reduce global warming than the average American. By a three-to-one margin they said they were more supportive.⁸⁵



This suggests the public underestimates public support for taking such steps. If the public perceived itself correctly, the percentage saying they are more supportive than average would be equal to those who say they are less supportive. But in fact, the ratio is about three-to-one in favor of the perception

analysts seem to assume that the public is less supportive of taking steps to address the problem of global warming than appears to actually be the case.

Conclusion

US government decisions about the global warming treaty are not simply obscure diplomatic actions remote from the daily lives of average Americans. Decisions made will likely have significant impact on Americans' lifestyles. Thus, the level of public support for such a treaty may well be more significant than for other diplomatic initiatives.

The findings of this study reveal that to mitigate the effects of global warming the American public is ready to take steps with real consequence -- more than is generally realized in much of the debate on the issue. The question of whether global warming is a real phenomenon is all but resolved among the American public; the only real debate is whether the problem requires steps with moderate or substantial costs. Given Americans' optimism about the possibilities of technological solutions, a plurality favors the idea that the costs can be moderate.

The public is also ready to weigh in on some of the central debates surrounding the global warming treaty signed in Buenos Aires and still subject to Senate ratification. One of these issues is the question of whether the US should ratify the treaty if the developing countries do not accept limits or reductions. The non-binding "sense of the Senate" resolution passed in 1997 stated:

[T]he United States should not be a signatory to any ... agreement ... which would mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties [the developed countries], unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period.

While an overwhelming majority does prefer an agreement in which the developing countries commit to limits (though it does not necessarily expect cuts), if developing countries do not commit to limits, a modest majority favors proceeding with the Kyoto Treaty with as many countries as will commit to limits. Thus it appears that the US Senate is out of step with the American public on this issue. If all the industrialized countries and probably a few developing countries would be prepared to commit to the agreement and the US Senate were to confront the decision of ratification, the question of public support may well become highly relevant.

Another controversy is the question of how much the US will be able to fulfill the requirements of the Kyoto Treaty by making reductions in developing countries rather than in the US, such as through an emission rights trading regime. Here the public's message is somewhat complicated. On one hand, Americans' support for the Kyoto agreement is 'underwritten' by majority willingness to personally accept a certain level of higher energy costs. However, this majority willingness has an upper limit: apparently somewhere above \$25 per month, but below \$50 per month, per household. According to various estimates, it appears this amount would be adequate to fulfill the requirements of the Kyoto Treaty, but only if the Treaty allows for a substantial amount of emissions trading. This is an issue that is still being debated among the signatories of the Kyoto Treaty, with the US strongly pushing to make high levels of trading acceptable.

In regard to the public, the complicating factor is that the public is initially resistant to the idea of an emission rights trading regime. Arguments critical of the idea receive overwhelming support. But when faced with the higher costs of Treaty compliance without a trading regime, Americans actually opt for

it. Of course, the complication is that this is the outcome of a process of deliberation that occurs within the process of answering poll questions. It does not yet exist fully formed in the public mind.

To resolve this complication two things could happen. It may be that strong voices opposed to a trading regime will effectively strengthen the already existing resistance to a trading regime to the point that the public will come to accept the higher costs of complying with the Treaty without a substantial amount of trading. The attraction to the local benefits of clean air and the moral discomfort with buying our way out of the problem are both significant. On the other hand, strong voices in favor of an extensive trading regime -- such as those from the administration -- may effectively emphasize the attraction of the cost benefits plus the altruistic value of participating in a worldwide effort to aid developing countries to improve the energy efficiency and cleanliness of their industries. Both self-interested and altruistic arguments would have to be made to the public, because both are present in Americans' initial rejection of a trading regime.

At this point, it appears the public has not yet -- to use a phrase from Daniel Yankelovich -- come to public judgment on this issue. The results of this poll suggest it is more likely that ultimately the public will opt for a trading regime.

In either case, though, it does not appear that these disputes are strong enough to derail support for proceeding with the Treaty. The belief that global warming is indeed a problem is quite robust and the public is likely to persist in its support for finding some kind of solution to the problem, even if significant costs are involved.

Acknowledgments

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Steven Kull, Clay Ramsay and Monica Wolford designed the questionnaire, analyzed the data and wrote the report.

I.M. Destler, Ivo Daalder and Fran Burwell contributed to the development of the questionnaire.

Karin Johnston managed the production of the report. **Elizabeth Dettner and Timothy McDonald**, assisted with the research and participated in the production of the report.

CCI Communication Inc. carried out the telephone interviewing. **Scientific Samples** supplied the random-digit sample.

The search of existing poll data was conducted with the aid of the **Roper POLL database**.

Appendix A: Cost Estimates of Treaty Compliance

Cost estimates for complying with the Kyoto Treaty used in this survey were generated from the analyses

of three government agencies, one research institution and three private firms. Since the objective was to assess respondent's sensitivity to increased energy costs, models were chosen that generated a price per ton cost of carbon permits that could be converted to household energy costs. This conversion was done on the basis of the household cost for energy presented in the Council of Economic Advisor's report. A linear relationship was assumed between the increasing carbon permit prices and increasing energy costs to the consumer. The seven organizations, taken together, used nine econometric models generating 18 different cost scenarios based on varying assumptions.

Much of the variation in cost estimates was due to the following factors:

- the level of international trading of emissions permits assumed;
- how efficiently high carbon energy sources are replaced by less carbon intensive alternatives;
- how much innovation in alternative energy sources and conservation could be expected and when substantial efforts might begin;

None of these models assumes that there will be any technological breakthrough in alternative energy sources. Only direct costs were considered here, both secondary costs and secondary benefits of an improved environment were excluded.

The final range of estimates of cost increases to the consumer, by government and nongovernment sources, were from less than \$10 per month to over \$100 per month per household. The average monthly cost estimated was approximately \$50.

Consistent with these estimates in the poll we began by asking respondents to evaluate the amount of \$50 a month per household as the cost of compliance with the treaty. This was also done to avoid possible bias introduced by starting either at a high cost or low cost. Based on their response respondents were subsequently asked about amounts as low as \$10--just above the most prominent estimate of the administration--and as high as \$100.

We also asked respondents to evaluate the tradeoff between paying \$10 a month with flexible implementation (i.e. with credit being given for reductions being made in other countries) and \$50 without. These numbers were derived as follows. Since the estimate of \$70-\$110 a month has been used widely by the administration as the estimate of the costs of compliance with a full regime of trading of emissions rights we used this as a baseline. This was rounded up to \$10 a month. Conservative estimates of the ratio between the costs of full trading and no trading are approximately 5 to 1. Thus \$50 was chosen as the monthly amount with flexible implementation. There are higher estimates of the absolute costs without trading, but we opted for the lower end of the spectrum so as to not make trading seem overly advantageous relative to the costs without trading. If we had used a higher baseline with trading or a higher multiple without trading the effect in favor of trading, in the poll responses, would probably have been stronger than it was.

Appendix B: Demographic Variations

Considering the contentiousness of the debate, what is striking about these analyses is the level of agreement among demographic groups in the American public regarding the issue of global warming. For almost all issues, only the strength of support varied between groups. The only issue on which there was actual disagreement among demographic subgroups was on whether the US should proceed with the Treaty even if less-developed countries do not commit to limits. What follows is a review of the significant variations that were found between groups. The reader should bear in mind that when results

are not presented it is because there were no reliable differences in the way groups responded. Most particularly it should be noted that there were no regional differences.

Age

The youngest age group more strongly supported Senate ratification of the Kyoto treaty (65%), than older Americans, with only a plurality of those over 65 (49%) supporting ratification. This trend was echoed in their response to the question of whether they supported going ahead with the Treaty even if the less-developed countries would not agree to limits. In this case, a strong majority, (61%) of those 18 to 29 still supported proceeding with the treaty, but support declined with increasing age with an equally strong majority of those over 65 (63%) saying the US should refuse to sign the treaty in that case.

There is a tendency for younger Americans to be more willing to accept a \$25-a-month increase in energy costs. Seventy percent of those 18 to 29 found this level acceptable, but the percent saying this level was acceptable dropped with increasing age. Only a plurality (47%) of those over 65 thought this increase was acceptable. Similarly, there was also a small but significant trend for more of the youngest respondents to endorse taking steps with costs to reduce global warming (89%) than in older groups, particularly compared to those over 65. The percentage of respondents endorsing taking steps with costs was lower among each successive age group, reaching 72% among the oldest group.

Party Identification

While a bare majority of Republicans (52%) felt the Senate should ratify the treaty, a strong majority of both Democrats (64%) and independents (62%) wanted the treaty ratified. When asked whether the US should proceed with the treaty even if the less-developed countries do not agree to limits, Republicans were split (48% favored /47% opposed) while a majority of both Democrats (58%) and independents (53%) still supported proceeding with the treaty. Similarly, a majority of Republicans (54%) were willing to accept a \$25-a-month increase in energy costs, while strong majorities of both Democrats (65%) and Independents (69%) were willing to accept such an increase. This is consistent with the lower level of support among Republicans (75%) for taking steps with some cost to deal with global warming (24% did not want to take any those steps that would have costs), this compares with overwhelming majorities of Democrats (87%) and independents (85%) that wanted to take steps (10% of Democrats and 14% of independents did not want to take steps that would incur costs).

Education

While a strong majority (67%) of those with advanced degrees support ratifying the treaty even if the less-developed countries do not agree to limits, support drops with decreasing education, with only 50% of those with a high school education supporting proceeding and a strong majority (62%) of those without a high school diploma feeling that the US should refuse to sign in this case. Also, while strong majorities (64% and 66%) of those with a high school diploma or higher level of education supported international emission permit trading when informed of the cost trade-off, support for trading in light of the savings was strongest among the lowest level of education, with 74% of those who did not graduate from high school choosing trading with the concomitant savings. Although there were no differences among groups with differing levels of education on the concept of emissions trading after no trade-offs were presented (61% opposed, 30% favored), when presented with information about costs, support for the general idea of emissions trading was higher among those without a high school diploma (77%) versus those with a diploma (64%) and those with a college degree or higher (61%).

Household Income

Not surprisingly, the percentage willing to accept a \$25-a-month increase in energy costs to reduce greenhouse gas emissions rises with income. While only a plurality (48%) of those with household incomes of \$15,000 or less would accept this amount, support rises with income, reaching 74% of those with incomes of \$100,000 or more. Surprisingly, however, the amount of increase a majority finds acceptable stays within the \$25 to \$50 range throughout the \$25,000 to over \$100,000 income range. Hence, it is unlikely that people are judging the affordability of this amount; rather they are probably assessing whether a cost level seems reasonable to abate greenhouse gases. Consistent with this, when people are asked whether \$50 a month per household as an estimate seems "on the high side" low or correct, there are no differences between different income groups.

Gender

Although a majority of both found a \$25-a-month increase in energy costs acceptable, more women (67%) than men (60%) found this amount acceptable. Similarly, while 79% of men felt that the US should take steps with costs to deal with global warming (19% endorsed only steps without costs), 87% of women wanted to take such steps (11% endorsed only steps without costs).

Level of Awareness

A strong majority (64%) of those who had heard some or a great deal about global warming favored the Senate ratifying the treaty, while only a plurality (45%) of those who said they had heard nothing or not very much about global warming supported ratification. When asked if the US should proceed with the treaty if the less-developed countries will not commit to limits, a majority (59%) of those who had heard some or a great deal wanted the US to proceed with the treaty, while a majority (56%) of those who had heard little or nothing about global warming felt the US should refuse to sign the treaty. Unsurprisingly, while a strong majority (68%) of those who had heard some or a great deal about global warming thought \$25-a-month was an acceptable increase in energy costs, only a plurality (50%) of those who said that they had heard nothing or not very much about global warming found such an increase acceptable to reduce greenhouse gases. Thus it appears that with greater awareness, Americans become more supportive of the Kyoto Treaty, more willing to move forward without the less-developed countries and more willing to accept increased costs.

Appendix C: How the Study Was Conducted

To prepare this study, PIPA conducted nationwide polls and a review of previous polls done by other organizations.

The Polls

The first poll was conducted in three waves-on February 13-17, 1998, March 15-17, 1998, and April 16-20, 1998-with a sample of 648 American adults. This was part of a larger study on European-American issues. The second poll was conducted October 22-27 with a sample of 800 respondents. Communications Center, Inc. interviewed respondents by phone on a CATI system, using a survey designed by PIPA. Respondents were chosen from all households in the continental United States by a random digit dialing sample generated by Scientific Telephone Samples. Interviewers observed gender quotas. The margin of error was +/- 3.5-4%.

The order and placement of some questions were varied to reduce any biases that might derive from question order. Data for this survey were collected using telephone interviews with Americans 18 years or older living in

the continental United States. The sample frame was generated, using random digit dial methods, by Scientific Telephone Samples. The telephone exchanges for this sample were drawn from residential working block exchanges excluding blocks assigned exclusively for business use, mobile phones, military or governmental purposes, and known business numbers. Selection from these working blocks was weighted according to the estimated number of working residential telephones within each. The exact number of RDD numbers generated per working block was calculated proportional to the estimated working residential telephones for the particular working block against the total estimated working telephones for the entire sampling frame. Estimates of household telephone coverage were derived from census data on residential telephone incidence and updated with information from local telephone companies and other sources and cross-checked with Bellcore files. For the purpose of this study, a working bank was defined as those with more than three known working residential telephones out of the 100 possible numbers within that block.

The sample was released for interviewing in replicates. Using replicates to order the sequence of calls eliminates potential calling order bias.

Review of Other Polls

PIPA performed a comprehensive review of publicly released polls on global warming issues. The primary sources were the Public Opinion Location Library database of the Roper Center for Public Opinion Research at the University of Connecticut, and the Inter-university Consortium for Political and Social Research.

Notes

^[1] Question: There is a controversy over what the countries of the world, including the US, should do about the problem of global warming. I'm going to read you three statements. Please tell me which statement comes closest to your point of view.

	October 1998	April 1998
-Until we are sure that global warming is really a problem, we should not take any steps that would have economic costs.	15	15
-The problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually by taking steps that are low in cost.	42	44
-Global warming is a serious and pressing problem. We should begin taking steps now even if this involves significant costs.	41	39
-Don't know/Refused	2	2

Organization: PIPA

Population Size: April=648, October=800

Date: April and October 1998

^[2] Question: From what you know about global climate change or global warming, which of the following statements comes closest to your opinion?...Global climate change has been established as a serious problem, and immediate action is necessary, there is enough evidence that climate change is taking place and some action should be taken, we don't know enough about global climate change, and more research is necessary before we take any actions, concern about global climate change is unwarranted

Global climate change has been established 23%

as a serious problem, and immediate action is necessary .

There is enough evidence that climate change is taking place and some action should be taken .	28
We don't know enough about global climate change, and more research is necessary before we take any actions .	32
Concern about global climate change is unwarranted	11
Not sure	6

Organization: Hart And Teeter Research Companies, NBC/Wall Street Journal
 Population Size: approx. 500
 Date: JUL 26, 1999

[3] Question: Some people believe that the earth's atmosphere is gradually getting warmer as a result of air pollution and that, in the long run, this global warming could have catastrophic consequences. From what you have heard or read, do you believe that global warming is real, or not?

Believe global warming real	74%
Do not believe	22
Don't know/Refused	3

Organization: Wirthlin Worldwide
 Population Size: 1010
 Date: SEP 14, 1998

[4] Question: Do you believe the theory that increased carbon dioxide and other gases released into the atmosphere will, if unchecked, lead to global warming and an increase in average temperatures, or not?

Believe	67%
Do not believe	21
Don't know	12

Organization: Louis Harris And Associates
 Population Size: 1009
 Date: DEC 15, 1997

[5] Question: You may have heard about the idea that the world's temperature may have been going up slowly over the past 100 years. What is your personal opinion on this? Do you think this has probably been happening, or do you think it probably hasn't been happening?

Has been happening	77%
Hasn't been happening	20
Don't know	3

Organization: Ohio State University Survey Research Unit
 Population Size: 688
 Date: OCT 5, 1997

[6] Question: Some people believe that the earth's atmosphere is gradually getting warmer as a result of air pollution and that in the long run, this global warming could have catastrophic consequences. From what you have heard or read, do you believe that global warming is real, or not?

Believe	74%
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Do not believe 24
 Don't know/Refused 2
 Organization: Wirthlin Worldwide
 Population Size: 1040
 Date: AUG 23, 1997

^[7] Question: Generally speaking, how serious of a threat do you think global warming is today, very serious, somewhat serious, not too serious, or not serious at all -- or don't you have an opinion on this?

Very serious 31%
 Somewhat serious 39
 Not too serious 16
 Not serious at all 8
 Don't know 7
 Organization: Mellman Group / World Wildlife Fund
 Population Size: 1000
 Date: SEPT 1998

^[8] Question: On the environmental issue known as global warming, just your impression, which one of the following statements do you think is most accurate: Most scientists believe that global warming is occurring, most scientists believe that global warming is not occurring, or most scientists are unsure about whether global warming is occurring or not?

Most believe is occurring 48%
 Most believe is not occurring 7
 Most unsure 39
 No opinion 6
 Organization: Gallup Organization / Cable News Network, U.S.A. Today
 Population Size: 1019
 Date: NOV 23, 1997

^[9] Question: Which of the following statements is closest to your own opinion? 1. There is a consensus among the great majority of scientists that global warming exists and could do significant damage. 2. There is a consensus among the great majority of scientists that global warming does not exist and therefore poses no significant threat. 3. Scientists are divided on the existence of global warming and its impact.

There is a consensus among the great majority of scientists that global warming exists and could do significant damage 28%
 There is a consensus among the great majority of scientists that global warming does not exist and therefore poses no significant threat 8
 Scientists are divided on the existence of global warming and its impact 58
 Don't know 6
 Organization: Cambridge Reports/Research International
 Population Size: 1250
 Date: SEP 1994

^[10] Question: On the environmental issue known as global warming, just your impression, which one of the following statements do you think is most accurate: Most scientists believe that global warming is occurring, most scientists believe that global warming is not occurring, or most scientists are unsure about whether global warming is occurring or not?

Most believe is occurring	48%
Most believe is not occurring	7
Most unsure	39
No opinion	6

Organization: Gallup Organization / Cable News Network, U.S.A. Today
Population Size: 1019
Date: NOV 23, 1997

^[11] Question: Which of the following statements come closest to your opinion about Global Warming?... The US (United States) should avoid any Global Warming treaties that put the US at a competitive disadvantage. Taking drastic steps to reduce fossil-fuel emissions could be bad for our economy and way of life. Global warming is a serious threat. We should take all necessary actions to cut down on fossil-fuel emissions and cooperate with other nations to make that happen.

Avoid global warming treaties that put the US at a competitive disadvantage	24%
Global warming is a serious threat. Take all necessary actions and cooperate with other nations	63
Neither (vol.)	7
Not sure	7

Organization: Zogby International
Population Size: 1011
Date: JAN 1999

^[12] Question: Here are two statements which people sometimes make when discussing the environment and economic growth. Which of these statements comes closer to your own point of view? Protection of the environment should be given priority, even at the risk of curbing economic growth, or economic growth should be given priority, even if the environment suffers to some extent.

Protection of the environment	70%
Economic growth	23
No opinion	7

Organization: Gallup Organization / Cable News Network, U.S.A. Today
Population Size: 1027
Date: JAN 16, 2000

^[13] Question: Is it possible to have both a growing economy and a healthy environment?

Yes	83%
No	7
Not sure	11

Organization: Rasmussen Research
Population Size: 1000
Date: APR 22, 1999

^[14] Question: Do you think that global warming is an environmental problem that is happening now, do you think that global warming will happen in the future, or do you think that global warming will not happen--or don't you have an opinion on this?

Happening now	57%
Will happen in future	26
Will not happen	8
Not sure/Don't know	9

Organization: Mellman Group / World Wildlife Fund
Population Size: 1000
Date: SEPT 1998

^[15] Question: Do you think global warming is an environmental problem that is causing a serious impact now, or do you think the impact of global warming won't happen until sometime in the future, or do you think global warming won't have a serious impact at all?

Impact now	28%
In the future	51
No serious impact	15
Don't know/No answer	6

Asked of those who heard or read a lot/some/not much about global warming (85%).
Organization: CBS News/New York Times
Population Size: 953
Date: NOV 24, 1997

NOTE: Numbers in report were extrapolated to reflect the full sample; thus they differ from the partial sample noted above.

^[16] Question: Do you think it is necessary to take steps to counter the effects of global warming right away, or isn't it necessary to take steps yet?

Right away	81%
Not necessary yet	13
No steps ever (vol.)	1
Don't know/No answer	6

Asked of those who heard or read a lot/some/not much about global warming and they said the impact won't happen until in the future (43% of sample)
Organization: CBS News/New York Times
Population Size: 953
Date: NOV 24, 1997

^[17] Question: As you may know, scientists are uncertain how much impact human activities have on the world's climate. Some people say that we should not take major action to reduce human impacts on climate until we know more, because of the great economic costs involved. Other people say we should assume the worst and take major action now to reduce human impacts on climate, even if there are major costs. Which comes closer to your view?

Take major action now	48%
Not take action until we know more	45

Don't know 7
Organization: Environics
Population Size: unknown
Date: APR-MAY, 1999

[18] Question: Some people say that we already know enough about climate change and its causes and that we should act now to reduce its impact on us. Other people say that we do not know enough about climate change and its causes and that we shouldn't do anything until we know more. Which opinion is closer to yours, we know enough and should act now or we don't know enough and should do nothing until we know more? Do you feel strongly about that or just somewhat that way?

Strong know enough, act now	35%
Somewhat know enough, act now	20
Somewhat do nothing, know more	20
Strongly do nothing, know more	21
Don't know/Refused	3

Organization: Research/Strategy/Management / Sustainable Energy Coalition
Population Size: 1003
Date: SEP 28, 1998

[19] Question: Which comes closest to your own view: A. President (Bill) Clinton should not take action on global warming because there are too many real problems that need attention right now or B. President Clinton should take action on global warming now because the problem is only getting worse and we cannot afford to take a wait-and-see approach?

Should not take action	30%
Should take action	56
Don't have opinion	14

Organization: The Mellman Group / World Wildlife Fund
Population Size: 800
Date: AUG 14, 1997

[20] Question: From what you know about global climate change or global warming, which of the following statements comes closest to your opinion? Global climate change is a serious problem, and immediate action is necessary. We don't know enough about global climate change, and more research is necessary before we take action. Concern about global climate change is unwarranted.

Serious problem, immediate action necessary	28%
Don't know enough, more research necessary	59
Concern unwarranted	9
Not sure	4

Organization: Hart And Teeter Research Companies / NBC News, Wall Street Journal
Population Size: Approx. 500
Date: OCT 28, 1997

[21] Question: From what you know about global climate change or global warming, which of the following statements comes closest to your opinion?...Global climate change has been established as a serious problem, and immediate action is necessary, there is enough evidence that climate change is taking place and some action should be taken, we don't know enough about global climate change, and more research is necessary before we take any actions, concern about global climate change is unwarranted

Global climate change has been established as a serious problem, and immediate action is necessary	23%
There is enough evidence that climate change is taking place and some action should be taken	28
We don't know enough about global climate change, and more research is necessary before we take any actions	32
Concern about global climate change is unwarranted	11
Not sure	6

Organization: Hart And Teeter Research Companies
Population Size: approx. 500
Date: JUL 26, 1999

^[22] Question: Which would you be much or somewhat more or less likely to choose? The United States should take immediate steps to reduce global warming concerns, even if environment benefits are not assured and costs would be high or, the United States should continue voluntary programs now underway to reduce greenhouse gas emissions and do more research on how best to deal with global warming concerns, but wait to make any treaty commitments that could lock the United States into long-term, costly programs.

Take immediate steps--much closer	6%
Take immediate steps--somewhat closer	9
Continue voluntary programs--much closer	52
Continue voluntary programs--somewhat closer	26
Don't know	7

Organization: Charlton Research Company
Population Size: 800
Date: NOV 20, 1997

^[23] Question: (I am going to read a list of environmental problems. For each problem, please tell me how high of a priority you feel that problem is, using a scale of 1 to 10 where 1 means the problem is a low priority and 10 means the problem is a high priority.)... Global warming

Mean rating = 6.5
Organization: Wirthlin Worldwide
Population Size: 1010
Date: SEP 14, 1998

^[24] Question: (Next, I'm going to read a list of environment problems. As I read each one, please tell me if you personally worry about this environmental problem a great deal, a fair amount, only a little or not at all.) ...The greenhouse effect or global warming

A great deal	28%
A fair amount	31
Only a little	24
Not at all	16
Don't know/Refused	2

Organization: Gallup Organization

Population Size: 1025
Date: MAR 14, 1999

[25] Question: From what you know about global climate change or global warming, which of the following statements comes closest to your opinion?...Global climate change has been established as a serious problem, and immediate action is necessary, there is enough evidence that climate change is taking place and some action should be taken, we don't know enough about global climate change, and more research is necessary before we take any actions, concern about global climate change is unwarranted

Global climate change has been established as a serious problem, and immediate action is necessary	23%
There is enough evidence that climate change is taking place and some action should be taken	28
We don't know enough about global climate change, and more research is necessary before we take any actions	32
Concern about global climate change is unwarranted	11
Not sure	6

Organization: Hart And Teeter Research Companies
Population Size: approx. 500
Date: JUL 26, 1999

[26] Question: Do you think we should wait to take action on global warming until there is agreement in the scientific community, or do you think we should take action to stop global warming now?

Wait to take action	27%
Take action now	66
Don't know	7

Organization: Mellman Group / World Wildlife Fund
Population Size: 1000
Date: SEPT 1998

[27] Question: If a candidate for political office spoke out in support of reducing the threat of global warming, would you think he was forward-thinking and speaking to a real problem or would you think he was too interested in environmental issues and ignoring bigger problems?

Forward thinking	58%
Ignoring bigger problems	23
Don't know	18

Organization: Mellman Group / World Wildlife Fund
Population Size: 1000
Date: SEPT 1998

[28] Question: Let's say you agreed with a particular candidate on most issues and were of the same political party, however, that candidate voted against efforts to reduce the threat of global warming. Would you be likely to vote for or against that candidate? Is that very likely or somewhat likely to vote (for/against)?

Strongly for	17%
Somewhat for	21
Somewhat against	22
Strongly against	19
Don't know	21

Organization: Mellman Group / World Wildlife Fund
 Population Size: 1000
 Date: SEPT 1998

[29] Question: (For each of the following, please tell me if it makes you feel more favorably about Al Gore, less favorably, or if it has no effect on your opinion of Gore?)... Gore has spent much of his time in Congress working on environmental issues such as global warming

More favorably	72%
Less favorably	5
No effect	18
Not sure	5

Organization: Yankelovich Clancy Shulman / Time, Cable News Network
 Population Size: approx. 700
 Date: JUL 9, 1992

[30] Question: As you may know, in the next few weeks there will be a world conference in Buenos Aires on the problem of global warming caused by greenhouse gas emissions, which are released by the burning of coal, gasoline and other fossil fuels. How much have you heard about global warming--a great deal, some, not very much or nothing at all?

A great deal	32
Some	39
Not very much	18
Nothing at all	11

Organization: PIPA
 Population Size: 600
 Date: OCT 1998

[31] Question: Global warming is a term used to describe changes in the earth's climate. How much have you heard or read about global warming--a lot, some, not much, or nothing at all?

A lot	27%
Some	38
Not much	20
Nothing	14
Don't know/No answer	1

Organization: CBS News/New York Times
 Population Size: 953
 Date: NOV 24, 1997

[32] Question: How much, if anything, have you heard or read about the issue of global warming? Would you say you have heard a great deal, some, not too much or nothing at all about global warming?

Great deal	25%
Some	46

Not too much 21
Nothing at all 8
Survey Organization: The Mellman Group / World Wildlife Fund
Population Size: 800
Date: AUG 14, 1997

^[33] Question: Thinking about the issue of global warming, sometimes called the 'greenhouse effect', how well do you feel you understand this issue--would you say very well, fairly well, not very well, or not at all?

Very well 16%
Fairly well 45
Not very well 28
Not sure/Don't know 10
Refused 1
Survey Organization: Gallup Organization / Cable News Network, U.S.A. Today
Population Size: 1003
Date: NOV 9, 1997

^[34] Question: As you may know recently there was a world conference in Kyoto on the problem of global warming. How much have you heard about this conference?

A great deal 5
Some 20
Not very much 39
Nothing at all 35
Don't know / Refused 2
Organization: PIPA
Population Size: 800
Date: OCT 1998

^[35] Question: Are you aware of the meeting that took place in Kyoto, Japan which discussed what should be done about global warming and so-called greenhouse gases, or not?

Aware 55%
Not aware/Not sure 45
Organization: Louis Harris And Associates
Population Size: 1009
Date: DEC 15, 1997

^[36] Question: Have you heard of the Kyoto Protocol on global warming?

Yes 14%
No 86
Don't know/Refused *
* = less than .5 percent
Survey Organization: Wirthlin Worldwide
Population Size: 1010
Date: SEP 14, 1998

[37] Question: The Kyoto Protocol is a treaty developed by delegates of 159 nations that commits the world's developed nations like the United States, Canada, Great Britain, and Germany to limit their emissions of the pollutants that many scientists believe are causing global warming. This treaty does not put any limits on pollution from developing nations like India, Russia, and China. Have you heard about this treaty?

Yes 31%
No 69

Survey Organization: Wirthlin Worldwide
Population Size: 1010
Date: SEP 14, 1998

[38] Question: Recently there was a worldwide conference on the environment called the 'Earth Summit,' held in Rio de Janeiro, Brazil. Are you aware such a conference occurred (1992)?

Yes 79%
No 21

Organization: Wirthlin Group
Population Size: 1054
Date: JUL 10, 1992

[39] Question: Late last year, there was a world conference in Kyoto, Japan on global warming. At this conference, the major industrialized countries - including the US - agreed that they would reduce their greenhouse gas emissions by about 5 to 8% below the levels they were emitting in 1990. Just based on what you know, would you say you favor or oppose the Senate ratifying the treaty, known as the Kyoto treaty, based on this agreement?

Favor 59%
Oppose 21
Don't know/refused 20

Organization: PIPA
Population Size: 800
Date: OCT 1998

[40] Question: Last year, the United States and the other developed countries of the world made an agreement to collectively reduce their emissions of gases like carbon dioxide that cause global warming. The United States agreed to reduce their emissions by 7% by the year 2010. Do you favor or oppose this agreement or don't you have an opinion on this? Is that (favor/oppose) strongly or not so strongly?

Strong favor 64%
Not strong favor 15
Undecided 7
Not strong oppose 3
Strong oppose 4
Don't know 7

Organization: Mellman Group / World Wildlife Fund
Population Size: 1000
Date: SEPT 1998

[41] Question: At the conference there was a dispute between the European Union and the US over how much to reduce the emission of gasses that produce global warming . The debate was about how much the

industrialized countries should commit to reduce their emissions by about the year 2010. The US wanted to see reductions to the level these countries were emitting in 1990. The Europeans wanted to see reductions of 15% below the levels these countries were emitting in 1990. At the conference in Kyoto the US and Europe agreed to cut their greenhouse gas emissions by 7-8% below 1990 levels. Would you say you favor the European position calling for deeper cuts, favor the American position calling for less deep cuts, or do you think the agreement is about right? . (Which way would you say you lean more toward?)

The American position calling for less deep cuts in emissions	21%
Toward US position for less deep cuts in emissions	20
The agreement is about right	10
Toward European position for deeper cuts in emissions	14
The European position calling for deeper cuts in emissions	29

Question: At the conference there was a dispute about how much to reduce the emission of gasses that produce global warming. The debate was about how much the industrialized countries should commit to reduce their emissions by about the year 2010. Some wanted to see reductions to the level these countries were emitting in 1990. Others wanted to see reductions of 15% below the levels these countries were emitting in 1990. At the conference in Kyoto it was agreed that most industrialized countries would reduce their greenhouse gas emissions by 7-8% below 1990 levels. Do you feel that, the reductions this agreement calls for are too deep, not deep enough, or about right? (Which way would you say you lean?)

Reductions are too deep	9%
Toward reductions too deep	8
The agreement is about right	23
Toward reductions not deep enough	18
Reductions not deep enough	30
Don't know /Refused	12
Organization: PIPA	
Population Size: 300	
Date: APR 1998	

^[42] See footnote 41.

^[43] Question: Based on what you have heard, does this agreement go too far, does it seem about right or does it not go far enough, or don't you have an opinion on this?

Too far	9%
About right	41
Not far enough	34
Don't know/refused	16
Organization: Mellman Group / World Wildlife Fund	
Population Size: 1000	
Date: SEPT 1998	

^[44] Question: It has been proposed that the nations of the world agree to reduce their carbon dioxide emissions by 20 percent by the year 2005 in order to significantly slow down the rate of global warming. Do you favor or oppose this proposal or don't you have an opinion on this? (If favor/oppose, ask:) Is that (favor/oppose) strongly or not so strongly?

Strong favor	55%
Not strong favor	17

Undecided	19
Not strong oppose	3
Strong oppose	6

Organization: The Mellman Group / World Wildlife Fund
 Population Size: 800
 Date: AUG 14, 1997

^[45] Question: Do you approve or disapprove of the tentative treaty (from the meeting that took place in Kyoto, Japan which discussed what should be done about global warming and so-called greenhouse gases) which would require industrialized countries to reduce their emissions of carbon dioxide and other gases to below the 1990 level of emissions?

Approve	74%
Disapprove	21
Don't know	5

Asked of those who said they were aware of the meeting in Kyoto, Japan (55%)
 Organization: Louis Harris And Associates
 Population Size: approx. 550
 Date: DEC 15, 1997

Question: Do you think that the agreement (from the meeting that took place in Kyoto, Japan which discussed what should be done about global warming and so-called greenhouse gases) to reduce emissions to below the 1990 level is too strict, about right, or not strict enough?

Too strict	18%
About right	41
Not strict enough	31
Don't know	10

Asked of those who said they were aware of the meeting in Kyoto, Japan (55%)
 Organization: Louis Harris and Associates
 Population Size: approx. 550
 Date: DEC 15, 1997

^[46] Question: Another controversy is whether the less economically developed countries should also be expected to cut their emissions of the greenhouse gasses that cause global warming. Please tell me which of the following positions comes closest to yours? A. On a per person basis, less-developed countries produce far less greenhouse gasses than developed countries. Therefore, the less-developed countries should not be required to limit their emissions until they develop their economies more. B. The less-developed countries produce a substantial and growing amount of greenhouse gasses. Therefore they should be required to limit their emissions.

Less-developed countries should not be required to limit their emissions	38%
Less-developed countries should be required to limit their emissions	55
Don't know/Refused	6

Organization: PIPA
 Population Size: approx. 600
 Date: APR 20, 1998

[47] Question: Another controversy is whether the less-developed countries should also be expected to limit or reduce their greenhouse gas emissions. Please tell me which of the following positions comes closest to yours. [Randomly reverse order of the statements A and B, but not C].

The more-developed countries produce far more greenhouse gas emissions and have not begun to make meaningful reductions. So the less-developed countries should NOT be required to limit their emissions UNTIL the more-developed countries reduce theirs.	19%
The less-developed countries produce a substantial and growing amount of greenhouse gas emissions. Therefore they should be required to CUT their emissions.	31
Because the less-developed countries are poorer and produce far lower emissions, they should not be required to cut back. But they should be required to MINIMIZE the increase of their emissions through greater energy efficiency.	45
None of these [volunteered]	2
Don't know/refused	3

Organization: PIPA
 Population Size: 800
 Date: OCT, 1998

[48] Question: Some people say that since poorer countries did not cause much pollution, they should not have to bear as much of the burden in dealing with global warming. Others say that every country, rich or poor, should make the same changes now in order to limit future global warming, no matter how much of the pollution they created originally. Which of these views comes closer to your own?

Developing countries should not bear as much of the burden	19%
All countries should make same changes	70
Both/Neither (vol.)	3
Don't know/Refused	8

Organization: Princeton Survey Research Associates / Pew Research Center
 Population Size: 1200
 Date: NOV 16, 1997

[49] Question: Which of the following statements do you agree with more concerning new energy regulations to reduce global warming? The same energy regulations to reduce global warming should apply to all countries around the world. There should be strict energy regulations for the United States and other advanced countries, and less strict regulations for Third World countries that have not yet achieved economic development.

Same regulations around the world	73%
Strict regulations for US, less strict for Third World countries	21
Neither/Other (vol.)	2
Don't know/Refused	4

Organization: Gallup Organization / U.S.A. Today, Sankei Shimbun
Population Size: 1004
Date: NOV 4, 1997

^[50] Question: Global warming concerns need to be addressed on a global scale by all countries including China, India, and Mexico and not just by a select few countries such as the US (United States) and Europe. (Agree strongly, agree somewhat, disagree somewhat, disagree strongly)

Agree strongly	72%
Agree somewhat	17
Disagree somewhat	4
Disagree strongly	4
Don't know	3

Organization: Charlton Research Company
Population Size: 800
Date: NOV 20, 1997

^[51] Question: At present, some less-developed countries feel that they should not have to commit to limits on their emissions until their economies are more developed. If these countries refuse to make such a commitment do you think: [Randomized order].

The more-developed countries and the US should proceed with the Kyoto Treaty with as many countries as will commit to limits.	53%
The US should refuse to sign the Kyoto Treaty until all the less-developed countries commit to limits.	44
Don't know/refused	3

Organization: PIPA
Population Size: 800
Date: OCT, 1998

^[52] Question: All countries release greenhouse gases and the United States releases more greenhouse gases than any other country. Should the United States take steps now to cut its own emissions of greenhouse gases, regardless of what other countries do, or should the US wait for many countries to agree to take steps together to cut down on greenhouse gases?

US should cut emissions now	76%
All countries should act together	18
Don't know/No answer	6

Asked of those who heard or read a lot/some/not much about global warming (85%).

Organization: CBS News/New York Times
Population Size: 953
Date: NOV 24, 1997

^[53] Question: Which of the following comes closest to your own view: [READ AND ROTATE STATEMENTS]

The United States should take action to reduce its carbon dioxide emissions

regardless of what other countries do	66%
The United States should agree to reduce our carbon dioxide emissions as long as the other industrialized countries also agree to reduce their carbon dioxide emissions	14
The United States should agree to reduce its carbon dioxide emissions only if all the other industrialized and all the developing countries agree to reduce their carbon dioxide emissions	11
The United States should not take any action to reduce its carbon dioxide emissions	5
[READ LAST] or don't you have an opinion on this?	4

Organization: Mellman Group / World Wildlife Fund
Population Size: 1000
Date: SEPT 1998

^[54] Question: If the less-developed countries are willing to limit their emissions do you think the developed countries should provide the technology and training necessary to help them make their industries less polluting?

Yes should help less-developed countries	90%
No should not provide technology	7
Don't know [volunteer]	3

Refused/Not ascertained-
Organization: PIPA
Population Size: 600
Date: APR, 1998

^[55] Question: (Okay, now I am going to ask you about how you feel about some smaller aid programs that may be included in some of the programs you have already heard described.) For environmental aid to poor countries to help them preserve their environment and to reduce pollution, especially pollution that may contribute to global warming. For this the U.S. (United States) spends 740 million dollars, about \$1.40 for the average taxpayer. For environmental aid, would you favor increasing spending, cutting spending or keeping it the same? (If increase or cut, ask:) Would that be slightly, somewhat, or a lot?

Increase a lot	13%
Increase somewhat	15
Increase slightly	9
Keep the same	41
Cut slightly	5
Cut somewhat	6
Cut a lot	10
Don't know/refused	1

Organization: PIPA
Population Size: approx. 600
Date: JAN 15, 1995

^[56] Question: Please tell me whether you agree or disagree with the following statement: Protecting the environment is so important that requirements and standards cannot be too high and continuing

environmental improvements must be made regardless of cost...strongly agree, somewhat agree, somewhat disagree, or strongly disagree.

Strongly agree	31%
Somewhat agree	32
Somewhat disagree	21
Strongly disagree	15%
Don't know/Refused	*

* = less than .5 percent

Organization: Wirthlin Worldwide
 Population Size: 1010
 Date: SEP 14, 1998

[57] Question: President Bush has not yet signed an international treaty that would take steps to slow down global warming. Some of Bush's advisors say the treaty will harm our economy. Should Bush sign the treaty if it harms our economy now, but helps the environment in the long run.

Yes	58%
No	26
Don't know	15
Refused	1

Organization: Gordon S. Black Corporation / U.S.A. Today
 Population Size: 1000
 Date: MAY 7, 1992

[58] Question: What if signing the treaty (an international treaty that would take steps to slow down global warming) would not significantly harm the economy, but would increase the cost of gasoline and electricity. Should (President) Bush sign the treaty?

Yes	58%
No	33
Don't know	9
Refused	*

* = less than .5 percent

Organization: Gordon S. Black Corporation / U.S.A. Today
 Population Size: 1000
 Date: MAY 7, 1992

[59] Question: If in fact it appears that it would cost an extra \$50 a month for an average household, would you favor or oppose signing the Kyoto treaty?

Favor	36%
Oppose	52
Oppose treaty regardless of cost [volunteered]	2
Favor signing treaty no matter what it costs [volunteered]	-
Don't know/refused	10

[Those who answer Oppose or Don't know to previous question hear:]

Question: If in fact it would cost an extra \$25 a month for an average household, would you favor or oppose signing the Kyoto treaty?

% of total favoring at \$25 or more 63%

Favor	42
Oppose	49
Don't know/refused	10

[Those who answer Oppose to previous question hear:]

Question: If in fact it would cost an extra \$10 a month for an average household, would you favor or oppose signing the Kyoto treaty?

% of total favoring at \$10 or more	76%
Favor	42
Oppose	53
Don't know/refused	5

[Those who answer Favor to initial question hear:]

Question: If in fact it would cost an extra \$75 a month for an average household, would you favor or oppose signing the Kyoto treaty?

% of total favoring at \$75 or more	19%
Favor	53
Oppose	40
Don't know/refused	7

[Those who answer Favor to previous question hear:]

Question: If in fact it would cost an extra \$100 a month for an average household, would you favor or oppose signing the Kyoto treaty?

% of total favoring at \$100 or more	11%
Favor	54
Oppose	43
Don't know/refused	3

Organization: PIPA

Population Size: 800

Date: OCT, 1998

^[60] Question: How willing would you be to pay X dollars more per month to buy environmentally clean energy such as solar and wind power from your electric utility company in order to cut down on emissions of carbon dioxide and reduce the threat of global warming -- very willing, somewhat willing, somewhat unwilling or very unwilling or don't you have an opinion on this?

Five

Very willing	38%
Somewhat willing	35
Somewhat unwilling	7
Very unwilling	11
Not sure	9

Ten

Very willing	35%
Somewhat willing	40
Somewhat unwilling	8
Very unwilling	11
Not sure	5

Twenty

Very willing	27%
Somewhat willing	37
Somewhat unwilling	13

Very unwilling 13
 Not sure 10

Organization: Mellman Group / World Wildlife Fund
 Population Size: approx. 333 each
 Date: SEPT 1998

[61] Question: Electric companies, gas companies, and oil companies cause air pollution when they produce electricity and fuel for people to use. If these companies change the methods they use so that they produce less air pollution, it will cost them more money, and this will cause the price of electricity, gas, and oil to go up. The more prices go up, the more air pollution could be prevented. Would you be willing to pay any more money each month for electricity, gas, and oil in order to reduce the amount of air pollution that these companies produce? (If yes, ask:) About how much more money would you be willing to pay each month for electricity, gas, and oil?

Yes: \$1-4 6%
 Yes: \$5-9 11
 Yes: \$10-29 33
 Yes: \$30 or more 18
 No 22
 Don't know 1
 Refused 9

Organization: Ohio State University Survey Research Unit
 Population Size: 688
 Date: OCT 5, 1997

[62] Question: Still on the same issue, I will now read you the opinions of two different people, let's call them Wilson and Brown. After listening to both, please tell me which comes closest to describing how you feel. Wilson: Is worried that new pollution standards will result in increased costs for gasoline, energy, and many consumer products which would add up to more than \$1000 a year for the average American household. He believes that this is too much for just a 5% reduction in pollutants targeted in the Kyoto protocol. Brown: Believes that some increases in the cost of gas, energy, and consumer products are expected and worth the price if it can reduce the threat of global warming and other negative effects of global pollution. Would you say your opinion is more like Wilson's or more like Brown's? (If Wilson/Brown, ask:) Would you say exactly like Wilson/Brown or just somewhat like Wilson/Brown?

Exactly Wilson--does not want increased costs 9%
 Somewhat Wilson--does not want increased costs 30
 Somewhat Brown--increased costs expected 45
 Exactly Brown--increased costs expected 15
 Neither (vol.) 1
 Don't know/Refused 1

Organization: Wirthlin Worldwide
 Population Size: 1010
 Date: SEP 14, 1998

[63] Question: Would you be willing to pay 5 cents more per gallon of gasoline if it would significantly reduce global warming, or wouldn't you?

Yes 73%
 No 24
 Don't know/Refused 3

Question: Would you be willing to pay 25 cents more per gallon of gasoline if it would significantly reduce global warming, or wouldn't you?

Yes	60%
No	37
Don't know/Refused	3

Organization: Princeton Survey Research Associates / Pew Research Center

Population Size: approx. 600

Date: NOV 16, 1997

[64] Question: (I'm going to list some of the specific proposals that have been made to decrease the use of oil, coal, and gasoline in order to reduce the threat of global warming. For each item I read, please tell me if you favor or oppose each one. If you aren't sure how you feel about any specific item, just say so and we will go on.)... Increase the tax on gasoline by 10 cents per gallon and earmark the money for research and development of alternative fuels and technologies. (If favor or oppose, ask:) Do you strongly favor/oppose or only somewhat favor/oppose?

Strongly favor	25%
Somewhat favor	23
Somewhat oppose	13
Strongly oppose	36
Don't know	3

Organization: The Mellman Group / World Wildlife Fund

Population Size: 800

Date: AUG 14, 1997

[65] Question: As you may know, there is some controversy about how much it will cost the US to reduce greenhouse gas emissions 5 to 8% below 1990 levels, as the Kyoto Treaty requires. There are different estimates because there are uncertainties about how difficult it will be to make reductions and also different preferences for how to pursue reductions. I would like to get a sense of what you think about some of the estimates that have been made. According to one estimate, cutting our emissions as much as the treaty requires will increase energy costs for an average American household by about \$50 a month. I'd just like your hunch, do you tend to feel that this estimate is on the high side, on the low side, or approximately correct?

On the high side	59%
On the low side	9
Approximately correct	20
Don't know/refused	11

Organization: PIPA

Population Size: 800

Date: OCT, 1998

[66] Question: Which comes closer to your opinion? Efforts in the United States to reduce the release of greenhouse gases will cost too much money and hurt the US economy, or the US economy will become more competitive because these efforts will result in more efficient energy use, saving money in the long run.

Hurt economy/cost too much	20%
Help economy/saves money	67
Depends (vol.)	2
Don't know/No answer	11

Asked of those who heard or read a lot/some/not

much about global warming (85%).
Organization: CBS News/New York Times
Population Size: 953
Date: NOV 24, 1997

[67] Question: Which of the following statements comes closest to your own point of view: A. Stricter regulations on the emission of carbon dioxide from the use of oil, coal and gasoline would go too far, and hurt the economy and cost jobs or B. stricter regulations on the emission of carbon dioxide from the use of oil, coal and gasoline will help stop global warming, protect our health and safety, create new jobs through new technologies and are worth the cost?

Stricter regulations would go too far	18%
Stricter regulations will help	60
Not sure	22

Organization: The Mellman Group / World Wildlife Fund
Population Size: 800
Date: AUG 14, 1997

[68] Question: Do you think this agreement will hurt the economy and cost jobs, do you think this agreement will not affect the economy and jobs, or do you think this agreement will help the economy by creating new jobs through new technologies, or don't you have an opinion on this?

Hurt the economy and cost jobs	21%
No effect on economy and jobs	24
Help economy/create new jobs, new technologies	38
Don't know	17

Organization: Mellman Group / World Wildlife Fund
Population Size: 1000
Date: SEPT 1998

[69] Question: Do you believe that economic growth should be sacrificed for environmental quality, should environmental quality be sacrificed for economic growth, or does it not necessarily have to be a choice between the two?

Sacrifice growth for environmental quality	19%
Sacrifice environmental quality for growth	6
Not have to be a choice	75
Don't know/Refused	*

* = less than .5 percent

Organization: Wirthlin Worldwide
Population Size: 1010
Date: SEP 14, 1998

[70] Question: (I'm going to read you the same list of proposals again and this time I would like you to tell me, how effective you think each proposal would be in decreasing the use of oil, coal and gasoline in order to reduce the threat of global warming. Would it be one of the most effective things that could be done to decrease the use of oil, coal and gasoline in order to reduce the threat of global warming, very effective, somewhat effective, not too effective, or not at all effective? If you are not sure about a particular item, just say so and we will go on.)...

Require higher fuel efficiency and cleaner burning engines in all new cars.

One of most effective	19%
Very effective	44
Somewhat effective	25
Not too effective	5
Not at all effective	5
Don't know	2

Provide tax incentives to utility companies to encourage them to sell environmentally clean energy, such as solar and wind power, to consumers.

One of most effective	11%
Very effective	33
Somewhat effective	41
Not too effective	6
Not at all effective	5
Don't know	4

Give cash incentives like tax credits and rebates to individual households that upgrade to more energy efficient appliances like refrigerators and air conditioners.

One of most effective	11%
Very effective	36
Somewhat effective	37
Not too effective	7
Not at all effective	6
Don't know	3

Organization: The Mellman Group / World Wildlife Fund

Population Size: 800

Date: AUG 14, 1997

^[71] Question: Which comes closer to your own point of view: A. The technology already exists to solve many of the problems that cause global warming, but big businesses like the oil and auto industries are preventing them from reaching consumers because it is more profitable to keep things the way they are or B. solving the problems that cause global warming will mean developing new technologies to reduce our use of oil, coal and gasoline, which will cost billions of dollars or don't you have an opinion on this?

Technology already exists but businesses preventing reaching customers	52%
Solving the problems will mean developing new technologies	29
Don't have opinion	19

Organization: The Mellman Group / World Wildlife Fund

Population Size: 800

Date: AUG 14, 1997

^[72] Question: At the global warming conference (in Kyoto), countries discussed whether there should be an international system of trading emission permits. In such a system, a country which reduces its emissions even more than promised gets credits it can sell. Other countries could buy these credits instead of reducing their own emissions. Some say this system is a good idea, because it would encourage reductions to happen wherever they can be done most cheaply and efficiently. Others say it is a bad idea, because it would allow rich countries to pay for reducing emissions abroad while doing less to reduce them at home. Do you think it would be better to have this system or not to have this system? (If better to have/ not have, ask:) Do you feel that way strongly or somewhat?

Strongly: good idea to have a system trading	10%
--	-----

emission permits
 Somewhat: good idea to have a system trading 19
 emission permits
 Somewhat: bad idea to have a system trading 25
 emission permits
 Strongly: bad idea to have a system trading 36
 emission permits
 Don't know/Refused 9
 Organization: PIPA
 Population Size: approx. 600
 Date: APR 20, 1998

^[73] Question: (I'm going to list some of the specific proposals that have been made to decrease the use of oil, coal, and gasoline in order to reduce the threat of global warming. For each item I read, please tell me if you favor or oppose each one. If you aren't sure how you feel about any specific item, just say so and we will go on.)... Have the United Nations establish a worldwide limit on carbon dioxide emissions that is lower than current levels. Each UN member country would be allocated the right to discharge a certain amount of carbon dioxide pollution. Countries could buy and sell these pollution rights to one another. This would allow them to chose between reducing their carbon dioxide emissions or paying to continue to pollute. (If favor or oppose, ask:) Do you strongly favor/oppose or only somewhat favor/oppose?

Strongly favor 12%
 Somewhat favor 20
 Somewhat oppose 17
 Strongly oppose 39
 Don't know 12
 Organization: The Mellman Group / World Wildlife Fund
 Population Size: 800
 Date: AUG 14, 1997

^[74] Question: (I'm going to list some of the specific proposals that have been made to decrease the use of oil, coal, and gasoline in order to reduce the threat of global warming. For each item I read, please tell me if you favor or oppose each one. If you aren't sure how you feel about any specific item, just say so and we will go on.)... Establish a limit on the total amount of carbon dioxide pollution that can be emitted in the United States that is lower than current levels. Individual businesses would bid at a government auction for the rights to pollute. Businesses could buy and sell these pollution rights to one another on the free market. This would allow them to choose between reducing their carbon dioxide emissions or paying to continue to pollute. (If favor or oppose, ask:) Do you strongly favor/oppose or only somewhat favor/oppose?

Strongly favor 12%
 Somewhat favor 17
 Somewhat oppose 15
 Strongly oppose 42
 Don't know 14
 Organization: The Mellman Group / World Wildlife Fund
 Population Size: 800
 Date: AUG 14, 1997

^[75] Question: Some people have suggested another approach. The government would issue permits that allow companies to give off a certain amount of greenhouse gases. Companies that do better than required

would be allowed to sell at a profit their leftover permits to companies that do worse than required. These permits would give companies a financial reason to reduce their emissions of greenhouse gases. Do you think this is a good idea, a bad idea, or don't you know enough about it to say?

Good idea	18%
Bad idea	20
Don't know enough to say	58
Don't know/No answer	5

Asked of those who heard or read a lot/some/not much about global warming (85%).
 Organization: CBS News/New York Times
 Population Size: 953
 Date: NOV 24, 1997

^[76] Question: In trying to reduce the threat of global warming, do you think we should rely mainly on strict regulations to limit emissions of carbon dioxide, or do you think we should rely mainly on incentives that will cause the free market to discourage carbon dioxide pollution--or don't you have an opinion on this? (If answer given, ask:) Do you feel that way strongly or not so strongly?

Strongly regulations	31%
Not so strongly regulations	6
Undecided	9
Not so strongly free market	9
Strongly free market	23
Don't know	21

Organization: The Mellman Group / World Wildlife Fund
 Population Size: 800
 Date: AUG 14, 1997

^[77] Question: The US is emitting more greenhouse gases than any other country. To try to buy our way out of the responsibility to clean up our share of the problem just isn't right. We should clean up our own emissions. Do you find this argument convincing or unconvincing? (Do you feel that way strongly or somewhat?)

Strongly convincing	54%
Somewhat convincing	25
Somewhat unconvincing	10
Strongly unconvincing	9
Don't know/refused	2

Organization: PIPA
 Population Size: 800
 Date: OCT, 1998

^[78] Question: Reducing greenhouse gas emissions will also result in cleaner air. Instead of spending our money to clean up air in other countries, we should clean up our own air and get these benefits here at home. Do you find this argument convincing or unconvincing? (Do you feel that way strongly or somewhat?)

Strongly convincing	25%
Somewhat convincing	20
Somewhat unconvincing	9

Strongly unconvincing 14
 Don't know/refused 2
 Organization: PIPA
 Population Size: 800
 Date: OCT, 1998

^[79] Question: The economies of developing countries are expected to grow rapidly. If we help them start out with cleaner, more efficient technology now, it will be better for the world environment in the future. Do you find this argument convincing or unconvincing? (Do you feel that way strongly or somewhat?)

Strongly convincing 46%
 Somewhat convincing 29
 Somewhat unconvincing 9
 Strongly unconvincing 13
 Don't know/refused 3
 Organization: PIPA
 Population Size: 800
 Date: OCT, 1998

^[80] Question: Fulfilling the requirements of the Kyoto treaty will increase the costs of energy and this will create hardships for some Americans. If we get credit for reducing emissions where it can be done most efficiently, this will save Americans money on their energy bills. Do you find this argument convincing or unconvincing? (Do you feel that way strongly or somewhat?)

Strongly convincing 27%
 Somewhat convincing 29
 Somewhat unconvincing 21
 Strongly unconvincing 20
 Don't know/refused 4
 Organization: PIPA
 Population Size: 800
 Date: OCT, 1998

^[81] Question: Of course, it is hard to fully judge this idea without a sense of the potential cost savings. Some people have estimated that if the US is required to make all of the reductions inside the US, energy costs will have to go up about \$50 a month per household. While if the US gets credit for paying to help less-developed countries reduce their emissions, the US can fulfill its treaty obligations while only increasing energy costs about \$10 a month per household. Assuming that these estimates are reasonably accurate, would you prefer to see:

All reductions made inside the US at a cost of approximately \$50 a month per household 20%
 The US also pay for some reductions in less-developed countries at a cost of approximately \$10 a month per household 66
 Don't know/refused 14
 Organization: PIPA
 Population Size: 800
 Date: OCT, 1998

^[82] Question: One idea is to give credits to the less-developed countries for the amount they keep their emissions below certain established levels. The more-developed countries could then buy these credits from the less-developed countries if it would be a less expensive way to meet their treaty obligations. This would also create financial incentives for the less-developed countries to be more energy efficient. Do you think this would be a good idea or not a good idea?

Strongly good idea	31%
Somewhat good idea	34
Somewhat NOT a good idea	8
Strongly NOT a good idea	18
Don't know/refused	10

Organization: PIPA
Population Size: 800
Date: OCT, 1998

^[83] Question: Here is another idea. First, a United Nations agency would determine how much it would cost to reduce emissions in less-developed countries. Assuming this would be a less expensive way to make reductions, more-developed countries could meet some of their treaty obligations by contributing to the UN agency. The UN agency would use the money to make reductions in the less-developed countries. Do you think this would be a good idea or not a good idea?

Strongly good idea	23%
Somewhat good idea	36
Somewhat NOT a good idea	12
Strongly NOT a good idea	20
Don't know/refused	9

Organization: PIPA
Population Size: 800
Date: OCT, 1998

^[84] Question: (I'm going to list some of the specific proposals that have been made to decrease the use of oil, coal, and gasoline in order to reduce the threat of global warming. For each item I read, please tell me if you favor or oppose each one. If you aren't sure how you feel about any specific item, just say so and we will go on.)... Require companies to pay for the right to pollute at lower levels than they do now and use the money raised to develop new technologies that will reduce carbon dioxide emissions even further. (If favor or oppose, ask:) Do you strongly favor/oppose or only somewhat favor/oppose?

Strongly favor	36%
Somewhat favor	31
Somewhat oppose	11
Strongly oppose	16
Don't know	7

Organization: The Mellman Group / World Wildlife Fund
Population Size: 800
Date: AUG 14, 1997

^[85] Question: Overall, compared to the average American, would say you are more supportive or less supportive of taking steps to reduce global warming?

More supportive	68%
Less supportive	22

About the same [volunteered] 5
Don't Know/refused 6
Organization: PIPA
Population Size: 800
Date: OCT 1998