

Institute for
Policy Integrity
NEW YORK UNIVERSITY SCHOOL OF LAW

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DRASTIC AND RAPID ACTION ON CLIMATE CHANGE IS WARRANTED, SAY VAST MAJORITY OF ECONOMISTS

Global Survey of More Than 730 Economists Finds That Benefits of Acting on Climate Far Outweigh the Costs

The costs of global warming will soon reach trillions of dollars per year and will far outweigh the costs of quickly cutting emissions, according to a large [new international survey](#) of economists with expertise in climate change. The survey, conducted by the Institute for Policy Integrity at NYU School of Law, finds growing concern from economists that climate change will also exacerbate inequality within countries as well as between countries.

The Institute's survey on the economics of climate change was sent to all economists who have published climate-related research in the field's highest-ranked academic journals; 738 responded in what is likely the largest-ever survey of economists' views on climate change. The findings could potentially inform the Biden administration's current review of the climate damage modeling (and "Social Cost of Carbon" estimate) used to evaluate federal policies.

"Economists overwhelmingly support rapid emissions reductions, and they are optimistic about key technology costs continuing to drop," said Derek Sylvan, strategy director at the Institute and co-author of the research. "There is a clear consensus among these experts that the status quo seems far more costly than a major energy transition," said Sylvan.

Economists' concerns about the costs of climate change have increased since the last time the Institute conducted a survey in 2015. Nearly three-quarters (74%) of these economists say "immediate and drastic" action is warranted to cut emissions, compared to 50% in 2015. The vast majority (98%) believe either drastic or "some action" is necessary now.

"People who spend their careers studying our economy are in widespread agreement that climate change will be expensive, potentially devastatingly so," said Peter Howard, economics director at the Institute and another co-author. "These findings show a clear economic case for urgent climate action," Howard said.

Findings point to one answer: act fast

Costs are often cited as a reason to delay or avoid strong action on climate change, such as shifting away from fossil fuels, but the survey suggests that the weight of evidence firmly rests on the side of rapid action. According to consensus in the survey, projected economic damages from climate change will reach \$1.7 trillion per year by 2025, and roughly \$30 trillion per year (5% of GDP or more) by 2075 under most scenarios.

76% of respondents also expect that climate change will hurt not just the economic output in particular years, but also the *growth rate* of the global economy – meaning a permanent dampening of our prospects if we don't act fast to cut emissions.

By contrast, the cost of cutting emissions has dropped rapidly as the price of solar and wind energy generation has plummeted, and 65% of the economists expect similar cost-reduction patterns for other clean technologies.

Prominent estimates of the costs and benefits of climate action often draw on economic models, but these models have been critiqued by many eminent economists for failing to account for the full impacts of climate change. The Biden administration is currently conducting a review of the climate impact modeling used by the U.S. government, and these survey results could be used to help recalibrate some key model parameters.

Inequality within and between countries

A key finding of the survey is that climate change is expected to exacerbate inequality between countries, as well as within countries.

Developing countries have fewer financial resources to cope with the effects of climate change, and existing research suggests they are also disproportionately exposed to the harshest effects of a hotter atmosphere. 89% of survey respondents believe global inequality is likely or very likely to rise due to the effects of climate change.

Additionally, 70% of respondents anticipate that climate change will increase inequality *within* most countries - widening the gap between the poorest third and the richest third of national populations.

Broad support for net-zero emissions by mid-century

Two-thirds of respondents agreed that the benefits of reaching net-zero emissions by mid-century are likely to outweigh the costs, with only 12% disagreeing. This ambitious net-zero target matches the goals of the Paris Agreement, which seeks to limit temperature increases to 1.5°C - 2°C.

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Survey Methodology

The 2021 “Gauging Economic Consensus on Climate Change” study identified 2,169 economists who have published an article related to climate change in a highly ranked economics journal. The survey received a response rate of 34%. The previous study, in 2015, identified 1,103 experts, and had a similar response rate (33.1%) to this survey.

While the 2021 survey introduced some new questions to reflect developments in climate science and policy, several questions were identical, in order to track changes in sentiment.

The survey uses “expert elicitation” methodology, which has been shown to outperform other prediction approaches such as expert deliberation (which often suffers from “groupthink” effects).

A detailed report on the survey findings is available at:

https://policyintegrity.org/files/publications/Economic_Consensus_on_Climate.pdf

An overview document with key highlights is available at:

https://policyintegrity.org/files/publications/Issue_Brief_Economic_Consensus_on_Climate.pdf

The authors are available for interviews about the project.

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[The Institute for Policy Integrity](#) at New York University School of Law is a non-partisan think tank dedicated to improving the quality of government decisionmaking. The Institute produces original scholarly research in the fields of economics, law, and regulatory policy; and advocates for reform before courts, legislatures, and executive agencies. Follow us on Twitter @PolicyIntegrity

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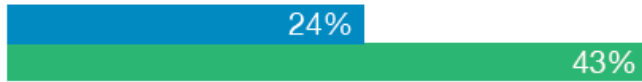
Some sample figures from the survey report are below.

Which of the following best describes your views about climate change?

Immediate and drastic action is necessary



Some action should be taken now



More research is needed before action is taken



This is not a serious problem

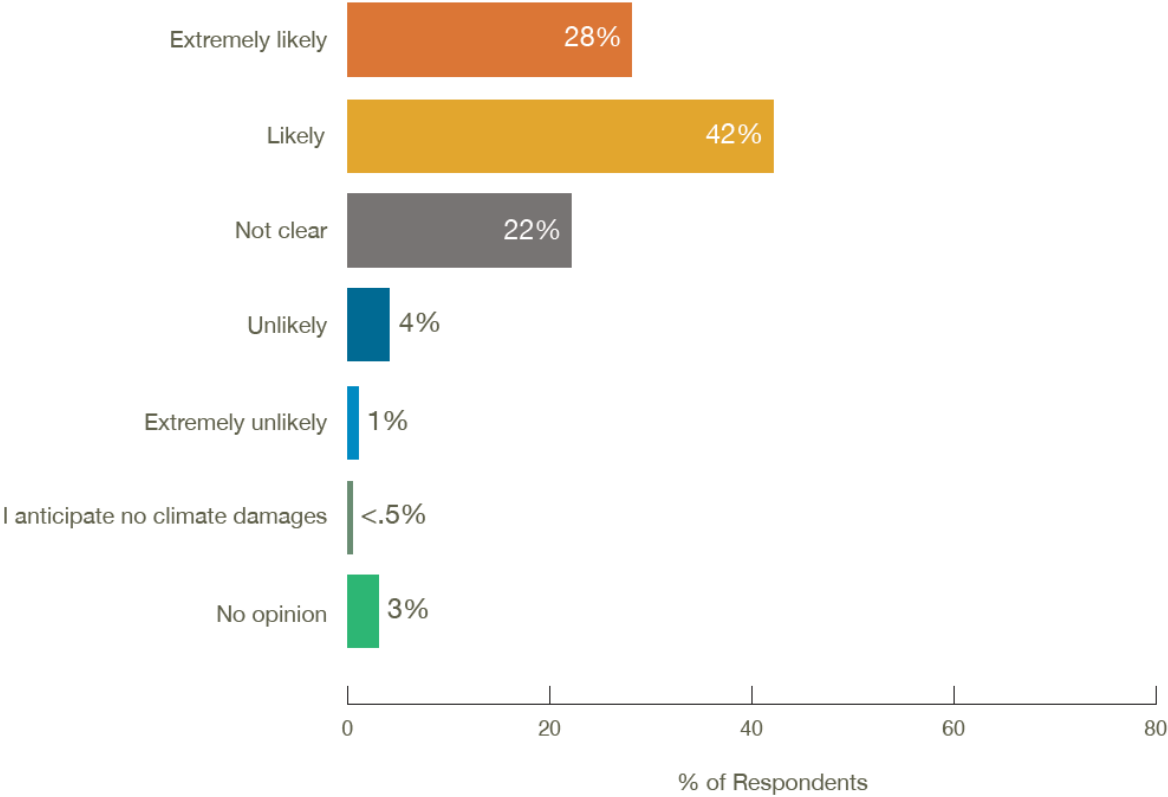


No response



■ 2021 Survey Responses ■ 2015 Survey Responses

What is the likelihood that climate change will increase economic inequality within most countries, between the lower third of households by household income and the upper third of households by household income?



Many government entities have set goals to reach net-zero GHG emissions by roughly mid-century (this would be consistent with a global average surface temperature limit of 1.5° to 2°C according to many projections).

Are the expected benefits of mid-century net-zero GHG targets likely to outweigh the expected costs?

Please account for any relevant co-benefits and co-costs in your implicit present-value estimates.

