

Fellow Success Story

A STAR Fellow Protecting the Environment With Economics

Dr. Joe Aldy, Assistant Professor of Public Policy, John F. Kennedy School of Government, Harvard University

Using economics to develop effective policy solutions to environmental problems is clearly the passion of environmental economist Joe Aldy, who received a STAR Fellowship from 2000 to 2003 after serving from 1997 to 2000 on President William Clinton's Council of Economic Advisers (CEA). In a career both in and out of government, Joe has negotiated with congressional staff over energy and environmental policies, worked on international climate change policy designs with China and other nations, and today continues his policy-related research while teaching a rising generation of Harvard University students.



Joe's long-standing interest in environmental protection—going back to his childhood growing up on a small farm in Lexington, Kentucky—led to his pursuit of a Bachelor's degree in Environmental Studies at Duke University and a Master's degree in Environmental Management at Duke's Nicholas School of the Environment.

Joe joined President Clinton's CEA at what he says was “probably the most exciting time ever for an environmental economist to be on staff.” He worked extensively on Kyoto Protocol issues leading to and following the 1997 conference, including work with China on indexing the country's emissions reduction commitments to its economic growth. Although negotiations made little headway then, in 2009 China announced a first-ever emissions target indexed to its growth, and India soon followed.

When he began his Ph.D. program in 2000 at Harvard's Economics Department, with STAR Fellowship support for the first 3 years, Joe conducted international climate policy research. He says that “The great thing about the STAR Fellowship is that it provided the freedom and flexibility to try out new ideas”; the Fellowship supported his research, tuition and living expenses. “That's the most important thing about the STAR Fellowship—you know you have this opportunity to become an idea generator.”

In 2003, he co-authored a paper—“13+1: A Comparison of Global Climate Change Policy Architectures”—published by the journal *Climate Policy*. The paper, which analyzed the Kyoto Protocol and 13 alternatives, became the intellectual foundation for an ongoing Harvard Project on International Climate Agreements.

After completing his Ph.D., Dr. Aldy served as a Fellow with Resources for the Future (RFF) from 2005 to 2008. At RFF, he continued researching international climate architectures and co-

edited two books building on the 13+1 paper that contributed toward the December 2007 Bali and December 2009 Copenhagen climate change conferences. Dr. Aldy actively engaged with the international policy community, including Denmark's Prime Minister, who hosted sessions with thought leaders to discuss climate policy design. He also researched the economic value of the health benefits of reducing fine particulate matter emissions; the EPA used conclusions from his studies to inform its air quality regulations.

In discussing his field's most important development, Dr. Aldy points to the passage of the 1990 Clean Air Act Amendments. The law established the acid rain program with its novel cap-and-trade program, which has produced dramatic sulfur dioxide reductions at a much lower cost than anyone anticipated. Demonstrating huge gains at much lower costs using a policy design based largely on economic research was a major accomplishment for the field. The program became the template for tackling nitrogen oxide emissions from power plants, air pollution in Southern California, and carbon dioxide emissions in the European Union and the Northeast United States.

From 2009 to 2010, Dr. Aldy served as President Barack Obama's Special Assistant to the President for Energy and Environment, reporting both through the National Economic Council, under Lawrence Summers, and the Office of Energy and Climate Change at the White House, under Carol Browner. He also did work for the National Security Council. As a special assistant to the President, Dr. Aldy coordinated policy review before issues were elevated to Cabinet members for their consideration and then, if necessary, to the President. He worked on the Administration's "clean energy package" for the American Recovery and Reinvestment Act of 2009, which included tax credits for wind power, clean coal demonstration and smart grid grants, and numerous other energy programs. He participated in Capitol Hill negotiations, including discussions on climate policy, and attended the Copenhagen climate negotiations, as well as working on the 2010 Gulf oil spill.

Currently, in the expectation that Congress will debate climate policy again, Dr. Aldy is researching a carbon tax and the competitiveness implications of climate policy on U.S. energy-intensive industries. He also is researching fossil fuel subsidies in developing countries that contribute to air pollution and have a major impact on human health, an issue for which he says beneficial policies can be implemented.

In addition to his teaching and extensive research, Dr. Aldy spends time with his wife and 2-month-old son hiking and enjoying the outdoors.