

National Aeronautics and
Space Administration

Goddard Space Flight Center

Goddard Institute for Space Studies
2880 Broadway
New York, NY 10025



Reply to Attn of:

March 28, 2008

Houghton Mifflin Company
222 Berkeley Street
Boston, MA 02116-3764

To Whom It May Concern:

Through the efforts of a public high school student, I recently became aware of the discussion of global warming and climate change in your textbook *American Government* (by James Q. Wilson and John DiIulio, Jr., Tenth Edition for Advanced High School Students). I am the Director of the NASA Goddard Institute for Space Studies, a member of the National Academy of Sciences, and an adjunct professor in the Department of Earth and Environmental Sciences at Columbia University.¹ For more than three decades, I have studied the effects of greenhouse gas emissions on the earth's climate system. On numerous occasions I have testified before Congress on the science of climate change. When I read the book's discussion of global warming (in chapter 21, on "Environmental Policy"), I was shocked to find a large number of clearly erroneous statements. These statements are aimed at giving students the mistaken impression that the scientific evidence of global warming is doubtful and uncertain. I hope that you will give significant and immediate attention to correcting these erroneous statements.

The textbook's authors repeatedly attempt to cast doubt on the accepted science of global warming. Among other things, the authors state that "scientists do not know how large the greenhouse effect is, whether it will lead to a harmful amount of global warming, or (if it will) what should be done about it" (p. 560); that "profound disagreements" about global warming exist within the scientific community (p. 560); that so-called "activist scientists" say that the earth's climate is warming (p. 560); that "science doesn't know whether we are experiencing a dangerous level of global warming or how bad the greenhouse effect is, if it exists at all" (p. 569); and that global warming is "enmeshed in scientific uncertainty" (p. 573).

Each of these statements is profoundly mistaken in ways that will mislead students about the facts and science of global warming. In recent decades the scientific community has gathered

¹ Please see the attached curriculum vitae for more information about my professional background.

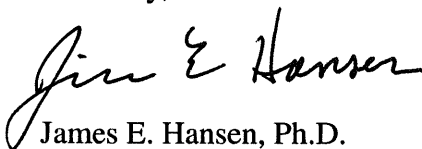
overwhelming evidence that the earth's climate is undergoing a period of significant heating, of which human-induced greenhouse gas emissions are a major cause. The scientific community no longer doubts whether global warming is happening. Scientific academies from across the globe, including the National Academy of Sciences, have stated unambiguously that human generated greenhouse gases, including carbon dioxide, are the primary cause of well-documented global warming.

The most comprehensive scientific assessments of the causes and probable effects of global warming appear in the reports of the Intergovernmental Panel on Climate Change. The IPCC's most recent report is summarized in the attached Summary for Policymakers. The IPCC report concludes that global warming is "unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level." The IPCC report further concludes that there is greater than a 90% probability that "most of the observed increase in average global temperatures since the mid-20th century" has resulted not from natural causes, but from anthropogenic (i.e., human-induced) greenhouse gas concentrations. The report predicts that human-induced global warming will lead to rising sea levels, intensification of tropical cyclones (typhoons and hurricanes), further increases in surface temperatures, and other disruptive changes.

I find it alarming that a widely-used textbook from a respected publisher would contain so many gross errors. I strongly urge that you update the textbook to reflect the broad consensus of the scientific community. Failure to correct the book's errors will leave students gravely misinformed about the facts and science of global warming, one of the most serious problems that we as a society and as a species face.

Thank you for your attention to this matter. Please contact me if I can be of any further assistance.

Sincerely,

A handwritten signature in black ink that reads "Jim E Hansen". The signature is written in a cursive, flowing style.

James E. Hansen, Ph.D.
Director, NASA Goddard Institute for Space Studies