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March 8, 2017

The Honorable Lamar S. Smith, Chairman
Committee on Science, Space and Technology
U.S. House of Representatives
Via electronic mail

Dear Congressman Smith,

Recently, Committee staff sent me copies of two draft pieces of legislation, the "HONEST Act" and the "EPA Science Advisory Board Reform act of 2017".

The Cato Institute interprets its tax-exempt status as precluding any specific support of adoption (or recommendation of rejection) for pending legislation. However, I can comment on substantive aspects of such legislation.

The HONEST Act would require that regulations promulgated by EPA be backed by reproducible and transparent science. In the area of climate change, this will surely provoke a timely inquiry as to whether the climate models that are used to calculate the Social Cost of Carbon, and the justification of subsequent regulations, are indeed "science". I would argue that they are not.

A climate model is merely a complicated mathematical statement of multiple hypotheses. These include a prediction of a general warming of surface temperatures, and a greater warming of the tropical troposphere. All subsequent changes in weather regimes—such as rainfall, winter snows, and Atlantic hurricanes derive from the warming and its distribution.

As such, a reasonable test of hypothesis would be to examine the performance of these models as carbon dioxide has accumulated in the atmosphere, and during the period in which we have multiple, independent measures of bulk atmospheric global temperatures, which would be from 1979 to the present. As I noted in recent (February 28) testimony, there is a clear systematic failure of these models, with the central estimate of warming generally twice as large as what is being observed as a whole in the troposphere, and as much as seven times larger than what is being observed in the tropical upper troposphere.

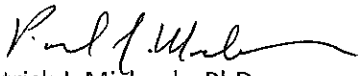
This, and other recent refereed publications are finally beginning to detail the subjective fashion by which the equilibrium climate sensitivity is being derived, argue that these models do *not* constitute science in the classical sense. It would be more appropriate to call the field "climate studies".

Litigation deriving from the HONEST Act is likely to uncover this problem, with the likelihood that EPA's 2009 Endangerment Finding, which empowers subsequent regulation of carbon dioxide, should be vacated because of a lack of verifiable science associated with its determination.

The other piece of legislation will open up the EPA Science Advisory Board(s) to more institutional diversity and less political selection.

I hope you find my comments useful, and stand available to answer any questions or provide any amplifications you may desire.

Cordially,

A handwritten signature in black ink, appearing to read "Patrick J. Michaels", with a long, sweeping horizontal line extending to the right.

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