

May 8, 2002

Dr. Rita Colwell, Director  
National Science Foundation  
4201 Wilson Blvd.  
Arlington, VA 22230

Dear Dr. Colwell:

I am writing to follow-up the formal complaint, in my recent letter, concerning serious deficiencies in the scientific progress of economics, caused by deficiencies in the work of the National Research Council under grants from NSF.

- You might have seen recent newspaper stories that American GNP growth in the first quarter of 2002 was at a rate greater than 5% - and that this very large number was unexpected. This illustrates my earlier point about the high error rates of national macroeconomic models.

- Several years ago when I looked at the question, a major source of economic forecasting error was unreliable federal data. Revised estimates are published, several years in the future. Today, when Wal-Mart gets real-time data online, delays and unreliability should be unacceptable. Physicists spend great effort to achieve accurate measurement, often several places to the right of the decimal point. Yet your NSF-funded macro-economists typically cannot tell you if their models coefficients are stable or changing - or if the results are errors in the datasets within the purview of the Committee on National Statistics, for which NSF has oversight.

- If the National Science Board conducts an oversight review of stagnation in NSF-supported social sciences, you should know that large macroeconomic models are man ned - typically, economists look at the results of their models predictions and tweak them (ad hoc) before publication. If NSF funds are being used, you may want to prohibit tweaking of scientific predictions.

(Also: Most academic macro-economists do not do forecasting. This is a euphemism for saying I do not make predictions that could falsify my theory. Excuses that economics is an inexact science ought to be viewed with scepticism, at least until Dr. Alberts and his associates bestir themselves to recommend testing of competing models; inclusion of missing variables; develop reliable data; and the *seigniors* of the NAS/NRC make a serious commitment to use flawed predictions as serious feedback to improve our understanding of the economy as quickly as possible, which - with lackluster results - is what NSF has been paying them to do.)

As a thought experiment, could I suggest that you consider a null hypothesis for the work of Dr. Bruce Alberts and his associates? If they were indifferent to a public trust; or had intended politically to neuter and kill major scientific progress in economics (without being blamed for it) I suggest they would have adopted the pattern of behavior we observe: killing any major competition between models; preventing measurement of missing variables; failing to improve the national data series that are unreliable; and being institutionally indifferent to scientific failures. Knowing what to make of this is difficult: surely it is not the best scientific work that they are capable of doing.

The National Science Board may want to hold public hearings, at which Dr. Bruce Alberts and his associates can be cross-examined about their stewardship on the public record. Today, I do not know - and I doubt that any NSF official or member of the National Science Board knows - what Dr. Alberts et al. can be counted-upon to do if they receive further NSF funds to exercise control over progress in social and behavioral sciences. It could be worthwhile to know if they feel any contrition or remorse.

Sincerely,

(Dr.) Lloyd S. Etheredge, Director  
Government Learning Project

cc: National Science Board  
NRC Council