8 May 2006

Honorable Richard C. Shelby, Chairman
Honorable Barbara A. Mikulski, Ranking Minority Member
Subcommittee on Commerce, Justice and Science
Committee on Appropriations
U.S. Senate
Washington, D.C. 20510

Dear Chairman Shelby and Ranking Member Mikulski:

As Member Representatives of the 66 U.S. research universities that belong to the University Corporation for Atmospheric Research (UCAR), we write to support the President’s Request for the FY 2007 budget of the National Science Foundation. UCAR manages and operates the National Center for Atmospheric Research (NCAR) and additional programs that support and extend the country’s scientific research and education capabilities. UCAR member universities represent the vast majority of North American higher education institutions offering advanced degree programs in the atmospheric and related sciences.

For decades, this country has led the world in scientific achievement, technological development, and science and engineering workforce preparedness. In recent years, that leadership position has been threatened as other developed countries have invested heavily in R&D and globalization has introduced the pressures of increased competition. As stated in the National Academies report, Rising Above the Gathering Storm, “We fear the abruptness with which a lead in science and technology can be lost—and the difficulty of recovering a lead once lost, if indeed it can be regained at all.”

We therefore have great appreciation for the Administration’s American Competitiveness Initiative (ACI), an effort that holds the promise of enhanced R&D, improved math and science education, and stimulation of the economic and national security driver of technological innovation. We believe that the ACI investment in the physical sciences, will pay great dividends for this country if it is sustained as planned over the next ten years.

The National Science Foundation (NSF) plays a unique role among all federal agencies. In achieving its goal to develop new knowledge to meet societal needs and improve quality of life, NSF strengthens the ability of the country to create new ideas; develop new technologies; create a diverse, knowledgeable workforce; and set new standards that challenge any boundaries of invention and...
intellect. These are all key components of our capacity to compete globally in the 21st Century and are fundamental drivers of wealth-producing growth and job creation. The NSF budget request states that the ACI investment in NSF – a commitment to double the NSF research budget over 10 years -- is being made “in order to sustain a robust, competitive, and productive America.” The UCAR community takes great pride in this national priority and supports to the fullest extent possible the ACI focus on NSF.

_We urge the Committee to support the President’s overall request of $6.02 billion for the National Science Foundation and, within NSF, the request of $4.66 billion for Research and Related Activities (R&RA), the heart of NSF’s scientific enterprise. In addition, we urge the Committee to support the Administration’s goal of doubling the research budget of NSF over the course of a decade, finally realizing the promise of the National Science Foundation Authorization Act of 2002._

**Geosciences Directorate (GEO).** Within R&RA, GEO is the principal source of federal funding for university-based basic research in the geosciences, providing about 68% of the total federal support in these areas. The FY07 increase for GEO includes aggressive investment in cyberinfrastructure, without which discoveries in the geosciences simply will not be able to advance at a competitive rate; and additional investment in the interagency Climate Change Science Program in activities focused on understanding past climate variability, the advancement of knowledge about the carbon and nitrogen cycles, and the continued development of computational models of Earth system processes. _We urge the Committee to support the President’s request of $744.85 million for the Geosciences Directorate and, within GEO, to provide the President’s request of $226.85 million for the Atmospheric Sciences Division which provides resources for the atmospheric sciences community that are critical to the physical safety of our citizens, our economic health, and global issues of national security relevance such as severe weather, climate change, the security of our communications infrastructure, and the environmental health of the planet._

**Office of Cyberinfrastructure.** Given the requirements of modern research, leading-edge progress that results in societal benefits cannot be realized without the acquisition, development and operation of state-of-the-art cyberinfrastructure services including ever-improving supercomputers, high-capacity mass-storage systems, and an ever-expanding suite of software tools. NSF promises to accomplish much in this area with the creation of the Office of Cyberinfrastructure. _We urge the Committee to support the President’s FY07 request of $182.42 million for the Office of Cyberinfrastructure which includes $50.0 million for the all-important achievement of petascale performance for application to important science and engineering problems._

**Education and Human Resources (EHR) Directorate.** Key to the success of the Administration’s ACI efforts is the improvement of math and science education in this country. It is therefore disappointing to see the EHR funding request for FY07 decline in certain areas and not keep pace with inflation overall. We believe that the strengthening of science education, so critical to the nation’s future and essential in training tomorrow’s workforce, must be intimately connected with the best scientific practices and results being produced via the NSF scientific directorates. _We urge the Committee to provide as healthy an increase as possible for the Education and Human Resources Directorate so that it may play its rightful, critical role in achieving ACI goals._
We want to thank the Committee for your stewardship of the nation’s scientific enterprise and your understanding that the future strength of the nation depends on the investments we make in science and technology today.

Sincerely,

Richard A. Anthes
President, UCAR

Donald Perkey
University of Alabama in Huntsville

Virgil (Buck) Sharpton
University of Alaska-Fairbanks

Joseph Zehnder
Arizona State University

James Anderson
Arizona State University

Steven L. Mullen
University of Arizona

Paul O. Wennberg
California Institute of Technology

Richard D. Grotjahn
University of California-Davis

Susan Ustin
University of California-Davis

Gudrun Magnusdottir
University of California-Irvine

Charles Zender
University of California-Irvine

Noboru Nakamura
University of Chicago
Fred Stafford  
University of Chicago

David Noone  
University of Colorado

Joseph Burns  
Cornell University

Kerry K. Cook  
Cornell University

James C. Wilson  
University of Denver

Robert Ellingson  
Florida State University

Barry J. Huebert  
University of Hawaii

Thomas A. Schroeder  
University of Hawaii

Donald J. Wuebbles  
University of Illinois

Gregory R. Carmichael  
University of Iowa

William Gallus  
Iowa State University

Darryn Waugh  
Johns Hopkins University

Darrell Strobel  
Johns Hopkins University

Russell Dickerson  
University of Maryland

James A. Hansen  
Massachusetts Institute of Technology
Chidong Zhang
University of Miami

Richard B. Rood
University of Michigan

Efi Foufoula
Efi Foufoula-Georgiou
University of Minnesota

Katherine M. Klink
University of Minnesota

Anthony Lupo
University of Missouri

Mark Potosnak
Nevada System of Higher Education

Vanda Grubisi
Nevada System of Higher Education

William P. Winn
New Mexico Institute of Mining and Technology

Vincent P. Idone
State University of New York at Albany

Kenneth L. Demerjian
State University of New York at Albany

Gary M. Lackmann
North Carolina State University

Leonard J. Pietrafesa
North Carolina State University

Robert T. McGrath
The Ohio State University

John Snow
University of Oklahoma

Larry P. Atkinson
Old Dominion University
Eric J. Barron  
Pennsylvania State University

Ernest M. Agee  
Purdue University

Jeffrey Vitter  
Purdue University

David M. Farmer  
University of Rhode Island

John T. Merrill  
University of Rhode Island

Arthur A. Few  
Rice University

James R. Miller  
Rutgers University

Alan Robock  
Rutgers University

Carole Knight  
St. Louis University

Robert Street  
Stanford University

Mark Jacobson  
Stanford University

Richard E. Orville  
Texas A&M University

Mary Jo Richardson  
Texas A&M University

Steven K. Krueger  
University of Utah

Robert R. Gillies  
Utah State University
Jennie Moody
University of Virginia

Matthew Hitchman
University of Wisconsin

Dr. Vincent Larson
University of Wisconsin-Milwaukee

Bruce F. Carmichael
Yale University