



OFFICE OF THE
ASSISTANT DIRECTOR
FOR MATHEMATICAL AND
PHYSICAL SCIENCES

August 16, 2012

To: Members of the MPS Advisory Committee (MPSAC)
Subject: Response to MPSAC Subcommittee on Name of Division of Mathematical Sciences

The National Science Foundation (NSF) currently supports activities in the statistical sciences, including core theoretical research; fundamental, methodological, and computational research; and applied research that enables innovation and discovery in all areas of science, engineering, and education. These are primarily supported within the Division of Mathematical Sciences (DMS) in the Directorate for Mathematical and Physical Sciences (MPS), but the development of new statistical methodologies and their applications are also supported across NSF, notably in the Directorates for Social and Behavioral Sciences (SBE), Biological Sciences (BIO), and Computer and Information Science and Engineering (CISE).

While statistical sciences programs are strong and active, recent vigorous discussions in the relevant communities, with the MPS Advisory Committee (MPSAC), and within NSF, have led to a better understanding of the critical and expanding role of the statistical sciences. This has also motivated an examination of how best to recognize, support and strengthen this vital field of statistics and its role in discovery across all research areas. The proliferation of data across all areas of research demands new methodologies and techniques to effectively analyze and extract information from these massive and complex data sets. Statistical sciences are well positioned to offer such capabilities.

NSF's strategic plan, *"Empowering The Nation Through Discovery And Innovation"*, recognizes that this "data deluge" provides many challenges and opportunities:

"From the social sciences to the life sciences to the physical sciences to education, vast amounts of data...are transforming how scientists, engineers, and educators approach complex problems. To meet these challenges, NSF will continue to support the creation of new algorithms, software, and networking and storage capabilities, as well as the development of tools..."

NSF is committed to supporting the research necessary to maximize the benefits to be derived from the age of data, and to promoting and funding research related to data-centric scientific discovery and innovation, and in particular, the growing role of the statistical sciences in all research areas. Recognizing both the complex composition of the various communities and the support of statistical sciences throughout NSF, and taking into account the various community views described in the very thoughtful report of the MPSAC, I have decided to maintain the name "Division of Mathematical Sciences (DMS)" within MPS, but to affirm strong commitment to the statistical sciences.

To demonstrate this commitment, (a) whenever appropriate, we will specifically mention "statistics" alongside "mathematics" in budget requests and in solicitations in order to

recognize the unique and pervasive role of statistical sciences, and to ensure that relevant solicitations reach the statistical sciences community, and (b) we will form a subgroup of the MPSAC, in cooperation with members of the other NSF Advisory Committees and community members, to examine funding for statistical sciences research at NSF including organizational alternatives and new initiatives. With the support of all NSF Assistant Directors and Office Directors, we will continue to work with our communities, relevant professional societies, and the NSF Advisory Committees to help address the best ways to support statistical sciences at NSF and in our communities.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ed Seidel".

Edward Seidel
Assistant Director, MPS