



August 13, 2015

The Honorable John Thune
Chairman
Senate Commerce, Science and
Transportation Committee
560 Dirksen Office Building
Washington, DC 20510

The Honorable Bill Nelson
Ranking Member
Senate Commerce, Science and
Transportation Committee
254 Russell Office Building
Washington, DC 20510

Dear Chairman Thune and Ranking Member Nelson,

On behalf of the Population Association of America (PAA) and Association of Population Centers (APC), thank you for the opportunity to offer our perspective on the status and future of federal support for scientific research as the committee begins the process of drafting legislation to reauthorize the National Science Foundation (NSF).

PAA is the premiere professional, scientific society for more than 3,000 behavioral and social scientists—including demographers, sociologists, economists, epidemiologists and statisticians—who conduct research on the impact and implications of population change. Our members conduct research and train young scientists at U.S. universities and independent research organizations. The APC is composed of approximately 40 federally funded, interdisciplinary population research centers nationwide.

The majority of the research grants awarded by NSF that PAA members receive come through the Social, Behavioral and Economics (SBE) Directorate. The SBE Directorate accounts for only a small fraction—about five percent—of the overall NSF budget. However, the grants distributed through the directorate account for over half of all social and behavioral scientific funding at U.S. universities. SBE plays a similar crucial and essential role in shaping and sustaining research in population sciences. Moreover, this comes at a time when advances in technology have transformed the capacity of scientists to collect, manage and analyze large swaths of data—unleashing untold potential for understanding how multiple factors, including genetics, social and physical environments, and behavioral and social measures interact to affect the health and well-being of diverse populations.

NSF has funded numerous studies that examine various aspects of child development, education and family structure and dynamics. NSF-supported investigations of how child development is affected by neighborhoods, schools and environment, for example, are part of a larger focus on Human Capital, which is aimed at determining how to insure that the U.S. workforce and educational system can be improved to generate a highly skilled and productive workforce for the 21st Century economy. Moreover, NSF support can and has played a pivotal role in the development of critical research that can go on to leverage funding from other important partners, such as the National Institutes of Health (NIH). One such example is the *Fragile Families and Child Well Being* study housed at Princeton University. This groundbreaking study has followed a cohort of about 5,000 children born from 1998-2000 to non-married and/or non-cohabitating parents, examining the impact of numerous factors—such as the presence and condition of fathers, the relationship between parents, and the social and school environment—on the outcomes and well-being of children born into these “non-traditional” settings.

In other areas, population scientists are studying the social and environmental impact of domestic and international natural disasters, such as Hurricane Katrina and the 2004 Indian Ocean Tsunami, to understand how populations withstand, absorb, and recover from disasters. This evidence will ultimately help governments and first-responders better plan and prepare for future events, and potentially avert or at a minimum alleviate human suffering. Scientists are also investigating how social factors such as marital status,

family formation and educational attainment affect human longevity, health and well-being. And there are myriad other areas in which population science make significant contributions, including immigration and migration, retirement and disability, child development, and the role of crime in low-income communities, to name a few.

As the leading funder of basic science in the U.S., the NSF has also been a key funder of data collection which is a prerequisite for conducting research. In this regard there are two essential, large-scale longitudinal studies supported by NSF: the Panel Study of Income Dynamics (PSID), one of the most important ongoing studies of U.S. families, tracking the progress and challenges of families for over 50 years; and the General Social Survey (GSS), a long-standing survey that collects data from individuals regarding education, the family, childbearing, and working. NSF has also supported a project at the University of Minnesota to aggregate and digitize over a century's worth of Census data, compiling it into a usable format that allows population scientists to track trends over long periods of time. Both the longitudinal surveys and the historical data are essential, seminal resources that scientists use universally, and have informed basic research across scientific disciplines. Although data collection has not typically been addressed within the scope of authorizing legislation, we nevertheless want the Committee to be aware of their value to the scientific community.

Given the wide array of research that population science encompasses, PAA members are important NSF stakeholders. We are therefore keenly interested in ensuring that the NSF can flourish as a robust, visionary and independent organization with appropriate oversight and guidance provided by the National Science Board. To this end, we respectfully request that the Committee consider the following suggestions in shaping the future of NSF:

- **Funding authorization levels should be aspirational.** The NSF budget has fallen short of congressionally authorized funding levels, discouraging scientific innovation and compromising the United States' preeminence in innovation and scientific discovery.
- **Legislation should uphold and affirm NSF's existing mandate to support interdisciplinary science, including all of the social and behavioral sciences.** Scientific inquiry is continually revealing new depths of complexity in the systems and processes that are intrinsic in our physical, biological and social order. Investments in research should therefore encourage inter- and cross-disciplinary collaboration. The NSF's current initiative on The Brain is an excellent example of worthwhile interdisciplinary initiatives.
- **The NSF must retain its world renowned merit review process.** The NSF's rigorous standards for peer review conducted by highly qualified subject matter experts under the auspices of the National Science Board are considered the "Gold Standard" across the globe. While the Congress has a duty and responsibility to ensure broadly that the NSF is carrying out its mission appropriately and effectively, the merit review process must be independent and free from political interference. This has been the model since the NSF's inception and it has served to ensure a very high degree of quality and integrity in NSF grants. PAA members, for their part, fully support NSF's recent efforts to ensure and improve transparency and will continue to strive to ensure that they fully articulate the merit of their NSF-supported research and its value to the nation.
- **Preserve the independence of the National Science Board (NSB) and its role to prioritize a rigorous and robust scientific agenda.** Indeed the NSB was created for precisely this purpose. Any provisions in authorizing legislation that would constrain the NSF's ability to allocate resources among directorates by mandating funding levels by directorate (essentially picking winners and losers) would undermine the effectiveness of the agency. Such a framework could force the NSF to

underfund promising, cutting-edge areas of research because of mandated obligations in a different discipline or focus.

The Population Association of America and Association of Population Centers appreciate the Senate Commerce Committee's openness to receiving input from the scientific community as the Committee begins the process of shaping authorizing legislation that will promote the development of "good science for the public good" through the National Science Foundation. We believe this is our mutual goal, and, to this end, we stand ready to work with the Committee and offer any further feedback or technical expertise that would be of assistance. Thank you for your consideration of our comments and suggestions.

Sincerely,



Steve Ruggles, Ph.D.
President, PAA



Lisa Berkman
President, APC