



National Science Foundation
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Dear Colleague Letter: for Creating New Cyber-enabled Data on Innovation in Organizations

[National Science Foundation](#)

Directorate for Social, Behavioral, and Economic Sciences (SBE)
Directorate for Computer and Information Science and Engineering (CISE)
Office of Cyberinfrastructure (OCI)

[Alfred P. Sloan Foundation](#)

[Ewing Marion Kauffman Foundation](#)

Dear Colleagues:

Innovation is recognized as a driving force contributing to United States competitiveness by generating new knowledge and creating new jobs, more income and wealth. Although currently our comprehension of innovation is insufficient to guide policymakers, new opportunities exist to advance our understanding of the innovation ecosystem by building on the research of social, computer and information scientists. New ways of capturing, analyzing and protecting data make possible a greater understanding of the relationship between the dynamics of human interaction, organizations, and the innovation process. For example, computing advances, such as wireless and sensor technologies and image understanding offer expanded potential for scientists, policymakers, and organizations themselves to collect and integrate heterogeneous data about individuals and organizations. Other computing advances, in the fields of visual analytics and data mining can be used to make sense of vast amounts of heterogeneous data. Economists and behavioral and social scientists have made major advances in understanding the creative process, innovation at the micro, meso, and macro organizational levels, as well as the formation and evolution of social networks and structural influences. At the same time, new cyber-enabled advances in confidentiality protection promise the capability for the analysis of sensitive data by maintaining data utility without revealing individual identities—so that researchers can generalize and replicate scientific results.

The purpose of this Dear Colleague Letter is to advise you about funding opportunities at the National Science Foundation, the Kauffman Foundation and the Sloan Foundation to inform the future development of a data infrastructure for the study of innovation within and across organizations. Research of interest to these programs can range from the innovative application of existing technologies through the creation of new approaches, and possible combinations that could create a transformative, interdisciplinary research agenda.

NATIONAL SCIENCE FOUNDATION

Programs at the National Science Foundation support research to explore ways of collecting, analyzing, sharing, and disseminating data on organizations and innovation. NSF is particularly interested in encouraging broad interdisciplinary cooperation of researchers in the social and behavioral sciences and economics and computing fields to develop theoretically-guided methods of collecting and analyzing

data on innovation. Proposals with the following features are particularly encouraged.

- The collection of data using cyber tools that enable the study of innovation by individuals within organizations.
- The study of cyber-enabled teams, broadly defined, that communicate and innovate.
- The design of new concepts and technologies that facilitate the innovation process.
- The capture and analysis of data describing how new communication modalities and technologies are used, adopted, and diffused within organizations and how they enable innovative processes.
- The capture and analysis of data on the role of IT and innovation within organizations, broadly defined, particularly the use of IT, the role of IT as a process enabling innovation, and IT as disruptive technology.
- A focus on privacy and confidentiality issues that emerge when collecting data on organizations and individuals within organizations. This would include policies to ensure anonymity and sanitization of the data, retention and storage protocols, transformation prior to dissemination, and retaining usability. Also of interest is how to convey the quality of such confidentiality measures to the humans who are the subjects of study.
- The development of approaches that ensure the collaboration and engagement of organizations in providing data to the research community as well as permitting data sharing so that empirical analyses can be generalized and replicated.
- The development of appropriate metrics to evaluate the success of the different approaches.

ALFRED P. SLOAN FOUNDATION

The Alfred P. Sloan Foundation is interested in the effects of government policy and industrial organization on innovation and productivity growth as part of its program on Economic Institutions, Behavior and Market Performance. Grants made in this new program should contribute significantly to reevaluating and redesigning how governments, markets, and other institutions (including copyright and patent policies) interact with and affect innovation and market performance (including efficiency and distributional impacts) in specific economic sectors. The Foundation is especially interested in empirical economic research that constructively engages scholars in other disciplines such as law, political science, psychology, and organizational behavior; and is focused on data about the actual behavior of people and organizations in the real world. Current topics of particular concern include regulatory reform and the economics of information. Research on how the economy in principle can and should perform must be tied to observable objectives, indicators, and metrics. The Foundation's goal in this program is to develop objective and nonpartisan research insights about innovation processes that will eventually inform critical decisions faced by policymakers and the public. Those seeking support should refer to the Foundation's Web site, which instructs them to submit a brief Letter of Inquiry that will be used to determine whether there is mutual interest.

EWING MARION KAUFFMAN FOUNDATION

The Ewing Marion Kauffman Foundation seeks to address both short-term and long-term limitations to data on entrepreneurship and innovation as a part of its efforts to improve research and policy that lead to growing economies and expanding human welfare. The Kauffman Foundation actively participates in program development, and those seeking grants are encouraged to contact the Kauffman Foundation early in the process to determine if there is mutual overlap in target areas. The Foundation is currently funding the creation of multiple research micro data sets, from the Kauffman Firm Survey to data on bankruptcies and a matched employer-scientist-entrepreneur data set. The Foundation supports a dialog among researchers that has informed the Foundation's activities in data collection and series construction, and has an interest in quality proposals which seek to address limitations in our understanding of how innovation in large and small, as well as new and existing firms

contributes to economic growth and dynamism. The confluence of the Kauffman Foundation's investments in new and enhanced data collection, and the independent recognition by other organizations and individuals of the importance of understanding entrepreneurship and innovation, makes this a time of great possibility for research and policy in entrepreneurship.

There are a variety of funding opportunities. Researchers may submit proposals to the programs listed below for review. Separate, but conceptually related proposals from teams of researchers could be submitted to different programs. Also, researchers may request that their proposal be co-reviewed by different programs. Principal investigators should consult the specific solicitations, program announcements, or program descriptions to make sure they are meeting relevant proposal requirements. In all cases, researchers are advised to contact the appropriate program officers for guidance before submitting proposals or send an email to innovate@nsf.gov for more information.

Sincerely,

David W. Lightfoot
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Jeannette M. Wing
Assistant Director, CISE

Edward Seidel
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Program Officer Contact Information

NATIONAL SCIENCE FOUNDATION

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