

February 3, 2020

Professor Sabrina Howell NYU Stern School of Business & NBER 44 West Fourth Street New York, NY 10012

Dear Sabrina,

I am a Program Director and the Policy Liaison in the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs at the National Science Foundation (NSF). These programs are designed to support innovation among our nation's small business community across a broad range of technology areas, from manufacturing to biotechnology to materials to information technology. The NSF SBIR and STTR programs provided about \$202 million last year in grant funding to technology-based start-ups and small businesses around the country. Since 2014, our portfolio companies have raised almost \$9 billion in follow-on private financing (as compared with NSF funding over the same period of just under \$1 billion) and have reported over 100 successful company exits.

As for my background, I joined the NSF as an SBIR Program Director in 2009, and in the past decade have led portfolio areas from nanotechnology to advanced materials to instrumentation. Prior to NSF, I worked as the Director of R&D at Micro Magnetics Inc., a start-up working on innovative semiconductor instrumentation. I received my Ph.D. in physics from Brown University.

I wanted to send a note expressing my thanks to you for your prior work in studying the impacts and effectiveness of the Small Business Innovation Research (SBIR) programs across the Federal government. Your work on the program at the Department of Energy has lent a great deal of insight to the small business team here at the NSF as we endeavor to improve our program and make more impactful funding decisions. In addition, I want to thank you for coming to present a seminar discussing these results with our team a few years back. That

seminar, and the subsequent discussions we had about methods for doing rigorous economic analyses of government innovation programs, were very helpful to me in my role at the Policy Liaison for SBIR and STTR here at NSF. In particular, your results related to the economic outputs as a function of prior SBIR/STTR awards, and your ability to tease out the relative importance of the certification and funding effects on awardee firms, have helped us to refine our selection and diligence process and our program messaging.

Sincerely,

Ben Schrag, Ph.D.

SBIR/STTR Program Director and Policy Liaison

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