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Demystifying the Academic Research Enterprise

Becoming a Successful Scholar in a Complex and Competitive Environment

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Preface

I have been blessed to spend my entire professional career in academia and have loved every minute of it! The opportunities to impart knowledge to future generations and to challenge individuals to think creatively, learn how to tackle important problems, and operate with the highest standards of integrity are beyond exhilarating. Especially rewarding is collaborating with others to create new knowledge by unlocking the secrets of this amazing world in which we live. Indeed, working at a comprehensive R1 research university, I have come to appreciate deeply that those secrets avail themselves not only in the laboratory, clinic, or fabrication facility, but also in the studio, on the stage, and from our past and present society.

I also have come to understand that exceptional scholarly work, performed by exceptionally talented individuals, can be found not only in our nation's most highly ranked comprehensive institutions but also in Minority Serving Institutions (MSIs), emerging research institutions (ERIs), and institutions that historically have focused principally on instruction but are becoming more active in research (e.g., Primarily Undergraduate Institutions [PUIs] and community colleges). Yet, in all situations, becoming a successful scholar—irrespective of discipline and institution—requires a great deal of understanding about a wide array of topics in addition to the expertise required to master a given field of study, such as the value, necessity, and types of research and creative activity; public attitudes toward scholarly work and associated outcomes; priority setting within funding sources; formulating ideas and identifying funding; research methods; collecting data or materials; writing competitive grant proposals; publishing and communicating outcomes; understanding and following ethical rules of conduct; navigating the labyrinth of intellectual property and compliance regulations; multidisciplinary inquiry; using research outcomes in policy; collaboration and working in teams; diversity, equity, and inclusion; and the future of research. Typically, understanding of these and

other topics comes about quite slowly, mostly through years of direct experience conducting research, presuming one is sufficiently fortunate to be affiliated with a well-resourced institution. Where is the educational resource that addresses these and other issues? Sadly, I found none.

What I did find, however, was myself repeatedly explaining the finer points of the aforementioned topics to my undergraduate and graduate students, post-docs, and early career faculty colleagues, frustrated that no mechanism existed to give them an advantage I did not have. Namely, a way to compress decades of experiential learning—gained by those who have long walked the path of conducting research and participated in policy, education, and other dimensions of the scholarly enterprise—into a dramatically shorter time, thereby allowing nascent researchers to be more productive and engaged earlier in their career.

I also found, in many cases, that next-generation researchers at MSIs, ERIs, and PUIs not only have relatively limited exposure to the aforementioned topics, but also that their institutions frequently lack the administrative support frameworks to assist their scholarly endeavors. As greater attention is being paid nationally to redress long-standing deficiencies in supporting research at these types of institutions, it is important to understand that building their research capacity and capability requires more than funding for research. It also requires access by researchers to administrative resources, such as those for processing research grant proposals, reporting project outcomes to agencies, dealing with the broad array of compliance rules and regulations (including research security), and supporting intellectual property and commercialization. And it requires solid working knowledge, by next-generation researchers, of the related topics noted previously so these individuals can be highly competitive and successful as early as possible in their careers.

Consequently, I decided to develop an online course covering topics I considered most crucial to the success of academic scholars at all stages of their work, and subsequently write this book containing similar material. These resources, and especially this book, are not a how-to guide for researchers, but rather an educational resource for understanding important concepts in the context of one's own research and personal circumstances—concepts that can make a difference between success and failure.

With this book I hope to achieve two goals.

First, to enhance and greatly accelerate understanding, by those pursuing careers of scholarship in all academic disciplines and at all types and sizes of institutions, regarding the topics noted above, which are both increasingly important as well as complex in today's research and creative activity enterprise. And to do so in a manner that is accessible to undergraduate students,

graduate students, postdoctoral scholars, early career faculty, and other researchers in academia, private industry, the nonprofit sector, and state and federal research organizations. I also believe the information will be useful to midcareer and senior faculty, research administrators, funding organization program officers, congressional staff, corporate and nonprofit organization researchers, law and policymakers charged with stewarding America's research enterprise, the media, and the general public.

The second overall goal is to democratize understanding of the aforementioned topics across the broad span of America's scholarly enterprise, particularly with regard to organizations, institutions, and individuals traditionally underserved, underrepresented, and underresourced. I, like so many others, have found extraordinary talent and achievement where traditional measures of success and potential, as well as personal circumstances, least suggest they exist. These institutions and individuals must be given every opportunity and resource to contribute.

As America continues to be challenged in its competitive research position on the international stage, and as America works to ensure opportunity for all who wish to pursue scholarly research and creative activity, this book serves as a practical tool for ensuring individual as well as institutional success. This will result in greater equity and strength, and thus greater competitiveness overall, for America's research enterprise.

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