

Personal Statement: [REDACTED]

This document provides a narrative description of my academic career as I seek promotion to the rank of professor at Michigan State University (MSU) in the Department of Advertising and Public Relations. The text focuses on my research but it also addresses the important role that teaching and service continue to play in my attempt to better understand how individuals think about science and scientists. My sense is that my work on (1) fairness perceptions in the context of risk, (2) general attitudes towards science, and (3) scientists' views about public engagement, have all helped focus attention on the value of trying to make science communication more strategic. My hope is that communicating more strategically will help ensure that science has a positive impact on society. As is discussed below, my research has evolved over time because of my experiences as a researcher, teacher, and academic citizen. This evolution is reflected my increasing emphasis on helping find ways for communication scholars to contribute to improving science communication practice.

As background, I received my Ph.D. in communication from Cornell University in 2006 and began my career as an assistant professor at the University of South Carolina in Columbia, SC. South Carolina promoted me to associate professor in 2011 and I moved to MSU in 2012. I joined MSU as a tenured, associate professor and the [REDACTED] endowed chair in public relations.

As of December 31, 2017, including works in press and accepted publications, I have published 66 journal articles (38 since 2012) and seven book chapters. Most of the articles have been in well-ranked ISI-indexed journals, including seven articles in *Public Understanding of Science* (2016 ISI ranked 9/79 in communication journals and 1/44 in history and philosophy of science journals), seven articles in *Science Communication* (2016 ISI ranked 18/79 in communication journals), and five articles in *Risk Analysis* (2016 ISI ranked 26/157 in public, environmental, and occupational health journals). For ISI-ranked journal publications, the range of impact factors for the review period is from 1.09 to 6.28. According to Google Scholar, more than 1,750 other works have cited my research and this continues to increase. I am particularly proud of my H-index of 27 as it highlights the breadth of my research that others cite. In my areas of focus, there appear to be few scholars of my cohort with similar records.

I have also authored three reports on behalf of the National Science Board (2014, 2016, and 2018 [forthcoming]) that summarize public attitudes and knowledge about science and technology in the United States and around the world. This chapter, which has been produced since the 1970s, is a key reference for those interested in public opinion about science. I further contributed to a 2016 book-length panel report on science literacy for the National Academies of Science, Engineering, and Medicine.

The National Science Foundation (NSF) and the United States Department of Agriculture (USDA) have supported much of my work since I received an NSF dissertation improvement grant in 2005. Since 2012, I have been responsible for securing about \$800K in grants or contracts for MSU, most as a principal investigator on multi-university collaborations. I also applied for and receive 20% salary support from Michigan AgBioResearch, with support from the USDA (Hatch project).

My highest honors have included earning a young faculty excellence award at South Carolina 2012, an endowed chair position at MSU in 2012, and the [REDACTED] Under-40 award from the Association for Education in Journalism and Mass Communication in 2013. The American Association for the Advancement of Science (AAAS) will honor me in 2018 as a fellow.

This level of research productivity is well above the level required for promotion to professor (two/year) and the awards suggest my stature as a national expert in my area of research. Additional evidence of my place in the field is described below.

Research

I want to understand what drives support for science-based policy. I do this by studying public opinion about science, scientists' opinions about the public, and how communication shapes these views. I pursued a research career because my experience as a policy and communications analyst at Environment Canada, a federal government department, highlighted the challenge of making progress on health and environmental issues. At Cornell, I initially focused on long-term media effects related to the environment but soon shifted to the study of how science-focused public engagement activities might help shape citizens' attitudes. My dissertation attempted to adapt theories of procedural justice as fairness from social psychology to the study of risk communication. The underlying argument was that the fairness literature could provide a theory-driven explanation for how high quality decision-making processes can shape views about whether decision-makers are willing to listen with integrity, treat people with respect, and openly share information. In turn, such perceptions should lead to perceived legitimacy of a decision-making process, even in cases where an individual might not support the direction of a decision. I ultimately pursued research on these questions in the context of cancer cluster investigations and views about specific technologies such as genetic engineering, nuclear energy, and nanotechnology. This research has included contexts such as public engagement evaluation, risk communication, and perceived conflicts of interest. The results of my work have clearly shown that it is worth putting resources into ensuring quality engagement efforts. It is also clear to me that the fairness literature should be used more often as it provides insight that could advance theory related to trust in science, and the planning and evaluation of science-related public engagement.

Based on recognition of my expertise, I gained the opportunity to begin writing the biennial chapter on "Public Attitudes and Understanding" on behalf of the National Science Board (NSB). This chapter has been part of a congressionally mandated report to Congress and the White House since the early 1970s. I have written the 2014, 2016, and 2018 chapters with the technical support of the consulting firm SRI International. While much of the chapter is a straight-forward reporting and comparison of available survey data from the U.S. and around the world, the challenge of the work is shaping how the results are framed, choosing what data are emphasized, and helping select the rotating questions that get asked alongside the permanent questions that form the report's backbone. These questions are included on the National Opinion Research Center's (NORC) General Social Survey (GSS), one of the United States' most important sources of social science data. Consistent with my interest in fairness and risk perceptions, my focus has been to put more emphasis on how scientists and science are perceived and, for 2018, the relationship between general attitudes about science and attitudes about specific scientific issues (e.g., genetic engineering, nuclear energy, and various environmental issues). This focus has meant that the report increasingly highlights the high regard that most people hold for the scientific community, despite frequent lamentation from within the science community of widespread rejection of science.

I have also used my deep familiarity with the NSB dataset to help extend the literature on overall views about science. Most directly, this access has allowed me to publish several manuscripts that have informed my writing of the chapter. These studies have highlighted the stability in views about science and the key role that views about scientists and interest, rather than knowledge, play in predicting support for science. Working on the chapter has also allowed me to collaborate with scholars around the world and to contribute to the recent National Academies consensus report on science literacy that sought to clarify the limited role that science knowledge plays in shaping attitudes and behavior.

Beyond fairness perceptions and overall attitudes about science, I have shifted substantial focus in recent years to studying how scientists think about communication with non-scientists in the context of efforts at public engagement. My desire to see communication scholars' findings used by scientists who communicate publicly motivates this work. My shift from a School of Journalism and Mass Communication at South Carolina to an endowed chair of public relations has also been important as the move put me into additional contact with communication strategists at advertising agencies and public relations firms, as well as students eager to succeed in strategic communication careers.

At a theoretical level, this new line of research has resulted in the beginnings of an attempt to conceptualize the communication choices that scientists make as planned behaviors. Conceptualizing the choices about scientists' goals, objectives, and tactics as behavioral choices opens the possibility of studying these choices like other behaviors. This means we can seek to predict and promote desired choices through attention to related attitudes, normative beliefs, and efficacy beliefs. Some initial work in this area has allowed my colleagues and me to survey thousands of scientists about public engagement and brought the opportunity to develop collaborations with several key U.S.-based science communication trainers. We are initially focused on how we might get scientists to focus on relational communication objectives such as ensuring that the public perceives the science community as open, honest, and willing to listen, rather than simply focusing on increasing knowledge. Among other things, we hope to expand our focus to understanding scientists' communication tactics (e.g., what leads a scientist to devote time to open discussion rather than factual presentation during a public talk) through both surveys and the assessment of training interventions.

In addition to the above, my contributions to the field have resulted in visiting researcher opportunities at the University of Koblenz-Landau (2015), the Nanjing Agricultural University (2016), and the China Research Institute for Science Popularization (2017). On these visits, I worked with fellow researchers on a range of science communication topics. I also believe the range of co-authors I have worked with speaks to the impact of my scholarship. Additional collaborations with leading scholars in the United Kingdom and Canada, as well as practitioners, are also in progress. Partnerships with leading science communication trainers, in particular, are opening up new areas for foundation funding.

Going forward, I have no doubt that I will remain a productive scholar and am driven to ensure that I continue to have an impact. I expect to do further work on formalizing the ideas we are developing related to how to motivate scientists and other strategic actors to communicate more effectively. I also hope to find time to put renewed effort into understanding how scientists and others can ethically shape fair process perceptions in order to earn legitimacy in policy discussions. Graduate students working with me, for example, have been looking at ways to use tone and visual representations to communicate fairness. There are also a number of outstanding questions about how to best conceptualize and measure fairness in the context of science and risk that I want to tackle.

Teaching

Since coming to MSU, my teaching has been in two main areas, both related to public relations. At the master's level, I have taught both media relations and public relations theory. At the undergraduate level, I have focused on developing "field experience" classes that involve bringing students to meet with industry leaders and young professionals in key cities. I have also taught courses on mass communication and health, public relations principles (online), and crisis communication. Prior to MSU, I did not specifically teach strategic communication but, as noted above, my increasing focus on improving the impact of science communication builds on my experience in teaching and reading related to public

relations. I am convinced the two areas of scholarship need to learn more from each other and am trying to make this happen through my teaching, research, and service.

I am particularly proud of the role I have played in developing “field experience” courses in Chicago, New York City, and Detroit. I proposed an initial course to Chicago during my second year at MSU based on my experiences helping to bring students to Atlanta while at South Carolina. The New York City version began the following year and I developed a local version of the class in 2015 that invites Lansing-area leaders to campus to talk about communication strategy with students. For the travel version of the classes, 15-25 students spend about a week in the destination city and meet with professionals from three or four organizations per day. These typically include public relations firms, advertising agencies, and media planning companies, as well as in-house communicators. We ask the hosts to talk about how their organization approaches communication strategy, starting from goal setting and working through research, implementation, and evaluation. These experiences have informed my research by helping me understand how leading practitioners approach strategic communication. I created a new Detroit trip for December 2018 and hope to expand this course in the coming years.

My teaching evaluations have typically been strong with average scores well above the ‘satisfactory’ minimum required for promotion to professor. I am particularly gratified that many students have told us that the field experience courses are among their favorite activities at MSU and that many have found job opportunities with the organizations we visit. The field experiences have also been helpful in allowing me to get to know many of the university’s alumni. I have tried to use these discussions to learn about how to make the student experience at MSU as valuable as possible.

For Ph.D. students, my goal is to be as good a mentor as those who mentored me. I prioritize being in the office and having frequent research conversations with the students I advise (and some that I do not). I work regularly with students on all aspects of research and a number of my recent co-authors have been students. Overall, at MSU, I have chaired three successful dissertations and have two additional candidates in the in the writing stages. One of my former students holds a tenure track position at Northern Illinois University and the other is a faculty member in Kuwait. Beyond chairing, I am currently on a number of committees across the Ph.D. program and have served on seven completed MSU committees and four at South Carolina.

Service

Service has given me many of the ideas and opportunities that drive my research and teaching. Since tenure, this activity has included extensive peer review of journal articles and research proposals, advising science communication practitioners, and serving on committees at MSU and in Washington, D.C. My service activities are also important because many of my external service opportunities grew out of my scholarly work and thus represent additional evidence of impact. In terms of promotion criteria, I have engaged in many more than the four substantial activities required for promotion to full.

For peer review, I am on the editorial board for most of the main journals where science and risk communication scholars publish, including *Public Understanding of Science*, *Science Communication*, *Risk Analysis*, and the *Journal of Risk Research*. I also regularly review for a range of other journals, typically about two to three articles per month. I further review about eight conference submissions per year, as well as several grant proposals. I have also served on an in-person review committee for NSF’s Advancing Informal Science Learning. Most recently, I have begun regularly reviewing drafts of reports on public opinion about science issued by the Pew Research Center (paid) and have visited China twice since 2016 to provide feedback to researchers building up their science communication research capacity.

For professional advising, I regularly give talks to groups such as the Michigan Department of Environmental Quality or scientists interested in improving their understanding of communication. More formally, I have been involved in designing science communication training for Michigan State University researchers in cooperation with Communication and Brand Strategies, the university's central communications team. Beginning in 2016, this has involved helping to lead communication training classes about every two months. These trainings will expand to monthly during the 2017-18 academic year and allow me to try out the ideas that I am developing based on my research and ongoing discussions with trainers. In this regard, I have regular contact with a range of leading communication training organizations, including leaders from the Alan Alda Center for Communication Science at Stony Brook University, COMPASS Science Communication, and the AAAS. The discussions I have with these groups are aimed at both sharing emerging research and developing research ideas. I believe these discussions have helped shape some of what the trainers do (e.g., more focus on helping scientists articulate long-term goals and set near-term communication objectives) and it has also led to several research projects and foundation-focused proposals that we hope to see funded.

Another aspect of my effort to serve in impactful ways has been my commitment to share my research with non-academic audiences. The core of this work has been six articles that I have written or helped write for *The Conversation*—an online site for evidence-based public commentary for which MSU is a founding partner—as well as interviews I have done with a variety of journalists and writers for publications like the Center for Advancing Informal Science Education's newsletter, and other organizations, including several National Public Radio programs. My pieces for *The Conversation*, which publishes articles under a creative commons license, have been picked up by a range of publications (e.g. *Popular Science*, *Smithsonian Magazine*) and read by more than 90,000 people. I have also organized and hosted two events during MSU's annual science festivals that gave researchers from the college an opportunity to share their research with the broader community in an informal context.

On campus, in addition to normal departmental committees, I have chaired multiple successful search committees and served on the College Advisory Council. I also served as the college representative on the University Committee for Faculty Affairs for three years, including two as the chair of sub-committee on finance. This sub-committee provides faculty oversight for the university's budget and I used to the opportunity to develop recommendations to university leaders on faculty salary, summer retirement benefits, and administrative costs.

Summary:

I am thankful that my academic career studying science and risk communication has been productive and I look forward to continuing this work in the years ahead. I am particularly gratified that I have continued to create opportunities to make science-related communication more strategic. These opportunities include both substantial funding and a wide-range of U.S. and international collaborations that have allowed me to explore both novel and important topics. Ultimately, I think my research has helped show why science communicators need to avoid simply trying to teach others about their work and instead focus on sharing their insights in ways that also communicate fairness (e.g., a willingness to listen to, and respect, others' views) and trustworthiness (e.g., warmth as motivation to make the world a better place, and integrity). In all that I have done, I am especially appreciative of my wonderful collaborators, especially [REDACTED] [REDACTED] at Cornell University and [REDACTED] at the University Texas at Austin, for their willingness to work with me.