

To Whom It May Concern,

I am writing to express my strong interest in the Information Scientist position at RAND. I

I received my Ph.D. in Economics from the University of Oregon in 2017. My thesis focused on adapting existing econometric methods of production and efficiency to be more flexible to provide detailed estimates describing technological change, productive capabilities, and market power. I applied these statistical methods to the U.S. freight rail industry to provide insights into changes that occurred in the industry in the period following its deregulation. Through these analyses, I showed how deregulation differentially affected railroads and illustrated the complexity of impacts for firms and consumers.

I began working at Sandia National Laboratories as a Cybersecurity Researcher in 2017. Early in this role, I was fortunate to be able to engage in training covering cyber systems and vulnerabilities as well as engage in a breadth of projects that gave me familiarity with cyberphysical systems and their vulnerabilities. I leveraged my expertise in statistics and simulation to assess the risk and resilience of these systems and develop robust metrics to quantify system health utilizing Sandia's state-of-the-art emulation capabilities. During this time, I worked with US Army NETCOM to develop real-time measures of resilience of their networks, explored viability of and defenses against steganography over industrial control system communications, and investigated statistical methods to perform inference on cyber experiment outcomes.

During this time, I also contributed to a number of other efforts across the lab. I joined the Interagency Nuclear Safety Review Board, which performs safety analyses of launches of spacecraft containing nuclear material. I involved in the launch analysis of Perseverance and its multi-mission radioisotope thermoelectric generator, which launched July 2020 and landed on Mars in February 2021. During this effort,