New study tracks COVID-19's effects on small tech firms

September 18 2020, by Lewis Taylor

A new study by the UO's Lauren Lanahan seeks to understand the impact of the COVID-19 pandemic on small high-tech firms and track the challenges and opportunities they face as the crisis continues to unfold.

"The COVID-19 pandemic has introduced substantial disruptions to the

U.S. and global economies, and in turn the innovative ecosystem," said Lanahan, an assistant professor of management. "We seek to characterize changes in the landscape of high-tech small firms that result from the ongoing pandemic and related policy responses, as well as to examine the direct impacts of these institutional policy decisions on the structure and health of the innovation ecosystem and its ability to supply and support public initiatives."

Lanahan's project, "Examining the Innovative Ecosystem During the COVID-19 Pandemic," is funded by a one-year $200,000 grant from the National Science Foundation and was prioritized through the NSF's Rapid Response Research funding mechanism. The program allows the agency to receive and review urgent proposals, as well as research on natural or human-caused disasters and similar unanticipated events, like the coronavirus.

Broadly speaking, Lanahan's research focuses on the relationship between public institutions and the production of scientific knowledge. She has also examined how businesses and government partner to drive economic prosperity.

For her new project, she sets out with goals for tracking small, high-tech firms. She aims to characterize the shift in the national ecosystem of innovative small firms and evaluate the effects of policy decisions in response to the pandemic on that ecosystem.

Lanahan and her collaborator, Amol Joshi, an associate professor of strategic management at Wake Forest University's School of Business, will work with a team of researchers to construct a public database to track small firms that are suppliers of critical public health technologies related to pandemic response. While considering small business performance, they will also be able to identify the geography and ownership of the firms they are tracking, enabling them to parse out

whether firms are owned by women, minorities, veterans and other underrepresented groups.

"We can identify firm-level characteristics that indicate which firms are most and least resilient, as well as those best positioned to assist with government countermeasures against the pandemic," Lanahan said. "If we can paint a clearer picture of which areas of the innovation ecosystem are most susceptible to the effects of COVID-19, we can illuminate priorities for public and private sector efforts to rebuild innovative activity and allocate support resources more effectively."

Additionally, Lanahan and Joshi will consider the effectiveness of programs such as the Paycheck Protection Program and the consequences of state and local restrictions on business operations. The resulting databases and interactive dashboard will be designed to enable policymakers and businesses to identify future opportunities for growth and innovation.

"Through her timely and important research, professor Lanahan is directly addressing the impact of the COVID-19 crisis," said Patrick Phillips, UO's provost and senior vice president. "The tools she is developing will further our understanding of the devastating impact of the coronavirus pandemic on small businesses and provide valuable resources that will benefit society and help raise the resiliency of the innovation ecosystem."

Small tech firms, Lanahan said, remain especially vulnerable to the unprecedented health, social and economic risks arising from the coronavirus pandemic. But because they also account for a disproportionately high amount of employment in the economy and are potential sources of innovation in combating COVID-19, they are well situated to help address the crisis.

"Our hope," Lanahan said, "is that small tech-firms will be empowered and able to grow and supply much-needed expertise and resources during the pandemic."

More information: RAPID: Examining the Innovative Ecosystem During the COVID-19 Pandemic.
www.nsf.gov/awardsearch/showAward?AWD_ID=2032914

Provided by University of Oregon