

Innovation and the Supply of Highly Specialized Human Capital

Faculty Member: [John Eric Humphries](#)

Proposal Description:

This project aims to study how quickly the supply of newly trained PhD and MA recipients respond to innovation. Drawing on multiple innovations from industry and academia across scientific fields, the researcher aims to quantify the elasticity of supply of highly specialized human capital. Examples of innovations include the creation of “market design” within economics, the rise of machine learning techniques in statistics and computer science, or the invention of CRISPR gene editing methods in biology. Each of these examples represent new tools or areas of study that created new demand for highly skilled researchers with expertise in these specific subjects. This project aims to understand how quickly the supply of newly trained human capital responds to innovation, and which institutions respond most rapidly.

Requisite Skills and Qualifications:

The hired fellow will work with a database containing details on millions of dissertations and theses and will analyze the data using natural language processing (NLP) methods. Applicants should have previous experience with working with large data sets, experience with the R programming language, and preferably experience with NLP.

Award: Larissa Nguyen

Tobin Application Link: [Tobin Application](#)

Project Type: Tobin

Project Year: 2019

Term: Fall 2019

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