

## EconLab Opportunity for 2024-25: RA for Matteo Ruzzante and Christopher Sims

**Title:** Research Assistant

**Openings:** Two

### **Project Description:**

In the 19th century, the discovery of guano and nitrates ushered in the start of the "Nitrogen Revolution", which transformed agricultural practices and technologies to ultimately allow for the feeding of one-third of the world's current population. In this project, we study these changes in the context of 19th-century Britain and have a need for collecting and processing data from different historical sources to augment our initial findings. The first source is a hand-written agricultural census from 19th century Britain, which we will digitize using an AI-based text recognition software called Transkribus. The second source is the population census for England, which we will digitize and process using a combination of Amazon Textract and Stata. The third source are periodicals of the time which list uses of fertilizers in specific locations, which we will digitize and process using a combination of Amazon Textract, Stata, and Python. Training will be provided for the use of these different softwares, and it is fine if you are only comfortable working on certain portions of the data tasks.

### **Application Requirements:**

The time commitment is 10 hours per week. Please email [christophersims2026@u.northwestern.edu](mailto:christophersims2026@u.northwestern.edu) with your résumé (highlighting experience using the above softwares, if any), a brief cover letter explaining your interest in economic history and empirical economics, and your transcript. The work will last for the duration of the Fall quarter.