PURSUING A RESEARCH ASSISTANT POSITION IN ECONOMICS

J-PAL
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INTRODUCTION

This resource provides suggestions for preparing for a full-time Research Assistant (RA) position in economics research, reflecting what we look for in RA candidates at J-PAL. These positions are also referred to as Research Associates and Pre-Doctoral Fellowships. Typically, RA positions in economics prepare you to pursue a PhD in economics or other related fields. That said, not every RA is expected to matriculate into a graduate program in economics. Successful RAs subsequently pursue other career tracks.

The document explains:

(1) Reasons to pursue an RA position
(2) How to prepare for an RA position
(3) Process to apply for an RA position

REASONS TO PURSUE AN RA POSITION

Skills: RA positions teach you the key aspects of the research process (e.g. conducting literature reviews, designing studies and surveys, managing data sets, running field experiments, project management, programming, performing data analysis, developing econometric and statistical knowledge, creating data visualizations, presenting analyses in written and oral presentations, among other activities). At J-PAL, RA positions are often, but not always, in one of two categories: *Field RAs* develop the skills to conduct an experiment, while *Data RAs* develop the skills to analyze an experiment.

Research Exposure: The RA role provides a hands-on view of conducting research, enabling RAs to gauge their interest in and enjoyment of conducting research before deciding to pursue a graduate program. The research exposure can help you formulate and refine research ideas for research statements for graduate school applications and funding (e.g. National Science Foundation's Graduate Research Fellowship Program). RAs often pursue PhDs, other graduate degrees such as an MPA or MPH, professional research roles, or positions in industry.

Knowledge: Not only will you gain skills and knowledge in your everyday role but often you can enroll concurrently in classes. This can help supplement your background in the coursework mentioned in the following section. You may also have the opportunity to attend seminars and conferences. Although you may not follow all the content in an academic seminar without graduate training, you will pick up more than you would expect; we encourage you to attend some before and during an RA position to see for yourself.

Impact: An RA role allows you to participate in economics research where you can impact important issues like poverty alleviation, health, education, labor, and development.

HOW TO PREPARE FOR AN RA POSITION

Coursework: Mathematics and statistics are central to economics research. We look for candidates with coursework such as: single and multivariable calculus, differential equations, linear algebra, real analysis, probability, statistics, and econometrics.

We look for candidates with coursework in economics but welcome students from other disciplines as well.

Additionally, your GPA is important, especially in mathematics, statistics, programming, and economics courses. We especially focus on grades from advanced courses.

Skills: Evidence of your willingness and capacity to learn are considered along with your current skill level. The skills of particular focus are the following: study design, economic reasoning, programming, data management, data cleaning and analysis, statistical modeling, data visualization, and writing. At J-PAL, the most common programming languages are Stata, R, and Python.

Experience: Previous research experience is a great signal and may be required for some positions. Research ability can be demonstrated by completing an undergraduate or graduate thesis, serving as an RA for an undergraduate or graduate professor, or other independent research. For data analysis-focused RA positions, experience writing code (in, e.g., Stata, R, Matlab, or Python) outside of the classroom, and/or in a team environment, is especially desirable. This can demonstrate the ability to write and document code that is usable by others.

Recommendations: Letters of recommendation will sometimes be required for an RA position, and are often considered a significant element of the application. Previous candidates have had letters from professors of one of their courses or for whom they worked as an undergraduate RA or Teaching Assistant. Some suggestions for a letter of recommendation:

- We weigh letters from academics more highly than letters from non-academics.

- It is better to have a letter from someone who knows you well than a letter from a well-known scholar who does not know you very well.

- A bad letter hurts much more than a good letter helps; give letter writers an opportunity to decline.

PROCESS TO APPLY FOR AN RA POSITION

When and where to find RA positions: J-PAL and our partner organization, Innovations for Poverty Action, recruit for hundreds of RA positions through our career page linked below. We begin our hiring cycle in the fall of each year for positions starting the following summer, which seems consistent with other RA hiring; however, recruiting does happen throughout the year. Other RA opportunities are aggregated on the websites of, to name a couple, the National Bureau of Economic Research and the American Economic Association.

Application: For the resume and cover letter, be concise and indicate, with examples, how you have the required skills and knowledge for the role. You will often have to complete a data analysis exercise as part of the application—for which we recommend you: write organized code, present results professionally, and be sure of the validity of the statements in your write up. For the interview, be prepared to talk about your previous research, plans for the future, technical knowledge, and data test.

Assessing an RA opportunity: Many professors offer or are willing to provide the opportunity to connect with their current or former RAs and Research Managers (RMs). When considering an offer for an RA position, use these conversation starters with the RAs, RMs, and professors to assess the following:

- Will you be working for a professor? Will it be one professor or several? How many projects?

- How often will you interact with the professor? Will the interaction be in-person or virtual?

- How many other RAs will be working for the professor(s)? How is this managed?

- In what fields has the professor published? Does this align with your interests?

- What is it like to work for the professor or on this project?

- What has the experience been for previous RAs? Where are they now?

WHY WE MADE THIS RESOURCE

As a network of over 160 affiliated professors, J-PAL and its partner organizations recruit for hundreds of RA positions located at universities, research centers, and non-profit organizations. J-PAL's mission is to reduce poverty by ensuring that policy is informed by scientific evidence, and RAs are critical to building that evidence. We made this resource to provide transparent and accessible advice for aspiring RAs.

Massachusetts Institute of Technology