



Research Assistant Opportunities for College Graduates



Welcome

I am pleased to introduce the Philadelphia Fed's Research Department and highlight some of the opportunities you can have working with us as a research assistant.

Research assistants play key roles in our department, helping economists prepare briefings on current monetary policy issues, working on the staff economic forecast, writing some of our newsletters on economic conditions, producing short-term economic analyses, or analyzing data for long-term research projects. Our department's collegial atmosphere is a point of pride, and research assistants are an essential element of that atmosphere, working with each other and with our economists as part of the larger Research team.

By working with economists on research projects, research assistants experience every stage of the economic research process, and research assistants also help one another develop their statistical, data, and programming skills. The opportunities afforded our research assistants don't stop at the Bank's doors; for instance, our economists spend time collaborating on research with academic and central bank colleagues from around the world, and because of their work alongside our economists, our research assistants get that same broader experience.

In their work on Research Department assignments, our research assistants have found many ways to increase their knowledge of economics and improve their quantitative analysis skills. Moreover, research assistants have access to formal training opportunities both inside and outside the Bank, including training in software packages and languages and taking undergraduate and graduate classes at area universities.

I believe you will find that working as a research assistant at the Philadelphia Fed is a rewarding experience, no matter the career path you ultimately pursue. Our research assistants have gone on to top graduate schools in economics, public policy, and law.

I invite you to take a closer look at the Philadelphia Fed and hope that you will consider joining our Research Department's team of talented research assistants.

Michael Dotsey

Executive Vice President, Director of Research, and Director of the Consumer Finance Institute





Functions of the Research Department

The Research Department is organized into five distinct sections: Banking, the Consumer Finance Institute, Macroeconomics, Regional/Microeconomics, and the Real-Time Data Research Center. The research assistants (RAs) support the first four sections. Our team conducts innovative research on monetary policy, macroeconomics, banking and finance, financial services regulation, payments, regional and urban economics, and other aspects of central banking. The Research Department also provides the Bank’s senior management and the board of directors with careful analyses of economic and financial conditions in the nation and the Third Federal Reserve District as well as insightful briefings on policy-related issues.

Macroeconomics Topics

- General Equilibrium
- International Finance and Trade
- Monetary Economics
- Monetary Policy

Recent Papers

- “A Model of the Federal Funds Market: Yesterday, Today, and Tomorrow” (2018)
- “Declining Labor Turnover and Turbulence” (2018)
- “Long-Run Trade Elasticity and the Trade-Comovement Puzzle” (2017)



“The Research Department at the Philadelphia Fed strives to create an open, academic environment in which economists focus on their own research interests. As RAs, we have the opportunity to learn and grow as researchers in economics. In my time working at the Fed, I have received training on different programming languages, such as ArcGIS, Python, and SQL. I have also contributed to work in areas of economics that I was not exposed to in my undergraduate coursework. As a result, my experience as an RA has helped me hone my research skills and has better prepared me to obtain a Ph.D. in economics. Moreover, the RAs have a strong camaraderie. We are resources for each other and offer help and encouragement. Outside of work, we are friends who get to explore the fascinating city of Philadelphia.”

- ISABELLA AGNES

Banking & Finance Topics

- Banking and Financial Institutions
- Consumer Finance
- Corporate Finance
- Financial Markets

Recent Papers

- “On the Economics of Digital Currencies” (2018)
- “Reorganization or Liquidation: Bankruptcy Choice and Firm Dynamics” (2017)
- “Household Credit and Local Economic Uncertainty” (2017)

Consumer Finance Institute

- Credit Markets
- Mortgages
- Payment Cards
- Automated Clearinghouses
- Payment Innovations

Recent Papers

- “The Roles of Alternative Data and Machine Learning in Fintech Lending: Evidence from the LendingClub Consumer Platform” (2018)
- “Shrinking Networks: A Spatial Analysis of Bank Branch Closures” (2018)
- “Screening on Loan Terms: Evidence from Maturity in Consumer Credit” (2018)

Regional & Microeconomics Topics

- Contracts
- Industrial Organization
- Labor Economics
- Urban and Regional Economics
- *Manufacturing Business Outlook Survey*

Recent Papers

- “The Paper Trail of Knowledge Spillovers: Evidence from Patent Interferences” (2017)
- “Land-Use Regulations, Property Values, and Rents: Decomposing the Effects of the California Coastal Act” (2017)
- “Natural Amenities, Neighborhood Dynamics, and Persistence in the Spatial Distribution of Income” (2017)



Policy and the FOMC

In addition to long-term research, economists and RAs are assigned policy work on a rotating schedule. To support our Bank's president and other senior management, our department monitors the national and regional economy and also produces policy briefings before the FOMC and board of directors meetings. RAs assist our economists whose policy-related activities include:

- developing and giving presentations on economic forecasts;
- publishing newsletters and *Economic Insights*, which explains important economic topics in an accessible way;
- supporting our Bank's Supervision, Regulation, and Credit Department by analyzing relevant financial issues, including changes in banking law and regulation and credit risk management; and
- supporting the changes in banking law and the banking industry and the Board of Governor's Office of Financial Stability Policy and Research.



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Working as an RA at the Philadelphia Fed has been the perfect opportunity for me to transition out of college. I've been able to use my time here to hone

my research skills, improve my knowledge of different coding languages, learn about economics from some of the most respected economists in the field, and prepare for graduate school by developing my own ideas and taking classes. I feel as though I am ready to submit a more well-rounded and impressive application to graduate programs now than I would have been able to right out of college. It has also been a great experience having a group of colleagues who are in a similar position. My fellow RAs are always willing to help me work through a programming problem or create a chart that seems tricky at first, or even work on a problem for my math class after work. I highly recommend this position for anyone who sees graduate school in his or her future.”

- JEANNA KENNEY



How We Support Your Success

Training

RAs have access to a number of paid training opportunities. They can receive training on programs such as MATLAB, SAS, EViews, STATA, and ArcGIS and on how to use databases such as Bloomberg and Haver Analytics. The Research Department further helps RAs increase their skills by providing the time and funding to take one course at a local university each year. The Bank also offers tuition reimbursement for approved graduate degree programs. A flexible work schedule allows RAs to take advantage of these training and educational opportunities.

Courses taken by RAs include Probability, Mathematical Statistics, Stochastic Processes, Bayesian Statistics, Econometric Forecasting, Ordinary Differential Equations, Partial Differential Equations, Vector Calculus, Linear Algebra, Real Analysis, and Spatial Analysis.

Economic Seminars

The Bank regularly holds morning and lunchtime seminars in which visiting economists explain their research and receive feedback. These economists are from leading research universities and/or experts in their field of research. RAs are encouraged to attend the seminars in order to gain a broader exposure to economic research.

Library and Access to Large Databases

RAs can request books from other Federal Reserve Banks and universities and gain access to numerous subscription-only databases.

RA Presentations

RA presentations draw on the power of group learning. They provide a forum for RAs to improve their presentation skills and expose the RA group to the other areas of economic research.

Culture and Values

Our department prides itself on its collegial and social atmosphere and its diversity. RAs help one another develop their statistical, data, and programming skills.

Responsibilities of the Research Assistant

By working with economists on research projects, RAs fully experience all stages of the economic research process. Our economists spend time collaborating on research with academic and central bank colleagues from around the world; as a result, so do our RAs. The assignments in the Research Department offer our RAs a number of ways to increase their knowledge of economics and their analytical skills.

RAs are responsible for providing both short-term and long-term research support.

Short-term research support: Assisting economists with reports and presentations on current economic and financial conditions for pre-FOMC and board of directors meetings

RAs help economists analyze the state of the domestic and international economy through research on monetary policy, financial markets, payment systems, housing prices, inflation rates, and other economic indicators. The analysis is presented to the Bank's president and senior management.

Long-term research support: Assisting economists with statistical and econometric analyses for long-term, academically oriented research projects

RAs help economists on a wide range of applied and theoretical research topics. Long-term research culminates in a published paper, which the RA has the opportunity to contribute to and possibly coauthor.

On a day-to-day basis, RAs are expected to:

- review, organize, and analyze economic and financial data;
- write programs using statistical software such as SAS, STATA, MATLAB, and ArcGIS;
- compile and assess information from academic journals, market sources, and government reports;
- develop spreadsheets and macros to enhance data manipulation and analysis; and
- prepare background materials for and assist in the formulation of senior management briefings.



Research Assistants at the Philadelphia Fed

Working as a research assistant at the Philadelphia Fed is a rewarding experience, whichever career path you ultimately choose to pursue. RAs typically work at the Philadelphia Fed for about two or three years before continuing on to graduate programs or other careers in economics or related fields.

Career paths of recent research assistants:

- Ph.D. in Economics at Princeton University
- Ph.D. in Economics at the University of Michigan
- Ph.D. in Economics at the University of Chicago
- Ph.D. in Biostatistics at the University of Pennsylvania
- J.D. at the University of California–Berkeley
- Master in Public Administration at Princeton University
- Master in Public Administration at Harvard University
- M.S. in Computer Science at Stanford University
- Economic Analyst in the Research Department at FRB Philadelphia
- Analyst in the Supervision, Regulation, and Credit Department at FRB Philadelphia
- Senior Policy & Markets Analyst in the Markets Group at FRB New York



The best way to discover if economic research is for you is to jump right in and start doing it. Being an RA at the Philadelphia Fed uniquely allows you to do this right out of college — giving you the opportunity to collaborate directly with economists on leading academic research and to work alongside other RAs with similar goals and interests. I have worked with an economist on an extensive project creating a novel data set of patent records that we hope will provide a new window into the innovation process. Additionally, as part of our RA Seminar Series, I've tried my hand at presenting my own research ideas and received valuable feedback from my fellow RAs. I'll be taking this research experience with me to an economics Ph.D. program."

– NICK REYNOLDS



For More Information

If you're interested in learning more about working as a research assistant at the Philadelphia Fed, please contact Brie Coellner, manager of research analytics, Research, at brie.coellner@phil.frb.org.





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