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# RESEARCH ANALYST

## Opportunities for College Graduates



**NEW YORK FED  
RESEARCH AND  
STATISTICS GROUP**

**2015/2016**





**PRESTON MUI**  
International Research

*"As an RA in the International Research Function, I've been involved in research analyzing firm behavior in international markets, examining the structure of international banking, and generating forecasts of international economies. Working at the Fed means that I have the unique opportunity to apply cutting-edge econometric techniques to rich data sets that I wouldn't otherwise have access to. In addition, the Research Group has introduced me to many economists who are leading researchers in their field."*

*"Being able to see research projects at various stages has taught me how to manage my own research projects in the future. The economists I work with put a lot of trust in me and I'm able—and expected—to really contribute by providing insight into the research process. These skills will be extremely valuable when I begin my Ph.D. program in economics at UC Berkeley in the fall."*

# Joining the Federal Reserve Bank of New York's Research Group

The Research Group offers a broad range of opportunities for bachelor's degree candidates with a strong background in economics, mathematics, and statistics.

## What Does a Research Analyst Do?

Research Analysts (RAs) have two primary responsibilities:

- Assisting economists in the analysis of current public policy issues and events  
RAs help economists conduct current analysis and other short-term research on monetary policy, bank regulation, payments systems, financial markets, and the state of the U.S. and global economies. Current analysis often culminates in reports or presentations to the Bank's president and senior management.
- Assisting economists in long-term, academically oriented research projects  
RAs help economists plan and execute long-term research on a wide range of applied and theoretical topics. Many RAs have the opportunity to coauthor scholarly articles with the economists.

Some day-to-day activities include:

- Performing econometric, computational, and analytical research intended for Bank publications as well as academic journals
- Programming in statistical packages, such as SAS, STATA, and MATLAB
- Running financial, banking, macroeconomic, and international forecasting models
- Reviewing and organizing economic and financial data
- Compiling and assessing information from academic journals, market sources, and government reports
- Writing or assisting with reports and presentations on current economic and financial conditions and policy issues
- Developing spreadsheet/web macros and programs to facilitate and improve data manipulation and analysis
- Preparing background materials for and assisting in the formulation of senior management briefings.

## RESEARCH ANALYST JOB REQUIREMENTS

- Bachelor's degree in economics, mathematics, statistics, or a related field
- Experience with large databases and statistical packages (for example, SAS, STATA, MATLAB)
- Strong analytical and decision-making abilities
- Ability to provide effective verbal and written analysis
- Legal authorization to work in the United States on a multi-year basis for other than practical training purposes



## What Are Some Advantages of Working Here?

### NEAR-TERM BENEFITS

Research Analysts enjoy the benefits of

- Interaction with leading economists and analysts on key policy and research issues
- Eligibility for tuition reimbursement for individual courses, certificate programs, and graduate programs
- Access to resources designed to build business, computer, and writing skills

### LONG-TERM GAINS

Research Analysts have gone on to enter prestigious academic programs, receive National Science Foundation and other highly regarded grants, and accept challenging positions in business and banking.

### Career steps taken by former RAs include:

#### PH.D. PROGRAMS IN ECONOMICS

**AND/OR FINANCE** Berkeley, Brown, Caltech, Chicago, Columbia, Cornell, Harvard, Michigan, Minnesota, MIT, Northwestern, NYU, Penn, Princeton, Rochester, Stanford, UCLA, Wisconsin, Yale

#### MASTER'S PROGRAMS IN PUBLIC

**POLICY** Berkeley, Chicago, Columbia, Harvard, Princeton, Yale

#### MASTER'S PROGRAMS IN BUSINESS

**ADMINISTRATION** Chicago, Columbia, Harvard, MIT Sloan, NYU Stern, Stanford, Wharton

#### FEDERAL RESERVE BANK OF

**NEW YORK** Chief of Staff's Office, Emerging Markets and International Affairs, Financial Institution Supervision, Markets Group, Risk Group

**BUSINESS** American Express, Cantor Fitzgerald, Facebook, Goldman Sachs, ISI Group, JPMorgan Chase, Morgan Stanley, NERA Economic Consulting, Standard and Poor's

#### NONPROFIT ORGANIZATIONS

Brookings Institution, Council on Foreign Relations, NBER

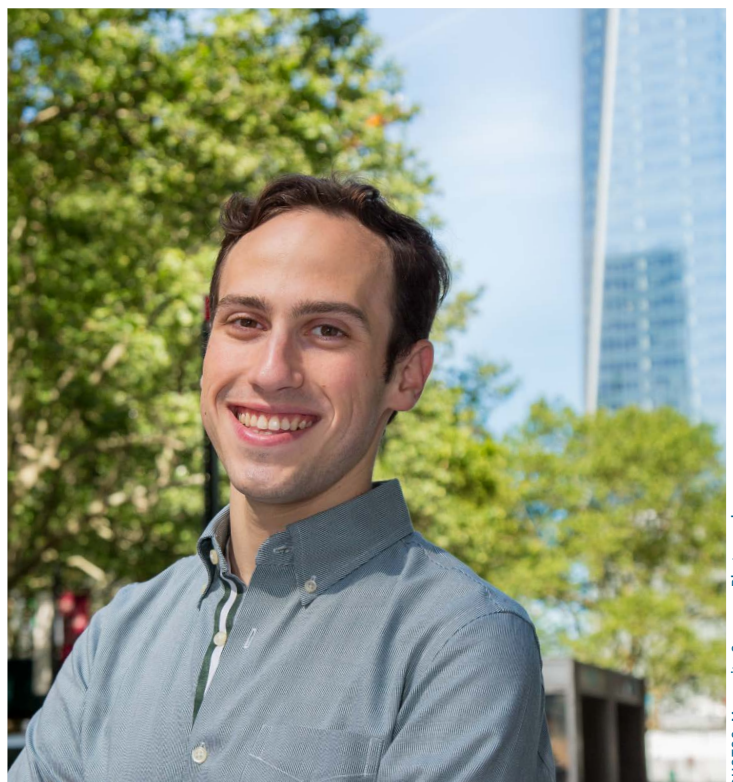
**LAW AND PUBLIC SERVICE** Berkeley, Chicago, Columbia, Harvard, Michigan, NYU, Yale, IMF, Peace Corps

## JACOB ADENBAUM

Money and Payments Studies

*"Working in Money and Payments Studies has been a fantastic experience! During my time here, I've had the opportunity to work with and learn from top-notch researchers and theorists, take graduate math classes at NYU, gain experience with advanced programming and computational techniques, and work on projects ranging from studying monetary transmission mechanisms in short-term financing markets to examining fuel efficiency standards and demand estimation in the used truck market.*

*But by far the biggest benefit of working in Research at the New York Fed is the group of people I work with. I feel humbled every day to be able to work with the other RAs—absolutely brilliant, engaging, and fun people whom I'm lucky to call my friends. And so many of the economists are deeply invested in the success and growth of their RAs—they're constantly encouraging us to attend research seminars and to take the time to develop new skills. I can't imagine a better place to work."*



PHOTOS: Margarita Corporan Photography



## NICOLE DUSSAULT

Macroeconomic and Monetary Studies

*"What I've loved about working as an RA at the New York Fed is the opportunity to engage in economic research on a wide range of topics. In addition to their role in analyzing and driving monetary policy, our economists also explore topics in education, healthcare, and income distribution. I've worked on projects examining the impact of the Affordable Care Act on individual debt, how health conditions shape perceptions of well-being, and economic inequality and mobility in the United States.*

*No matter the topic, the exposure to such high-caliber research has vastly increased my understanding of statistical analysis, data modeling, and economic reasoning. These skills will be invaluable to me as I pursue a career in medicine and clinical research. In any research field you might plan to enter after college, you will need a strong understanding of quantitative analysis and the ability to work with data. The New York Fed allows its RAs to develop these skills while participating in exciting and meaningful work."*

# Areas of Research

Research Analysts join one of the Group's seven areas, which conduct both policy-oriented analysis and long-term research projects. Most RAs stay in the position for two to three years.

## Capital Markets

**Focus:** asset pricing; financial institutions; market liquidity; the interaction between markets, institutions, and economic fundamentals

**Research Topics:** links between financial markets and the macroeconomy; estimation of risk premia in stock, bond, and derivatives markets; interaction between financial institutions' balance sheets and risk premia; financial market stress and the measurement of systemic risk

## Financial Intermediation

**Focus:** behavior, stability, and regulation of banks and other financial institutions; interactions between the financial system, financial markets, and the real economy

**Research Topics:** financial crises; banks and the real economy; financial innovation; risk management and measurement; financial system regulation and capital requirements; corporate finance and corporate governance; securitization; global banking; household finance and mortgages; restructuring and resolution of failed institutions

## International Research

**Focus:** international trade, finance, and macroeconomic issues

**Research Topics:** global banks and international transmission; financial crises and trade performance; capital flows and risk sharing among countries; fiscal and monetary policy spillovers; exchange rate effects on prices, labor markets, and investment; forecasting exchange rates and commodity prices

## Macroeconomic and Monetary Studies

**Focus:** monetary policy; national economic conditions; macroeconomic research

**Research Topics:** monetary policy transmission; monetary policy and the zero bound; monetary policy and learning; sources of inflation dynamics; changes in the inflation-unemployment relationship; goods and services price inflation; the relationships between inflation expectations, forecast dispersion, and uncertainty; methods of determining trend and cyclical productivity growth; changes in inventory dynamics and business cycles; the yield curve and recessions; forecasting using large macroeconomic panels; labor market dynamics; analysis of recent housing price trends; tax changes and consumer spending; DSGE model estimation and forecasting; financial frictions, liquidity, and the macroeconomy; fiscal and monetary policy interaction

## Microeconomic Studies

**Focus:** theoretical and applied areas of microeconomics; labor, public, urban, and health economics; household finance; applied econometrics

**Research Topics:** analysis of household balance sheets and consumer credit; financial education and household debt; student loans; consumption responses to income and wealth shocks; household expectations and their links to economic behavior; formation and updating of subjective expectations; social interactions; referrals and job market outcomes; skill and locational mismatch in the labor market; education (both K-12 and higher

education); empirical analysis of auctions; land markets in U.S. metropolitan areas; the housing and mortgage markets; healthcare and the health insurance market; fiscal interactions within U.S. metropolitan areas; sources of change in U.S. income distribution; evaluation of tax and labor market reforms

## Money and Payments Studies

**Focus:** short-term funding markets; global payments systems; financial market infrastructure

**Research Topics:** design and evaluation of Federal Reserve lending facilities; bank behavior in short-term funding markets; money market mutual fund reform; tri-party repo reform; discount window policy; payments systems design; operational resiliency of payments under adverse shocks; international securities settlement; implementation of monetary policy

## Regional Analysis

**Focus:** regional economics, with an emphasis on issues of interest to the Second District of the Federal Reserve System

**Research Topics:** development of regional economic activity indexes; human capital and local economic development; analysis of K-12 and higher-education policies and outcomes; K-12 and higher-education finance; information content of regional business surveys; regional housing markets



L-R: Sam Stern, Ulysses Velasquez, and Sooji Kim, working together.

## ULYSSES VELASQUEZ

Financial Intermediation

*“Working as an RA at the New York Fed has truly been a rewarding experience, both personally and intellectually. The work environment is very collaborative among RAs and economists, and the policy work is truly interesting and impactful. For instance, in Financial Intermediation, I work a lot on a stress-test model that forecasts the capitalization of the banking sector as a function of multiple macroeconomic scenarios, allowing for inferences on whether the financial system is stable or prone to undercapitalization. I have also worked on measuring the liquidity mismatch that arises in bank balance sheets, which has led to better tools with which to gauge the liquidity risk within the banking sector. In both policy*

*projects, I help synthesize results in reports that are then read by senior economists and the Bank’s president. These policy projects have also spurred stimulating research questions that I have explored alongside economists who serve as great mentors.*

*As an RA who has benefited from funded graduate mathematics courses, cutting-edge research—that has involved advanced econometrics and complex programming—and seminars where I have witnessed Nobel laureate professors and senior economists tackling pressing issues about the macroeconomy, I can confidently say that there is no better preparation for graduate school than at the New York Fed.”*

## TUITION ASSISTANCE PROGRAM

Research Analysts receive generous tuition reimbursement for coursework and degree programs at nearby universities. In addition, the New York Fed’s strong emphasis on work/life balance helps ensure that RAs have the time they need to pursue coursework in economics, mathematics, statistics, finance, or related fields.

The Tuition Assistance Program has enabled RAs to:

- Earn a master’s degree in statistics (Columbia University) while working at the Bank
- Participate in other degree and certificate programs (New York University and Columbia University)
- Take individual graduate-level classes such as stochastic calculus, probability, statistics, real analysis, linear regression models, time series regression, linear algebra, continuous-time finance, derivative securities, graph theory, and partial differential equations.





## RON YANG

Capital Markets

*"I focus on market structure and liquidity provision, particularly in fixed-income and derivatives markets. In Capital Markets, we take the buzz words that you hear on CNBC ("high-frequency trading," "flash crashes," etc.) and rigorously examine them using the tools of financial economics. In practice, this means playing with big, beautiful financial data sets on powerful computing clusters.*

*Aside from our research role, RAs work closely with policymakers at the New York Fed as well as outside agencies. I have collaborated on projects with the U.S. Treasury, the SEC (Securities and Exchange Commission), and the CFTC (U.S. Commodity Futures Trading Commission)—assignments that have exposed me to interesting regulatory questions across many markets.*

*This integration of research and policy is a unique component of the RA role. Our research yields insights for policy analyses, while our policy experience sparks new directions for research. Our data may stream in by the microsecond, but our perspective extends into the decades."*

# Some Selected Publications Coauthored by Research Analysts

## Federal Reserve Bank of New York Publications

### MACROECONOMICS

#### AND GROWTH

Marco Del Negro, Marc Giannoni, **MATTHEW COCCI**, **SARA SHAHANAGHI**, and **MICAH SMITH**. 2015. "Why Are Interest Rates So Low?" *Liberty Street Economics* blog, May 20.

Marco Del Negro, **RAIDEN HASEGAWA**, and Frank Schorfheide. 2015. "Choosing the Right Policy in Real Time (Why That's Not Easy)." *Liberty Street Economics* blog, March 25.

**ROB DENT**, **SAMUEL KAPON**, Fatih Karahan, Benjamin W. Pugsley, and Ayşegül Şahin. 2014. "Measuring Labor Market Slack: Are the Long-Term Unemployed Different?" *Liberty Street Economics* blog, November 17.

Jan Groen and **PATRICK RUSSO**. 2015. "Is Cheaper Oil Good News or Bad News for U.S. Economy?" *Liberty Street Economics* blog, June 8.

Toshihiko Mukoyama, **CHRISTINA PATTERSON**, Ayşegül Şahin. 2014. "Job Search Behavior over the Business Cycle." *Staff Reports*, no. 689, August.

### INTERNATIONAL

**MATTHEW PLOENZKE**, Robert Rich, **MICHAEL STEWART**, and Joseph Tracy. 2015. "Euro Area Inflation Expectations—Anchors Away?" *Liberty Street Economics* blog, March 2.

Thomas Klitgaard and **PRESTON MUI**. 2014. "Demographic Trends and Growth in Japan and the United States." *Liberty Street Economics* blog, October 8.

### MICROECONOMICS

**RAVI BHALLA** and Rajashri Chakrabarti. 2015. "Just Released: Is Your School Spending Less Than Your Neighbor's?" *Liberty Street Economics* blog, March 6.

Giacomo De Giorgi, **MATTHEW PLOENZKE**, and Aminur Rahman. 2015. "Small Firms' Formalization: The Stick Treatment." *Staff Reports*, no. 728, May.

Andreas Fuster, Basit Zafar, and **MICAH SMITH**. 2015. "Just Released: 2015 SCE Housing Survey Shows Households Optimistic about Housing Market." *Liberty Street Economics* blog, May 28.

Andreas Fuster, Basit Zafar, and **MATTHEW COCCI**. 2014. "Why Aren't More Renters Becoming Homeowners?" *Liberty Street Economics* blog, September 8.

### BANKING AND FINANCE

Gara Afonso, João Santos, and **JAMES TRAINA**. 2014. "Do 'Too-Big-to-Fail' Banks Take On More Risk?" *Economic Policy Review* 20, no. 2 (December): 41-58.

**SAMUEL ANTILL**, **DAVID HOU**, and Asani Sarkar. 2014. "Components of U.S. Financial Sector Growth, 1950-2013." *Economic Policy Review* 20, no. 2 (December): 59-83.

Nicola Cetorelli, James McAndrews, and **JAMES TRAINA**. 2014. "Evolution in Bank Complexity." *Economic Policy Review* 20, no. 2 (December): 85-106.

Beverly Hirtle, Anna Kovner, and **ERIC MCKAY**. 2015. "Are BHC and Federal Reserve Stress Test Results Converging? What Do We Learn from 2015?" *Liberty Street Economics* blog, April 6.

Adam Kirk, James McAndrews, **PARINITHA SASTRY**, and Phillip Weed. 2014. "Matching Collateral Supply and Financing Demands in Dealer Banks." *Economic Policy Review* 20, no. 2 (December): 127-51.

Anna Kovner, James Vickery, and **LILY ZHOU**. 2014. "Do Big Banks Have Lower Operating Costs?" *Economic Policy Review* 20, no. 2 (December): 1-27.

James Vickery, **ANGELA DENG**, and **TARA SULLIVAN**. 2015. "Available for Sale? Understanding Bank Securities Portfolios." *Liberty Street Economics* blog, February 11.

Rod Garratt and **ROSA HAYES**. 2014. "Bitcoin: How Likely Is a 51 Percent Attack?" *Liberty Street Economics* blog, November 24.

### QUANTITATIVE METHODS

Marco Del Negro, Stefano Eusepi, Marc Giannoni, Argia Sbordone, Andrea Tambalotti, **MATTHEW COCCI**, **RAIDEN HASEGAWA**, and **M. HENRY LINDER**. 2013. "The FRBNY DSGE Model." *Staff Reports*, no. 647, October.

**MATTHEW PLOENZKE**, Robert Rich, and Joseph Tracy. 2015. "What Does Disagreement Tell Us about Uncertainty?" *Liberty Street Economics* blog, January 7.

## Academic Journals, Conference Volumes, and Scholarly Books

**VITALY BORD** and João A. C. Santos. 2014. "Banks' Liquidity and the Cost of Liquidity to Corporations." *Journal of Money, Credit, and Banking* 46, suppl. 1 (February): 13-45.

Meta Brown, **SARAH STEIN**, and Basit Zafar. 2015. "The Impact of Housing Markets on Consumer Debt: Credit Report Evidence from 1999 to 2012." *Journal of Money, Credit, and Banking* 47, no. S1 (March-April): 175-213.

Vasco Cúrdia, Marco Del Negro, and **DANIEL GREENWALD**. 2014. "Rare Shocks, Great Recessions." *Journal of Applied Econometrics* 29, no. 7 (November-December): 1031-52.

Vasco Cúrdia, Andrea Ferrero, **GING CEE NG**, and Andrea Tambalotti. 2015. "Has U.S. Monetary Policy Tracked the Efficient Interest Rate?" *Journal of Monetary Economics* (March): 72-83.

Donald P. Morgan, Stavros Peristiani, and **VANESSA SAVINO**. 2014. "The Information Value of the Stress Test." *Journal of Money, Credit, and Banking* 46, no. 7 (October): 1479-1500.

Ayşegül Şahin, **JOSEPH SONG**, Giorgio Topa, and Giovanni L. Violante. 2014. "Mismatch Unemployment." *American Economic Review* 104, no. 11 (November): 3529-64.



### ELLEN FU

Microeconomic Studies

*"Working as an RA at the New York Fed has been an enriching and rewarding experience for me. As an RA in the Microeconomic Studies Function, I've had the humbling opportunity to work with world-famous economists (and also exceptionally bright RAs!) on several different research and policy projects, in areas ranging from mortgages and household finance to applied microeconomics and education. On a regular basis, I get to work with amazing data sets, attend conferences/meetings with highly influential people, and see firsthand how academic research contributes to policymaking."*

*"The RA role here has allowed me to explore my research interests, helped me to refine my economic intuition and analytical skills, and, most importantly, motivated me to keep searching for answers to difficult questions. I am very grateful for my experiences here, and I would strongly encourage anyone interested in economic research or public policy to apply for the RA position."*

## WHEN I WAS AN RA...

**"Working as an RA in the New York Fed's Research Group is the best preparation for a top Ph.D. program and a successful research agenda. You will get a clear sense of the research process and exposure to many active areas in economics and finance. You'll also gain an understanding of how we can apply our expertise and research to real policy questions—a unique aspect of the Fed experience, and a key reason why I returned as an economist. Working closely with RAs and helping them develop their economic research instincts is one of the most rewarding aspects of my job. Even if you ultimately choose a different career path, the experiences you have here are as valuable (if not more valuable) than any other work experience to future employers."**



### BENJAMIN PUGSLEY

Economist at the New York Fed



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*New York Fed Research Analyst App.*



## HOW DO I APPLY?

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New York Fed Research Analysts in the Bank's Conference Center.

### Federal Reserve Bank of New York Benefits at a Glance

- Competitive starting salary
- Flexible work schedule
- Tuition assistance for graduate courses
- Matching 401(k) savings plan
- Health, dental, and vision insurance
- Commutation assistance

### IF YOU'RE INTERESTED IN A SUMMER INTERNSHIP OPPORTUNITY,

check out our Undergraduate  
Summer Analyst Program:

<http://www.newyorkfed.org/careers/summerintern.html>