

### 3University of Minnesota - Twin Cities

Department of Economics  
4-101 Hanson Hall  
1925 Fourth Street South  
Minneapolis, Minnesota 55455  
U.S.A.

(612) 625-6353  
(612) 624-0209 FAX

*Placement Directors*  
Ellen R. McGrattan  
erm@umn.edu  
(612) 625-6714  
Thomas Holmes  
holmes@umn.edu  
(612) 625-6353

*Placement Coordinator*  
Catherine Bach  
(612) 625-6859  
c-bach@umn.edu

**Curriculum Vitae**  
**Fall 2020**

## AMY HANDLAN

### Personal Data

#### *Address*

4-101 Hanson Hall  
1925 Fourth Street South  
Minneapolis, MN 55455

#### *Contact Information*

Cell: 253-380-2347  
E-mail: handl039@umn.edu  
URL: sites.google.com/umn.edu/amy-handlan

*Citizenship:* USA

### Major Fields of Concentration

Monetary Economics, Public Finance, Financial Economics

### Education

<i>Degree</i>	<i>Field</i>	<i>Institution</i>	<i>Year</i>
PhD	Economics	University of Minnesota (expected)	2021
MA	Economics	University of Minnesota	2018
BS	Economics <i>summa cum laude</i> Mathematics Minor	George Mason University	2015

### Dissertation

Title: "Text Shocks and Monetary Surprises"  
Dissertation Advisor: Professor Christopher Phelan  
Expected Completion: Summer 2021

### References

Professor Christopher Phelan	(612) 626-2533 cphelan@umn.edu	Department of Economics University of Minnesota 4-101 Hanson Hall
Professor V. V. Chari	(612) 626-7151 chari002@umn.edu	1925 Fourth Street South Minneapolis, MN 55455
Professor Loukas Karabarbounis	(612) 625-3524 loukas@umn.edu	
Dr. Simran Sahi	(612) 625-6353 ssahi@umn.edu	

## Honors and Awards

Summer 2020	AEA Summer Economics Fellow, Federal Reserve Bank of Chicago, Chicago, Illinois
2019-2020	Doctoral Dissertation Fellowship, University of Minnesota, Minneapolis, Minnesota
2018-2019	Distinguished Instructor, Department of Economics, University of Minnesota, Minneapolis, Minnesota
2018	Career Readiness Graduate Instructor Teaching Fellowship, University of Minnesota, Minneapolis, Minnesota
2017	Princeton Initiative: Macro, Money, and Finance, Princeton University, Princeton, New Jersey
2016-2017	Herbert Mohring Fellowship, University of Minnesota, Minneapolis, Minnesota
2016-2017	Distinguished Teaching Assistant, Department of Economics, University of Minnesota, Minneapolis, Minnesota
2015-2016	Bert and Susan Hill Gross Fellowship, University of Minnesota, Minneapolis, Minnesota
2015	NSF Graduate Research Fellowship Program Honorable Mention
2015	Howard R. Bloch Memorial Award for highest GPA in the economics program, George Mason University, Fairfax, Virginia
2015	OSCAR Student Excellence Award, George Mason University, Fairfax, Virginia
2015	Economics Departmental Honors, George Mason University, Fairfax, Virginia
2015	Phi Beta Kappa Honor Society, George Mason University, Fairfax, Virginia
2015	Omicron Delta Epsilon Economics Honor Society, George Mason University, Fairfax
2015	Honors College Mentorship Award, George Mason University, Fairfax, Virginia
2014	Undergraduate Research Scholars Program Grant, George Mason University, Fairfax

## Teaching Experience

2017-2019	<i>Large Lecture Instructor</i> , Department of Economics, University of Minnesota, Minneapolis, Minnesota. Instructor for large lecture of <i>Intermediate Microeconomics</i> . Prepared all instructional material and supervised teaching assistants and graders.
2016-2017	<i>Teaching Assistant</i> , Department of Economics, University of Minnesota, Minneapolis, Minnesota. Led recitations and graded for <i>Intermediate Microeconomics</i> .
2015	<i>Learning Assistant</i> , Math Department, George Mason University, Fairfax, Virginia. Led review sessions for <i>Multivariable Calculus</i> .
2014-2015	<i>Substitute Teacher</i> , Fairfax County Public Schools, Fairfax, Virginia

## Research Experience

2018-2020	<i>Research Analyst/Visiting Scholar</i> , Research Department, Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota
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## Working Papers

“Text Shocks and Monetary Surprises: Text Analysis of FOMC Statements with Machine Learning,” job market paper  
“FedSpeak Matters: FOMC Statements and Monetary Policy Expectation”

## Media Coverage

“A Good Handle on a Messy Process,” Smera Tiwari, Heller Hurwicz Economics Institute, March 31, 2020.  
<https://cla.umn.edu/heller-hurwicz/news-events/story/good-handle-messy-process>

## **Presentations**

- “Text Shocks and Monetary Surprises: Text Analysis of FOMC Statements with Machine Learning,” presented at the Macro Seminar, Federal Reserve Bank of Chicago, August, 2020; Macroeconomics Workshop, Vanderbilt University, September, 2020; Economics Student Seminar Series, Universitat Autònoma de Barcelona, November, 2020 (scheduled); Virtual Seminar Series, Ryerson University, December, 2020 (scheduled).
- “FOMC Statements and Monetary Policy Expectations,” presented at the Midwest Macroeconomics Meetings, Athens, Georgia, 2019.
- “Analyzing Federal Reserve Reputation and Incentives Through the Efficacy of ‘Forward Guidance,’” presented at the Midwest Economic Association Meeting, Evanston, Illinois, 2018.
- “Political Regimes and Financial Crises: Does Macroeconomic Instability Differ Over Government Structures?,” presented at the Eastern Economic Association Meeting, New York, New York, 2015.

## **Computer Skills**

Python, Matlab, Stata, SAS

## **Languages**

English (native)

## **Abstracts**

“Text Shocks and Monetary Surprises: Text Analysis of FOMC Statements with Machine Learning,” job market paper

This paper shows that the wording of Federal Reserve communication affects expectations and other economic variables over and above the effects of setting the federal funds rate. Adapting neural network methods for text analysis from the computer science literature, I analyze how the wording in statements of the Federal Open Market Committee (FOMC) impacts fed funds futures (FFF) prices when these statements are announced. Using text analysis on FOMC statements and internal meeting materials, I create a new monetary policy “text shock” series for 2005-2014 that isolates the variation of FFF prices induced by the FOMC’s forward guidance, not their current assessment of the economy. I find that the wording of FOMC statements accounts for four times more variation in FFF prices than direct announcements of changes in the target federal funds rate. I also find that the impact of forward guidance on real interest rates is twice as large when using text shocks over other measures, like changes in FFF prices. Furthermore, the text shock produces responses in output and inflation qualitatively consistent with workhorse macroeconomic models, whereas changes in FFF prices do not.

“FedSpeak Matters: FOMC Statements and Monetary Policy Expectation”

The Federal Open Market Committee (FOMC) claims that their post-meeting statements shift market expectations of future monetary policy. In this paper, I provide evidence supporting this claim. I apply a methodology from computational text analysis to produce a pairwise-statement similarity measure that compares wording between two FOMC statements. This similarity measure documents that FOMC statements have become more similar over time. With an event-study approach, I find that a decrease in the similarity of sequential FOMC statements is correlated with an increase the variation of federal funds rate expectations, calculated from high-frequency fed funds futures prices. This relationship persists even after controlling for changes in the target federal funds rate and Federal Reserve Chair. Standard monetary regressions omit any measure of policy statement texts and are thus biased. Adding the sequential statement similarity measure to a regression of federal funds rate expectations on the target rate accounts for 1.5 times the variation in market expectations. This paper suggests that more detailed text analysis on FOMC statements will improve modeling of monetary policy expectations.