# Scott D. Schuh

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#### **Education**

Johns Hopkins University, 1992 Ph.D., M.A. (economics)

California State University, Sacramento, 1985 B.A. (economics and journalism)

Arizona Automotive Institute, 1981 Diploma

## **Work Experience**

Federal Reserve Bank of Boston

- Director and Economist, Consumer Payments Research Center (CPRC), 2008-
- Senior Economist and Policy Advisor, 2005-
- Assistant VP, 2002-2005
- Senior Economist, 2000-2002
- Economist, 1997-2000

Board of Governors of the Federal Reserve System, Economist, 1991-1997

U.S. Census Bureau, Research Associate

- Boston (MA) Regional Data Center, 1997-2003
- Center for Economic Studies, Suitland MD, 1988-1997

U.S. Census Bureau, Statistician, 1990-1991

University of Maryland, Research and Teaching Assistant, 1986-1990

Johns Hopkins University, Research Assistant, 1988-1989

President Reagan's Council of Economic Advisers, Staff Economist, 1987-1988

Congressional Budget Office, Economist intern, 1987

U.S. Department of Interior, Statistician intern, 1986

The Wall Street Journal, San Francisco Bureau, intern, 1984

The Sacramento Bee, sports correspondent, 1983-85

#### **Teaching Experience**

Boston University, 2012-2014 Lecturer, Money & Banking (BA); Financial Intermed. (MA)

Boston College, 2004 Adjunct Professor, Math for Economists (PhD)
Johns Hopkins University, 1996 Adjunct Professor, Macroeconomic Principles (BA)

#### **Books and Edited Volumes**

Job Creation, Job Destruction, and International Competition (with Michael W. Klein and Robert K. Triest), Kalamazoo, MI: Upjohn Institute for Employment Research, 2003.

Jeffrey Fuhrer and Scott Schuh, eds., *Beyond Shocks: What Causes Business Cycles*? Federal Reserve Bank of Boston Conference Series No. 42, 1998.

Job Creation and Destruction (with Steven J. Davis and John C. Haltiwanger), Cambridge, MA: MIT Press, 1996.

## **Peer-Reviewed Publications**

- "Integrated Household Financial Surveys: An Assessment of U.S. Methods and an Innovation" (with Krislert Samphantharak and Robert M. Townsend), *Economic Inquiry*, forthcoming (invited submission to special issue).
- "Measuring Consumer Expenditures with Payment Diary Surveys," *Economic Inquiry*, forthcoming (invited submission to special issue).
- "New Innovations in Payments" (with Marc Rysman), NBER working paper and conference volume, forthcoming, 2016
- "Explaining Consumer Adoption and Use of Payment Instruments," (with Sergei Koulayev, Marc Rysman, and Joanna Stavins), *The RAND Journal of Economics*, 47(2), Summer 2016, 293-325.
- "How Do Speed and Security Influence Consumers' Payment Behavior?" (with Joanna Stavins), *Contemporary Economic Policy*, forthcoming (2015, DOI: 10.1111/coep.12163).
- "Consumer Cash Usage: A Cross-Country Comparison with Payment Diary Survey Data" (with John Bagnall, David Bounie, Kim Huynh, Anneke Kosse, Tobias Schmidt, and Helmut Stix), *International Journal of Central Banking*, forthcoming.
- "An Initial Look at How the Electronic Payments Transformation Is Changing Consumer Payments, (with Tamas Briglevics), in *International Cash Conference 2014: The usage, cost and benefits of cash revisited*, Deutsche Bundesbank, 2014, 391-401.
- "Measuring Household Spending and Payment Habits: The Role of 'Typical' and 'Specific' Time Frames in Survey Questions," (with Marco Angrisani and Arie Kapteyn), in Christopher D. Carroll, Thomas F. Crossley, and John Sabelhaus, eds., *Improving the Measurement of Consumer Expenditures*, Chicago: NBER and The University of Chicago Press, 2015.
- "How Consumers Pay: Adoption and Use of Payments" (with Joanna Stavins), *Accounting and Finance Research*, 2(2), May 2013, 1-21.
- "An Economic Analysis of the 2010 Proposed Settlement between the Department of Justice and Credit Card Networks," (with Oz Shy, Joanna Stavins, and Robert K. Triest), *Journal of Competition Law and Economics*, 8(1), March 2012, 107-144.
- "Input and Output Inventories in General Equilibrium," (with Matteo Iacoviello and Fabio Schiantarelli), *International Economic Review*, 52(4), November 2011, 1179-1213
- "Why Are (Some) Consumers (Finally) Writing Fewer Checks? The Role of Payment Characteristics," (with Joanna Stavins), *Journal of Banking and Finance*, 34(8), August 2010, 1745-1758.
- "Frontier Policy Issues in Consumer Payment Behavior," (with Joanna Stavins), *Journal of Payments Strategy and Systems*, 3(4), 2009, 333-348.
- "Productivity and U.S. Macroeconomic Performance: Interpreting the Past and Predicting the Future with a Two-Sector Real Business Cycle Model," (with Peter N. Ireland), *Review of Economic Dynamics*, 11(3), July 2008, 473-492.

- "Interest Sensitivity and Volatility Reductions: Cross-Section Evidence," (with F. Owen Irvine), *International Journal of Production Economics*, 108(1-2), July 2007, 31-42.
- "Inventory Investment and Output Volatility," (with F. Owen Irvine), *International Journal of Production Economics*. 93-94(4), 2005, 75-86.
- "Job Creation, Job Destruction, and the Real Exchange Rate," (with Michael W. Klein and Robert K. Triest), *Journal of International Economics*, 59(2), 2003, 239-265.
- "Monetary Policy, Housing, and Heterogeneous Regional Markets" (with Michael Fratantoni), *Journal of Money, Credit, and Banking*, 35(4), 2003, 557-589.
- "The Evolution of Regional Manufacturing Employment: Gross Job Flows within and between Firms and Industries," (with Robert K. Triest), *New England Economic Review*, Third Quarter, 2002, 35-53).
- "Input and Output Inventories" (with Brad R. Humphreys and Louis J. Maccini), *Journal of Monetary Economics*, 47(2) April 2001, 347-375
- "An Evaluation of Recent Macroeconomic Forecasting Errors," *New England Economic Review*, January/February 2001, 35-56.
- "The Role of Firms in Job Creation and Destruction in U.S. Manufacturing" (with Robert K. Triest), *New England Economic Review*, March/April 2000, 29-44.
- "Gross Job Flows and Firms," (with Robert K. Triest). 1999 Proceedings of the American Statistical Association, Government Statistics Section, 13-22.
- "Gross Job Flows between Plants and Industries," (with John C. Haltiwanger), *New England Economic Review*, March/April 1999, 41-64.
- "Beyond Shocks: What Causes Business Cycles? An Overview," (with Jeffrey C. Fuhrer), *New England Economic Review*, 1998 (November/December), 3-23.
- "Untangling the Causes of Recession," (with Robert K. Triest), Federal Reserve Bank of Boston Regional Review, 8(4), 1998:Q4, 5.
- "Job Reallocation and the Business Cycle: New Facts for an Old Debate," (with Robert K. Triest), in Jeffrey C. Fuhrer and Scott Schuh, eds., *Beyond Shocks: What Causes Business Cycles?*, *Federal Reserve Bank of Boston Conference Series*, No. 42, 1998, 271-337.
- Review of *Industrial Evolution in Developing Countries*, Mark J. Roberts and James R. Tybout, eds. *Journal of Economic Literature*, 36(2), June 1998, 946-48.
- "Estimating the Linear-Quadratic Inventory Model: Maximum Likelihood versus Generalized Method of Moments," (with Jeffrey C. Fuhrer and George R. Moore), *Journal of Monetary Economics*, 35(1) 1995, 115-57.
- "Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts," (with Steven J. Davis and John C. Haltiwanger), in Lewis C. Solomon and Alec R. Levenson, eds., *Labor Markets*, *Employment Policy, and Job Creation*, Boulder, CO: Westview Press, 169-199. Reprinted in

- Small Business Economics: An International Journal, 8(4), August 1996, 297-315. Abridged version in Business Economics, 29(3), July 1994, 13-21.
- "Published versus Sample Statistics from the ASM: Implications for the LRD," with Steven J. Davis and John C. Haltiwanger. 1990 Proceedings of the American Statistical Association, Business and Economic Statistics Section.

## **Working and Discussion Papers**

- "U.S. Consumers' Adoption and Use of Bitcoin and Other Virtual Currencies" (with Oz Shy), unpublished, April 2016.
- "Consumer Revolving Credit and Debt over the Life Cycle and Business Cycle" (with Scott L. Fulford), FRB Boston Working Paper 15-17, 2015.
- "This Is What's in Your Wallet...and Here's How You Use It," (with Tamas Briglevics), *FRB Boston Working Paper* 14-5, 2014; updated September 2015.
- "Costs and Benefits of Building Faster Payment Systems: The U.K. Experience and Implications for the United States," (with Claire Greene, Marc Rysman, and Oz Shy), *FRB Boston Current Policy Perspectives* 14-5, 2014.
- "U.S. Consumers' Holdings and Use of \$100 Bills," FRB Boston Research Data Report 14-3, 2014.
- "U.S. Consumer Demand for Cash in the Era of Low Interest Rates and Electronic Pay-ments," (with Tamas Briglevics), *FRB Boston Working Paper* 13-23, 2013. Submitted to *Journal of Monetary Economics*.
- "The 2011 and 2012 Surveys of Consumer Payment Choice," (with Joanna Stavins), *FRB Boston Research Data Report* 14-1, 2014.
- "The 2010 Survey of Consumer Payment Choice," (with Kevin Foster and Hanbing Zhang), FRB Boston Research Data Report 13-3, 2013.
- "The 2009 Survey of Consumer Payment Choice," (with Kevin Foster, Erik Meijer, and Michael A. Zabek), *FRB Boston Public Policy Discussion Paper* 11-1, 2011.
- "Who Gains and Who Loses from Credit Card Payments? Theory and Calibrations," (with Oz Shy and Joanna Stavins), FRB Boston Public Policy Discussion Paper 10-3, 2010.
- "The 2008 Survey of Consumer Payment Choice," (with Kevin Foster, Erik Meijer, and Michael A. Zabek), *FRB Boston Public Policy Discussion Paper* 09-10, 2009.
- "Summary of the Workshop on *Consumer Behavior and Payment Choice*," (with Joanna Stavins), Federal Reserve Bank of Boston Public Policy Discussion Paper 08-5, 2008.
- "Consumer Behavior and Payment Choice: 2006 Conference Summary," (with Mar-garet Carten, Dan Littman, and Joanna Stavins), *Federal Reserve Bank of Boston Public Policy Discussion Paper* 07-4, 2007.
- "The Boston Fed Study of Consumer Behavior and Payment Choice: A Survey of Fed-eral Reserve System Employees," (with Marques Benton, Krista Blair, and Marianne Crowe), *Federal Reserve Bank of Boston Public Policy Discussion Paper* 07-1, 2007.

- "Consumer Behavior and Payment Choice: A Conference Summary," (with Marianne Crowe and Joanna Stavins), *Federal Reserve Bank of Boston Public Policy Discussion Paper* 06-1, 2006.
- "The Roles of Comovement and Inventory Investment in the Reduction of Output Volatility," (with F. Owen Irvine), Federal Reserve Bank of Boston Working Paper 05-9, 2005 (revised November 2007).
- "Is the U.S. an Implict Inflation Targeter?" (with Nicola Lostumbo), November 2008.
- "A Factor Model Interpretation of the Decline in GDP Volatility," (with F. Owen Irvine), September 2007.
- "Permanent and Temporary Job Flows and the Real Exchange Rate," (with Michael W. Klein and Robert K. Triest), October 2003.
- "Detrending and Inventory Behavior" (with Brad R. Humphreys), June 2001.
- "Macroeconomic implications of the Relationship between Plant and Industry Gross Job Flows," (with John C. Haltiwanger), October 1998.
- "Evidence on the Link Between Firm-Level and Aggregate Inventory Behavior," Fed-eral Reserve Board Finance and Economics Discussion Series No. 1996-46, Nov. 1996.
- "Credit Market Conditions and Inventory Investment," (with Louis J. Maccini), Jan. 1995.
- "Specification and Estimation of the New FRB/MPS Quarterly Macroeconomic Model," (with Patrick Kennedy and David Reifschneider), Jan. 1995.
- "Job Flows, Worker Flows, and Unemployment Over the Business Cycle," (with Steven J. Davis and John C. Haltiwanger), Nov. 1994.
- "Microeconomic Inventory and Production Dynamics and the Representative Firm," Aug. 1992.
- "Inventory Models and Aggregation: An Investigation with Company-Level M3 Data," Census Advisory Committee of the American Economic Association, April 1991.

## **Selected Conference Participation**

National Bureau of Economic Research (NBER):

• NBER Summer Institute, Participant (various sessions), 1990-present

Organization of conferences and workshops:

- Frontiers of Measuring Household Economic Behavior, Federal Reserve Bank of Boston, 2015
- Economics of Payments VII, Federal Reserve Bank of Boston, 2014
- Consumer Behavior and Payment Choice, Federal Reserve Bank of Boston, 2005-2006
- Beyond Shocks, Federal Reserve Bank of Boston Conference Series No. 42, 1998

#### Organization of sessions at conferences:

• "Consumer Payment Behavior: Rational or Irrational Behavior?" American Economic Association/ASSA meetings, co-organizer, 2008

- "Consumer Payment Behavior: Rational or Irrational Behavior?" Western Economic Association meetings, co-organizer and chair, 2007
- Organizer/chair, International Society for Inventory Research (ISIR) winter meeting, 2002, 1995

# **Selected Professional Service Activities**

Member, American Economic Association 1991-Federal Reserve Bank of Boston Fed Challenge judge and advisor, 1998-2008

Referee for: American Economic Review; Econometrica; Quarterly Journal of Economics, Journal of Monetary Economics; International Economic Review; Review of Economic Studies; Review of Economics and Statistics; Journal of Money, Credit, and Banking; International Journal of Central Banking, Journal of Business and Economic Statistics; Journal of Business; Journal of Macroeconomics; Journal of Labor Economics; Journal of International Economics; Labour Economics; Journal of Productivity Analysis; National Science Foundation; Journal of Business; Journal of Applied Econometrics; Small Business Economics; Managerial and Decision Economics; Southern Economic Journal of Financial Services Research.

# **Selected Public Service**

Lexington (MA) Christian Academy

- Lecturer, 2008-2009 (Economics, high school level)
- President, Booster's Club, 2005-2006

Wilmington Recreation Dept. Coach/assistant coach, 1997-2009
Wilmington Youth Soccer Assoc. Coach/assistant coach, 1999-2006
Wilmington Little League Coach/assistant coach, 1998-2002