

Curriculum Vitae
GIORGIO TOPA
May 2026

CITIZENSHIP: Italy; U.S.

CURRENT ADDRESS:

Federal Reserve Bank of New York
Research and Statistics Group
33 Liberty Street
New York, NY 10045

Tel: (212) 720-5497
Fax: (212) 720-1844
E-mail: giorgio.topa@ny.frb.org

CURRENT POSITION: Department Head, Macroeconomic and Monetary Studies, Research and Statistics Group, Federal Reserve Bank of New York.

EDUCATION

December 1996	Ph.D. Economics	The University of Chicago
December 1996	M.A. Economics	The University of Chicago
November 1990	Laurea (B.A.) Economics	Università di Venezia, Italy

PROFESSIONAL EXPERIENCE

1/2026 – Present	Department Head, Macroeconomic and Monetary Studies, FRBNY
5/2022 – 12/2025	Economic Research Advisor, Labor and Product Markets, FRBNY
1/2012 – 4/2022	Vice President, Microeconomic Studies, FRBNY
Fall 2017 – 2018	Adjunct Professor, NYU Stern School of Business
Spring 2016 – 2017	Adjunct Professor, Department of Economics, NYU
1/2010 – 12/2013	Department Head, Microeconomic Studies, FRBNY
7/2008 – 12/2011	Assistant Vice President, Microeconomic Studies, FRBNY
7/2006 – 6/2008	Research Officer, Microeconomic and Regional Studies, FRBNY
5/2004 – 6/2006	Senior Economist, Microeconomic and Regional Studies, FRBNY
9/2003 – 4/2004	Economist, Domestic Research, FRBNY
2001 – 2003	Associate Director of Undergraduate Studies, Department of Economics, NYU
Fall 2002	Visiting Adjunct Professor, Department of Economics, Brown University
Fall 2000	Honorary Scholar, Department of Economics, Univ. of Wisconsin at Madison
1996 – 2003	Assistant Professor, Department of Economics, NYU
1995 – 96	Lecturer, Department of Economics, University of Chicago

TEACHING EXPERIENCE

Ph.D. Courses:

- Econometrics I
- Econometrics II

- Micro-Econometrics
- Labor Economics
- Topics in Local Interactions: Theory and Applications

MBA Courses:

- The Global Economy

Undergraduate Courses:

- Intermediate Macroeconomics
- Intermediate Microeconomics
- Macroeconomic Analysis
- Price Theory
- Statistics

PROFESSIONAL AFFILIATIONS

Member of: Econometric Society; American Economic Association.

REFEREE

- American Economic Journal: Applied Economics; American Economic Journal: Economic Policy; American Economic Journal: Macroeconomics; American Economic Review; American Economic Review: Insights; Canadian Journal of Economics; Current Issues in Economics and Finance; Econometrica; Econometrics Journal; Economic Inquiry; Economic Journal; Economica; Economics Letters; Geographical Analysis; International Economic Review; International Journal of Industrial Organization; Journal of Applied Econometrics; Journal of Development Economics; Journal of Econometrics; Journal of Economic Behavior and Organization; Journal of Economic Dynamics and Control; Journal of Economic Geography; Journal of Economic Growth; Journal of Economic Theory; Journal of the European Economic Association; Journal of Human Resources; Journal of Labor Economics; Journal of Monetary Economics; Journal of Money, Credit and Banking; Journal of Political Economy; Journal of Population Economics; Journal of Public Economics; Journal of Regional Science; Journal of Urban Economics; Oxford Economic Papers; Quantitative Economics; Quarterly Journal of Economics; Regional Science and Urban Economics; Resource and Energy Economics; Review of Economic Dynamics; Review of Economics and Statistics; Review of Economic Studies; Studies in Nonlinear Dynamics and Econometrics; Theoretical Economics.
- Israel Science Foundation.
- National Science Foundation.
- Social Sciences and Humanities Research Council of Canada.

OTHER PROFESSIONAL ACTIVITIES

- IZA Research Fellow, 2010 – present.
- Founding Editor, www.noiseFromAmeriKa.org, 2006 – 2011.
- Organizing and Program Committee Member, “La Pietra-Mondragone Graduate Workshop in Economics”, 2007 and 2008.
- Program Committee Member, European Economic Association Annual Congress (Venice, Italy), 2002.

HONORS, AWARDS, FELLOWSHIPS

- 2007: President's Award for Excellence, Federal Reserve Bank of New York.
- 2005: President's Award for Excellence, Federal Reserve Bank of New York.
- 2000-2003: National Science Foundation Research Grant SES-0080826 for a project on "The Empirical Analysis of Local Interaction Models"
- 2000-2003: Research Grant awarded by the C.V. Starr Center for Applied Economics, New York University, for a project on "Local Interaction Models"
- 1997-2000: Research Grant awarded by the C.V. Starr Center for Applied Economics, New York University, for a project on "Unemployment, Sorting, and Spillovers"
- 1999: Teaching Award for undergraduate teaching awarded by the Economics Society at New York University
- 1995-96: Margaret Reid Fund Fellowship, University of Chicago
- 1995: Research Grant by the Population Research Center, N.O.R.C. (National Opinion Research Center), Chicago, for a field project in Mauritania (West Africa), on "Self-Employed Women in Mauritania and Informal Credit"
- 1992-95: Century/Phoenix Fellowship, University of Chicago
- 1992-94: "Luigi Einaudi" Fellowship, Ente Einaudi, Rome, Italy
- 1991-92: "Paolo Baffi" Fellowship, I.M.I. - Istituto Mobiliare Italiano, Italy

PUBLICATIONS

1. "The Heterogeneous Impact of Referrals on Labor Market Outcomes," with Benjamin Lester and David A. Rivers, forthcoming in *Review of Economic Studies*.
2. "Recent Advances in the Collection and Use of Subjective Expectations Data by Central Banks," with Gizem Koşar and Wilbert van der Klaauw, conditionally accepted for: Francesca Molinari (Editor), *Econometric Society Conference Volume for 2025 World Congress* (2026).
3. "Partisan Expectations and COVID Era Inflation: A Comment," with Felix Aidala, Olivier Armantier and Wilbert van der Klaauw, *Journal of Monetary Economics*, November 2024, Vol. 148 (Supplement).
4. "Gasoline Price Changes and Consumer Inflation Expectations: Experimental Evidence," with Felix Aidala, Olivier Armantier, Gizem Koşar, Jason Somerville and Wilbert van der Klaauw, *Journal of Economic Behavior and Organization*, April 2024, Vol. 220 (Special Issue), 66-80.
5. "A New Approach to Assess Inflation Expectations Anchoring Using Strategic Surveys," with Olivier Armantier, Argia Sbordone, Wilbert van der Klaauw and John C. Williams, *Journal of Monetary Economics*, July 2022, Vol. 129 (Supplement), S82-S101.
6. "Job Search Behavior among the Employed and Non-Employed," with R. Jason Faberman, Andreas I. Mueller and Ayşegül Şahin, *Econometrica*, July 2022, Vol. 90 (4), 1743-1779.
7. "Subjective Intertemporal Substitution", with Richard K. Crump, Stefano Eusepi and Andrea Tambalotti, *Journal of Monetary Economics*, March 2022, Vol. 126, 118-133.

8. “How Economic Crises Affect Inflation Beliefs: Evidence from the Covid-19 Pandemic”, with Olivier Armantier, Gizem Koşar, Rachel Pomerantz, Daphné Skandalis, Kyle Smith and Wilbert van der Klaauw, *Journal of Economic Behavior and Organization*, September 2021, Vol. 189, 443-469.
9. “Job Seekers' Perceptions and Employment Prospects: Heterogeneity, Duration Dependence and Bias”, with Andreas I. Mueller and Johannes Spinnewijn, *American Economic Review*, January 2021, Vol. 111 (1), 324-363.
10. “The Shadow Margins of Labor Market Slack”, with R. Jason Faberman, Andreas I. Mueller and Ayşegül Şahin, *Journal of Money, Credit and Banking*, December 2020, Vol. 52 (S2), 355-391.
11. “Social and Spatial Networks in Labour Markets”, *Oxford Review of Economic Policy*, Winter 2019, Vol. 35 (4), 722-45.
12. “Consumer Expectations and the Macroeconomy”, in: Andrew Haughwout and Benjamin Mandel (eds.), *Handbook of U.S. Consumer Economics* (2019); London: Elsevier Academic Press.
13. “An Overview of the Survey of Consumer Expectations”, with Olivier Armantier, Wilbert van der Klaauw and Basit Zafar, *Economic Policy Review*, December 2017, Vol. 23 (2), 51-72.
14. “The Advantages of Probabilistic Survey Questions”, with Marco Del Negro, Simon Potter and Wilbert van der Klaauw, *Review of Economic Analysis*, June 2017, Vol. 9 (1), 1-32.
15. “The Price is Right: Updating Inflation Expectations in a Randomized Price Information Experiment”, with Olivier Armantier, Wilbert van der Klaauw, Scott Nelson and Basit Zafar, *Review of Economics and Statistics*, July 2016, Vol. 98 (3), 503-523.
16. “Working Hard in the Wrong Place: A Mismatch-Based Explanation to the UK Productivity Puzzle”, with Christina Patterson, Ayşegül Şahin and Gianluca Violante, *European Economic Review*, May 2016, Vol. 84, 42-56.
17. “Do Informal Referrals Lead to Better Matches? Evidence from a Firm’s Employee Referral System”, with Meta Brown and Elizabeth Setren, *Journal of Labor Economics*, January 2016, Vol. 34 (1), 161-209.
18. “Neighborhood and Network Effects”, with Yves Zenou, in: Gilles Duranton, J. Vernon Henderson and William C. Strange (eds.), *Handbook of Regional and Urban Economics, Volume 5A* (2015); Amsterdam: Elsevier North Holland.
19. “Inflation Expectations and Behavior: Do Survey Respondents Act on their Beliefs?”, with Olivier Armantier, Wändi Bruine de Bruin, Wilbert van der Klaauw and Basit Zafar, *International Economic Review*, May 2015, Vol. 56 (2), 505-536.
20. “Mismatch Unemployment”, with Ayşegül Şahin, Joseph Song and Gianluca Violante, *American Economic Review*, November 2014, Vol. 104 (11), 3529-64.
21. “Measuring Inflation Expectations”, with Olivier Armantier, Wändi Bruine de Bruin, Simon Potter, Wilbert van der Klaauw and Basit Zafar, *Annual Review of Economics*, 2013, Vol. 5.
22. “The Effect of Question Wording on Consumers’ Reported Inflation Expectations”, with Wändi Bruine de Bruin, Wilbert van der Klaauw, Julie S. Downs, Baruch Fischhoff and Olivier Armantier, *Journal of Economic Psychology*, August 2012, Vol. 33 (4), 749-57.

23. "Inflation Expectations: The Biasing Effect of Thoughts about Specific Prices", with Wändi Bruine de Bruin and Wilbert van der Klaauw, *Journal of Economic Psychology*, October 2011, Vol. 32 (5), 834-845.
24. "Measuring Consumer Uncertainty about Future Inflation", with Wändi Bruine de Bruin, Charles F. Manski and Wilbert van der Klaauw, *Journal of Applied Econometrics*, April/May 2011, Vol. 26 (3), 454-478.
25. "Labor Markets and Referrals", in: Jess Benhabib, Alberto Bisin and Matthew O. Jackson (eds.), *Handbook of Social Economics*, (2011); Amsterdam: Elsevier North Holland.
26. "Improving Survey Measurement of Household Inflation Expectations", with Wändi Bruine de Bruin, Wilbert van der Klaauw, Simon Potter and Robert Rich, *Current Issues in Economics and Finance*, August/September 2010, Vol. 16 (7).
27. "Expectations of Inflation: The Role of Demographic Variables, Expectation Formation, and Financial Literacy", with Wändi Bruine de Bruin, Wilbert van der Klaauw, Julie S. Downs, Baruch Fischhoff and Olivier Armantier, *Journal of Consumer Affairs*, Summer 2010, Vol. 44 (2), 381-402.
28. "Neighborhood Effects: Accomplishments and Looking Beyond Them", with Yannis Ioannides, *Journal of Regional Science*, February 2010, Vol. 50 (1), 343-362.
29. "Cultural Transmission, Socialization and the Population Dynamics of Multiple-Trait Distributions", with Alberto Bisin and Thierry Verdier, *International Journal of Economic Theory*, March 2009, Vol. 5 (1), 139-154.
30. "Place of Work and Place of Residence: Informal Hiring Networks and Labor Market Outcomes" with Patrick Bayer and Stephen L. Ross, *Journal of Political Economy*, December 2008, Vol. 116 (6), 1150-1196.
31. "Estimating Dynamic Local Interactions Models", with Timothy G. Conley, *Journal of Econometrics*, September 2007, Vol. 140 (1), 282-303.
32. "Dynamic Properties of Local Interaction Models" with Timothy G. Conley, in: Blume, Lawrence and Steven Durlauf (Eds.), *The Economy as an Evolving Complex System III*, (2006); New York: Oxford University Press.
33. "Challenges Facing the New York Metropolitan Area Economy", with James Orr, *Current Issues in Economics and Finance*, January 2006, Vol. 12 (1).
34. "Challenges Facing the New York Metropolitan Area Economy", with James Orr, in: Goldfeld, Keith S. (Ed.), *Beyond Post 9/11: A Colloquium on the Future of the Port Authority of New York and New Jersey*, (2005); Princeton, NJ: Princeton University.
35. "Cooperation as a Transmitted Cultural Trait" with Alberto Bisin and Thierry Verdier, *Rationality and Society*, November 2004, Vol. 16 (4), 477-507.
36. "Religious Inter-marriage and Socialization in the United States" with Alberto Bisin and Thierry Verdier, *Journal of Political Economy*, June 2004, Vol. 112 (3), 615-664.
37. "Identification of Local Interaction Models with Imperfect Location Data" with Timothy G. Conley, *Journal of Applied Econometrics*, September-October 2003, Vol. 18 (5), 605-618.
38. "Empirical Models of Cultural Transmission" with Alberto Bisin, *Journal of the European Economic Association*, Papers and Proceedings, April-May 2003, Vol. 1 (2-3), 363-375.

39. “Does Microcredit Reach the Poor and Vulnerable? Evidence From Northern Bangladesh” with Ashok S. Rai and Sajeda Amin, *Journal of Development Economics*, February 2003, Vol. 70 (1), 59-82.
40. “Socio-Economic Distance and Spatial Patterns in Unemployment” with Timothy G. Conley, *Journal of Applied Econometrics*, July-August 2002, Vol. 17 (4), 303-327.
41. “Social Interactions, Local Spillovers and Unemployment”, *Review of Economic Studies*, April 2001, Vol. 68 (2), 261-295.
42. “Taxation and Environmental Innovation” with Carlo Carraro, in: C. Carraro and J.A. Filar (eds.), *Control and Game-Theoretic Models of the Environment*, (1995); Boston: Birkhauser.
43. “Should Environmental Innovation Policy Be Internationally Coordinated?”, with Carlo Carraro, in: C. Carraro (ed.), *Trade, Innovation, Environment*, (1994); Dordrecht: Kluwer Academic Publishers.
44. “Environmental Policy Instruments with Asymmetric Information” (1991), *Ricerche Economiche*, Vol. 45 (4), pp. 623-672 (in Italian with English summary).

WORKING PAPERS

45. “Estimates of Cost-Price Passthrough from Business Survey Data” (2023), with Keshav Dogra, Sebastian Heise, Edward S. Knotek II, Brent H. Meyer, Robert W. Rich, Raphael S. Schoenle, Wilbert van der Klaauw, Wändi Bruine de Bruin;
46. “The Curious Case of the Rise in Deflation Expectations” (2023), with Olivier Armantier, Gizem Koşar, Jason Somerville, Wilbert van der Klaauw, John C. Williams;
47. “The Empirical Content of Models with Multiple Equilibria in Economies with Social Interactions” (2011), with Alberto Bisin and Andrea Moro;
48. “Social Spillovers in Personal Bankruptcies” (2009), with Astrid Dick and Andreas Lehnert;
49. “Household Inflation Experiences in the U.S.: A Comprehensive Approach” (2009), with Bart Hobijn, Kristy Mayer and Cartier Stennis;
50. “What Can We Learn from the Micro Data in Manufacturing Surveys?” (2008), with Jason Bram, Richard Deitz, James Orr and Wilbert van der Klaauw;

WORK IN PROGRESS

51. “How Does Political Affiliation Affect Economic Expectations?”, with Olivier Armantier, Gizem Koşar and Wilbert van der Klaauw;

CONFERENCE PRESENTATIONS

- 15th ifo Conference on “Macroeconomics and Survey Data 2025” (Munich, October 17-18, 2025);
- Joint Bank of Canada - ECB - NY Fed Conference on “Expectations Surveys, Central Banks and the Economy” (Frankfurt, October 1-2, 2024);

- NBER Conference on “Inflation in the COVID Era and Beyond, Spring 2024” (Cambridge MA, May 16-17, 2024);
- Federal Reserve Board and Georgetown University Third DC Search and Matching Workshop (Washington DC, April 4-6, 2024);
- Deutsche Bundesbank – Banque de France Joint Conference on Household Expectations (Frankfurt, September 26-28, 2019);
- 23rd Conference on “Theories and Methods in Macroeconomics (T2M)” (Nuremberg, March 22-23, 2019);
- First Atlanta – NY Fed Joint Research Day on “Quantitative tools for monitoring macroeconomic and financial conditions” (New York, February 22, 2019);
- IZA World Labor Conference (Berlin, June 28-29, 2018);
- Yale University Cowles Conference on Macroeconomics (New Haven, June 4-5, 2018);
- Barcelona GSE Summer Forum “Workshop on Housing and Spatial Economics” (Barcelona, June 16-17, 2016) – invited paper;
- Workshop on “Social Identity and Social Interactions in Economics” (Quebec City, April 29-30, 2016) – invited paper;
- Society for Economic Dynamics 2014 Annual Meeting (Toronto, June 26-28, 2014);
- CEMMAP Workshop on “Microeconomic Applications of Social Networks Analysis” (London, May 9, 2014) – invited paper;
- Handbook of Regional and Urban Economics Conference (Philadelphia, May 2-3, 2014) – invited paper;
- Conference on Experiments in Macroeconomics and Financial Economics (Columbia University, March 1, 2013) – invited paper;
- American Economic Association Annual Meeting (San Diego, January 4-6, 2013);
- 27th Annual Congress of the European Economic Association (Malaga, August 27-31, 2012);
- Society for Economic Dynamics 2012 Annual Meeting (Cyprus, June 22-24, 2012);
- 17th Annual Meeting of the Society of Labor Economics (Chicago, May 4-5, 2012);
- 26th Annual Congress of the European Economic Association (Oslo, August 25-29, 2011);
- Society for Economic Dynamics 2011 Annual Meeting (Ghent, July 6-9, 2011);
- 7th ECB/CEPR Labour Market Workshop “Unemployment Developments After The Crisis” (Frankfurt am Main, December 16-17, 2010);
- 25th Annual Congress of the European Economic Association (Glasgow, August 23-26, 2010);
- Society for Economic Dynamics 2010 Annual Meeting (Montreal, July 8-10, 2010);
- Calvó-Armengol Prize Workshop (Andorra, June 4-7, 2010);
- Econometric Society North American Winter Meeting (Atlanta, January 2010);
- CIRANO-CIREQ Conference on the Econometrics of Interactions (Montreal, October 23-24, 2009);
- 50th Anniversary Symposium of the Journal of Regional Science (New York, April 23-24, 2009);
- 55th Annual North American Meetings of the Regional Science Association International (New York, November 20-21, 2008);
- Conference on “Social Networks and Peer Effects: Theory and Applications” (in memory of Antoni Calvó –Armengol, Barcelona May 29-31, 2008);
- Workshop on “Residential Sprawl and Segregation” (Dijon, France, October 22-23, 2007) – invited paper;
- Society for Economic Dynamics 2007 Annual Meeting (Prague, Czech Republic, June 28-30, 2007);
- 8th Society for the Advancement of Economic Theory Conference on Current Trends in Economics (Kos, Greece, June 18-24, 2007);
- 53rd Annual North American Meetings of the Regional Science Association International (Toronto, November 16-18, 2006);
- Society for Economic Dynamics 2006 Annual Meeting (Vancouver, July 6-8, 2006);
- 7th Society for the Advancement of Economic Theory Conference on Current Trends in Economics (Vigo, Spain, June 2005);
- Applied Microeconomics System Meeting (San Francisco Fed, June 2005);
- American Economic Association Annual Meeting; session on “Social Interactions” (Philadelphia, January 2005);

- 59th European Meeting of the Econometric Society (Madrid, Spain, August 20-24, 2004);
- National Bureau of Economic Research Summer Institute; “Income Distribution and Macroeconomics” Group (Boston, July 19-22, 2004);
- Stanford Institute for Theoretical Economics; 2004 Summer Program - "Economics of Social Interactions" (Stanford, July 2004) – invited paper;
- Institute for Research on Poverty Summer Research Workshop (Madison, WI, June 21-24, 2004);
- Econometric Society North American Summer Meeting (Providence, RI, June 17-20, 2004);
- International Conference of Public Economic Theory (Duke University, June 12-15, 2003) – invited paper;
- Workshop on “Spatial and Social Interactions in Economics” (UC Santa Barbara, April 2003) – invited paper;
- Mini-Conference on Religion, Economics, and Culture (Salt Lake City, November 2002) – invited paper;
- European Economic Association Annual Congress (Venice, Italy, August 2002) – Program Committee member and invited paper;
- Society for Economic Dynamics 2002 Annual Meeting (New York, June 28-30, 2002);
- “Economy as an Evolving Complex System III” Conference (Santa Fe Institute, November 15-18, 2001) – invited paper;
- Econometric Society European Meeting (Lausanne, Switzerland, August 2001);
- Brookings Institution & Institute for Research on Poverty Conference on “Empirical Analysis of Social Interactions” (Washington, D.C., January 14-15, 2000) – invited paper;
- NSF-Sponsored Conference on “Empirical Analysis of Social Interactions” (Santa Fe Institute, October 15-17, 1999);
- National Bureau of Economic Research 1999 Summer Institute; Income Distribution Workshop (Boston, July 1999) – invited paper;
- European Society for Population Economics Annual Conference (Torino, Italy, June 24-26, 1999);
- Institute for Research on Poverty Annual Conference; session organized by Steven Durlauf (Madison WI, June 14-17, 1999) – invited paper;
- Econometric Society North American Winter Meeting; session on “Lending in Poor Societies” (New York, January 1999);
- American Economic Association Annual Meeting; session on “Job Information Flows and Social Interactions” (New York, January 1999) – invited paper;
- North-East Universities Development Consortium Conference; Yale University; session on “Credit - Ownership” (New Haven, October 1998);
- Population Council Meeting on "Measuring the Impact of Micro-credit Programs on Fertility" (New York, December 1997);
- Econometric Society European Meeting; session on "Empirical Models of Social Interaction" (Toulouse, France, August 1997);
- Stanford Institute for Theoretical Economics; 1997 Summer Workshop - "Social Interactions" (Stanford, August 1997);
- University of Ancona; Workshop on Economics with Heterogeneous Interacting Agents (Ancona, Italy, May 1997);
- Yale University; Applied Microeconomics Workshop (New Haven, April 1997);
- National Bureau of Economic Research 1996 Summer Institute; Income Distribution Workshop (Boston, July 1996).

SEMINAR PRESENTATIONS

Banca d’Italia; Banco de España; Banco de Portugal; Banque de France; Boston College; Boston University; Brown University; CEMFI; Columbia University; Cornell University; CUNY at Hunter College; Duke University; EIEF – Einaudi Institute for Economics and Finance; European University Institute; Federal Reserve Bank of Boston; Federal Reserve Bank of Chicago; Federal Reserve Bank of Kansas City; Federal

Reserve Bank of Minneapolis; Federal Reserve Bank of New York; Federal Reserve Bank of Saint Louis; Johns Hopkins University; IZA; Laval University; London School of Economics; Norges Bank; New York University; Ohio State University; Queen's University; Royal Holloway, University of London; Rutgers University; Sciences Po; Stanford University; SUNY at Albany; Tufts University; UC Berkeley; UC Irvine; UCLA; Universidad de Alicante; Universidad de Sevilla; Universidad Panamericana; Università Bocconi; Università di Bologna; Università Ca' Foscari; Università di Padova; Università di Siena; Università Tor Vergata; Universitat Autònoma de Barcelona; Universitat Pompeu Fabra; University of Chicago; University College London; University of Connecticut; University of Delaware; University of Essex; University of Maryland; University of Miami; University of Minnesota; University of North Carolina at Chapel Hill; University of Pennsylvania; University of Quebec at Montreal; University of Rochester; University of Southern California; University of Texas at Austin; University of Warwick; University of Western Ontario; University of Wisconsin at Madison; Vanderbilt University; Washington University in St. Louis; Williams College.