# ELISABETH RUTH PERLMAN

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#### EDUCATION

Ph.D. in Economics, Boston University, Boston MA, 2016 (expected)

Dissertation Title: Connecting the Periphery: Three Papers on the Developments Caused by Spreading Transportation and Information Networks in the Nineteenth Century United States Dissertation Committee: Robert A. Margo, Carola Frydman, Daniele Paserman

B.A., Physics and Economics, Carleton College, Northfield, MN, 2006

Diploma, Northfield Mount Hermon School, Northfield, MA, 2002

#### FIELDS OF INTEREST

Economic History, Innovation, Labor Economics, Urban/Regional Economics

#### TEACHING EXPERIENCE

Instructor, Economic Institutions in Historical Perspective, Department of Economics, Boston University, Spring 2012, Fall 2012

Teaching Fellow, Introductory Microeconomic Analysis, Department of Economics, Boston University, Fall 2010, Fall 2011, Fall 2013

Teaching Fellow, Introductory Macroeconomic Analysis, Department of Economics, Boston University, Spring 2011, Spring 2014

Teaching and Laboratory Assistant, Department of Physics, Carleton College, Fall 2004-Spring 2006 Intermediate Price Theory Tutor, Department of Economics, Carleton College, Fall 2004

#### WORK EXPERIENCE

Senior Research Assistant, Capital Markets, Federal Reserve Board, 2007-2009

#### **Fellowships and Awards**

Sokoloff Dissertation Fellowship, Economic History Association, Fall 2014-Spring 2015 Dissertation Research Improvement Grant, National Science Foundation, Summer 2014 Economic History Association Data Grant, Spring 2013 Summer Research Grant, Boston University, Summer 2012

#### WORKING PAPERS

"Dense Enough To Be Brilliant: Patents, Urbanization, and Transportation in Nineteenth Century America," November 2015 (*Job Market Paper*)

"Delivering the Vote: The Political Effect of Free Mail Delivery in Early Twentieth Century America" (with Steven Sprick Schuster), *Revise and Resubmit, JEH (Revision Under Review)*, October 2015

"The Impact of Railroads on School Enrollment in Nineteenth Century America"

(with Jeremy Atack and Robert A. Margo), June 2012

#### WORK IN PROGRESS

"Free Mail Delivery, Sears, Roebuck & Co., and the Rural General Store" (with Steven Sprick Schuster)

"Who Used Postal Savings? A Description of the First Federally Insured Savings Institution" (with Matt Jaremski and Steven Sprick Schuster)

"Credit Access and Patenting Activity in Nineteenth Century America" (with Matt Jaremski)

"Superstars and Scale: The Effect of Market Size on Top Income Inequality" (with Peter Sims) "Nineteenth Century Moral Laws' Impact on Innovation"

"The Formation and Persistence of Gay San Fransisco" (with Eric Golson and Casey Petroff)

"Inventor Migration" (with Nicolas Ziebarth)

"Did the Telegraph Have an Independent Impact?" (with Aaron Honsowetz)

"Demographic Impact of South African Rails" (with Johan Fourie)

#### **Referee Experience**

The Journal of Economic History, Research Policy

#### **CONFERENCES AND EXTERNAL PRESENTATIONS**

- **2015:** Northeast Universities Development Consortium Conference, Brown University; Harvard; NBER Productivity Seminar; NBER Summer Institute; Alexander Hamilton Center for Political Economy at NYU; Australian National University; University of Warwick; Economic History Association, Nashville TN; World Economic History Congress, Kyoto, Japan
- **2014:** LSE; UC Berkeley; Harvard; NBER Productivity Seminar; Carleton; NBER Summer Institute (poster); Social Science History Association, Toronto, Canada; Western Economic Association International, Denver CO; Economic and Business History Society, Manchester UK;
- **2013:** Yale Law School; University of Essex; University of Nottingham; Seventh World Congress of Cliometrics, Honolulu, Hawai'i
- 2012: World Economic History Congress, Stellenbosch, South Africa
- 2011: UC Irvine; Harvard; University of Warwick

COMPUTER SKILLS: Stata, Python (NLTK, scikit-learn), ArcGIS, SAS, R, MS Office, and LATEX

#### CITIZENSHIP: USA

#### References

## Professor Robert A. Margo Department of Economics Boston University 270 Bay State Rd Boston MA 02215 USA Phone: +1-617-353-6819 Email: margora@bu.edu

Professor Carola Frydman Department of Economics Boston University 270 Bay State Rd Boston MA 02215 USA Phone: +1-847-467-4457 Email: cfrydman@bu.edu

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# ELISABETH RUTH PERLMAN

## **Dense Enough To Be Brilliant: Patents, Urbanization, and Transportation in Nineteenth Century America** (Job Market Paper)

This paper examines the geographic distribution of patenting in the nineteenth century United States as it evolves in response to transportation improvements. I find a robust, statistically significant, and positive effect of increases in local transportation access on patenting. Over the twenty years following the arrival of the railroad in a county, the number of patents per capita doubles. I explore two possible mechanisms behind this increase: a) inventors responded to larger markets afforded by transportation improvements; or b) transportation improved information flows making investors more productive. I find little evidence that patenting responded positively to increased market access *per se*, but that local access still matters. Using digitized texts of patents, I measure whether any given patent mentions a previous, novel technology within a particular time frame. I find little evidence that the speed of arrival of these new ideas is related to transportation improvements. These results suggest that access to local transportation lowers the effective cost of patenting by forming a nexus around which local agglomerations occur.

**Delivering the Vote: The Political Effect of Free Mail Delivery in Early Twentieth Century** (with Steven Sprick Schuster), *Revise and Resubmit, JEH (Revision Under Review)*.

The rollout of Rural Free Delivery (RFD) in the early twentieth century dramatically increased the frequency with which rural voters received information. This paper examines the effect of RFD on voters' and Representatives' behavior using a panel dataset and instrumental variables. Communities receiving more routes spread their votes to more parties, especially smaller parties. However, we fail to find a significant change in voter turnout. RFD shifted positions taken by Representatives to ones in line with rural communities, including increasing support for pro-temperance and anti-immigration policies. Our results are much stronger in counties with newspapers, supporting the hypothesis that information flows play a crucial role in the political process.

# **The Impact of Railroads on School Enrollment in Nineteenth Century America** (with Jeremy Atack and Robert A. Margo)

One of the central features of nineteenth century economic development in the United States was the "Transportation Revolution," in which the speed of moving goods and people increased rapidly, and prices fell, with important economic and social effects. This paper uses a newly created panel data set matching information on transportation infrastructure to individual-level census data for the period 1850 to 1880 to study the impact of the diffusion of the railroad – a key component of the Transportation Revolution – on human capital investment. Using a difference-in-differences approach, we find that gaining access to rail transportation in a county significantly increases the likelihood of school attendance among children ages 6-16. The treatment effect of the railroad is robust to controls for demographic characteristics, socioeconomic status, and location, and is also similar in magnitude for boys and girls. Causal mechanisms are explored, including the effects of rail on the supply of schools through higher property values.