

Jeffrey C. Brinkman
Curriculum Vitae
February 2012

EMPLOYMENT

2011 – present Economist, Federal Reserve Bank of Philadelphia

EDUCATION

Ph.D. Economics and Public Policy Carnegie Mellon University, 2011

Thesis: “Essays on Urban Agglomeration”

Committee: Holger Sieg, Daniele Coen-Pirani, Dennis Epple, Karen Clay

M.S. Economics Carnegie Mellon University, June 2009

Master of Public Policy University of California Los Angeles, June 2006

B.S./M.S. Electrical Engineering The Ohio State University, June 2000/December 2001

RESEARCH PAPERS

“Transportation Technologies, Agglomeration, and the Structure of Cities,” Job Market Paper.

This paper develops and estimates a general equilibrium model of business and residential location in the presence of agglomeration externalities and commuting costs. The model is based on the theory introduced by Lucas and Rossi-Hansberg (2002), but adds a congestion cost in addition to a distance cost of commuting. This specification allows for the investigation of the effect of different transportation technologies (i.e. transit or automobile infrastructure) on the spatial structure of cities. In addition, other modifications are made in order to make empirical analysis tractable. I introduce data on commercial and residential densities, commuting times, and wages paid, to illustrate the structure of cities and highlight the trade offs faced by businesses and individuals in location decisions. The model is estimated using a method of moments procedure, and the estimates are used to illustrate the quantitative aspects of equilibrium, including the importance of congestion in commuting costs. Policy experiments show that decreasing congestion costs relative to distance costs (a policy akin to increasing transit provision) increases the relative concentration of employment in the center city and increases residential density in inner ring suburbs.

“Firm Dynamics within an Urban Economy,” working paper, 2011, with Daniele Coen-Pirani and Holger Sieg.

We develop a new dynamic general equilibrium model to explain firm entry, exit, and relocation decisions in an urban economy with multiple locations. We characterize the stationary distribution of firms that arises in equilibrium. The parameters of the model can be estimated using a nested fixed point algorithm by matching the observed distribution of firms by location and the one implied by our model. We implement the estimator using unique data collected by Dun and Bradstreet for the Pittsburgh metropolitan area. Firms located in the central business district are older and larger than firms located outside the urban core. They use more land and labor in the production process. However, they face higher rental rates for office space which implies that they operate with a higher employee per land ratio. Our estimates imply that agglomeration externalities increase the productivity of firms by one to two percent. Economic policies that subsidize firm relocations can potentially have large effects on economic growth and firm concentration in central business districts.

RESEARCH FIELDS

Primary Fields: Applied Microeconomics, Urban Economics

Secondary Fields: Computational Methods, Industrial Organization, Economic Geography

TEACHING

Instructor, Carnegie Mellon University

Regression Analysis, Undergraduate Business Administration, Summer 2010

Teaching Assistant, Carnegie Mellon University

Cost-Benefit Analysis, M.P.P. Program, Spring 2011 (for Karen Clay)

Regional Finance and Education, M.P.P. Program Spring 2011 (for Robert P. Strauss)

Macroeconomics, M.P.P. Program, Fall 2010, (for Robert P. Strauss)

Economics of Networks, M.B.A. Program, Spring 2010, (for Tim Derdenger)

Economic Principles of Policy Analysis, M.P.M., Spring/Fall 2009, (for Robert P. Strauss)

Teaching Assistant, University of California Los Angeles

Drug Policy, Undergraduate Public Policy, Spring 2006, (for Mark A.R. Kleiman)

Imperfect Rationality, Undergraduate Public Policy, Winter 2006, (for Mark A.R. Kleiman)

Introduction to Policy Analysis, Undergraduate Public Policy, Fall 2005, (for Mark A.R. Kleiman)

PRESENTATIONS

Federal Reserve Bank of Philadelphia, 2011

University of Pennsylvania, 2011

Conference on Housing Market Dynamics, Duke University, 2010

North American Meetings of the Regional Science Association, New York, 2008

Carnegie Mellon University, 2008 and 2009

AWARDS

Doctoral student research grant, 2009-2011

Doctoral studies scholarship, 2006-2008

Marianna and David Fisher Fellowship for graduate education in public affairs, 2005-2006

Lucent Technologies Fellowship for graduate studies in electrical engineering, 2000-2001

PREVIOUS EXPERIENCE

The Planning Report and Metro Investment Report, Los Angeles, California

Assistant Editor/ Intern (2004 –2005)

General Motors – OnStar, Troy, Michigan

Systems Quality Engineer (2001 –2003)

ElectroScience Laboratory, The Ohio State University, Columbus, Ohio

Research Assistant (1999 –2001)

Raytheon Systems Company, McKinney, Texas

R.F. Engineering Intern (Winter/Summer 1998)

OTHER INFORMATION

Software: Matlab, ArcGIS, Stata, C++, html, Mathematica, MS Office

Professional Membership: Econometric Society, American Economics Association, Urban Economics Association.

Citizenship: United States