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Harper Center 409

**Urban Economics** 

33454, Winter 2019

Thursdays 8:30 to 11:30AM at Harper Center C04 and Thursdays 6:00 to 9:00PM at Gleacher Center 404 Booth School of Business, University of Chicago

Teaching Assistant: Meru Bhanot, merubhanot@gmail.com

Office Hours: Thursdays from 1:15 to 2:15PM at Harper Center C50A and

Thursdays from 5:00 to 6:00PM Gleacher Center 430 TA cubicles

Canvas Site: https://canvas.uchicago.edu/courses/18162

Overview: The decision of where to locate is essential for both business and individuals. It determines the profits of firms through the cost of inputs, market size, the level of competition, and the policy environment they face. It also determines the job opportunities, schooling, and other amenities accessible to individuals. In turn, firm and individual decisions aggregate to determine the performance of cities and regions. This course studies business and individual location decisions and how they determine the main economic forces that lead to the existence and performance of cities and regional agglomerations. The course starts by developing a simple theory of cities and its implications for city size, firm productivity, and housing prices. It then studies evidence on the impact of cities on firm and worker productivity, urban amenities, and congestion. We will discuss the problems in measuring these forces, the methodologies to do so, as well as the implications of this measurement for businesses, individuals, and urban policy. We will also study the internal structure of cities, and how to evaluate the effect of new infrastructure or policy on land and housing values and overall welfare. Finally, the course will analyze the role cities and regions play in aggregate economic development.

**Grading:** Your grade will be based on class participation, an in-class midterm in the 5<sup>th</sup> week, a class presentation, and a course project. Class participation consists of reading the articles assigned for the class and being ready to discuss them. The class presentation will be on your urban business or policy project and will be scheduled during the last week of the course. A written draft of your project is due on March 20<sup>th</sup>, 2019. The project should be a business or policy proposal on an urban issue. It can range from a specific investment in one city to a wide-ranging business or policy encompassing a region or many cities in a country. The project should be clearly structured, have a an economic evaluation, and a clear discussion of the arguments in favor and against its implementation. Your arguments should be based on relevant data and theory. In general, it helps to be specific. Group work is encouraged but not necessary. Groups working together on a project should add a statement with each student's contribution to the project in the final written version. Groups should have no more than 5 students. Class participation will count for 10% of your grade, the midterm for 30%, the class presentation for 20%, and the final project for 40%.

# Outline and Readings:

This syllabus, as well as the links to the course slides and all the readings, are located at the course Canvas site. Please read the assigned articles before class. Papers marked as "Technical" are optional and contain mathematical technicalities that are not required for the course.

#### Week 1:

- Organization and course information
- Introduction
  - What is a city? Why do businesses and individuals locate there?
    - Glaeser, "Introduction" and "What do they Make in Bangalore?" in *Triumph of the City*, 2011, Penguin Books
    - \* Moretti, "Introduction" and "The great divergence" in *The New Geography of Jobs*, 2012, Mariner Books
    - \* Stevens, McDade and Stamm, "Courting a giant," Wall Street Journal (2017)
    - \* Wingfield, "Amazon chooses 20 finalists for second headquarters," New York Times (2018)
  - A basic city model: Agglomeration and congestion
    - \* Ahlfeldt, Redding, Sturm and Wolf, "The economics of density: Evidence from the Berlin Wall," VoxEU (2014)
    - \* Brinkman, "Making sense of urban patterns," Economic Insights (2017)
    - \* Combes, Duranton, Gobillon, and Roux, "The Productivity Advantages of Large Cities: Distinguishing Agglomeration from Firm Selection," *Econometrica* (2012) (Technical)
    - \* Waddell and Sarte, "From Stylized to Quantitative Spatial Models of Cities," *Economic Quarterly* (2016) (Technical)

### Week 2:

- Agglomeration Forces
  - Production Externalities: Firms learn from each other
    - \* Chatterji, Glaeser and Kerr, "The origins of entrepreneurship and innovation clusters," VoxEU (2013)
    - \* Comin and Rossi-Hansberg, "Heavy technology: The process of technological diffusion over time and space," VoxEU (2012)
    - \* Glaeser and Kerr, "Industrial agglomeration and entrepreneurship," VoxEU (2008)
    - \* Glaeser and Lu, "Human capital externalities in China," VoxEU (2018)
    - \* Greenstone, Hornbeck and Moretti, "Identifying Agglomeration Spillovers: Evidence from Winners and Losers of Large Plant Openings," *Journal of Political Economy* (2010) (Technical)
    - \* Lin, "The paper trail of knowledge transfers," Economic Insights (2014)
  - Dense labor markets: Better matching between firms and workers
    - \* Moretti, "Forces of Attraction" in *The New Geography of Jobs*, 2012, Mariner Books
  - Suppliers and customers: Firms face lower overall transportation costs in cities
    - \* Agarwal, Jensen and Monte, "The geography of consumption," VoxEU (2018)

- \* Saxenian, "Inside-Out: Regional Networks and Industrial Adaptation in Silicon Valley and Route 128," Cityscape: A Journal of Policy Development and Research (1996)
- History: Why do firms stay in the same location?
  - \* Michaels and Rauch, "Can history leave towns struck in places with bad locational fundamentals?," VoxEU (2013)
  - \* Lin, "Geography, history, economies of density, and the location of cities," Economic Insights (2012)

# Week 3:

- Urban amenities and residential valuation: What city characteristics do individuals value?
  - The city as a consumption center and the measurement of amenities
    - \* Glaeser, Kolko and Saiz, "Consumer City," Journal of Economic Geography (2000) (Technical)
    - \* Rappaport, "Moving to Nice Weather," Regional Science and Urban Economics (2007) (Technical)
    - Sen and Scavette, "Purchasing power across the U.S.," Economic Insights (2017)
  - Hedonic valuation: How to value a house that has not been sold?
  - Housing Externalities: How others affect the value of my house
    - \* Rossi-Hansberg and Sarte, "Economics of Housing Externalities," International Encyclopedia of Housing and Home (2012)

# Week 4:

- Urban population and skill sorting: Who lives where?
  - Urban wage premium and learning: Living in a city affects your wage today and in the future
    - \* Glaeser and Mare, "Cities and Skills," Journal of Labor Economics (2001) (Technical)
    - \* De la Roca and Puga, "Learning by Working in Big Cities," Review of Economic Studies (2017) (Technical)
  - Skill sorting and urban inequality: Its easier to hire talent in cities, and increasingly so
    - \* Behrens and Robert-Nicoud, "Urbanisation makes the world more unequal," VoxEU (2014)
    - \* Berkes and Gaetani, "Income Segregation and Rise of the Knowledge Economy," working paper (2017) (Technical)
    - \* Brinkman, "Big cities and the highly educated: what's the connection?," Business Review (2015)
    - \* Diamond, "The causes and consequences of US workers' diverging locations by skill," *Micoeconomic Insights* (2016)

# Week 5:

- Measuring the location of businesses and people
  - Official statistics, remote sensing data, and digital sources
    - \* Glaeser, Kim and Luca, "Using traditional and digital data sources together in economic research," VoxEU (2018)
    - \* Weil, Henderson, and Storeygard, "Measuring economic growth from outer space," VoxEU (2009)
- Midterm Exam

#### Week 6:

- Congestion
  - Transportation networks in cities: Reducing the cost of doing business
    - \* Baum-Snow and Kahn. "The Effects of Urban Rail Transit Expansions: Evidence from Sixteen Cities," Brookings-Wharton Papers on Urban Affairs (2005)
    - \* Baum-Snow, "Did Highways Cause Suburbanization," Quarterly Journal of Economics (2007) (Technical)
    - \* Donaldson, "Economic benefits of transportation infrastructure: historical evidence from India and America," Micoeconomic Insights (2017)
    - \* Gibbons, Overman, Lyytikainen and Sanchis-Guarner, "New road infrastructure: The effects on firms," VoxEU (2017)
    - \* Turner, "The fundamental law of road congestion and its implications for transportation policy," Resources for the Future (2010)
  - Commuting and the availability of workers and consumers
    - \* Bernard, Moxnes and Saito, "Fast trains, supply networks, and firm performance," VoxEU (2014)
    - \* Florida, "The relationship between subways and urban growth," CityLab (2016)
    - \* Monte, Redding and Rossi-Hansberg, "Commuting, migration and local employment elasticities," VoxEU (2015)
    - \* Tsivanidis, "The equitable benefits of Colombia's bus rapid transit system," VoxDev (2018)

# Week 7:

- Systems of cities and industrial composition
  - The size distribution of cities and urban migration
    - \* Combes, Demurger and Shi, "Urbanisation and migration externalities in China," VoxEU (2013)
    - \* Clement, "Sets and the city," The Region (2004)
    - \* Desmet and Rossi-Hansberg, "Are the world's megacities too big?," VoxEU (2011)
    - \* Desmet and Rossi-Hansberg, "Analyzing Urban Systems: Have Mega-Cities Become Too Large?," The Urban Imperative: Towards Competitive Cities, Oxford UP (2015) (Technical)
    - \* Henderson, Squires, Storeygard and Weil, "Changing population distribution: The roles of nature and history," VoxDev (2018)
    - \* Soo, "Zipf's Law for Cities: A Cross-Country Investigation," Regional Science and Urban Economics (2005) (Technical)
  - Industrial agglomeration and market concentration: Do industries cluster? What are the trends in concentration?
    - Duranton and Overman, "Testing for Localization Using Micro-Geographic Data," Review of Economic Studies (2005) (Technical)
    - \* Ellison, Glaeser and Kerr, "What Causes Industry Agglomeration? Evidence from Coagglomeration Patterns," *American Economic Review* (2010) (Technical)
    - \* Rossi-Hansberg, Sarte and Trachter, "Diverging Trends in National and Local Concentration," working paper (2018)

- Input-output linkages between firms and their importance for location choices and the impact of shocks
  - \* Mori, "Constant churning and persistent regularity in population and industrial locations: Evidence from Japan," VoxEU (2017)
  - \* Rossi-Hansberg, "Geography, Idiosyncratic Shocks, and Aggregate Fluctuations," RIETI (2014)

# Week 8:

- Urban growth and decline: Why it is easier to grow than to shrink?
  - Housing and land supply
    - \* Glaeser and Gyourko, "Urban Decline and Durable Housing," Journal of Political Economy (2006) (Technical)
    - \* Ioannides and Rossi-Hansberg, "Urban growth," The New Palgrave Dictionary of Economics (2008)
    - \* Saiz, "The Geographic Determinants of Housing Supply," Quarterly Journal of Economics (2010) (Technical)
  - Inelastic city structure: The consequences of past growth
    - \* Owens, Rossi-Hansberg and Sarte, "Wasted urban infrastructure: The city of Detroit," VoxEU (2017)
    - \* Pinto, "Responding to urban decline," Economic Brief (2017)
  - Gentrification: Up-and-coming neighborhoods and their characteristics
    - \* Lin, "Understanding gentrification's causes," Economic Insights (2017)
  - Moving to opportunity and the investment component of location choices
    - \* Bliss, "If location is an asset, high rent is 'Saving' for the future," CityLab (2018)
    - \* Chetty and Hendren, "The impact of neighborhoods on intergenerational mobility," Equality and Opportunity Project (2015)
    - \* Clement, "Trading Places," The Region (2018)

# Week 9:

- Housing and real estate
  - Decomposing real-estate trends: What determines the value of a house?
    - \* Davis and Heathcote, "The Price and Quantity of Residential Land in the US," *Journal of Monetary Economics* (2007) (Technical)
  - The Great Recession and other boom-bust cycles
    - \* Eyigungor, "Housing's role in the slow recovery," Economic Insights (2016)
    - \* Glaeser, "The bubble dynamics of China's housing boom," VoxDev (2017)
    - \* Mian and Sufi, "The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis," *Quarterly Journal of Economics* (2009) (Technical)
  - Regulation: The impact of regulation on business and residential real estate
    - \* Glaeser and Gyourko, "The Impact of Zoning on Housing Affordability," Economics Policy Review (2003)
    - \* Hsieh and Moretti, "How local housing regulations smother the U.S. economy," New York Times (2017)
    - \* Moretti and Wilson, "Where star scientists choose to locate: the impact of US state taxes," *Micoeconomic Insights* (2017)

# Week 10

- Climate Change and Location Choices
  - Green cities
    - \* Glaeser, "Is there anything greener than blacktop?" in Triumph of the City, 2011, Penguin Books
  - Mobility and urban adaptation due to climate
    - \* Desmet and Rossi-Hansberg, "Moving to Greenland in the face of global warming," VoxEU (2013)
    - \* Kocornik-Mina, McDermott, Michaels and Rauch, "Do floods shift economic activity to safer areas?," VoxEU (2016)
- Class Presentations