

ECO3202H1F – **The Economics of Cities and Regions**

Section L0101: Tuesday 11-1, Room: GE100

Instructor: Gilles Duranton

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Office hours: Wednesdays 16.30-18.15

Objectives: This course will explore a range of topics related to current research in urban and regional economics: the modelling and estimation of agglomeration economies ; the costs of cities and their internal structure with emphasis on land use regulations and transportation ; amenities and the local supply of labour; the sizes and functions of cities. Both theory and empirics will be covered. Special attention will be devoted to building bridges with other fields including labour, international, public, IO, and development.

General issues:

1. This course hopes to achieve several objectives:

- Provide you with substantive knowledge about the economics of cities and regions.
- Foster your technical knowledge about a number of modelling aspects, econometrics techniques, and the link between the two.
- Make you think critically (and hopefully creatively) about existing research.
- Improve your ability to present complex research output in a clear and synthetic way.

2. The course builds on standard microeconomic theory (adapted to the complications introduced by space) and econometrics. Given the range of problems that urban and regional economists face, no single empirical approach is expected to fully dominate.

3. The assessment will be made of:

- One "data" assignment (15%) due 19 October (week 6).
[[Objective: to replicate the main results of a published paper]]
- One critical evaluation of a paper (15%) due 23 November (week 10)
[[Maximum 5 double spaced pages]]
- One research proposal (25%) due at the end of term
[[Establish a research question, briefly survey the relevant literature, discuss possible existing data to analyse the question, provide a research design and critically comment it. Preliminary data analysis may also be provided. Alternatively, research proposals for an applied theory paper are also possible. Research proposals need to be discussed with me beforehand.]]
- One final exam of about two hours (25%) during the final exam period.
- Class participation (20%)
[[We will discuss one or two papers nearly every week. For each paper, the discussion should be led by one of us. The others are expected to have looked at the paper as well.]]

4. The data assignment and the research proposal will require the use of stata (which can be purchased at a low price through the library).

5. Announcements and other related items will be posted on the web at <http://individual.utoronto.ca/gilles/ECO3202H.html>. Please check this page frequently and stay up to date with the course.

6. Most course materials (readings and data) will be posted on the blackboard page for the course.

7. Class attendance is fundamental. A lot of what you will learn will be during the class and the class will strongly complement everything else.

8. Absence from exams.

Medical notes will be needed to justify any absence from exam and delay for handing in work.

Syllabus:

1. Agglomeration: Theory

- Combes, Pierre-Philippe, Thierry Mayer, and Jacques Thisse. 2008. *Economic Geography – The Integration of Regions and Nations*. Chapter 3. Princeton: Princeton University Press.
- Duranton, Gilles and Diego Puga. 2004. Micro-foundations of urban agglomeration Economies. In Vernon Henderson and Jacques-François Thisse (eds.) *Handbook of Regional and Urban Economics*, volume 4. Amsterdam: North-Holland, 2063–2117.

2. Agglomeration: Empirics

IV:

- Combes, Pierre-Philippe, Gilles Duranton, Laurent Gobillon, and Sébastien Roux. 2010. Estimating agglomeration economies with history, geology, and worker effects. In Edward L. Glaeser (ed.) *The Economics of Agglomeration*. Cambridge (mass.): National Bureau of Economic Research, 15–65.
- Rosenthal, Stuart S. and William C. Strange. 2008. The attenuation of human capital spillovers. *Journal of Urban Economics* 64(2):373–389.

Quasi-Experiments:

- Andersson, Roland, John M. Quigley, and Mats Wilhelmsson. 2009. Urbanization, productivity, and innovation: Evidence from investment in higher education. *Journal of Urban Economics* 66(1):2–15.
- Greenstone, Michael, Richard Hornbeck, and Enrico Moretti. 2010. Identifying agglomeration spillovers: Evidence from winners and losers of large plants openings. *Journal of Political Economy* 118(3):536–598.
- Redding, Stephen J. and Daniel M. Sturm. 2008. The costs of remoteness: Evidence from German division and reunification. *American Economic Review* 98(5):1766–1797.

Structural:

- Baum-Snow, Nathaniel and Ronni Pavan. 2010. Understanding the city size wage gap. Processed, Brown University.
- Holmes, Thomas J. 2011. The diffusion of Wal-Mart and economies of density. *Econometrica* 79(forthcoming).

Identifying the sources of agglomeration:

- Bacolod, Marigee, Bernardo S. Blum, and William C. Strange. 2009. Skills in the city. *Journal of Urban Economics* 65(2):136–153.
- Ellison, Glenn, Edward L. Glaeser, and William R. Kerr. 2010. What causes industry agglomeration? Evidence from coagglomeration patterns. *American Economic Review* 100(3):1195–1213.
- Holmes, Thomas J. and Sanghoon Lee. 2011. Economies of density versus natural advantage: Crop choice on the Back Forty. *Review of Economics and Statistics* 93(forthcoming).

Background papers:

- Combes, Pierre-Philippe, Gilles Duranton, and Laurent Gobillon. 2010. The identification of agglomeration economies. Processed, University of Toronto.
- Holmes, Thomas J. 2010. Structural, experimentalist, and descriptive approaches to empirical work in regional economics. *Journal of Regional Science* 50(1):5–2.
- Murray, Michael P. 2006. Avoiding invalid instruments and coping with weak instruments. *Journal of Economic Perspectives* 20(4): 111-132.
- Puga, Diego. 2010. The magnitude and causes of agglomeration economies. *Journal of Regional Science* 50(1):203–219.

3. Dispersion: Theory

- Zenou, Yves. 2006a and b. Urban Economics. Mimeographed.

Background paper:

- White, Michelle J. 1999. Urban areas with decentralized employment: Theory and empirical work. In Paul C. and Edwin S. Mills (eds) *Handbook of Regional and Urban Economics*, volume 3. Amsterdam: North-Holland, 1375-1412.
- Fujita, Masahisa and Jacques Thisse. 1996. Economics of agglomeration. *Journal of the Japanese and International Economies* 10: 339-378. (Section 2)
- Fujita, Masahisa and Hideaki Ogawa. 1982. Multiple equilibria and structural transition of nonmonocentric urban configurations. *Regional Science and Urban Economics* 12(2):161–196.
- Lucas, Robert E., Jr. and Esteban Rossi-Hansberg. 2002. On the internal structure of cities. *Econometrica* 70(4):1445–1476.

4. Dispersion: Empirics

- Burchfield, Marcy, Henry G. Overman, Diego Puga, and Matthew A. Turner. 2006. Causes of sprawl: A portrait from space. *Quarterly Journal of Economics* 121(2): 587–633.
- Davis, Morris A. and Michael G. Palumbo. 2008. The price of residential land in large US cities. *Journal of Urban Economics* 63(1):352-384.
- Glaeser, Edward L., and Matthew E. Kahn. 2001. Decentralized Employment and the Transformation of the American City. *Brookings/Wharton Papers on Urban Affairs* 2(0): 1-63.
- McMillen, Daniel P. 2001. Nonparametric employment subcenter identification. *Journal of Urban Economics* 50(3): 448-473.
- McMillen, Daniel P. and Stefani C. Smith. 2003. The number of subcenters in large urban areas. *Journal of Urban Economics* 53(3):332–342.

5. Local labour supply and amenities: Theory

- Glaeser, Edward L. and Joshua D. Gottlieb. 2009. The wealth of cities: Agglomeration economies and spatial equilibrium in the United States. *Journal of Economic Literature* 47(4):983–1028.
- Moretti, Enrico. 2011. Local labor markets. In Orley Ashenfelter and David Card (eds.) *Handbook of Labor Economics, volume 4*. Amsterdam: North-Holland. Forthcoming.

Background

- Roback, Jennifer. 1982. Wages, rents and the quality of life. *Journal of Political Economy* 90(6):1257–1278.

6. Local labour supply and amenities: Empirics

- Albouy, David. 2008. Are big cities really bad places to live? Improving quality-of-life estimates across cities. Mimeographed, University of Michigan.
- Beaudry, Paul, David A. Green, and Ben Sand. 2010. How much is employment increased by cutting labor costs? Estimating the elasticity of job creation. Processed, University of British Columbia.
- Manning, Alan and Barbara Petrongolo. 2010. How local are labor markets?: Evidence from disaggregated matching functions. Processed, London School of Economics

- Rappaport, Jordan. 2004. Moving to nice weather. *Regional Science and Urban Economics* 37(3): 375–398.

Background

- Blanchard, Olivier Jean and Lawrence F. Katz. 1992. Regional Evolutions. *Brookings Papers on Economic Activity* 0(1): 1–61.

- Moretti, Enrico. 2011. Local labor markets. In Orley Ashenfelter and David Card (eds.) *Handbook of Labor Economics, volume 4*. Amsterdam: North-Holland. Forthcoming.

- Glaeser, Edward L. and Joshua D. Gottlieb. 2009. The wealth of cities: Agglomeration economies and spatial equilibrium in the United States. *Journal of Economic Literature* 47(4):983–1028.

7. Systems of cities

- Au, Chun-Chung and J. Vernon Henderson. 2006. Are Chinese cities too small? *Review of Economic Studies* 73(3):549–576.

- Behrens, Kristian, Gilles Duranton, and Frédéric Robert-Nicoud. 2010. Productive cities: Sorting, selection, and agglomeration. Processed, University of Toronto.

- Duranton, Gilles. 2009. Notes about random urban growth models. Mimeographed, University of Toronto.

Background

- Henderson, Vernon, and Randy Becker. 2000. Political economy of city sizes and formation. *Journal of Urban Economics* 48(3): 453–484.

- Duranton, Gilles and Diego Puga. 2000. Diversity and specialisation in cities: Why, where and when does it matter? *Urban Studies* 37(3): 533–555.

- Gabaix, Xavier and Yannis M. Ioannides. 2004. The evolution of city size distributions. In Vernon Henderson and Jacques-François Thisse (eds.) *Handbook of Regional and Urban Economics, volume 4*. Amsterdam: North-Holland, 2341–2378.

Beyond that we will probably need to make one or two choices among the following themes:

8. Policy

- Busso, Matias, Jesse Gregory, and Patrick Kline. 2009. Assessing the incidence and efficiency of a prominent place based policy. Processed, University of California Berkeley.
- Cellini, Stephanie Riegg, Fernando Ferreira, and Jesse Rothstein. 2010. The value of school facility investments: Evidence from a dynamic regression discontinuity design. *Quarterly Journal of Economics* 125(1):215–261.
- Criscuolo, Chiara, Ralf Martin, Henry Overman, and John Van Reenen. 2007. The effect of industrial policy on corporate performance: Evidence from panel data. Processed, London School of Economics.
- Rossi-Hansberg, Esteban, Pierre-Daniel Sarte, and Raymond Owens III. 2010. Housing externalities. *Journal of Political Economy* 118(3):485–535.

Background

- Glaeser, Edward L. and Joshua D. Gottlieb. 2008. The economics of place-making policies. *Brookings Papers on Economic Activity* 0(1):155–253.
- Holmes, Thomas J. 1998. The effect of state policies on the location of manufacturing: Evidence from state borders. *Journal of Political Economy* 106(4):667–705.

9. Transportation

- Arnott, Richard, André de Palma, and Robin Lindsey. 1993. A structural model of peak-period congestion: A traffic bottleneck with elastic demand. *American Economic Review* (1):161–179.
- Baum-Snow, Nathaniel. 2007. Did highways cause suburbanization? *Quarterly Journal of Economics* 122(2):775–805.
- Bento, Antonio, Maureen L. Cropper, Ahmed Mushfiq Mobarak, and Katja Vinha. 2005. The effects of urban spatial structure on travel demand in the United States. *Review of Economics and Statistics* 87(3):466–478.
- LeRoy, Stephen F. and Jon Sonstelie. 1983. The effects of urban spatial structure on travel demand in the United States. *Journal of Urban Economics* 13:67–89.
- Parry, Ian W. H. and Kenneth A. Small. 2009. Should urban transit subsidies be reduced? *American Economic Review* 99(3):700–724.

Background

- de Palma, André, Robin Lindsey, and Nathalie Picard. Urban passenger travel demand. In Richard J. Arnott and Daniel P. McMillen (eds.) *A Companion to Urban Economics*. Oxford: Blackwell, 261-280.

10. Land use regulation

- Glaeser, Edward L., Joseph Gyourko, and Raven Saks. 2005. Why is Manhattan so expensive? Regulation and the rise in housing prices. *Journal of Law and Economics* 48(2):331–369.
- Glaeser, Edward L. and Bryce A. Ward. 2009. The causes and consequences of land use regulation: Evidence from Greater Boston. *Journal of Urban Economics* 65(3):265–278.
- Haughwout, Andrew, Matthew A. Turner, and Wilbert van der Klaauw. 2010. Land use regulation and welfare. Processed, University of Toronto.
- McMillen, Daniel P. and John F. McDonald. 2002. Land values in a newly zoned city. *The Review of Economics and Statistics* 84(1):62–72.
- Ortalo- Magné, François and Andrea Prat. 2010. The political economy of housing supply. Processed, University of Wisconsin.
- Saiz, Albert. 2010. The geographic determinants of housing supply. *Quarterly Journal of Economics* 125(3):1253–1296.

11. Measurement

- Briant, Anthony, Pierre-Philippe Combes, and Miren Lafourcade. 2010. Does the size and shape of geographical units jeopardize economic geography estimations? *Journal of Urban Economics* 67(3):287–302.
- Burchfield, Marcy, Henry G. Overman, Diego Puga, and Matthew A. Turner. 2006. Causes of sprawl: A portrait from space. *Quarterly Journal of Economics* 121(2): 587–633.
- Duranton, Gilles and Henry G. Overman. 2005. Testing for localisation using microgeographic data. *Review of Economic Studies* 72(4):1077–1106.
- Henderson, Vernon, Adam Storeygard, and David N. Weil. 2009. Measuring economic growth from outer space. Processed, Brown University.
- Rozenfeld, Hernán D., Diego Rybski, Xavier Gabaix, and Hernán A. Maske. 2011. The area and population of cities: New insights from a different perspective on cities. *American Economic Review* 111(forthcoming).

Other possible topics:

- Development (Michaels et al wp 2010, Nunn and Puga REStat 2011, Henderson Handbook chapter 2005, Donaldson wp 2010, Galiani and Schargrotsky JPubEc 2010)

- Neighbourhood change (Rosenthal JUE 2008, DiPasquale and Glaeser JUE 1999, Benabou QJE 1993, Guerrieri et al wp 2010)
- Structural modelling of housing supply (Murphy wp 2010, Brett Epple and Sieg, AER 2010).