



COURSE SYLLABUS
Urban and Regional Economics

AGEC 63000 – Spring 2017

Instructor

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Lectures: Tuesday, 1:30 – 4:20 PM, Krannert Building G009

Consultation: Immediately after class or as needed by appointment

Course description

Did you ever wonder why the location of car dealers is spatially clustered on the auto mall and bookstores seem to be much more spread across town? Or, why Silicon Valley is in California and there is no similar high-tech cluster in Indianapolis? Given that the responsibility for regional development policy rests largely with the states in the US, do you think that the state legislature should make a point of trying to establish such a cluster in Indiana? Also, what is the economic significance of city agglomerations, and will agglomeration externalities cause more profound disparities between urban conurbations and rural hinterlands to appear more or less automatically?

The above questions are all at the heart of the field of urban and regional economics. Although classical economists have traditionally considered spatial variation in economic development as a core area in economics (e.g., Adam Smith's treaty on the nature and causes of the wealth of nations), space has for a long time not really received a prominent status in theory, except for the work on location theory at the end of the nineteenth century. Walter Isard, the founding father of the field of regional science, opposed this "Anglo-Saxon bias" and vehemently pushed for the incorporation of the spatial dimension in economic theory, or maybe better, in social science theory. His work, and the work of others, precludes the increased attention for space in economics that occurred towards the end of the twentieth century. Nowadays, the work of Nobel prize laureate Paul Krugman and others in what is called the "New Economic Geography" and the work on agglomeration externalities and the development of cities in urban economics has given the spatial dimension a much more prominent place in economic theory. Concurrently, this theoretical push has been accompanied by new developments in methods and data processing tools. On the one hand, areas such as spatial

statistics and spatial econometrics, pushed to a certain extent by the increased opportunities for geographical data storage, visualization and analysis through Geographic Information Systems (GIS) and Remote Sensing (RS), have been developed. On the other hand, useful analytical tools for impact analysis (such as, the development of concentration indices, economic base analysis, interregional input-output modeling) have been influential in shaping the opportunities for regional (economic) development policy and regional impact assessment.

The literature discussed in this urban and regional economics course covers theoretical texts, conceptual as well as statistical, and empirical applications in order to introduce you to the economist's view on spatial variation in economic outcomes. This ranges from coverage of the theory of industrial location choice, through a theoretical and empirical analysis of the spatial distribution of economic activities (agglomeration theory, industrial clusters, central place theory), to theoretical and empirical explanations for the spatial structure of cities. Apart from the above partial equilibrium approaches, a general equilibrium approach allowing for increasing returns to scale is much more prominent in the recently developed New Economic Geography. Subsequently, the course will cover a series of key topics in urban and regional economics, specifically the working of labor markets and migration, and regional economic growth theory with its many empirical applications. The final part of the course will deal with regional and rural development policy, in particular as it is being shaped in the United States (US) and the European Union (EU).

Prerequisites

Good working knowledge of principles of micro- and macroeconomics, and basic knowledge of econometrics.

Texts

There are several textbook-like monographs covering parts of the contents of this course. The first one is the textbook that will be used. A list of some of the most relevant other texts is as follows:

- McCann, P. (2013, 2nd edition). *Modern Urban and Regional Economics*. Oxford: Oxford University Press.
- O'Sullivan, A. (2011, 8th edition). *Urban Economics*. Boston: Irwin McGraw-Hill.
- Armstrong, H.W. and J. Taylor (2000, 3rd edition). *Regional Economics and Policy*. Oxford: Blackwell.
- Brakman, S., H. Garretsen and C. van Marrewijk (2009, 2nd edition). *The New Introduction to Geographical Economics*. Cambridge: Cambridge University Press.
- Capello, R. (2006). *Regional Economics*. London: Routledge.
- McCarthy, P.S. (2001). *The Theory and Practice of Transportation Economics: A Case Study Approach*. Oxford: Blackwell Publishers.
- Small, K.A. and E.T. Verhoef (2007, 2nd edition). *The Economics of Urban Transportation*. London: Routledge.

In addition to the McCann textbook some chapters of the other books will be used, in addition to a series of seminal papers on different topics. The required readings are announced in the notes that accompany each class, and will be distributed electronically as PDF files.

Policies

1. Grading is based on assignments comprising problem sets, a midterm exam, and a final exam. Problem sets and the midterm exam are worth 30 percent each. The final exam accounts for 40 percent of the final grade. Details are presented during the first lecture.
2. Class attendance and active participation are required.
3. Incomplete grades are not given unless extremely extenuating circumstances warrant.

Course outline

The course comprises seven major modules. The first module introduces the field of urban and regional economics and outlines the microeconomic principles underlying the theory of industrial location. The second module deals with the spatial distribution of economic activities, in a theoretical sense as well as empirically. The latter includes the development of empirical insights on the basis of location and concentration indices. The third module covers various aspects of the spatial structure and development of urban systems. In particular it covers the theories inspired by Alonso, Muth and Mills, collectively referred to as “bid rent theory”. In the fourth module, the analysis is extended to the allocation of economic resources across cities. The general equilibrium approach of location and development, accounting for increasing returns to scale and transportation cost, centers on the effort to explain the existence of spatial concentration or dispersion of economic activities using first principles from microeconomic theory. These theories are known as “New Economic Geography”.

Starting with the fifth module, the course will be slightly more empirical and methodologically oriented. The fifth module deals with the working of labor markets and population dynamics, specifically migration. In the sixth module the crucial topic of regional economic growth theory will be covered, together with examples of numerous empirical applications, for instance, regarding the United States and the European Union. Finally, module seven deals with theoretical and empirical approaches towards regional economic and rural development policy. The definition of, and distinctions between, urban and rural areas will be covered as well as the pivotal characteristics of regional and rural development policies in the United States and the European Union.

A sequential overview of the topics to be covered is presented below. Note that this overview may be subject to change depending, among other things, on articulated interests of the students.

1. Introduction and Industrial Location
2. The Spatial Distribution of Economic Activities
3. The Economic Organization of Cities
4. New Economic Geography
5. Labor Markets and Migration
6. Regional Economic Growth
7. Regional and Rural Development Policy

The class consists of lectures introducing a topic, in combination with student-presented recent key articles, and applications covered through home works.