Johns Hopkins University                                      Fall 2017
Applied Economics                                            Sally Kwak
APPLIED ECONOMICS 440.666
Regional Economics


In this course, we will develop a coherent framework of theories and models in the field of regional economics. Compared to other branches of economics, regional economics is a relatively new formal branch of economics and recognizes the crucial importance of geography in the workings of a market economy. By incorporating variables of space and geography into traditional economic models, it has great relevance to real phenomena and policy questions in the real economic world.

We will focus primarily on two broad groups of theories that make up regional economics: Location theory, which explores the economic mechanisms by which activities are distributed in space; and regional growth and development theory, which explores the spatial aspects of economic growth and the geographic distribution of income and wealth.

In a previous semester, students will have learned how scarce resources are allocated in a market economy under competitive conditions. We will continue to reinforce these concepts, while examining the effects of market forces on spatial variables such as the location choices of households and firms; land use policy; labor market agglomeration; urban poverty; the development of transportation infrastructure; and urban and rural housing markets. The roles of natural resources, demographic base, location of industries, and factors determining regional growth and development will also be considered.

The focus of this course is on developing tools to understand and evaluate regional economic policies. As a result, the course will be mainly conceptual and theoretical. In other words, we will learn many institutional details of specific Federal, State, and local policies over the course of the semester, but our primary goal is to understand the economic principles behind the policies.


**Goals of the Course**

By the end of the semester we hope to understand and be able to apply the following concepts to real-life policy discussions:

1) Marginal cost and marginal benefit  (How do firms and households calculate the marginal cost and marginal benefit of competing economic activities? How do differences in geographic location affect the transactions costs in these activities? How do they change the choices that firms and households make? How do these concepts relate to concepts of efficiency?)

2) Competitive equilibrium  (How does the concept of a competitive equilibrium relate to the physical size, shape, and density of an urban city?  Of a rural area?  Of a suburban region?  What does it mean for a market to be in competitive equilibrium?  When and under what conditions does a market fail to reach a competitive equilibrium?  What are the pros and cons of achieving an outcome that is not a competitive outcome?)

3) Efficiency and equity  (What does it mean for policy to promote efficiency?  What does it mean for a policy to promote equity?  Which policy goals are efficiency goals?  Which policy goals are equity goals?  How do these policies affect the relative distribution of income across localities, states, and countries?  Democrats and Republicans often disagree with one another on public policy—which are disagreements about efficiency goals and which are disagreements about equity targets?)

4) Policy evaluation (Be able to use economic tools to provide intelligent, balanced, informed analysis of regional economic policies.  Be able to provide economic analysis of proposed changes to regional policies and evaluate their relative merits.)

## **Prerequisites**

A basic understanding of microeconomic theory is required.

An understanding of simple linear equations and graphing is also necessary.  We will review some basic concepts the first week of class.

## **Students with Disabilities**

The Johns Hopkins University is committed to providing reasonable and appropriate accommodations to students with disabilities. Students in Advanced Academic Programs (AAP) who are in need of accommodations should visit http://advanced.jhu.edu/current-students/current-students-resources/disability-accommodations/ for the appropriate steps and documentation needed. Requesting accommodations before the semester is preferable, but not required. The student should submit the Request for Accommodation Form prior to the beginning of each semester (s)he is registered to ensure that accommodations continue for that semester. Depending on the accommodation, there may be a time delay before accommodations can be implemented.

## **Course Website**

Available at Blackboard.

**Office Hours**

Wednesdays 6:30-8:30pm EST

We will conduct office hours in our virtual office which can be accessed via the following link: https://connect.johnshopkins.edu/sallykwak/

Feel free to also address questions to me via email:  skwak2@jhu.edu

**Readings**

Unfortunately, there is no single textbook that comprehensively covers models and concepts we will discuss.  Listed below are some potentially helpful resources.  Of these, the O'Sullivan text may be the most accessible to the greatest number of students.  It also covers the greatest number of topics on our syllabus.

Since this is a graduate course, and because we may all be starting with different backgrounds, I will leave it up to each student to decide which resources are most helpful to him/her.

> Strongly Recommended:
>
> O'Sullivan, A.  "Urban Economics,"  8th Edition
> > This is a textbook with basic explanations of some of the theories and concepts to be covered.  However, the text also includes many topics in urban economics that we will not address.
>
> Krugman, Paul.  "Geography and Trade"
> > This is a series of lectures given at the Catholic University of Leuven in 1990. Before Krugman became famous for his op-ed column in the New York Times, he was a scholar with contributions in international trade and geography.
>
> We will also periodically read and discuss academic work, available through www.jstor.org.
>
>
> Optional:
>
> Capello, Roberta.  "Regional Economics"
> > This is a slightly more advanced presentation of the models we will cover in lectures and may be useful for those who wish to see a deeper development of the concepts introduced in class.
>
> Fisher, Ronald C.  "State and Local Finance"
> > This is a textbook that is useful for the portions of the course dealing with local finance but is not broadly applicable to our topic.

## Requirements and Grades

Final class grades will be based on the following:

Four Problem Sets     20%
Midterm               40%
Final                  40%

Problem sets will be graded as check, check-minus, or zero. The problems on the problem sets will be similar to the type of questions you may expect to encounter on the midterm and final exams. There are no late assignments so please be sure to turn in whatever you have completed by the appointed deadline. Suggested solutions will be posted to the website shortly after the due date.

The midterm will be held in week 6 and the final will be held in week 14. There are no makeup exams so please be sure you will be able to take the exams at the appointed times. Exams will generally be graded and returned within a week of the exam date.

## Lecture Schedule and Readings

Week 1          **Intro to Regional Economics and Basic Economic Tools**
                    Topics:
- Marginal cost and benefit
- Competitive equilibrium
- Efficiency and equity

                    Readings:
                    -- O'Sullivan, Ch 1.
                    -- Fisher, Ch 2.

Week 2          **The Development of Regions: Production and Trade**
                    Topics:
- Comparative advantage, scale economies
- Economics of scale and transportation costs

                    Distribute *Problem Set #1*.

                    Readings:
                    -- O'Sullivan, Ch 2.
                    -- Capello, pp. 24-29.

| Week 3 | **Job Dispersal, Agglomeration, and Urban Labor Markets** |
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Topics:
- Job Decentralization and wage variation
- Worker-firm job matching
- Local labor market agglomeration, job clustering

*Problem Set #1* Due.

Readings:
-- O'Sullivan, Ch. 3, especially pp. 37-43.
-- Capello, Ch. 6, especially the model on p. 138. Also, pp. 194-196.

| Week 4 | **City Size** |
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Topics:
- Job Decentralization and wage variation
- Worker-firm job matching
- Local labor market agglomeration, job clustering

Distribute *Problem Set #2*.

Readings:
-- O'Sullivan, Ch. 4.
-- Alberto F. Andes and Edward L. Glaeser (1995). "Trade and Circuses: Explaining Urban Giants." *Quarterly Journal of Economics*, pp. 195-227.

| Week 5 | **Regional growth** |
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Topics:
- The effects of supply and demand on growth
- Agglomeration economies, multiplier effects
- Environmental factors
- Williamson's theory of developmental disparities
- A neoclassical model of regional growth

*Problem Set #2* Due.

Readings:
-- O'Sullivan, Ch. 5.
-- Capello, pp. 93-94
-- Robert E. Lucas (1990). "Why Doesn't Capital Flow from Rich to Poor Countries?" *American Economic Review Papers and Proceedings*.

| Week 6 | **Midterm** |
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| Week 7 | **The Determination of Land Rent** |

Topics:
- Bid-rent curves
- Manufacturing, information, and residential sectors
- Public services, taxes, local amenities

Readings:
-- O'Sullivan, Ch. 6.

| Week 8 | **Land Use Patterns and Urban Sprawl** |

Topics:
- Bid-rents
- Regional density, urban sprawl
- Technological improvements in building and transportation

Distribute *Problem Set #3.*

Readings:
-- O'Sullivan, Ch. 7, 9.
-- Fisher, Ch. 13, 14.

| Week 9 | **Local Governments and Land Development Controls** |

Topics:
- Land use externalities, market efficiency, zoning
- Policy responses to sprawl:  land use policies
- Growth regulations, rent extractions
- Urban sprawl

*Problem Set #3* Due.

Readings:
-- O'Sullivan, Ch. 9.
-- Fisher, Ch. 13, 14.

| Week 10 | **Regional Sorting and Community Competition** |

Topics:
- The Tiebout model
- Competition with land markets
- Empirical tax capitalization

Readings:
-- O'Sullivan, Ch. 16, 17.
-- Fisher, Ch. 5, 13, 14.

Week 11        **Segregation, Migration, and the Spatial Distribution of Poverty**
               Topics:
               • Alternative theories of spatial segregation
               • Segregation and economic outcomes
               • More property taxes
               • Economic mobility, migration
               Distribute *Problem Set #4*.

               Readings:
               -- O'Sullivan, Ch. 8.
               -- Fisher, Ch. 5.
               -- Chetty, Raj, et. al. (2013). "The Equality of Opportunity Project."


Week 12        **The Spatial Mismatch Hypothesis**
               Topics:
               • Space and unemployment
               • Housing markets
               *Problem Set #4* Due.

               Readings:
               -- Brueckner, Jan and Yves Zenou (2003). "Space and Unemployment: The Labor
               Market Effects of Spatial Mismatch," *Journal of Labor Economics*, Vol. 21, No. 1,
               pp. 242-262.
               -- O'Sullivan, Ch. 7.


Week 13        **Topics in International Trade**
               Topics:
               • Center and periphery
               • Sources of industry localization
               • Localization and trade

               Readings:
               -- Krugman, Paul (1991). "Georgraphy and Trade," MIT press.


Week 14        **Final Exam**