

UPP 531: Economic Development II

Lectures: Tuesday 6-9 pm, 118 Douglas Hall
Fall 2006

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What this course is all about

This course focuses on the application of regional economic development analysis techniques. We can view economic development planning as comprising of 3 phases: (I) understanding the economy and its potential for economic development, (II) identifying and developing an economic development strategy based on the knowledge obtained in phase I, and (III) identifying and implementing projects. We will deal with the first two phases in this course.

In order to understand the local or regional economy, we must obtain detailed information on its socioeconomic base and the capacity of its institutions to carry out economic development plans. As information on development capacity is rather subjective in nature and must be obtained through interviews with key people and qualitative reports, we will not delve into development capacity analysis in this class. For the socioeconomic base analysis, we will first review techniques for identifying the key sectors and the strong and weak sectors in the economy, and spend more time on input-output (I-O) analysis and social accounting matrix (SAM) analysis. These last two techniques help us to understand inter-sectoral linkages, industrial clustering, and the distribution of income in the economy.

An integral part of the economic development strategy formulation process is the measurement of regional economic, social and environmental impacts of proposed projects, programs, and policies. Hence, students will learn to use the I-O and SAM frameworks to simulate the impacts of certain sectoral changes in an economy. A software and data package called IMPLAN will be used in conjunction with MS Excel to perform I-O and SAM analyses.

The first half of the course will be devoted to the techniques outlined above and will primarily consist of lectures and computer-related work. The second half of the course, which will be more seminar-like, will be devoted to discussing some specific economic development strategies, and providing additional information on data and methods. Some of the lecture sessions will also be devoted to student presentations, occasional guest speakers, and introduction to some other economic analysis techniques.

What this course is NOT

This is not a course just on *community* economic development, or a course that just focuses only on *local* economic development. Rather it focuses on *regional* economic development, where region typically denotes a geographical area that comprises at least one county. However, the techniques you learn here can be used to analyze smaller economies as well when data are available. We can talk about economic development at different geographic levels—sub-county, county, city, metropolitan, state, etc. Your earlier course(s) in economic development probably had a smaller geographic focus. You should be aware from the start that this course is different; you should evaluate the relevance of the techniques you learn here keeping in mind that we are dealing with economies that are relatively large.

Course website

In this course, most of the relevant handouts, assignments, and solutions will be posted on the Course Info electronic blackboard. So you should check the course site regularly.

Required readings:

1. Wang, X. and vom Hofe, R. (forthcoming). *Research Methods in Urban and Regional Planning*. (a pdf version of relevant chapters will be posted)
2. Schaffer, W. A. (1999). *Regional Impact Models*. Regional Research Institute, West Virginia University. (a pdf version of this document will be posted)
3. Other readings—journal articles, extracts from reports etc. (will either be handed out or made available on the web)

Optional Texts:

- Blakely, E. J. and Bradshaw, T. K. (2002). *Planning Local Economic Development: Theory and Practice*. Thousand Oaks, CA: Sage.
- Blair, J. P and Reese, L (1999). *Approaches to Economic Development*. Newbury Park, CA: Sage.
- Klosterman, R. E. (1990). *Community Analysis and Planning Techniques*. Savage, MD: Rowman and Littlefield Publishers, Inc.
- Myers, D. (1992). *Analysis with Local Census Data: Portraits of Change*, New York: Academic Press.

Course Requirements

The grades in this course will be based on attendance, class participation, one short quiz, one exam, and two written and two oral reports. The specific requirements for the course are as follows:

Weekly readings: Students are expected to read the assigned readings. In the first half to two thirds of the course, I am deliberately assigning you minimal reading material so that you can focus more on practicing the techniques you are taught. So the amount of time you will spend on this course will not be more than in your other courses *so long as you work consistently*. The second half of the course will have more readings.

Practice problems: Students will periodically be given small exercises to practice the techniques learned in the course. These exercises will, in general, not be graded; but all students are expected to do them.

One short quiz: This 15 minute quiz will be based entirely on your homework exercises. So you can easily get full marks in this quiz.

One in-class exam: This exam will focus on the input-output and SAM techniques only.

Short written report: Each student will analyze a US county of his/her choice using location quotient and shift-share techniques and submit a brief written report that highlights the winner and loser sectors in the economy.

Class participation: Students are required to attend class regularly and are expected to engage in class discussions (it helps to do the readings regularly!). Also each student will be required to do a 5-minute Microsoft Powerpoint presentation of his/her short report.

Term paper (group project): Each group will choose a county, a group of counties, or a metropolitan area in Illinois, and complete an economic development report that utilizes input-output or SAM analysis. The report should be double-spaced, 20-25 pages in length, and should have a professional look and feel. Further guidelines on the project will be provided later in the semester. You should submit a 1 page (double-spaced) term paper proposal by Oct. 10.

Oral presentation: Each group will make a professional oral presentation (using Microsoft Powerpoint) of their term project at the end of the semester. Each student in the group is required to participate in the presentation.

The course grade will be determined according to the following scheme:

- Class participation—10%
- Brief written report—20% (Due: Sept. 19)
- Short quiz—5% (Date: Sept. 26)
- In-class exam—25% (Date: Oct. 31)
- Oral presentation of term paper—10% (Dec. 5)
- Final term paper—30% (Proposal due: Oct. 10; Paper due: Dec. 5)

Grading scheme: A (85% - 100%), B (70% - 84%), C (55% - 69%), D (40% - 54%).

Detailed Course Schedule

Week 1: Introduction/ shift-share analysis (August 29)

- Course overview
- Three basic questions answered by shift-share
- Categorizing industries using shift-share; Shift-share model as projection
- Required readings:
 - Shields, M. (2003). "Using Employment Data to Better Understand Your Local Economy: Tools 4—Shift Share Analysis Helps Identify Local Growth Engines". University Park: Pennsylvania State University.
 - Wang and vom Hofe p. 1-8 and 191-201.
 - County Business Patterns for Illinois (2004)—selected pages
 - Study the websites (the NAICS website and the CBP website) mentioned in the lecture.
- Other references:
 - Gazel, R. C. and R. K. Schwer. 1998. "Growth of International Exports Among the States: Can a Modified Shift-Share Analysis Explain It?" *International Regional Science Review*, 21 (2): 185-204.

Week 2: Shift-share analysis cont., intro. to economic base model (Sept. 5)

- Basic/non-basic sectoring problem—all or nothing method, location quotient method, minimum requirements method, and the direct survey.
- The multiplier model and economic base analysis.
- Required readings:
 - Wang and vom Hofe Ch. 4.
- Assignment for short paper handed out (due Sept. 19).
- Other references:
 - Krikelas, Andrew C. 1992. "Why Regions Grow: A Review of Research on the Economic Base Model." *Economic Review*, Federal Reserve Bank of Atlanta, July/August, 16-29.

Week 3: Economic base cont. and introduction to Input-Output analysis (Sept. 12)

- Limitations of economic base analysis
- I-O as (i) description of economic structure and (ii) a tool for impact analysis.
- Understanding an I-O transaction table
- Round-by-round approach vs. matrix approach
- Required readings: Wang and vom Hofe Ch. 5 (5.1 and 5.2), Schaffer Ch. 3

Week 4: I-O analysis continued—Introduction to IMPLAN (Sept. 19)

- Intro to IMPLAN: using IMPLAN to generate an I-O table
- Matrix approach to I-O analysis
- Similarity between the Leontief inverse and economic base multiplier
- Introduction to multipliers: output multiplier
- Short paper due
- Required readings: IMPLAN tutorial handout ; Wang and vom Hofe Ch. 5 (up to pg. 230)

Week 5: I-O analysis continued—multipliers (Sept. 26)

- Short quiz
- Short paper due: students briefly present findings using Powerpoint.

Week 6: I-O analysis continued—multipliers (Oct. 3)

- Matrix approach to I-O analysis
- Introduction to multipliers: output multiplier as similar to economic base multiplier, but disaggregated by sector.
- IMPLAN exercise in Lab
- Required readings Schaffer, Ch. 5 (up to pg. 37).

Week 7: Multipliers continued and introduction to SAMs (Oct. 10)

- More discussion of income and employment multipliers
- Open vs. closed models
- SAM as extension of I-O; SAM as accounting framework.
- IMPLAN: session on creating your own aggregation scheme.
- Required readings:
 - Wang and vom Hofe, Ch. 5 (p. 231 onwards).
 - Thorbecke, E. (1998). “Social accounting matrices and social accounting analysis,” in *Methods of Interregional and Regional Analysis*, eds. Isard, W, Azis, IJ, Drennan, MP, Miller, RE, Saltzman, S and Thorbecke, E. Read p. 280-299.
- Term paper proposal due: one-page double-spaced.

Week 8: SAMs continued (Oct. 17)

- SAM multiplier vs. I-O multiplier
- Tracing the income distributional impacts of changes in final demand.
- Lab session: distributional impacts.
- Required readings: Class handouts.

Week 9: SAMs continued (Oct. 24)

- Limitations of SAM analysis; limitations of IMPLAN data; other sources of data.
- Guest speaker (tentative): to will give an overview of data sources for economic development.
- Required readings: Cortright and Reamer, Ch. 2, 7, 8, 9 (available on-line at <http://www.hevanet.com/lad/uguide.pdf>).

Week 10: In-class exam (Oct. 31)

Week 11: Examples of applying input output and SAMs (Nov. 7)

- Case studies from the Bureau of Economic Analysis
- Impacts of Erie canal corridor
- Others.
- Required readings:
 - Bureau of Economic Analysis (1997). *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)*. Download from <http://www.bea.gov/bea/ARTICLES/REGIONAL/PERSINC/Meth/rims2.pdf>.

vom Hofe, R. and Saltzman, S. (1999). Evaluating the Socioeconomic Impact of the Erie Canal Corridor Initiative;
 Hewings, J. D. and Seo, J.J., Economic Impact of the Transportation Sector on the Chicago Economy 1970-2021 and the Potential Impact ...on the Chicago, Illinois and US Economies;
 Leatherman, J. C. and D. W. Marcouiller (1999). Moving Beyond the Modeling of Regional Economic Growth: A Study of How Income Is Distributed to Rural Households
 Bhatta, S. D. and Saltzman, S. (1998). Analysis of Kodak's Role in the Rochester Metropolitan Economy Using a Social Accounting Matrix.

Week 12. Organization of basic data for input-output models (Nov. 14)

- Construction of national I-O table from NIPAs and IOAs.
- Estimating the regional table from the national table
- Introduction to the REMI model of impact analysis
- Required readings: to be handed out

Week 13: Cluster-based economic development (Nov. 21)

- Overview of cluster-based development
- Methods of identifying industrial clusters (including input-output based methods)
- Required readings:
 - vom Hofe, R. and Chen, K. (2006). "Whither or Not Industrial Cluster: Conclusions or Confusions?" (mimeograph)
 - Hill, E. W. and Brennan, J. F. (2000). "A Methodology for Identifying the Drivers of Industrial Clusters: The Foundation of Regional Competitive Advantage," Economic Development Quarterly, 14(1): 65-96.

*Do the readings **before** class.*

Week 14. Incentives and Industrial targeting (Nov. 28)

- Guest speaker: Prof. Joe Persky from the Economic department.
- Demo—using IMPLAN for impact analysis
- Required readings:
 - Persky, J. (1999). When Is a Cost Really a Benefit? ;
 - Persky, Felsenstein and Wievel (1997). How Do We Know That "But for the Incentives" the Development Would Not Have Occurred?;
 - Anderson, D. and Johnston, S. A. (1992). A Linkage Approach to Industrial Location

*Do the readings **before** class.*

Week 15. Student presentations (Dec. 5)

