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11.482J / 1.825J / ESD.193J Regional Socioeconomic Impact Analyses and Modeling
Fall 2008

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1. INTRODUCTION OF INSTRUCTORS AND CLASS MEMBERS

2. CONCEPTS AND DEFINITIONS

- What is the most important spatial concept you have learned in 11.481 or an equivalent class? Why is it important to you?
- How do you define a region?
- Discuss the following concepts and definitions

ASSUMPTION

[Dictionary.com Unabridged \(v 1.1\)](#) - [Cite This Source](#) - [Share This](#)

as-sump-tion - Show Spelled Pronunciation[*uh-suhmp-shuhn*] Pronunciation Key - Show IPA Pronunciation
-noun

1. something taken for granted; a supposition: a correct assumption.
2. the act of taking for granted or supposing.
3. the act of taking to or upon oneself.
4. the act of taking possession of something: the assumption of power.

What are some typical assumptions in location analyses? In Migration analyses? In cluster theory?

HYPOTHESIS

[Dictionary.com Unabridged \(v 1.1\)](#) - [Cite This Source](#) - [Share This](#)

hy-poth-e-sis - Show Spelled Pronunciation[*hahy-poth-uh-sis, hi-*] Pronunciation Key - Show IPA Pronunciation
-noun, plural -ses - Show Spelled Pronunciation[*-seez*] Pronunciation Key - Show IPA Pronunciation.

1. a proposition, or set of propositions, set forth as an explanation for the occurrence of some specified group of phenomena, either asserted merely as a provisional conjecture to guide investigation (working hypothesis) or accepted as highly probable in the light of established facts.
2. a proposition assumed as a premise in an argument.
3. the antecedent of a conditional proposition.
4. a mere assumption or guess.

(REGIONAL) TECHNIQUES OF ANALYSIS

Location Quotient
Gini Coefficient

DEDUCTIVE VERSUS INDUCTIVE METHODS.

Please read these short articles on [deductive reasoning](#) and [inductive reasoning](#) from wisegeek.com.

REGIONAL MODEL

Economic Model (for regional models, refer to regional above)

An economic model attempts to abstract from complex human behavior in a way that sheds some insight into a particular aspect of that behavior. This process inherently ignores important aspects of real-world behavior, making the modeling process an art as well as a mathematical exercise.

The expression of a model can be in the form of words, diagrams, or mathematical equations, depending on the audience and the point of the model.

The [Classic Economic Models](#) collection emphasizes the role of diagrammatic economic models in describing optimizing behavior.

ECONOMIC BASE MODEL:

How is economic base defined?

What is a basic industry?

- Approaches to estimating the basic content in each industry include
 - assumption
 - location quotient
 - minimum requirements

How does the economic base model relate to a Keynesian model? to an input-output model? to an econometric model? to a linear programming model? to a simulation model? to a computable general equilibrium model?

Types of Models

- Static
- Comparative Static
- Dynamic

Energy Models

Environmental Models

Economic Impacts

Direct economic impact

Indirect economic impact

Induced economic impact

Catalytic economic impact

Backward and Forward Linkages

Explain what information you would need to determine the backward linkages for the food sector in the United States? In Suffolk County?

Explain what information you would need to determine the forward linkages for the food sector in the United States? In Suffolk County?

- Direct backward (forward) linkage
- Direct and indirect (total) backward (forward) linkage

Types of Economies of Scale

- Localization Economies
- Urbanization Economies

THEORIES

Central Place Theory

Growth Pole Theory

Cumulative Causation

Stage theories

- Rostow
- Product life-cycle
- Life Cycle

Restructuring contrast with

Deindustrialization

Flexible specialization

Network Theories

Marxist (capitalist mode of production)

Institutional theories

- Institutions
- Organizations

Learning Economy—innovation