“If all economists were laid end to end, they would not reach a conclusion.” (George Bernard Shaw)

Study Area Definition

Objectives of this Unit:
- Understand what constitutes a study area
  - What is a region?
  - Functional economic areas
- Understand how the study area definition can influence the results of a study

So…. What IS a “Region”?
- World (Leontief’s Nobel lecture)
- Country (U.N., national governments)
- State or group of states (Appalachia assessment)
- County or group of counties (Forest, Management Unit)
- Community (zip code level)
Study Area Definition

So…. What ISN’T a “Region”?  
- Extremely rural  
- Split by a barrier; civil, geographical, physical (Salmon river basin)  
- No data – scale or access problems

Why is getting the study area “right” so important?  
- Identifying where the impacts fall (equity questions)  
- Identify differences from “reality” that require modifications to the IMPLAN model  
- Educate yourself and others

Problem statement, i.e.;  
- What economic activity is involved?  
- More than one resource?  
- Resources related to same economy?  
- What is best measure of impact?  
- Structural, technology, trade, or final demand change?  
- Time frame?
Study Area Definition

- Economic factors
  - Functional economic areas
  - Scale
  - Trade flows
  - Forward and backward linkages

Study Area Definition

- Geography
  - Eco regions
  - Central place
  - Physical barriers
  - Infrastructure; roads, rivers, technology

Study Area Definition

- Geography (continued)
  - Location of supporting industries
  - Location of labor force
  - Location of consumers
  - Political boundaries
  - Physically separated areas
  - Community level analysis
Study Area Definition

Geography (continued)
- Physically separated analysis areas
  - Multiple models
  - Regional models
  - Interregional models

How do I know if I’ve gotten it “right”?
- Describe the existing economy as portrayed in the model, i.e.:
  - Characterize an economy in terms of production, income, and employment
  - Key industries
  - Industrial diversity
  - Export dependence

Descriptive Analysis

Three levels of complexity:
- Ranking and percentages
  - For example; Shannon-Weaver indices
- Economic base/Export base
  - For example; Diversity and Dependency queries
- Contribution analysis
  - Contribution rather than marginal (impact) analysis
Descriptive Analysis

- Total Industry Output (TIO)
  - Which industries are present in the region
    - *Just what IS an industry???*
  - SIC vs NAICS
  - Relative size
  - Export base

Descriptive Analysis

- Employment
  - If you compare IMPLAN’s numbers with outside sources, make sure you’re comparing oranges to oranges!!!!
    - IMPLAN: Annual average employment, including full-time, part-time, and temporary jobs, and the self employed. # of warm breathing people NOT FTE’s!

Descriptive Analysis

- Employment
  - Comparing oranges to oranges, continued:
    - County Business Patterns: Full and part time employees on March 12 each year (no self employed or partners in unincorporated businesses).
    - BEA REIS data: Very aggregated, but provides info on self employment.
    - BEA Benchmark I-O, NIPA: Employment adjusted by force account (not true in REIS)
Descriptive Analysis

Employment

• Comparing oranges to oranges, continued:
  • Dept. of Labor ES202: Average annual employment, NOT including self-employed, railway employment, or any firm not participating in the Unemployment Insurance program.

Descriptive Analysis

Employment

• Comparing oranges to oranges, continued:
  • Dept. of Labor, Current Employment Statistics: Full and part-time employment measured on 12th of every month. Does not include self-employed, farm workers, volunteers, unpaid family workers, employees on leave without pay, domestic workers, and those on strike that pay period.

Descriptive Analysis

Employment

• Rank industries by # jobs
• Average salaries (manufacturing vs service is a biggy)
• Diversity and dependency
  • No consensus on definitions! Document your assumptions and methods!!!!!!
• Ratios of employment to $mm exports, $mm va, $mm tio
Descriptive Analysis

- Value Added (like US GNP)
  - Ranking of industries by value added
  - Employee compensation per job
  - Compare value added to TIO
  - Calculation of Gross Regional Product

Descriptive Analysis

- Final Demand
  - Relative amount of consumption by institutional sector
- Institutional Sales
  - Sales by govt sector of commodity 24 vs sales by industry 24.

Descriptive Analysis

- Regional Consumption
  - Commodity use by sector
  - Total expenditures by sector for commodities and value added
  - Industries making large sales to, and purchases from, regional industries
  - Compare amount of intermediate vs final consumption of commodities
Descriptive Analysis

- Regional Trade
  - Value of exports and imports
  - Competitive vs non-competitive imports
  - Proportion of regional commodity demand met locally (RPCs)

Descriptive Analysis

- Non-market transactions (SAM)
  - Receipts and expenditures by each Sam agent
  - Real capital created by investment expenditures
  - Household tax payments
  - Government transfer payments

Descriptive Analysis

- Industrial Interdependencies
  - Output multiplier
  - Cautionary tales;
    - Detroit
    - Resorts
Descriptive Analysis

- Diversity and Dependency
  - Economic diversity / dependency as defined by TIO, income, and employment
  - Dependency on exports
  - Wildland dependency
- Concentration / specialization of industries in the region