

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

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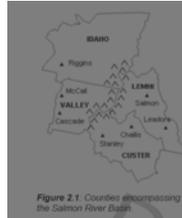
Study Area Definition

- **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)

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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



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Study Area Definition

- 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

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Study Area Definition

- 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?

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Study Area Definition

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

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Study Area Definition

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

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Study Area Definition

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

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Study Area Definition

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

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Study Area Definition

- 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

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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

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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

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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!

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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)

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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.

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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.

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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

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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

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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.

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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

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Descriptive Analysis

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

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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

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Descriptive Analysis

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

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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

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