

Foundations of Practice

*Community Development
Core Competencies for
Extension Professionals in
the North Central Region*



Foundations of Practice

SLIDE

2

The Foundations of Practice: Community Development Core Competencies for Extension Professionals is composed of three major components:

- Understanding Communities and their Dynamics
- Developing Successful Community Initiatives
- Areas of Specialization and Emphasis

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Understanding Communities and their Dynamics

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3

Basic Understanding of Community

Community Demographics

Community Economics

Community Power Structure

Natural Resources and Sustainability

Community Situational Analysis

Community Development Process

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Community Economics



Bill Pinkovitz



SLIDE

5

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Bill has worked for University of Wisconsin Extension (UWEX) for over twenty years. He has held positions in both Cooperative Extension and Continuing Education Extension. Bill is a professor at the UWEX Center for Community Economic Development (CCED). Previously, he served as the associate dean for the UWEX Division of Continuing Education Extension and as state director UWEX Small Business Development Center. Bill began his Extension career in 1977 as a County resource agent in Crawford County, Wisconsin. The focus of Bill's work is business and community economic development. Current projects include:

- **Community Indicators:** A series of online templates that provide easy access to online data in an easy-to-use, educational format.
- **Building Communities Educational Series:** Now in its third year, this web-based educational series serves a national audience of community and economic development professionals.
- **Economic Snapshots:** A weekly series in the *Wisconsin State Journal* that includes a variety of localized economic and business data.
- **Big Boxes and other Carnivores:** An educational initiative that provides new insights into big box retailers and teaches people how to conduct their own corporate intelligence.
- **Entrepreneurship:** A long standing program emphasis that has again risen to the top through involvement in the Wisconsin Agricultural Innovation Center and the CNRED Entrepreneurship Team.

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Learning Objectives

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6

- Define **local economy**
- Learn how money and resources
 - flow into and out of a community
 - circulates within a community.
- Learn the meaning, and importance of a community's **basic** industries
- Learn how to use **traditional** economic analysis tools to gain insights into local economies.
- Learn how to access and use new powerful **web based tool** to analyze local economies

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Learning Objectives

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- Awareness
- Understanding
- Confidence
- Readiness

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Things to Remember

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8

- There is NO SINGLE NUMBER
- Compare Communities
- Trend Analysis
- Reality Check
 - For the community
 - From the community
- Seldom Provides Answers

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Community Economics

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9

- **Defining a Community's Economy**
- How money and resources flow into and out of the local economy
- How money circulates in the local economy
- Basic industries and economic growth
- Traditional Community Economic Analysis
- Cool NEW Tools

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A Few Definitions

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10

com·mu·ni·ty a group of people in a physical setting with geographic, political, social, and economic boundaries, and with discernable communication linkages.

Shaffer, et al

e·con·o·my a system of human activity directed toward meeting human needs and wants by the deliberate allocation of scarce resources (land, labor, raw materials, and capital).

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A Few Definitions

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e·con·o·mic growth more jobs, more income, more sales, more customers.

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e·con·o·mic de·vel·op·ment social, environmental, and economic change to enhance quality of life

Shaffer, et al



Community Economics

SLIDE

12

- Defining a Community's Economy
- **How money and resources flow into and out of the local economy**
- **How money circulates in the local economy**
- Basic industries and economic growth
- Traditional Community Economic Analysis
- Cool NEW Tools

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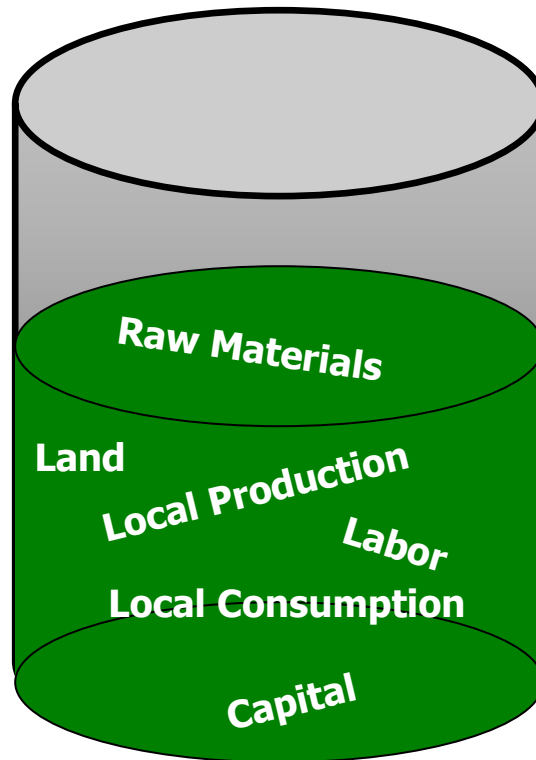
The Local Economy

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13

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Dollars flow into the local economy in several ways:

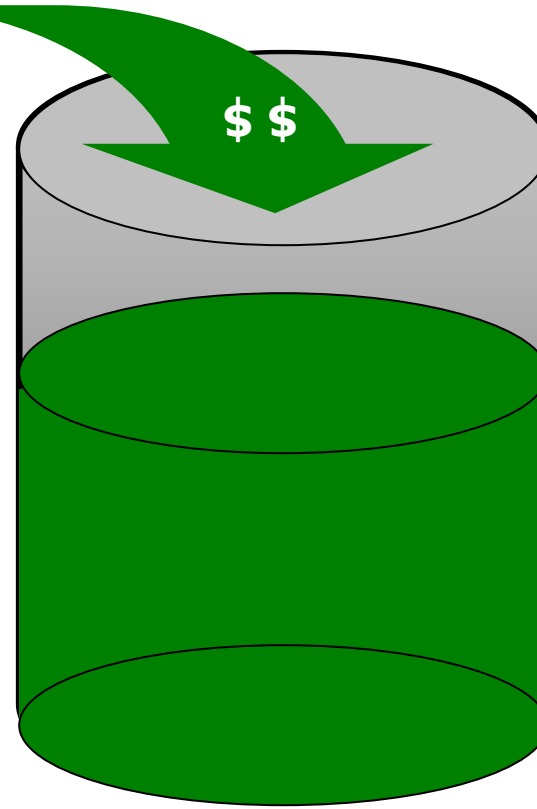
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14

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Local goods and services
sold outside community



Raw Materials
Manufactured Goods
Labor
Insurance
Transportation
Financial Services
Capital



Dollars flow into the local economy in several ways:

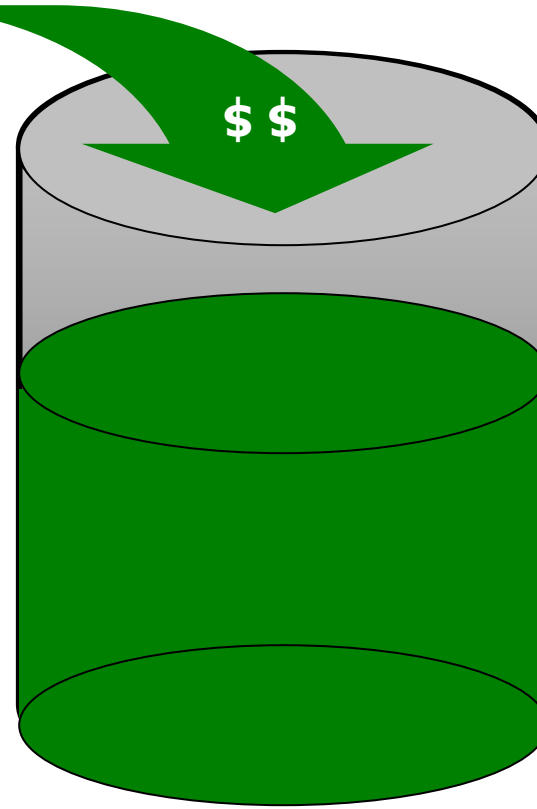
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15

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Visitors purchasing Local
goods and services



Tourists
Regional Mall
University
Health Care
Second Homes



Dollars flow into the local economy in several ways:

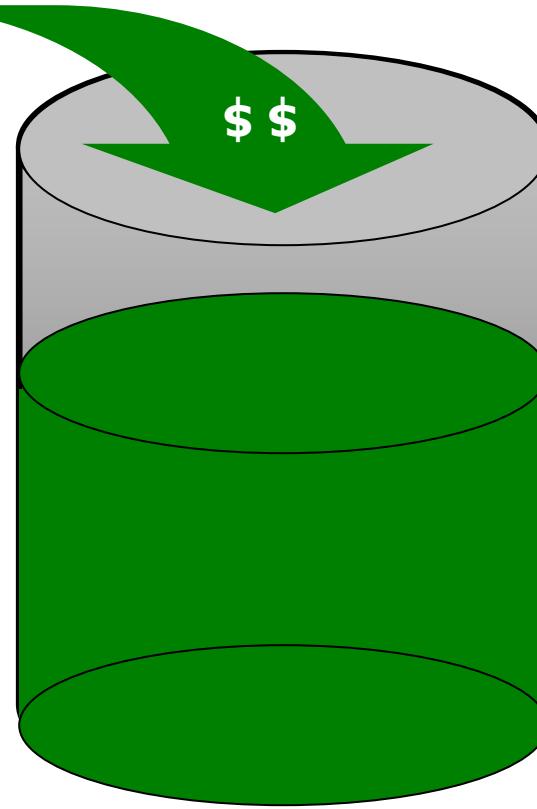
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16

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Public dollars flowing into to
community AND other "non-
earned income"



Social Security
Gov. Purchases
Federal Grants
Government Offices
Military Bases
Dividends
Interest
Capital gains
Rent



Dollars leak out of the local economy in several ways:

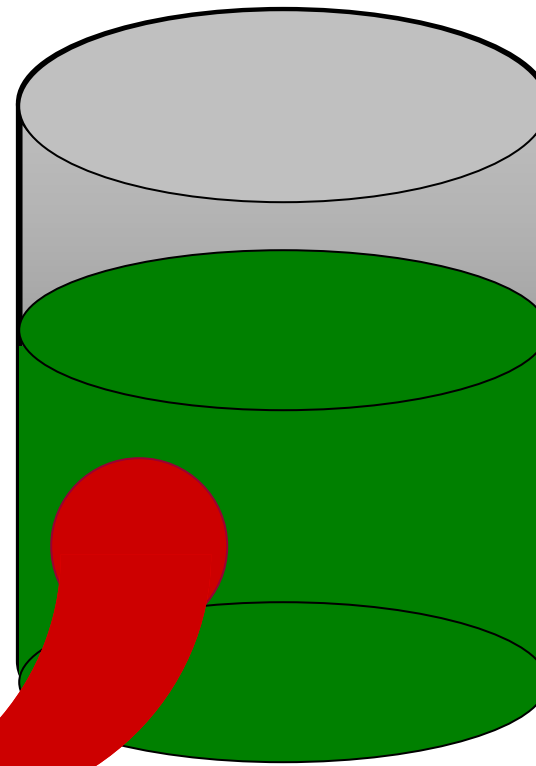
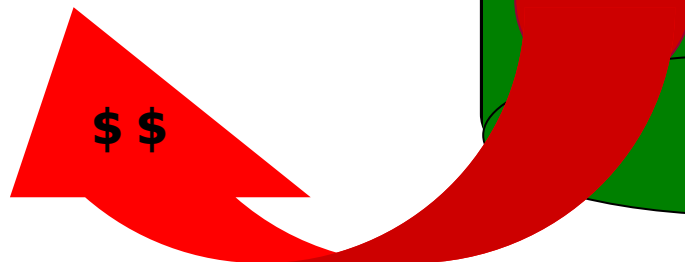
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17

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Local businesses
purchasing goods and
services outside the
community



Raw Materials
Inventory
Equipment
Labor
Capital
Professional Services
Financing
Investments



Dollars leak out of the local economy in several ways:

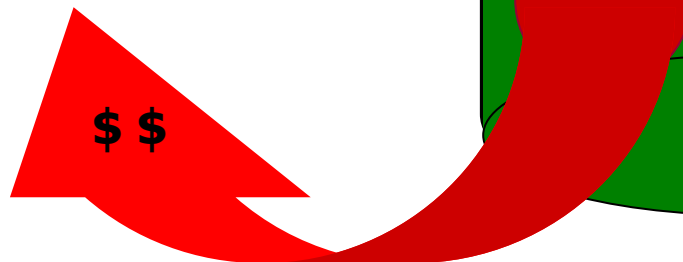
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18

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Local consumers
purchasing goods and
services outside the
community



Regional Malls
Internet Sales
Travel
Transportation
Financial Services
Investments/Savings



Dollars leak out of the local economy in several ways:

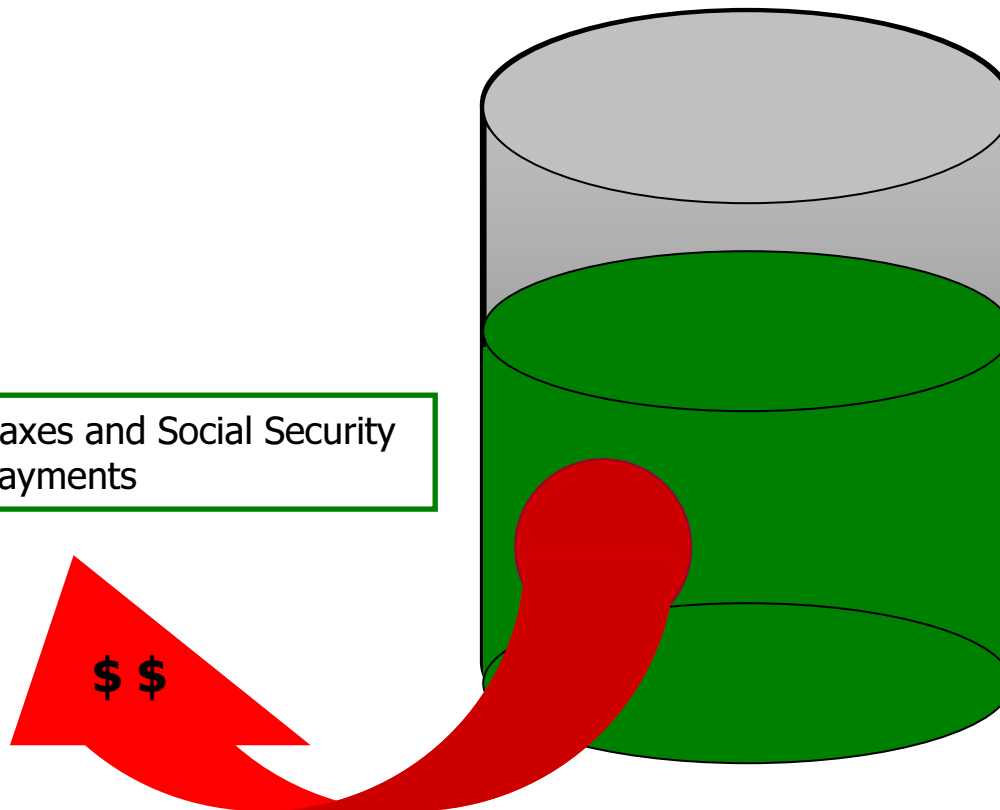
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19

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Taxes and Social Security
Payments



Federal/State Taxes
Social Security Taxes



Dollars leak out of the local economy in several ways:

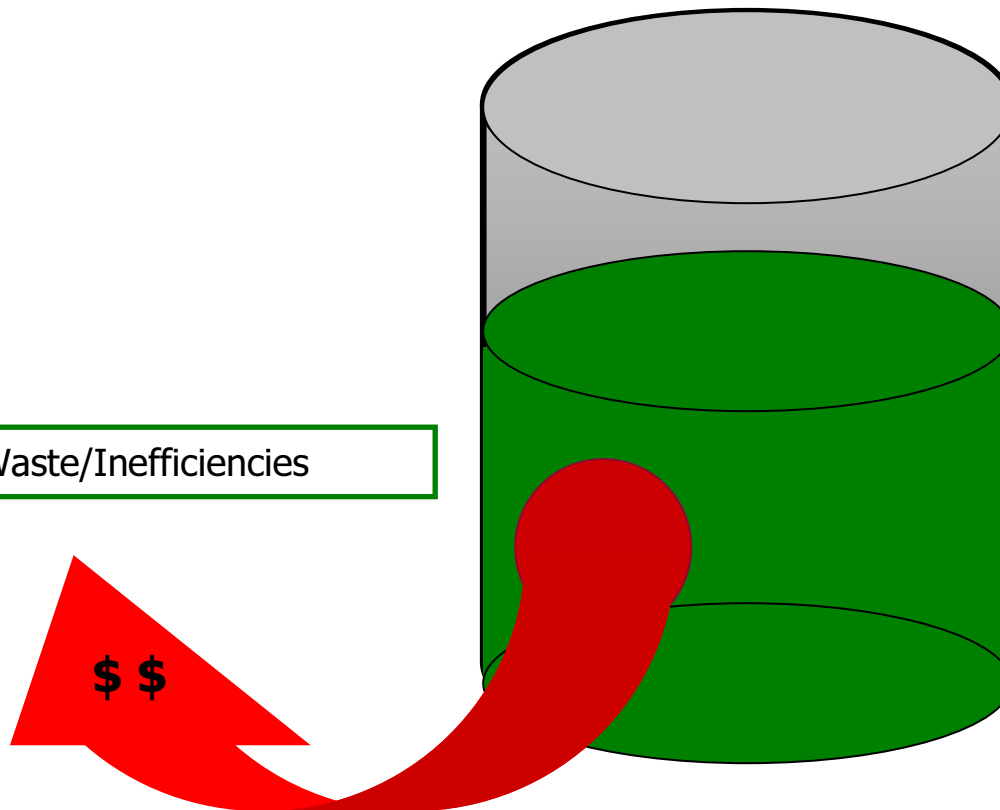
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Waste/Inefficiencies



Natural Resources
Inefficiencies
Opportunity Costs



Dollars/Goods/Services Flows

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21

BUSINESS

- Dairy Farm
- Local Window Manufacturer
- Regional non-Profit Hospital
- Wal-Mart
- Local Flower Shop
- Local Grocery Store

IN/OUT FLOWS

- Raw Materials
- Sales/Customers
- Manufactured Goods
- Labor
- Insurance
- Transportation
- Financial Services
- Capital

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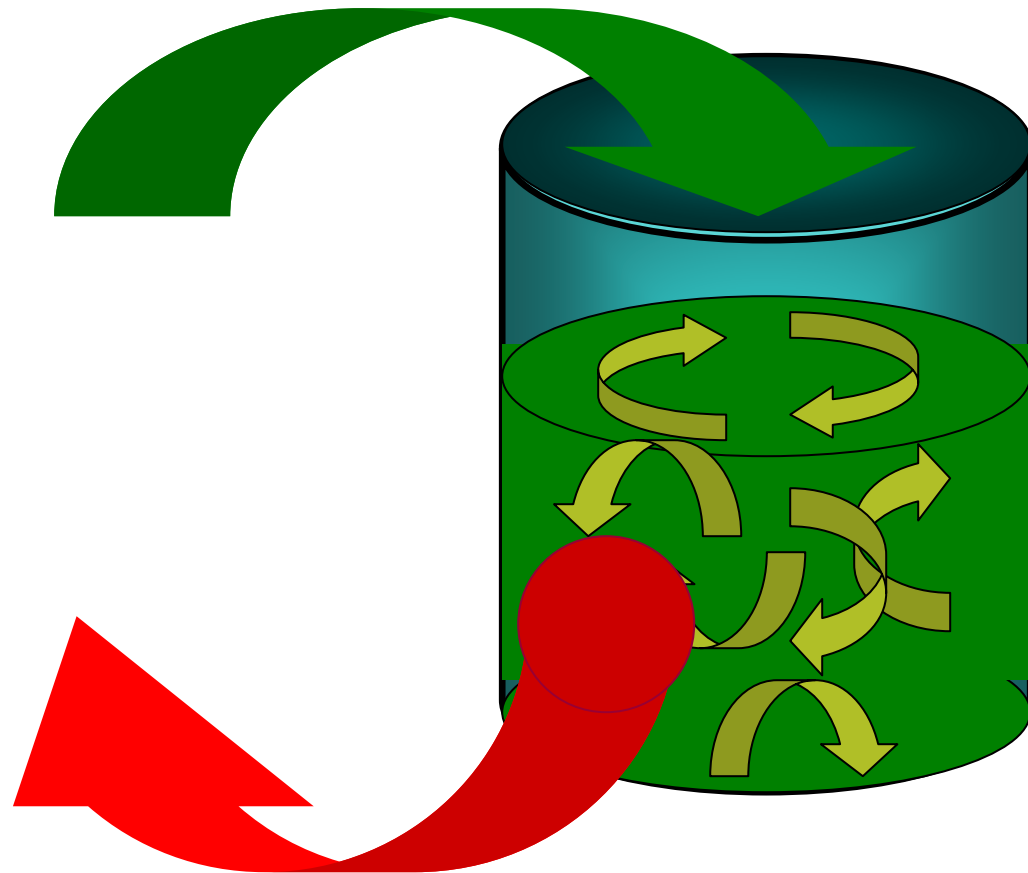
Dollars also circulate in the local economy:

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22

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Community Economics

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23

- Defining a Community's Economy
- How money and resources flow into and out of the local economy
- How money circulates in the local economy
- **Basic industries and economic growth**
- Traditional Community Economic Analysis
- Cool NEW Tools

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How Does the Local Economy Grow?

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Increase **INFLOWS**

Decrease **OUTFLOWS**

Increase the **TRADE AREA**

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Strategies to Grow the Economy

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Attract new **basic employers**

Improve the efficiency of **existing firms**

Improve ability to **capture dollars**

Encourage **business formation**

Increase aids from broader **governments**

Building **local capacity**

Glen Pulver

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Growth ≠ Development

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- Growth and Development are not always synonymous
- They are not mutually exclusive
- One can occur without the other
- Both can be positive

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Equity, not just Equality

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Development means equity, not just equality

Equality means that everyone has shoes

Equity means that everyone's shoes FIT

Shaffer, et al

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Attract New Basic Employers

a.k.a Export Employers

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28

A basic employer is a business that brings money into the community. Businesses that sell most of their goods/services to non-local markets. A business where the inflow of dollars into the community exceeds the outflow of dollars from the community. Typically, basic employers include:

Manufacturing

Farming

Mining

Tourism

Universities/Colleges

Hospitals

Insurance Companies

Transportation

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Non-Export Businesses

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Businesses that primarily serve the needs of the local consumers are called non-export businesses.

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Why the FOCUS on Export Businesses?

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30

Basic (Export) businesses provide the best opportunity to create additional jobs and income in a community.

Unless a community is growing rapidly, or its trade area is expanding significantly, increasing the number of non-export businesses simply means that the pie (market) will be cut into smaller slices, or existing businesses will disappear as new ones emerge.

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Community Economics

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31

- Defining a Community's Economy
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- How money circulates in the local economy
- Basic industries and economic growth
- **Traditional Community Economic Analysis**
- Cool NEW Tools

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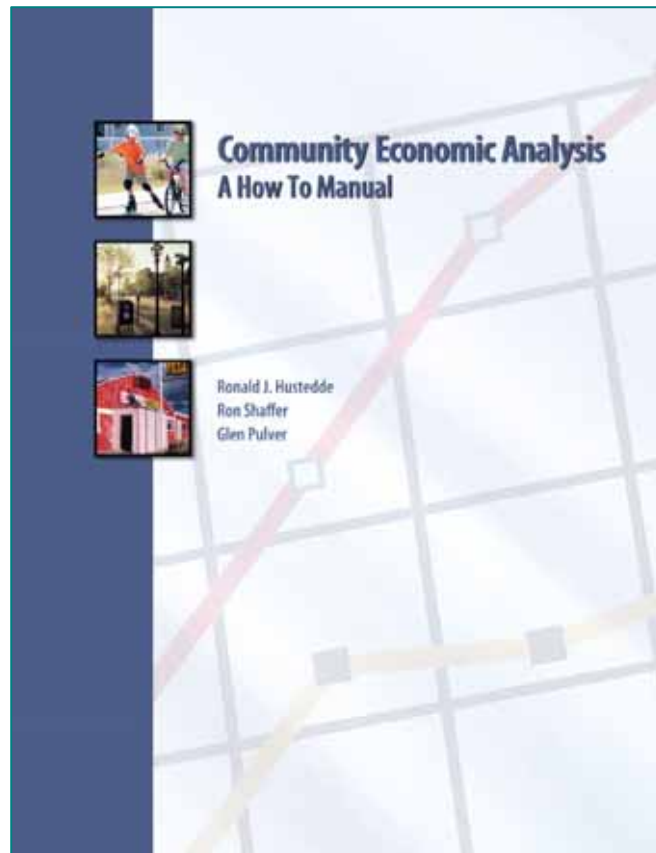
Community Economic Analysis

SLIDE

32

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Defining a Community's Trade Areas

Identifying Basic Industries (Export Businesses) in a Community

Identifying the Competitive Sectors in a Community

Estimating the Total Impact of Economic Activities

<http://www.ag.iastate.edu/centers/rdev/pubs/title.htm>



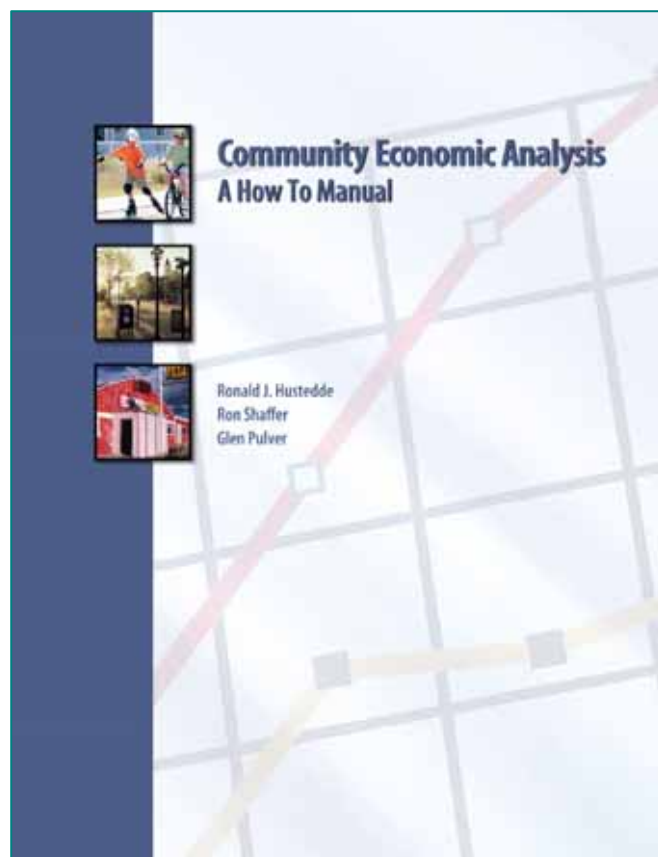
Community Economic Analysis

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33

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Defining a Community's Trade Areas

Identifying Basic Industries
(Export Businesses) in a
Community

Identifying the Competitive
Sectors in a Community

Estimating the Total Impact of
Economic Activities

<http://www.ag.iastate.edu/centers/rdev/pubs/title.htm>



Defining Trade Areas: Traditional Methods

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34

Reilly's Law

Pull Factor

Surplus/Leakage

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Defining Trade Areas:

Reilly's law

SLIDE

35

Reilly's Law: Method for determining a community's retail trade area.

Based on the premises that:

- 1) People are attracted to larger communities to shop.
- 2) People's willingness to travel to shop is influenced by time and distance.

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Defining Trade Areas

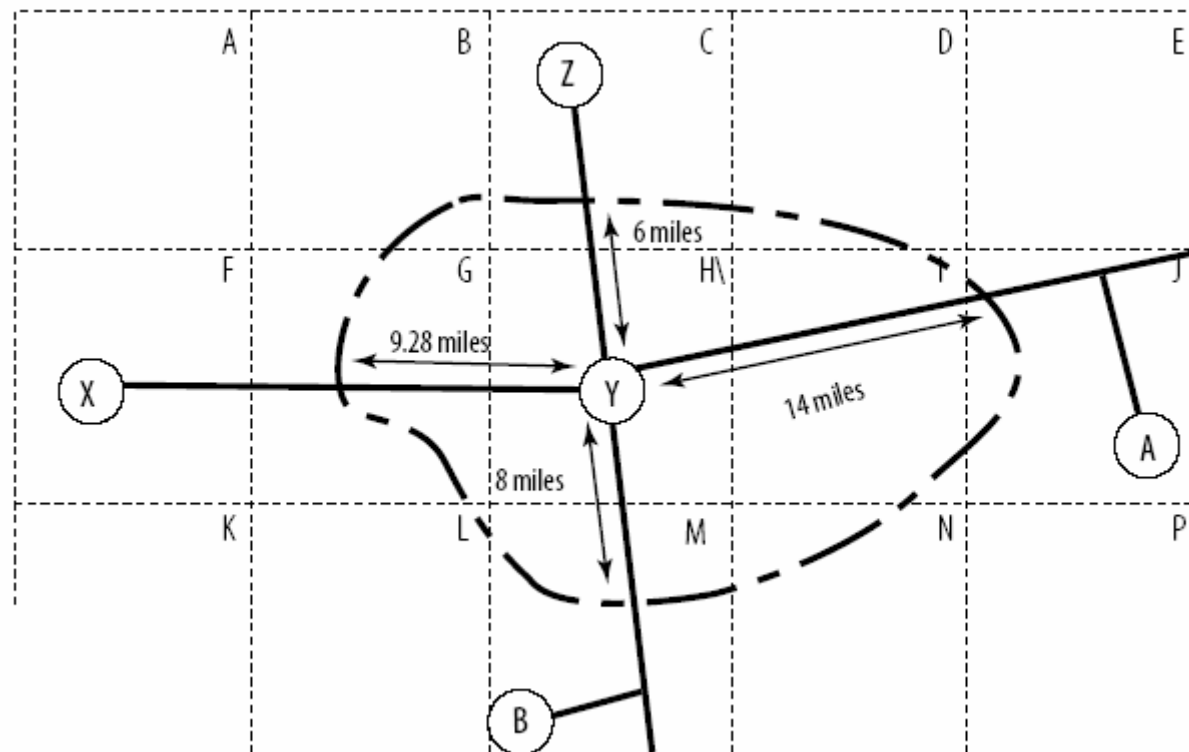
Reilly's Law

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Defining Trade Areas: Reilly's law

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37

$$\text{Breaking Point} = \frac{\text{Distance between City X and City Y}}{1 + \sqrt{\frac{\text{Population of Larger Community}}{\text{Population of Smaller Community}}}}$$

- An adaptation of Gravity Theory
- Based on Newton's Law of Universal Gravitation
- The **Breaking Point** defines the boundary between the two cities

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Gravity Model

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38

$$\frac{\text{population}_1 \times \text{population}_2}{\text{distance}^2}$$

- Measures the relative strength of the bond between two places
- Used to predict the movement of people, commodities and information between geographic places
- Based on Newton's Law of Gravitation
- A function of the relative size and distance between two places
- Based solely on observation

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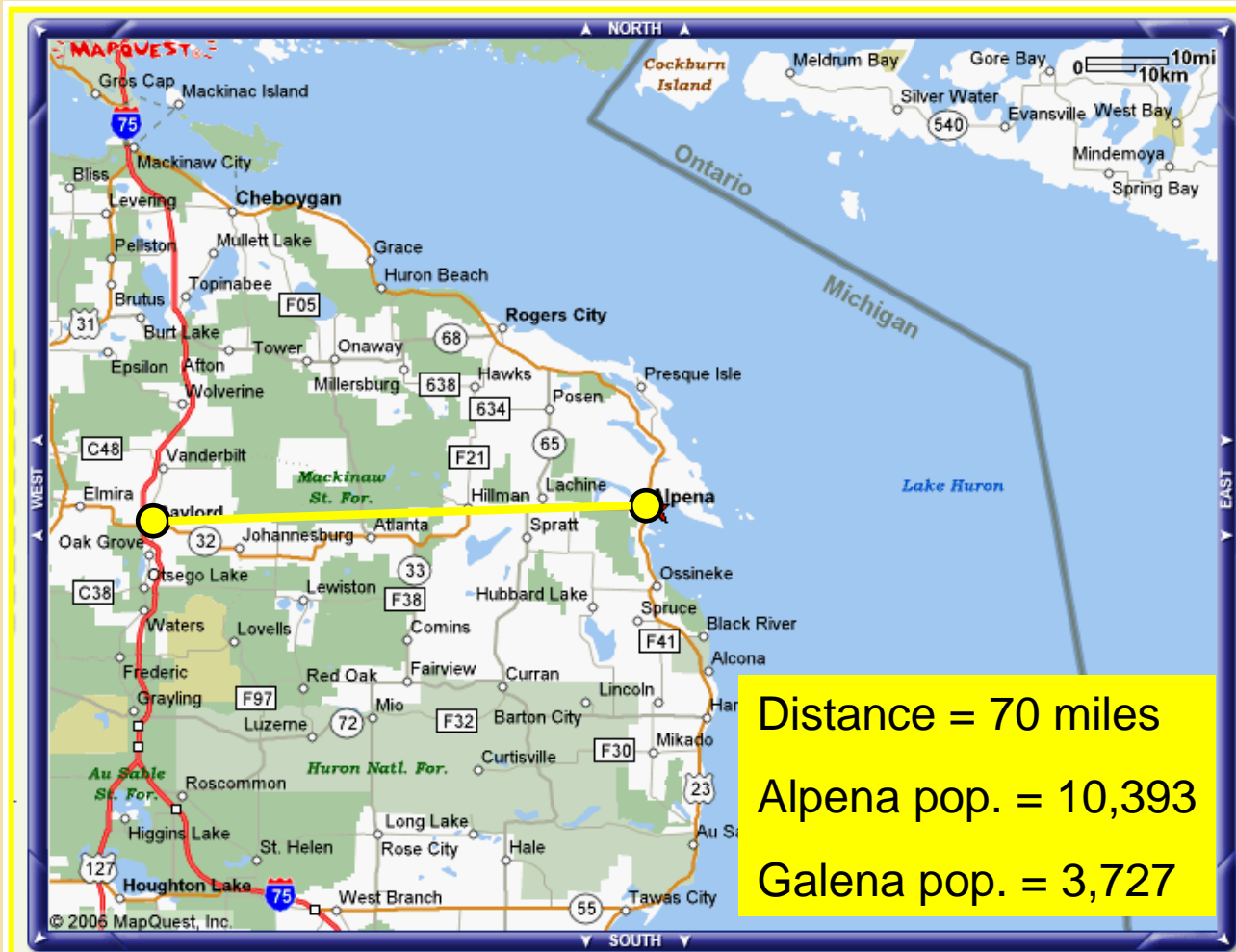
Alpena, Michigan

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39

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Reilly's Law

Alpena, MI and Galena MI

Distance = 70 miles

Alpena pop. = 10,393

Galena pop. = 3,727

SLIDE

40

$$\text{Break Point} = \frac{\text{Distance between City X and City Y}}{1 + \sqrt{\frac{\text{Population of Larger Community}}{\text{Population of Smaller Community}}}}$$

$$= \frac{70 \text{ miles}}{1 + \sqrt{\frac{10,939}{3,727}}}$$

$$= \frac{70 \text{ miles}}{1 + 1.67} = 22.2 \text{ miles}$$

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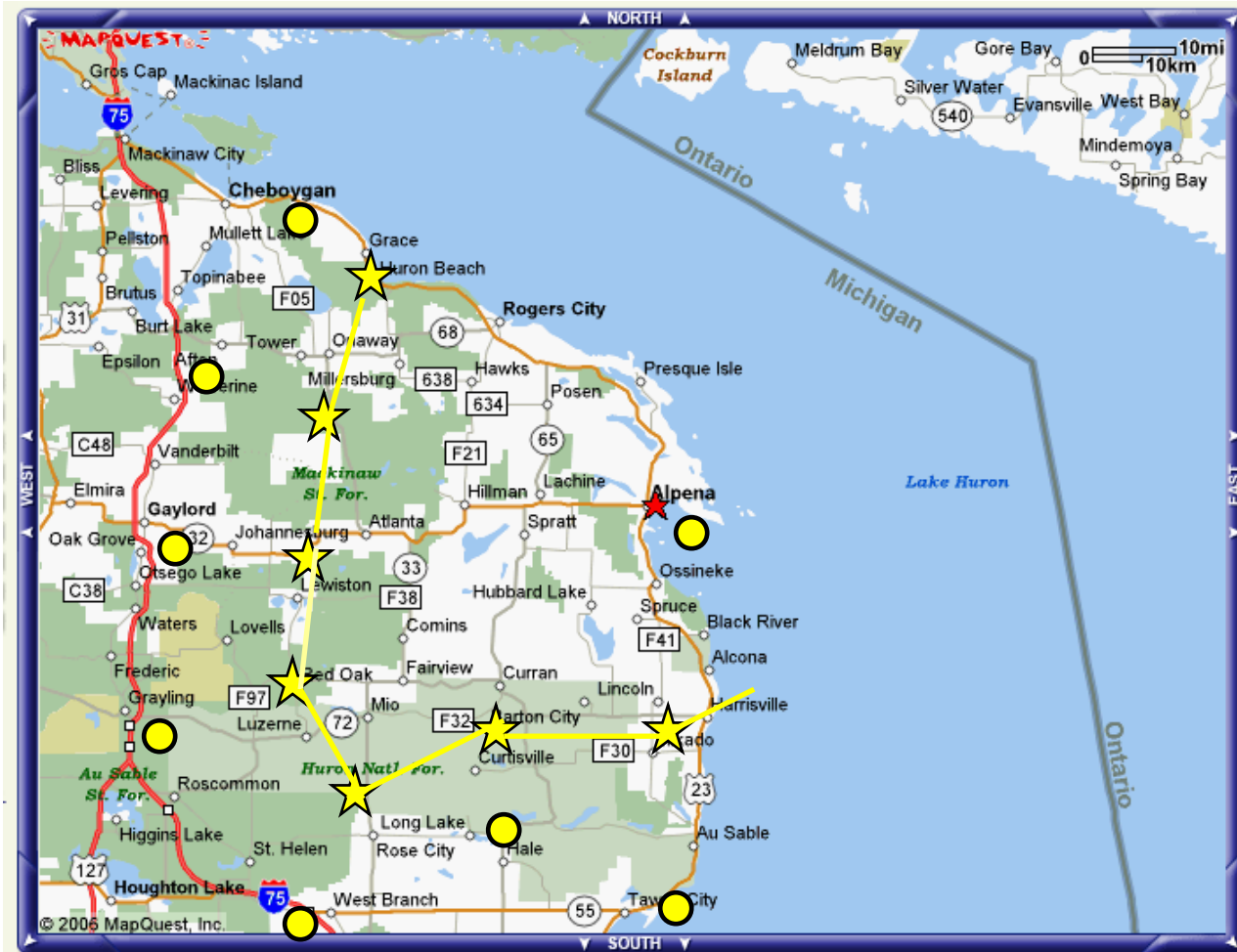
Alpena, Michigan Trade Area

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41

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Defining Trade Areas:

Reilly's law: EXERCISE

SLIDE

42

Break Point =

$$1 + \frac{\text{Population of Larger Community}}{\text{Population of Smaller Community}}$$

Distance between City A and City B

Distance between City A and City B = 26 miles

Community	Total Population (2000)
City A	4,000
City B	16,000

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Defining Trade Areas:

Reilly's law: EXERCISE

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$$\begin{aligned}\text{Break Point} &= \frac{26 \text{ miles}}{1 + \sqrt{\frac{16,000}{4,000}}} \\ &= \frac{26 \text{ miles}}{1 + \sqrt{4}} \\ &= \frac{26}{3} = 8.67 \text{ miles}\end{aligned}$$



Reilly's Law

Some CAVEATS

SLIDE

44

- Presumes the population in comparative communities is relatively homogeneous
- Does not work well for urban areas. Use only for rural communities
- Best when used with similar sized communities
- Assumes that everyone shops locally for locally available goods
- Some goods and services have larger trade areas

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Reilly's Law

Some More CAVEATS

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45

- Worker Flow
- Interstate highways and highway bypasses
- Regional shopping malls
- Big Boxes
- The internet
- Shopping versus convenience

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Defining Trade Areas:

Pull Factors

SLIDE

46

Pull Factors: Provide a net measure of a communities ability to capture sales from local and non-local consumers for specific products or services.

- Pull Factor = actual sales ÷ potential sales
- Sales tax records and the U.S. Census of Retail Trade are the most common sources of **Actual Sales** data
- **Projected Sales** are a function of per capita sales, population, and per capita income

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Defining Trade Areas:

Pull Factors: Actual Sales

http://factfinder.census.gov/home/saff/main.html?_lang=en

SLIDE

47

$$\text{Pull Factor} = \text{actual sales} \div \text{potential sales}$$

2002 Economic Census

Release Date: 8/18/2005

Sector 44: Retail Trade: Geographic Area Series: Summary Statistics: 2002

[NOTE: Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, non-survey methodology, data in this table represent those available when this report was created; data may not be available for all geographies. Data in this table may be subject to employment- and/or sales-size minimums that vary by industry.]

Geographic Area Name	2002 NAICS code	Meaning of 2002 NAICS code	Footnote id	Year	Number of establishments	Sales (\$1,000)
Alpena County, MI	44711	Gasoline stations with convenience stores		2002	15	26,757
Alpena County, MI	447110	Gasoline stations with convenience stores		2002	15	26,757
Alpena County, MI	448	Clothing & clothing accessories stores		2002	21	18,653
Michigan	448	Clothing & clothing accessories stores		2002	4,792	4,917,700

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Defining Trade Areas:

Pull Factors: Potential Sales

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48

Pull Factor = actual sales ÷ **potential sales**

$$\text{Potential Sales} = S_k \times P_l \times Y$$

$$S_k = \text{Sales/capita}_{\text{state}} = \text{Actual sales}_{\text{state}} \div \text{Population}_{\text{state}}$$

$$P_l = \text{Population}_{\text{local}}$$

$$Y = \text{Income factor} = \frac{\text{per capita income}_{\text{local}}}{\text{per capita income}_{\text{state}}}$$

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Defining Trade Areas: Pull Factors: Population and Income

http://factfinder.census.gov/home/saff/main.html?_lang=en

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49

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Detailed Tables

You are here: [Main](#) ▶ [Data Sets](#) ▶ [Data Sets with Detailed Tables](#) ▶ [Geography](#) ▶ [Tables](#) ▶ [Results](#)

Use the links above to change your results

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[P1. TOTAL POPULATION \[1\] - Universe: Total population](#)

Data Set: [Census 2000 Summary File 3 \(SF 3\) - Sample Data](#)

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, definitions, and count corrections see <http://factfinder.census.gov/home/en/datanotes/expsf3.htm>.

	Michigan	Alpena County, Michigan
Total	9,938,444	31,314

U.S. Census Bureau
Census 2000

Population

[P82. PER CAPITA INCOME IN 1999](#)

Data Set: [Census 2000 Summary File](#)

$\text{per capita income}_{\text{local}} \div \text{per capita income}_{\text{state}}$

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, definitions, and count corrections see <http://factfinder.census.gov/home/en/datanotes/expsf3.htm>.

	Michigan	Alpena County, Michigan
Per capita income in 1999	22,168	17,566

U.S. Census Bureau
Census 2000



Defining Trade Areas:

PF: Clothing Stores (Alpena County)

SLIDE

50

$$\text{Potential Sales} = S_k \times P_l \times Y$$

$$S_k = \text{Sales/capita}_{\text{state}} = \$4,917,700,000 \div 9,938,444$$
$$= \mathbf{\$494.81}$$

$$P_l = \text{Population}_{\text{local}} = \mathbf{31,314}$$

$$Y = \text{Income factor} = \$17,566 \div \$22,168 = \mathbf{.79}$$

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Defining Trade Areas: PF: Clothing Stores (Alpena Co)

SLIDE

51

$$\text{Potential Sales (PS)} = S_k \times P_l \times Y$$

$$= \$494.81 \times 31,314 \times .79$$

$$= \$12,240,639$$

$$\text{Actual Sales (AS)} = \$18,653,000$$

$$\text{Pull Factor} = AS - PS = 1.52$$

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Defining Trade Areas: Surplus/Leakage

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52

Surplus/Leakage = Actual Sales – Potential Sales

If S/L is positive, then a Surplus and net sales are flowing into the community

If negative, then a net outflow of sales

Alpena County, Michigan

$$S/L_{\text{clothing stores}} = \$18,653,000 - \$12,240,639 = \$6,412,361$$

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PF and Surplus/Leakage

Some CAVEATS

SLIDE

53

- Should be used mainly for comparison between communities over time
- They reveal that a decline or increase occurred, but not WHY
- No definition of what constitutes a “good” or “bad” Pull Factor.

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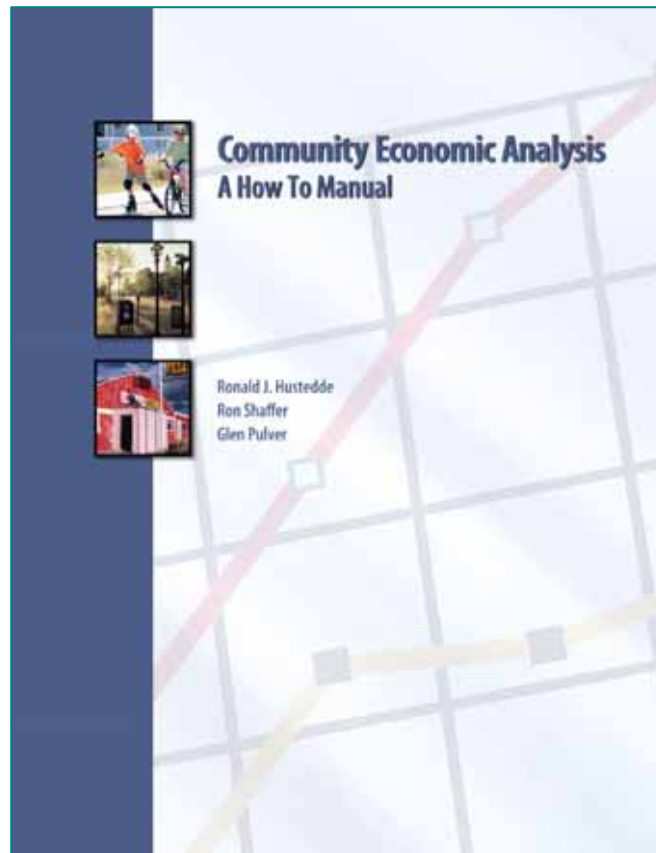
Community Economic Analysis

SLIDE

54

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Defining a Community's Trade Areas

Identifying Basic Industries (Export Businesses) in a Community

Identifying the Competitive Sectors in a Community

Estimating the Total Impact of Economic Activities

<http://www.ag.iastate.edu/centers/rdev/pubs/title.htm>



Identifying Export Businesses

Location Quotients

SLIDE

55

Location Quotient: A simple index that helps identify export and import industries by comparing the percentage of local employment in a specific industry to the percentage employed nationally in the same industry

$$LQ = \frac{\% \text{ of local employment in industry A}}{\% \text{ of national employment in industry A}}$$

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Quarterly Census of Employment and Wages

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SLIDE

56

Percentage of Employment calculated from Quarterly Census of Employment and Wages Data

Industry	U.S. TOTAL	Alpena County, Michigan
Base Industry: Total, all industries	100.00%	100.00%
NAICS 11 Agriculture, forestry, fishing and hunting	1.06%	0.52%
NAICS 21 Mining	0.48%	0.33%
NAICS 22 Utilities	0.52%	0.72%
NAICS 23 Construction	6.38%	6.00%
NAICS 31-33 Manufacturing	13.14%	19.58%
NAICS 42 Wholesale trade	5.20%	4.81%
NAICS 44-45 Retail trade	13.88%	21.63%
NAICS 48-49 Transportation and warehousing	3.70%	3.75%
NAICS 51 Information	2.86%	2.30%
NAICS 52 Finance and insurance	5.36%	4.13%
NAICS 53 Real estate and rental and leasing	1.91%	1.46%
NAICS 54 Professional and technical services	6.24%	1.88%
NAICS 55 Management of companies and enterprises	1.56%	0.27%
NAICS 56 Administrative and waste services	7.22%	2.47%
NAICS 61 Educational services	1.92%	0.20%
NAICS 62 Health care and social assistance	12.91%	15.11%
NAICS 71 Arts, entertainment, and recreation	1.71%	1.23%
NAICS		9.33%
NAICS		4.28%
NAICS		NC

13.88%

21.63%

$$\frac{\% \text{ of local employment in industry A}}{\% \text{ of national employment in industry A}}$$

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Location Quotients

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57

$$\begin{aligned} \text{LQ} &= \frac{\% \text{ of local employment in } \textit{retail trade}}{\% \text{ of national employment in } \textit{retail trade}} \\ &= \frac{21.6\%}{13.9\%} = \mathbf{1.56} \end{aligned}$$

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Interpreting LQs

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LQ > 1.25	Export Industry
LQ < .75	Import Industry
LQ > .75 and < 1.25	Self Sufficiency

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Location Quotients

A simple tool to help identify local:

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Export and import industries

Existing and potential industry clusters

Economic strengths

Development prospects

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Location Quotients

A few caveats:

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60

Local productivity \neq national productivity

Sector-wide LQs may hide some winners

LQ only an indicator, not an answer

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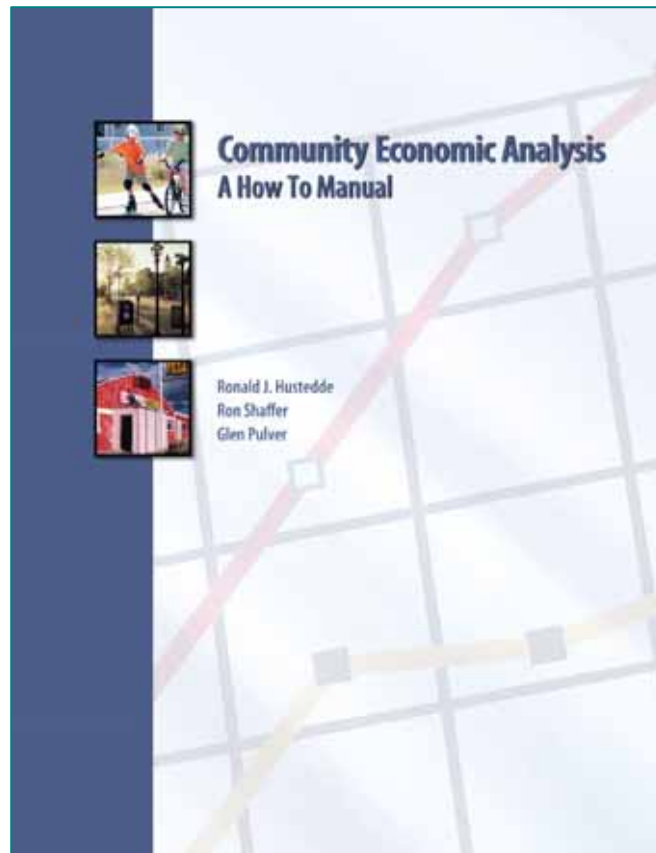
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SLIDE

61

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Defining a Community's Trade Areas

Identifying Basic Industries
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**Identifying the Competitive
Sectors in a Community**

Estimating the Total Impact of
Economic Activities

<http://www.ag.iastate.edu/centers/rdev/pubs/title.htm>



Why employment changes

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62

Growth or decline in the **national** economy

Growth or decline in the **industry** sector

Relative strength of the **local** industry/economy

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Shift Share Analysis

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63

Shift Share Analysis provides an estimate of the impact of these three factors by separating the increase or decrease in local employment in specific industry sectors into three components:

1. National Growth Share
2. Industrial Mix Share
3. Local Share

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Shift Share Analysis

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National Growth Share: The increase or decrease in local employment that is attributable to the growth or decline in the **national economy**.

Industrial Mix Share: The increase or decrease in local employment that is attributable to the growth or decline in a specific **industry sector**.

Local Share: The increase or decrease in local employment that is attributable to the relative strength or weakness of the **local industry/economy**.

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Calculating Growth Shares

National Growth Rate (Alpena Co)

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local employment in *industry A* year 1
 x national *total employment* growth rate for period

Sector	Employment (1994)	Employment (2004)	Change	% Change Alpena Co.	% Change U.S.
Education and Health	1,001	3,281	2,280	227.8	25.2
Manufacturing	2,406	1,831	-575	-23.9	-16.1
Construction	608	561	-47	-7.7	37.2
Leisure/Hospitality	1,215	988	-227	-18.7	25.4
Total Employment	10,388	11,310	922	8.8	14.9

$$\text{NGS} = 1,001 \times .149 = 149 \text{ jobs}$$

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Calculating Growth Shares Industry Mix Share (Alpena Co)

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local employment in *industry A* in year 1
x (national *industry* growth rate – national *average* growth rate)

Sector	Employment (1994)	Employment (2004)	Change	% Change Alpena Co.	% Change U.S.
Education and Health	1,001	3,281	2,280	227.8	25.2
Manufacturing	2,406	1,831	-575	-23.9	-16.1
Construction	608	561	-47	-7.7	37.2
Leisure/Hospitality	1,215	988	-227	-18.7	25.4
Total Employment	10,388	11,310	922	8.8	14.9

$$\text{IMS} = 1,001 \times (.252 - .149) = 1,001 \times .103 = 103 \text{ jobs}$$

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Calculating Growth Shares

Local Share (Alpena Co)

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local employment in *industry A* in year 1
 x (local *industry* growth rate – national *industry* growth rate)

Sector	Employment (1994)	Employment (2004)	Change	% Change Alpena Co.	% Change U.S.
Education and Health	1,001	3,281	2,280	227.8	25.2
Manufacturing	2,406	1,831	-575	-23.9	-16.1
Construction	608	561	-47	-7.7	37.2
Leisure/Hospitality	1,215	988	-227	-18.7	25.4
Total Employment	10,388	11,310	922	8.8	14.9

$$LS = 1,001 \times (2.278 - .252) = 1,001 \times 2.026 = 2,028 \text{ jobs}$$

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Calculating Growth Shares

Shift Share (Alpena Co)

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68

$SS = \text{National Share} + \text{Industry Share} + \text{Local Share}$

Sector	Employment (1994)	Employment (2004)	Change	% Change Alpena Co.	% Change U.S.
Education and Health	1,001	3,281	2,280	227.8	25.2
Manufacturing	2,406	1,831	-575	-23.9	-16.1
Construction	608	561	-47	-7.7	37.2
Leisure/Hospitality	1,215	988	-227	-18.7	25.4
Total Employment	10,388	11,310	922	8.8	14.9

$SS = 149 + 103 + 2,028 = 2,280$

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Shift Share Caveats

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Shift Share is:

- Descriptive, not diagnostic
 - Does not tell you WHY
 - Does not identify comparative advantages
- Minimizes the impact of of business cycles

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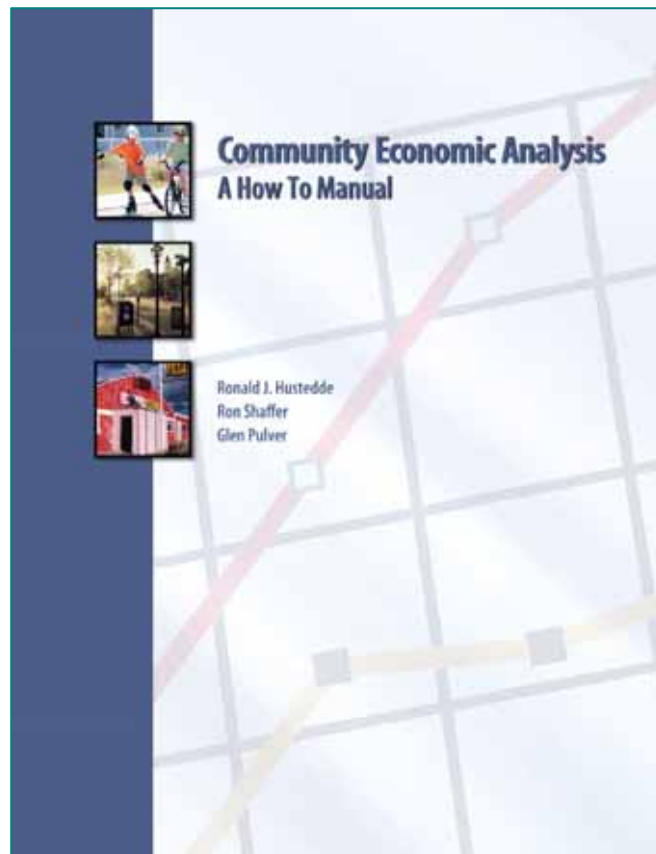
Community Economic Analysis

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70

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Estimating the Total Impact of Economic Activities

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Multiplier Effect

SLIDE

71

Q: Why is the arrival of a new export business or the expansion of an existing export business a welcome event in most communities?

A: Jobs and Income

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Multiplier Effect

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72

More GOOD NEWS: A new **export** business or business expansion usually creates more jobs and generates more additional spending and income than the jobs, spending, and wages directly attributable to the business.

This is called the ***Multiplier Effect***

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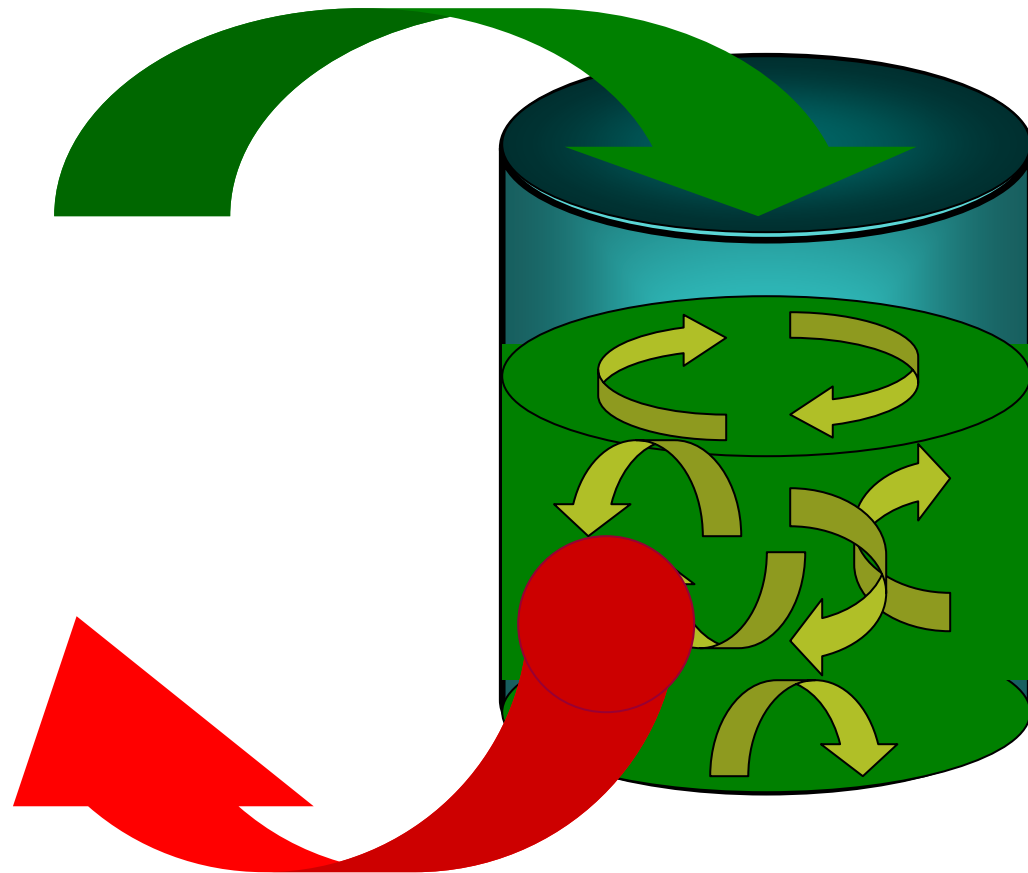
Dollars also circulate in the local economy:

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73

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Multiplier Effect

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74

The Multiplier Effect is comprised of three components:

1. **Direct Effects:** Labor, goods and services purchased by the business
2. **Indirect Effects:** Increase in local spending by firms that supply the business
3. **Induced Effects:** Increase in local spending by employees of the business

Total Impact = Direct + Indirect + Induced

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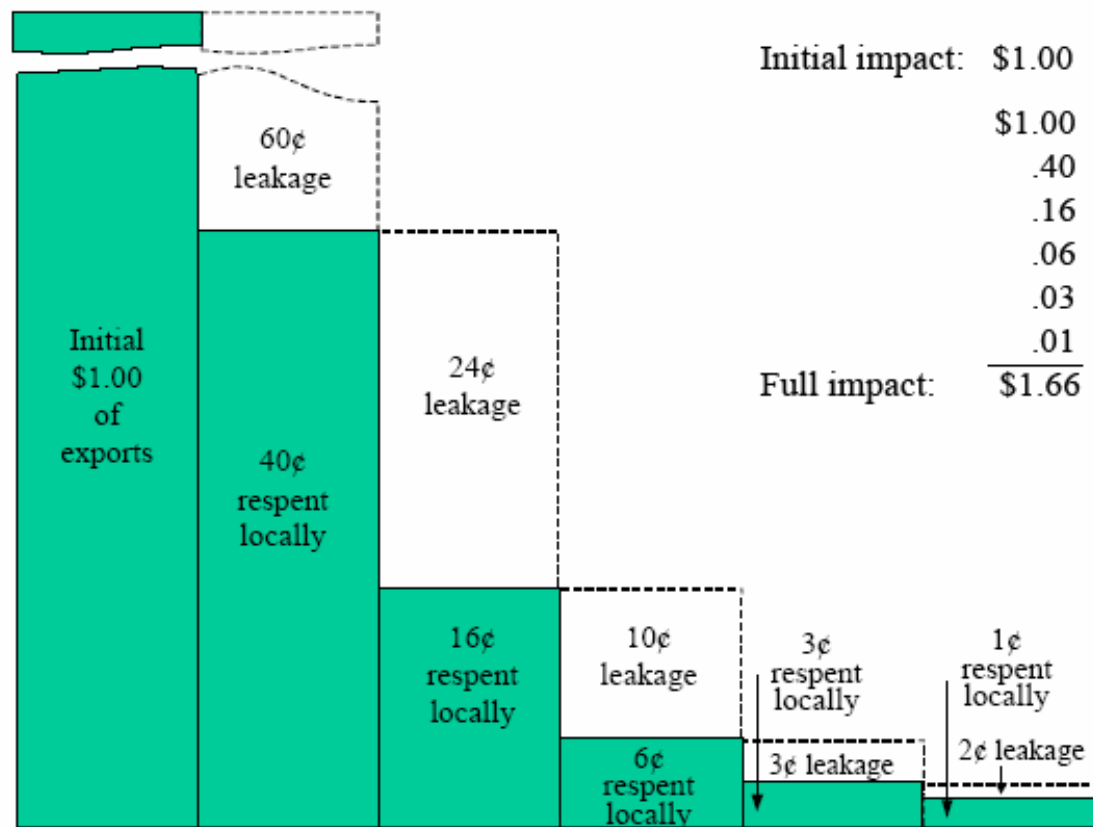
Multiplier Effect

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75

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Source: Western Rural Development Center



Multiplier Effect

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76

In its simplest form,

$$\text{Multiplier} = \frac{\text{Total Change}}{\text{Direct Change}}$$

$$= \frac{\$1.66}{\$1.00}$$

$$= 1.66$$

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Multiplier Effect

Which has the larger multiplier?

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Wal-Mart Supercenter with annual sales of \$81 million that employs 400 people

A cheese factory that employs 20 people and has annual sales of \$20 million

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Multiplier Effect

Wal-Mart or a Cheese Factory

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78

What does each buy locally?

- Inventory
- Labor
- Transportation
- Supplies
- Utilities
- Accounting services
- Marketing
- Financing
- Repairs
- Maintenance
- Legal Services

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Multiplier Effect

Wal-Mart or a Cheese Factory

SLIDE

79

What do the **suppliers** to each buy locally?

- Inventory
- Labor
- Transportation
- Supplies
- Utilities
- Accounting services
- Marketing
- Financing
- Repairs
- Maintenance
- Legal Services

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Community Economics

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80

- Defining a Community's Economy
- How money and resources flow into and out of the local economy
- How money circulates in the local economy
- Basic industries and economic growth
- Traditional Community Economic Analysis
- **Cool NEW Tools**

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Defining Trade Areas: Using GIS

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81

Trade Area Analyst LT: An easy-to-use application utilizing Geographic Information Systems (GIS) software that enables users to easily map variety of markets by ZIP Code.

- Customers
- Employees
- Patients
- Visitors

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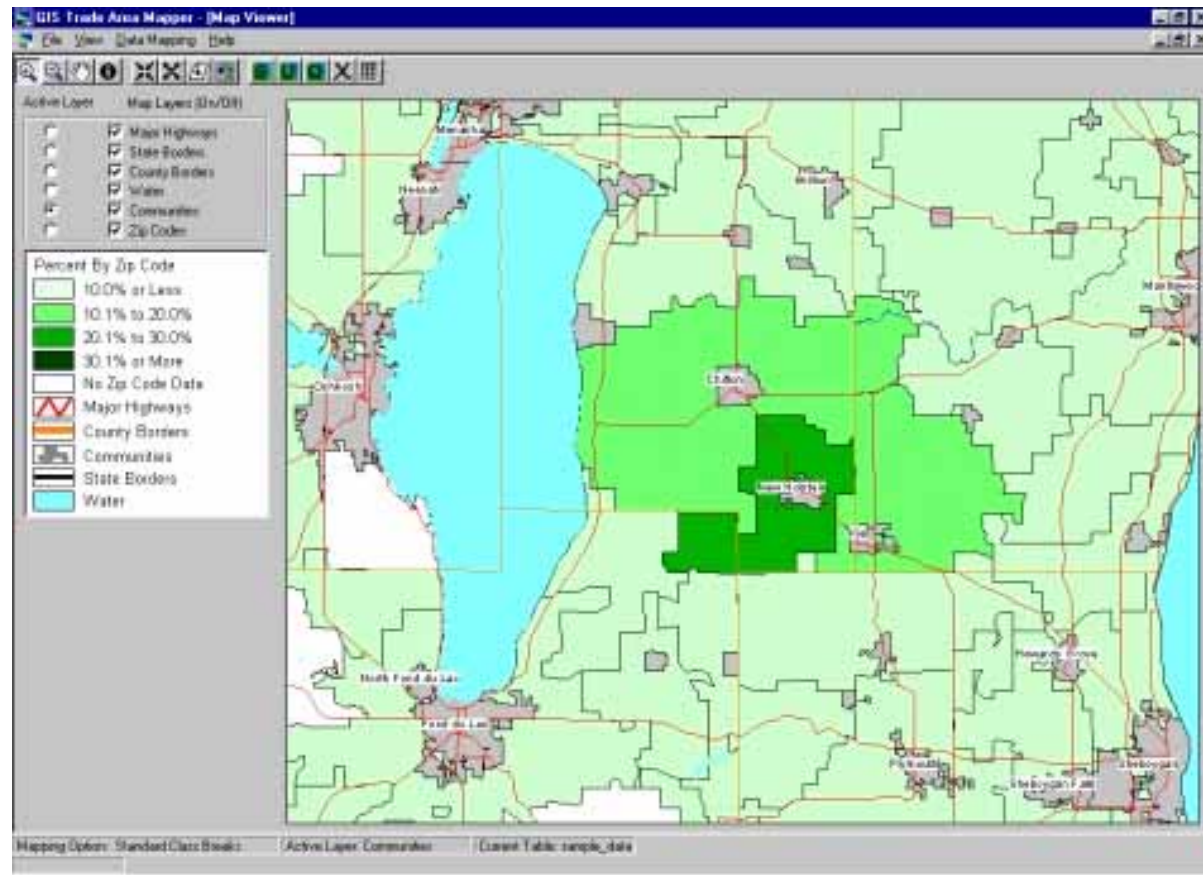
Trade Area Analyst LT

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82

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Calculating LQs

The Good News

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83



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84

Location Quotient Calculator

STEP 1 - YEAR SELECTION AND OTHER DATA CHARACTERISTICS

Year:	2004 ▾
Data Period:	Annual Average
Data Type:	All Employees
Ownership:	Private
Establishment Sizes:	All establishment sizes

STEP 2 - AREA SELECTION (possible choices: U.S. total, States, counties, and metropolitan areas)

Select the Base Area:	Select up to 3 Analysis Areas:
Alpena County, Michigan ▾	U.S. TOTAL (must select at least one area)
	Michigan – Statewide (optional)
	Select an Analysis Area (optional)

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http://data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet





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85

Location Quotient Calculator

Employment, Percentage and Location Quotients calculated from Quarterly Census of Employment and Wages Data

Location Quotients calculated from Quarterly Census of Employment and Wages Data

Industry	Alpena County, Michigan
Base Industry: Total, all industries	1.00
Natural Resources and Mining	0.55
Construction	0.94
Manufacturing	1.49
Trade, Transportation, and Utilities	1.33
Information	0.80
Financial Activities	0.77
Professional and Business Services	0.31
Education and Health Services	1.03
Leisure and Hospitality	0.92
Other Services	1.08
Unclassified	NC

Footnotes:

(NC) Not Calculable, the data does not exist or it is zero

http://data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet

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http://data.bls.gov/LOCATION_QUOTIENT/servlet/lqc.ControllerServlet

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86

Location Quotients calculated from Quarterly Census of Employment and Wages Data

Industry	Alpena County, Michigan	Lake County, Michigan	Keweenaw County, Michigan
Base Industry: Total, all industries	1.00	1.00	1.00
NAICS 11 Agriculture, forestry, fishing and hunting	0.49	ND	ND
NAICS 21 Mining	0.69	ND	ND
NAICS 22 Utilities	1.38	NC	NC
NAICS 23 Construction	0.94	0.71	ND
NAICS 31-33 Manufacturing	1.49	0.54	.70
NAICS 42 Wholesale trade	1.56	0.93	ND
NAICS 44-45 Retail trade	1.56	1.03	0.70
NAICS 48-49 Transportation and warehousing	1.02	1.03	ND
NAICS 51 Information	0.80	1.03	ND
NAICS 52 Finance and insurance	0.77	0.80	ND
NAICS 53 Real estate and rental and leasing	0.76	0.59	ND
NAICS 54 Professional and technical services	0.30	0.18	ND
NAICS 55 Management of companies and enterprises	0.17	NC	NC
NAICS 56 Administrative and waste services	0.34	ND	NC
NAICS 61 Educational services	0.11	ND	NC
NAICS 62 Health care and social assistance	1.17	ND	ND
NAICS 71 Arts, entertainment, and recreation	0.72	1.02	ND
NAICS 72 Accommodation and food services	0.95	1.83	ND
NAICS 81 Other services, except public administration	1.08	1.09	1.23
NAICS 99 Unclassified	NC	NC	NC

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87

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City/County/State



[Educational Attainment](#)

City/County/State



[Median Household Income](#)

City/County/State/Nation



[Population](#)

City/County/State



[School Enrollment](#)

City/County



Employment

[Composition of Total Employment](#)

County/State/Nation



[Location Quotient](#)

County/State



[Nonfarm Employment](#)

County/State



[Farm Employment](#)

County/State/Nation



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County/State/Nation



[Unemployment](#)

County/State/Nation



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County/State/Nation



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County/State



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Location Quotient for Alpena County, Michigan

SLIDE

88

	Percent of nonfarm jobs		Location Quotient	
	Alpena County	Michigan	Alpena County	Michigan
All nonfarm sectors	100.0	100.0		
Forestry, fishing, related activities, and other...	0.8	0.3	1.2	0.5
Mining	0.3	0.2	0.6	0.5
Utilities	0.4	0.4	1.2	1.0
Construction	6.4	5.5	1.1	0.9
Manufacturing	11.2	14.4	1.2	1.5
Wholesale trade	3.3	3.5	0.9	0.9
Retail trade	14.7	11.8	1.3	1.0
Transportation and warehousing	2.4	2.4	0.7	0.7
Information	1.5	1.6	0.6	0.7
Finance and insurance	3.3	3.9	0.7	0.8
Real estate and rental and leasing	3.5	3.6	0.9	0.9
Professional and technical services	(D)	6.6	(D)	1.0
Management of companies and enterprises	(D)	1.3	(D)	1.2
Administrative and waste services	2.8	5.9	0.5	1.0
Educational services	0.6	1.4	0.3	0.7
Health care and social assistance	12.9	10.4	1.3	1.1
Arts, entertainment, and recreation	1.4	1.9	0.7	0.9
Accommodation and food services	6.1	6.5	0.9	1.0
Other services, except public administration	6.3	5.3	1.1	1.0
Government and government enterprises	19.4	12.9	1.4	0.9
Undisclosed	2.7	0.0	NA	NA

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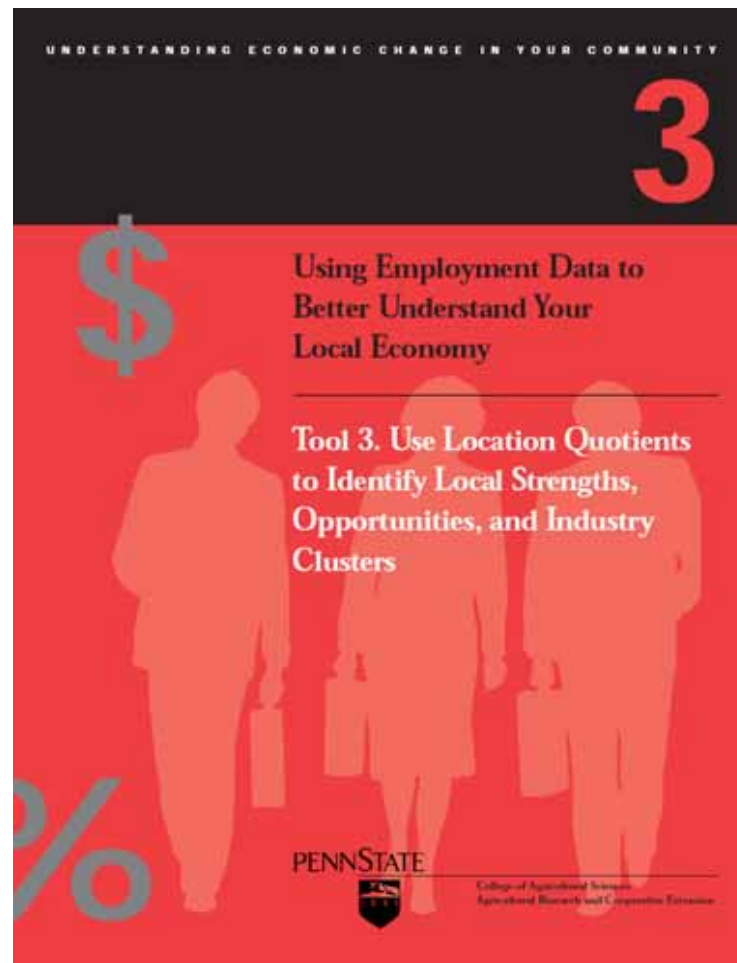
http://cecd.aers.psu.edu/pubs/using_employment_data_to_better.htm

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89

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Calculating Shift Share

More Good News

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90

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City/County/State



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City/County/State/Nation



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[School Enrollment](#)

City/County



Employment

[Composition of Total Employment](#)

County/State/Nation



[Location Quotient](#)

County/State



[Nonfarm Employment](#)

County/State



[Farm Employment](#)

County/State/Nation



[Employment Trends](#)

County/State/Nation



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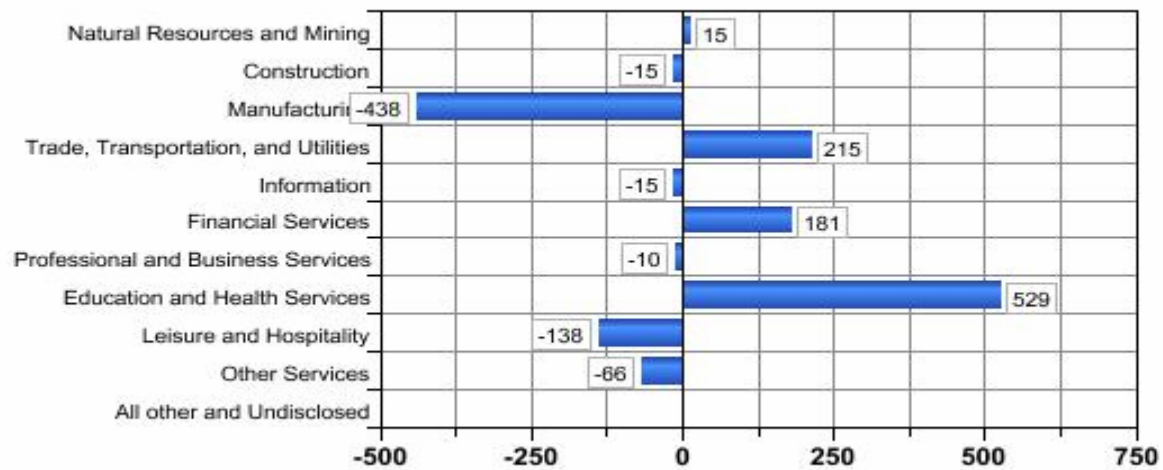
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92

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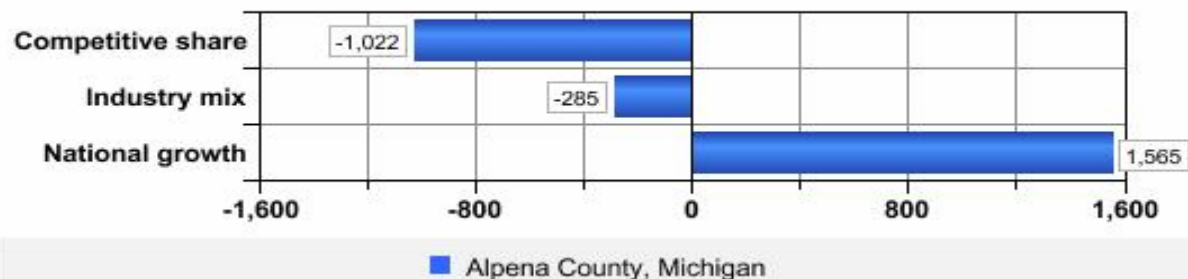
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Change in Private Sector Employment, 1993-2003



(See data notes for employment data coverage and definitions)

County Shift-Share Analysis, 1993-2003



Shift Share Analysis

University of Georgia

SLIDE

93

Shift Share Analysis of Regional Employment

The screenshot shows a web form with four steps:

- Step 1:** Type in the 5-digit FIPS code(s). [Click here to look up FIPS codes.](#) Separate then with a space (eg., 01075 43051). Submit as many codes as you like. The input field contains "2 6007".
- Step 2:** Choose the starting year, eg. 1995. A dropdown menu shows years from 1993 to 1997, with 1994 selected.
- Step 3:** Choose the ending year, eg. 2004. A dropdown menu shows years from 2000 to 2004, with 2004 selected.
- Step 4:** A "Go To Query" button.

At the bottom, there is a "Reset Form" button and the instruction: "Click on 'Reset Form' to start another query."

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www.rcr.uga.edu/guide/sshare1.html



Shift Share Analysis

University of Georgia

SLIDE

94

Table 2: Shift-Share Analysis for Your Area, 1994-2004.

Sector	National Growth Component, Percent	National Growth Component, Jobs	Industrial Mix Component, Percent	Industrial Mix Component, Jobs	Competitive Share Component, Percent	Competitive Share Component, Jobs
Education and Health Services	14.9	149	10.3	103	202.6	2,028
Natural Resources and Mining	14.9	11	-16.9	-12	14.6	10
Financial Activities	14.9	67	1.4	6	-0.6	-3
Information	14.9	31	-2.8	-6	-7.2	-15
Trade, Transportation, and Utilities	14.9	410	-4.1	-113	-3.2	-87
Other Services	14.9	70	2.6	12	-32.6	-154
Manufacturing	14.9	359	-31.0	-745	-7.9	-189
Professional and Business Services	14.9	73	18.6	91	-45.0	-220
Construction	14.9	91	22.9	139	-45.5	-277
Leisure and Hospitality	14.9	181	9.5	115	-43.1	-524
Public Administration	14.9	108	-6.3	-46	-103.2	-745
		1,550		456		-176

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Shift Share

http://cecd.aers.psu.edu/pubs/using_employment_data_to_better.htm

SLIDE

95

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UNDERSTANDING ECONOMIC CHANGE IN YOUR COMMUNITY

4

Using Employment Data to
Better Understand Your
Local Economy

Tool 4. Shift-Share Analysis
Helps Identify Local Growth
Engines

PENNSYLVANIA STATE UNIVERSITY
College of Agricultural Sciences
Agricultural Research and Cooperative Extension

The cover features a red background with silhouettes of three people walking, a large dollar sign, and a percentage sign.



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SLIDE

96

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Next Session

SLIDE

97

Community Power Structure

October 25, 2005

1:30 to 3 p.m. CST



Janet Ayres

The ability to identify who the decision makers are in the community, the resources they affect, and the power structure is crucial in gaining access to a community, gaining trust and credibility, and being effective in educational programs.

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