

A. In-class group exercise—September 26

1. Use the Bureau of Labor Statistics' (BLS) Location Quotient Calculator accessible from the "Get Detailed Statistics" link at www.bls.gov to calculate location quotients in 2005 for Delaware statewide, New Castle County, and Sussex County, compared to the U.S. as the base or reference economy, and "all industries" as the base industry. Choose the sector and subsector levels of detail in the checkboxes for selecting industry groups.

What are the existing industries in Delaware that are highly concentrated? To what extent are these industries an outgrowth of the special history and character of the state?

Are there differences between the counties, or between a county and the state as a whole, in the concentration of particular industries? Explain any differences you find, what history or other causes might account for them, and what implications they might have for local economic development planning at the state and county levels.

What does this suggest about the desirability and appropriate method of proceeding with a statewide comprehensive economic development strategy?

2. Open a second browser window or tab, saving the screens of data from the BLS LQ calculator in the original window. In the new window, navigate to the Bureau of Economic Analysis website at www.bea.gov, then select -> Regional -> State Annual Estimates -> Interactive Tables -> SA25—Employment by industry -> SA25N NAICS (2001-2005). Select both the US and Delaware for both 2001 and 2005 (use Ctrl-Click).

Display the results. Compare the employment totals and details by sector from this source to those generated by the BLS calculator. Discuss/explain.

B. At-home individual assignment—write this up, to hand in on October 3

1. Using the data file I have downloaded and manipulated for you, calculate location quotients and a shift-share analysis comparing Delaware to the U.S. Print out your results and attach them to your paper. Here are some useful formulas (you may not need to use all three; and note that there are typographical errors in the formula given in the Blakely & Bradshaw text – use one of the formulas given below and/or refer to one of the other texts for a formula):

Location quotient

$$LQ = \frac{(\text{LocalSector} / \text{LocalTotal})}{(\text{BaseSector} / \text{BaseTotal})}$$

Shift-share analysis using proportions

$$\left(\frac{e_i^t}{e_i^{t-1}} - 1 \right) = \left(\frac{E^t}{E^{t-1}} - 1 \right) + \left(\frac{E_i^t}{E_i^{t-1}} - \frac{E^t}{E^{t-1}} \right) + \left(\frac{e_i^t}{e_i^{t-1}} - \frac{E_i^t}{E_i^{t-1}} \right)$$

and

Shift-share analysis using numbers of jobs

$$\Delta e_i = e_i^{t-1} \left(\frac{E^t}{E^{t-1}} - 1 \right) + e_i^{t-1} \left(\frac{E_i^t}{E_i^{t-1}} - \frac{E^t}{E^{t-1}} \right) + e_i^{t-1} \left(\frac{e_i^t}{e_i^{t-1}} - \frac{E_i^t}{E_i^{t-1}} \right)$$

Where e_i and E_i are local and reference-geography employment in industry i ;
 e and E are local and reference-geography employment for all industries; and
 $t-1$ and t are the beginning and ending time periods.

2. Use the LQs and differential shifts (a.k.a. "local factors") to *construct and interpret a four-quadrant table*, beginning at the two-digit NAICS level, but using information at the three-digit level where appropriate, following the methods and examples given by Blakely & Bradshaw (2002, pp. 141-7), *or to classify industries using McLean & Voytek's industry targeting analysis decision tree approach* (1992, pp. 76 ff.; it adds a third dimension to the classification scheme).

Adaptation of Table 5.5. *Four-Quadrant Table*

(from Blakely & Bradshaw, 2002, p. 142; cf. McLean & Voytek, 1992, pp. 76 ff.)

	Not Competitive/Declining (differential shift ≤ 0)	Competitive/Growing (differential shift > 0)
High Local Employment Concentration (LQ > 1)	(I) Transforming Industries	(II) Growing Base Industries
Low Local Employment Concentration (LQ ≤ 1)	(IV) Declining Industries	(III) Emerging Industries

3. Access a profile of Delaware in 2005 from the American Community Survey, data briefs link, at <http://www.census.gov/acs/www/> (note that you can determine whether any apparent differences between the U.S. and Delaware are statistically significant at the 10% level, because the 90% confidence intervals are given in the document.), *or* use data from the 2000 Census.

Comment on one interesting demographic characteristic, preferably one that bears on what you have learned from the analysis of Delaware's economic structure.

4. Use the Census Bureau's American FactFinder to view "fact sheets" in drill-down HTML format for Delaware, Kent County, New Castle County, and Sussex County in 2000. *Or* use the Census 2000 Gateway to get "demographic profiles" in PDF format of Delaware, Kent County, New Castle County, and Sussex County in 2000.

Comment on one interesting demographic characteristic that varies or is similar across the three counties, preferably one that bears on what you have learned from the analysis of Delaware's economic structure and/or has implications for the development of statewide and/or county-specific. policies and strategies for local economic development.

5. Using what you have learned from the in-class exercise as well as steps 1-4 above, comment on the choices the Delaware Economic Development Office has made in designating clusters for its economic development strategy. If limitations in the extent or relevance of the analysis in the preceding steps limit your ability to reach definitive conclusions, it is perfectly appropriate for you to say so, and to explain what additional steps of data collection and analysis you would undertake to overcome those limitations.

DEDO's 2006 Targeted Clusters	DEDO's 2002 Targeted Clusters
Automobiles	
Chemicals	
Life sciences/biotechnology	Biotechnology and agriculture
Information technology	Information technology
Financial services and insurance	Banking and financial services
Tourism	Tourism
	Transportation
	Venture capital
<p><i>Sources:</i> For the 2006 clusters, Delaware CEDS: A comprehensive economic development strategy for the State of Delaware. (2006, September 22). Available at http://dedo.delaware.gov/ceds/index.shtml. For the 2002 clusters, Gov. Minner releases report with vision and initiatives for Delaware's new economy. (2002, June 13). Retrieved October 4, 2006, from http://www.state.de.us/dedo/news/061902%20SEC.shtml</p>	