THE LOCAL ECONOMIC IMPACT OF COLLEGES AND UNIVERSITIES

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Newspapers are replete with estimates of purported impacts: NFL teams, conventions, sniper, pandas, Olympics

Impacts frequently sum to more than GDP in an area
What’s an economic impact study?

- Document written or commissioned by a college or university (in this case)
- It details costs and benefits caused by its presence to some local population. Common claims:
  - Job creation
  - Tax revenue enhancement
  - Stimulation of local economy
Purpose of economic impact studies

- Articulate the value of colleges and universities
- Help institution compete for state funding
- Help maintain tax-exempt status
- Secure a subvention
- Fend off criticism
- Bolster fund-raising
Economic impact studies of colleges and universities

- Basic procedure: sum expenditures of the college community due to the presence of the institution and apply multipliers to account for interdependencies of economic activity.
Examples

- Loyola University Chicago generated a $1.04 billion economic impact and created or sustained nearly 15,000 jobs in the Chicagoland area in 1994.
- The University of Colorado generates at least 36,000 jobs in Colorado and nearly $2 billion in Gross State Product.
- In addition to the $9.7 billion in ‘output impact’ generated by the University of Georgia System, public higher education is responsible for 2.8 percent of Georgia’s workforce, or 106,831 full- and part-time jobs in 2005.
Impact studies often imply misleading multipliers

- For every state dollar spent at the University of Iowa, $15.81 is generated in the state economy in 2010.
- For every $1 in state appropriations for the university, the University of Oregon generates nearly $10 in additional expenditures.

But:
- Only part of revenues contributed by state (41% for Iowa in 2010; 10% for Oregon 2010-11).
- Presumes none of the university’s activities would take place in the state absent the university.
College economic impact studies

- Leslie and Slaughter (1992): about 60 reports
- Siegfried, Sanderson and McHenry (2006): 138 studies; 35 of the 138 are private; 19 are Canadian
- Dispersion in measured impacts creates suspicion
  - Multipliers for job impacts in 98 studies range from 1.03 (Houston) to 8.44 (WV State College)
  - Economic impact per dollar of government funding in 67 studies ranges from 1.84 (Nevado-Reno) to 26 (all Michigan public universities)
  - Colleges are not heterogeneous enough to justify such dispersion
The counterfactual

- Key question: How much better off are residents of the area of interest with the institution located there than they would be in its absence, i.e. “but for” the institution?
- “Better off” is usually defined in terms of employment, per capita income, or local tax revenue, rarely property values, amenities, or negative externalities.
- Principle I: Always articulate the counterfactual (e.g., city without the college, neighborhood without this dormitory).
- Principle II: Only count as impacts those effects that would not be present in the counterfactual.
Examples of college exports and local substitution

- Students: large impacts where there is no local substitute (Vanderbilt, Middlebury); small impact otherwise (Michigan State, UCLA)
- College sporting events: impacts attenuated by ready substitutes (local restaurants, malls, amusement parks)
- College hospital revenue: with or without the college, most hospital expenditures would remain local.
Challenges to establishing a convincing counterfactual

- Colleges do not appear and disappear abruptly.
- Implied counterfactual of many studies is complete absence of institution, yet the issue is often an incremental change, e.g. of an expansion.
- Opportunity cost of investment funds is elusive (e.g., tax cuts, better roads, primary education, or something else?).
- There is a natural ambiguity: no one cares about geography devoid of people. Defining relevant population is often challenging.
Defining the “Local Area”: Two principles for choosing geographic boundaries

- Area should fit the purpose of the study.
  - State subsidy – use state boundary
  - Local tax relief – use local political boundary
  - National recognition from media – use entire country

- However delineated, the boundaries should remain the same throughout the analysis.
Geographic boundaries determine:

- Extent to which sales are exports: as the area expands, the export percentage declines.
- Size of the multiplier: as the area expands, the multiplier grows.
- ⇒ Temptation to use multiplier for large area and exports for small area
- Using multipliers “off-the-shelf” risks a multiplier not calibrated on precisely the same area as that used to calculate exports.
First-round expenditure
(what to count toward impact)

- Typical measurement: export sales = revenues that flow into the area because of the college
- Should add import substitution, e.g., locals attending Vanderbilt would otherwise go out-of-state
- If relevant welfare effect is on residents living in the area before the college or university arrived, then none of the payment to immigrants should count, although subsequent rounds of their expenditures should be counted.
- Should use after federal tax disposable income
First-round expenditure II

- Don’t count payments to employees who live outside the area.
- Don’t double-count payroll and revenues from employees (e.g., hospital services, lunches, athletic event tickets, student worker tuition).
- Construction: depends on the opportunity cost
Multipliers

- Reasons to be suspicious of off-the-shelf multipliers and regional economic models:
  1. College and university expenditure patterns may be abnormal.
  2. University outputs are themselves aimed at changing technical production coefficients.
  3. May apply to larger than “local” areas

- Size of multipliers
  - Case and Fair’s preferred multiplier is 1.4 for the entire U.S. economy. This should be the maximum.
  - Expenditure multipliers in 19 studies ranged from 1.34 to 2.54, with a median of 1.7.
Local taxes

- These issues rarely enter economic impact studies.
- Exemption from local taxes may place burden on the local area.
- But universities provide many services, including fire, trash removal, police, as well as amenities.
- Some institutions pay an amount in lieu of taxes.
- Institutions increase property values around campus and may offset tax exemption.
Local spillover benefits from enhanced human capital

- An important distinction between colleges and other institutions that claim to create local economic impacts is that colleges change the future productivity of inputs (graduates).
- But, is the effect “local?”
- Other externalities: social cohesion and aggregate growth through technology and ideas
Bluestone (1993) argues that incremental future incomes of college graduates who stay in the area should be counted as part of local impact.

- Ability bias must be controlled. What would they have earned if they did not attend college? Only incremental earnings should be counted.
- Little of this income would accrue to those individuals who would have populated the area “but for” the college.
Local spillover benefits III

- External effects of a more educated workforce may create real local benefits.
  - Increased earnings: Moretti (2003) finds that a 1% point increase of college grads in an area increases average wages by 1.3%.
  - Reduced crime, improved public health, etc.
Groen (2004) finds that 10% of out-of-state students are in the state where they went to college 10-15 years earlier (but there must be a large variance, as 10% of Kansas grads can’t find jobs in Lawrence) ⇒ this is a mobile population.

- Employers (not colleges) probably have the largest direct impact on the local level of human capital.
- So a college’s claim of credit for local human capital is only valid if it attracts employers, and that is more likely to be an effect of graduate programs and research.
- Local residents who attend college and then move elsewhere to a good job might be included in benefits to local residents who would otherwise be in the area.
Stop claiming “For every $1 the state legislature spends, the university returns $X dollars to the state. . .” If the returns to higher education were as high as these statements imply, states and the private sector would be building universities frantically.

Stop reporting a single impact in two formats. Total financial impact and jobs impact are alternative measures of one concept. Financial impact produces welfare only when it produces jobs.

Expenditures by employees (e.g. on local taxes, books, sports tickets, or charity) are not additions to financial impact above payroll. They are part of payroll.
Conclusion and recommendations: Substance

- Articulate the counterfactual and **stick to it**. Measure export sales and multipliers with the same boundaries.

- Stick to the question. If the study is intended to support the case for a zoning variance for a new dormitory, the **total** impact of the college is irrelevant.

- First-round expenditures should exclude amounts that would have been spent in the local area “but for” the college. E.g. hospitals, enrollment at other colleges, lunch of grounds keepers.
Conclusion and recommendations: Substance II

- Apply appropriate multiplier to various categories of expenditures.
- Avoid double-counting. Student earnings may be used to pay for tuition, and so do not circulate except via college payroll of full-time employees. Some fringe benefits go to the institution itself.
- Articulate how the institution attracted jobs filled by college graduates if enhanced earnings are to be counted.