Measuring Benefits of Higher Education Spending

What we know and what we need to know?

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FSU Economic Impact\textsuperscript{1}

- $10 Billion in total economic activity
- Gain in earnings for Public College graduates versus Public High School graduates.
  - Present value of 30 years of estimated earnings gain.
  - $7.9 billion from FSU
- So $2.1 billion contribution based on expenditures.
  - Standard economic impact analysis
  - No visitor spending or technology licensing.
  - $50,400 per student

\textsuperscript{1}Economic Contributions of the State University System of Florida in 2014-15, Center for Economic Forecasting and Analysis
Other Florida Universities

• UF: $22.9 Billion, $10.2 Billion from graduates, $4.6 Billion from UF Health, $8.1 Billion from other expenditures, $160,400 per student.
• USF: $11.1 Billion, $8 Billion from graduates, $3.1 Billion from expenditures, $63,800 per student.
• UCF: $11.9 Billion, $9.6 Billion from graduates, $2.3 Billion from expenditures, $37,800 per student.
• NCF: $135 Million, $84 Million from graduates, $51 Million from expenditures, $63,750 per student.
Florida College System

- $26.6 Billion, $25.2 Billion from CHE (Credit-Hour-Equivalents), $1.4 Billion from spending, $1,650 per student.

- This analysis is not very comparable:
  - Tries to calculate added value of Florida College System compared to alternative spending
  - Added earnings reduced 62.5% to account for possible substitution effects.

- Undoing those, $67.2 Billion from CHE and $11.5 Billion gross effect of spending, $13,500 per student.
Economic Impacts

• Of 49 university impact studies reviewed, the lowest impact per student, $10,500 came from University of Wyoming, that similar to the Florida College System, calculated only the effect of spending that would not otherwise have occurred, coming from out-of-state.

• The highest economic impact, $560,000 per student, came from University of Pennsylvania. They claimed only $7 Million came from their health system, which seems unrealistic.
Bottom Line

• Very hard to compare different Universities because of diverse methodologies.

• Some studies don’t include any impact of alumni; these impacts tend to be very large. For comparison, I excluded those impacts when I could.

• Each study includes and excludes different considerations, some do not include a multiplier effect of spending.

• Standard deviation of impact per student is $100,000 across studies.
Return on Investment

• A second way to look at things:
• Attempts to evaluate the societal return to each dollar given to higher education.
• The value can be somewhat complicated as above: individual gains, revenue gains, and non-monetary benefits.
Public University Funding by State per FTE student

- District of Columbia
- Iowa
- Vermont
- Texas
- Delaware
- Connecticut
- Alabama
- Ohio
- Wyoming
- Nebraska
- Illinois
- United States
- North Carolina
- Colorado
- Oklahoma
- Massachusetts
- Minnesota
- New Jersey
- South Carolina
- Montana
- Kansas
- West Virginia
- Georgia
- Arizona
- Idaho
- Florida
Return on Investment: Enrollment

• Different studies tend to find similar effects in trying to estimate impact of changes in spending on enrollment.
• About 3-5% increase in enrollment for each $1,000 in per student funding.
• As discussed in the economic impact research, a large part of University impacts come through graduates.
Return on Investment: Research

• A 2014 study by an FSU Faculty member found that shocks in funding for Research Universities had a statistically significant impact on local area economic activity, especially in areas where the local industries had research relationships with Universities.

Kantor and Whalley (2014)
Return on Investment: Faculty?

• Florida Public Universities also have the highest student/faculty ratio in the nation with 21.3 FTE students per FTE faculty member
• Not much data on actual impacts of student/faculty ratios.
• But high student/faculty ratios and low resources make it difficult to attract and retain good faculty which may contribute in many ways.
Economic Impact vs. Return on Investment

• Economic impact studies are very common.
• But they do not really tell us much about how much we get from higher education spending.
• Return on investment studies attempt to estimate return on revenue increases.
• However, they focus on increasing enrollment, which is an incomplete way to assess return on investment.