Using Instructional Cost and Productivity Data to Inform Funding Models

The Cost Study at UD

Jen Snyder, Director of HEC
Marcia Preston, Manager of The Cost Study
Top three concerns identified by presidents as important for their successors are all related to finances:

- budget and financial management (68%)
- fundraising (47%)
- and enrollment management (38%).
Instructional Costs - Longitudinal Findings

Across all academic disciplines

Weighted average Direct Instructional Expenditures per Student Credit Hour

2000-2015
Understanding Instructional Cost Differences

"Why Is Math Cheaper Than English? Understanding Cost Differences In Higher Education"

2018 NBER Working Paper

76-83% of the variation in instructional costs due to program differences

Middaugh et al. (2003)

Source: The National Bureau of Economic Research
Background – HEC & The Cost Study

• The Cost Study at the University of Delaware
  • Not-for-profit, fee-for-service study
  • A leader in the analysis and benchmarking of program-level instructional costs and productivity since 1996
  • Available to all 4-year, nonprofit colleges and universities

• The Higher Education Consortia (HEC)
  • Established in 2015 to promote consortium relationships and research using data from The Cost Study
  • Advisory Board provides guidance
  • Housed in an Institutional Research office
Community College Cost & Productivity

• National Community College Cost & Productivity Project
  • Formerly “The Kansas Study”
  • The National Higher Education Benchmarking Institute (NHEBI) at Johnson County Community College
  • “Provides discipline-level data and benchmarks for staffing plans and decisions about faculty positions, for academic program planning and assessment, and for documentation of compliance for accreditation purposes.”

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Participation by U.S. State
Public Participation by Convening States
The Cost Study Answers…

Who…

T/TE, other regular, supplemental faculty, TAs

...Is teaching what to whom...

Student credit hours, organized class sections, online, undergrad/grad

And at what cost?

Instructional, research, public service expenditures
The Cost Study Data Elements

Degree Completions Data  
(Avg. of Prior 3 Years)

Human Resources Data  
(Fall)

Course Data  
(Fall and Academic Year)

Finance Data  
(Fiscal Year)

The Cost Study Data Submission
Cost and Productivity Metrics

• Expenditures
  • Instructional Cost per Student Credit Hour (or per FTE Student)
  • Research and Public Service Expenditures

• Faculty Workload (for different faculty types)

  Student Credit Hours per FTE Faculty
  Organized Class Sections per FTE Faculty
  FTE Student per FTE Faculty

How are faculty spending their instructional time?
OR
Who is teaching the courses at each level?
Benchmark Groups and Categories

Institutional Carnegie Classification

Research (R1&R2), Doctorate/Professional (R3), Comprehensive (M1,M2,M3), Baccalaureate (B1,B2)

Highest Degree Awarded

Doctoral/Professional, Master's, Bachelor's, Non-Degree

Proportion of Undergraduate Degrees

0-24% UG, 25-49% UG, 50-74% UG, 75-100% UG
Type of Reports Available

- Institution Reports
- Benchmark Reports
- Cost Study Reports
Uses of The Cost Study

• Instructional cost and faculty workload comparisons
• Academic program reviews
• Higher education accreditation
• Additional uses beyond the individual institutions
Cost and Faculty Workload Comparisons

Cost and Productivity Dashboard for the University of Example
Sample Data
For 2-digit CIP 13 (EDUCATION)
Filter selections include the following institution CIPs:

13.1

Direct Instructional Expense / Student Credit Hour

Direct Instructional Expense / FTE Student

Student Credit Hours / FTE Faculty (based on selected faculty type: All Faculty)

Organized Class Sections (excluding labs) / FTE Faculty (based on selected faculty type: All Faculty)

Cost / FTE Faculty ($)
Academic Program Reviews

- Total Student Credit Hours Taught per FTE T/TT Faculty (SCH taught only by T/TT Faculty)

- Direct Instructional Expenditures per Student Credit Hour

- Carnegie Norm
- Institution Program
- College Average
- Institution Average
Institutional planning and effectiveness process involves all programs, services, and constituencies; is linked to the decision-making process at all levels; and provides a sound basis for budgetary decisions and resource allocations.
Using the Cost Study to Inform Funding Models

• Decisions about funding increases and decreases in instructional activity (e.g., UNC System Office)

• Compare costs and productivity within the state system \textit{and} against comparators outside of the system

• Differential tuition conversations

• Holistic approach
  • Understanding program-level differences
  • Four primary cost drivers
  • Data storytelling—the relationship between instructional costs and productivity metrics
UNC System Office Funding Model

- Annual workload metric report

- 2018 & 2022 UNC enrollment funding model
  - Funding the increase/decrease in SCH compared to the prior year
  - DIE/SCH metric – 2-digit, 3-year-average (by benchmarking category)
  - Additional components unrelated to The Cost Study data

\[
\text{Subsidy $$} = \left( \left( \text{DIE/SCH} + \text{UNC Overhead/SCH} \right) \times \text{UNC %} \right) \times \pm \text{SCH from prior year}
\]
Opportunities for Participation and Access

• System Offices can gain access to comparative data sets by committing their 4-year public institutions to the study

• Data Reports Available to System Offices
  • De-identified comparative data sets (National Norms)
  • Identifiable state data sets (raw data submission and calculated metrics) w/a data-sharing agreement
  • Customizable state-level reports (may require an additional fee)
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