The Higher Education Funding Model: How Revenues Drive Costs

Hawaii Public Higher Education Forum
Honolulu, HI
November 1, 2013
The Cost of Higher Education Has Become an Issue for Everyone

• The President and Leaders of Congress
• State Legislators
• Especially students and their parents

And because their key constituents are concerned, vocal, and acting on those concerns, institutions are being pressed to become more cost conscious.
Controlling costs is usually viewed through the lens of expenditures – cut expenditures and you contain costs. But there’s a revenue lens through which the topic can be viewed as well.

Howard Bowen’s revenue theory of costs – higher education institutions raise as much money as they can and spend all they raise.
The Cost Issue Increasingly Being Reframed as a Value Proposition

• At the national level
  - Can students afford college?
  - Can borrowers repay loans?
  - Can graduates get jobs (that pay a living wage?)
  - Will they even graduate?

• At the state level
  - Is tuition increasing far faster than family income?
  - Are costs serving as a barrier to production of graduates with needed skills?

• At the individual student level
  - The national level issues personalized
The Elements of Finance Policy

Philanthropy & Other Sources

States

Operating Support -- Outcomes-Based Funding as One Component

Students

Student Aid

Tuition & Fees

Scholarships & Waivers

Pell & Tax Credits

Institutions - Sectors

Graduates

Federal Government
Revenue-Related Structures and Practices Affect Costs in Multiple Ways

• Cost Shifting – Reducing costs to one provider increases costs to another
  - Increasing tuition to compensate for decreasing state appropriations is the classic example
Public FTE Enrollment, Educational Appropriations and Total Educational Revenue per FTE, Hawaii -- Fiscal 1987-2012

Note: Constant 2012 dollars adjusted by SHEEO Higher Education Cost Adjustment (HECA). Educational Appropriations include ARRA funds.
Source: SHEEO
Family Share of Public Higher Education Operating Revenues

Source: SHEEO SSDB
• Increasing Funding (costs) on the part of one provider allows costs to another to be increased
  – Increasing availability of student loans (and costs to the federal government) allows tuition to be increased.
An Obvious Point

• Just as increasing revenues can lead to increases in costs (per Bowen), decreases in revenues can force decreases in costs.
• But the objective cannot be cost reduction. It must be productivity improvement.
• Reduced costs accompanied by reduced outcomes is not success.
Public Research Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2009-10)

Undergraduate Credentials Awarded per 100 FTE Students

State, Local, and Tuition and Fee Revenues (2009-10)

Sources: NCES, IPEDS Completions, Finance, and Enrollments Surveys.
Public Bachelors and Masters Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2009-10)

Sources: NCES, IPEDS Completions, Finance, and Enrollments Surveys.
Public Two-Year Institutions: Undergraduate Credentials per 100 FTE Undergraduates and Total Funding per FTE Student (2009-10)

Undergraduate Credentials Awarded per 100 FTE Students

State, Local, and Tuition and Fee Revenues (2009-10)

Sources: NCES, IPEDS Completions, Finance, and Enrollments Surveys.
• Which brings us to the real source of inefficiency in higher education and of excess costs to:
  – The individual
  – Society

Dropping out of – or not participating in – Higher Education
Those with Bachelor’s degree or better gained 187,000 jobs in the recession.

People with Bachelor’s degree or better gained 2 million jobs in recovery.

People with Associate’s degree or some college education gained 1.6 million jobs in recovery.

People with high school degree or less lost 230,000 jobs by February 2012 in recovery.

Those with high school degree or less lost 5.6 million jobs altogether in recession.
Percentage of Working-Aged Adults (25 to 64) Participating in the Workforce – by Education Level Attained (Hawaii, 2010)

- Less than High School: 63.4%
- High School Graduate: 76.0%
- Some College, No Degree: 81.8%
- Associates Degree: 82.7%
- Bachelor's Degree: 85.7%
- Graduate or Professional: 85.8%

Source: U.S. Census Bureau, 2008-10 American Community Survey (Public Use Microdata Samples)
Median Annual Wages for Employed Workers Aged 25 to 64 – by Level of Education (Hawaii, 2010)

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Hawaii Median</th>
<th>Nation Median</th>
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</thead>
<tbody>
<tr>
<td>Less Than High School</td>
<td>25,782</td>
<td>22,688</td>
</tr>
<tr>
<td>High School Graduate, GED, or Equivalent</td>
<td>31,699</td>
<td>31,998</td>
</tr>
<tr>
<td>Some College, No Degree</td>
<td>37,282</td>
<td>36,575</td>
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<tr>
<td>Associate's Degree</td>
<td>42,282</td>
<td>41,251</td>
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<tr>
<td>Bachelor's Degree</td>
<td>48,767</td>
<td>52,831</td>
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<tr>
<td>Graduate or Professional Degree</td>
<td>72,189</td>
<td>70,534</td>
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</tbody>
</table>

Source: U.S. Census Bureau, 2010 American Community Survey (Public Use Microdata Samples)
Undergraduate Credential Productivity and Cost per Undergraduate Credential Produced – Public Research Institutions (2009-10)

High Productivity, Low Cost

High Productivity, High Cost

Low Productivity, Low Cost

Low Productivity, High Cost

Sources: NCES, IPEDS Enrollment, Completions, and Finance Surveys
Undergraduate Credential Productivity and Cost per Undergraduate Credential Produced – Public Bachelor’s and Master’s Institutions (2009-10)

Undergraduate Credentials Awarded per 100 FTE Students vs. State, Local, Tuition and Fee Revenues per Undergraduate Credential Produced

High Productivity, Low Cost
High Productivity, High Cost
Low Productivity, Low Cost
Low Productivity, High Cost

Sources: NCES, IPEDS Enrollment, Completions, and Finance Surveys
## Estimated Costs of Student Attrition: Percent of Education and Related Costs

<table>
<thead>
<tr>
<th>Type</th>
<th>Range</th>
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<tbody>
<tr>
<td>Public 4-Year</td>
<td>12.9 – 26.8%*</td>
</tr>
<tr>
<td>Public 2-Year</td>
<td>32.7 – 56.9%*</td>
</tr>
<tr>
<td>Private 4-Year</td>
<td>9.1 – 16.9%*</td>
</tr>
</tbody>
</table>

*Costs if students still enrolled after six years with no degree fail to finish.

Sources: Nate Johnson, The Institutional Costs of Student Attrition
The Bottom Line

• Productivity improvement is the key
  - More money would be nice
  - But smarter use of the money already available is the necessary first step
• Smarter use of funds required at both state and institutional level
• At the state level, align funding with desired outcomes
  - Ensure necessary capacity is in place
  - Reward effective utilization of that capacity
  - Ensure affordability to students
• At the institutional level
  - Be administratively efficient
  - Be academically focused
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http://www.nchems.org/NCHEMSCLASPHawaiiModel.swf