Why Does College Cost So Much?

WACUBO Annual Meeting
May 7, 2012
Jill Tiefenthaler, President

COLORADO COLLEGE
• Does college cost too much?
• Overview of enrollment
• Overview of tuition increases
• Why costs increased so much?
• Economics of higher education
• The Price vs. Quality Trade-off
• Benefits of higher education
Distribution of Undergraduate Enrollment by Sector, 2009-2010

Full-Time Undergraduates

- Public Four-Year: 44%
- Private Nonprofit Four-Year: 19%
- For-Profit Four-Year: 8%
- Public Two-Year: 3%
- Private Nonprofit Two-Year: <1%
- For-Profit Two-Year: <1%

All Undergraduates

- Public Four-Year: 36%
- Private Nonprofit Four-Year: 15%
- For-Profit Four-Year: 10%
- Public Two-Year: 7%
- Private Nonprofit Two-Year: 4%
- For-Profit Two-Year: 2%

Source: The College Board, Trends in College Pricing 2011
Distribution of Full-Time Undergraduates at Four-Year Institutions by Tuition and Fees, 2011-2012

Public and Private Nonprofit Four-Year Combined
(Median = $9,936)

Tuition and Fees

<table>
<thead>
<tr>
<th>Tuition and Fees</th>
<th>Percentage of Full-Time Undergraduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $3,000</td>
<td>0.7%</td>
</tr>
<tr>
<td>$3,000 to $5,999</td>
<td>14.2%</td>
</tr>
<tr>
<td>$6,000 to $8,999</td>
<td>29.0%</td>
</tr>
<tr>
<td>$9,000 to $11,999</td>
<td>12.6%</td>
</tr>
<tr>
<td>$12,000 to $14,999</td>
<td>8.9%</td>
</tr>
<tr>
<td>$15,000 to $17,999</td>
<td>3.3%</td>
</tr>
<tr>
<td>$18,000 to $20,999</td>
<td>3.6%</td>
</tr>
<tr>
<td>$21,000 to $23,999</td>
<td>4.1%</td>
</tr>
<tr>
<td>$24,000 to $26,999</td>
<td>4.0%</td>
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<tr>
<td>$27,000 to $29,999</td>
<td>4.5%</td>
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<tr>
<td>$30,000 to $32,999</td>
<td>4.0%</td>
</tr>
<tr>
<td>$33,000 to $35,999</td>
<td>2.6%</td>
</tr>
<tr>
<td>$36,000 to $39,999</td>
<td>2.4%</td>
</tr>
<tr>
<td>$40,000 to $41,999</td>
<td>3.8%</td>
</tr>
<tr>
<td>$42,000 and over</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Source: The College Board, Annual Survey of Colleges.
Average Annual Percentage Increase beyond Inflation, 1981-82 to 2011-12

Source: The College Board, Annual Survey of Colleges; NCES, Integrated Postsecondary Education Data System (PEDS).
Annual Percentage Changes in State Appropriations per Full-Time Equivalent (FTE) and in T&Fs at Public Four-Year Institutions, Inflation Adjusted

**Sources:** The College Board, *Annual Survey of Colleges*; Illinois State University, *Grapevine reports*; NCES, *Digest of Education Statistics 2008*, Table 219.
Inflation-Adjusted Published Tuition and Fees, 1981-82 to 2011-12 (1981-82=100)

Source: The College Board, Annual Survey of Colleges; NCES, Integrated Postsecondary Education Data System (PEDS).
Net Tuition Revenues, Subsidies, and Educational Expenditures per FTE Student in Constant 2009 Dollars

Source: The College Board, Annual Survey of Colleges; NCES, Integrated Postsecondary Education Data System (PEDS).
Percentage Growth in Mean Family Income by Quintile in Constant 2010 Dollars

Sources: U.S. Census Bureau, Current Population Survey, Table F-1, Table F-3, and FINC-01; calculations by the authors.
The Facts: Summary

- Majority of full-time college students attend publics (70%).
- Majority spend < $12,000 on T&F per year.
- 15% spend more than $30,000 on T&F per year.
- T&F have increased beyond inflation in each of the last three decades in all sectors.
• Private T&F have increased 2.8 times over the last 30 years in real terms.
• Public T&F have increased 3.5 times over the last 30 years in real terms.
• Despite large increases, students are subsidized in all sectors.
• Family income has not kept pace with increases.
The Economics of Higher Education

Non-profits. Don’t max TR-TC

What do we maximize? **Quality**

QUALITY - Very difficult to measure.

How do you produce quality? What are the inputs?

- Faculty
- Students
  - Customer-input technology. Peer effects
- Facilities
- Programs
- Staff
- Athletics
- Other
How do we increase quality? Need REVENUE!

Unlike for-profits who benefit from decreasing costs, cutting costs might lower Q.

How do universities generate revenue?

- Donative revenues – endowment, annual giving, investments, appropriations (publics). Allows Price < Cost!
- Commercial revenues – tuition (TR = P*Q), R&B.

Elite higher education is a very competitive market and QUALITY is the driver. Increasing QUALITY is dependent on increasing revenue. Donative revenue (endowment) is key!
Why the increase in price of higher education?

• Market price is determined by demand and supply.
• Demand is increasing.
  • Demographic bulge.
  • Increase in value of college degree.
  • Drive for quality combined with increasing information and national market for higher ed has increased relative demand for most selective institutions (Hoxby 2009).
Benefits of Higher Education

Estimated Cumulative Earnings Net of Loan Repayment for Tuition and Fees, by Education Level

Cumulative Net Earnings

| Age | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | 62 | 64 |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|     | $0 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| High School Graduate |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Associate Degree     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Bachelor’s Degree    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
Benefits of Higher Education

Unemployment Rate

Year

Not a High School Graduate
High School Graduate
Some College or Associate Degree
Bachelor’s Degree or Higher
Why the increase in price of higher education?

• Supply/cost increases
  • Increase in cost of highly skilled labor
  • Increase in cost of financial aid
  • Technology
  • Regulation
Concluding Points

• Students/families want quality. As a result, universities compete on quality NOT on price.

• No benefit to lowering sticker price. If your price is lower, you have less revenue and can’t increase quality as much as competitors. Students want quality!

• Students who can pay have inelastic demand. Others are elastic but get financial aid and not sticker price sensitive.

• Because students are also inputs and universities have a public mission, they price below cost and subsidize students to increase Q.

• Price has increased because of both D&S.