The State of Higher Education
1. Undergraduate Student Success
2. Diversity and Inclusivity
3. Research and Scholarship
4. Graduate Education
5. Community Engagement
The Value Question

Source: "Is College a Lousy Investment," Newsweek, September 2012; EAB interviews and analysis.
## The Other Side of the Story

### Popular Accounts Based on Lack of Understanding

<table>
<thead>
<tr>
<th>Public Perception</th>
<th>Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition prices are skyrocketing</td>
<td>Median list price is $11,000, net price significantly lower at publics and actually declining at privates</td>
</tr>
<tr>
<td>Students are crippled by debt</td>
<td>Majority of new graduates owe less than $20,000</td>
</tr>
<tr>
<td>Rising tuition is driving up student debt</td>
<td>Falling family income, lack of savings and non-tuition costs fuelling debt growth</td>
</tr>
<tr>
<td>Rising tuition reduces access for low-income students</td>
<td>Access has never been higher and net tuition for low-income students is low, lost wages are biggest barrier</td>
</tr>
<tr>
<td>College degree is losing value</td>
<td>College premium has never been higher</td>
</tr>
<tr>
<td>Universities are losing students to low-cost providers</td>
<td>Community colleges and for-profits are losing enrollment, “disruptive” innovators focus more on non-consumers</td>
</tr>
</tbody>
</table>
Don’t Believe the Hype
The Press Overstates the Student Debt Crisis

Distribution of Student Debt, Actual vs. Anecdotal Reporting

- Actual Average: $29,400
- News Story Average: $85,400

Shifting Aid from Recruitment to Retention

Leveraging Aid for Academic Engagement

Financial Aid Office

Financial
- Packaging
- Counseling
- Emergency funds

Academics
- Incent positive academic behavior
- Supplement state merit aid programs

Engagement
- Incent part-time campus work
- Show institutional commitment

5-6%
Point increase in fall-spring retention for Pell students from academic behavior incentive

11%
Point increase in 2nd-yr retention from campus work program

Source: EAB interviews and analysis.
### A Focus on ROI

**Are Graduates Getting Their Money’s Worth?**

<table>
<thead>
<tr>
<th>Rank</th>
<th>School Name</th>
<th>2013 Cost</th>
<th>20 Year Net ROI</th>
<th>Annual ROI</th>
<th>Grad Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Harvey Mudd College</td>
<td>$229,500</td>
<td>$980,900</td>
<td>8.8%</td>
<td>88%</td>
</tr>
<tr>
<td>2</td>
<td>California Institute of Technology (Caltech)</td>
<td>$220,400</td>
<td>$837,600</td>
<td>8.3%</td>
<td>92%</td>
</tr>
<tr>
<td>3</td>
<td>Massachusetts Institute of Technology (MIT)</td>
<td>$223,400</td>
<td>$831,100</td>
<td>8.2%</td>
<td>93%</td>
</tr>
<tr>
<td>4</td>
<td>Stanford University</td>
<td>$236,300</td>
<td>$789,500</td>
<td>7.8%</td>
<td>95%</td>
</tr>
<tr>
<td>5</td>
<td>Colorado School of Mines (In-State)</td>
<td>$114,200</td>
<td>$783,400</td>
<td>11.0%</td>
<td>67%</td>
</tr>
</tbody>
</table>
Experiences Make the Difference

What Drives Workplace Engagement, Well-Being, and Collegiate Attachment?

2014 Study of College Graduates

- At least one professor made individual excited about learning
- Believing professors cared about student as a person
- Project took semester or more to complete
- Internship or job that allowed to apply what learned in classroom
- Mentor encouraged to pursue hopes and dreams
- Extremely active in extracurricular activities

- 2x More likely to be engaged at work
- 4x More likely to be emotionally attached to alma mater

- 400+ courses redesigned for active learning
- Goal of 50% living on campus; classes, faculty, and advisor offices in residence halls

Source: “Great Jobs, Great Lives: The 2014 Gallup-Purdue Index Report,” Lumina, Gallup, and Purdue University, 2014; EAB interviews and analysis.
Beyond the Lecture

Can Experiential Learning Answer Value Concerns?

"Our reading [of the Lumina/Gallup data] is that employers are still looking for those characteristics that have long been central to a liberal-arts education: skills of communication and critical thinking, innovation and collaboration, integrity and responsibility…"

Marvin Krislov and Steven S. Volk
College Is Still for Creating Citizens
The Chronicle of Higher Education

The Future of Higher Education

The Preparedness Gap

35% Of surveyed business leaders give the recent graduates they hired a “C” or lower for preparation

80% Of surveyed business leaders say soft skills are the most important in an employee

62% Of business decision makers agree that a degree is a sign of preparedness to enter the workforce

Despite Investments, Key Success Indicators Still Lag

5-Year Graduation Rates

52.5% 52.6%

2008 2015

Investments in Student Success
• Early alert systems
• Attendance tracking
• Financial aid labs
• Emergency fund awards
• Student success centers
• And many more faculty- and staff-driven efforts

Solving One Problem, Creating Another

Gains in First Year Retention, But Upper Division Attrition Increasing

Attrition Across the Student Lifecycle

Public University Graduating Classes, 2000 to 2010

Upper-class attrition

First-year attrition

29.1%
29.0%
1.5%
3.0%
26.0%
30.6%

Graduation Year


Twenty-One State Flagship Universities

Year 1  Year 2  Year 3  Year 4  Year 5  Year 6  Total

8%  6%  3%  2%  2%  1%  14%

Three-fifths of attrition occurring after first year

Source: EAB Student Success Collaborative analysis.
Most Students Leave in Good Standing

Academic Risk Eclipsed by Financial, Social, and Mental Health Challenges

Academic Standing and Timing of Attrition of Non-Transfers

- Left Early in Good Standing: 48%
- Left Early in Poor Standing: 5%
- Left Late in Good Standing: 33%
- Left Late in Poor Standing: 14%

1) Analysis excludes students who transfer.

A Student Saved Is a Dollar Earned

Improved Retention the Greatest Revenue Opportunity for Most Universities

Projected Revenue Gains Due to Improved Retention
Public Doctoral University, Enrollment 15,000

Model Inputs
Total Enrollment: 15,005
Net Rev Per Student: $18,760 (net tuition and fees plus state appropriations)

Revenue gains compound over time as incrementally retained students continue through the system

Assumed Retention Improvement
0-29 credits 2% total over 3 years
30-59 credits 2% total over 3 years
60-89 credits 0% total over 3 years
90-119 credits 0% total over 3 years
120+ credits 0% total over 3 years

87 additional graduates in 2019 as result of retention improvement

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
<th>Revenue Gains</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$1.9 M</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>$5.0 M</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>$8.2 M</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>$8.9 M</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>$9.0 M</td>
<td>87 additional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>graduates in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019 as result</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of retention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>improvement</td>
</tr>
</tbody>
</table>

Source: EAB Student Success Collaborative.
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The End of the Enrollment Boom
Demographic Pressures Vary By Region

Annual Growth Rate of High School Graduates

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>0.8%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Southwest</td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>2.3%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

# Shifting Student Mix

Demographics Will Require Greater Investment in Student Success

## Projected Net Growth in High School Graduates by Race, 2011-12 to 2021-22

<table>
<thead>
<tr>
<th>Race</th>
<th>2011-12</th>
<th>2021-22</th>
<th>Net Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>154K</td>
<td>217K</td>
<td>+63K</td>
</tr>
<tr>
<td>Black</td>
<td>60K</td>
<td>113K</td>
<td>+53K</td>
</tr>
<tr>
<td>Asian</td>
<td>94K</td>
<td>94K</td>
<td>0K</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-139K</td>
<td>-139K</td>
<td>-139K</td>
</tr>
</tbody>
</table>

## Distinct Challenges Facing Hispanic Students Remain, Despite Recent Gains

<table>
<thead>
<tr>
<th>Challenge</th>
<th>White</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>37%</td>
<td>65%</td>
</tr>
<tr>
<td>Median Family Income</td>
<td>$55K</td>
<td>$39K</td>
</tr>
<tr>
<td>Complete Degree Within 6 Years</td>
<td>62%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Concentration of Growth in Low-Income Segment

An Opportunity and a Challenge to Improve Access

Lower Income Families Grew At Faster Pace than Middle & Higher Income Families

Percent Growth, 2000-2013

2012 College-Going Rates By Income:

51% Low
65% Middle
81% High

“Student Affluence Test”

-262 pts
difference in average SAT 1600 score between students from lowest and highest income families, 2014

International Students

Doctoral Share Declines as More Students Pay for Bachelor’s and ESL

>90% of Net Growth in Int’l Enrollments Due to China
*International Undergraduate Enrollment by Nationality, 2005-2011*

Growth Driven by Fee-Paying Undergraduates
*Increase in International Enrollment and Growth Rate by Level, 2006-2011*

- **China**: 74,516 (99%)
- **South Korea**: 38,232 (43%)
- **Saudi Arabia**: 14,344 (21%)
- **India**: 13,059 (8%)
- **Canada**: 12,886 (-5%)

Source: National Center for Education Statistics, IPEDS Data Center; Institute of International Education, Open Doors 2012; Education Advisory Board interviews and analysis.
Room for Growth

Significant Variation in International Enrollment in Every Carnegie Class

Percentage of Program Completions by International Students, Distribution by Sector, 2011

1) Figures exclude three special focus institutions that primarily enroll international students: Lincoln University (CA), University of the West, and Maharishi University of Management.

Source: National Center for Education Statistics, IPEDS Data Center; Education Advisory Board interviews and analysis.
Faculty Still Majority White Male
Slow Progress Especially at Highest Ranks

Full-time Faculty in Degree-Granting Postsecondary Institutions (2013)

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of U.S. Workforce</td>
<td>47%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>Full Professors</td>
<td>30.7%</td>
<td>3.7%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>43.6%</td>
<td>5.7%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Assistant Professors</td>
<td>50.4%</td>
<td>6.3%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Instructors</td>
<td>56.8%</td>
<td>7.5%</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

Source: IPEDS, U.S. Department of Labor
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The Federal Growth Engine Stalls

University Science & Engineering R&D Funding By Source, 1990-2012

The graph shows the trends in federal, university, and other state & local, industry science & engineering R&D funding from 1990 to 2012. The federal funding shows a rising trend, while the university and other state & local, industry funding show a more stable or slightly declining trend.

Source: AAAS
Addressing Grand Challenges
Science Funding Increasingly Focused on Solving Social and Technical Issues

Grand Challenges Can:
- Help create the industries and jobs of the future
- Expand the frontiers of human knowledge about ourselves and the world around us
- Help tackle important problems related to energy, health, education, the environment, national security, and global development
- Serve as a “North Star” for collaboration between the public and private sectors

Brain Science
Climate Science
Global Health
Renewable Energy
Genomics/Proteomics
Artificial Intelligence

Source: http://www.whitehouse.gov/administration/eop/ostp/grand-challenges
The Benefits of Research and Scholarship

Why Pursue Scholarly Excellence

**Improving the world**
- Solve global challenges
- Collaborate on a global scale
- Send and receive students and faculty from around the world

**Improving the region**
- Develop the workforce
- Partner with companies
- Provide cultural experiences

**Improving the institution**
- Attract the best faculty
- Attract the best students
- Attract philanthropic support

**Improving students**
- Learn from the world’s experts
- Participate in research
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2. Diversity and Inclusivity
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The Value of Graduate Education

Supporting Teaching, Research, and Service

**Research**
- Support faculty research
- Attract/retain top faculty
- Build national research workforce

**Teaching**
- Teach/assist with courses
- Supervise laboratories
- Mentor undergraduates

**Service**
- Support outreach activities
- Transfer research into companies
- Perform clinical activities
Challenges Facing Graduate Education
Pressure on Cost and Outcomes

Rising Costs
- Tight Federal Funding
- State Funding Focused on Undergraduates
- Competing on Support Packages

Poor Outcomes
- Completion Still Problematic
- Employment Prospects Worsening
- Endless Apprenticeships
- Lack of Career Preparation and Advising

Source: EAB interviews and analysis.
Raising the Stakes
The Increasing Costs of a Competitive PhD Student Package

- Guaranteed Multi-Year Funding
  - Emory (2008)
  - U Chicago (2008)
  - Northwestern (2008)
  - Brown (2006)
  - Syracuse
  - Wash U
  - Yale

- Enhanced Stipend Levels
  - Brandeis (2009)
  - U Chicago (2008)
  - Emory (2003)
  - Brown (2001)

- Guaranteed Summer Support
  - Columbia
  - Northwestern
  - Brown
  - Yale

- Subsidized Health Benefits
  - Northwestern (2008)
  - Case Western (2006)
  - Emory (2003)
  - Brown
  - Wash U
Quality over Quantity

Trends Point Toward Targeted Investments in High-Quality Programs

Size and Breadth of Programs

Targeted Investments in Programs with Strong Outcomes and Alignment with Mission

Importance

Outcomes and Alignment with Mission

Time

Source: EAB interviews and analysis.
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Answering the Value Question

Universities and the Public Good

Impact of Community Engagement

- Addressing Global Challenges in Local Context
- Community-Based Research
- Arts and Cultural Events
- Civic Participation
- Social Entrepreneurship
- Partnership Building
- Health and Wellness

Global

Regional

Local

Individual

- Knowledge Transfer
- Economic Development
- Workforce Development
- Service Learning
- Experiential Learning
- Skills Development
- Lifelong Learning
- Leadership Development

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