Changing Nature of Work and Careers

Terrel L Rhodes
Vice President
Association of American Colleges and Universities
February 4, 2019
What is Happening Nationally?
The Hybrid Economy: How New Skills are Rewriting the DNA of the Job Market

Burning Tree Technologies
January 2019
Hybrid Skills Can Reduce the Risk of Automation

• …this is how jobs and careers have always evolved. Automation changes every job over time, and if we don’t continuously move up the “human value curve” we can fall behind.
• In fact, the theme of “lifelong learning” is perhaps the biggest finding of the study.
• Hybrid jobs: Fast-Growing, High-Paying, Hard to Fill.
• More human, less automated – also less entry-level…
• Writing, Problem Solving, Research, Creativity, Teamwork/Collaboration
Branches from the Same Tree

Integration of the Humanities and Arts with Sciences, Engineering, and Medicine in Higher Education

National Academies
June 2018
AAC&U Survey of Member Institutions’ CAOs

*Recent Trends in General Education Design, Learning Outcomes, and Teaching Approaches*
(Released January 2016)

http://www.aacu.org/about/2015-membersurvey
Of institutions have a common set of intended learning outcomes for all students.
And yet...
Report that almost all of their students understand those intended learning outcomes.
Accountability
**WASC/SACS/NECHE/
HLC… is coming!!**

Teaching,
Learning, &
Assessment
Fulfilling the American Dream: Liberal Education and the Future of Work

Key findings from surveys of business executives and hiring managers conducted May-June 2018

Conducted on behalf of

Association of American Colleges and Universities

with support from

Newman's Own Foundation
Executives and hiring managers alike agree on the value of college.

Importance of Completing a College Education

<table>
<thead>
<tr>
<th>Category</th>
<th>Absolutely essential</th>
<th>Very important</th>
<th>Not important</th>
<th>Somewhat important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business executives</td>
<td>33%</td>
<td>49%</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>Hiring managers</td>
<td>26%</td>
<td>22%</td>
<td>6%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Evaluation of Whether a College Degree Is Worth the Time and Money Involved

<table>
<thead>
<tr>
<th>Category</th>
<th>Definitely worth it</th>
<th>Probably worth it</th>
<th>Not worth it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business executives</td>
<td>88%</td>
<td>45%</td>
<td>12%</td>
</tr>
<tr>
<td>Hiring managers</td>
<td>85%</td>
<td>44%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Confidence in Colleges/Universities, *by Key Subgroups*

<table>
<thead>
<tr>
<th>Have a great deal/quite a lot of confidence in colleges/universities</th>
<th>Business executives</th>
<th>Hiring managers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BY COMPANY SIZE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 99 employees</td>
<td>64%</td>
<td>60%</td>
</tr>
<tr>
<td>100 to 499 employees</td>
<td>62%</td>
<td>61%</td>
</tr>
<tr>
<td>500+ employees</td>
<td>64%</td>
<td>68%</td>
</tr>
<tr>
<td><strong>BY OPERATING REGION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>65%</td>
<td>63%</td>
</tr>
<tr>
<td>Regional</td>
<td>68%</td>
<td>58%</td>
</tr>
<tr>
<td>National</td>
<td>58%</td>
<td>65%</td>
</tr>
<tr>
<td>Multinational</td>
<td>63%</td>
<td>68%</td>
</tr>
<tr>
<td><strong>BY REGION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td>South</td>
<td>67%</td>
<td>63%</td>
</tr>
<tr>
<td>Midwest</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td>West</td>
<td>53%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Circled numbers are significantly different from all executives or all hiring managers.
Majorities of executives and hiring managers say it is difficult to fill open positions today.

How easy or difficult is it to fill open positions at your company or organization today?

- Very easy
- Somewhat easy
- Somewhat difficult
- Very difficult

**Business executives**
- 56% Difficult
- 44% Easy
- 6% Very easy
- 9% Somewhat easy
- 50% Somewhat difficult
- 35% Very difficult

**Hiring managers**
- 54% Difficult
- 46% Easy
- 5% Very easy
- 8% Somewhat easy
- 49% Somewhat difficult
- 38% Very difficult
Employers’ Priorities for College Learning and Sense of Recent Graduates’ Preparedness
The learning priorities that executives and hiring managers value most highly cut across majors.

*Very Important* Skills for Recent College Graduates We Are Hiring

<table>
<thead>
<tr>
<th>Skill</th>
<th>Business executives</th>
<th>Hiring managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to effectively communicate orally</td>
<td>85% in 2014</td>
<td>80%</td>
</tr>
<tr>
<td>Critical thinking/analytical reasoning</td>
<td>81% in 2014</td>
<td>78%</td>
</tr>
<tr>
<td>Ethical judgment and decision-making</td>
<td>81% in 2014</td>
<td>77%</td>
</tr>
<tr>
<td>Able to work effectively in teams</td>
<td>83% in 2014</td>
<td>77%</td>
</tr>
<tr>
<td>Able to work independently (prioritize, manage time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-motivated, initiative, proactive: ideas/solutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to communicate effectively in writing</td>
<td>82% in 2014</td>
<td>76%</td>
</tr>
<tr>
<td>Can apply knowledge/skills to real-world settings</td>
<td>80% in 2014</td>
<td>76%</td>
</tr>
</tbody>
</table>

* 8-10 ratings on a 0-to-10 scale; 15 outcomes tested
Executives and hiring managers rank several other learning outcomes as only slightly less important.

**Very Important* Skills for Recent College Graduates We Are Hiring**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Business Executives</th>
<th>Hiring Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can find, organize, evaluate info from many sources</td>
<td>68% in 2014</td>
<td>73%</td>
</tr>
<tr>
<td>Able to analyze and solve complex problems</td>
<td>70% in 2014</td>
<td>67%</td>
</tr>
<tr>
<td>Analyze/solve problems w/people from diff. backgrounds/cultures</td>
<td>56% in 2014</td>
<td>65%</td>
</tr>
<tr>
<td>Able to innovate and be creative</td>
<td>65% in 2014</td>
<td>61%</td>
</tr>
<tr>
<td>Stay current on changing tech/applications to workplace</td>
<td>60% in 2014</td>
<td>60%</td>
</tr>
<tr>
<td>Able to work with numbers and statistics</td>
<td>56% in 2014</td>
<td>54%</td>
</tr>
<tr>
<td>Proficiency in language other than English</td>
<td>23% in 2014</td>
<td>25%</td>
</tr>
</tbody>
</table>

* 8-10 ratings on a 0-to-10 scale; 15 outcomes tested
Employers view their recent hires out of college as mostly prepared to succeed in entry-level positions but not necessarily to advance beyond that.

**Proportions of Recent College Grad Applicants Who Have Full Set of Skills/Knowledge**

<table>
<thead>
<tr>
<th>Category</th>
<th>All have skills/knowledge</th>
<th>Most have</th>
<th>About half have</th>
<th>Only some have</th>
<th>Very few have</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succeed in entry-level positions at the company</td>
<td>9%</td>
<td>46%</td>
<td>28%</td>
<td>12%</td>
<td>3%</td>
</tr>
<tr>
<td>Business executives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiring managers</td>
<td>10%</td>
<td>50%</td>
<td>29%</td>
<td>10%</td>
<td>1%</td>
</tr>
</tbody>
</table>

= 57% all/most have

= 60% all/most have

Advance/be promoted within the company

<table>
<thead>
<tr>
<th>Category</th>
<th>All have skills/knowledge</th>
<th>Most have</th>
<th>About half have</th>
<th>Only some have</th>
<th>Very few have</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business executives</td>
<td>6%</td>
<td>28%</td>
<td>33%</td>
<td>25%</td>
<td>8%</td>
</tr>
<tr>
<td>Hiring managers</td>
<td>3%</td>
<td>22%</td>
<td>36%</td>
<td>32%</td>
<td>7%</td>
</tr>
</tbody>
</table>

= 34% all/most have

= 25% all/most have
GEMs  Signature Work
Equity and Inclusive Excellence
How do we help students “see” Learning?
High-Impact Practices

★ First-Year Seminars and Experiences
★ Common Intellectual Experiences
★ Learning Communities
★ Writing-Intensive Courses
★ Collaborative Assignments and Projects
★ Undergraduate Research
★ Diversity/Global Learning
★ Service Learning, Community-Based Learning
★ Internships
★ Capstone Courses and Projects
★ ePortfolios
What is the cumulative impact of participation in HIPs experiences on learning outcomes?

![Bar chart showing the cumulative impact of participation in HIPs on learning outcomes.](chart.png)
**Assignment and High-Impact Practice**

**Scaffolding Using the Problem-Solving VALUE Rubric**

*Define Problem*
- Ability to construct clear & insightful problem statement

*Identify Strategies*
- Identify multiple approaches for solving problem that apply in specific context

*Propose Solutions/Hypotheses*
- Propose one or more solutions/hypotheses that show deep comprehension; sensitive to contextual factors

*Evaluate Potential Solutions*
- Evaluation of solutions is deep and elegant, including history, review of logic and reasoning, feasibility, and weighing of impacts

*Implement Solutions*
- Implements solution in manner that addresses thoroughly and deeply multiple contextual factors of the problem

*Evaluate Outcomes*
- Reviews results relative to the problem defined with thorough specific considerations
TWO ISSUES WITH HIPs: ACCESS AND QUALITY

% of All Students in High Impact Practices
High Impact Practices & The Quality Control Issue

“…there is growing evidence that – when done well – some programs and activities appear to engage participants at levels that elevate their performance across multiple engagement and desired outcomes measures…”

– George Kuh

Significant amount of time on task
Significant engagement with peers, faculty, educational professionals
Frequent feedback
Engagement with difference
Engage higher order thinking skills (analysis, synthesis, evaluation, application)

Source: Alex McCormick, NSSE Director, Center for Postsecondary Research, Indiana University
Do we track?
Do we disaggregate?
Take a Guess: What % of Institutions Report Tracking Achievement of Learning Outcomes?

70%
Is 70% good or bad???
We track (mostly), but few disaggregate

<table>
<thead>
<tr>
<th>Achievement of Learning Outcomes</th>
<th>Track</th>
<th>Disaggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Intention vs. Reality Revealed
31% By Race/Ethnicity

24% By Socioeconomic Status

14% By Parents' Level of Educational Attainment

16%
9%
6%

Have Set Equity Goals

Have Disaggregated Data

Have Set Equity Goals

Have Disaggregated Data
Assessment Practices That Verify Achievement
Reframe the Learning and Teaching Narrative
Across All These Areas and Levels

Students’ Actual Work Becomes the Focus of Educational Attention
The VALUE Rubrics
(Valid Assessment of Learning in Undergraduate Education)

Frequently asked questions about development, interpretation and use of rubrics on campuses
Register: February 22, 2019

http://valueinstituteassessment.org
Why are Rubrics Increasingly Being Used for Institutional-Level Assessment of Student Learning?

• Assessment of students’ demonstrated performance & capacity for improvement
• Faculty-owned & institutionally shared
• Used for students’ self-assessment of learning
• Increase transparency of what matters to institutions for student learning
VALUE Project map: The **Multi-State, Minnesota, and Great Lakes Colleges Association Collaboratives**
VALUE Initiative to Date:

140 institutions submitted 49,000 student work products for assessment by 400 faculty using VALUE rubrics.
WE HAVE A RUBRIC FOR THAT
The VALUE Approach to Assessment

Kathryne Drezek McConnell, Erin M. Horan, Bethany Zimmerman, and Terrel L. Rhodes
We are Being Asked to Shift...

from My Work
to OUR Work
Changing Nature of the Degree or Credential

FROM

• Credits tied to seat time
• Major and GE
• Grades
• Knowledge Transmission
• Limited Access to Engaged Learning

TO

• Competency or proficiency
• Entire educational pathway
• Demonstrated through actual work over time
• Meaning-making, sense-making
• High Impact Practices for all, everywhere
Changes
Moving Forward
Lessons Learned from VALUE/MSC

- Context or landscape is important
- Local data are critical
- Data need deconstruction/disaggregation at local level
- Interdisciplinary/integrative experience is required to attain high quality levels associated with graduation
- What faculty/educators do is foundational to achieve quality student learning
It Takes More Than A Major:

Employer Priorities for College Learning and Student Success

Key findings from survey among 318 employers
Conducted January 9 – 13, 2013
Key Findings

◆ **Innovation is a priority** for employers, and they report that the challenges their employees face today are more complex and require a broader skill set than in the past.

◆ Employers recognize **capacities that cut across majors** as critical to a candidate’s potential for career success, and they view these skills as **more important than a student’s choice of undergraduate major**.

◆ Employers recognize the **importance of a liberal education** and the liberal arts. The majority agree that having both field-specific knowledge and skills and a broad range of skills and knowledge is most important for long-term career success.

◆ Employers endorse education practices that involve students in active, effortful work and the **application of skills**.

◆ Employers express **interest in e-portfolios** and **partnerships** with colleges to ensure college graduates’ successful transition to the workplace.
Fulfilling the American Dream: Liberal Education and the Future of Work

Key findings from surveys of business executives and hiring managers conducted May-June 2018

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