

How Should Colleges Prepare Students To Succeed In Today's Global Economy?

Based On Surveys Among
Employers And Recent College Graduates

Conducted On Behalf Of:
The Association Of American Colleges And Universities

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This research was conducted as part of AAC&U's initiative, Liberal Education and America's Promise. The findings were released on January 10, 2007 along with the LEAP National Report, *College Learning for the New Global Century*. See www.aacu.org/advocacy/leap for information about LEAP and copies of these and other LEAP reports.

From November 2 to December 5, 2006, Peter D. Hart Research Associates, Inc., interviewed 305 employers whose companies have at least 25 employees and report that 25% or more of their new hires hold at least a bachelor's degree from a four-year college. Respondents are executives at their companies, including owners, CEOs, presidents, C-suite level executives, and vice presidents. The margin of error for this survey is ± 5.7 percentage points.

From November 13 to 19, 2006, Hart Research also interviewed 510 recent graduates of a four-year college. All respondents graduated from college between 1997 and 2001. The margin of error for this survey is ± 4.4 percentage points.

In January 2006, Peter D. Hart Research Associates, Inc., conducted three focus groups among business executives—one each in Milwaukee, Wisconsin; Fairfax, Virginia; and Atlanta, Georgia. Participants included managers, vice presidents, CFOs, CIOs, and CEOs of private companies that employ a large percentage of college graduates.

Overview

The recommendations from the National Leadership Council for Liberal Education and America's Promise (LEAP) strongly align with the views of both employers and recent college graduates on the essential goals and guiding principles for higher education in today's dynamic global economy. These groups strongly support increased emphasis on key learning outcomes that are provided by a liberal education, and both audiences recognize the importance of this approach to learning in today's rapidly changing economy. They particularly emphasize the importance of providing students with important knowledge and skills but also experience putting those knowledge and skills to practical use in "real-world" settings.

Employers and recent college graduates reject a higher education approach that focuses narrowly on providing knowledge and skills in a specific field; majorities instead believe that an undergraduate college education should provide a balance of a well-rounded education and knowledge and skills in a specific field.

When it comes to skills and knowledge that individuals need to be successful and contributing members of today's global economy, employers overwhelmingly endorse the key elements of liberal education (e.g., specific

learning outcomes). Indeed, employers' priorities for a college education parallel the four categories of essential learning outcomes outlined by LEAP's National Leadership Council. Majorities of employers think that colleges and universities should place more emphasis in the areas outlined below. (Recent graduates rank many of the same learning outcomes as top priorities, but their support for increased emphasis in many areas is less intense than employers' support.)

Integrative learning

- The ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences (73% more emphasis)

Knowledge of human cultures and the physical and natural world

- Concepts and new developments in science and technology (82%)
- Global issues and developments and their implications for the future (72%)*
- The role of the United States in the world (60%)
- Cultural values and traditions in America and other countries (53%)*

Intellectual and practical skills

- Teamwork skills and the ability to collaborate with others in diverse group settings (76%)*
- The ability to effectively communicate orally and in writing (73%)
- Critical thinking and analytical reasoning skills (73%)
- The ability to locate, organize, and evaluate information from multiple sources (70%)
- The ability to be innovative and think creatively (70%)
- The ability to solve complex problems (64%)
- The ability to work with numbers and understand statistics (60%)

Personal and Social Responsibility

- Teamwork skills and the ability to collaborate with others in diverse group settings (76%)*
- Global issues and developments and their implications for the future (72%)*
- A sense of integrity and ethics (56%)
- Cultural values and traditions in America and other countries (53%)*

A key area of concern for both employers and recent college graduates is the degree to which college students are given the opportunity to put learning outcomes into practice. They believe that higher education should give students more experience with real-world applications of their knowledge and skills through hands-on learning.

Upon hearing a description of liberal education, large majorities of employers and recent graduates endorse it as important for colleges and universities to provide this type of education.

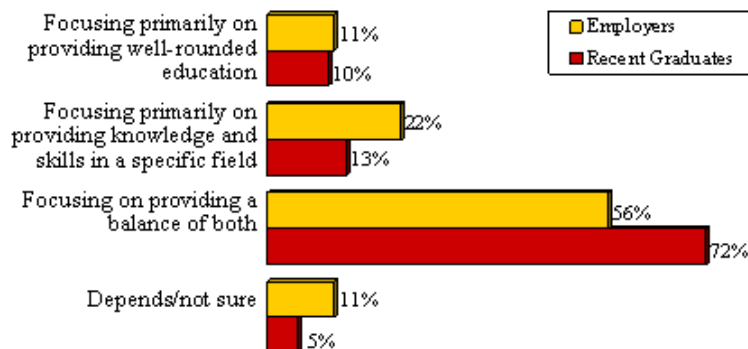
* Three items are shown in two learning outcome categories because they apply to both.

Key Findings

1 Majorities of employers and recent college graduates believe that an undergraduate college education should provide a balance of a well-rounded education and knowledge and skills in a specific field. Both audiences reject a higher education approach that focuses narrowly on providing knowledge and skills in a specific field. Fifty-six percent (56%) of business executives think that our nation's colleges and universities should focus on providing all students a balance of *both* a well-rounded education with broad knowledge and skills that apply to a variety of fields and knowledge and skills in a specific field; 11% favor a focus primarily on providing a well-rounded education. Just 22% of employers endorse a narrow focus on providing skills and knowledge in a specific field. Just 22% of employers endorse a narrow focus on providing skills and knowledge in a specific field.

Balance of Broad Knowledge And Specific Skills Preferred

Which of the following should be the main objective for our nation's colleges and universities?



In focus group discussions, business executives articulate why they believe that this combined approach to undergraduate education is a necessity today and why they are particularly interested in finding employees with well-rounded knowledge and skills.

"I would like to have both because, while you do want somebody to have specific job knowledge, you also want them to be a well-rounded employee. It's too hard to be one dimensional, especially these days. You have to know how to maneuver, so I think both."

– Female, Atlanta Business Executive

"Sort of 360-degree type people. That's exactly what we're looking for as well. Sometimes we get very technical people who are able to manage budgets and do the technical work, but their social skills just aren't very good, and they end up offending people and so on. It's difficult to have the whole scope of talents needed."

– Female, Fairfax Business Executive

"Everybody 10 years out of college is doing something completely different probably than they went to college for and majored in. I even look back to myself. I got a degree in electrical engineering. Right off the bat I started in software and I moved into sales and then into management; the well-rounded portion of what I got in college is what really served me a lot better than anything I learned in my electrical engineering degree."

– Male, Milwaukee Business Executive

Recent college graduates endorse a balanced approach to a college education even more strongly: 72% favor providing all students a balance. Another 10% of recent graduates believe that colleges should focus primarily on providing a well-rounded education. Only 13% of recent graduates believe that a more narrow focus on knowledge and skills in a specific field should be the primary focus.

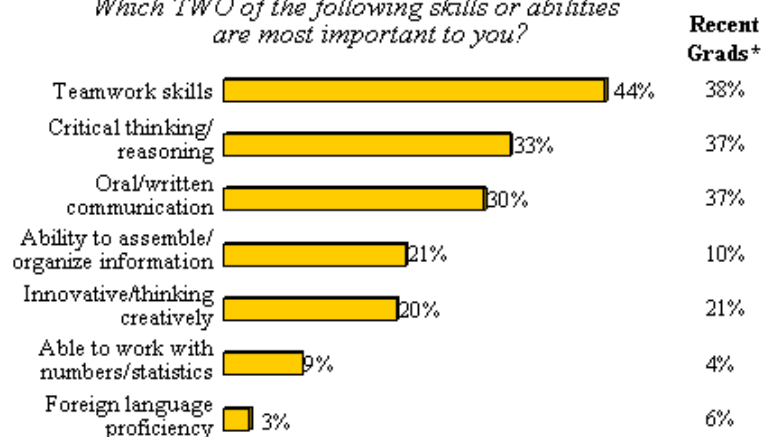
The relevance and importance of avoiding a narrow focus on a specific field is underlined by the fact that only half (51%) of employed recent college graduates expect to always be working in the same field as they do currently. Thirty-five percent (35%) of them expect they will change to another field at some point, and 14% are simply not sure. Regardless of whether they expect to continue working in their current field (75% of whom endorse a balanced approach) or not (73% favor a balanced approach), large majorities of recent graduates think that colleges and universities should focus on giving students a well-rounded education balanced with knowledge and skills in a specific field.

Even recent graduates who are working in fields closely related to their major recognize the importance of receiving a balanced education. Six in 10 (61%) employed recent college graduates say that their current job is very or fairly closely related to their college major, while 20% say it is somewhat related and 19% say it is not related. Not surprisingly, those whose jobs are not closely related to their major strongly endorse an undergraduate approach that balances a well-rounded education with knowledge and skills in a specific field (83%), but more than two-thirds (69%) of recent graduates whose jobs are closely related to their major also support this balanced approach.

2 When evaluating the skills of potential new hires, business executives place the greatest emphasis on 1) teamwork skills, 2) critical thinking and analytical reasoning skills, and 3) communication skills. Recent graduates recognize the weight that employers put on these skills relative to others. Of the seven skills tested, teamwork skills and the ability to collaborate with others in a diverse group (44% one or two most important skills) is the ability that employers value most when seeking to hire new employees. Critical thinking and analytical reasoning skills (33%) and the ability to effectively communicate orally and in writing (30%) also are deemed important, rounding out the top-tier skills. The ability to assemble and organize information from multiple sources (21%) and the ability to innovate and think creatively (20%) form the second tier of most valued skills, with one in five employers selecting each as among the two most critical. While the survey does not indicate that the ability to work with numbers and understand statistics and proficiency in a foreign language are unimportant to employers, business executives rank them as lower priorities when it comes to what they are looking for in new employees.

Most Important Skills Employers Look For In New Hires

*Which TWO of the following skills or abilities
are most important to you?*



* Skills/abilities recent graduates think are the two most important to employers

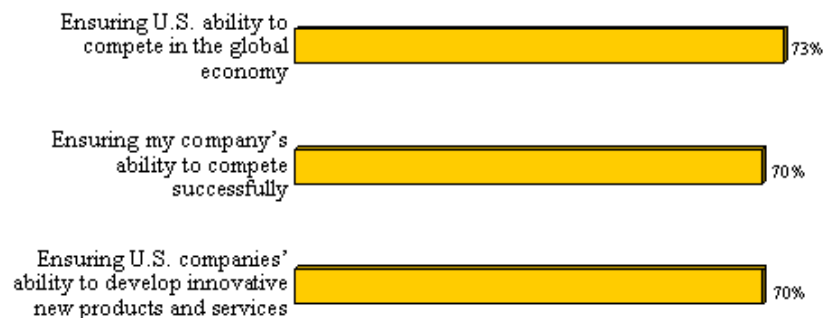
Recent college graduates, 80% of whom are currently employed, understand where employers' priorities and preferences lie regarding new hires' skills and abilities. They rank the same skill set of teamwork skills, critical thinking skills, and communication skills in the top tier.

3 Employers recognize that colleges and universities play a major role in the nation's economic success and ability to drive innovation, and they see room for improvement in the level of preparation of today's four-year college graduates. Seventy-three percent (73%) of employers think that the nation's colleges and universities play a very important role in ensuring the United States' ability to compete in the global economy, and another 22% feel they play a fairly important role. Additionally, employers not only believe that innovation of new products and services is a very important factor (76%) in the growth and strength of the United States economy, but fully 70% think that colleges and universities play a very important role in ensuring U.S. companies' ability to develop innovative new products. An additional 22% think they play a fairly important role.

Employers believe that the critical role of the nation's colleges and universities extends to their impact on their own businesses: 70% feel that colleges and universities play a very important role in ensuring their own company's ability to compete successfully and 24% think they play a fairly important role in this area.

Employers On Importance Of College Education To Business And The Country

% Who Say Colleges Play A Very Important Role



* 76% believe innovation is a very important factor in the growth and strength of the U.S. economy.

Employers believe, however, that colleges and universities should be doing more to prepare today's four-year college graduates to succeed in meeting the objectives laid out above. **Fully 63% of business executives interviewed agree that too many recent college graduates do not have the skills to be successful in today's global economy.** Indeed, nearly nine in 10 (87%) employers agree that America's colleges and universities need to raise the quality of student achievement to ensure the United States remains competitive in the global economy.

Just over half of employers feel that recent four-year college graduates are very well prepared in the following areas:

- Succeeding in entry-level jobs at their company (55% extremely or very well prepared);
- advancing within their company (49% extremely or very well prepared); and
- contributing to the innovation of their company's products and services (48% extremely or very well prepared).

Interestingly, recent college graduates express similar feelings about the degree to which their college education prepared them in these areas:

- 49% think that college prepared them extremely or very well to get the types of entry-level jobs they wanted;
- 46% say that college prepared them extremely or very well for long-term career success and advancement beyond an entry-level job;
- 44% think that college prepared them extremely or very well with the breadth of skills and knowledge that would help them change careers or fields of work; and
- 39% feel that college prepared them extremely or very well for success in today's rapidly changing global economy.

4 **There are many learning outcomes upon which employers think that colleges and universities should place more emphasis—skills and knowledge areas that are all cultivated through a liberal education.** In the focus groups, business executives stress the important role that staffing plays in ensuring their company's ability to remain competitive in today's global economy. While these employers are somewhat concerned about recent college graduates' not having necessary specific job or technical skills, they express the greatest frustration with the challenges of finding "360 degree people" who have both the specific job/technical skills *and* the broader skills (communication skills, teamwork skills, problem-solving skills, and work ethic) necessary to promise greater success for both the individual and their employer.

"...I look for people that take accountability, responsibility, and are good team people over anything else. I can teach the technical."

– Male, Milwaukee Business Executive

"When I hire someone, I'm investing that in them. I want them to be able to study, to analyze, to present, to write."

– Male, Fairfax Business Executive

The survey findings show employers believing that colleges and universities should do more to achieve learning outcomes in several areas to ensure that individuals will be successful and contributing members of today's global economy. Indeed, majorities of business executives say that colleges and universities should place more emphasis than they do currently on 13 of the 16 learning outcomes tested. There is no area in which they think colleges should place less emphasis.

Employers believe that the areas most in need of increased emphasis by higher education institutions are 1) science and technology, 2) teamwork skills in diverse groups, 3) applied knowledge in real-world settings, 4) critical thinking and analytical reasoning skills, 5) communication skills, and 6) global issues.

**Proportion Of Employers Who Say Colleges And Universities Should Place
More Emphasis Than They Do Today On Selected Learning Outcomes**

	<u>%</u>
Concepts and new developments in science and technology	82
Teamwork skills and the ability to collaborate with others in diverse group settings	76
The ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences	73
The ability to effectively communicate orally and in writing	73
Critical thinking and analytical reasoning skills	73
Global issues and developments and their implications for the future	72
The ability to locate, organize, and evaluate information from multiple sources	70
The ability to be innovative and think creatively	70
The ability to solve complex problems	64
The ability to work with numbers and understand statistics	60
The role of the United States in the world	60
A sense of integrity and ethics	56
Cultural values and traditions in America and other countries	53
Civic knowledge, civic participation, and community engagement	48
Proficiency in a foreign language	46
Democracy and government	42

Recent graduates rank many of the same learning outcomes as top priorities for increased attention by colleges and universities. The top six areas in which they believe that today's colleges and universities should place more emphasis than their college did include 1) applied knowledge in real-world settings, 2) science and technology, 3) global issues, 4) critical thinking and analytical reasoning skills, 5) communication skills, and 6) creativity and innovation.

Proportion Of Recent College Graduates Who Say Colleges And Universities Should Place More Emphasis Than Their College Did On Selected Learning Outcomes

	<u>%</u>
The ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences	67
Concepts and new developments in science and technology	59
Global issues and developments and their implications for the future	56
Critical thinking and analytical reasoning skills	55
The ability to effectively communicate orally and in writing	55
The ability be innovative and think creatively	54
A sense of integrity and ethics	52
Proficiency in a foreign language	51
The ability to solve complex problems	49
The ability to locate, organize, and evaluate information from multiple sources	48
Teamwork skills and the ability to collaborate with others in diverse group settings	47
Cultural values and traditions in America and other countries	46
Civic knowledge, civic participation, and community engagement	46
Democracy and government	39
The role of the United States in the world	38
The ability to work with numbers and understand statistics	34

Despite these similarities in the top-tier priorities for recent graduates and employers, the surveys reveal differences in the intensity with which these two audiences recognize certain outcomes as requiring more attention, with recent graduates registering lower levels of concern in most areas. Notably, there is no area in which recent graduates think colleges should place less emphasis. They are simply more likely than business executives to feel that the weight their college gave to these learning outcomes was adequate.

The differential between the proportion of employers and recent graduates who say more emphasis is needed is greatest on teamwork skills (29 points), the ability to work with numbers and understand statistics (26 points), concepts and developments in science and technology (23 points), the ability to locate, organize, and evaluate information from multiple sources (22 points), and the United States' role in the world (22 points).

One possible explanation for the reduced intensity among recent graduates may be that the question asked them to evaluate the emphasis that *their own* colleges and universities placed in these areas, whereas employers were asked to evaluate colleges and universities in general terms. Individuals

likely feel greater loyalty to their alma maters and are therefore less likely to see the need for them to make changes or improvements in these areas.

5 Both employers and recent graduates stress the need for colleges to increase their emphasis on integration and application of skills and knowledge in real-world settings and situations. As revealed in section four above, the area in which large majorities of both employers and recent graduate think that more emphasis is needed is helping students develop the “ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences.”

Several business executives in the focus groups are critical of colleges and universities giving students an education that is too theoretical and disconnected from the real world. Or as one executive says, they equate colleges and universities with “delayed reality.”

“Theoretically...I think, you know, they don’t come out with a lot of common sense or what you would need them to do to be productive in your business.”

– Male, Milwaukee Business Executive

“Disconnected...I’ve seen kids come out of school, and my perception is, you know, they’re able to read *The Economist* or they’re able to go on-line and see something or they’re able to...program or build something in a lab, but it doesn’t really have an application to the real world.”

– Male, Fairfax Business Executive

These business leaders insist that colleges must give students more experience with real-world applications of their knowledge and exposure to the business world. Internships are strongly recommended as important to achieving this outcome.

“I don’t think colleges and universities within the United States really teach these individuals the real world, what it’s like being out there in the real world, what the real job requirements are. I mean, the colleges and universities are giving them more of a broad knowledge base, but it’s not being very particular about what to expect when you actually get out to that first job. And I think the internships do an amazing job in terms of education, educating people versus your day-to-day everyday sitting in a class learning from a book perspective.”

– Male, Fairfax Business Executive

“I do believe that colleges are preparing for the skill sets that the students do need, whether it be engineering, marketing. I mean, they learn the book knowledge. It’s all theory. It’s not actual practice. And I do believe we need more practice.”

– Female, Atlanta Business Executive

In the survey, recent graduates echo this sentiment by relating the important role that internships and leadership experiences played in preparing them for the work force. Six in 10 recent graduates say they engaged in an internship while in college, and 88% of those who were interns feel that the experience was very (56%) or fairly (32%) important in preparing them with the knowledge and skills to achieve their professional and career goals. Additionally, half (51%) of them were leaders of an on-campus student organization, and 79% of this group feels that this experience was very (42%) or fairly (37%) important in preparing them with the knowledge and skills to achieve their professional and career goals.

6 Employers and recent college graduates strongly endorse the concept of a liberal education. Both audiences were presented with a description of liberal education (see graph below) and asked how important they feel it is for the nation's colleges and universities to provide this type of education. They overwhelmingly recognize it as important.

Educational Approach Assessment

How important is it for today's colleges and universities to provide the type of education described below?

This particular approach to a four-year college education provides both broad knowledge in a variety of areas of study and more in-depth knowledge in a specific major or field of interest. It also helps students develop a sense of social responsibility, as well as intellectual and practical skills that span all areas of study, such as communication, analytical, and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings.

* 76% of employers would recommend this type of education to a young person they know.



Sixty-nine percent (69%) of employers and 63% of recent graduates feel that it is very important for four-year colleges to provide this approach to a four-year college education. More than 90% of each group thinks it is very or fairly important for colleges to do so. Additionally, three in four (76%) employers would recommend this type of college education to a young person they know.

Addendum

From July 26 to August 3, 2004, Peter D. Hart Research Associates conducted six focus group discussions for the Association of American Colleges and Universities (AAC&U). The sessions were conducted in three locations: Indianapolis, IN; Portland, OR; and Alexandria, VA. In each location, one group was held among rising public high school seniors who plan to attend a four-year college or university, and a second session was conducted among rising college juniors and seniors at public and private institutions. The discussions were undertaken to explore students' hopes, concerns, expectations, and goals regarding college. Specifically, it explored how they prioritize selected college learning outcomes. A brief summary of the qualitative research findings among students follows.

While this research was qualitative and is not directly comparable to the surveys conducted among employers and recent graduates, the discussions suggest a disconnect between those who are in the working world (employers and recent graduates) and those who have yet to get there (college-bound high school and college students) on the importance of key college learning outcomes.

High school and college students in the sessions universally recognize a college degree as a basic requirement for achieving professional success in today's competitive job marketplace. However, students' opinions vary about the degree to which the primary objective of a college education is to achieve the end result (i.e., get a diploma to get a job) versus to experience the full educational process (i.e., gain knowledge, skills, and experience that will enhance the potential for success).

The discussions suggest that these students do not place the same priority on key learning college outcomes as employers do. The reasons that these students rate as the most important motives for going to college all specifically include some reference to enhancing their potential for success in the work force. When it comes to the specific outcomes of a college education, students place the greatest priority on gaining a sense of maturity, time-management skills, strong work habits, self-discipline, and teamwork skills. With the exception of teamwork skills, however, students do *not* recognize these skills as being direct outcomes of the college curriculum as much as they view them as products of students' ability to handle the greater independence, freedom, and responsibility they gain at college.

On the other hand, students can more easily recognize how a college curriculum yields some of the mid-tier outcomes, including tangible business skills, independent and critical thinking/reasoning skills, strong writing and oral/speaking skills, and an improved ability to solve problems and think

analytically. Students do not rank these outcomes as being as important, however.

This qualitative research suggests that many college and high school students do not have a clear sense of the knowledge and skill set that employers value most when seeking to hire recent graduates (as revealed in the survey of employers). Students believe that employers are looking for college graduates with knowledge and skills in a specific area or major, a strong work ethic, and the ability to interact and work with others. Few mention concepts and developments in science and technology, critical thinking skills, global issues and their implications for the future, information literacy, creativity and innovation, or other learning outcomes upon which employers would like colleges to place increased emphasis.