Falling Short?
College Learning and Career Success

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Abstract

Employers overwhelmingly endorse broad learning as the best preparation for long-term career success. They believe that broad learning should be an expected part of college for all students, regardless of their chosen major or field of study. When hiring recent college graduates, employers say they place the greatest priority on a demonstrated proficiency in skills and knowledge that cut across majors. Written and oral communication skills, teamwork skills, ethical decision-making, critical thinking skills, and the ability to apply knowledge in real-world settings are the most highly valued among the 17 skills and knowledge areas tested. Employers broadly endorse an emphasis on applied learning in college today. They believe that engaging students in applied learning projects would improve learning and better prepare them for career success. College students agree with employers on the career value of broad learning and cross-cutting skills. Employers are more likely than college students to see room for colleges and universities to improve in ensuring graduates possess the full set of skills and knowledge needed for success. Many employers feel that college graduates are falling short in their preparedness in several areas, including the ones employers deem most important for workplace success. College students are notably more optimistic about their level of preparedness across learning outcomes, however. Employers say that, when evaluating a job candidate, it would be helpful for them to have access to an electronic portfolio summarizing and demonstrating the individual's accomplishments in key skill and knowledge areas, in addition to a résumé and college transcript.

Methodology

From November 3 to 11, 2014, Hart Research Associates conducted an online survey on behalf of the Association of American Colleges and Universities among 400 employers whose organizations have at least 25 employees and report that 25% or more of their new hires hold either an associate degree from a two-year college or a bachelor's degree from a four-year college. Respondents are executives at private sector and non-profit organizations, including owners, CEOs, presidents, C-suite level executives, and vice presidents.

The objective of the survey is to understand which learning outcomes employers believe are most important to acquire to be able to succeed in today's economy, how prepared they believe recent college graduates are in these areas, and employers' feelings about the importance of applied and project-based learning in college.

In addition, from November 13 to December 3, 2014, Hart Research conducted an online survey among 613 college students. Respondents included 455 four-year college seniors (304 at public colleges and 151 at private colleges) and 158 community college students who plan to receive their associate degree or transfer to a four-year college within the next 12 months. This survey explored many of the same topics as the survey of employers in order to provide a comparative perspective among college students.

This report highlights selected findings from both the research among employers and the survey of current college students. A report that highlights additional findings from the employer survey related to global learning will be available in the future.

Seven Key Findings

Results of the survey lead to seven key findings which we present.

Key Finding 1: Employers overwhelmingly endorse broad learning as the best preparation for long-term career success. They believe that broad learning should be an expected part of college for all students, regardless of their chosen major or field of study.

The majority of employers think that having both field-specific knowledge and skills and a broad range of skills and knowledge that apply to a variety of fields is important for recent college graduates to achieve long-term career success at their company. Just 15% think it is more important to have knowledge and skills that apply to a specific field or position, while 25% think it is more important to have a range of skills and knowledge across a variety of fields. Three in five (60%) employers think it is most important to have both (Table 1). This is up slightly from 55% of employers who felt this way nearly two years ago. College students are aligned with

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Table 1: Three in five employers believe that it takes BOTH specific knowledge/skills and broad knowledge/skills to achieve long-term career success.	
Which is more important for recent college graduates to have who want to pursue advancement and long-term career success at your company?	
Knowledge and skills that apply to a specific field or position	15 %
Range of knowledge and skills that apply to a range of fields or positions	25%
Both field-specific and broad range of knowledge and skills	60%
College Students:	%
Specific	15%
Both	63%
Broad range	22%

Table 3: Learning Outcomes Four in Five Employers Rate as Very Important*	
The ability to effectively communicate orally	85%
The ability to work effectively with others in teams	83%
The ability to effectively communicate in writing	82%
Ethical judgment and decision making	81%
Critical thinking and analytical reasoning skills	81%
The ability to apply knowledge and skills to real-world settings	80%

*Proportion of employers who rate each outcome an 8,9, or 10 on a zero-to 10 scale

Table 2: Employers are in broad agreement on college learning outcomes for all students, regardless of their chosen field of study.*				
	Strongly Agree	Somewhat Agree	Total Agree	Students Total Agree
All college students should have educational experiences that teach them how to solve problems with people whose views are different from their own	59%	37%	96%	94%
All college students should gain an understanding of democratic institutions and values	32%	55%	87%	85%
Every college student should take courses that build the civic knowledge, skills, and judgment essential for contributing to our democratic society	33%	53%	86%	86%
Every college student should acquire broad knowledge in the liberal arts and sciences	29%	49%	78%	83%
All college students should gain intercultural skills and an understanding of societies and countries outside of the United States	21%	57%	78%	87%

* Agreement among employers with statements about aims of college learning regardless of student's chosen field of study.

employers on this question, with 63% believing it is most important for recent college graduates to achieve both field-specific and cross-cutting skills and knowledge.

Additionally, there is broad agreement among employers that all students, regardless of their chosen field of study, should gain broad learning across areas including 1) problem solving with people who have differing views, 2) democratic institutions and values, 3) civic capacity, 4) liberal arts and sciences, and 5) intercultural skills (Table 2).

Nearly all employers (96%) agree that, regardless of their chosen field of study, all students should have experiences in college that teach them how to solve problems with people whose views are different from their own, including 59% who strongly agree with this statement. Large proportions of employers also agree that that all students, regardless of their chosen field of study, should gain an understanding of democratic institutions and values (87%), take courses that build the civic knowledge, skills, and judgment essential for contributing to a democratic society (86%), acquire broad knowledge in the liberal arts and sciences (78%) and gain intercultural skills and an understanding of societies outside the United States (78%). While the proportion of employers who strongly agree that each of these should be outcomes of college learning is slightly lower than for learning how to solve problems with diverse peers, agreement spans most of the employers surveyed.

There are similarly broad levels of agreement among students that all college students, regardless of their major, should gain broad knowledge across these areas.

Key Finding 2: When hiring recent college graduates, employers say they place the greatest priority on a demonstrated proficiency in skills and knowledge that cut across majors.

Written and oral communication skills, teamwork skills, ethical decision-making, critical thinking skills, and the ability to apply knowledge in real-world settings are the most highly valued among the 17 skills and knowledge areas tested.

Employers were asked to rate how important it is that recent college graduates they are hiring demonstrate proficiency in 17 different skill and knowledge areas. Employers make some clear distinctions in the priority they place on certain learning outcomes relative to others.

College learning outcomes employers deem most important:

Demonstrated proficiency in the cross-cutting skills related to communication, teamwork, ethical decision-making, critical thinking, and applying knowledge in real-world settings rank as employers' top priorities when hiring. At least four in five employers rates each one as very important (a rating of eight, nine, or 10 on a zero-to-10 scale) (Table 3).

College learning outcomes of moderate importance to employers:

Other learning outcomes that are close behind in importance include capacities to problem solve, locate and evaluate information from multiple sources, innovate, and stay current on changing technologies (Table 4). Nearly as many say that the ability to work

Table 4: Learning Outcomes More Than Half of Employers Rate as Very Important*	
The ability to analyze and solve complex problems	70 %
The ability to locate, organize, and evaluate information from multiple sources	68%
The ability to innovate and be creative	65%
Staying current on changing technologies and their applications to the workplace	60%
The ability to work with numbers and understand statistics	56%
The ability to analyze and solve problems with people from different backgrounds and cultures	56%
*Proportion of employers who rate each outcome an 8, 9, or 10 on a zero-to-10 scale	

Table 5: Learning Outcomes Less than Two in Five Employers Rate as Very Important*	
Awareness of and experience with diverse cultures and communities within the United States	37%
Staying current on developments in science	26%
Staying current on global developments and trends	25%
Awareness of and experience with cultures and societies outside of the United States	23%
Proficiency in a language other than English	23%
*Proportion of employers who rate each outcome an 8,9, or 10 on a zero-to-10 scale	

with numbers and understand statistics and the ability to analyze and solve complex problems with people from different backgrounds and cultures are very important.

College learning outcomes of less importance to employers:

Employers rate proficiency in areas related to awareness of and experience with cultures both inside and outside the United States, staying current on global trends and developments, and staying current on developments in science, as notably less important when compared with the other learning outcomes tested. (Table 5) While employers may endorse all college students having educational experiences that teach them about some of these areas (as seen in Table 1), they clearly do not view them as being as critical to career success as cross-cutting skills and other skill and knowledge areas.

While employers say that both cross-cutting skills and field-specific skills and knowledge are important, they prioritize key skills over a candidate's major. Indeed, employers nearly universally agree that to achieve success at their companies, a candidate's demonstrated capacity to think critically, communicate clearly, and solve complex programs is more important than his or her undergraduate major (91% totally agree; 57% strongly agree).

Key Finding 3: Employers broadly endorse an emphasis on applied learning in college today.

Employers believe that engaging students in applied learning projects would improve learning and better prepare them for career success.

Employers see great value in applied learning, and they indicate

that there is room to improve college graduates' preparedness in this area. Fully 80% of employers say that during the hiring process it is very important to them that recent college graduates demonstrate the ability to apply learning in real-world settings. Yet, as is described in Section 5 of this report, just 23% of employers say that recent college graduates are well prepared when it comes to having the ability to apply knowledge and skills in real world settings and 44% rate them as not that or not at all prepared.

Employers believe that requiring students to complete a significant applied learning project in college would improve both the quality of learning and the quality of graduates' preparation for careers: 70% of employers think that it would improve the quality of college learning a lot (28%) or a fair amount (42%). Seventy-three percent of employers believe that it would improve the quality of graduates' preparation for work a lot (30%) or a fair amount (43%).

Fully 60% of employers think that ALL college students should be expected to complete a significant applied learning project before they graduate, while 40% believe that only some students should be required to do so. And fully 88% of employers think that it is important (47% very important, 41% fairly important) for colleges and universities to ensure that ALL students are prepared with the skills and knowledge required to complete a significant applied learning project. Yet just 14% of employers think that most of today's college students are prepared with the skills and knowledge needed to complete a significant applied learning project before graduation, while another 53% think about half of them are prepared.

Employers generally value graduates' completion of various applied and project-based learning experiences, indicating that their company would be more likely to consider hiring a recent college graduate if the individual had engaged in these types of experiences. When it comes to considering a job candidate, employers value completion of an internship or apprenticeship most among the applied and project-based learning experiences tested. Nearly all employers say they would be more likely to consider hiring a recent college graduate who had completed an internship or apprenticeship, including three in five (60%) who say their company would be much more likely to consider that candidate (Table 6).

Table 6: Employers say they are more likely to consider hiring recent college graduates who have completed an applied learning or project-based learning experience.			
How much more likely your company is to consider hiring a recent college graduate if they have had this experience, completed this course?			
	Much more likely to consider	Somewhat more likely to consider	Total on likely to consider
Internship/apprenticeship with company/organization	60%	34%	94%
Senior thesis/project demonstrating knowledge research, problem -solving communication skills	39%	48%	87%
Multiple courses involving significant writing	27%	54%	81%
Research project done collaboratively with peers	24%	56%	80%
Service-learning project with community organization	21%	48%	69%
Field project in diverse community with people from different background/culture	22%	44%	66%
Study abroad program	13%	38%	51%

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Large majorities of employers indicate that a recent graduate's completion of various other types of applied and engaged learning experiences — such as a comprehensive senior project, a collaborative research project, a field-based project with people from other backgrounds, or a community-based or service learning project — would also positively influence their hiring decision. Nonetheless, with no more than 39% who say any of these would make them much more likely to consider that individual as a job candidate, these learning experiences all rank behind an internship or apprenticeship in their ability to influence hiring decisions.

Underscoring the importance, they place on written communication skills when hiring, four in five employers also say they would be more likely to consider an individual as a job candidate if he or she had completed multiple courses that require significant writing assignments.

Table 7: Employers and College Students Rate the Importance of College Learning Outcomes*	Employers	College Students
The ability to effectively communicate orally	85%	78%
The ability to work effectively with others in teams	83%	77%
The ability to effectively communicate in writing	82%	75%
Ethical judgment and decision-making	81%	74%
Critical thinking and analytical reasoning skills	81%	79%
The ability to apply knowledge and skills to real-world settings	80%	79%
The ability to analyze and solve complex problems	70%	73%
The ability to locate, organize, and evaluate information from multiple sources	68%	73%
The ability to innovate and be creative	65%	69%
Staying current on changing technologies and their applications to the workplace	60%	68%
The ability to work with numbers and understand statistics	56%	55%
The ability to analyze and solve problems with people from different backgrounds and cultures	56%	71%
Awareness of and experience with diverse cultures and communities within the United States	37%	58%
Staying current on developments in science	26%	49%
Staying current on global developments and trends	25%	49%
Awareness of and experience with cultures and societies outside of the United States	23%	46%
Proficiency in a language other than English	23%	35%

*Proportion of employers and students who rate each outcome an 8,9, or 10 on a zero-to-10 scale

Table 8: Students Agree with Employers on the Value of Applied Learning Experiences*	Employers	College Students
Internship/apprenticeship with company/organization	94 %	95 %
Senior thesis/project demonstrating knowledge, research, problem-solving, and communication skills	87 %	89 %
Multiple courses involving significant writing	81 %	76 %
Research project done collaboratively with peers	80 %	82 %
Service-learning project with community organizations	69 %	85 %
Field project in diverse community with people from different backgrounds/cultures	66 %	87 %
Study abroad program	51 %	71 %

*Proportion of employers and students who say a company would be more likely to consider hiring a recent college graduate if they have had this experience

Key Finding 4: College students agree with employers on the career value of broad learning and cross-cutting skills.

Students largely agree with employers on the importance of various learning outcomes for workplace success, ranking cross-cutting skills of communication, teamwork, ethical decision-making, critical thinking, and applying knowledge in real-world settings as more important than other learning outcomes (Table 7).

Interestingly, the only notable differences between employers and college students are in the areas that employers rate as relatively less important: students believe them all to be more important than employers do for recent college graduates' success in the workplace. The gap is most notable when it comes to the perceived importance of, awareness of, and experience with diverse cultures both inside and outside the United States, and staying current on developments in science.

Students also agree with employers that applied learning experiences are important preparations for career success (Table 8). College students recognize that internships and other applied and project-based learning experiences can give a recent graduate an edge when applying for a job. Large majorities of students think that an individual's completion of each of these college learning experiences will cause an employer to be more likely to consider them as a job candidate.

Two learning experiences that current students are more likely to think employers will value than employers say they do include completion of a field project in a diverse community with people from different backgrounds, and completion of a study abroad program.

Key Finding 5: Employers are more likely than college students to see room for colleges and universities to improve in ensuring graduates possess the full set of skills and knowledge needed for success.

The majority of employers feel that colleges and universities must make improvements to ensure graduates' workplace success. Fully 58% think improvements are needed to ensure that graduates gain the skills and knowledge needed to succeed in entry-level positions at their company, while 42% think they are doing a good job. And an even larger proportion (64%) think that improvements are needed to ensure that graduates have the skills and knowledge needed to advance within their company (Table 9).

There is a clear gap between employers' impressions and students' more optimistic views on these measures, however. College students give their colleges notably higher marks: 74% think they are doing a good job preparing graduates with the skills/knowledge needed for entry-level positions, and 64% express satisfaction with their college's efforts toward ensuring that

graduates achieve the learning outcomes needed for advancement.

While some employers see room for colleges and universities to improve in terms of ensuring that graduates achieve both field-specific and cross-cutting knowledge and skills, they are nearly twice as likely to feel that there is a need for improvement in helping graduates gain cross-cutting skills and knowledge (81%) than in ensuring they gain field-specific skills and knowledge (48%). (Overall, 14% of employers think colleges and universities need to improve more in ensuring field-specific learning outcomes, 47% think they need to improve more in ensuring cross-cutting learning outcomes, and 34% of employers think equal amounts of improvement are needed in both; just 5% think neither area needs improvement) (Table 10).

Overall, 62% of college students think their college or university needs to improve in ensuring that graduates gain a range of knowledge and skills that apply to a variety of fields, while 52% think they need to improve in ensuring graduates gain knowledge and skills in a specific field. This includes 31% who think both areas are in need of improvement, 31% who think more improvement is needed in ensuring cross-cutting skills/knowledge, and 21% who think more improvement is needed in ensuring field-specific skills/knowledge. Seventeen percent (17%) of students do not think their college needs to improve in either area.

Key Finding 6: Many employers feel that college graduates are falling short in their preparedness in several areas, including the ones employers deem most important for workplace success. College students are notably more optimistic about their level of preparedness across learning outcomes.

Employers' ratings of recent college graduates' preparedness across the same 17 learning outcomes discussed earlier in this report reveal room for improvement across the board. (Table 11) Even in the areas in which employers rate recent graduates as most prepared, less than two in five rate them as well prepared (a rating of eight, nine, or 10 on a scale from zero to 10).

When it comes to the types of skills and knowledge that employers feel are most important to workplace to success, large majorities of employers do NOT feel that recent college graduates are well prepared. This is particularly the case for applying knowledge and skills in real-world settings, critical thinking skills, and written and oral communication skills — areas in which fewer than three in 10 employers think that recent college graduates are well prepared. Yet even in the areas of ethical decision-making and working with others in teams, many employers do not give graduates high marks.

Table 9: Employers are more likely than students to think improvements are needed to ensure college graduates gain the skills and knowledge needed for success.					
How well are colleges and universities doing in ensuring that college graduates possess the full set of skills and knowledge that they will need for success in this?					
	Doing good job	Needs Minor improvement	Needs Moderate improvement	Needs Major improvement	Total Improvement needed
Employers- Entry-level positions	42%	7%	38%	13%	58%
Students- Entry-level positions	74%	6%	16%	4%	26%
Employers- Advancement/Promotion	36%	9%	41%	14%	64%
Students- Advancement/Promotion	64%	10%	20%	6%	36%

Table 10: Top Priorities for Improvement		
In which area do you think colleges and universities need to improve more?		
	Employers	Students
Ensure college graduates gain knowledge and skills that apply to a specific field or position	14%	21%
Equal amount of improvement needed in both areas	34%	31%
Ensure graduates gain range of knowledge and skills that apply to a range of fields or positions	47%	31%
Neither area needs improvement	5%	17%

Table 11: Employers give college graduates low scores for preparedness across learning outcomes; students think they are better prepared. *		
	Employers	Students
Working with others in teams	37%	64%
Staying current on technologies	37%	46%
Ethical judgement and decision making	30%	62%
Locating, organizing, evaluating information	29%	64%
Oral communication	28%	62%
Working with numbers/statistics	28%	55%
Written communication	27%	65%
Critical/ analytical thinking	26%	66%
Being innovative/creative	25%	57%
Analyzing/solving complex problems	24%	59%
Applying knowledge/skills to real world	23%	59%
Awareness/experience of diverse cultures in US	21%	48%
Staying current on developments in science	21%	44%
Working with people from different backgrounds	18%	55%
Staying current on global events	18%	43%
Proficient in other language	16%	34%
Awareness/experience of diverse cultures outside of US	15%	42%

*Proportions saying they/recent college graduates are well prepared in each area; Proportion of employers and students who rate each outcome an 8,9, or 10 on a zero-to-10 scale

There is a notable gap between college students' feelings about their level of preparedness across key learning outcomes and employers' assessment of recent college graduates. Majorities of college students feel that their college has prepared them well in 11 of the areas. Even for categories for which fewer than half of college students feel their college has prepared them well, students are notably more optimistic about their preparedness than employers are about the readiness of recent graduates in these areas.

Key Finding 7: Employers say that, when evaluating a job candidate, it would be helpful for them to have access to an electronic portfolio summarizing and demonstrating the individual's accomplishments in key skill and knowledge areas, in addition to a résumé and college transcript.

Fewer than half of employers say that they find the college transcript very (9%) or fairly (36%) useful in helping them to evaluate job applicant's potential to succeed at their company. A notably higher 80% of

Table 12: Most employers say they would find e-portfolios useful.			
Employers: How useful do you find/would you find this in helping you evaluate job applicants'/recent college graduates' potential to succeed at your company			
	Very Useful	Fairly useful	Total on being useful
College Transcript	9%	36%	45%
Electronic portfolio of student work summarizing and demonstrating accomplishments in key skill and knowledge areas	36%	44%	80%

employers say that it would be very (36%) or fairly (44%) useful to be able to see an electronic portfolio of student work that summarizes and demonstrates a candidate's accomplishments in key skill and knowledge areas (e.g. effective communication, knowledge in their field, applied skills, evidence-based reasoning, and ethical decision-making) (Table 12).

Summary

The majority of employers continue to say that possessing both field-specific knowledge and a broad range of knowledge and skills is important for recent college graduates to achieve long-term career success. Very few indicate that acquiring knowledge and skills mainly for a specific field or position is the best path for long-term success. Notably, college students recognize the importance of having both breadth and depth of skills and knowledge for their workplace success.

Echoing findings from previous Hart Research employer surveys, employers say that when hiring, they place the greatest value on demonstrated proficiency in skills and knowledge that cut across all majors. The learning outcomes they rate as most important include written and oral communication skills, teamwork skills, ethical decision-making, critical thinking, and the ability to apply knowledge in real-world settings. Indeed, most employers say that these cross-cutting skills are more important to an individual's success at their company than his or her undergraduate major. However, employers feel that today's college graduates are not particularly well prepared to achieve the learning outcomes that they view as important. This critique applies to all of the 17 learning outcomes tested, including the cross-cutting skills that employers highly value. Employers value the ability to apply learning in real-world settings and broadly endorse an emphasis on applied learning experiences in college today. Eighty-eight percent think that it is important for colleges and universities to ensure that all students are prepared with the skills and knowledge needed to complete an applied learning project. Seventy-three percent think that requiring college students to complete a significant applied learning project before graduation would improve the quality of their preparation for careers. Sixty percent think that all students should be expected to complete a significant applied learning project before graduating.

Large majorities say they are more likely to consider a job candidate who has participated in an internship, a senior project, a collaborative research project, a field-based project in a diverse community setting with people from different backgrounds, or a community-based project. College students are closely aligned with employers on the importance of key learning outcomes, and, like employers, they believe that applied learning experiences are an important preparation for career success.

College students are notably out of sync with employers in their perception of their preparedness on a wide range of skills and knowledge areas, however, students express much greater confidence in their level of preparedness in all areas than employers indicate they see demonstrated.

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