



EAB

Integrating Academic and Career Development





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This report is an excerpt from the full EAB study with the same title. The full study also advises academic leaders how to reach at-risk and underserved student populations who often face barriers to accessing internships, co-ops, and other professional development.

*For information on how to access the complete study, please contact **communications@eab.com**.*

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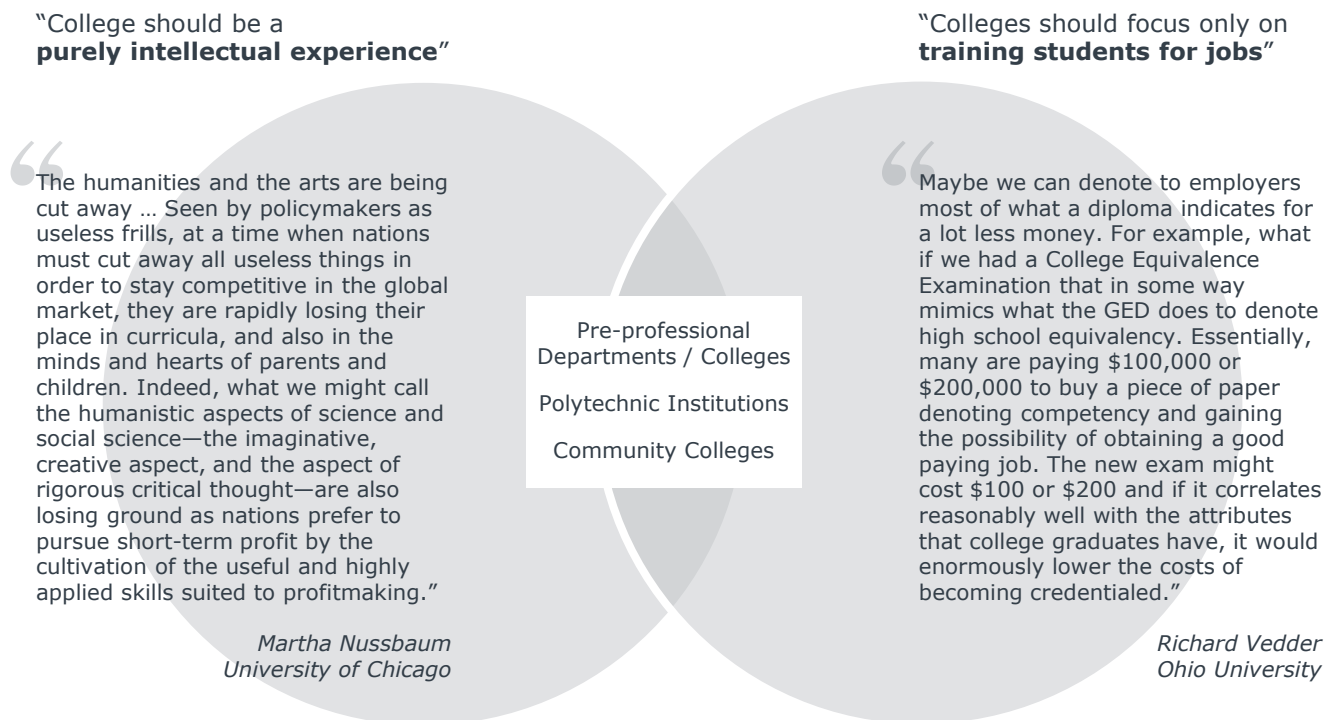
Moving Beyond the Either/Or Debate Surrounding Career Preparation

INTRODUCTION

Missing the Middle Ground

Either/Or Debate Surrounding Career Preparation Stymieing Progress

The debate over the role of higher education in students' professional development is dominated by two schools of thought – seemingly irreconcilable perspectives on the academic enterprise and its obligations to students, parents, and society at large. Few would argue that college is not intellectually enriching or that a college degree does not prepare graduates for careers. Disagreement emerges, however, around which of these two is the primary goal of higher education and which is an advantageous side effect – intellectual exploration or professional training.



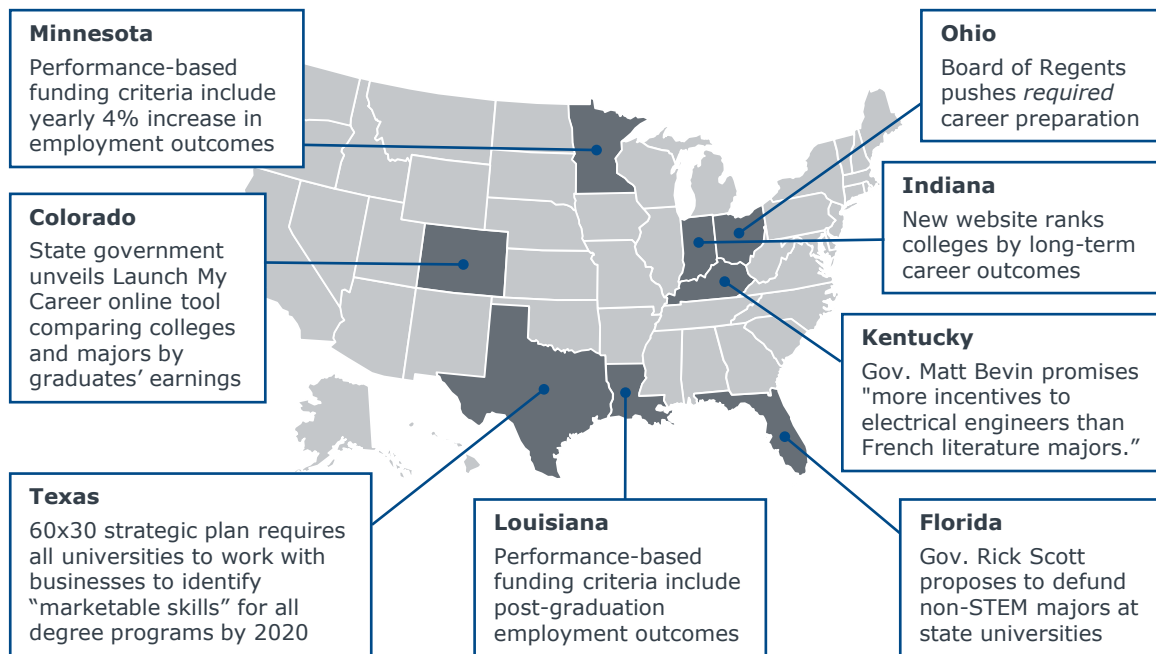
Although there are certain institutional segments and disciplines that lie between these two extremes –community colleges, polytechnic institutions, and pre-professional units such as nursing or engineering—faculty members at many institutions still consider these two aspects of an undergraduate experience as if they were mutually exclusive. Some scholars worry, as philosopher Martha Nussbaum does above, that public and market forces often undermine the goals of humanistic education. Others, such as economist Richard Vedder, suggest that higher education might benefit from a greater focus on the needs of employers, by providing a more direct and affordable path to a job. This polarized debate has prevented most comprehensive colleges and universities from engaging faculty in conversations about career outcomes and support for post-graduation goals.

Sources: Nussbaum M, *Not For Profit: Why Democracy Needs the Humanities*, Princeton, Princeton University Press, 2010; Vedder R, “Five Constructive Ways to Chance American Higher Education,” speech, Dartmouth College, 2013; EAB interviews and analysis.

State Focus on Job Prep Not New, but Mounting

Industry-Aligned Completions and Salaries Driving Policy Incentives

In the United States, this debate is amplified by the rapid adoption of the more utilitarian view of higher education by state officials over the past decade. Many states, such as Florida, Minnesota, and Louisiana, have implemented performance-based funding models that include career outcomes in their funding formulae. Others have launched websites and information campaigns publicizing data on career outcomes among graduates of state-funded colleges and universities—even when that data is incomplete or problematic (for example, excluding or misrepresenting the salaries of graduates who have moved to other states or entered graduate school).



Several governors have made public (and widely reported) remarks questioning the value of humanities degrees, arguing that taxpayer subsidy is better spent on aid for students in programs that translate more clearly to a regional workforce need. This rhetoric both reflects growing concerns among students and parents about the financial return associated with higher education, and further exacerbates existing debates in the academy about the proper role of more traditional academic disciplines in the broader academy.

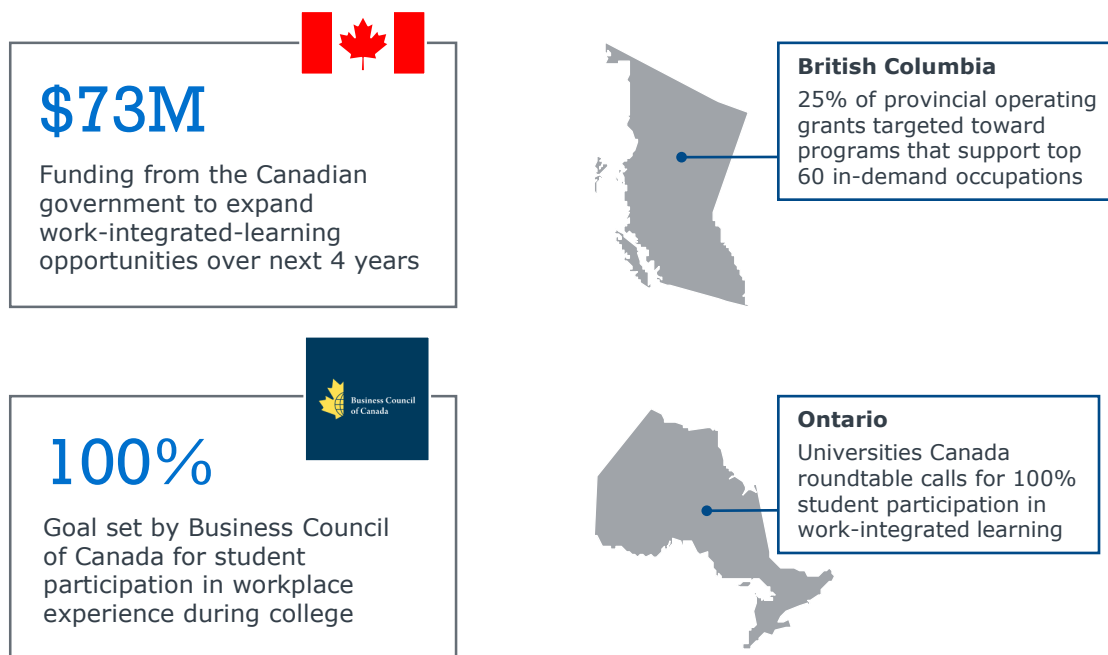
Perhaps more constructively, Texas's Higher Education Coordinating Board has announced a completion initiative across the state that will require each academic program to articulate marketable skills relevant to post-graduate employment, helping students to articulate their capabilities to prospective employers regardless of academic discipline.

Sources: Beam A, "Kentucky Gov. Matt Bevin wants state colleges and universities to produce more electrical engineers and less French literature scholars," *U.S. News and World Report*, January 29, 2016; Fain J, "College Selection Tool with Wage Data," *Inside Higher Ed*, June 10, 2016; Gillespie P, "4 U.S. governors on jobs: Not enough workers," *CNN Money*, May 3, 2016; "Indiana Launches College Value Website," *WANE.com*, September 21, 2016; Jaschik S, "Florida GOP vs. Social Science," *Inside Higher Ed*, October 12, 2011; "Performance-Based Funding for Higher Education," National Conference of State Legislatures, 2015; "Pre-K to Jobs: Higher Education's Role in Developing Students for Careers," Ohio Board of Regents, 2014; "60X30," Texas Higher Education Coordinating Board, 2015; EAB interviews and analysis.

Canadian Policymakers Push Industry Alignment

Expectations for Work-Relevant Learning on the Rise Across Provinces

National and provincial leaders in Canada have long prioritized workforce alignment in postsecondary policymaking, and efforts to operationalize those goals are intensifying even further. New investments in the sector, for example, are often tied to the expansion of co-op and internship programs, while those provinces experimenting with new budgetary incentives are emphasizing programmatic alignment with regional workforce needs. British Columbia, for example, is increasing the share of operating grants that fund academic programs tied to growing employment fields from 10 percent to 25 percent of their total program funding allocation.



Provincial leaders and multi-constituent interest groups are also setting audacious goals for student participation in work-relevant curricula and experiential learning.

Ontario's recent Highly Skilled Workforce Expert Panel has recommended universal adoption of work-related learning, for example, arguing that "...Ontario should commit to ensuring that every student has at least one experiential learning opportunity by the end of secondary school" and another by the time they graduate from post-secondary education.

The Business Council of Canada has also advocated for 100% workplace experience among undergraduates during post-secondary education, calling for both greater coordination between universities and employers to expand capacity for internships and greater emphasis on opportunities for students in the arts and sciences, where investment in work-relevant programming is less common.

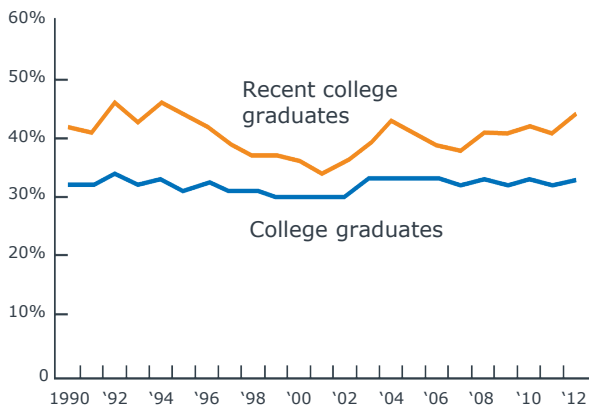
Sources: Chiose S, "Group wants workplace stints for all postsecondary students," *The Globe and Mail*, June 2, 2016, <http://www.theglobeandmail.com/news/national/group-wants-workplace-stints-for-all-postsecondary-students/article30242669/>; "Post-secondary funding to align with in-demand jobs," Province of British Columbia, January 26, 2015, <https://news.gov.bc.ca/stories/post-secondary-funding-to-align-with-in-demand-jobs>; Ziskin M, Hossler D, et al., "Outcomes-Based Funding," The Higher Education Quality Council of Ontario, 2014, <http://www.heqco.ca/SiteCollectionDocuments/Outcomes-Based%20Funding%20ENG.pdf>; EAB interviews and analysis.

Is There a True Skills Gap?

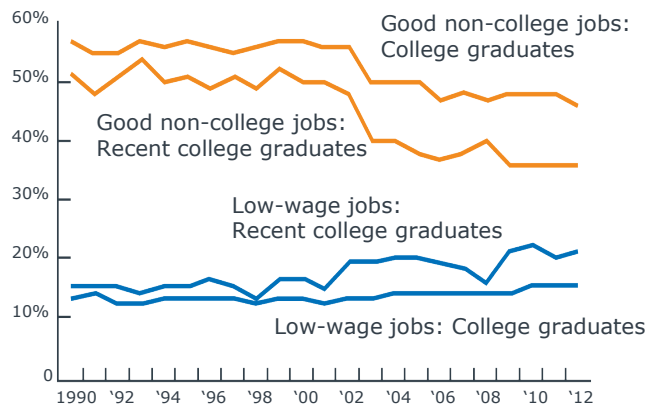
Unclear Who to Blame for Underemployment of Graduates

Troubling trends in college graduate underemployment suggest that there are legitimate student concerns to grapple with—beyond mere political pressure. An 2014 analysis done by the Federal Reserve Bank of New York revealed that while underemployment (working in a job that does not require a bachelor's degree) among college graduates has remained relatively flat at around 33% since 1990, it has gradually risen over the past decade or so for *recent* college graduates—those between the ages of 22 and 27.

Underemployment Rates Rising for Recent College Graduates



Job Quality¹ Among Underemployed College Graduates Decreasing



Federal Reserve Bank of New York, analysis of Census and Bureau of Labor Statistics, Current Population Survey, Department of Labor, and O*NET data.

Further, this analysis examined so-called “job quality” among underemployed graduates as well, differentiating between “good non-college jobs” that typically pay better wages, involve advanced training, and are seen as viable careers, and “low-wage jobs” (such as custodial or food services) that are less frequently desirable for degree holders. High-quality, non-degree demanding jobs have been in precipitous decline since 2001, especially for recent college graduates.

It is unclear, unfortunately, whether this state of affairs is the result of a true “skills gap” in which graduates simply aren’t adequately prepared for available introductory jobs, or whether many employers have raised their expectations—of both applicants and postsecondary institutions—without concurrent increases in pay. It is clear that today’s graduates face an increasingly challenging job market, however, requiring universities to re-examine their career development strategies.

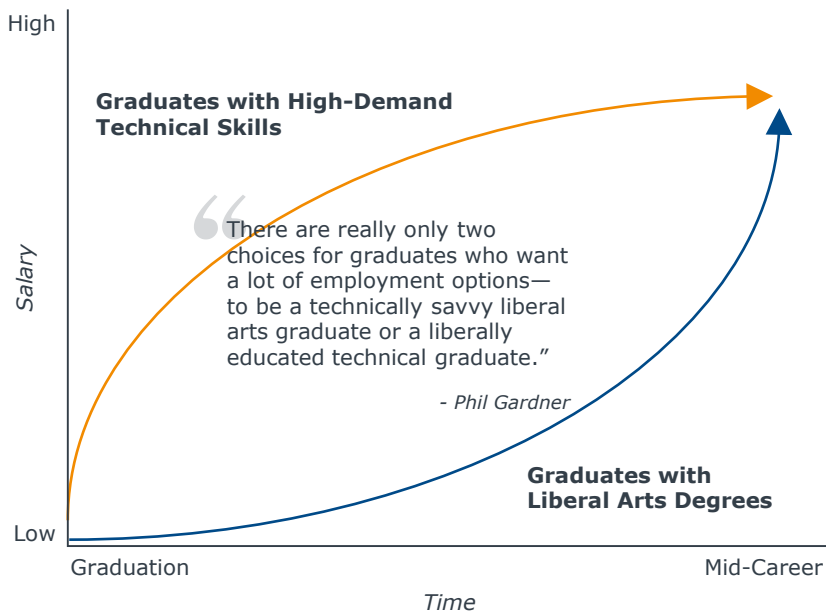
1) Defined by higher salary, skill requirements, and career orientation (i.e. electrician vs. cashier).

Sources: Abel J, Deitz R, et al., “Are Recent College Graduates Finding Good Jobs?,” *Current Issues in Economics and Finance*, 20, no 1 (2014).

The Fox and the Hedgehog

Two Worrisome Trajectories Face Underprepared Graduates

Broadly speaking, there are two suboptimal career trajectories that ought to concern academic leaders as they consider their institution's career services and experiential learning strategies. The more widely-discussed is the liberal arts graduate whose early career exploration is characterized by uncertainty, experimentation, and the acquisition of technical skills that enable advancement beyond entry-level employment. These graduates may have highly-developed critical thinking and interpersonal capabilities that enable them to progress later on in their careers, but can take longer than desired to find their first meaningful job opportunity.



92% Of executives say “soft” skills as important or more important than technical skills¹

89% Of employers struggle to find candidates with appropriate soft skills

“Among graduates with a baccalaureate degree only, those with humanities and social sciences degrees consistently earn less than anyone else, peaking at about \$58,000 a year.”

The second, and less widely discussed trajectory relates to a technically-focused graduate likely to find a well-paying first job, but not guaranteed to have the broad professional and liberal competencies necessary to advance in their career. While advanced proficiency in coding or graphic design, for example, can lead to success in competitive entry-level positions, additional skills are typically needed to manage teams, interface with clients, and engage in innovation.

The key to maximizing post-graduate career outcomes, as workforce scholar Phil Gardner observes, is college experience that combines both technical skills and a liberal education focused on soft skill development—allowing technical graduates to develop the leadership skills they need to advance in their careers, while ensuring that liberal arts graduates have the basic technical skills necessary to compete for high quality entry-level positions immediately after graduation.

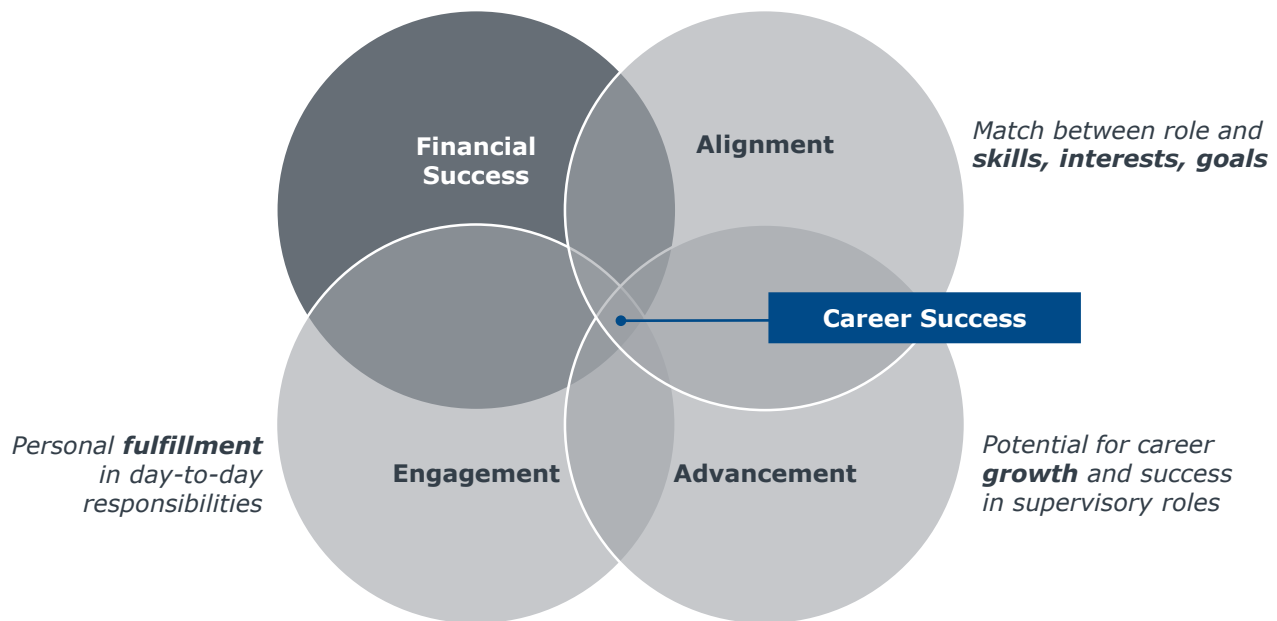
Sources: Davidson K, “Employers Find ‘Soft Skills’ Like Critical Thinking in Short Supply,” *Wall Street Journal*, August, 30, 2016, <https://www.wsj.com/articles/employers-find-soft-skills-like-critical-thinking-in-short-supply-1472549400>; Gasgreen A, “Liberal Arts Grads Win Long-Term,” *Inside Higher Ed*, January 22, 2014, <https://www.insidehighered.com/news/2014/01/22/see-how-liberal-arts-grads-really-fare-report-examines-long-term-data>; “Liberal Arts Degrees and Their Value in the Employment Market,” AAC&U, <http://www.aacu.org/nchems-report>; EAB interviews and analysis.

1) n=900 executives.

Success Beyond Salary

Emphasize Alignment, Engagement, and Advancement in Outcomes

While salary is an important element of career success, it has been granted undue weight when measuring the quality of long-term student outcomes—in part because of how readily measurable it is. A clearer picture emerges if a more holistic measure of career success is applied; one that incorporates career alignment, engagement, and the potential for timely advancement. This more complete measure of career success also better represents how graduates understand the professional value of their college experience.



The concept of career alignment helps to keep both the underemployed barista and the burned-out financial analyst within the scope of career development strategy. Feeling a sense of connection to one's professional responsibilities and leveraging personal strengths against those responsibilities regularly are critical to long-term fulfillment.

It is also important to keep students' potential for career advancement in mind, rather than merely preparing them for a successful first job application. Alumni who are able to progress in their chosen fields are valuable assets to both their alma maters and their local communities.

And finally, both day-to-day and reflective engagement with one's work should inform institutional approaches to career development. Colleges and universities must be invested in creating professionals that are not only well-utilized in their roles and financially successful, but content in their vocation as well.

Are Graduates Engaged at Work?

Gallup and Purdue Measure Higher Ed's Impact on Holistic Career Success

Measuring the quality of career outcomes with metrics beyond salary can seem daunting, but Gallup has already made significant progress in measuring workplace engagement. Through a partnership with Purdue University, Gallup's analyses of university graduate outcomes and survey responses identified six collegiate experiences that have a statistically significant impact on post-graduation work place engagement. While many of these activities are quite familiar to those involved with experiential learning, they are unfortunately reaching only a small fraction of undergraduates.

Students who reported having an internship or job that allowed them to apply what they were learning in the classroom during college were **two times more likely to be engaged at work**, but only 29% of students had that experience.

"Big Six" Experience	Odds of being engaged at work if graduates had this experience	Strongly agree they had this experience
Had at least one professor who made them excited about learning	2.0x higher	63%
Had professors who cared about them as a person	1.9x higher	27%
Had a mentor who encouraged them to pursue their goals and dreams	2.2x higher	22%
Worked on a project that took a semester or more to complete	1.8x higher	29%
Had an internship or job that allowed them to apply what they were learning in the classroom	2.0x higher	29%
Was extremely active in extracurricular activities and organizations	1.8x higher	20%

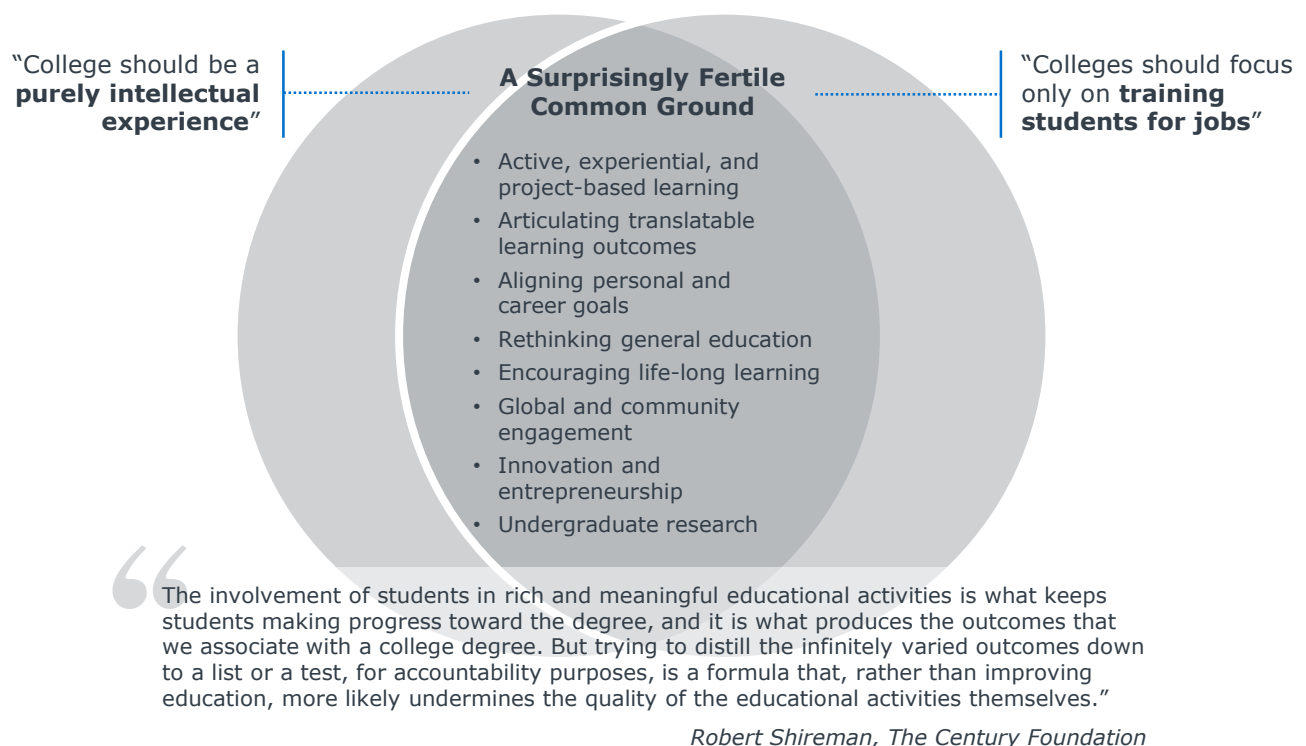
Of the six high-impact experiences identified as contributing to work engagement, **25% of graduates participated in zero, and only 3% participated in all six.**

Source: Busted B, Seymour S, "Many College Graduates Not Equipped for Workplace Success," *Business Journal*, September 23, 2015, <http://www.gallup.com/businessjournal/185804/college-graduates-not-equipped-workplace-success.aspx>.

A Constructive Path Forward

High-Impact Practices Span the Divide Between Extremes

Fortunately, much of what colleges are already doing, or are interested in doing, falls into the fertile common ground between professional and intellectual development. This includes things like active experiential learning, restructured general education, global and community engagement, and undergraduate research. Not only do these kinds of programs help prepare students for post-graduation success, but they also engage faculty in the kinds of activities they are already excited about, or are already doing without acknowledging the presence of career readiness components.



This set of activities can be readily integrated into the college experience in a way that does not damage the traditional academic value of higher education. Instead, these activities can support and enhance traditional academic programming, improve measures of student success like retention and graduation rates, and prepare students for well-aligned careers post-graduation.

These efforts also reflect an opportunity to more effectively articulate the contribution of higher education to concrete student outcomes. As higher education policy expert Robert Shireman notes, any effort to distill those outcomes to a simplistic examination is likely to miss much of what makes graduates successful. It is incumbent upon college and university leaders to reclaim the conversation about how high-impact learning experiences measurably deliver a positive return for students, parents, and funders.

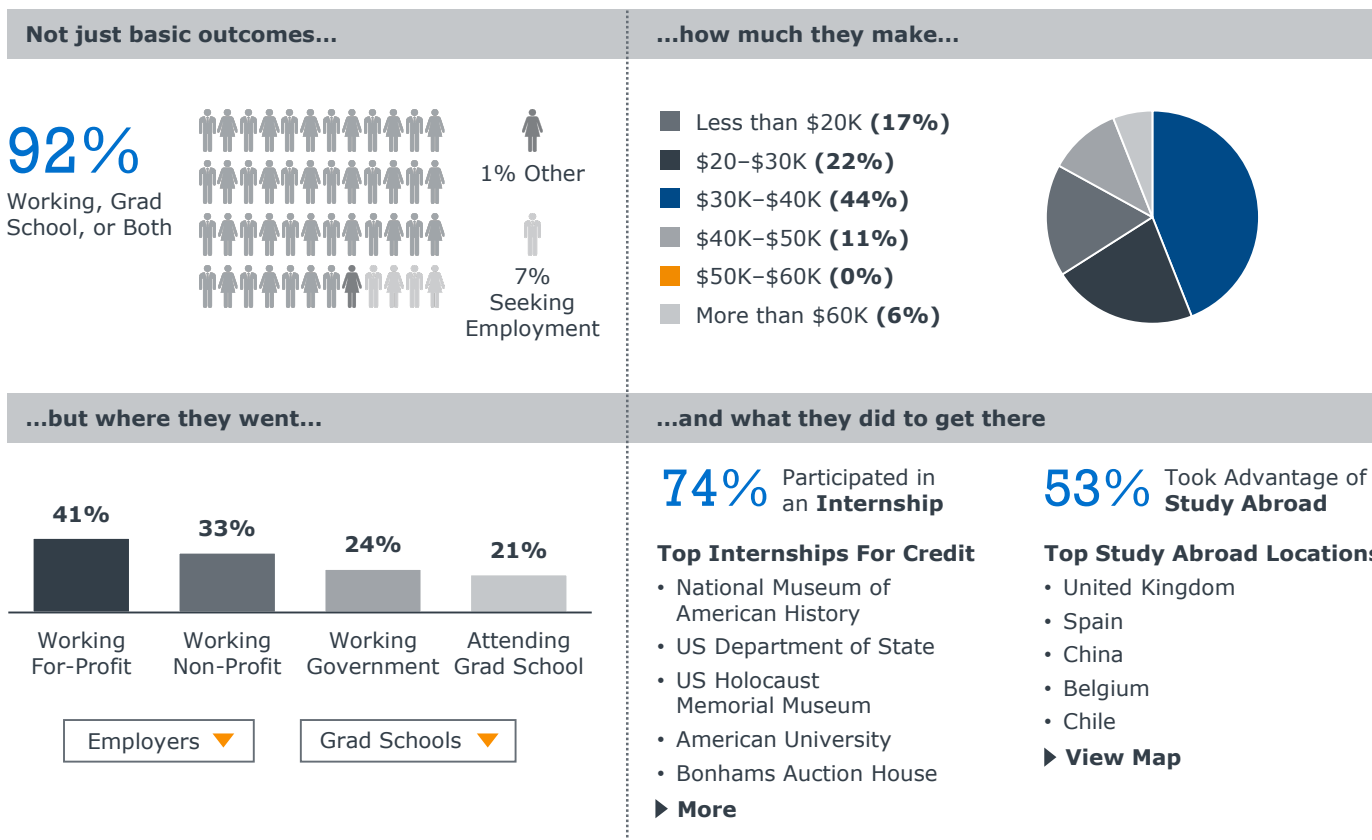
Sources: Shireman R, “The Real Value of What Students Do in College,” *The Century Foundation*, February 25, 2016, <https://tcf.org/content/report/the-real-value-of-what-students-do-in-college/>; EAB interviews and analysis.

The Rise of Outcomes Marketing

Case in Point: American University's 'We Know Success' Portal

Improving the quality of an institution's career outcomes is increasingly important, not simply out of obligation to graduates, but also as a tool in an institution's marketing repertoire. Students, and especially their parents, shop for institutions and especially majors based on career outcomes. While many institutions share some kind of career outcomes data with current and prospective students, American University's "We Know Success" website shares a broad set of detailed information at the department level.

For AU **Undergraduates** with a degree in **History** in the **College of Arts and Sciences**



The website includes information on the kind of post-graduation outcomes students pursue in each department, as well as data on salary, and the most common graduate schools and employers. They also include information on the kinds of experiential learning opportunities students in each major pursue, including the type of opportunity and the host or location.

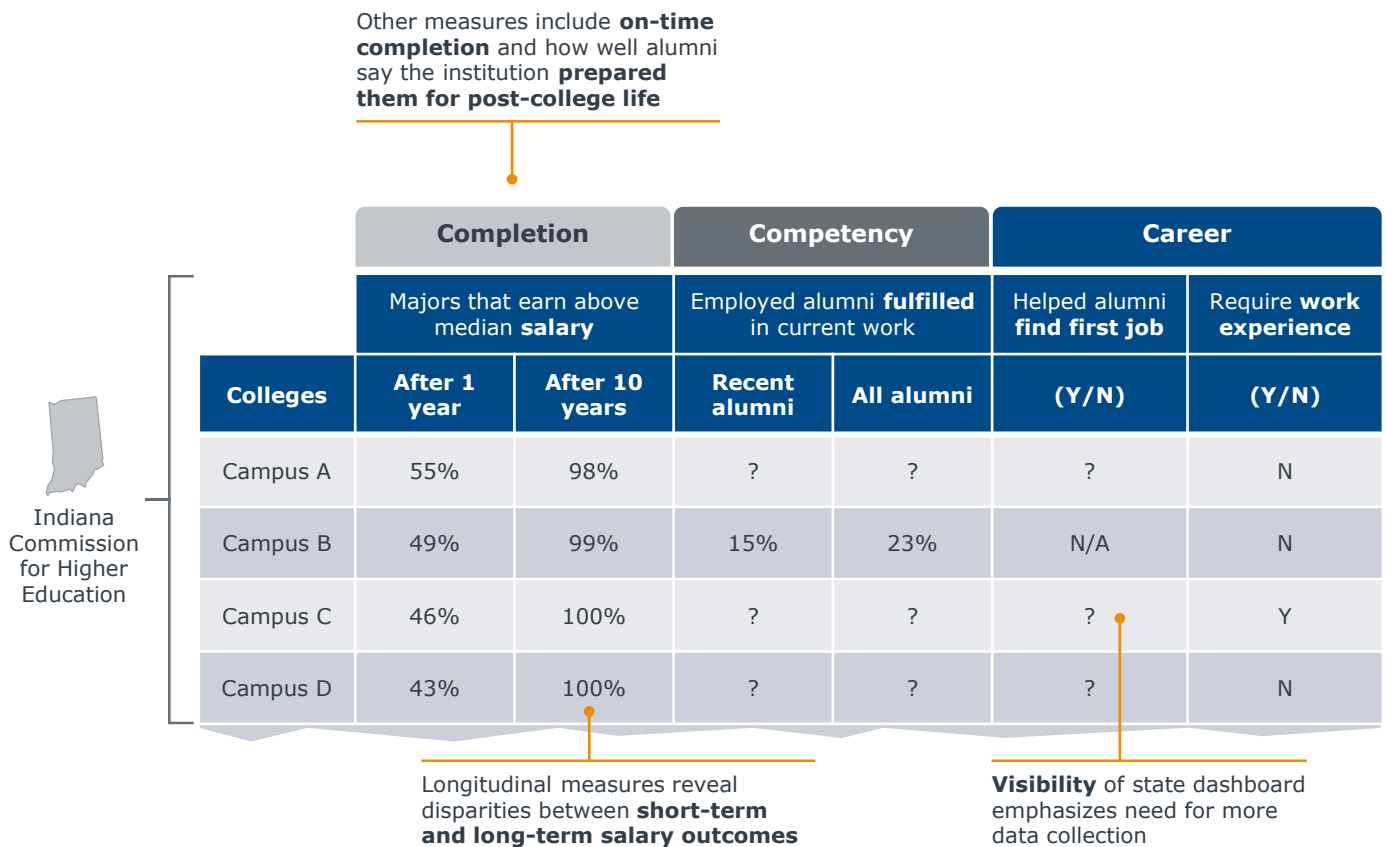
This data can have a significant impact on the way families select institutions, or the way that students path into specific majors. Sharing it publicly can also have an impact on the way departments frame their disciplines when engaging with potential students, and could even change the way they structure their curricula or deliver content.

Sources: "We Know Success," American University, www.american.edu/weknowsuccess; EAB interviews and analysis.

The Train Has Left the Station

New Informational Websites Give Many Campuses an 'Incomplete'

While higher-priced private institutions move to advertise their own career outcomes and career development programming, public institutions are increasingly subject to external rankings and informational resources that paint a less flattering picture. The Indiana Commission for Higher Education, for example, recently launched the Indiana College Value Index—a web-based outcomes dashboard for Indiana public colleges and universities. Along with traditional student success metrics, the dashboard shares both short and long-term salary data.



The dashboard also shares short and long-term career fulfillment metrics, as well as the percentage of students who felt aided by their institutions during their first job search. Alarmingly, very few institutions have data on these measures, leaving prospective students and their parents with salary data alone when trying to measure the career prospects they can expect from a specific institution. This kind of limited and incomplete data, shared broadly, makes it easier than ever for prospective students to make poor decisions about institutional fit.

Public colleges and universities will need to respond quickly by collecting and marketing their student outcomes in a way that captures their desired narrative.

Sources: "Indiana College Value Index," Indiana Commission for Higher Education, <http://www.learnmoreindiana.org/indiana-college-value-index/>; EAB interviews and analysis.

Where the Smart Money Is Going

A Whole Industry of Start-Ups Focus on Career Exploration

Demand for career exploration and development opportunities has not escaped the notice of venture capital and vendors are emerging to meet this demand. Many of these vendors are focused on quickly developing high-demand skills like computer programming. Others are beginning to replace some of the services typically provided by career development offices, including best-fit career matching and student-recruiter networking. In 2016, the professional networking website LinkedIn produced a student-oriented app that functions like the dating application Tinder—allowing prospective students to easily shop for institutions and majors based on graduate career outcomes and the companies that hire most frequently from those institutions.

Experiential Education in a Box



Yearlong program with 12 mini-apprenticeships at high-growth startups



Students code games and apps in summer bootcamp program

Pipeline from Training to Workforce



Offers data and coding immersives at incubator sites; grads find work at incubator companies



Intensive IT and coding training; Revature contracts out graduates to Fortune 500 clients

Student-Focused Job Placement Apps



Mobile app connects students and recruiters

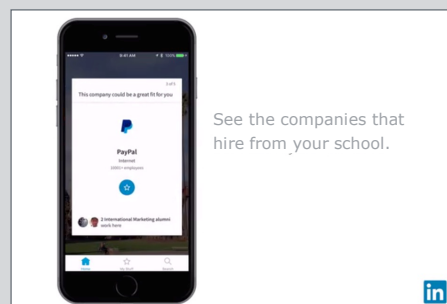
70+ top universities in network



New student app identifies career fits by major, companies where graduates go

Swipe Left

LinkedIn's About-Face



- Launched university rankings based on career outcomes in 2014, discontinued 2016
- Student app introduced April 2016 with Tinder-like design and curated suggestions:
 - Career paths and job postings based on education and interests
 - Profiles of companies hiring from school
 - Alumni with similar background and career interests

Sources: Experience Institute, www.expinstitute.com; Make School, www.makeschool.com; Galvanize, www.galvanize.com; Revature, www.revature.com; Handshake, www.joinhandshake.com; "Introducing the LinkedIn Students App: Helping Soon-to-be College Graduates Conquer Their Job Search," LinkedIn, April 18, 2016, <https://blog.linkedin.com/2016/04/18/introducing-the-linkedin-students-app--helping-soon-to-be-colleg>; "LinkedIn's newest app helps college grads find jobs," *VentureBeat*, April 17, 2016, <https://venturebeat.com/2016/04/17/linkedins-newest-app-helps-college-grads-find-a-job/>.

Too Little, Too Late

Central Career Services Approach Won't Be Enough

An innovative approach to traditional career services offices might seem like the answer, but many large and well-known units have often depended on massive influxes of donor resources allowing for highly focused and expensive programming for students. Most career services offices are not so fortunate—boasting around 4 staff members, a non-personnel operating budget of \$30,000 and a 1:6,000 counselor to student ratio at large institutions. It is extremely difficult for such under-resourced offices to provide high-impact opportunities for all students.



Innovative Career Office Programming...

Advances in technology and new approaches to student and alumni engagement have enhanced the impact of Career Services



Growing Focus on Internship Placement...

Participation, offer, and offer acceptance rates are at decade highs, and internships are now a competitive pre-requisite in many fields



Growth in Experiential Learning Requirements...

Once a distinctive quirk, more and more universities (even large publics) are requiring hands-on learning experience to graduate



...But Only Reaching a Small Population of Students

- Median FTE of 4 staff
- ~\$30k non-personnel operating budget
- Up to 1:6,000 student-to-advisor ratio
- Only 1/3 offer for-credit career development classes



...But Limited Partner and Support Capacity

- Many internships are unpaid and/or non-credit bearing
- Not enough employer partners to go around, especially in rural areas
- Skepticism about rigor and learning outcomes



...But Merely Another Hurdle Without Broad Investment

- Uneven adoption between academic and pre-professional disciplines
- Access and time-to-degree concerns for at-risk students
- Debates over "what counts" complicate enforcement

Internships present a promising opportunity for career development—especially since internship conversion rates are at a decade high. Unfortunately internship capacity can be difficult to build outside of major urban centers. Furthermore, many faculty members, skeptical about the rigor of internship and co-op opportunities, will never advise students to pursue them, let alone grant credit for them.

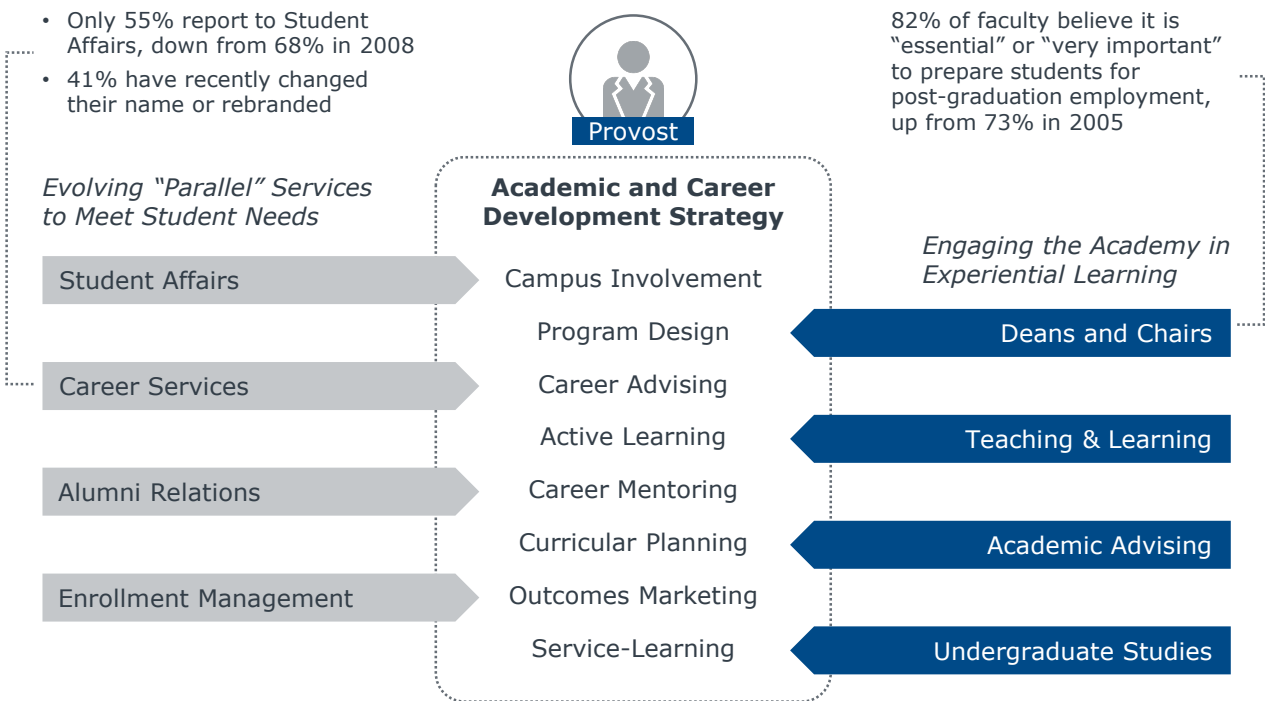
Moving beyond internships to embrace the broader category of experiential learning as a degree requirement can drive increased participation in career development programming. That said, these requirements can present a time to degree concern for at-risk students and will in all likelihood require that departments accept underdeveloped or unsuitable experiential learning opportunities in fulfillment of the requirement.

Sources: "Career Services Benchmark Survey 2015-2016," NACE, <https://www.naceweb.org/store/2016/career-services-benchmark-survey-2015-2016/>; "Internship and Co-op Survey 2016," NACE, <https://www.naceweb.org/store/2016/internship-co-op-survey-2016/>; EAB interviews and analysis.

A Networked Approach to Ownership

Intentional Blurring of Boundaries Reflects Holistic Student Goals

The solution to the limitations of traditional career services is to move past reliance solely on career services to drive career development initiatives. Instead institutions should move toward an integrated approach that incorporates student affairs-style parallel programming and more traditional academic programming into a student’s career development. This includes restructuring career services to bring it into closer alignment with academic affairs—13% of career services offices have made this shift in the last decade. It also necessitates reframing the kinds of services the office can provide, often signaled through rebranding—something 41% of career services offices have already done.



According to recent surveys of undergraduate teaching faculty by UCLA’s Higher Education Research Institute, 82% of faculty members believe that it is essential or very important to prepare students for employment, up from 73% in 2005. But celebrating faculty support for career development is meaningless without a clarifying their role in the process or supporting their direct involvement in helping students prepare for life after graduation. Faculty must develop high impact experiential learning opportunities for students that are integrated into their academic experience, accessible to all students, and enhance student success.

Sources: "Career Services Offices: Office Structure and Organizational Design," NACE, April 6, 2016, <https://www.nacweb.org/career-development/organizational-structure/career-services-offices-office-structure-and-organizational-division/>; Eagan K, Stolzenberg E, et. al, "Undergraduate Teaching Faculty: The 2013-2013 HERI Faculty Survey," HERI, 2014, <https://www.heri.ucla.edu/monographs/HERI-FAC2014-monograph.pdf>; Lindholm J, Szelenyi K, et. al, "The American College Teacher: National Norms for the 2004-2005 HERI Faculty Survey," HERI, 2005, <https://www.heri.ucla.edu/PDFs/pubs/FAC/Norms/Monographs/TheAmericanCollegeTeacher2004To2005.pdf>; "2014 National Professionalism Survey, Career Development Report," Center for Professional Excellence at York College of Pennsylvania, 2014, <https://www.ycp.edu/media/york-website/cpe/2014-National-Professionalism-Survey---Career-Development-Report.pdf>; EAB interviews and analysis.

Integrating Academic and Career Development

Strategies to Scale Experiential Learning and Reflection Across the Curriculum

The core findings of our research are organized around a broad challenge: enhancing the professional development impact of programming that already exists on campus. This includes supporting students as they select and reflect on the curricular and cocurricular programming that best aligns with their professional goals. It also includes developing new or modifying existing elements of the core curriculum to address specific professional development needs.

Enhance the Market Value of the College Experience

How can we help students make more informed choices early in their academic careers?



1

Equipping Students to Proactively Align Curricular and Cocurricular Plans with Personal Goals

How can we ensure that our students can articulate what they've learned?



2

Encouraging Ongoing Reflection and Narration

How can we extend skill development opportunities beyond pre-professional majors?



3

Augmenting the Core Curriculum to Address Skill and Experience Gaps



Equip Students to Align Curricular and Cocurricular Plans with Personal Goals

CHAPTER

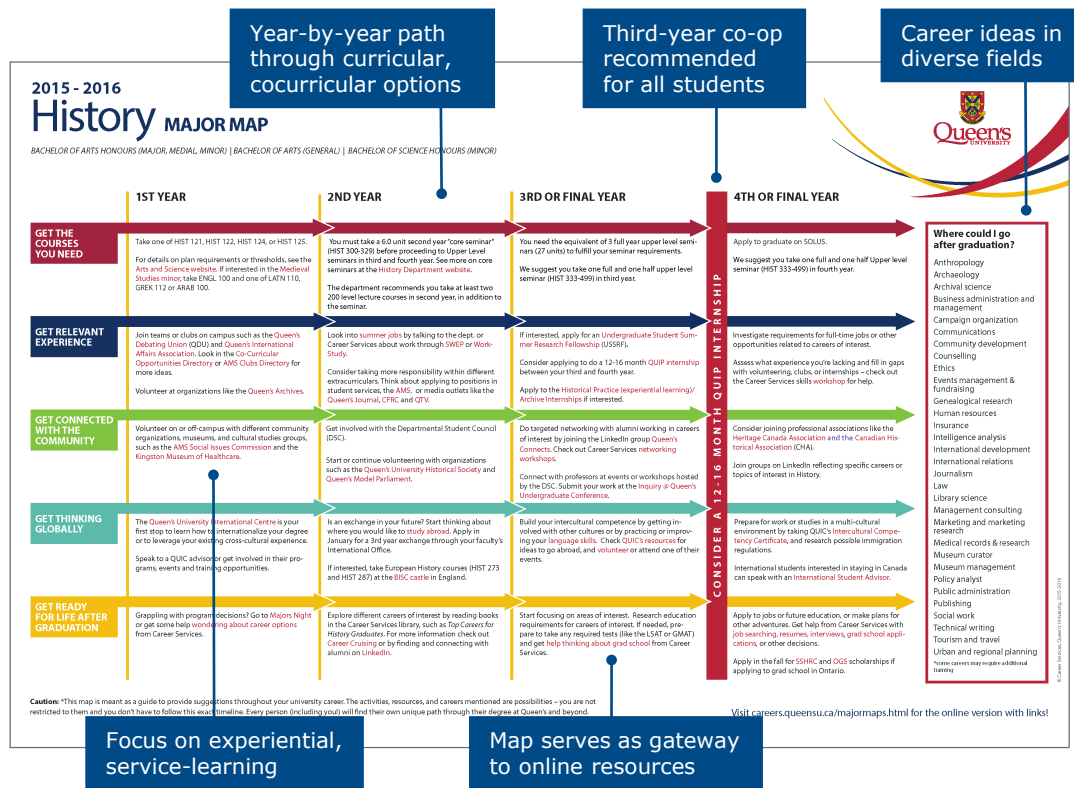
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- Practice 1: Cocurricular Planning Tool
- Practice 2: Point-Based Engagement Incentives
- Practice 3: Proactive Major Alignment Pathing
- Practice 4: Hybrid Intake Advising
- Practice 5: Industry-Based Career Coaches
- Practice 6: First-Year Field Exposure

Beyond the Degree Plan

Adding Cocurricular Goals to Traditional Four-Year Major Maps

The first step toward career alignment is the selection of a well-aligned major. Despite the weight imparted upon this decision by advisors, academic departments, and the institution as a whole, undergraduates struggle to make well-informed, thoughtful decisions about both academic and professional trajectory pathing. Queen's University in Ontario, Canada supports undergraduates in the College of Arts and Sciences during major selection and the pathway planning process with visually compelling, holistic major maps.



Major maps are not an entirely novel idea, but the Queen's University major maps possess a set of features that make them more useful for students as they consider their long-term professional ambitions. The map alerts students to both curricular and cocurricular programming, ensuring that they are aware of both academic and parallel non-academic enrichment opportunities. The four-year structure normalizes participation in a diverse assortment of programming at specific times, including an internship between a student's third and fourth year.

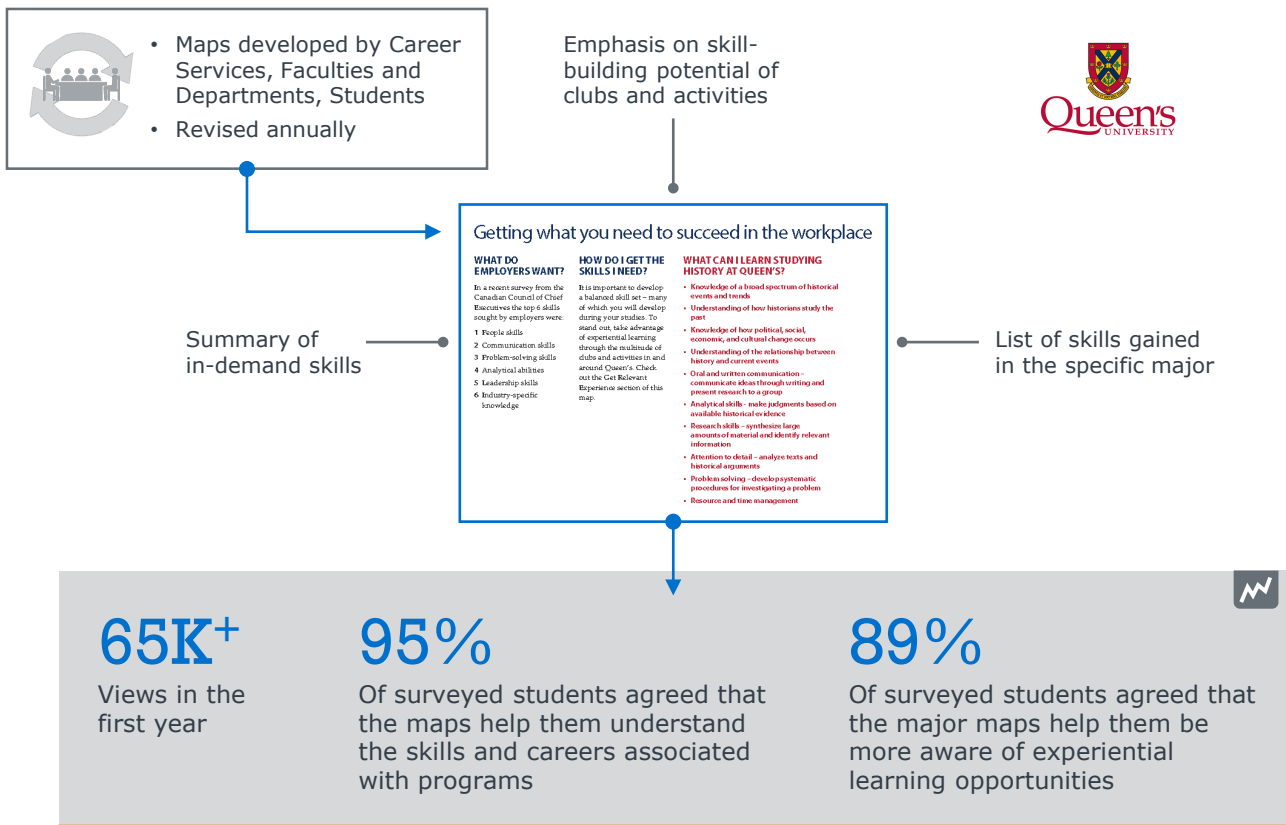
The major maps also communicate a diverse set of potential career outcomes for each major, not to promote major selection based on a specific career outcome, but to communicate to undergraduates the broad scope of potential career outcomes that are well-aligned with each major.

Sources: "Major Maps," Queen's University, <http://careers.queensu.ca/students/wondering-about-career-options/major-maps-2015>; EAB interviews and analysis.

Emphasize High-Demand Skills

Integrated Maps Emphasize the Value of Experiential Learning

Queen’s University’s major maps are the product of a collaborative effort between career services, the academic units, and students. Beyond identifying the right curricular and cocurricular programming to populate the template, faculty members articulated a set of skills gained through study in each major. Many of the skills are common to multiple programs, limiting faculty labor to the generation of a few discipline specific skills. These skills are presented alongside a list of skills in high demand by employers, reinforcing the professional development opportunities inherent in every major.



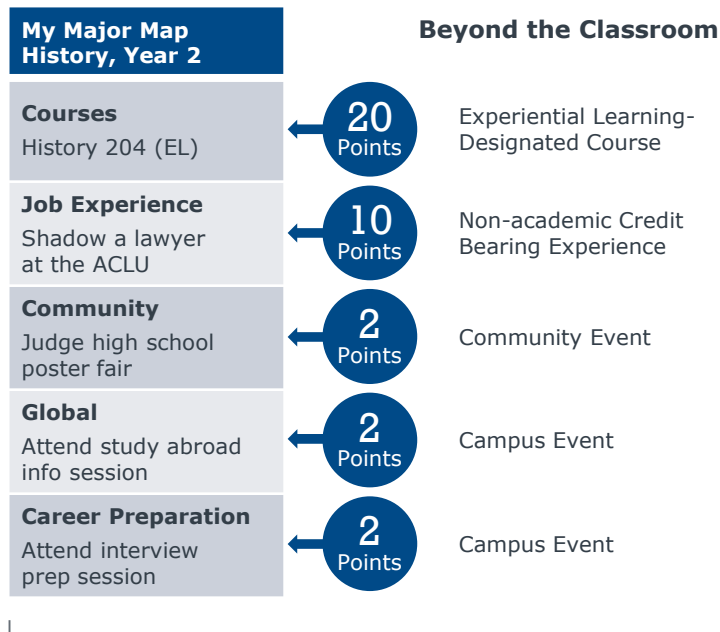
Undergraduates at Queen’s University review multiple maps during advising meetings and are encouraged to use them as a model for completing a blank template map when selecting their major. In addition, major map-guided academic planning supports stronger major-career alignment by helping students to better understand the career opportunities and professional skills associated with each academic program. It also enhances student awareness of the experiential learning opportunities that are available and are well-aligned with each major.

Sources: "Major Maps," Queen’s University, <http://careers.queensu.ca/students/wondering-about-career-options/major-maps-2015>; EAB interviews and analysis.

From Passive Guide to Active Exercise

Incentives Encourage Student Action on Major Map Recommendations

Structured curricular planning is inherently motivating for students because academic credits incentivize full participation. However, linking academic credits to cocurricular programming can be controversial, especially among faculty members, despite the academic value of the programming itself. The University of Tennessee at Chattanooga (UTC) uses a point-based, non-credit incentive system to promote persistent, long-term engagement with experiential learning and career development.



Activities and point values tracked in cocurricular transcript accessible through SIS



Near- and Long-Term Incentives

20+ points *per term*

- Priority registration
- Celebratory dinner
- Semester award

120+ points *total*

- Recognition at graduation
- Designation on transcript
- Special banquet

Results

1,143

Additional hours of student-initiated¹ experiential learning projects in 2013-14

Undergraduates receive points for participation in different kinds of experiential learning and career development programming. Point values vary based on the impact and time demands of each activity—with more involved activities, such as an experiential learning course, earning 20 points while a low-impact activity like a study abroad informational session earns a student two points. The reward structure is two-tiered, with near and long-term incentives promoting engagement throughout a student’s time with UTC. The program increased 4-year participation in structured experiential learning at UTC, and even produced 1,143 additional hours of student-initiated experiential learning.

Sources: "ThinkAchieve: Creating Connections," The University of Tennessee Chattanooga, <https://www.utc.edu/think-achieve>; EAB interviews and analysis.

Put Career Exploration First, Not Last

Equip Advisors with Student Interest Data for Proactive Pathing

Providing undergraduates with timely, high-quality information about major and career options early in their academic careers is critical to preventing poor decisions and late-stage program changes as they get closer to graduation. Below we have combined two institutional practices—a pre-application career interest survey administered by Florida International University and an orientation-hosted major selection model employed by Purdue University—to illustrate how a pre-matriculation career alignment conversation might look in practice.

Pre-application Survey Links Personal Interests to Career Fields



Which of these activities interests you the most?

- Leading a team
- Managing a budget
- Designing a website



Survey Results Enable Major Fit Discussions at Orientation



Advising Guide Recommendations

**Good Major/
Interest Fit**

- Recommend courses
- Discuss cocurricular, experiential options

**Major/
Interest Mismatch**

- Revisit major choice motivations
- Discuss alternatives
- Introduce academic support options

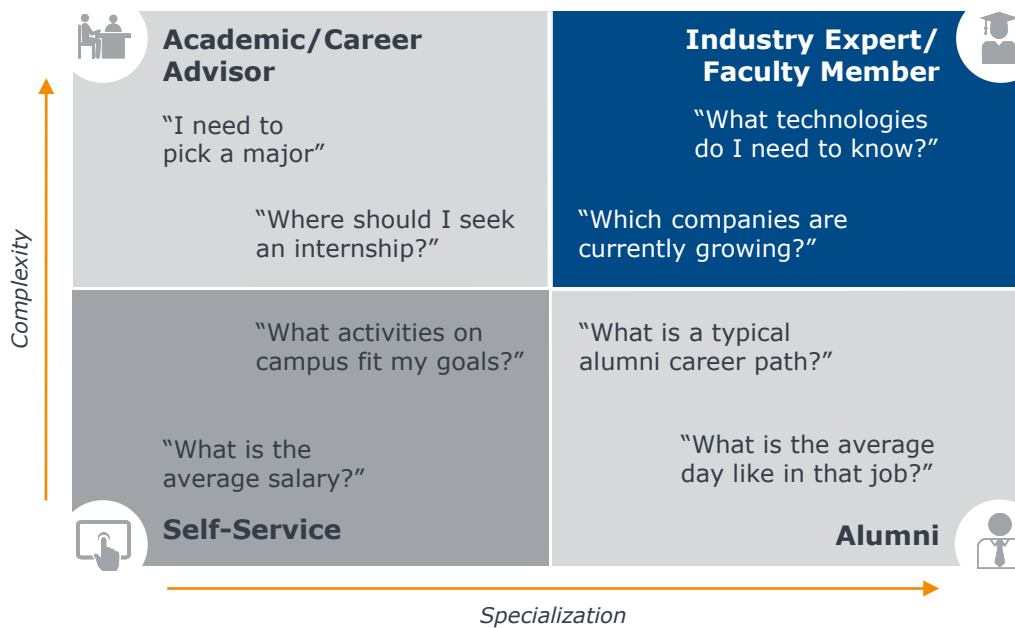
A structured advising conversation about major and career alignment is a useful exercise, even for students who already have strong alignment between the two. In these cases advisors can direct students to the specific curricular and cocurricular opportunities that best fit their interests and ambitions. For those students with weak alignment advisors can support students as they select alternative majors or professional ambitions. They can also help students develop atypical curricular and cocurricular paths that link mismatched majors and careers (e.g., a creative writing major with business-oriented ambitions participating in a banking internship).

Sources: Trusty J, "Study of Outcomes Associated with Use of the Kuder® Career Search with Person Match at a Public Research University in Greater Miami, Florida," Kuder, Inc., June 27, 2014, <http://www.kuder.com/wp-content/uploads/2014/07/Outcomes-Associated-with-Use-of-KCS-FL.pdf>; EAB interviews and analysis.

It Takes a Village

Visualizing a Cross-Functional Advising Model

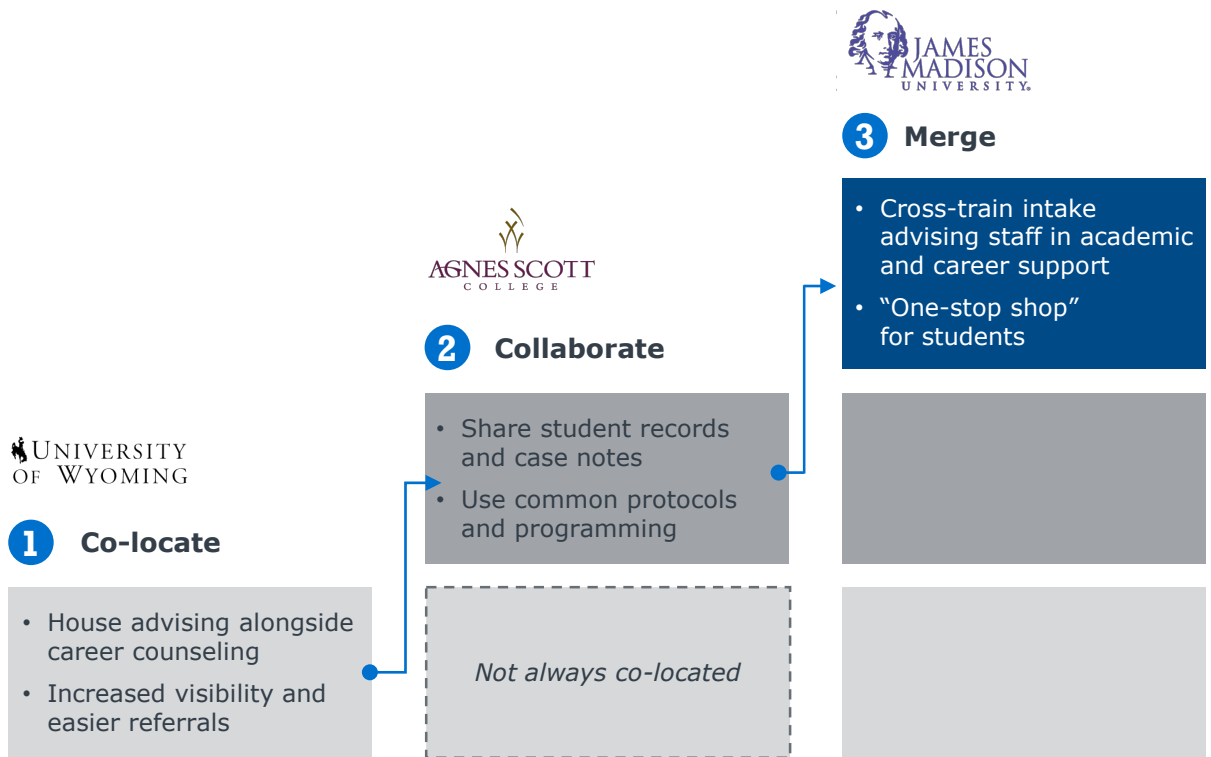
Integrating career development into a broader student success framework necessitates a career advising structure that more closely mirrors the robust set of advising and mentoring services colleges and universities provide to students as they navigate their academic experience. Like academic advising, career advising requires that undergraduates seek out the answers to a series of questions that vary in both complexity and the degree of specialized knowledge required to develop an answer. Supporting students through this process requires knowledgeable career advisors, but also access to alumni and industry experts, and a set of self-service resources for more basic tasks and questions.



Bridge the Structural Divide

Three Steps Toward a Hybrid Advising Model

Academic advising—particularly when professionally staffed and focused on students’ first year of courses—should be much more closely integrated with career advising, and even merged when possible. Bringing the two services into closer alignment promotes the development of shared programming and resources. It also ensures that academic planning decisions help inform and inflect career advising, and vice versa. This kind of alignment can emerge organically if the two advising units are co-located, or can be directed from above through explicit and structured collaboration.



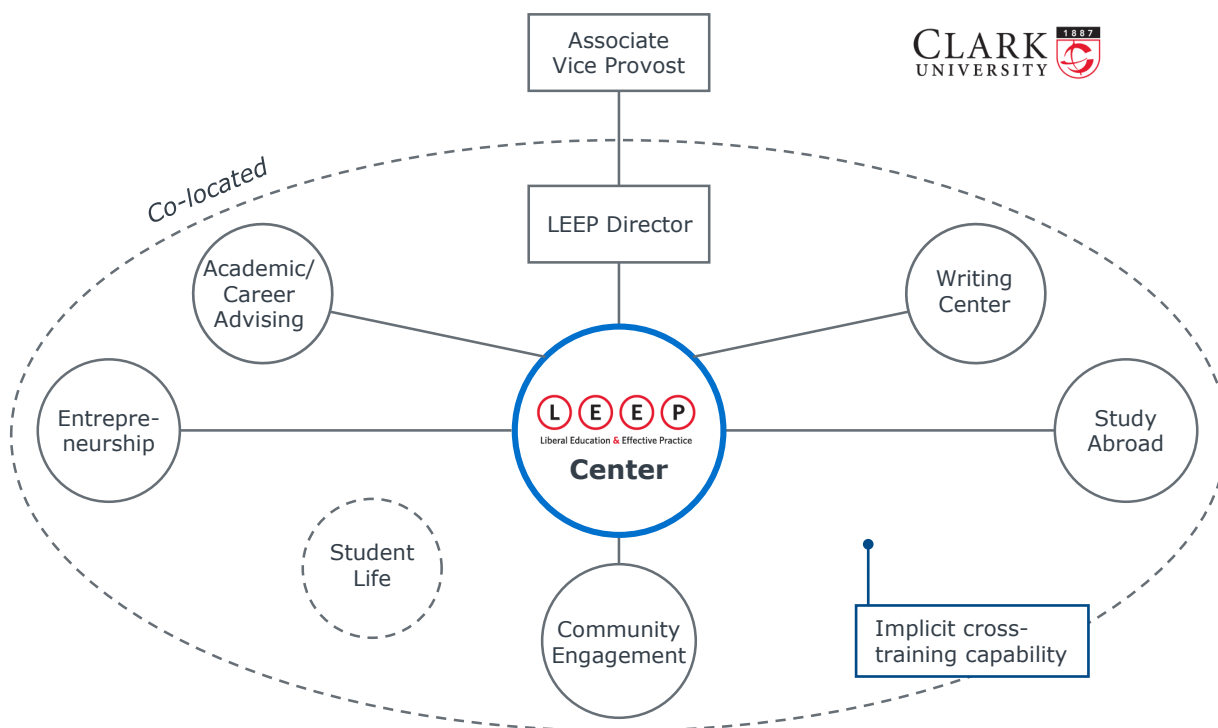
James Madison University circumvented the need for structured collaboration by merging the academic advising and career counseling functions on their campus. Insufficient advising capacity to meet the needs of an unusually large incoming class precipitated the merger, but an ancillary benefit has been a clearer alignment between career and academic pathing support for students. The merged advising office ensures that student career interests are fully integrated into academic advising, and it eliminates the need for, and potential drop-off during, a cross-advising referral process.

Sources: “SUMMIT Board of Advisors,” Agnes Scott College, <https://www.agnesscott.edu/summit/board-of-advisors.html>; “CAP Liaisons to Majors,” James Madison University Career and Academic Planning, <http://www.jmu.edu/cap/about/liaisons.shtml>; “Center for Advising and Career Services,” University of Wyoming, <http://www.uwyo.edu/cacs/>; EAB interviews and analysis.

Under One Roof

Cross-Functional Support Center Streamlines Student Experience

Clark University, a liberal arts-focused institution in Worcester, Massachusetts, has unified multiple student success-oriented support units under a single director in their LEEP¹ Center, who reports to an Associate Vice Provost within academic affairs. While merging academic and career advising, writing support, study abroad services, entrepreneurship support, and community engagement within one central office is rarely feasible at large, comprehensive institutions, we believe that Clark’s model will (and should) become more common among smaller, undergraduate-focused institutions in the years to come.



A desire to reduce labor costs through shared services prompted the creation of the center, along with a desire to bring Clark’s student success framework into closer alignment with their newly revised curriculum. Launching the LEEP Center demanded significant cross-training for many unit-specific staff—all of whom now serve as LEEP advisors responsible for many different aspects of student support and success. The cross-functional support center has improved the student advising experience—the LEEP Center supports 11,000 student interactions per year, of which 60% are substantial advising interactions.

Perhaps the most important benefit of this new structure is the narrative consistency of each advising interaction, for both staff and students. The academic mission and central themes of the institution are revisited and reaffirmed in each conversation, as students plan a wide variety of experiences with the LEEP objectives in mind.

1) Liberal Education and Effective Practice.

Sources: "Liberal Education & Effective Practice," Clark University, <http://www2.clarku.edu/leep/>; EAB interviews and analysis.

Provide Industry-Specific Guidance

George Mason University's Industry Advisor Model

Providing high-quality career counseling to undergraduates demands a level of industry-specific expertise that few institutions have in any great abundance outside of their alumni network. In an effort to enhance the quality of career counseling many institutions house them within colleges or clusters of similar academic departments, allowing the counselors to learn the specific needs of students in those programs and the industries with which they readily align. George Mason University has instead built its career advising model around clusters of similar industries.



John Connington¹
 Manager, Industry
 Advising and
 Employer Development

- 1 Employer Focus**
 - Role includes relationship-building with local employers
 - Coordinates campus visits and events
- 2 Industry Experience**
 - Several have previous entry-level HR experience
 - Familiar with hiring practices and industry trends
- 3 Student Preparation**
 - Works with students interested in specific industries
 - Helps students tailor job search to industry norms



- Consulting
- Consumer Products
- Finance
- Real Estate
- Retail



- Healthcare
- Sciences



- Construction
- Engineering
- Technology
- Transportation



- Criminal Justice
- Government
- Law



- Education
- Hospitality
- Tourism
- Human Services
- Non-Profit
- Sports
- Recreation



- Advertising
- Arts
- Entertainment
- Marketing
- Media
- PR

Many of the counselors are hired with entry-level HR experience in their assigned industry cluster. This experience allows them to provide students with up-to-date information on how to best prepare for specific kinds of entry-level careers.

By pulling the career advising structure out of the academic disciplines George Mason weakens the problematic link between specific academic programs and careers. This ensures that students have a clearer sense of the broad scope of career opportunities available to majors in traditional academic fields.

1) Pseudonym.

Sources: "University Career Services: About Us," George Mason University, <https://careers.gmu.edu/about/index.cfm>; EAB interviews and analysis.

Exploring by Doing

Early Opportunities for Application Allow Students to Test Long-Term Goals

Even structured advising can still result in misalignment between a student’s intended program of study and their interests and career goals. This can be corrected late in a student’s academic experience, but on occasion shifting trajectories can present students with set of very serious challenges that will increase time to degree, decrease persistence rates, and require the assumption of additional cost and student debt. Institutions should mitigate this risk by allowing students to test their assumptions about career alignment early during their first two years in college.



A Brief Glimpse

Typical:

Class field trip to a company or research laboratory



Best Practice:

**“Scientist for a day”:
hands-on field experience**



Viking Launch

- Weeklong early start
- Students visit a research site and conduct a brief service-learning project



Structured Exploration

Typical:

Lunch with alumni or departmental panel session



Best Practice:

**First-year job shadowing
with alumni host**



Externship Program

- Off-campus job shadow
- Students typically complete during first-year spring break



Intensive Experience

Typical:

Traditional internship—but not until third or fourth year



Best Practice:

**Winter internship preceded
by thorough prep course**



Internship 100

- 120-hour, 2-credit internship during January of first year
- Prep course covers professionalism and intern expectations

While many institutions offer brief opportunities for students to test their career plans during first and second year, typical programming often lacks structured reflection or rigorous learning outcomes. The most obvious answer is to match these students with internships in their first or second year, but students typically lack the experience to effectively participate in this kind of programming early in their academic career. Western Washington University and the University of Chicago provide students with the opportunity for highly structured job shadowing experiences during a student’s first year.

Endicott College is committed to providing its students with an internship experience during their first year. This first-year internship is typically shorter and less demanding than a traditional off-campus placement, but still demands a level of professional development uncommon to freshmen students. Endicott addresses this concern with an internship prep course designed to ensure that their students are well-equipped to maximized the value of their short internship.

Sources: “Viking Launch,” Western Washington University, http://www.wvu.edu/ee/youth/v_launch/bellingham.shtml; “Alumni Board of Governors Externship Program,” University of Chicago, <https://careeradvancement.uchicago.edu/jobs-internships-research/alumni-board-of-governors-externship>; “Internship Program,” Endicott College, <http://www.endicott.edu/Internship-Program.aspx>; EAB interviews and analysis.



Encourage Ongoing Reflection and Narration

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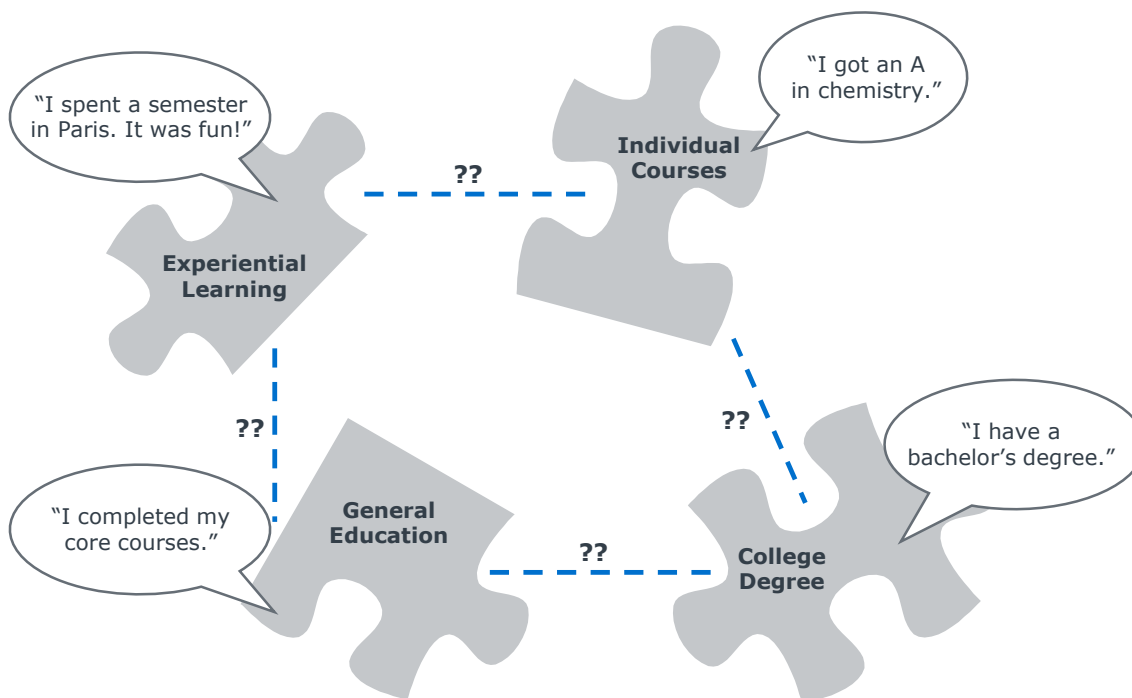
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- Practice 7: Experience-Spanning Reflection Exercises
- Practice 8: Thematic Core Curriculum Pathways
- Practice 9: Vocational Alignment Capstone
- Practice 10: Syllabus Competency Matching
- Practice 11: Student-Facing Reflection Tools

‘Tell Me Why You’re Qualified’

Why an Academic Transcript Rarely Translates to a Resume

While the bachelor's degree continues to serve as the clearest indication to employers that a graduate has the skills and experiences required to succeed in many entry-level positions, the link between a college degree and job readiness is weaker now than it has ever been—especially in majors and programs that are not explicitly professionally oriented. Hiring managers often lack the information or time necessary to develop a deep understanding of how the curricular and cocurricular elements of a graduate's college experience prepare them for the demands of a specific job opening.















The burden of translating the college experience from the language of education into the language of the workplace increasingly falls on graduates. These students—often well-prepared for post-graduation careers—are ill-equipped to articulate the value of their experiences beyond a list of courses and content. Many graduates fundamentally struggle to communicate to prospective employers the skills they developed while in college or how these skills meet the demands of specific careers. In short, graduates need to transition from “I took” and “I learned” statements towards “I did and I can do” assertions.

When Preparation Meets Opportunity

Three Steps to Add Academic Rigor to Cocurricular Experiences

It is not entirely surprising that students struggle to explain their college experience to employers—their resume or first job interview is typically the first time they are asked to do so. Institutions can help students prepare to articulate the value of their education—both academic and professional—to employers by incorporating a structured, three-stage reflection process into cocurricular activities. Typically these kinds of reflective exercises take place once during a student’s experience, and with little structure or oversight. The most progressive institutions have built pre-experience, during-experience, and post-experience reflection exercises into cocurricular opportunities in a way that prepares students to communicate the value of their education to a wide variety of stakeholders.

	Before Experience	During Experience	After Experience
<i>Typical practice</i>	 No preparation, or basic orientation covering logistics	 No continuous reflection, or an activity journal with little guidance or oversight	 Brief essay, required largely as a formality
<i>Best practice</i>	 Online “mini-MOOC” focused on NACE competencies	 Students complete guided inquiries with faculty advisor throughout co-op	 Students complete assessment with employers
	 Pre-internship career workshop series	 Students take an online portfolio development course concurrent with co-op	 Co-op employers evaluate student self-reflection pieces
	 Co-op prep course on professional skills	 Faculty engage in site-visits with community partners	 Post-work learning outcomes discussion with co-op employer

Sources: “Cooperative Education Program,” Antioch College, http://www.antiochcollege.edu/academics/co-op_program; “Cooperative Education and Career Development,” Northeastern University, <http://www.northeastern.edu/coop/>; “Endicott College Internship Program Site Supervisor Handbook,” Endicott College, [file:///C:/Users/BarnesD/Downloads/InternSupervisor_WEB_14%20\(3\).pdf](file:///C:/Users/BarnesD/Downloads/InternSupervisor_WEB_14%20(3).pdf); “Funded Internship Program,” Connecticut College, <https://www.conncoll.edu/career/funded-internship-program/>; “Receiving Internship Credit,” George Mason University, <http://integrative.gmu.edu/current-students/internships>; “Student Success,” Portland State University, <http://www.pdx.edu/student-success/>; EAB interviews and analysis.

Build a Narrative Around General Education

From Mere Exposure to Meaningful Experience

Articulating the value of general education presents a serious challenge to undergraduates. While affording students the opportunity to explore academic opportunities is valuable, without structure to support this exploration students end up selecting courses based on convenient times or the opportunity take classes with friends.

This presents a lost opportunity, as many students enter as freshmen with mission oriented interests, but lack the forethought to plan around these goals and interests. Northern Illinois University and Virginia Tech help students bridge this planning gap by structuring their general education requirements around broad themes instead of unstructured exploration.



*"I want a college degree so that one day I can work to solve **environmental sustainability** problems and help people in **developing countries** get **clean water**."*



Northern Illinois University

Typical Practice

Transcript

- English Composition
- General Chemistry
- **Biology of Sustainability**
- Intro. to Anthropology
- **Environmental Studies 1**



"I took some courses in different topics and learned about the majors I could study."

General Education Themes

Transcript

- Scientific Journalism
 - Water Chemistry
 - Biology of Sustainability
 - Natural Resources in Society
- Theme: Sustainability**



"I learned how I can combine skills across disciplines to research solutions to global resource shortages."



Experiential Pathways

Transcript

- Scientific Journalism
- Water Chemistry
- Biology of Sustainability
- Natural Resources in Society
- Environmental **Internship** at Water for People



"I did research during my internship that put my knowledge into action, and tested a new water purification method."

Typical general education requirements are narrated as a list of courses. NIU clusters general education requirements around a set of mission-oriented themes like sustainability. By imposing a narrative on the general education sequence students have an easier time narrating to employers the value of their experience in a coherent way.

Virginia Tech has further enhanced the value of general education by allowing students to structure their general education around a theme and to complete, with faculty support and supervision, some of their general education requirements with an experiential learning opportunity. This ensures that general education at Virginia Tech is as focused on content knowledge as it is on testing that knowledge in application—shrinking the gap between general education coursework and professionally-oriented skills.

Designing Your Life

The Stanford Design School's Approach to Post-graduation Planning

Even in cases where students are intrinsically motivated to think intentionally about their college experience and personal ambitions they can still struggle to understand how these experiences will impact their post-graduation trajectory. Stanford University helps its students, many of whom tend towards goal-oriented academic pathing, to reflect on how their experience at Stanford will impact their future through a very popular course called Designing Your Life.



Stanford
University

ME104B – Designing Your Life

- Launched in Spring 2010
- Uses design thinking to help students reflect on their time at Stanford and plan their “Odyssey Years”—the 3-5 years following graduation
- 2 units
- Pass/Fail
- 10 weeks
- Open to juniors and seniors
- Taught by faculty from the School of Design

50%

of Stanford undergraduates
enroll in the course

The ten-week, two-unit course enrolls juniors and seniors, who take the course pass/fail. It is taught by faculty members from the Stanford School of Design, who walk students through a set of reflection exercises based on design thinking. These exercises help students reflect on their time at Stanford and identify those themes that emerged organically within their curricular and cocurricular activities. Those themes with which the students feel the strongest affinity or alignment are then used as the foundation for a series of planning exercises focused on the mapping student’s “Odyssey Years”—the 3-5 years post graduation during which graduates are expected to explore many different opportunities in an effort to identify the career path that is best aligned to their personal mission and goals.

A Light (but Critical) Lift for Faculty

Identify Transferable Skills in Existing Curricula

Many of the soft skills that employers look for in entry-level employees are developed through the activities that make up traditional coursework. Unfortunately, students struggle to identify the broad competency crossing skills developed in typical course assignments and activities. Few students discuss their coursework in a skills-oriented vocabulary. Memorial University helps its students to develop a skills-oriented vocabulary by requiring faculty to articulate the skills developed by each course activity on their syllabi.


Sample Syllabus – English 111

Presentation – 30%
Students will form groups and present on a course topic.

Portfolio – 30%
Students keep a journal to record reading, reflections, and experiences.

Class Participation – 10%
Students are expected to attend, be prepared, and actively participate.


Final Exam – 25%
Written exam taken in class at the end of the semester.



Competencies Developed by Deans, Faculty, and Administrators

- Working within the dynamic of a group
- Research skills
- Oral presentation skills
- Leadership skills
- Ability to work within a time frame
- Critical thinking skills

No course redesign necessary; faculty map existing lessons to professional competencies



Memorial U found that employers were more likely to interview students who discuss coursework in terms of competencies than subject matter or academic field.

A committee of deans, faculty members, and administrators at Memorial University developed a list of general skills that students develop during their coursework and faculty map these skills to specific assignments on their syllabus. The initiative required little faculty effort and did not require any course redesign—simply a clearer articulation of the skills faculty members already believe students develop in their courses assignment by assignment.

The new skills-based outcomes have a measurable effect on student job searching behavior. During an on campus job fair students who used the new outcomes to discuss their coursework with potential employers were more likely to receive requests for follow-up interviews than students who discussed their coursework in terms of content knowledge.

Sources: Joy R, Shea R, et. al, "Advancing Career Integrated Learning at Memorial," Lecture, Cannexus, <http://cannexus.ca/wp-content/uploads/2014/04/advancing-career-integrated-learning-at-memorial.ppt>, 2013; EAB interviews and analysis.

Not Disruptive, but Still Constructive

New Credentialing Tools Best Leveraged to Inform, Not Replace, Resumes

When attempting to help students better articulate the value of their college experience to employers, it can be tempting to blame the traditional job application process for its inability to capture the professional value of a college education. This impulse motivates many institutions to look to potentially disruptive credentialing formats as a method to overcome the limitations of the traditional resume—especially cocurricular transcripts, e-portfolios, and badges. Unfortunately most hiring managers are unfamiliar with these resume alternatives and rarely display interest in reviewing documents outside of a traditional resume.

Student Activities, Experiential Learning, and Coursework

Reflection

Cocurricular Transcript



- Records participation in cocurricular activities
- Maps activities to types of experiential learning (e.g. service-learning)
- Memory aid for students in writing resumes

E-Portfolio



Florida State University

- Repository of student coursework and projects
- Student-facing portfolio includes reflection piece for each artifact
- Links coursework to specific professional competencies

Badges

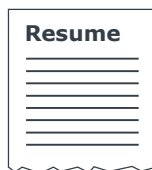


- Visual representation of verified mastery of skills
- Two applications: one sets up challenges to earn badges; one allows faculty to create badges
- Platform to display app's and Mozilla's badges

Reflection



73% of HR managers unfamiliar with e-portfolios; 93% want to see student's resume



That said, these resume alternatives do present opportunities to guide students through meaningful reflection. Cocurricular transcripts can help students identify the outside-of-the-classroom experiences that will be valuable to employers, and badges can support students as they identify the skills they have mastered.

E-portfolios present the most significant opportunity for guided student reflection. Compiling an e-portfolio helps students to link specific elements of their coursework with skills and professional competencies. Students will, however, need to translate their e-portfolio into resume format—a task made easier by the existing portfolio framework.

Sources: "Career Portfolio," Florida State University, <http://www.career.fsu.edu/Portfolio>; "Elon Experiences Transcript," Elon University, http://www.elon.edu/e-web/students/elon_experiences/transcript.xhtml; "Passport," Purdue University, <http://www.itap.purdue.edu/studio/passport/>; Ward C, Mosier C, "E-Portfolios as a Hiring Tool: Do Employers Really Care?," *EDUCAUSE Review*, November 17, 2008, <http://er.educause.edu/articles/2008/11/eportfolios-as-a-hiring-tool-do-employers-really-care>; EAB interviews and analysis.

Data Speaks Louder Than Words

People Analytics Threaten to Disrupt the Traditional Job Seeking

Recent shifts in the way corporations screen applicant credentials makes clearly articulating the value of a graduate's college experience more important than ever before. Communicating effectively with a hiring manager is no longer the primary challenge as automated applicant screening demands resumes that clearly match a student's college experience with the specific demands of the job, in a vocabulary that is more career oriented than education oriented.

The Status Quo



Keyword Resume Screening

Software sorts resumes based alignment between competencies listed in both the resumes and the job listing



Qualified applicants who fail to clearly articulate competences on their resumes will be sorted as underqualified.

A Fast-Emerging Approach



Gamified Skills Assessments

Online modules test both technical and soft skills through a series of games and traditional tests



Applicants without traditional degree-based credentials can outperform graduates if these graduates struggle to apply their training beyond the classroom

On the Horizon



Predictive Trajectory Matching

Longitudinal analysis identifies characteristics associated with the most successful employees



The digital footprint of a specific degree, program, or cocurricular activity will need to demonstrate a measurable link to career success for employers



Fast emerging are two technologies that make even an effective resume less potent for securing entry-level positions. Some organizations are beginning to deploy gamified skills assessments—online modules that test both the technical and soft skills of each applicant. This screening mechanism presents a significant success barrier to well-trained students without experience applying their skills in practice.

Even more disruptive is predictive trajectory matching, in which applicant characteristics are matched with those of present employees who have been successful within an institution. This kind of screening will demand that every student experience have a clear and measurable effect on long-term career success.

Sources: Rifkin G, "Big Data, Predictive Analytics and Hiring," Korn Ferry Institute, May 12, 2014, <http://www.kornferry.com/institute/big-data-predictive-analytics-and-hiring>; "Robot Recruiters," *The Economist*, April 6, 2013, <http://www.economist.com/news/business/21575820-how-software-helps-firms-hire-workers-more-efficiently-robot-recruiters>; Selingo J, *There is Life after College*, New York, HarperCollins Publishers, 2016; EAB interviews and analysis.



Augment the Core Curriculum to Address Skill and Experience Gaps

CHAPTER

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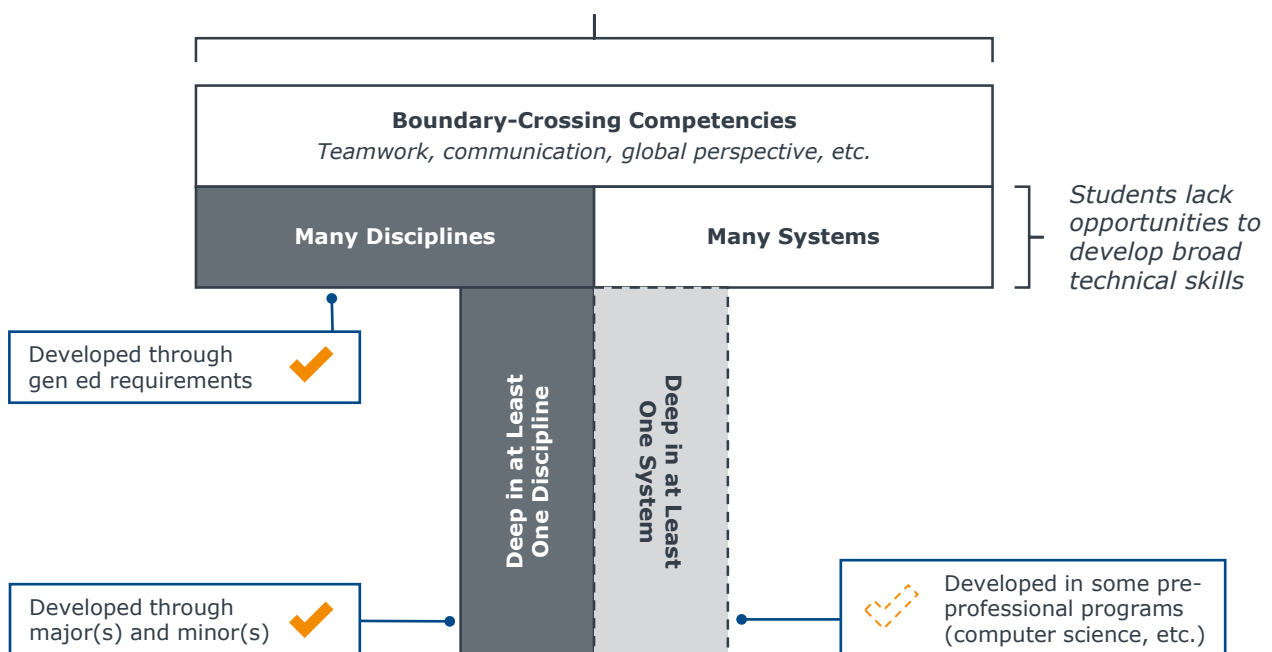
- Practice 12: Applied Learning Opportunity Portal
- Practice 13: Embedded Professional Tracks
- Practice 14: Problem-Based Experiential Fellowships
- Practice 15: Applied Degree Core

Today's Episode Brought to You by the Letter 'T'

Many Graduates Lack Broad Pre-professional and Technical Competencies

The ultimate goal of academically integrated career development is not the development of specific technical skills demanded by a specific position, but rather the production of a graduate that can display both breadth of learning, and a level of depth in a handful of skills and content knowledge sets. It must also ensure that students develop the boundary-crossing competencies necessary to leverage their skill and content knowledge in a wide-variety of careers.

Students struggle to articulate basic professional skills all employers look for



This relationship between breadth, depth, and boundary-crossing competencies is best reflected in the concept of the "T-Shaped Professional." The "T-Shaped Professional" is a person that displays all three aspects. Such individuals are considered ideal employees because they possess both soft skills that allow them to collaborate, as well as technical skills that allow them to innovate.

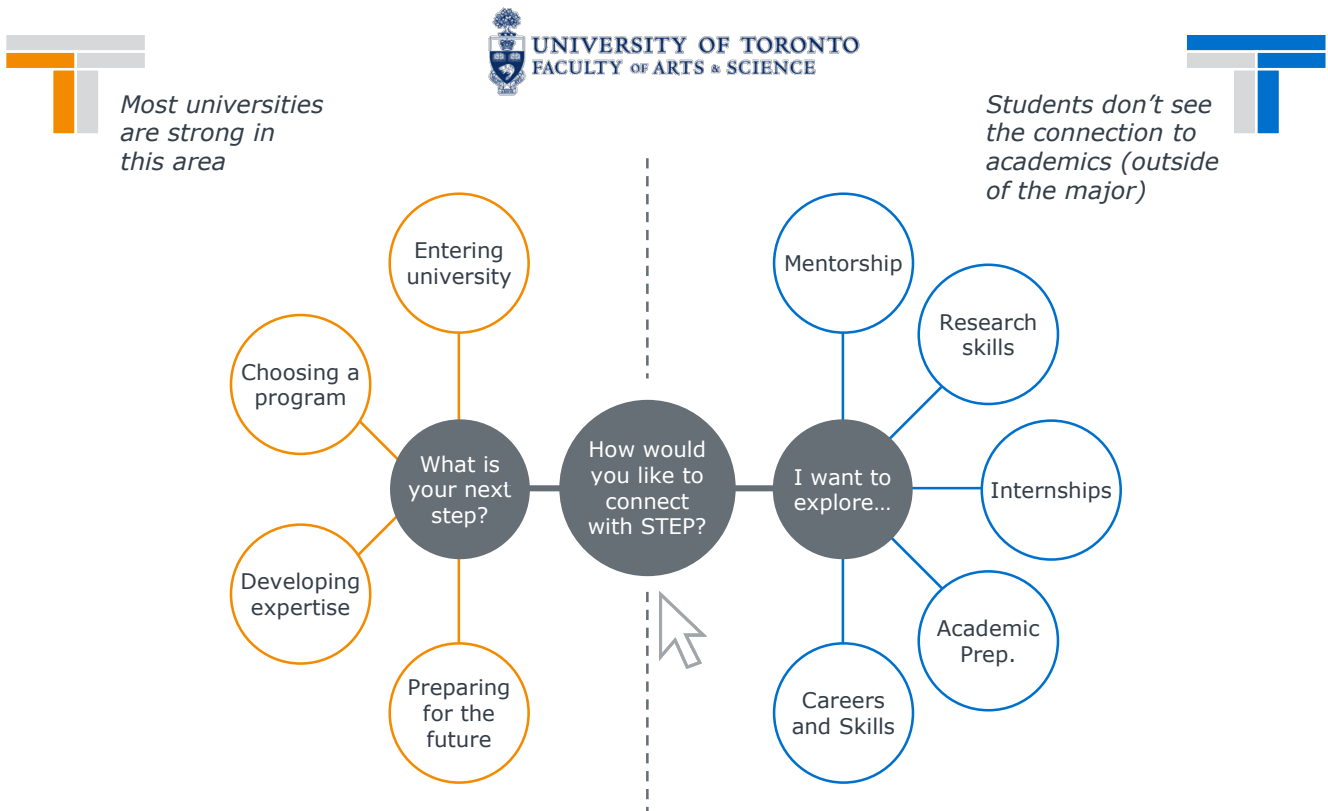
Students generally develop strong disciplinary knowledge, which makes up the left side of the T, through general education requirements that allow students to gain a broad exposure to a variety of different content knowledge sets. At the same time, students are able to build depth of knowledge in a specific discipline through study in their majors and minors. Where students tend to lack sufficient development is in systems knowledge or technical skills, namely for those in the liberal arts. They also struggle to develop the very top of the T in the kinds of applied skills that are essential to success in any career like teamwork, communication skills, and a global perspective.

Sources: "What is the 'T'?", T-Summit 2016, <http://tsummit.org/t>; EAB interviews and analysis.

A Curated Gateway to Early Skill Development

Messaging the Relevance of Pre-professional Activities to A&S Students

To develop those essential boundary-crossing competencies, students must build and test their skills in application. Opportunities for this kind of professional development exist on campus, but many students may not be aware of the opportunities provided by their institution. Centralizing a list of applied learning options in a single place can help generate student awareness and saves students the time and frustration of locating this often widely dispersed information.

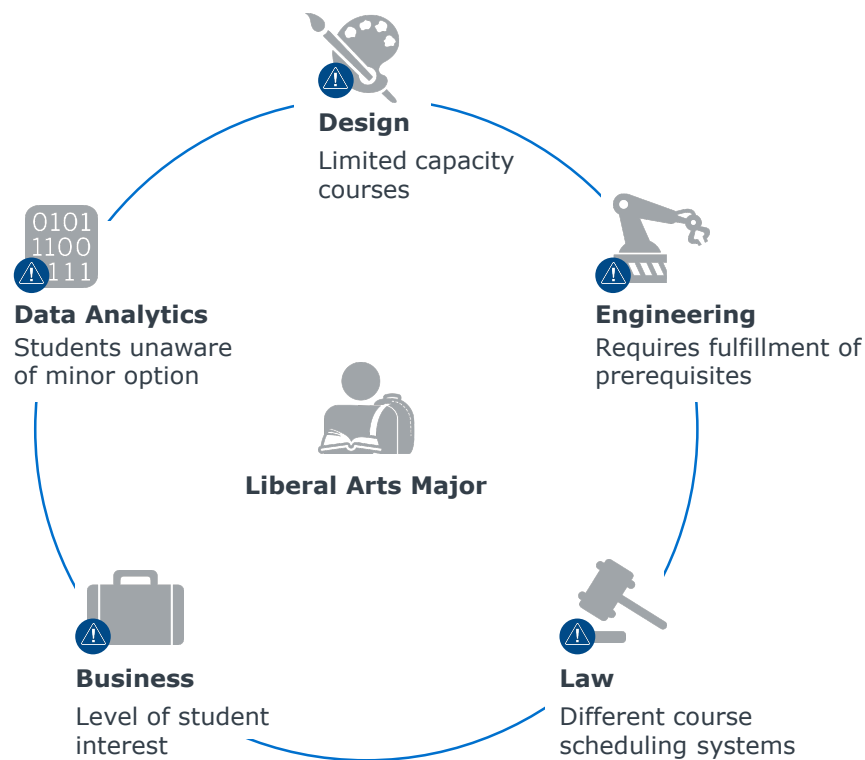


The University of Toronto has done this through their STEP website, a portal designed to connect their students in the Faculty of Arts and Sciences with specific curricular and cocurricular opportunities. The portal is tailored to the specific needs and interests of Arts and Sciences students because this group is in particular need of opportunities to further develop their technical breadth and depth. They are also less likely to be aware of the opportunities that exist on campus, as well as which ones are the best opportunities to support their needs and interests.

Just Out of Reach

Multiple Barriers Keep Liberal Arts Students from Career-Oriented Minors

Professionally-oriented minors present an excellent opportunity for students, especially liberal arts majors, to develop broad career-ready skills and experiences. Unfortunately, liberal arts students often fail to engage in these opportunities because of five barriers. They may not be interested in the kinds of professionally-oriented minors available to them, or may be unaware that they have access to these programs, for example.



Professional programs are typically the most capacity constrained on campus, and so high-demand programs may not be able to support additional minors. Some technical programs may require demanding prerequisites to access courses, or may even have course scheduling systems that are incompatible with those in a student's major program.

The challenge for institutions hoping to better equip liberal arts majors with pre-professional competencies is to structure relevant curricula in a way that is both attractive and convenient.

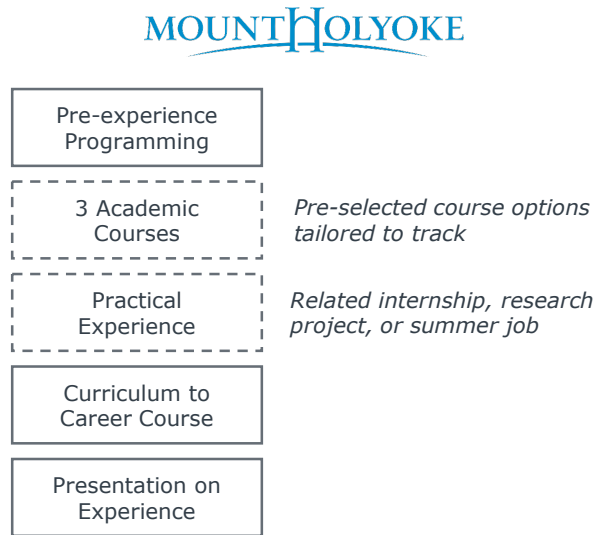
Meeting the Liberal Arts Halfway

Mount Holyoke’s Nexus Program Models Alternative to Minors

Instead of limiting their students to minors, Mount Holyoke developed *Nexus*, a set of professionally-oriented tracks focused on in-demand fields including engineering, global business, and non-profit management. The tracks are shorter than a minor, making them easier for students to complete. The shortened length does not diminish practical skills building. Several tracks require career development components like professionally-oriented experiential learning. They also require students take the “Curriculum to Career” course to help them reflect on and translate their Nexus experience into a professional asset.

Professionally Oriented Tracks Supplement Liberal Arts

- Focused on emerging fields:
 - Development studies
 - Engineering
 - Global business
 - Nonprofit organizations
 - Data Science
 - Educational Policy and Practice
 - Law, Public Policy, and Human Rights
- Prepare students for internships, research projects, careers
- Tracks run by inter-departmental faculty advisory groups or rotating chairs



100 Students declaring track in 2015

The tracks use a combination of fixed courses that are common to every track, and flexible coursework that differs for each field. The fixed course material teaches students general professional skills through internship preparation and high-impact reflection to help students draw connections between their curriculum and their intended careers. The only new course material developed specifically for each track is a series of three academic courses and a practical experience or internship. Mount Holyoke provides faculty stipends for new course development, but a central program director owns the tracks. As demand shifts over time, Mount Holyoke sunsets tracks by discontinuing new student recruitment and dismantling the track as students graduate or switch to other fields.

Sources: “Nexus: Curriculum to Career,” Mount Holyoke, www.mtholyoke.edu/acad/nexus; EAB interviews and analysis.

Specialize Without Sacrificing Breadth

Repackage Liberal Arts Majors (and Minors) Toward Today's Careers

Alternatively, practically-oriented tracks can be built directly into majors. By repackaging existing courses, Susquehanna University was able to launch a series of career-oriented minors without significantly overhauling the existing curriculum. Alumni employment trends informed which minors were launched. Several of these minors became so popular, Publishing and Editing in particular, that they were turned into independent majors. To combat fears that these programs would not succeed, five-year sunset plans were developed for each. However, the programs have proved highly attractive to students in the English department, which has seen an 80% increase in student majors.



English → Publishing and Editing



Professional in residence teaches industry specific practicum



Students required to complete internships in relevant industry



Core remains the same as English Literature with a few new major courses added



Program specific capstone

95%

Of graduates from School of Arts and Sciences are employed or continuing education

80%

Increase in English enrollments after 2-years

Prepares Students for Careers in:

- Editing
- Marketing
- Public Relations
- Arts Journalism
- Library and Information Science
- Media Management
- Production Management
- Communications

Other Career-Oriented Minors Launched Using Alumni Employment Clustering

- Arts Management
- Museum Studies
- Applied Language
- Public Policy
- Professional and Civic Writing

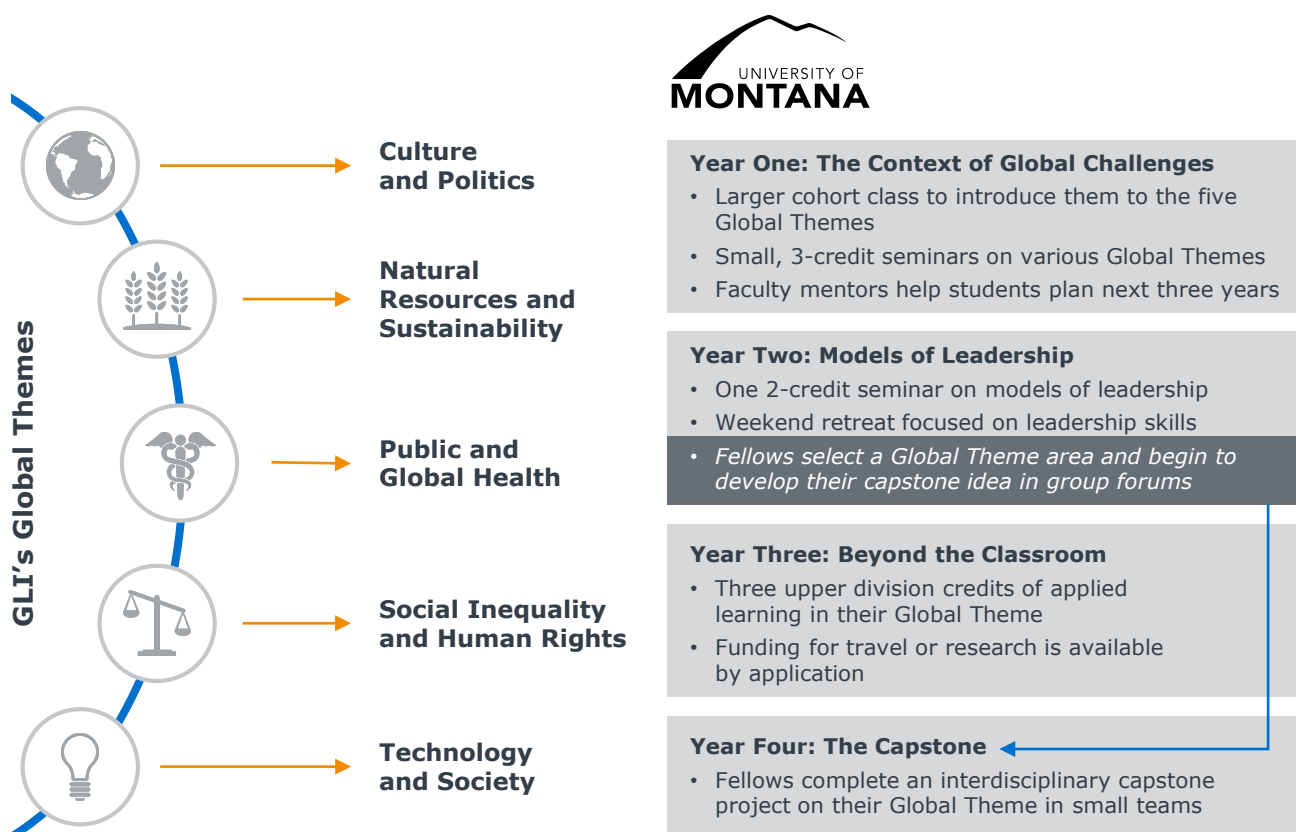
The Publishing and Editing major includes an industry practicum taught by a "Professional in Residence," a required internship in the publishing and editing industry, and a capstone project—all designed to prepare students for a career in digital publishing, marketing, public relations, arts journalism, library and information science, or media management.

Sources: Career Development Office, Susquehanna University; "Course Catalog: English – Publishing & Editing," Susquehanna University, <https://www.susqu.edu/academics/english-and-creative-writing-department-catalog/english-publishing-and-editing-major/minor-catalog>; EAB interviews and analysis.

A Problem Worth Solving

University of Montana's Global Leadership Initiative

Instead of launching professionally-oriented minors or tracks, institutions can engage students by orienting their entire academic experience around real world challenges and issues that resonate with students' personal mission-oriented goals and interests. The University of Montana's Global Leadership Initiative (GLI) is a four-year structured pathway that provides students with experiences that are easily narrated to future employers.



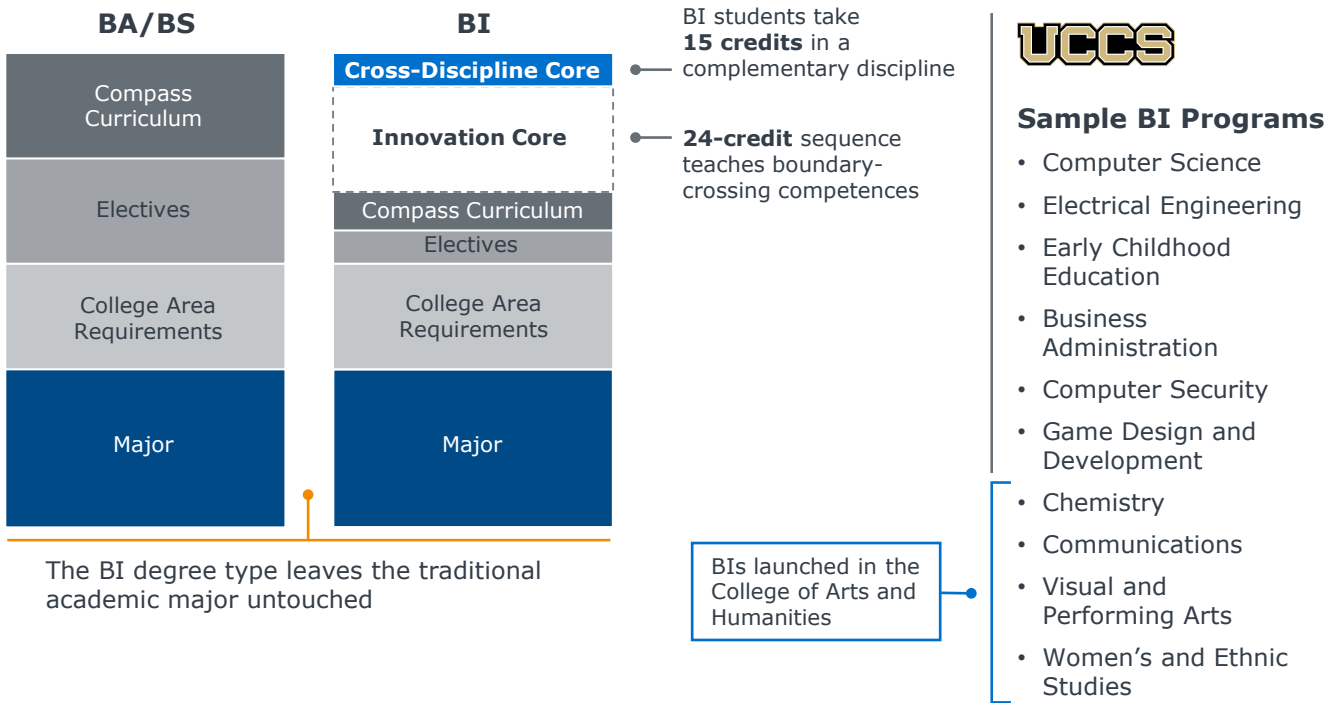
To participate in this program, students must apply prior to arriving at University of Montana. While GLI is considered prestigious and competitive, the institution uses a lottery-style application system to ensure the program is a representative cross-section of the student body.

The program begins with a series of globally-themed courses during which students map out their next three years under the guidance of faculty and academic advisors. In the second year, students declare their global challenge and take a series of "Models of Leadership" courses with several opportunities to apply their new found skills. In the third year students complete a required applied learning experience such as study abroad, an internship, service learning, or research and apply for funding to defray the travel or research expenses they expect to incur during their fourth year capstone. This capstone must address the global challenge they have focused on throughout the program.

The 'Bachelor of Innovation' Program

New Degree Model Provides a More Applied Core Curriculum

Employers have long complained about a “skills gap,” noting that job applicants often lack the right combination of soft, professional skills and technical knowledge required to do their jobs. While public debate typically focuses on the liberal arts, students in more technically focused fields also need opportunities to develop essential soft skills. Terry Boulton, a professor of computer science at the University of Colorado, Colorado Springs (UCCS) found during his time in the private sector that while entry-level computer engineers were very technically skilled, they frequently lacked the soft skills required to work on a team, engage with clients, or generate innovative solutions to problems. To address this problem Boulton helped UCCS launch the Bachelor of Innovation (BI).



The Bachelor of Innovation program is a parallel degree type. It does not replace the bachelor of arts or bachelor of science, but is offered as an alternative that students can take in a variety of disciplines ranging from the pre-professional to the liberal arts. The program replaces many of the traditional general education courses with the “Innovation Core”, a series of courses built around entrepreneurial and cross-disciplinary competencies. The BI does, however, leave major coursework untouched. This makes the BI a far more attractive option for those who wish to keep the core major intact while integrating a more professionally-oriented focus into the academic program. This feature of the BI has made it attractive to programs outside of pre-professional and technical fields, and UCCS now offers BI degrees in four majors in the College of Arts and Humanities, including Women's and Ethnic Studies where students develop the skills necessary to manage non-profit and activist organizations.

Sources: “Bachelor of Innovation Degrees,” University of Colorado, Colorado Springs, <http://innovation.uccs.edu>; EAB interviews and analysis.

Surprisingly Broad Uptake

BI Enrollment Growing Far Beyond Initial Projections

Innovation core courses are team taught and focus on ensuring that first and second year students from all disciplines receive a basic foundation in business, teamwork, and leadership skills. Allowing these courses to count towards general education requirements enables students to complete the program without adding time to degree. This has also made these courses popular general education options with non-Bachelor of Innovation students, allowing even more students to gain essential professional skills development.

Sample BI Courses

Introduction to Entrepreneurship

Designed to provide an introduction to the process of turning an idea into a successful startup business.

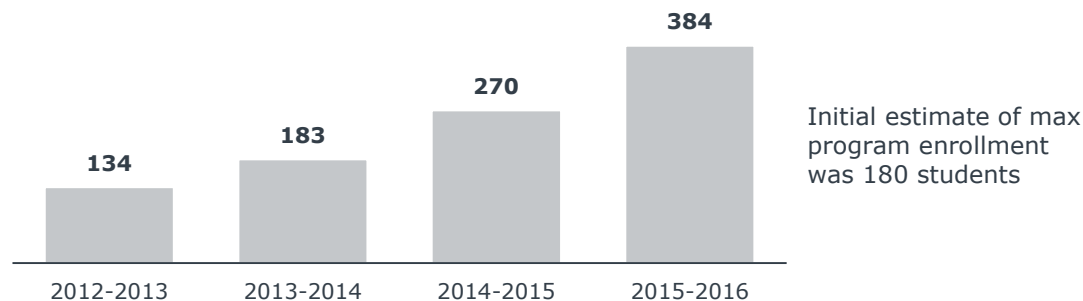
Innovation Teams

A 3-course sequence where students at different levels work in multi-disciplinary teams on real projects for external clients.

Entrepreneurship and Strategy

Bachelor of Innovation capstone course. Teams are coached in the creation of a business or the implementation of an innovation.

Students Enrolled in the Bachelor of Innovation



While UCCS initially expected the BI program enrollment peak at 180 students, the program has proven to be far more popular. In 2015-2016 enrollments hit 384 students and the program is expected to continue growing.



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