

## Re-Positioning or Re-Engineering the Liberal Arts Curriculum for the New Economy

As our society continues to mature from a mobile economy into the Internet of Things (IoT) and greater automation, workforce demand for science, technology, engineering and mathematics (STEM) graduates will continue to increase. With a workforce obsessed with growth and hiring more technology workers that are both degreed and non-degreed, as well as greater demand for more healthcare workers, a number of degrees and career paths have begun pointing downward. The National Center for Education Statistics (NCES) shows in its latest reporting<sup>i</sup> that the number earning an undergraduate humanities degree continues to decline from a high of 291,799 in 2013-14 to 270,643 in 2016-17. In contrast, the number of baccalaureate level computer science and engineering graduates has almost doubled since 1995-96. In addition, the number of graduates of natural science and mathematics programs took just sixteen years to double, going from 89,772 in 2000-01 to 172,100 in 2016-17. Emsi and the Strada Institute also report<sup>ii</sup> that from 1970 to 2016, Liberal Arts, Humanities and Social Science Majors have declined from 36% of majors to 23% of majors. Declines can also be noted in the number of undergraduate education degree holders.

So, with the humanities struggling, is it time to re-position or re-engineer the liberal arts degree? Early research and a review of literature suggest that there are many valued assets, skills, tools and competencies gained and developed through many of the degrees that make up the liberal arts category. Institutions can identify the curricular assets that will contribute to employability, while re-engineering lesser or weaker curricular components.

**Unbundle and recognize the existing assets and strengths within the liberal arts curriculum.** One could also argue that many of these assets or competencies gained through the liberal arts degree are hidden to the employer and thus less tangible or obvious in the hiring and promotion process. While it may be clear from a computer science major in terms of the languages learned by looking at a transcript, the skills and competencies that relate to a business environment may be underleveraged. One solution to bring these skills to the attention of the employer could be the creation of certificates or badges as one shows proficiency and mastery.

In the recently released Strada and Emsi white paper called Robot-Ready, Human Skills for the Future of Work, the companies identify a strong need for liberal arts graduates and how they contribute to teams, culture and successful outcomes. The paper also shows a strong migration from their first job to their third job and benefits associated with it.

**Table 318.20 Excerpt** – National Center for Education Statistics, Bachelor's degrees conferred by postsecondary institution by field of study: Selected years 1970-71 through 2016-17

Degree and year	Number of degrees conferred							
	Total degrees	Humanities <sup>1</sup>	Social and behavioral sciences <sup>2</sup>	Natural sciences and mathematics <sup>3</sup>	Computer sciences and engineering <sup>4</sup>	Educational	Business	Other fields <sup>5</sup>
1	2	3	4	5	6	7	8	9
<b>Bachelor's degrees</b>								
1970-71	839,730	143,549	193,511	81,916	52,570	176,307	115,396	76,481
1975-76	925,746	150,736	176,674	91,596	52,328	154,437	143,171	156,804
1980-81	935,140	134,139	141,581	78,092	90,476	108,074	200,521	182,257
1985-86	987,823	132,891	134,468	76,228	139,459	87,147	236,700	180,930
1990-91	1,094,538	172,485	183,762	70,209	104,910	110,807	249,165	203,200
1995-96	1,164,792	193,404	199,895	93,443	102,503	105,384	226,623	243,540
2000-01	1,244,171	214,107	201,681	89,772	117,011	105,458	263,515	252,627
2005-06	1,485,104	261,666	249,600	105,883	129,108	107,235	318,043	313,569
2010-11	1,716,053	288,446	278,075	131,871	136,163	104,008	365,133	412,357
2013-14	1,870,150	291,799	290,444	154,951	164,247	98,838	358,132	511,739
2014-15	1,894,969	280,956	284,544	161,800	174,691	91,596	363,741	537,641
2015-16	1,920,750	274,513	278,658	167,055	188,350	87,221	371,690	553,263
2016-17	1,956,032	270,643	275,960	172,100	205,181	85,118	381,353	565,677

<sup>1</sup> Includes degrees in Area, ethnic, cultural, gender, and group studies; English language and literature/letters; Foreign languages, literatures, and linguistics; Liberal arts and sciences, general studies, and humanities; Multi/interdisciplinary studies; Philosophy and religious studies; Theology and religious vocations; and Visual and performing arts.

<sup>2</sup> Includes Psychology, Social sciences, and History.

<sup>3</sup> Includes Biological and biomedical sciences; Mathematics and statistics; and Physical sciences and science technologies.

<sup>4</sup> Includes Computer and information sciences; Engineering; and Engineering technologies.

<sup>5</sup> Includes Agriculture and natural resources; Architecture and related services; Communication, journalism, and related programs; Communications technologies; Family and consumer sciences/human sciences; Health professions and related programs; Homeland security, law enforcement, and firefighting; Legal professions and studies; Library science; Military technologies and applied sciences; Parks, recreation, leisure, and fitness studies; Precision production; Public administration and social services; Transportation and materials moving; and Not classified by field of study.

These graduates “hit their stride later in their careers<sup>iii</sup>,” in that income and career advancement evolve, but often times not until the liberal arts graduate is well into their 30s or 40s in terms of age.

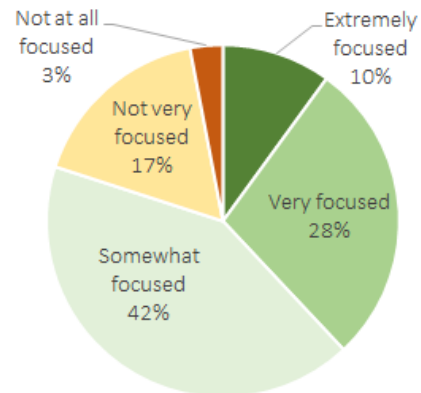
**Re-design the credential to have stronger components that increase employability.** After the assets have been identified as valued by the employer and thus brought to a greater light through credentialing on one’s resume, the institution still needs to consider culling weaker elements of the curriculum in favor of more valued or progressive courses. While potentially controversial, replacing courses that add little value to employability and success should be considered. Strada and Emsi report in their paper that many liberal arts majors are less likely than other majors to report that their coursework was helpful or that they acquired important life skills<sup>iv</sup>. To improve the curriculum, the voice of the employer needs to be heard. This could be accomplished by more active advisory committees and establishing ongoing relationships with employers.

Strada and Emsi report the need to develop and improve competencies such as problem-based learning. While some graduates may already have this competency, acknowledging and recognizing this skill through badging and other credentials could improve marketability of the potential candidate.

**Review the institution or academic department’s culture around the workforce and employability.** An institution should have in its strategic plan processes to implement, manage and evaluate how it supports students and graduates entering the workforce. Marrying the curricular concepts and theories with practical experiences, as well as encouraging the learner to add optional skills to further increase employability should be embedded in the culture of the institution regardless of academic department and degree. A recent UPCEA survey<sup>v</sup> of recent liberal arts graduates in the U.S. shows that only 38% felt that their institution was very or extremely focused on employment. Liberal arts students need to know from day one the importance of career-readiness. Advising and career development should be on-going, visible and proactive throughout the student’s tenure at the institution.

**Figure 1 – UPCEA Survey of Recent Liberal Arts Graduates in the U.S. (n=200)**

“How much did your college or university’s culture focus on preparing its graduates for employment?”



Future UPCEA research will address institutional preparedness for employment, career goals and migration, and what skills or competencies they bring to the workplace.

Additional UPCEA survey findings and Emsi/Strada insights will be presented at the UPCEA Annual Conference in Seattle on March 28, 2019.

<sup>i</sup> [https://nces.ed.gov/programs/digest/d18/tables/dt18\\_318.20.asp?current=yes](https://nces.ed.gov/programs/digest/d18/tables/dt18_318.20.asp?current=yes)

<sup>ii</sup> Robot-Ready: Human+ Skills for the Future of Work, November 2019.

<sup>iii</sup> Ibid.

<sup>iv</sup> Ibid.

<sup>v</sup> 2019 UPCEA Survey of Liberal Arts Graduates (2013-2018).