

# Un Début dans la Vie Humaine (A Start in Life): Liberal Education and the Modern University

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# **Un Début dans la Vie Humaine\*:**

## **Liberal Education and the Modern University**

*“No star is ever lost we once have seen,*

*We always may be what we might have been.” – Adelaide Anne Procter*

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**Abstract:** As students increasingly make the choice to attend university for their higher education, their lives are forever shaped by their experiences inside and outside of the classroom. My paper aims to determine the state of liberal education in the context of the rise of STEM fields, online learning, and economic pressures in political society. With an analysis of works by Aristotle, John Dewey, Michael Oakeshott and Leo Strauss, this paper develops a dialogue around the basis and tensions of liberal education. Robert M. Hutchins, Hubert Dreyfus and Sean Dorrance Kelly bring forth the importance of the Great Books to that conversation. A public interview with President of Wesleyan University, Michael S. Roth, extends the discussion to today’s university.

My paper concludes with an investigation into Boston University. Using multivariate regression, this study finds peculiarities about the influence of several goals of liberal education on feelings about future jobs. Additional content analysis reveals student understandings of liberal education, motivations for attending school as well as impactful courses and books. My ultimate hope is for administrators and faculty to preserve the vision of liberal education by demonstrating its ability to prepare students to graduate as moral citizens and professionals, as human beings moving towards their full potentials.

\*A start in Life (as in the all encompassing life—the universal and not particular)

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## **Introduction**

The target of higher education within the institution of the university has shifted, and students are missing its original mark. In order to understand how Athena works her magic, we must understand the story of liberal education, one that is not over until Odysseus shoots his arrow: “He plucked the string, and it sang beautifully/Under his touch, with a note like a swallows...the bronze-tipped arrow/Passed clean through the holes of all twelve axe heads/From first to last” (Homer 21.436-7, 448-50).

## **The Current State of Affairs**

The documentary, *Ivory Tower* (2014), seeks to investigate the costs and value of higher education in the United States. In it, Andrew DelBanco, Professor of Humanities at Columbia University describes college as “a way of trying to preserve cultural memory. It is a way to cheat death. So it’s a kind of struggle against death and mortality.”

The documentary examines several universities and their financing. For example, the cost of the MIT STATA Center was \$300 million dollars. Deep Springs College in California’s Death Valley, promotes self-governance, academics and labor, while curriculum is decided as a community. The Cooper Union, in New York, once in support of free public education, used money from loans to invest in hedge funds that collapsed during the financial crisis.

While the Higher Education Act of 1965 provided the Federal student loan program and Pell Grant scholarships, the documentary notes that the 1970s were a time for a shift from the public good to the private good. Then Governor Ronald Reagan of California ran for office, aiming to disband the Department of Education, saying, “We

need to keep government on the sidelines. Let the people develop their own skills, solve their own problems.”

The documentary also claims that student loan debt is getting larger than credit-card debt and that there is an influx of venture capital funded startups. In response, Jerry Brown, the now Governor of California asks, “this huge cost structure is part of the marketization of so many things in our society, but where does it get out of hand?”

DelBlanco believes, “there are other choices that could be made, I mean what kind of society do we want to be? We should tap into the idealism of young people and provoke students to think for themselves, to think critically about the way society has been put together.”

In a commencement speech at Sarah Lawrence, Fareed Zakaria encapsulates the spirit of liberal education, but he believes its value is fading. He points to the Governors of Texas, Florida, and North Carolina who want to stop using taxpayer dollars on the liberal arts. Florida Governor Rick Scott asks, “Is it a vital interest of the state to have more anthropologists? I don’t think so.”

Zakaria responds, “I could point out that a degree in art history or anthropology often requires the serious study of several languages and cultures, an ability to work in foreign countries, an eye for aesthetics, and a commitment to hard work—all of which might be useful in any number of professions in today’s globalized age.” After outlining the merits of liberal education in professional life, he concludes, “You need not just a good job but also a good life.”

## **Politics and the Problem of Education**

The fourth century BC philosopher Aristotle was among the first to attribute a good life to education. Through his ideas of happiness, he carefully sews an argument for education as indispensable to a successful society. Since according to him a regime would best govern if it made the city “happy most of all”, attending to what happiness is must be fundamental (*Pol VII: 13: 209*).

No one would argue, according to Aristotle, about the importance of education for a legislator, and for a regime. In order for the acquisition of virtue that Aristotle believes is indispensable for the best city, its individual members need education. On account of a citizen’s being part of a city, and the city’s striving toward the “single” end of happiness, its citizens must all be educated in the same way with a view toward that end. Moreover, Aristotle says that its citizens should receive a public education (*Pol VIII: 1: 223*). But how should they be educated? What, in fact, is education? Aristotle asks whether it is with “a view to the mind or with a view to the character of the soul” (*Pol VIII: 2: 224*).

Aristotle first explores “if there is an end for all that we do.” He defines this end as “the good achievable by action.” “The chief good,” happiness, he believes is something “final” and “self-sufficient,” in that it is always desired for its own sake. To clarify his interpretation of happiness, he investigates the function of human beings. If the function of man is, as Aristotle claims, “an activity of soul which follows or implies a rational principle,” and if the “function of a good man” is to act nobly, then the “human good” must involve such a rational, noble activity (*NE I: 7: 10-12*).

Because of the permanency of virtues amid a life of chance, the “happy man,” he says, is “engaged” in a contemplative life. Therefore, “the man who is truly good and

wise...always makes the best of circumstances” (*NE I: 10: 17*). In order to see the “nature of happiness” then, Aristotle believes we must see the “nature of virtue” (*NE I: 13: 19*).

Since virtue is an activity of the soul, a student of politics, Aristotle says, must “study the soul.” He must know “facts” about the soul. Virtue is of two kinds: intellectual, including “philosophic wisdom and understanding and practical wisdom,” and moral, such as “liberality and temperance” (*NE I: 13: 20-22*).

Later, in his *Politics*, Aristotle also points out that “the task for political thought and study” is to consider what is the best regime (*Pol VII: 2: 189-90*). Aristotle reminds us that such an investigation demands that we ask what is “the most choiceworthy way of life for all?” Whether the answer is “the same or different...for men in common and separately as individuals,” he proposes that we must reach an agreement (*Pol VII: 1: 187*).

Aristotle makes a distinction between three categories of “good” things, namely, “those that are external,” “those of the body,” and “those of the soul.” This distinction is important for his conclusion about the best way of life for all. If the answer is happiness, then what does it entail? “Living happily,” according to Aristotle, “is available to those who have to excess the adornments of character and mind but behave moderately in respect to the external acquisition of good things.” Accordingly, he believes there is a “limit” to external things, i.e. to “wealth, goods, power, reputation,” for an excess of them “must necessarily be either harmful or not beneficial” (*Pol VII: 1: 187-88*).

For him, what is useful necessarily follows from having an excess of “good things connected with the soul,” that is, living virtuously. Accordingly, he believes it is “for the

sake of the soul” that the good things for the body, wealth and reputation are “naturally choice-worthy” (*Pol VII: 1: 188*).

Extending this argument about individuals to the city, Aristotle thus examines the original issue of which is the best city. It is one that “is happy and acts finely,” and acting finely is inseparable from virtue. He notes its parallel effect between an individual and a city: “The courage, justice, and prudence of a city have the same power and form as those things human beings share in individually who are called just, prudent, and sound” (*Pol VII: 1: 189*).

However, the most choiceworthy way of life has been disputed, according to Aristotle, between “a political and active way of life” and a “philosophic way of life” (*Pol VII: 2: 190*). To say that a philosophic way of life is inactive is a false assumption, according to his logic, for if it results in superiority of virtue, it moves one to just acts. It is the pursuit of “studies and thoughts” for their own sake that induces one to act well. Again, the best way of life for an individual “must necessarily be the best” for the city as well (*Pol VII: 3: 193-4*). If a city could engage in philosophic life, then it would thus tend towards justice.

Aristotle notes that all cities require certain features that entail certain occupations. Cities need sustenance, arts, arms, funds, religion [“priestcraft”], but most importantly “decision concerning things advantageous and just in relation to one another” (*Pol VII: 8: 201*). This is consistent with Aristotle’s claim that a city’s success depends on its justness. In so far as Aristotle’s work aims to prescribe that we recognize our limitations, as well as our possibilities, our regime ought to aim towards “the actualization of virtue and a certain complete practice of it” (*Pol VII: 8: 200*).

So, he says, a city's excellence does not lie in its fortune, but in its "knowledge" and intention. Moreover, an excellent citizenry reveals a city's excellence. A man, he says, becomes excellent through "nature, habit, and reason." Nature belongs to the work of the fortune, the others to that of education, "for men learn some things by being habituated, others by listening" (*Pol VII: 13: 210*).

Still, should we be educated in things that are useful, e.g. productive, or rather in things that make us virtuous? The custom, Aristotle says, is to be educated in "letters, gymnastics, music...some in drawing...letters and drawing being useful for life and having many uses, gymnastics as contributing to courage." The inclusion of music, he explains, originated from the idea that "nature itself seeks...to be capable of being at leisure in noble fashion...for this is the beginning point of everything" (*Pol VIII: 3: 225*).

He elaborates what "letters" and "drawing" entail: "Letters are with a view to money-making, management of the household, learning, and many political activities (and drawing too is held to be useful with a view to judging more finely the works of artisans)" (*Pol VIII: 3: 226*).

Accordingly, he makes a statement for an education that is not "useful or necessary" but "liberal and noble." He does not discount the learning of useful things, but believes we ought to not only learn them for their utility, "but also because many other sorts of learning become possible through them." For example, he believes one ought to be "educated in drawing...because it makes [one] expert at studying the beauty connected with bodies." Additionally, just as education for habits is a prerequisite for education for reason, education for the body is one for the mind (*Pol VIII: 3: 226*).

If the soul constitutes an individual's happiness—that which contributes to the best regime—and the legislator's job is to provide an education that allows for its cultivation, then wherein lies the work of music? Music not only involves “a natural pleasure,” but the practice of it “contributes to the character and the soul.” Since ancient times, “the tunes of Olympus” were what made the soul “inspired.” And what is inspiration? Inspiration is, for Aristotle, “a passion of the character connected with the soul” (*Pol VIII: 5: 230-31*).

Illuminating our very nature, music education embodies liberal education's original intent, to cultivate virtuous citizens. Music, for Aristotle, expresses the true intimations of our nature. For him, our soul is altered. Thus, “habituation to feel pain and enjoyment in similar things is close to being in the same condition relative to the truth.” If music can affect the “character of the soul,” the youth must accordingly be educated in this. This is not to say that music is the end of all studies, or that that everyone should become a musician (*Pol VIII: 6: 231-34*). Nevertheless, it is from this that one learns how to judge, which is necessary for determining what is good and just in political societies. According to translator of Aristotle's *Politics*, Carnes Lord, “in the Horatian formula, it ‘mixes the ‘sweet’ with the ‘useful’ (Lord 85). This blend is no longer the recipe for liberal education in the work of John Dewey, for while he reveals human aims, his proposed methods favor the useful. Like Aristotle, he attempted to offer his philosophy of education to achieve the best political society.

An influential figure in shaping formal education in America, Dewey, in his 1916 *Democracy and Education*, proposes a way to realize the ideal of democracy, through an assessment and subsequent reconstruction of education as understood by those before

him. In his preface, he outlines his goals: “the development of the experimental method in the sciences, evolutionary ideas in the biological sciences, and the industrial reorganization” (v). He proposes to transform subjects and teaching methods in order to realize democracy’s ideal, which for him consists in “free interchange” and “social continuity” (344).

Dewey presents education as necessary to human life. As a living being, an individual must use “light, air, moisture and the material of the soil” for “means of its [his or her] own conservation” (1). We have a choice in how energy can be used. “Life,” he says, “is a self-renewing process through action upon the environment” (2). This illustration extends beyond one’s own civilization. The existence of society, analogous to biological processes, consists in “communication of habits of doing, thinking, and feeling from the older to the younger” (3).

Communication, in this sense, must share “emotional and intellectual dispositions” for the purposes of a “common understanding” (5). What a community requires, Dewey says, are both cognizance and orientation of human activities towards the “common end” (5). Inherent in communication is its “educative” quality (6). Formal education is required “to transmit all the resources and achievements of a complex society” (9). Securing the ability of the youth “to share in a common life” is thus education’s aim (8).

However, Dewey recognizes that as societies become more multifaceted, an important split arises between social interactions and what is learned in school. He accordingly emphasizes the integration between both “technical intellectual skill” and

“social disposition,” particularly in a time of high growth rates still distinctive of present day (10).

As a social environment, school allows for controlled education, which can in turn help orient the new members of society towards democracy’s goals. A school’s “duty,” Dewey believes, is to foster an environment that acts in the direction of “a better future society” (24). Furthermore, it allows for a place to leave the home, as one would upon entering a diverse society (24). On that note, the school allows the various views arising from various student backgrounds to be situated in a “steady and integrating” fashion (26). The goal of this integration, as identified by Dewey, is a “common intent in behavior” (37).

Dewey believes social control builds this intent—essential for communities. Social control, for him, is the development of a certain “mental disposition,” allowing for participation in society (38). However, its formation does not merely consist in imitating others, but rather “that each should adapt his action in view of what the other person has done and is to do” (36-7).

Collective experience, Dewey believes, elicits “educative conditions of daily life,” inevitably shaping the direction of one’s mind and morals (39). From this condition of human societal life, Dewey presents the necessity of “intentional education” (40). While this intentional education can aim to develop “technical specialized ability” in various fields, Dewey stresses it should not be without direction towards what is “useful.” What is useful involves “joint activity” and “common understanding” acquired purposively through the work of education (41). The objective of this understanding is what Dewey calls a “*social sense*” of one’s own capabilities (42).

How does one arrive at this mental character? Dewey's response is growth, which presupposes "*plasticity*," the "ability to learn from experience" and face future difficulties (46). In order to sustain plasticity beyond childhood, it needs the space of universities for youth to form habits necessary for the success of societies. Habits, according to Dewey, "use natural conditions as means to ends" (48). He acknowledges plasticity decreases with age; however, he asserts that the formation of habits can provide a countering force. Thus, habits need an environment to secure "full use of intelligence" (51). Accordingly, education ought to tap into the potentials of its students, inspire them to take initiatives, and instill a "desire for continued growth" (52, 55).

Education, as defined by Dewey, rearranges experience, giving it meaning and direction for future experiences (78). Through the perception of connections, a student can "*intend* consequences" (79). Education can be either a "process of accommodating the future to the past," or more powerfully, use "the past for a resource in a developing future" (81). Rather than reproduce the current way of life, Dewey suggests that we seek to improve it.

Democracy, in so far as it encourages participation and allows "readjustment of its institutions" through "associated life," requires education. Education, then, must foster "personal interest in social relationships" as well as "habits of mind," to bring about social change effectively (101). Education must assume the responsibility for fulfilling such aims.

Dewey offers a strong case for the sciences within his framework for education. This is because he believes the tendency of sciences to "weed out what is erroneous, to add to their accuracy," is precisely what allows us to change our environment (256). He

calls science “the perfecting of knowing” (256). Science has led to what he calls “increased culture” where more desires elicit more action. So “progress” he claims arises from the “search for new means of execution” (261). He believes we ought to use science as an “experience in becoming rational” (263). Science, in so far as it is able “to free an experience from all which is purely personal,” it may be saved for “*further* use.” Hence, science is indispensable for “social progress” (264). Science, for him, is a human study that liberates “human intelligence and sympathy” (269). This confidence in the scientific method reveals the heart of Dewey’s belief in its possibilities for democracy.

However, Dewey contrasts “intellectual subjection” with “intellectual freedom” to demonstrate which is properly suited for democracy (306-7). Intellectual freedom is a “mental attitude” that comes into being through “exploration, experimentation, application, etc.” The alternative, a society of intellectual subjection, limits the diverse interests and talents of its members through conformity. A democratic society then must tend towards education that allows individuals to become intellectually free (307).

This type of education brings vocational aims onto the stage, which for Dewey ought not to be the sole purpose of education. An occupation is the balance between an individual’s abilities and his “social service” (310). He also refers to it as “a continuous activity having a purpose” calling “instincts and habits into play” (311). The problem, however, with education limited to vocational preparation, is that it will “perpetuate divisions and weaknesses” of existing regimes, what Dewey calls “social predestination.” His solution rests in an education that “acknowledges the full intellectual and social meaning of a vocation” (320). From history and science to economics and politics,

Dewey believes the education required for democracy understands the past and can respond to the future (320-1).

His philosophy of education establishes a connection between theory and practice, implicating democracy in practice. Accordingly, he characterizes his proposition “to maintain the continuity of knowing with an activity which purposely modifies the environment” as “pragmatic” (400). In their advancements, “physiology, biology, and the logic of the experimental sciences” have provided the means to direct behaviors towards the fulfillment of democracy’s principles; namely, “free interchange” and “social continuity” (401).

Dewey also gave special attention to education’s role in shaping morals. For according to him, “virtue means to be full and adequately what one is capable of becoming through association with others in all offices of life” (415). This conception of virtue is consistent with his aim of education wherein “the administration, curriculum, and methods of instruction” are “animated by a social spirit” (415). Furthermore, Dewey argues, if education can develop “power to share effectively in social life,” then it is “moral” (417). Morality as such, culminates in his view of the “continuous readjustment” of social life necessary for growth, particularly within democracies (417).

Does liberal education offer this kind of growth in democracies? Are the sciences the only answer for progress? Michael Oakeshott and his views on teaching and learning can bring Dewey’s pragmatic approach deeper, generating more meaningful consequences for political society.

## **Reclaiming the Case for Liberal Education**

When approaching Oakeshott's works, the question we are first faced with is, what makes a human being free? Some posit the immortality of the soul; others, free will, and many more believe biochemistry wholly explains us. For Oakeshott, a human being is inherently free in so far as he is able to express both his understanding of himself and of the world (19).

Oakeshott's essays on liberal education discuss the relationship between teaching and learning. The essays, arranged by Timothy Fuller, proceed by their subject matter as a conversation, eliciting clarity to Oakeshott's work "as a whole" (2). Ranging from the freedom of man to his culture, Oakeshott's 1975 essay "A Place of Learning" reveals the connection between liberal learning and self-understanding. "Learning and Teaching" (1965) involves a teacher who communicates human achievements to a student, who then becomes capable of "choice and self direction" (43). "Education: The Engagement and Its Frustration" (1972) illuminates the moment when the student meets the "inheritance" of human intelligence and the challenges he may face for the moments to come (71).

In "The Idea of A University" (1950), Oakeshott investigates the nature of curricula, undergraduates, and what liberal learning can offer the university so as to address the plight of the world. Against the background of whether or not universities should reflect the world, in "The Universities" (1949) he calls for a revisiting of the "basis of the university" (115). As politics and knowledge are inextricably related, his 1951 essay "Political Education" considers how we ought to approach political learning.

From his conception of freedom, Oakeshott develops an idea of learning. Humans come to a "condition of self-understanding," he claims, through self-consciousness (19).

Because our thoughts and feelings have meaning, we thus have a burden of responsibility; we cannot escape our condition. The price we pay for the “intelligent activity which constitutes being human,” according to Oakeshott, “is learning” (20).

So what are the consequences of this learning for man? Each man, he says, is “what he learns to become,” “his own self-enacted ‘history’.” The “expression of ‘human nature’” comes from our common experience in this activity (21). Learning, for Oakeshott, concerns “self-conscious engagement,” a “self-imposed task inspired by the intimations of what there is to learn (that is, by awareness of our own ignorance) and by a wish to understand” (22). Learning is not a potential with an end, but rather a condition of humans. So, to confront the world we live in, to respond to it, is then the chief task of a human being over the entire course of his or her life.

Liberal education provides an initiation into this kind of learning. Liberal learning can be called “liberal” in the sense that we can learn without the demands of “satisfying contingent wants” (28). In so far as liberal education has to do with the human condition, Oakeshott interprets the Greek aphorism, “Know Thyself” as in fact learning “to know thyself” (28). The tragedy of university as it stands today, exists among students, for whom no opportunity is given for a reincarnation.

It is with genuine self-understanding that Oakeshott introduces the idea of culture. For a human being to gain self-knowledge, Oakeshott believes, he or she must learn “to participate in what is called a ‘culture’ (28). A man’s culture is “a contingent flow of intellectual and emotional adventures, a mixture of old and new” (29). Liberal learning involves “learning to respond to invitations” of these adventures (32). As a result, “a man is his culture, and what he is he has had to learn to become” (29).

Nonetheless, “instrumental art” has prevailed. This art has given rise to training for medical schools, law schools, language schools, journalism schools, and the like. However, the real threat to liberal learning emerges not from the training for various “often-prematurely chosen” professions, but rather from the fact that students in modern universities are taught the role in society’s play, a “surrender of learning...to socialization.” The cast consists of roles that promote the “uniformity” that characterizes the current way of life (31). Liberal learning can liberate the student from this role by allowing him or her to learn the single most important task of a human being—“to think for oneself” (32).

Rather than conforming to today’s culture of socialization and professionalization that Oakeshott anticipated, he calls for a renewed unity of knowledge. As this unity dissolved, bit-by-bit, liberal education has fundamentally changed. Liberal education’s tone, once set by the humanities, has since deviated into dissonance. The humanities allowed for “investments in thought,” opening the way for understanding by analogy (33). However, the redefinition of other courses of study moved away from the liberal learning crucial to a unity of understanding.

A departure from the humanities, the social sciences indicated another change. The problem with the social sciences (“sociology, anthropology, psychology, economics, perhaps jurisprudence and something called ‘politics’”) is that in their effort to create a “natural science of human conduct,” they have corrupted liberal learning, working from conclusions rather than in “philosophical enquiry.” Social sciences have placed all investigations on the same plane, valued only “in terms of the use that may be made of the conclusions of their enquiries” (35-36). Additionally, psychology, by calling itself a

natural science, is at risk for reduction into “genetic and chemical processes” (36). This is a failure in light of the substance of learning, its essential humanness.

An extension of the aforementioned instrumental art, “human art” involves understanding how to choose our desires and what “conditions” are involved in their satisfaction (26). This art “is never fixed and finished; it has to be used and it is continuously modified in use” (26). Liberal learning shares this quality, as it faces the difficulty of an “always imperfect” character (39). Because of this tendency, universities largely resist what such learning has the potential to offer. Rather than remaining within the familiar, liberal learning enables an individual to take some time to entirely “disentangle himself” from the pressures of the practical world, and to “listen to the conversation in which human beings forever seek to understand themselves” (41).

Furthermore, if one understands liberal learning as “an education in imagination, an initiation into the art of this conversation in which we learn to recognize the voices; to distinguish different modes of utterance, to acquire the intellectual and moral habits appropriate to this conversational relationship,” then we could have our first performance as authentic characters in the drama of modern life (39).

Oakeshott draws out the relationship between learning and teaching, an invitation to all of human achievement. This comes in the form of “inheritance”, to which “every man is born an heir” (45). To enter into it, to be a part of it, is the essence of being human (45). Teaching, then, lies in deliberate initiation of a student into that world (46). To recognize oneself in the mirror of this inheritance is, by Oakeshott’s standards, the only way for a person to make the most of him or herself (48). “The business of the teacher” is to allow a student to leave his or her current thoughts and feelings and go beyond them

(49). A teacher can thus do so for a student “by making available to him something which approximates more closely to the whole of his inheritance” (49). Learning goes beyond “how to judge, interpret and use information,” it is an acquisition of “the ability to feel and to think” (61). A student must first “learn to listen” for human attempts to feel, to think and to express, and also “to recognize” them in others (61).

A university, Oakeshott believes, is not “a passage of time hurried through on the way to more profitable engagements.” He believes it is rather a place of gratitude (70). He identifies the emergence of this misconception as time-bided alongside the growth of the natural sciences. The problem with the natural sciences is that they claim a distinct culture, one not part of the whole of human understanding. First thought of as “useful” knowledge concerning the natural ways of the world, natural sciences are now associated with vocations, promoted for “‘social’ considerations” (88).

It was when “socialization” took the name of education, that Oakeshott tied problems in society to problems in education. The university’s design exists for the betterment of “the nation,” which built a “service industry.” Since education’s success is determined by the amount of money it can attain, its end has been reduced to “costs and benefits” (90).

Oakeshott notes that the “Middle Ages called it *Studium*,” he says we may call it “the pursuit of learning” (96). However, the pursuit of learning has been altogether disregarded. In response, Oakeshott clarifies that “a university is not a machine for achieving a particular purpose or producing a particular result; it is a manner of human activity” (96). “To be alive,” he says, “is to be perpetually active” (95). The aim of a university education is not limited to skill proficiency for some external end.

The change in the purpose of the university is not without consequence. Oakeshott notes that it is considered “errant” to enter the world as an individual who does not solely contribute to his or her own benefit (103). Though abundant in wealth and good intentions, the world replaced “education with training for a profession,” and needs to attend to itself (101). A misplaced aim has consequently led to “a world of power and utility, of exploitation” (103). Oakeshott offers a means to return—a university, suspended in time, can be once again an undertaking to learn “in the company of kindred spirits” (101).

Oakeshott, making these observations from 40 to 75 years ago, perceived problems within today’s system of university education. An inability to tie human efforts together, for him, exposed a crisis of the university. More specifically, “most students go through our universities without ever having been forced to exercise their minds on the issues which are really fundamental” (107). Furthermore, undergraduates “receive no encouragement to achieve an integrated view of the world,” for Oakeshott this means, “the university has become a polytechnic” (107). The way to overcome this crisis rests in a “project of uncovering everything, of thinking out afresh the whole aim and basis of the university with a view to making a new start” (115). This start is one that remains necessary in confronting the predicaments facing our world of 2015.

The place of technical and professional training in the university nonetheless remains to be seen. Its integration should not face complications, as long as the fundamental aim of education remains “to enable a man to make his own thought clear and to attend to what passes before him” (133).

Modern life necessarily involves an individual's relationship with society, wherein arises the importance of political education. In order to understand political education, we must look at political activity, which is "at one level or another, a universal activity" (137). "Attending to arrangements of society," according to Oakeshott, "has to be learned" (137). Politics, therefore, involves knowledge (137). Because knowledge of this sort "is inherent in any understanding of political activity," we can improve our understanding (138). Rather than in general principles or certain ideals, the heart of politics exists in consequences of intimations (147).

Political education can be aligned with liberal learning. Up until September 11, 2001, political crises, Oakeshott points out "always appear *within* a tradition of political activity" (149). Political education aims not only to understand tradition, but also to learn "how to participate in a conversation," which "is at once initiation into an inheritance in which we have a life interest, and the exploration of its intimations" (151). While political education holds a "proper" place in the university, it ought to be approached from a historical perspective, one whose significance comes from "the history, not of political ideas, but of the manner of our political thinking" (153). Leo Strauss elucidates that manner of thinking to the graduates of the Basic Program of Liberal Education for Adults, speaking directly to democracy's relationship with liberal education.

In his 1959 address titled, "*What is Liberal Education?*" Strauss brought to life the essence of liberal education still relevant for our modern world. He begins with the subject of culture, which for Strauss is the end of liberal education. Culture, according to Strauss, takes its first meaning in agriculture, and today, still takes on its second: he refers to Cicero's transformed use of the word, "*cultura animi*" (V §13), "the cultivation of the

mind, the taking care and improving of the native faculties of the mind in accordance with the nature of the mind.” In so far as liberal education consists in studying “with the proper care” that which “the great minds have left behind,” liberal education, for Strauss, is an “education in culture or toward culture.”

However, if liberal education strictly endorses Western culture, its original aim is thus reversed. One is led to ask what is at stake when we lose “the liberalism, the generosity, the open-mindedness, of liberal education?” As time has passed and the meaning of culture has changed, Strauss argues, “We have lost our way.” To find our direction once again, he would say to us, just as he did to the graduates—we should seek to understand liberal education as it stands today.

We live in a modern democracy, and Strauss purports that if we notice how the conception of democracy has changed since its original formulations, we can find liberal education’s place within it. Democracy, as interpreted by Strauss, is a universal aristocracy that “stands or falls by virtue.” This virtuous democracy requires wisdom, wherein “all or most adults have developed their reason to a high degree.” Political science, according to Strauss, has debated and continues to debate the democracy of the ancients, what some would call its ideal, and present democracy, its reality.

Modern democracy, Strauss claims, “would be mass rule were it not for the fact that the mass cannot rule but is ruled by elites.” The democratic means of equal opportunity to rise to the top paradoxically generated an unconcern for the common good. This occurred through resignation on the electorate’s part to rule by elites, which Strauss calls, “electoral apathy.” Democracy accordingly devolved into “mass culture.” Mass

culture, in his reference to theorist Max Weber, breeds “specialists without spirit or vision” and hedonists “without heart.”

Liberal education’s point of interest exists precisely at the junction between mass culture’s need for democracy’s protection and democracy’s need for “qualities of dedication, of concentration, of breadth and of depth.” By offering an antidote to mass culture, liberal education allows us to re-ground ourselves in “democracy as originally meant.” As a result, liberal education, through its engagement with “human greatness,” has the potential to offer a way to transcend the apathy within modern democracy.

In his view, responding to original works requires our reading them. Books are everywhere, which motivates the idea of commitment to the “greatest books.” Moreover, it is “common sense,” as Strauss suggests, that mediates the relationship “between us and the greatest minds.”

If liberal education, as Strauss understands it, “consists in reminding oneself of human excellence,” then we ought to look to Plato, for he believed education in its most complete form is “philosophy.” Nonetheless, as Strauss reminds us, by virtue of our human condition, education in this sense is incomplete. If this is the case, then at least “we can love philosophy; we can try to philosophize.” One might ask how this is done, and to that Strauss responds, simply, by “studying great books.” Because it is in such a task that one can grasp the dialogue that goes on between eminent thinkers; the philosophizing occurs in the act of “listening.” Liberal education involves principally this act.

### **Liberal Education: The Books**

As an editor of Encyclopedia Britannica's collection of *The Great Books of the Western World* (1952) and as the President of the University of Chicago at the time, Robert Maynard Hutchins attempted to capture the great thinkers in the history of the West. He wrote an essay appearing in its first volume, "The Great Conversation: The Substance of a Liberal Education." In it, he outlines the tradition, transformation, and aspirations for an education in the great books. He believes liberal education is the "best educational idea there is." The thrust of this education, the great books "show the origins of many of our most serious difficulties" (47).

Ranging from ancient times to the modern world, the great books are a collection of tremendous worth in terms of illuminating life in the present. The books, Hutchins says, are intended to be a conversation. Originally limited to the West, he believes the tradition ought to expand its scope to the East, for he says, "few things could do as much to advance the unity of mankind" (48).

As he contours the spirit of Western civilization, he reveals the power of the great conversation. Accordingly, he says, "the exchange of ideas is held to be the path to the realization of the potentialities of the race." The ideas that govern our thoughts and our behaviors are contained within this unparalleled tradition. Serving as guides for "fine and liberal arts," they inspire the tradition's continued success (49).

These books held a centrality in Western education, where men could learn to be human. Hutchins thus defines the aims of liberal education in the following ways: "human excellence, both private and public (for man is a political animal); excellence of man as man and man as citizen; regards man as an end; the education of free men." These

goals, evident as early as Aristotle's work, have now manifested themselves "in the recognition of basic problems, in knowledge of distinctions and interrelations in subject matter, and in the comprehension of ideas" (49).

Liberal education allows students to become individuals who can understand how various questions are related, and how to go about answering them. These questions could be for example, "the problem of the immortality of the soul" or "the problem of the best form of government" (49). Additionally, a student can recognize the difference in method between the fields of "poetry and history, science and philosophy, theoretical and practical science." Comprehension of ideas that clarify "human experience," are key for liberal education, including among others "soul, state, God, beauty" (50).

"The method of liberal education," Hutchins explains, "is the liberal arts." Of the belief that we can all be called liberal artists, Hutchins says, we ought to be "good liberal artists," understanding ourselves such that we can become "fully human." From the liberal arts and equal chance for growth through them, the "democratic ideal" arises. Nevertheless, Hutchins reminds us that a devotion to this ideal is insufficient, what we need to recognize is "human dignity," the result of this kind of education (50).

Exemplifying this dignity, Hubert Dreyfus and Sean Dorrance Kelly, in their work *All Things Shining: Reading the Western Classics to Find Meaning in a Secular Age*, bring books of literature and philosophy to life. The authors recognize the proliferation of choices that characterize our modern society, where a "sense of certainty is rare" (3). Certainty arises without hesitation and is synonymous with "Greatness," which "flows not *from* the agent but *through* him" (11). "Human possibility" is illuminated in those moments where there is no opportunity for "indecision" (12).

The authors believe “existential uncertainty” is a feature of our contemporary life. Dreyfus and Kelly look to history to help them track the transition from “the fixed certainty of Dante’s world” to the condition of present day (16-17). The important transition that took place was that a secular age emerged in the West, where regardless of faith, we regarded all answers about how to live in the same way. The transition was from “a single, unquestioned set of virtues—Judeo-Christian values” to “a series of responses to the death of God” (44). Dreyfus and Kelly reference a commencement speech by David Foster Wallace:

“[I]f you really learn how to pay attention, then you will know there are other options. It will actually be within your power to experience a crowded, hot, slow, consumer-hell type situation as not only meaningful, but sacred, on fire with the same force that made the stars: love, fellowship, the mystical oneness of all things deep down” (47).

The answer for the two authors rests in their chapter “Homer’s Polytheism.” The fundamental point in Homer exists in the ability of “moods” to identify situations not as “inner,” but rather as “public and shareable.” Moods “manifest what matters most in the moment and in doing so draw people to perform heroic and passionate deeds.” The object of our lives is to get in the best “sync” with what matters (61). The word “*arete*” captures the essence of Homer’s time—it means virtue. Virtue, in this sense, means excellence, and excellence “depends crucially on one’s sense of gratitude and wonder” (61). This gratitude and wonder is “the key to everything sacred in the world of the Greeks” (67). Highlighting this character of our existence, Dreyfus and Kelly offer a means to give

meaning to our lives. When activity seems to be drawn out from us, “these are shining moments” (81).

### **Pragmatic Liberal Education**

Wesleyan University President Michael S. Roth, in his book just published in 2014, *Beyond the University: Why Liberal Education Matters*, argues for a pragmatic liberal education. This is against the backdrop of a fast-paced world where economic and technological innovations are the mark of progress. He analyzes views on education by a number of American thinkers. His historical perspective aims to preserve democratic values in the face of a citizenry who has lost sight of the idea of a common purpose and responsibility, while also moving us to act on the questions that animate us.

Roth identifies “targeted vocational undergraduate instruction” as a misstep, arguing instead for a blend of humanistic education and pragmatic education (2-3). The culmination of this combination is *pragmatic liberal education*, which he calls “a broad, conceptual, and contextual form of learning that develops habits of mind and actions that are recognized by yourself and by other people as valuable.” Liberal education, dating back to the Middle Ages, brought forth traditions amid the rise of the “modern research university.” The philosophical tradition he characterizes as “skeptical, focused on inquiry and critical thinking.” Also, the rhetorical tradition is “focused on bringing new members into the common culture.” The two together develop the “whole person,” a contemporary Chinese notion of “liberal learning” (4).

In attempts to capture the complexity of “practical demands” and “humanistic inquiry,” Roth aims to preserve liberal learning on account of its compatibility with the “pragmatic ethos” developed by American philosophers John Dewey and Richard Rorty.

Roth recognizes the “age of...instantaneous information dissemination” of the world, and believes we cannot revert to “quick, utilitarian results.” Rather, he claims that students ought to “shape change and not just be victims of it” (9-11). For example, his experience with massive online open courses (MOOCs) “revealed that there was a wide international interest in learning for its own sake” (17). While “practicality” runs deep in American history, it serves as a guise for “conformity,” which Roth fears “will only impoverish our economic, cultural, and personal lives,” if it continues (18).

If we notice the “particular economic and social conditions of our time,” their “urgency,” then Roth thinks what education needs is “optimism.” For this optimism allows us to face future problems. Liberal education came to the scene in America alongside its nascent democracy. It was Thomas Jefferson who believed in a healthy nation and that vital to its health were educated leaders who ought to educate its citizens (21). Roth refers to Gordon Lee’s “Learning and Liberty: The Jeffersonian Tradition:” “Man, Jefferson, believed, is most free when he is...completely self-sufficient, hence his education must be concerned with developing such inner resourcefulness” (24).

In a forum following my interview of President Roth on February 4<sup>th</sup>, 2015 for this project, Dr. Jean Morrison, the Provost and Chief Academic Officer of Boston University, commented, “One of the most important elements of an undergraduate liberal education, beyond becoming broadly educated in the humanities, social sciences and sciences, is to find something that you are passionate about. And that passionate interest does not necessarily have to be directly connected to your first job after college. But despite this, proponents of the value of a liberal education seem to be losing that battle,

because if we look at enrollments, there's a strong flight to professional undergraduate education.”

Roth responded, “I think that the bi-polar structure of the economy today, this radical inequality is putting even more pressure on colleges and universities, but I think that this is an occasion for people in the humanities and the interpretive social sciences, for them to make a better case for what we do,” he says, “I think it can be done.”

Additionally, when asked about the high tuition costs for university, Roth answered, “If we [in colleges and universities] can't show that to people, that the work you are doing overtime, shows that you're more capable, more thoughtful, more able to contribute according to the metrics that you've established. If we can't show that, then I think we should be in big trouble.”

While Jeffersonian education allowed individuals to develop their potentials, it was David Walker's 1829 *Appeal to the Coloured Citizens of the World* that expanded his conception to African Americans. In it he writes, “I would crawl on my hands and knees through mud and mire, to the feet of a learned man” (37; 41). A major contributor to Roth's views, Roth says, “for David Walker to say that in the context of rebelling against the racism of Jefferson's views, but also to underscore the importance of the Jeffersonian notion that education is the key element to establishing one's freedom...For him to defend freedom and education together seemed to me very compelling” (Interview).

Another influence for Roth was Emerson, a great writer of his day who advocates for the “active scholar” (51). Emerson emphasizes active readers in his works, “one who uses the past in order to focus their own powers” (50). Furthermore, his vision was for men to work in the fields, to labor, to *shape* their labor. As individuals, Emerson believes

we ought to pursue work on our own grounds. “Instantly we know,” he writes in his 1837 essay, “The American Scholar,” “whose words are loaded with life, and whose not” (52; 51). As Roth focuses on the concept of animation in Emerson’s works, Roth says in the interview, “animation in education should make you more alive, should make you more animate, will give you more vivacity and the world should be more alive to you because of your education.”

Additionally, by increasing specialization and professionalization, Roth believes in doing so, our vision narrows. Then, referring to Emerson, he says “Flee all that stuff so that when you go outside the world is more alive to you—there’s more music in the world, more poetry, there’s more mystery that you can feel in your life.” Roth believes Emerson’s thoughts in “Self-Reliance” counteract the forces of conformity. For, it is conformity that leads an individual to get “corrupted by the voices of society” (56).

Emerson writes, “A foolish consistency is the hobgoblin of little minds...with consistency a great soul has simply nothing to do” (136; 57). What education needs to preserve is the chance for individuals to find meaningful work. Accordingly, we ought to follow up on Emerson’s prescription: “Regret calamities, if you can thereby help the sufferer; if not, attend your own work, and already the evil begins to be repaired” (147; 59).

After Roth outlined traditions of liberal education, he added to his view a pragmatist flavor. He consulted Jane Addams, a remarkable nineteenth-century theorist and leader on local, national and international fronts, who made distinct contributions to the idea of liberal education. She advanced the concept of “affectionate interpretation” in a speech delivered following the 1894 Pullman strike. The strike that resulted in the

jailing of union leaders led Addams to see “the tragic failure of people from different groups to understand one another” (82-3). “The cultivated person,” she believes, is the one who...put [s himself] into the minds and experiences of other people” (101; 84). For Roth she combines “individual autonomy” with “social responsibility and civic engagement” (85).

Another pragmatic thinker, William James, according to Roth’s interpretation, believed learning was intended not for the pursuit of truth, but for the “active agency” of individuals. “The point of learning,” for James, “is to acquire better ways of coping with the world, better ways for the world as it is” (88). However, does shaping our world, mean abandoning the pursuit of truth? Roth says, yes. While we may not be seeking “logical perfection,” we might look for a coherence of conduct, which would not misalign with his aims for beyond the university (87).

Further developing the pragmatist aspect of his book, he emphasizes the views of Richard Rorty and Dewey. Roth says, “I would say Dewey is a hero in the book for me because of the ways in which Dewey takes Jane Addams and William James and turns their philosophy and activism into a theory of pedagogy.” It is important however, to note that Dewey, according to Roth, “rejected the traditional concentration on the Great Books,” claiming they were “antidemocratic” and “set artificial boundaries on inquiry” (165).

What was important for Deweyan schooling was the idea that our actions in the world and education “are part of the same process” (168). The idea was furthered by Dewey’s belief that philosophy ought to deal with “real problems of doing and of suffering” (172). While Dewey agrees that the past has the ability to inform our actions,

our future, in my view, does not need to forget our essential human qualities—what Dewey may not have recognized philosophy has done and can continue to do.

While Dewey's pragmatism may have been faded after he died, Rorty brought it back to life. Learning for Rorty involved giving up "on the idea of Truth as a mirror of nature." Education ought to be concerned with "instigation to inquiries that might help one get along in the world" rather than getting closer to our own natures (178). Here again, Roth seems to be at a point of tension, because as early theories of liberal education in America have argued, the latter can inform the former. One needs to go no further than Roth's introduction of Emerson to see the nature of man as relevant to liberal learning.

Roth discusses the importance of Rorty's view of self-transformation. Through "inquiry" and "research," individuals can "rework their self-image," and break from their conditioning (114-126; 181). Roth finds this important for countering the tendencies of over-critical thinking in the humanities; he says, "We should be wary of creating a class of self-satisfied debunkers." This skill of critical thinking, he fears "may diminish their capacity to find or create meaning and direction in the books they read and the world in which they live" (182-3).

Roth's recollection of his most memorable class as an undergraduate was a testament to the influence of liberal education on an individual's life. "I took a class with Victor Gourevitch, a political philosopher, on Hegel. We read the *Phenomenology*." He continues, "There were three of us in "Hegel", I never worked so hard in my life—my copy of the *Phenomenology* only has four lines that are not underlined. It really changed

everything.” He concludes, “I loved my classes, I loved my teachers at Wesleyan- they were gifts.”

In my interview, Roth elaborated on his recent MOOCs, one of which is a Great Books humanities course. His experience has epitomized the goals of liberal education. “I was amazed,” he says, “by the reactions of students who found the courses transformative, who found connections between the political theory we were doing in my class and things they were doing in their jobs.” MOOCs serve to bring liberal learning to the foreground amid a nation that prizes STEM fields. Roth explains his role on the brink of digital learning, “What I want as a teacher, and as an administrator, I want to be part of the experiment, so that we can evolve in such a way that we don’t lose liberal education in the process.”

### **On Digital Learning**

From November 19 to 21, 2014, Boston University hosted an Edx global online forum, *On Digital Learning*, which according to the event description, is “for educators, thought leaders, instructional technologists, researchers, visionaries and innovators to share experiences on pedagogical research, blended learning and to explore emerging trends in online education.” On the brink of digital education, can our democratic society still preserve the aims of liberal education?

Ted Mitchell, the Under Secretary at the U.S. Department of Education, gave the opening keynote. He spoke of the demand for digital learning as arising from desires for global adaptability and for satisfaction of individual learning capacities by alternative education. The supply includes content and skills. He mentions problem solving, creativity, collaboration, and reflection, or habits of mind we need to cultivate. Digital

learning allows for increased diversity, by allowing a richer range of educational experiences while also meeting global industry standards.

At the same time, Mitchell warns against technical training that is narrowly focused on a particular set of manipulations of the world. Instead, he believes education transcends that, by teaching not only how to do, but also how to think about doing something—what its value is in the world. “To stand on the skills you’ve been trained to do and see a little bit farther.”

Do the humanities and arts fit into the vision? For Mitchell, they are more important now than at anytime in our history. It is our understanding and appreciation for humanity in history that informs our work life and civic life, our family life. If education separates from these disciplines, it is Mitchell’s conviction that we would have a poorer society, one that is less informed, less energetic, with a less creative work life.

What education in these disciplines could diminish are racial prejudices and rigid class structures, for if all is moving and mobile, there are more and different kinds of choices. Furthermore, preparation for our career and lives, he believes, would result in a more economically self-sustaining and successful community, one that is, in paraphrasing Dewey, worthy, harmonious, and whole. A look into Boston University (BU) may reveal how closely it embodies these ideals. More specifically, it may reveal something about the state of liberal education within the university.

### **Inside Boston University**

It is important to understand the institutional arrangements of BU and the organization of its schools and colleges, in order to understand how it is able to preserve liberal education as a modern-research university. A university-wide plan, started in 2006

by President of BU Robert A. Brown aimed at institutional reform. It began as a request for various deans, according to Brown, to “think about the needs of the University *as a whole*.”<sup>1</sup> The plan, intended for completion by 2016, is called “Forging Our Future by Choosing to be Great.”<sup>2</sup>

In the section on Undergraduate Education, in *One BU: A Connected University Framework of a Strategic Plan*, there are five recommendations for the undergraduate curriculum and experience.<sup>3</sup> One recommendation was to “Define and refine the first two years of undergraduate education so that the liberal arts and sciences in the College of Arts and Sciences (CAS) and the College of General Studies (CGS) are at the core, with strong reciprocal connections between CAS/CGS and the professional Schools.”

With a strong need for integration and coherence, BU’s commitment to liberal education amid the demands of research and professionalization of today’s world can serve as an example for other universities facing the same concerns. “One BU” is the university’s mission, “a culture and philosophy.” A Task Force works towards annual proposals and assessments to work towards the goals of the strategic plan.

In a brief interview on March 31<sup>st</sup> in her office, Elizabeth Loizeaux, BU’s Associate Provost for Undergraduate Affairs, also on the Task Force, believes a general education at BU can form a core set of knowledge, skills, and habits of mind of a liberal education so BU graduates can thrive on personal, civic, and professional levels. Her conviction is to have “a common educational space for all BU students—what all BU students are known for.” She recognizes constraints on some professional schools, such as in Engineering—your bridge cannot fall down.

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<sup>1</sup> <http://www.bu.edu/strategicreport/letter/>

<sup>2</sup> <http://www.bu.edu/president/strategic-plan/foreword.shtml>

<sup>3</sup> <http://www.bu.edu/strategicreport/report/pdf/bu-strategic-report.pdf>

Nevertheless, she mentioned the traditional model, based on ideas about student development, in which students have some experimental years and then make a choice about what to study. She claims that this worked in higher education since the 19<sup>th</sup> century. However, she points out that what business leaders want most is adaptability and flexibility, not simply a specialized person. She believes that you actually understand better your own intellectual interest, if you begin to study it from the start, with a breadth of other courses strung through the four years. This offers a means of countering the forces of specialization throughout the entire college experience. For her, this is a time of immense change—a challenging and exciting time.

Inside BU, there are eight principal schools and colleges for undergraduates, as well as the “two-year liberal arts core curriculum,” CGS.<sup>4</sup> Students from this particular college of 1,100 freshman and sophomores finish their education at one of the eight remaining schools. CGS claims to “provide you with skills that transcend any industry: critical thinking, effective communication, problem-solving, and collaboration.”

There are also two distinct schools within the CAS: Kilachand Honors College (KHC), allowing undergraduates to further their liberal education in the various schools and colleges through seminars and independent projects as well as the Frederick S. Pardee School of Global Studies.

The 24-department College of Arts and Sciences (CAS) with an undergraduate enrollment of 6,850 students, is the largest school. Its goals, in Virginia Sapiro’s “Message from Dean” on the CAS website, are the following: “Building vibrant,

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<sup>4</sup> <http://www.bu.edu/academics/schools-colleges/>

supportive, and productive learning communities; devoting ourselves to the values and practices of the liberal arts and a liberal education; and seeking to be valuable citizens.”<sup>5</sup>

The College of Communication (COM), with 2,269 students, provides professional training in film and television, journalism, mass communication, advertising, public relations, and emerging media. “Nothing more defines the human experience than communication,” says Dean Fiedler in his “Message from Dean”, “the ability that each of us has—in fact, the need that each of us has—to convey our thoughts to others and to receive theirs.” He goes on to say, “The BU graduate knows that it is the quality of the content that matters, not the method of delivery. It’s the kind of quality that comes only from having had a world-class education in the liberal arts at a world-class university.”<sup>6</sup>

The College of Engineering (ENG) of 1,488 students is, according to Dean Kenneth Lutchen in his “Dean’s Welcome”, “a great place to study engineering and prepare for a career in the global marketplace.”<sup>7</sup>

The College of Fine Arts (CFA), a conservatory-style college with Schools of Music, Theatre, and Visual Arts. Its approach, according to the CFA website, is to foster an environment where “art is neither created nor experienced in isolation. Art is informed by the world in which we live.”<sup>8</sup>

The College of Health and Rehabilitation Sciences: Sargent College (SAR), with 1212 full-time students, has four departments of Health Sciences; Occupational Therapy; Physical Therapy and Athletic Training; and Speech, Language, and Hearing Sciences.

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<sup>5</sup> <http://www.bu.edu/cas/about/message-from-the-dean/>

<sup>6</sup> <http://www.bu.edu/com/about-com/deans-message/>

<sup>7</sup> <http://www.bu.edu/eng/about-us/dean/>

<sup>8</sup> <http://www.bu.edu/cfa/aboutcfa/our-approach/>

Their mission is “to create an environment that fosters critical and innovative thinking to best serve the health care needs of society.”<sup>9</sup>

The School of Education (SED) is a 1,000-student school for professional educators. It is, according to Dean Hardin L. K. Coleman in his “Dean’s Welcome”, dedicated to “teaching, scholarship, and outreach.” Aiming to narrow “achievement gaps among socioeconomic groups,” SED focuses on “early childhood education, higher education, counseling, and policy.”<sup>10</sup>

The School of Hospitality Administration (SHA), a dynamic combination of distribution courses and professional training in the industries of “travel, hotels, food service, and entertainment.” Its curriculum offers students a chance for “honing your abilities for critical thinking, clear expression, and problem-solving.”<sup>11</sup>

The Questrom School of Business (QSOB) focuses on the areas of “digital technologies, health and life sciences, and energy and the environment.”<sup>12</sup> For Kenneth W. Freeman, in his “Dean’s Welcome”, “the role of builders and leaders is to create value—generating an appropriate financial return on investment at the same time, we seek to improve the lives of others.”<sup>13</sup>

Within this professional setting, BU demonstrates how placing value on CAS and CGS, liberal education can allow for cohesion between students of the university, and later between members of society. In a special program within CAS, called The Core

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<sup>9</sup> <http://www.bu.edu/sargent/about-us/fast-facts/>

<sup>10</sup> <http://www.bu.edu/sed/about-us/deans-welcome/>

<sup>11</sup> <http://www.bu.edu/hospitality/academics/courses/>

<sup>12</sup> <http://www.bu.edu/academics/schools-colleges/>

<sup>13</sup> <http://www.bu.edu/questrom/about-the-school/dean/>

Curriculum (The Core), “students place high value on liberal education, intellectual engagement, and friendship.”<sup>14</sup>

In an interview on January 30<sup>th</sup> with Professor Nelson, Assistant Dean of CAS and Director of The Core, she explains her experience with the influence of The Core on students. With a large Great Books focus, The Core involves an analysis of texts and ideas. The Core consists in courses in the Humanities ranging from the history of Mesopotamia, to T.S. Elliot and Modernism, as well as courses in political thought, which include Durkheim, Weber, Hobbes, Locke, and Rousseau. Additionally, The Core aims to bring these areas together with the Natural Sciences.

In Professor Nelson’s view, the modern university created divisions that are not useful. In The Core, with each subject learned building on the previous, she mentions that some of the greatest ideas came from students jumping across very different areas, building from 1<sup>st</sup> semester core, which covers Humanities and Natural Sciences of the ancient world, to 4<sup>th</sup> semester core, covering those of modern world.

When asked about life after The Core, she says, “unless there is one thing that made a difference to you, once you have had that happen, it does not just go away...once a person has seen for themselves what is valuable and what matters, that is there forever and it will affect the people they are talking to.”

### **Boston University: From the Students**

#### **Literature Review**

In this section, I assess relevant studies for the design of my Qualtrics survey on student perspectives regarding liberal education and their experiences at BU. In the 2004

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<sup>14</sup> <http://www.bu.edu/core/learnmore/what-is-the-core/faqs/>

study, *College and Character: Insights from the National Survey on Student Engagement*, George D. Kuh and Paul D. Umbach define good character as demonstrated by people who “work towards the public good, with integrity and personal responsibility that reflect their examined understanding of their ethical responsibility to self and the larger community” (37). Kuh and Umbach believe colleges have become more secular, resulting in a decline in character development.

The independent variables of their research design include various measures of student engagement and the dependent variables are contingent on the question: “To what extent has your university experience at this institution contributed to your knowledge, skills, and personal development in the following areas?” The areas were four dimensions of character development—knowledge of self; ethical development and problem solving; civic responsibility; and general knowledge.

Through the use of descriptive statistical analysis, their results reported “greater gains in character development” at baccalaureate liberal arts colleges “than students at other types of colleges.” Nevertheless, they believe institutional averages did not reveal a complete story about character development. Accordingly, they also conducted multivariate analysis to evaluate institutional and student differences in character development gains (44). The multivariate design and the dimensions of character development inspired the research-design for this paper.

More specifically, Kuh and Umbach’s dimensions have twelve sub-categories similar to the twelve goals of liberal education in my survey. The multivariate regression in my study is distinctive, since its focus is not on the relationship between student

genders, age and majors with the fulfillment of liberal education's goals, but rather on the relationship between student feelings about jobs and fulfillment of those goals.

*The Liberal Arts College*, a 1997 study by the President of Hobart and William Smith Colleges Richard H. Hersh, reveals that "the training requirements for potential business leaders in the country...could only be found in liberal arts colleges" (26). He recognizes that most college students "do not enroll in pure liberal arts programs, but rather in degree programs whose chief purpose is to land them their first job—pre-professional degree programs such as journalism, business management, or computer programming" (26).

He conducted a nation-wide survey of 1,000 college-bound students, their parents, CEOs and HR managers, and recent graduates, hoping to bridge the gap between college intent and public perception. The crucial point from his survey is that, while most students and parents believe the most important reason for college is for money and a career, less than 40% of business executives in his study said the same. He also assessed positive and negative impressions of liberal arts colleges, of which recent graduates and business leaders showed high positive impressions. Similarly, my study aims to investigate the reason for attending college for present undergraduates and to understand further the dynamic between job preparation and liberal education at BU.

### **Research Design**

My research design consisted of two parts: data analysis with the use of the open-source computer program R and content analysis, both using the 267 responses to the Qualtrics survey I created. This sample size includes males and females from eight principal schools for undergraduate education (varied based on the population of each

school) at BU plus transferring students from the College of General Studies with various majors, minors and concentrations and graduation years from 2015 to 2018. The sample size was used as a representative guide for BU's undergraduate population—18,165 students at a confidence level of 90%.

For my data analysis, I hypothesized that the extent of disagreement with all twelve of liberal education's goals would result in a decrease in favorable feelings towards jobs across six sectors. The six job sectors include STEM, business or management, education or literature, government or law, the arts, and vocational jobs.

Rather than all twelve goals, I found that disagreement with a specific goal led to a significant decrease in favorable feelings towards each sector. Depending on the sector, the specific goal varied, apart from an overlap in political consciousness, influencing feelings towards jobs in Education or Literature and Government or Law. The influence of student disagreement on student feelings towards jobs in the Arts was not statistically significant.

The independent variables are twelve goals of liberal education. This ordinal-level measurement was on a scale from "Strongly Agree," coded as (1.00), to "Strongly Disagree," coded as (4.00). Respondents were asked to select the extent of agreement they believed their experience thus far at Boston University has fulfilled the goals.

The goals, based on the theoretical portions of my paper, are the following: an understanding of how what you know is related; a desire to learn for its own sake after college; an ability to reason analytically; an ability to make ethical decisions; an improved self-understanding; leadership skills; preparation for future service in society;

political consciousness; openness to change; awareness of and appreciation for human achievements; an ability to communicate effectively; and empathy towards others.

The dependent variables were feelings about jobs across six sectors (STEM, business or management, education or literature, government or law, the arts, and vocational jobs), which were measured by feeling thermometers. My survey asked how strongly they felt about getting a job in a given sector for each sector with the thermometer I provided (See Coding Appendix). The question asked was “How much do you want a job in (given sector)?” The interval-level measurement included the following: 50-100, which signified feeling strongly towards the job, and 0-50, which signified feeling strongly against the job.

I did not include the values that were coded -99 because these were blank responses by the respondents in the survey. In my view, these would not be helpful in revealing student perceptions on the fulfillment of liberal education’s goals nor about their feelings regarding jobs. Inclusion of those values may skew my results, so I accordingly recoded the independent and dependent variables to operate with omission of these values (see Coding Appendix).

My content analysis was based on the following open-ended questions: How would you define liberal education in one sentence or less; what do you consider to be the most important single reason for attending university in one sentence or less; what do you consider to be the most important book you have read while in college? (Give title, author, or both); and what course do you consider to be the most important one you have taken so far? (Give title or department, e.g. Music Theory, History, Spanish).

For the first two questions I made note of important words or phrases mentioned in each answer, then I tallied them, and put them into categories based on similar themes. Finally, I examined them to identify meaningful patterns. For the latter two questions, I created tables to show whether students read the book for a course, categorizing them according to genre and number of mentions, and to show how many courses perceived as significant fell into the category of liberal arts. Since these open-ended questions do not fit neatly into categories, in this respect my study is limited.

My research aims to assess the impact of student perceptions of their experience with liberal education on job perception. In addition, it seeks to reveal patterns in their understandings of and interactions with liberal education.

### **Data Analysis & Results**

My empirical analysis examines my Qualtrics survey data using multivariate regressions to determine the influence of perceived fulfillment of liberal education's goals on feelings about future jobs. The extent of student agreement that college has offered them a liberal education across twelve goals explains 4.14% of overall feelings about jobs in STEM, 5.77% about jobs in business or management, 6.22% about jobs in education or literature, 9.04% about jobs in government or law, 1.24% about jobs in the arts, and 2.12% about vocational jobs (Tables 2-8). This analysis indicates that in fact variables outside of these goals contributed to the explanatory power of feelings about jobs across these sectors.

Nevertheless, descriptive statistics reveal that on average, students agreed that college has satisfied the twelve goals for them. This appeared most strongly for an ability to reason analytically, an improved self-understanding, and an ability to communicate

effectively (Table 2). According to the averages of respondent data, students felt most favorably about jobs in business or management, the arts, and STEM (Table 1).

A striking result was that a one-unit increase in the extent of student disagreement with the statement “college has given them an ability to reason analytically” results in an 11.715-degree decrease in favorable feelings towards a job in STEM with a standard deviation of 4.817. On account of the magnitudes of the t-statistic, 2.432, and P-value, 0.016, the null hypothesis could be rejected with 95% confidence. Analytic reasoning thus played a significant role in how students felt about STEM jobs.

The extent of student disagreement with the statement “college has given them an ability to communicate effectively” also played a significant role in how students felt about STEM jobs. A one-unit increase in extent of disagreement led to a 13.071-degree decrease in favorable feelings with a standard deviation of 4.667, a t-statistic of 2.800, and a P-value of 0.006. For students who feel strong positive feelings about pursuing STEM fields, effective communication was not given a priority to their undergraduate experience.

Another noticeable result is that a one-unit increase in the extent of student disagreement with the statement “college has given them leadership skills” results in a 10.485-degree decrease in favorable feelings towards a job in business or management with a standard deviation of 3.544. With a t-statistic of -2.959 and a P-value of 0.003, the null hypothesis represents an unlikely occurrence and may be rejected with 95% confidence. Leadership skills were key for favorable feelings towards business or management.

At the same time, a one-unit increase in the extent of student disagreement with the statement “college has given them empathy towards others,” led to an 11.971-degree increase in favorable feelings towards a job in business or management with a standard deviation of 3.709 and a significant t-statistic 3.228 and P-value of 0.001 at a 95% confidence level. Even with liberal arts elective requirements at QSOB<sup>15</sup>, students who felt strongly about jobs in business believed that they lacked cultivation in empathy.

As for jobs in education or literature, a one unit increase in the extent of student disagreement with the statement “college has given them political consciousness” results in a -7.533 degree decrease in favorable feelings with a standard deviation of 2.787 and a significant t-statistic of -2.703 and P-value of 0.007. Clearly, political consciousness played an important role in how students felt about jobs in the fields of education and literature. Unlike students who had strong feelings about jobs in business, these students did not agree that college gave them leadership skills. This can be seen by a one-unit increase in disagreement that results in a 9.869-degree increase in favorable feelings towards a job in education or literature with a standard deviation of 3.373. The t-statistic of 2.923 and P-value of 0.004 allow for 95% confidence in the rejection of the null hypothesis.

Similar to students who felt strongly about jobs education or literature, a one-unit increase in the extent of student disagreement with the statement “college has given them political consciousness” results in a 13.017-degree decrease in favorable feelings towards a job in government or law with a standard deviation of 2.725. The null hypothesis can be rejected at a 95% confidence level, since it has a t-statistic of -4.776 and a P-value of

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<sup>15</sup> [http://www.bu.edu/questrom/undergraduate-program/academics/curriculum/#curric\\_chart](http://www.bu.edu/questrom/undergraduate-program/academics/curriculum/#curric_chart)

3.14e-06. Comparable to students who felt strongly about business, these students did not feel college has given them empathy. A one-unit increase in the extent of student disagreement led to a 7.034-degree increase in favorable feelings with a standard deviation of 3.284, significant t-statistic of 2.142, and significant P-value of 0.033.

A one-unit increase in the extent of student disagreement with the statement “college has given them an improved self-understanding” results in a 9.304-degree decrease in favorable feelings towards a job in the arts with a standard deviation of 5.105. While this seems to be a probable case for those who would like to pursue art, because of the t-statistic, -1.823, and P-value, 0.070, the null hypothesis cannot be rejected at a 95% confidence level and this point is statistically insignificant.

Vocational jobs have the lowest favorable feelings (Table 1). Consequently, a one-unit increase in the extent of student disagreement with the statement “college has given them an understanding of how what you know is related” results in a 5.018-degree increase in favorable feelings with a standard deviation of 2.328. The t-statistic of 2.155 and P-value of 0.0321 allow the null hypothesis to be safely rejected with 95% confidence. The few students who favored vocational jobs felt they did not receive an understanding of how things are related. These students also felt they failed to gain leadership skills, since a one-unit increase in the extent of student disagreement, led to a 4.9269-degree increase in favorable feelings with a standard deviation of 1.826, and significant t-statistic of 2.699 and significant P-value of 0.007.

### **Content Analysis & Results**

In my Qualtrics survey, students were first asked for their understanding of liberal education. The categories of understanding, as evaluated by the theoretical portions of

this paper, were as follows: accurately understood, first misunderstanding–freedom to choose what you want, second misunderstanding–limited, third misunderstanding–unpractical, fourth misunderstanding–research-oriented, no understanding, and additional descriptive comments mentioned in the responses (Table 9).

In the first category with 174 mentions, students adequately understand liberal education as applicable information and skills (i.e. reading comprehension, critical thinking) to their majors and other areas, also describing it as a multi-faceted, well-rounded core. (Please note, number of mentions were independent of number of responses.)

Students consider liberal education to be an organized, participatory learning environment that promotes open-mindedness and creative thinking. Students also appreciated liberal education's accessibility to multiple points of view and role as an education without bias or prejudice. Furthermore, students feel it gives those who partake in it an understanding and broader scope of how society and the world work, particularly in its use of history and Western humanities to bring to light contemporary life.

Students believe it was not strictly vocational, STEM field subjects, or a specific course of study, but rather interdisciplinary, allowing exploration through interaction between different disciplines. Among these areas of study, they included social sciences, humanities, law writing, literature, arts and natural sciences.

Through thoughtful investigations, students communicated that liberal education provides an opportunity for personal growth and development. By extending beyond the boundaries of science or commerce dominated fields, students think liberal education

encourages students to think as global citizens, and that it makes us human—not just facts and numbers.

When asked for the most important single reason for attending university, responses fell under the following six broad categories: career-oriented, a view to the future, learning, self-understanding, social, and impact on the world (Table 10).

The category with the most mentions—120—was learning. The responses ranged from broadening knowledge and furthering education to an understanding of the world in addition to various types of learning, such as honing a craft or thinking critically.

The next largest category with 96 mentions was an orientation towards a career, the cash-value of an undergraduate degree. Students believed money, return on investment, and marketability in addition to work experience and professional knowledge were major motivations for an institution of higher education.

A view to the future, self-understanding, and a social environment had roughly the same number of mentions, 34, 30, and 29, respectively. The future was a general and malleable category; it included opportunities, success and a better life. Self-understanding, for students, had to do with personal growth, discovery of strengths, dreams and passions. The responses mentioned finding, cultivating, knowing, challenging, learning about, expressing, and becoming the best version of oneself. Social was a fascinating category, since students not only wanted to meet and connect with more people, but also come into contact with points of view different from their own.

Impact on the world was a special category with only 10 mentions. It involved, for students, a contribution to the betterment of society. Cultivation of the self may be a

major provider of that goal and could explain the low number of mentions in this category.

When asked what the most important book the student respondent read in university, the students were also asked whether the book was for a course (Table 11). Of the 242 responses included in the results for this question, 65% of students claimed to have read their book for a course, 34% claimed to have read it outside a course, and one student did not specify. Thus, the majority of students believed that books they have read in their courses were useful.

Of the books listed, ninety-five were in the category of Novels, Poetry, Drama, and Short Stories. Top titles and authors, mentioned more than once, included *The Alchemist* by Paulo Coelho, *The Stranger* by Albert Camus, books by Toni Morrison, including *The Song of Solomon* and *Beloved*, *The Great Gatsby* by F. Scott Fitzgerald, Hemingway and his book *The Sun Also Arises*, *The Master and Margarita* by Mikhail Bulgakov, *The Color Purple* by Alice Walker, *Slaughterhouse-Five* by Kurt Vonnegut, *The Count of Monte Cristo* by Alexandre Dumas, *The Bell Jar* by Sylvia Plath, and J.K. Rowling's series, *Harry Potter*.

The next largest category, with 35 books, includes Memoirs, Biographies and First-Hand Accounts. Top names were *Mountains Beyond Mountains* by Tracy Kidder, *An Unquiet Mind* by Kat Redfield Jamison, *Lying* by Lauren Slater, *All Souls: A Family Story from Southie* by Michael Patrick MacDonald, *Son of the Revolution* by Liang Heng and Judith Shapiro, *Yes, Please* by Amy Poehler, *Coming of Age in Mississippi* by Anne Moody, and *Lying* by Lauren Slater.

In the category Society, Anthropology, Economics, Psychology, Public Health, and Environment, there are 28 books. Leading titles and authors are Richard Dawkins and his *The God Delusion*, *The Spirit Catches You and You Fall Down* by Anne Friedman, and Jeffrey Sachs, his *The End of Poverty*.

Philosophy and Religion includes 26 books. Nietzsche and the Bible were mentioned twice, while Kierkegaard was mentioned three times: *The Essential Kierkegaard* and *Fear and Trembling*. It is worth noting that a title used in this paper was mentioned as well, namely Aristotle's *Nicomachean Ethics*.

In Business and Leadership, Sheryl Sandberg's *Lean In* was mentioned three times. And the categories Law, Politics and International Relations; STEM; History; Writing, Composition, and Design; Music and Theatre; Self-Improvement; Teaching and Education; Military; and Other included 10, 10, 8, 6, 5, 4, 3, 3, and 1 book(s), respectively.

In the survey, students were asked which course they found most important thus far in their college years. The responses were assigned into the following categories according to their subject matter: STEM (Science, Technology, Engineering and Math); Social Science; Ethics, Humanities, History, Writing and Philosophy; Art, Music and Language; Professional Education (Table 12).

Of the 260 courses listed, 63 were in Ethics, Humanities, History, Writing and Philosophy. More courses out of any other category fell into this one—central to the essence of liberal education. Some courses in this category included Russian literature, Epistemology, Islamic Law, Business Ethics, and Art History.

In close second, 61 were in STEM and 61 were in Professional Education—students felt courses in these categories were important for them. STEM courses ranged from Math and Computer Science to Neuroscience and Aircraft Performance and Design. Professional Education courses involved either professional school-specific subject matter, for example Finance in the Questrom School of Management, or professional preparation courses within another school such as Product Management in the School of Engineering.

Forty-six courses were in Social Science, including Personality Psychology, Sociology of Race and Ethnicity, Macroeconomics, Africa in International Relations, and Medical Anthropology among others. Twenty-nine courses were in Art, Music, and Language; these included Private Lessons, German, French, Chinese, Piano, and Music Theory.

It is clear that the courses that dealt with society and what it means to be human were most impactful for students. Nonetheless, professional skills acquired in STEM education are increasingly in demand in careers following university, hence courses in these areas were also essential for students. This is not to discount the importance students felt in the disciplines of Social Science, Art, Music and Language; while in the minority, courses in these disciplines apparently had readings, assignments, or moments in the classroom that students carried with them post-course.

Overall, my survey revealed that in the majority students at Boston University have an adequate understanding of liberal education and motivations to attend university that are in line with its goals. On average, students agreed that BU fulfilled these goals, such as an improved self-understanding and an understanding of how what they know is

related. Student extent of agreement of the fulfillment of liberal education's goals influenced how they felt about jobs across sectors ranging from STEM and business to education and the government, as specific goals revealed changes in their feelings. For the most part, disagreement led to a decrease in favorable feelings towards a given job.

For most students, courses in Ethics, Humanities, History, Writing and Philosophy persist as most important. Similarly books read in a course and books categorized as Novels, Poetry, Drama, and Short Stories have proven most significant for students my sample.

### **Conclusion**

From the students' perspectives, the idea of liberal education maintains a strong presence within BU. Nonetheless, as motivations and courses in STEM and professional education increasingly come second in importance, BU is faced with the possibility of indifference to liberal education. I hope that administrators, students, their families, and faculty alike, can continue to recognize its value.

Whether political leaders place value on higher education within our societies, education, as outlined by Aristotle and Dewey, will continue to be at issue for politics. Grounding the success of a city in its citizens, Aristotle thinks education that is oriented towards the character of the soul cultivates a virtuous citizenry. Considering the social environment as fundamental to an excellent democratic society, Dewey believes that education should provide individuals with a mental disposition towards their communities. He called for the importance of the sciences to bring progress to society and has a strong practical focus in his work.

In terms of the idea of liberal education, Oakeshott's theories of teaching and learning emphasize the need for an intellectual inheritance to pass from teachers to students in order to counter forces of professionalization and specialization that still mark the modern world. Hutchins regards the great books of the Western world as central to liberal education, in their ability to teach individuals how to live human lives. Dreyfus and Kelly, in their book, illuminate several works to revive the gratitude and wonder of Homer's time they feel has been lost in today's society.

President Michael Roth's points concerning empathy and self-knowledge reflect a deep commitment to traditions of liberal education and its aims. While his idea of a pragmatic liberal education highlights the practical aspect of Dewey's and Rorty's works, this feature obscures what an investigation into our natures can offer, what philosophy can offer.

Philosophy, in its inherent intellectual offerings, allows us to signify our understanding. This "understanding of understanding," according to Strauss in his 1959 address, "by *noesis noesos*...is so high, so pure, so noble an experience that Aristotle could ascribe it to God." From this activity, we begin to notice "the dignity of the mind," and with it that of mankind, what Strauss calls "the home of man."

From instilling "modesty" to inspiring "boldness," liberal education can transform how we view and approach our world. Strauss calls liberal education, "liberation from vulgarity," or the Greek word *apeirokalia*, meaning, "lack of experience in things beautiful." This beauty is life's greatest gift of all.

## Tables

**Table 1. Summary Statistics for Student Feelings about Jobs Across 6 Sectors**

| Variables               | Minimum | Median | Mean  | Maximum |
|-------------------------|---------|--------|-------|---------|
| STEM                    | 0.00    | 44.00  | 45.59 | 100.00  |
| Business or Management  | 0.00    | 48.00  | 48.46 | 100.00  |
| Education or Literature | 0.00    | 35.00  | 44.09 | 100.00  |
| Government or Law       | 0.00    | 36.50  | 37.37 | 100.00  |
| Arts                    | 0.00    | 50.00  | 46.86 | 100.00  |
| Vocational              | 0.00    | 0.00   | 11.08 | 100.00  |

**Table 2. Summary Statistics for Extent of Student Agreement With What College Has Given Them**  
[Strongly Agree- 1.00; Strongly Disagree- 4.00]

| Variables   | Minimum | Median | Mean  | Maximum |
|---|---------|--------|-------|---------|
| An understanding of how what you know is related  | 1.00    | 2.00   | 1.639 | 3.00    |
| A desire to learn for its own sake after college  | 1.00    | 1.00   | 1.620 | 4.00    |
| An ability to reason analytically                 | 1.00    | 1.00   | 1.492 | 4.00    |
| An ability to make ethical decisions              | 1.00    | 2.00   | 1.884 | 4.00    |
| An improved self-understanding                    | 1.00    | 1.00   | 1.457 | 4.00    |
| Leadership skills                                 | 1.00    | 2.00   | 1.625 | 4.00    |
| Preparation for future service in society         | 1.00    | 2.00   | 1.603 | 4.00    |
| Political consciousness                           | 1.00    | 2.00   | 2.086 | 4.00    |
| Openness to change                                | 1.00    | 1.00   | 1.517 | 4.00    |
| Awareness and appreciation for human achievements | 1.00    | 1.00   | 1.566 | 4.00    |
| An ability to communicate effectively             | 1.00    | 1.00   | 1.453 | 4.00    |
| Empathy towards others                            | 1.00    | 2.00   | 1.734 | 4.00    |

**Table 3. Multivariate Regression Statistics: Student Feelings about a Job in STEM**

|   | <b>Est. Feeling</b> | <b>Std. Error</b> | <b>T-Statistics</b> | <b>P-Value</b> | <b>R-Squared</b> |
|---|---------------------|-------------------|---------------------|----------------|------------------|
|   |                     |                   |                     |                | 0.04135          |
| A   | 56.3039             |                   |                     |                |                  |
| An understanding of how what you know is related  | 0.7790              | 5.0708            | 0.154               | 0.87804        |                  |
| A desire to learn for its own sake after college  | -2.8125             | 4.3032            | -0.654              | 0.51398        |                  |
| An ability to reason analytically                 | -11.7149            | 4.8165            | -2.432              | 0.01572        |                  |
| An ability to make ethical decisions              | -0.8742             | 4.4156            | -0.198              | 0.84323        |                  |
| An improved self-understanding                    | 3.3833              | 5.3531            | 0.632               | 0.52796        |                  |
| Leadership skills                                 | -1.1086             | 3.9532            | -0.280              | 0.77939        |                  |
| Preparation for future service in society         | -6.5173             | 4.4344            | -1.470              | 0.14291        |                  |
| Political consciousness                           | 4.2647              | 3.3049            | 1.290               | 0.19812        |                  |
| Openness to change                                | 1.6301              | 4.9864            | 0.327               | 0.74401        |                  |
| Awareness and appreciation for human achievements | -5.6908             | 4.9790            | -1.143              | 0.25416        |                  |
| An ability to communicate effectively             | 13.0708             | 4.6686            | 2.800               | 0.00552        |                  |
| Empathy towards others                            | -1.3207             | 4.0275            | -0.328              | 0.74325        |                  |

**Table 4. Multivariate Regression Statistics: Student Feelings about a Job in Business or Management**

|   | <b>Est. Feeling</b> | <b>Std. Error</b> | <b>T-Statistics</b> | <b>P-Value</b> | <b>R-Squared</b> |
|---|---------------------|-------------------|---------------------|----------------|------------------|
|   |                     |                   |                     |                | 0.05768          |
| A   | 48.780204           |                   |                     |                |                  |
| An understanding of how what you know is related  | 3.341581            | 4.541006          | 0.736               | 0.46252        |                  |
| A desire to learn for its own sake after college  | 1.585269            | 3.809402          | 0.416               | 0.67767        |                  |
| An ability to reason analytically                 | 1.794161            | 4.272953          | 0.420               | 0.67494        |                  |
| An ability to make ethical decisions              | -7.376502           | 4.015835          | -1.837              | 0.06745        |                  |
| An improved self-understanding                    | -0.008838           | 4.819635          | -0.002              | 0.99854        |                  |
| Leadership skills                                 | -10.486411          | 3.544034          | -2.959              | 0.00339        |                  |
| Preparation for future service in society         | 0.540601            | 4.044486          | 0.134               | 0.89378        |                  |
| Political consciousness                           | 1.657566            | 2.954376          | 0.561               | 0.57528        |                  |
| Openness to change                                | 0.006877            | 4.483657          | 0.002               | 0.99878        |                  |
| Awareness and appreciation for human achievements | 0.648523            | 4.581580          | 0.142               | 0.88755        |                  |
| An ability to communicate effectively             | -4.195367           | 4.266883          | -0.983              | 0.32647        |                  |
| Empathy towards others                            | 11.970806           | 3.708819          | 3.228               | 0.00142        |                  |

**Table 5. Multivariate Regression Statistics: Student Feelings about a job in Education or Literature**

|   | <b>Est. Feeling</b> | <b>Std. Error</b> | <b>T-Statistics</b> | <b>P-Value</b> | <b>R-Squared</b> |
|---|---------------------|-------------------|---------------------|----------------|------------------|
|   |                     |                   |                     |                | 0.06216          |
| A   | 59.6413             |                   |                     |                |                  |
| An understanding of how what you know is related  | 4.8708              | 4.3191            | 1.128               | 0.26055        |                  |
| A desire to learn for its own sake after college  | -0.6669             | 3.6701            | -0.182              | 0.85597        |                  |
| An ability to reason analytically                 | -2.7307             | 4.0853            | -0.668              | 0.50450        |                  |
| An ability to make ethical decisions              | 2.1521              | 3.7374            | 0.576               | 0.56526        |                  |
| An improved self-understanding                    | -4.3515             | 4.4623            | -0.975              | 0.33043        |                  |
| Leadership skills                                 | 9.8590              | 3.3732            | 2.923               | 0.00380        |                  |
| Preparation for future service in society         | 2.8517              | 3.8336            | 0.744               | 0.45768        |                  |
| Political consciousness                           | -7.5333             | 2.7872            | -2.703              | 0.00736        |                  |
| Openness to change                                | -4.7193             | 4.2342            | -1.115              | 0.26613        |                  |
| Awareness and appreciation for human achievements | -0.9961             | 4.1887            | -0.238              | 0.81223        |                  |
| An ability to communicate effectively             | -4.0002             | 3.9640            | -1.009              | 0.31391        |                  |
| Empathy towards others                            | -3.6584             | 3.3487            | -1.092              | 0.27569        |                  |

**Table 6. Multivariate Regression Statistics: Student Feelings about a job in Government or Law**

|   | <b>Est. Feeling</b> | <b>Std. Error</b> | <b>T-Statistics</b> | <b>P-Value</b> | <b>R-Squared</b> |
|---|---------------------|-------------------|---------------------|----------------|------------------|
|   |                     |                   |                     |                | 0.09037          |
| A   | 49.6498             |                   |                     |                |                  |
| An understanding of how what you know is related  | 4.7328              | 4.2019            | 1.126               | 0.2612         |                  |
| A desire to learn for its own sake after college  | 3.2519              | 3.5997            | 0.903               | 0.3672         |                  |
| An ability to reason analytically                 | -3.9305             | 4.1013            | -0.958              | 0.3389         |                  |
| An ability to make ethical decisions              | -2.4730             | 3.6602            | -0.676              | 0.4999         |                  |
| An improved self-understanding                    | -3.3819             | 4.4401            | -0.762              | 0.4470         |                  |
| Leadership skills                                 | -3.2454             | 3.2839            | -0.988              | 0.3240         |                  |
| Preparation for future service in society         | 0.7748              | 3.7906            | 0.204               | 0.8382         |                  |
| Political consciousness                           | -13.0167            | 2.7254            | -4.776              | 3.14e-06       |                  |
| Openness to change                                | 1.7884              | 4.1886            | 0.427               | 0.6698         |                  |
| Awareness and appreciation for human achievements | 4.6954              | 4.1078            | 1.143               | 0.2542         |                  |
| An ability to communicate effectively             | -0.5869             | 3.9688            | -0.148              | 0.8826         |                  |
| Empathy towards others                            | 7.0338              | 3.2841            | 2.142               | 0.0332         |                  |

**Table 7. Multivariate Regression Statistics: Student Feelings about a job in the Arts**

|   | <b>Est. Feeling</b> | <b>Std. Error</b> | <b>T-Statistics</b> | <b>P-Value</b> | <b>R-Squared</b> |
|---|---------------------|-------------------|---------------------|----------------|------------------|
|   |                     |                   |                     |                | 0.01242          |
| A   | 43.1614             |                   |                     |                |                  |
| An understanding of how what you know is related  | 4.2732              | 4.7826            | 0.893               | 0.3725         |                  |
| A desire to learn for its own sake after college  | 1.8844              | 4.0433            | 0.466               | 0.6416         |                  |
| An ability to reason analytically                 | 5.5692              | 4.5121            | 1.234               | 0.2183         |                  |
| An ability to make ethical decisions              | 4.3490              | 4.1983            | 1.036               | 0.3013         |                  |
| An improved self-understanding                    | -9.3040             | 5.1047            | -1.823              | 0.0696         |                  |
| Leadership skills                                 | 3.6589              | 3.7714            | 0.970               | 0.3329         |                  |
| Preparation for future service in society         | 0.4982              | 4.2526            | 0.117               | 0.9068         |                  |
| Political consciousness                           | 2.2424              | 3.1375            | 0.715               | 0.4755         |                  |
| Openness to change                                | 1.0038              | 4.7807            | 0.210               | 0.8339         |                  |
| Awareness and appreciation for human achievements | -2.9112             | 4.7105            | -0.618              | 0.5371         |                  |
| An ability to communicate effectively             | -5.1862             | 4.4202            | -1.173              | 0.2418         |                  |
| Empathy towards others                            | -6.0328             | 3.7356            | -1.615              | 0.1076         |                  |

**Table 8. Multivariate Regression Statistics: Student Feelings about a Vocational Job**

|   | <b>Est. Feeling</b> | <b>Std. Error</b> | <b>T-Statistics</b> | <b>P-Value</b> | <b>R-Squared</b> |
|---|---------------------|-------------------|---------------------|----------------|------------------|
|   |                     |                   |                     |                | 0.02117          |
| A   | 8.5273              |                   |                     |                |                  |
| An understanding of how what you know is related  | 5.0180              | 2.3283            | 2.155               | 0.03212        |                  |
| A desire to learn for its own sake after college  | 1.6716              | 1.9904            | 0.840               | 0.40182        |                  |
| An ability to reason analytically                 | -2.9187             | 2.2105            | -1.320              | 0.18794        |                  |
| An ability to make ethical decisions              | -1.3974             | 2.0436            | -0.684              | 0.49474        |                  |
| An improved self-understanding                    | -0.2143             | 2.4683            | -0.087              | 0.93090        |                  |
| Leadership skills                                 | 4.9269              | 1.8255            | 2.699               | 0.00744        |                  |
| Preparation for future service in society         | -3.9215             | 2.0761            | -1.889              | 0.06009        |                  |
| Political consciousness                           | 1.0636              | 1.5149            | 0.702               | 0.48331        |                  |
| Openness to change                                | 1.8040              | 2.3121            | 0.780               | 0.43600        |                  |
| Awareness and appreciation for human achievements | -3.2822             | 2.2581            | -1.454              | 0.14735        |                  |
| An ability to communicate effectively             | -2.4264             | 2.1434            | -1.132              | 0.25873        |                  |
| Empathy towards others                            | 0.5291              | 1.8336            | 0.289               | 0.77316        |                  |

**Table 9. Student Understandings of Liberal Education**

| Category:   | Example Words/Phrases:  | Number of Mentions: |
|---|---|---------------------|
| Liberal Education as <b>Accurately Understood</b> | <ul style="list-style-type: none"> <li>• Applicable information and skills (i.e. reading comprehension, critical thinking) to your major and other areas, in many fields, well-rounded core, broad range of knowledge, equal and fair exposure to, understanding in multiple disciplines, multi-faceted, breadth of academia</li> <li>• Access to a wide variety of perspectives on social and personal issues, many different points of view, extremely eye-opening, provides a new perspective, cosmopolitan</li> <li>• Understanding of how the universe works, broadening one's scope of the world, education in all aspects of life, aims to expand the mind, general knowledge, touches on the most important building blocks of history and society, crossroads of Western humanities in context of contemporary social situations</li> <li>• Education in everything without bias or prejudice</li> <li>• Not constricted, less narrow and more worldly approach to knowledge, does not limit learning possibilities</li> <li>• Taking an array of classes, instead of strictly vocational, does not focus on one specific subject, is beyond your specific field of study or major, does not focus on STEM field subjects, lets you explore every subject, unspecialized knowledge</li> <li>• Interdisciplinary education, interactions between different disciplines, multi-purposeful for specific fields, holistic</li> <li>• Enhances knowledge of all areas (Social Sciences, Humanities, Law, Writing Literature, Arts and Natural Sciences), all-encompassing, learning the basics of learning in different topics</li> <li>• Extends beyond the boundaries of traditional science or commerce dominated fields, encourages students to think as global, involved citizens, makes us human, not just facts and numbers</li> </ul> | 174                 |

|   |   |           |
|---|---|-----------|
|   | <ul style="list-style-type: none"> <li>• Opportunity to grow and acquire tools to be a contributing member of life, personal and intellectual development, educates all aspects of the individual</li> <li>• Western education that teaches about right, equality, democracy, etc., thinking morally</li> <li>• Useful for your future, career goals</li> <li>• Study, learn for the sake of learning</li> <li>• Thoughtful investigations, expanding thinking; Ability to study a broad range of a subject, full information about a topic and allows them to critically analyze the issue and come up with their own opinions and thoughts about it about it, think and express thoughts in an appropriate way</li> <li>• Participating in school, organized learning</li> <li>• A free learning environment, opportunity to learn, open space for free thinking without judgment, creative thinking, promoting open-mindedness and leaving a lot of room to be creative, induces creativity, freedom of expression, freedom to express yourself, allows students to define personal exploration</li> </ul> |           |
| <p>Liberal Education<br/>Misunderstanding 1: <b>Freedom to choose what you want</b></p> | <p>Academic freedom<br/>Freedom to choose your own path, concentration, to study whatever one chooses, to freely pick the classes you want<br/>Does not limit the desires of the student, freedom to choose curriculum, free to learn in your own way, freedom to learn whatever, whenever<br/>Allows you to choose your individual area of study, to choose what you actually want to learn, define your own means of learning, have multiple choices<br/>Prepares people in a field of study, allows study in a specific area of interest, one to two particular majors/minors, freedom to decide your own career path</p>  | <p>39</p> |
| <p>Liberal Education<br/>Misunderstanding 2: <b>Limited</b></p>                         | <p>One-dimensional<br/>Art<br/>Anything without numbers/math<br/>Doesn't lead to exposure of many things<br/>Doesn't cover everything you need in many cases, limited</p>   | <p>8</p>  |
| <p>Liberal Education</p>  | <p>Unrelated to your future</p>   | <p>6</p>  |

|   |   |  |
|---|---|--|
| Misunderstanding 3: <b>Unpractical</b>                            | Not practical, “unpractical”<br>Unnecessary<br>Fluff  |  |
| Liberal Education<br>Misunderstanding 4: <b>Research-oriented</b> | Emphasis on research and writing, research-based<br>For someone pursuing a job in medicine/science or going to grad school  | 3  |
| Liberal Education <b>No Understanding</b>                         | I don’t know what it is<br>No idea<br>Don’t really know what this means, not completely sure, unfamiliar with the term<br>Different meanings  | 10   |
| <b>Additional Comments</b> on Liberal Education                   | Good, Great<br>Progressive<br>Comprehensive<br>Necessary<br>Enlightening<br>Interesting<br>Liberal, very liberal<br>Nice, fun and exciting<br>Eclectic<br>Boring<br>Spontaneous, contents not in structure<br>Very amazing<br>Inspiring<br>Freeing<br>Priceless<br>Important<br>Groovy<br>A lot of work<br>Non-existent<br>Passion-driven<br>Taught by liberals<br>Looking to instill liberal values and ideals<br>Individual-based<br>A farce, training students in pleasing authority and competition<br>Free in terms of ideas | 5<br>4<br>4<br>3<br>3<br>3<br>3<br>3<br>3<br>2<br>2<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 |

**Table 10. Student Reasons For Attending University**

| <b>Category:</b> | <b>Example Words/Phrases:</b>  | <b>Number of Mentions:</b> |
|------------------|--|----------------------------|
| <b>Learning</b>  | Broadening, breadth of knowledge<br>General knowledge, knowledge of different subjects, applicable knowledge<br>Access to knowledge in a field | 120                        |

|                             |   |    |
|-----------------------------|---|----|
|                             | <p>Learning about important, different subjects/skills<br/>         Understanding of the world, historical context, well-rounded perspective<br/>         To further and hone a craft<br/>         Explore<br/>         Furthering education, coursework, academics<br/>         Educational capital<br/>         Learning how to think critically<br/>         Learning how to risk and fail with a safety net</p>                       |    |
| <b>Career-Oriented</b>      | <p>Money<br/>         Preparation for, to get, secure career/job, professional life, workplace, a means to an end<br/>         Work experience, professional development<br/>         Return on Investment<br/>         Useful<br/>         Degree<br/>         Rank<br/>         Independence<br/>         Better oneself in a field<br/>         Marketability<br/>         Professional knowledge</p>                                  | 96 |
| <b>A View to the Future</b> | <p>Opportunity<br/>         Brighter future, create your future<br/>         Succeed, future success, achieve goals<br/>         Experience—classroom to real-world<br/>         Better life<br/>         Survive<br/>         Preparedness<br/>         Maintain high standards of society</p>   | 34 |
| <b>Self-Understanding</b>   | <p>Dreams<br/>         Passion, passionate about pursuits, major<br/>         Self-understanding and improvement<br/>         Find oneself<br/>         Cultivate oneself<br/>         Know oneself, learn about oneself, discover strengths, become the best version of themselves<br/>         Challenge oneself<br/>         Personal growth, connecting students and teachers for purposes of growth<br/>         Express oneself</p> | 30 |
| <b>Social</b>               | <p>Meeting people, network, connections, social capital<br/>         Cultural immersion, cultural capital, exposure to culture<br/>         Different points of view, different opinions, challenging one's own view through conversation with people from all walks of life<br/>         Collaboration<br/>         Diversity<br/>         Societal norm<br/>         Social development</p>   | 29 |

|                            |  |    |
|----------------------------|--|----|
|                            | Open environment   |    |
| <b>Impact on the World</b> | Impact on the world<br>Useful member of society<br>Contribution to the betterment of society | 10 |

**Table 11. Most Important Book Read In University\*****Key:**

\*\* = Repeat

**Novels, Poetry, Drama, and Short Stories**

| <b>Student's School</b> | <b>Book (Title, author or both)</b> | <b>For a course?</b> |
|-------------------------|-------------------------------------|----------------------|
| ENG                     | The Alchemist **                    | No                   |
| QSOB                    | The Alchemist **                    | No                   |
| CAS                     | The Alchemist; Paulo Coelho **      | No                   |
| COM                     | The Stranger **                     | Yes                  |
| COM                     | The Stranger **                     | Yes                  |
| CAS                     | Albert Camus **                     | No                   |
| CAS                     | Song of Solomon                     | Yes                  |
| CAS/COM                 | Song of Solomon by Toni Morrison ** | Yes                  |
| CAS                     | Beloved, Toni Morrison **           | Yes                  |
| CAS                     | The Great Gatsby **                 | Yes                  |
| SAR                     | The Great Gatsby **                 | No                   |
| CFA                     | Great Gatsby **                     | No                   |
| QSOB                    | Hemingway **                        | Yes                  |
| COM                     | Sun also rises, Hemingway **        | Yes                  |
| CAS                     | The Master and Margarita **         | Yes                  |
| CFA                     | The Master and Margarita **         | Yes                  |
| COM                     | The Color Purple **                 | Yes                  |
| CAS                     | The Color Purple **                 | Yes                  |
| ENG                     | Slaughter-house Five **             | Yes                  |
| QSOB                    | Slaughterhouse-Five **              | No                   |
| ENG                     | The Count of Monte Cristo **        | No                   |
| ENG                     | The Count of Monte Cristo **        | No                   |
| CAS                     | The Bell Jar—Plath **               | Yes                  |
| COM                     | The Bell Jar **                     | No                   |
| CAS/SED                 | Harry Potter **                     | No                   |

|                   |  |     |
|-------------------|--|-----|
| COM               | Harry Potter **  | No  |
| CAS               | Cane   | Yes |
| CAS               | Cloud Atlas  | No  |
| CAS               | The Tale of Genji by Murasaki Shikibu                  | Yes |
| CAS               | The Sorrow of Young Werther                            | Yes |
| SAR               | Unaccustomed Earth by Jhumpa Lahiri                    | No  |
| CAS               | Life of Pi   | No  |
| CAS               | Still Alice  | No  |
| CAS               | The Book Thief   | No  |
| QSOB              | A Tree Grows in Brooklyn                               | No  |
| CAS               | To Kill a Mockingbird Harper Lee                       | No  |
| CFA               | Going Postal by Terry Pratchett                        | No  |
| CFA               | The Poisonwood Bible                                   | No  |
| CFA               | Paradise Lost-Milton                                   | Yes |
| CFA               | Atonement, Ian McEwan                                  | No  |
| ENG               | Zen and the Art of Motorcycle Maintenance              | No  |
| SHA               | There a Petal Silently Falls                           | Yes |
| CAS               | "One Hundred Years of Solitude" Gabriel García Márquez | No  |
| ENG               | The Picture of Dorian Gray. Oscar Wilde                | No  |
| SED               | Things Fall Apart                                      | Yes |
| COM               | Heart of Darkness; Conrad                              | Yes |
| CGS going to QSOB | Metamorphosis  | Yes |
| SAR               | Death of a Salesman                                    | Yes |
| SAR               | The Goldfinch  | No  |
| COM               | Catcher in the Rye                                     | No  |
| COM               | Girl With the Dragon Tattoo                            | No  |
| COM               | The Longest Ride - Nicholas Sparks                     | No  |
| QSOB              | Romeo and Juliet                                       | Yes |
| COM               | God's Little Acre                                      | Yes |
| ENG               | In a Bamboo Grove                                      | Yes |
| COM               | Jorge Borges   | Yes |
| COM               | 1Q84 **  | No  |
| CAS               | The Odyssey, Homer                                     | Yes |
| QSOB              | Les Misérables   | No  |
| CAS               | Dharma Bums  | Yes |
| COM               | Invisible Man  | Yes |
| CAS               | East of Eden   | No  |
| QSOB              | A Map of Betrayal                                      | Yes |
| CGS               | A Separate Peace                                       | Yes |
| QSOB              | Fahrenheit 451   | Yes |
| CAS               | A Brief Wondrous Life of Oscar Wao                     | Yes |

|         |   |     |
|---------|---|-----|
| CAS     | Inferno by Dan Brown                              | No  |
| CAS     | Winesburg, Ohio                                   | Yes |
| ENG     | Waiting for Godot                                 | No  |
| CAS     | Cat's Cradle                                      | Yes |
| CAS/COM | Beautiful Ruins                                   | No  |
| CAS     | A Raisin in the Sun                               | Yes |
| COM     | Gone Girl   | No  |
| COM     | Sputnik Sweetheart by Haruki Murakami **          | No  |
| COM     | Naomi, Tanizaki                                   | Yes |
| COM     | Brave New World                                   | No  |
| ENG     | Kane and Abel                                     | No  |
| COM     | Wandering Falcon, Jameel Ahmed                    | Yes |
| CAS     | Persepolis  | Yes |
| CGS     | Metamorphoses, Ovid                               | Yes |
| CAS     | Game of Thrones                                   | No  |
| CAS     | Strange Fruit                                     | Yes |
| QSOB    | Collection of Short Stories by F Scott Fitzgerald | Yes |
| QSOB    | Siddhartha  | No  |
| QSOB    | Frankenstein                                      | Yes |
| CFA     | Dead Man's Cell Phone                             | Yes |
| CAS     | Gilgamesh   | Yes |
| CAS     | Antologia de los Poetas Del 27                    | No  |
| CAS     | Fault in Our Stars                                | No  |
| CAS/KHC | The Kiss of the Spider Woman                      | Yes |
| CAS     | The Foreigner                                     | Yes |
| COM     | Middlesex   | Yes |
| ENG     | One Chinese book Wukong Zhuan                     | No  |
| ENG     | A Tale of Two Cities                              | Yes |
| ENG     | The Poisonwood Bible                              | No  |

#### Memoirs, Biographies and First-Hand Accounts

| Student's School | Book (Title, author or both)               | For a course? |
|------------------|--|---------------|
| CAS              | An Unquiet Mind by Kay Redfield Jamison ** | No            |
| CAS              | Unquiet Mind Kay Jamison **                | No            |
| SED              | All Souls **                               | Yes           |
| CAS              | All Souls **                               | Yes           |
| CGS '15, QSOB'17 | Son of the Revolution **                   | Yes           |
| CGS '15 QSOB '17 | Son of the Revolution **                   | Yes           |
| SAR              | Mountains Beyond Mountains **              | Yes           |

|             |   |     |
|-------------|---|-----|
| SAR         | Mountains Beyond Mountains **                     | Yes |
| CAS         | Mountains Beyond Mountains **                     | No  |
| SAR         | Mountains Beyond Mountains by Tracy Kidder **     | Yes |
| SAR         | Yes, Please by Amy Pohler **                      | No  |
| CFA         | Yes, Please by Amy Poehler **                     | No  |
| CAS         | Coming of Age in Mississippi **                   | Yes |
| SED         | Coming of Age in Mississippi by Anne Moody **     | Yes |
| COM and CFA | Lying by Lauren Slater **                         | Yes |
| CAS         | A Beautiful Boy                                   | No  |
| ENG         | Another Bullshit Night in Suck City by Nick Flynn | Yes |
| ENG         | Lost in Translation                               | Yes |
| CAS         | How to Be Black                                   | Yes |
| CFA         | Roll With It                                      | Yes |
| CAS         | Hard Choices, Hillary Clinton                     | No  |
| CFA         | The Man Who Mistook His Wife for a Hat            | No  |
| SAR         | Three Cups of Tea                                 | No  |
| CAS         | Lying by Lauren Slater                            | Yes |
| CAS         | A Civil Action                                    | Yes |
| QSOB        | Invictus  | No  |
| QSOB        | Color of Water                                    | Yes |
| CGS to COM  | Night Elie Wiesel                                 | No  |
| QSOB        | The Road To Wigan Pier--George Orwell             | Yes |
| QSOB        | A Million Little Pieces, James Frey               | No  |
| SAR         | Wild  | Yes |
| CFA         | Heavier than Heaven by Charles Cross              | No  |
| CAS         | The Immortal Life Of Henrietta Lacks              | Yes |
| QSOB        | Walden by Henry Thoreau                           | Yes |
| CAS         | Tina Fey's Bossypants                             | No  |

**Society, Anthropology, Economics, Psychology, Public Health, and Environment**

| <b>Student's School</b> | <b>Book (Title, author or both)</b>                       | <b>For a course?</b> |
|-------------------------|---|----------------------|
| SAR                     | Richard Dawkins **  | Yes                  |
| SHA                     | The God Delusion by Richard Dawkins **                    | Yes                  |
| SAR                     | The Spirit Catches You and You Fall Down-Anne Friedman ** | Yes                  |
| SAR                     | The Spirit Catches You and You Fall Down **               | Yes                  |
| CAS                     | Jeffrey Sachs **  | Yes                  |
| CAS                     | The End of Poverty **                                     | Yes                  |
| CAS                     | The Tipping Point Malcom Gladwell                         | No                   |
| COM                     | Any articles from my anthropology course                  | Yes                  |

|          |   |     |
|----------|---|-----|
| CFA      | Bettelheim                                  | Yes |
| COM      | Pornland by Gail Dines                      | Yes |
| CAS      | Mind, modernity, madness by Liah Greenfeld  | Yes |
| SED      | Globalization                               | Yes |
| QSOB     | Macroeconomics                              | Yes |
| SAR      | Intro to Public Health                      | Yes |
| SAR      | Global Environmental public health textbook | Yes |
| CAS      | The Global Soul by Pico Iyer                | Yes |
| CAS      | Food Nations                                | Yes |
| CAS      | Being Mortal                                | Yes |
| QSOB     | Imagine                                     | No  |
| CAS      | Bonk by Mary Roach                          | No  |
| CFA      | The Artist's Way                            | NA  |
| CFA      | The Chairs are Where the People Are         | No  |
| QSOB     | Freakonomics Stephen Levitt                 | Yes |
| COM; CAS | Kerry Emanuel's Climate Change Book         | Yes |
| CAS      | Development as Freedom by Amartya Sen.      | Yes |
| ENG      | Racism Without Racists                      | Yes |

#### Philosophy and Religion

| Student's School | Book (Title, author or both)                 | For a course? |
|------------------|--|---------------|
| COM              | On the Genealogy of Morals, by Nietzsche **  | Yes           |
| CGS              | Nietzsche **                                 | Yes           |
| CAS              | The Essential Kierkegaard **                 | Yes           |
| CAS              | Fear and Trembling **                        | Yes           |
| COM              | Fear and Trembling, Soren Kierkegaard **     | Yes           |
| QSOB, CAS        | The Myth of Sisyphus Albert Camus **         | No            |
| COM, CFA         | Bible **                                     | No            |
| CAS              | Bible from Core **                           | Yes           |
| QSOB             | Arthur Danto                                 | Yes           |
| SAR/CFA          | Daoism                                       | Yes           |
| CFA              | Focault                                      | Yes           |
| CAS              | Socrates                                     | Yes           |
| CAS              | The Dhammapada                               | Yes           |
| CAS              | Sartre Being or Nothingness                  | Yes           |
| QSOB             | Tao te Chang, Lao Tzu                        | No            |
| CAS              | Philosophical Investigations by Wittgenstein | Yes           |
| CAS              | John Heil - Philosophy of Mind: An Anthology | Yes           |
| CAS              | Plato's Republic                             | Yes           |

|                         |                            |     |
|-------------------------|----------------------------|-----|
| CFA                     | Drawing Near by Joh Bevere | No  |
| CAS transferring to SAR | Timeless Thoughts on Love  | No  |
| CGS/CAS                 | Quran (religious text)     | No  |
| CAS                     | Analects of Confucius      | Yes |
| CFA                     | Drawing Near by Joh Bevere | No  |
| CAS                     | Nicomachean Ethics         | Yes |
| SAR                     | Medical Ethics             | Yes |

### Business and Leadership

| Student's School | Book (Title, author or both)                                   | For a course? |
|------------------|--|---------------|
| QSOB             | Lean In, Sheryl Sandberg **                                    | No            |
| QSOB             | Lean in **   | No            |
| QSOB             | Lean in, Sandberg **   | No            |
| QSOB             | Statistics for Managers  | Yes           |
| CFA              | Introduction to Management, one of the primary QSOB textbooks. | Yes           |
| CFA              | Leadership Challenge   | Yes           |
| COM              | How to Win Friends and Influence People                        | Yes           |
| CGS-QSOB         | Margin of Safety   | No            |
| QSOB             | Digital Media Strategy Professor Utter                         | Yes           |
| QSOB             | TiVo Case Study  | Yes           |
| QSOB             | Business, Society, and Ethics                                  | Yes           |
| SHA              | Strategic Marketing  | Yes           |

### Law, Politics, International Relations

| Student's School | Book (Title, author or both)                | For a course? |
|------------------|---|---------------|
| CAS              | The UN Charter                              | Yes           |
| QSOB             | The Case Against the Supreme Court          | No            |
| SED              | Rule of Experts by Timothy Mitchell         | Yes           |
| CAS              | On War by Clausewitz                        | Yes           |
| QSOB             | Nuclear Proliferation Book by Kenneth Waltz | Yes           |
| CAS              | It Still Takes a Candidate                  | Yes           |
| CAS              | Marx  | Yes           |
| QSOB             | Intro to Law textbook                       | Yes           |
| COM              | Cosmopolitanism Appiah                      | Yes           |

**STEM**

| <b>Student's School</b> | <b>Book (Title, author or both)</b>      | <b>For a course?</b> |
|-------------------------|--|----------------------|
| ENG                     | Control Systems                          | Yes                  |
| ENG                     | Fundamentals of Thermodynamics           | Yes                  |
| CAS                     | Modern Physics / A Brief History of Time | Yes                  |
| CAS                     | Genetics book                            | Yes                  |
| CAS                     | Biochemistry by Voet                     | Yes                  |
| CAS                     | Principles of Cell Biology               | Yes                  |
| CGS transferring to SAR | Biodiversity of Life by Wilson           | Yes                  |
| ENG                     | Electric circuit theory                  | Yes                  |
| CAS                     | A Course in Probability                  | Yes                  |
| ENG                     | Just some books in my major field        | Yes                  |

**History**

| <b>Student's School</b> | <b>Book (Title, author or both)</b>           | <b>For a course?</b> |
|-------------------------|---|----------------------|
| SED                     | Modernization of the Western World            | Yes                  |
| CAS                     | The Triangle Fire                             | Yes                  |
| COM                     | Triangle Fire                                 | Yes                  |
| SED                     | Common Ground                                 | Yes                  |
| SED                     | My Chinese Cultural Revolution class textbook | Yes                  |
| QSOB                    | Killing Lincoln                               | Yes                  |
| QSOB / COM              | Book about: Atomic bomb World War 2           | No                   |
| CAS                     | The Fate of Africa by Martin Meredith         | Yes                  |

**Writing, Composition, and Design**

| <b>Student's School</b> | <b>Book (Title, author or both)</b>                  | <b>For a course?</b> |
|-------------------------|--|----------------------|
| COM                     | Design for Non-designer                              | Yes                  |
| COM                     | Bird by Bird   | Yes                  |
| CFA                     | Writing manual                                       | Yes                  |
| COM                     | AP Style Book  | Yes                  |
| COM                     | Mastering Story, Community and Influence, Jay Oatway | No                   |
| COM                     | COM 201 Book   | Yes                  |

**Music and Theatre**

| <b>Student's School</b> | <b>Book (Title, author or both)</b>               | <b>For a course?</b> |
|-------------------------|---|----------------------|
| CFA                     | Burkhart Musical Analysis                         | Yes                  |
| CFA                     | The Vocal Pedagogy                                | Yes                  |
| CFA/CAS                 | Musicophilia, Sacks                               | No                   |
| CFA                     | Freeing the Natural Voice by Kristin Linklater ** | Yes                  |
| CFA                     | Freeing the natural Voice by Kristen Linklater ** | Yes                  |

**Self-Improvement**

| <b>Student's School</b> | <b>Book (Title, author or both)</b> | <b>For a course?</b> |
|-------------------------|-------------------------------------|----------------------|
| CAS                     | The Four Agreements                 | No                   |
| CAS                     | The Power of Habit                  | No                   |
| CAS                     | The Pursuit of Happiness            | Yes                  |
| CAS                     | Born to Run                         | No                   |

**Teaching and Education**

| <b>Student's School</b> | <b>Book (Title, author or both)</b> | <b>For a course?</b> |
|-------------------------|-------------------------------------|----------------------|
| SED                     | Those Who Can Teach **              | Yes                  |
| CAS                     | Those Who Can, Teach **             | Yes                  |
| SED                     | The Pedagogy of the Oppressed       | No                   |

**Military**

| <b>Student's School</b> | <b>Book (Title, author or both)</b> | <b>For a course?</b> |
|-------------------------|-------------------------------------|----------------------|
| ENG                     | Naval Officer's Guide               | Yes                  |
| ENG                     | Lone Survivor                       | No                   |
| PARDEE                  | Guerilla Warfare- Mao               | Yes                  |

**Other**

| <b>Student's School</b> | <b>Book (Title, author or both)</b> | <b>For a course?</b> |
|-------------------------|-------------------------------------|----------------------|
| QSOB                    | My notes                            | No                   |

\*Empty responses and "None" not included

Table 12. Most Important Course for Students

|   |
|---|
| <b>Key:</b>                                       |
| STEM  |
| Social Science                                    |
| Ethics, Humanities, History, Writing & Philosophy |
| Art, Music & Language                             |
| Professional                                      |

| School      | Major? Concentration? Minor?                                   | What course do you consider to be the most important one you have / taken so far? (Give title or department) |
|-------------|--|--|
| QSOB        | Business Management  | QSOB FE101   |
| SED         | General Science Ed   | CGS Social Sciences (World History to the present)   |
| CAS         | Neuroscience, Psychology                                       | Personality Psychology   |
| CAS         | Major=Psychology, Minor=French                                 | Introduction to Public Health or Neuropsychology   |
| CAS         | Psych, Bio   | Directed Study in my lab   |
| COM         | Journalism - Photojournalism                                   | America in an Age of Terrorism   |
| CAS         | Japanese   | Russian Literature   |
| CAS         | Philosophy   | European Intellectual History  |
| COM and CFA | Film Production Major, Music Performance Minor                 | Memoir Writing, Lighting (film), Death and Immortality   |
| SAR         | Health Science   | Introduction to Critical Inquiry, Health Science   |
| CAS         | Philosophy   | Epistemology   |
| CAS         | Double Major in International Relations and Political Science  | Introduction to International Law  |
| CFA         | Music Education  | Music Education  |
| CAS         | Philosophy, Psychology   | PS475 - Counseling   |
| CAS         | Major in Environmental Analysis and Policy, Minor in Economics | Sustainable Development  |
| CAS         | Economics  | Kant Moral Philosophy  |
| QSOB        | BSBA - Finance and Marketing                                   | Core- (Finance, Marketing, Operational Management, & Analytics)  |
| CAS         | Neuroscience   | Neuroscience   |
| CAS         | Economics  | CAS EC 203 Statistics  |
| SED         | Arabic Education   | Economic and Social History of the Modern Middle East  |
| CAS         | Math   | Math   |
| CAS         | History Major and International Relations Minor                | International Relations  |
| CAS         | Classics and Spanish   | Writing  |

|          |  |  |
|----------|--|--|
| CAS      | Chemistry, Environmental Science Minor                             | Synthetic Chemistry  |
| COM      | Journalism, Economics  | Creative Writing   |
| QSOB     | Accounting/Finance   | Finance  |
| QSOB     | Double Concentration in Information Systems and Finance            | Business Ethics  |
| QSOB     | Accounting and Finance   | Finance  |
| CAS      | International Relations  | Fundamentals of International Economics IR 292                     |
| CAS      | English  | English 582 (Literary Cultural Crossings between Asia and America) |
| CAS      | Biology  | French Language Course   |
| SED      | Elementary   | Education  |
| CAS      | Neuroscience   | Human Physiology   |
| CAS      | Economics, Math  | History of Modern Europe   |
| SHA      | Hospitality Administration, Minor in QSOB, Business Administration | HF100  |
| CAS      | Environmental Science  | Environmental Science  |
| CAS      | Neuroscience, Education, English                                   | Introduction to Education  |
| COM      | Film and Television  | History  |
| COM      | Mass Communication, Public Relations                               | Literature and Film, CAS EN 375                                    |
| COM      | Public Relations & Art History                                     | COM 301  |
| SED      | History Education  | ED100  |
| CAS      | History, Political Science, Statistics                             | History  |
| CAS      | International Relations; Linguistics; French                       | Sociology: International Development                               |
| QSOB     | International Business, Spanish Minor                              | International Relations: Security Introduction                     |
| COM      | Advertising  | Communications 101   |
| CFA      | Vocal Performance and Composition                                  | Music Theory   |
| CFA      | Painting and Printmaking, Minor in French                          | Introduction to Printmaking  |
| CFA      | Major - Voice Performance, Minor - French                          | Music History  |
| CFA      | Music Performance, Maybe Minor in English                          | Music Theory   |
| CFA      | Trombone Performance   | Writing 100  |
| CFA      | Music Performance, Trombone  | Philosophy   |
| CFA      | Music Performance (Voice) and Psychology                           | Music Theory   |
| CFA      | Music Performance  | Arts Internship  |
| CFA      | Voice Performance  | Applied Voice  |
| CFA      | Music  | Applied Music  |
| CFA      | Vocal performance  | Voice Lessons  |
| CFA      | Music Composition/Music Education                                  | German   |
| COM, CFA | Film, Violin performance   | Music Lessons  |
| COM      | Major- Journalism Minor- Women's Studies                           | Sexism in the 21st Century   |

|                         |  |   |
|-------------------------|--|---|
| CGS                     | International Relations  | International Relations                 |
| CAS                     | Major: Biochemistry and Molecular Biology. Minor: Psychology                             | Organic Chemistry                       |
| CAS                     | Neurobiology   | Chemistry                               |
| CAS transferring to SAR | Biochemistry switching to Health Science, possible Minor in International Relations      | Sociology                               |
| ENG                     | BME  | Control Theory                          |
| ENG                     | Mechanical Engineering, Aerospace Engineering, Electrical Engineering                    | Aircraft Performance & Design           |
| ENG                     | Aerospace Concentration  | Mechanical Engineering Senior Design    |
| ENG                     | Mechanical Engineering, Concentration in Aerospace Engineering, and Minor in Visual Arts | Aircraft Design                         |
| CFA                     | Music, Voice Performance   | Song Literature (Music)                 |
| CAS                     | Psychology/Spanish/Pre-Law   | Psychology                              |
| CAS                     | Sociology Major, Business Minor  | QSOB OB460- The Leadership Challenge    |
| QSOB                    | Accounting   | Business Ethics                         |
| SED                     | Early Childhood Education, Minor in Psychology   | Psychology 101                          |
| COM                     | Public Relations with a Concentration in Spanish   | CM 473 PR Lab                           |
| COM                     | PR Major Political Science Minor   | PR                                      |
| SED                     | Social Studies Education   | Education                               |
| COM                     | Public Relations   | Corporate Communication                 |
| COM                     | Public Relations   | Crisis Communications                   |
| SAR                     | Human Physiology   | Islamic Law                             |
| CGS/CAS                 | Biochemistry   | Philosophy                              |
| CAS                     | Behavioral Biology   | CAS Core Humanities                     |
| ENG                     | Mechanical Engineering (Aerospace Concentration)   | Engineering Mechanics I                 |
| SED                     | Social Studies Education   | General Methods of Teaching Instruction |
| CGS                     | International Relations  | International Relations                 |
| SED                     | Social Studies Education   | Social and Civic Context for Education  |
| CGS '15, QSOB'17        | Major: Business w/ Concentration in Marketing; Minor: International Relations            | History                                 |
| CGS '15 QSOB '17        | Marketing  | Finance                                 |
| COM                     | Film and TV  | Modern Ethical Philosophy               |
| CAS                     | Chinese major, Music Performance Minor   | CFA MU 097 Orchestra                    |
| QSOB                    | Accounting Finance Law   | QSOB OB 221                             |
| CAS                     | Psychology   | Writing                                 |
| QSOB                    | Trade  | Macroeconomics                          |
| CAS                     | Classics, Pre-Dental   | Ancient Greek Civilization              |
| ENG                     | Mechanical: Aerospace Concentration  | Thermodynamics & Energy                 |

|                   |  |   |
|-------------------|--|---|
| CAS               | Neuroscience (Pre-Med)   | Neuroscience 101  |
| ENG               | Biomedical Engineer  | Bio molecular Architecture                                  |
| CAS               | Neuroscience with a Minor in QSOB                                    | Neuroscience  |
| CAS               | Physics Education  | Education   |
| CAS               | Chemistry  | Sociology   |
| CAS               | Chemistry Education  | Chemistry   |
| CAS               | Marine Biology   | BI260   |
| CAS               | English Major Computer Science Minor                                 | Major Authors   |
| SHA               | Hospitality  | Korean Cinema   |
| CAS               | Undeclared   | CCI01 and CCI02   |
| CAS               | Majors: Neuroscience and Philosophy<br>Minors: Chemistry and Biology | Physics 211 and 242   |
| ENG               | Biomedical Engineering   | Differential Equations                                      |
| SED               | Special Education  | Introduction to Education                                   |
| CAS               | Political Science and Economics                                      | Politics and Philosophy                                     |
| COM               | Mass Communications  | Writing   |
| CAS               | Major in English, Minor in French                                    | English   |
| COM               | Advertising  | Wiring  |
| SAR               | Health and Behavior  | Ethics  |
| SAR               | Physical Therapy   | HP353 Organization and Development of the Healthcare System |
| CGS going to QSOB | Finance  | Humanities  |
| SAR               | Behavior and Health  | Health Sciences   |
| SAR               | Major: Behavior and Health, Minor: Special Education                 | Sociology 100   |
| SAR               | Health Science; IR Minor   | Health & Disabilities (HP 252)                              |
| SAR               | Health Science   | Anatomy   |
| COM               | PR   | Chinese   |
| COM               | Public Relations Major, Sociology Concentration                      | All my core PR courses                                      |
| COM               | PR, Psych  | Abnormal Psychology   |
| CAS               | Economics and IR Minor English                                       | EC 101  |
| COM               | Public Relations   | French  |
| QSOB              | Finance  | Information System  |
| COM               | Film/TV Screenwriting  | Creative writing  |
| QSOB, CAS         | Finance, Double Major in Economics                                   | Ethics  |
| CAS               | English Major  | English, Contemporary American Fiction                      |
| SAR               | Health Science with a Minor in Medical Anthropology                  | Cultural Anthropology                                       |
| CAS               | Neuroscience, Psychology Double Major                                | NE203   |
| CAS               | Neuroscience   | NE203   |
| CAS               | Economics  | Economics   |

|            |   |  |
|------------|---|--|
| CAS/COM    | Undeclared/PR   | Art History 393  |
| CAS        | Undecided   | COM101   |
| QSOB       | Marketing, Management Information Systems                         | Math   |
| CAS        | Biology Major (Computer Science minor)                            | Computer Science   |
| CAS        | Undeclared  | Writing  |
| SARGENT    | Human Physiology B.S.   | HP151  |
| CAS        | SMED  | Chemistry 112  |
| SAR        | Human Physiology  | Sociology of Health Care   |
| COM        | Advertising, Minor QSOB, Concentration Psychology                 | Physiological Psychology   |
| COM        | PR  | Corporate Communications   |
| COM        | Public Relations  | Design and New Media   |
| QSOB       | Finance   | Finance  |
| CAS        | Computer Science  | Western Ethics   |
| COM        | Journalism Major and International Relations Minor                | Foundations of Journalism  |
| COM        | Advertising/Film, Comparative Literature                          | Comparative Literature   |
| COM        | PR, IR  | Archaeology  |
| CAS        | Biology   | Medical Ethics   |
| COM        | Public Relations, Political Science                               | Humanities 202   |
| ENG        | Electrical Engineer with a concentration in Technology Innovation | Engineering Economy  |
| COM        | Journalism, International Relations and Psychology Minors         | Computer Science   |
| QSOB       | Operations Management and Finance                                 | Strategy and Policy  |
| COM        | Advertising   | Business Management  |
| QSOB       | Finance   | WS 340   |
| QSOB       | Business, Accounting  | QSOB Core Semester   |
| CGS to COM | Broadcast Journalism, Political Science, Film/TV                  | Social Science   |
| COM        | PR  | Writing 150 The Memoir   |
| QSOB       | Marketing, Art History  | Art History Introductory Courses                                 |
| CAS        | International Relations with a Pre-Law Concentration              | Fundamentals of International Economics                          |
| CAS        | Political Science Major, Visual Arts Minor                        | Psychology   |
| SAR        | Health science; public health/ business administration            | HP353- Healthcare/ Delivery Across the US                        |
| SAR        | Behavior and Health, Occupational Therapy                         | Introduction to Public Health                                    |
| QSOB       | MIS & Finance or operations; KHC student                          | Ethical Decision Making in the Real World - KHC Freshman Seminar |
| CGS-QSOB   | Finance   | Business Ethics  |
| QSOB       | Accounting  | Sociology  |
| QSOB       | Business Administration; Finance Concentration                    | Business Law and Real Estate Finance                             |

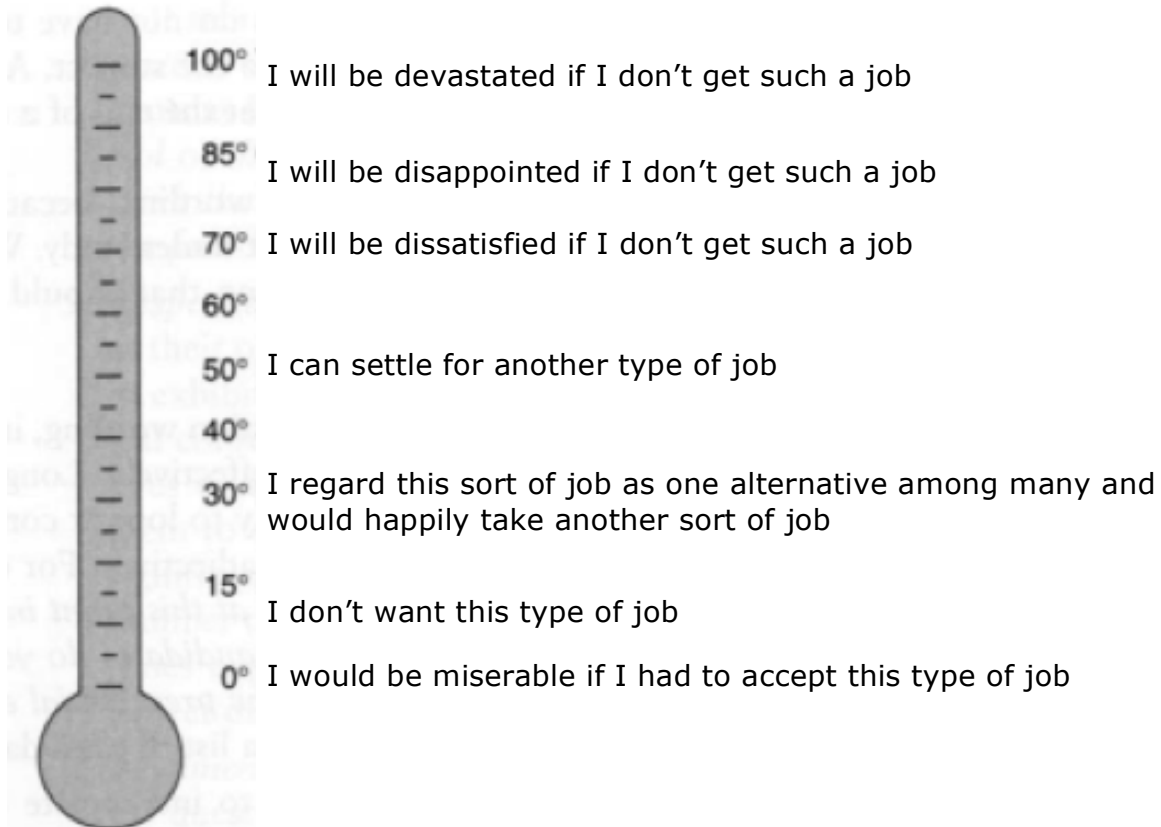
|                         |   |   |
|-------------------------|---|---|
| QSOB / COM              | PR and Accounting   | Strategy  |
| QSOB                    | Undecided Concentration   | Finance   |
| QSOB                    | Minor in Spanish  | QSOB courses  |
| QSOB                    | BABS, Finance Concentration   | Business Law and Ethics                                     |
| QSOB                    | Finance and IR  | SM 151  |
| QSOB                    | Finance and Operations Management   | Accounting  |
| QSOB                    | Finance   | Investments   |
| QSOB                    | Marketing   | International Marketing                                     |
| QSOB                    | Marketing and Entrepreneurship  | Consulting Strategy SI 422                                  |
| QSOB                    | Business Management, Finance, Marketing, Entrepreneurship. Minor in Economics | Finance   |
| QSOB                    | Marketing/OB/Minor in COM/Journalism  | English 202   |
| QSOB                    | Dual Degree COM (PR) and Concentration International Management               | Business, Society, and Ethics                               |
| QSOB                    | International management  | French  |
| CAS                     | Neuroscience  | Introduction to Ethics                                      |
| CAS                     | Accelerated 7 Year Dental Program, Minor in Public Health                     | Death and Immortality - Religion                            |
| CAS                     | Biochemistry  | Genetics, Physics   |
| CAS                     | Biochemistry & Molecular Biology  | Biochemistry  |
| QSOB                    | Information Systems   | Organizational Behavior                                     |
| CAS                     | Biological Anthropology   | Chemistry   |
| QSOB                    | Finance   | Finance   |
| QSOB                    | Operational Management/Marketing  | Fe101   |
| SAR                     | Health Science  | Global Environmental Public Health-SAR HS 345               |
| COM                     | Photojournalism, Political Science  | Journalism 250  |
| CAS                     | Considering Majoring in Cell Biology, probably Minor in Journalism            | BI 114 -- Communicable Human Diseases                       |
| SAR                     | Health Science Pre-med  | CH101   |
| CGS transferring to SAR | Behavior and Health Science with a Dual Degree in Psychology                  | Human Anatomy   |
| CFA                     | Piano Performance and Music education   | Piano   |
| CFA/CAS                 | Composition/Music Theory and Mathematics                                      | Composition Lessons   |
| CFA                     | Theatre Arts  | Theatre Ensemble  |
| CFA                     | Concentrations: Acting, Playwriting   | Theatre Ensemble  |
| CFA                     | Theatre Arts  | Theatre - Collaborative Theatre Ensemble/ Directors Project |
| CFA                     | Theatre Arts Major with Advertising and Graphic Design Concentration          | Acting 1  |
| CFA                     | Theatre   | Acting  |
| SAR/CFA                 | Human Physiology/ Visual Arts   | Physiology  |
| CAS                     | Biology, Economics  | Monetary Banking  |
| CFA                     | Theatre Arts  | The Memoir WR 150   |

|          |  |   |
|----------|--|---|
| CFA      | BFA Theatre Arts   | STAMP   |
| CFA      | Music Performance - Viola  | Private Lessons with my professor (viola)     |
| CAS      | Economics/International Relations Major<br>Psychology Minor  | Philosophy                                    |
| CFA      | Design and Production  | Theatre Ensemble                              |
| CAS      | Neuroscience Major w/ Public Health<br>Minor   | Principles of Neuroscience                    |
| CAS      | Biology  | Biology                                       |
| CAS      | Sociology, Political Science and<br>Philosophy (combined Major)  | State and Development                         |
| COM      | ADVERTISING  | Creative Development                          |
| QSOB     | Accounting, Finance  | Managerial Accounting                         |
| CAS      | Biology CMG  | Medical Anthropology                          |
| CAS      | Neuroscience with French minor   | LF350 with Professor Kline!                   |
| QSOB     | Finance with Economics Minor   | Bond Math - Finance                           |
| QSOB     | Operations and Technology Management   | Operations                                    |
| SAR      | Human Physiology   | Human Physiology                              |
| CAS/SED  | Biology and education  | Systems Physiology                            |
| CAS/KHC  | Psychology/Premed  | KHC Spring Sophomore Seminar                  |
| CAS      | Math. Statistics. Economics.   | Math  |
| CAS      | Economics, Journalism, Art Leadership  | Zen Buddhism                                  |
| CGS      | QSOB   | HU 103  |
| CAS      | EAP minor in QSOB  | Environmental Science                         |
| CAS      | Economics  | Development of Less Developed<br>Regions      |
| CAS      | Biology  | BI108   |
| SED      | Elementary Education   | Introduction to Education                     |
| COM; CAS | Public Relations; Environmental Analysis<br>and Policy   | GE/IR 595                                     |
| SED      | Bilingual/TESOL Education, Minor in<br>Linguistics   | SED ED 100                                    |
| CAS      | Psychology and Public Health   | Sociology of Healthcare                       |
| ENG      | Mechanical Engineering   | Engineering Mechanics I                       |
| ENG      | Mechanical (Manufacturing Concentration)   | CAS IR380 (American Foreign Policy)           |
| SAR      | Human Physiology   | GMS MA 605                                    |
| CAS      | Environmental Science  | Chemistry                                     |
| COM      | Journalism Major, IR Minor   | Communication Writing                         |
| CAS      | Economics  | PH248   |
| QSOB     | Dual Concentration - Operations and<br>Technology Management, Organizational<br>Behavior, Minor - Philosophy | History of Ancient Philosophy                 |
| CAS      | Economics, IR is my Minor  | Economic History and Western Ethics I<br>& II |
| SHA      | Hospitality Administration   | SHA Accounting and Marketing courses          |

|        |  |   |
|--------|--|---|
| CAS    | Economics  | Statistics                              |
| ENG    | Biomedical Engineering                                 | Math                                    |
| ENG    | Mechanical Engineering                                 | Production System, ENG                  |
| ENG    | Mechanical Engineering                                 | Product Management                      |
| ENG    | Electrical Engineering                                 | EK127                                   |
| ENG    | Biomedical Engineering                                 | Physics                                 |
| ENG    | Biomedical Engineering                                 | WR 150                                  |
| ENG    | Computer Engineering                                   | Programming (EK127)                     |
| ENG    | Biomedical Engineering                                 | Chemistry                               |
| ENG    | Electrical Engineering                                 | DSP                                     |
| COM    | PR Major, Spanish Minor                                | Introduction to PR                      |
| COM    | Advertising, Psychology, Hospitality                   | Personality Psychology                  |
| CAS    | Psychology Major Business minor                        | Personality Psychology                  |
| CAS    | Psychology, Sociology                                  | Sociology of Race and Ethnicity         |
| CAS    | Econ, Business Minor, Pre law                          | Business ethics                         |
| CAS    | International Relations                                | International Relations                 |
| QSOB   | International Management                               | Business, Society, and Ethics           |
| CAS    | International Relations                                | IR351 Africa in International Relations |
| PARDEE | International Relations/Asia and International Systems | Introduction to International Relations |

\*Empty responses and “None” not included

### Coding Appendix



```
#Download and Summary of Qualtrics Data to R
```

```
library(foreign)
qualtrics<-read.csv("/Users/meeranayak/Documents/Boston University Study For R Attempt 1.csv")
summary(qualtrics)
```

```
#STEM Job Feeling Thermometer (Variable Rename and Missing Value Recode)
```

```
qualtrics$How.much.do.you.want.to.get.a.job.in.science..technology....engineering.and.math..Click.to.write.Choice.1
summary(qualtrics$How.much.do.you.want.to.get.a.job.in.science..technology....engineering.and.math..Click.to.write.Choice.1)
STEMjob<-
  qualtrics$How.much.do.you.want.to.get.a.job.in.science..technology....engineering.and.math..Click.to.write.Choice.1
STEMjob[STEMjob==99]<-NA
```

```
#STEM Job Feeling Thermometer Min, Median, Max, Mean
```

```
summary(STEMjob)
```

```
#Business Job Feeling Thermometer (Variable Rename and Missing Value Recode)
```

```
qualtrics$How.much.do.you.want.to.get.a.job.in.business.or.management..Click.to.write.Choice.1
summary(qualtrics$How.much.do.you.want.to.get.a.job.in.business.or.management..Click.to.write.Choice.1)
Businessjob<-
  qualtrics$How.much.do.you.want.to.get.a.job.in.business.or.management..Click.to.write.Choice.1
Businessjob[Businessjob==99]<-NA
```

```
#Business Job Feeling Thermometer Min, Median, Max, Mean
```

```
summary(Businessjob)
```

```
#Education or Literature Job Feeling Thermometer (Variable Rename and Missing Value Recode)
```

```
qualtrics$How.much.do.you.want.a.job.in.educational.or.literary.profession....teaching..journalism..publishin....Click.to.write.Choice.1
summary(qualtrics$How.much.do.you.want.a.job.in.educational.or.literary.profession....teaching..journalism..publishin....Click.to.write.Choice.1)
Educlitjob<-
  qualtrics$How.much.do.you.want.a.job.in.educational.or.literary.profession....teaching..journalism..publishin....Click.to.write.Choice.1
Educlitjob[Educlitjob==99]<-NA
```

```
#Education or Literature Job Feeling Thermometer Min, Median, Max, Mean
```

```
summary(Educlitjob)
```

```
#Government or Law Job Feeling Thermometer (Variable Rename and Missing Value Recode)
```

```
qualtrics$How.much.do.you.want.a.job.in.government.or.law..Click.to.write.Choice.1
summary(qualtrics$How.much.do.you.want.a.job.in.government.or.law..Click.to.write.Choice.1)
Govlawjob<-qualtrics$How.much.do.you.want.a.job.in.government.or.law..Click.to.write.Choice.1
Govlawjob[Govlawjob==99]<-NA
```

```
#Government or Law Job Feeling Thermometer Min, Median, Max, Mean
```

```
summary(Govlawjob)
```

```
#Arts Job Feeling Thermometer (Variable Rename and Missing Value Recode)
```

```
qualtrics$How.much.do.you.want.a.job.in.the.arts..music..acting..painting....fashion...Click.to.write.Choice.1
summary(qualtrics$How.much.do.you.want.a.job.in.the.arts..music..acting..painting....fashion...Click.to.wri
```

```

te.Choice.1)
Artjob<-
qualtrics$How.much.do.you.want.a.job.in.the.arts..music..acting..painting....fashion...Click.to.write.Choice.1
Artjob[Artjob==99]<-NA

#Arts Job Feeling Thermometer Min, Median, Max, Mean
summary(Artjob)

#Vocational Job Feeling Thermometer (Variable Rename and Missing Value Recode)
qualtrics$How.much.do.you.want.a.vocational.job..electrician..plumber..chef....mechanic..construction..vehicl....Click.to.write.Choice.1
summary(qualtrics$How.much.do.you.want.a.vocational.job..electrician..plumber..chef....mechanic..construction..vehicl....Click.to.write.Choice.1)
Vocjob<-
qualtrics$How.much.do.you.want.a.vocational.job..electrician..plumber..chef....mechanic..construction..vehicl....Click.to.write.Choice.1
Vocjob[Vocjob==99]<-NA

#Vocational Job Feeling Thermometer Min, Median, Max, Mean
summary(Vocjob)

#College has given you...an understanding of how what you know is related (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you....Agree.or.disagree..An.understanding.of.how.what.you.know.is.related.
summary(qualtrics$College.has.given.you....Agree.or.disagree..An.understanding.of.how.what.you.know.is.related.)
Knowledge<-
qualtrics$College.has.given.you....Agree.or.disagree..An.understanding.of.how.what.you.know.is.related.
Knowledge[Knowledge==99]<-NA

#College has given you...an understanding of how what you know is related Min, Median, Max, Mean
summary(Knowledge)

#College has given you...A desire to learn for its own sake after college (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you....Agree.or.disagree..A.desire.to.learn.for.its.own.sake.after.college.
summary(qualtrics$College.has.given.you....Agree.or.disagree..A.desire.to.learn.for.its.own.sake.after.college.)
Learn<-
qualtrics$College.has.given.you....Agree.or.disagree..A.desire.to.learn.for.its.own.sake.after.college.
Learn[Learn==99]<-NA

#College has given you...A desire to learn for its own sake after college Min, Median, Max, Mean
summary(Learn)

#College has given you...An ability to reason analytically (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you....Agree.or.disagree..An.ability.to.reason.analytically.
summary(qualtrics$College.has.given.you....Agree.or.disagree..An.ability.to.reason.analytically.)
Reason<-qualtrics$College.has.given.you....Agree.or.disagree..An.ability.to.reason.analytically.
Reason[Reason==99]<-NA

#College has given you...An ability to reason analytically Min, Median, Max, Mean
summary(Reason)

```

```
#College has given you...An ability to make ethical decisions (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you...Agree.or.disagree..An.ability.to.make.ethical.decisions.
summary(qualtrics$College.has.given.you...Agree.or.disagree..An.ability.to.make.ethical.decisions.)
Ethics<-qualtrics$College.has.given.you...Agree.or.disagree..An.ability.to.make.ethical.decisions.
Ethics[Ethics==99]<-NA
```

```
#College has given you...An ability to make ethical decisions Min, Median, Max, Mean
summary(Ethics)
```

```
#College has given you...An improved self understanding (Variable Rename and Missing Value Recode)
qualtrics$ College.has.given.you...Agree.or.disagree..An.improved.self.understanding.
summary(qualtrics$ College.has.given.you...Agree.or.disagree..An.improved.self.understanding.)
Self<-qualtrics$ College.has.given.you...Agree.or.disagree..An.improved.self.understanding.
Self[Self==99]<-NA
```

```
#College has given you...An improved self understanding Min, Median, Max, Mean
summary(Self)
```

```
#College has given you...Leadership skills (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you...Agree.or.disagree..Leadership.skills.
summary(qualtrics$College.has.given.you...Agree.or.disagree..Leadership.skills.)
Leadership<-qualtrics$College.has.given.you...Agree.or.disagree..Leadership.skills.
Leadership[Leadership==99]<-NA
```

```
#College has given you...Leadership skills Min, Median, Max, Mean
summary(Leadership)
```

```
#College has given you...Preparation for future service in society (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you...Agree.or.disagree..Preparation.for.future.service.in.society.
summary(qualtrics$College.has.given.you...Agree.or.disagree..Preparation.for.future.service.in.society.)
Service<-qualtrics$College.has.given.you...Agree.or.disagree..Preparation.for.future.service.in.society.
Service[Service==99]<-NA
```

```
#College has given you...Preparation for future service in society Min, Median, Max, Mean
summary(Service)
```

```
#College has given you...Political consciousness (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you...Agree.or.disagree..Political.consciousness.
summary(qualtrics$College.has.given.you...Agree.or.disagree..Political.consciousness.)
Political<-qualtrics$College.has.given.you...Agree.or.disagree..Political.consciousness.
Political[Political==99]<-NA
```

```
#College has given you...Political consciousness Min, Median, Max, Mean
summary(Political)
```

```
#College has given you...Openness to change (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you...Agree.or.disagree..Openness.to.change.
summary(qualtrics$College.has.given.you...Agree.or.disagree..Openness.to.change.)
Openness<-qualtrics$College.has.given.you...Agree.or.disagree..Openness.to.change.
Openness[Openness==99]<-NA
```

```
#College has given you...Openness to change Min, Median, Max, Mean
summary(Openness)
```

```
#College has given you...Awareness and appreciation for human achievements (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..Awareness.of.and.appreciation.for.human.achievements.
summary(qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..Awareness.of.and.appreciation.for.human.achievements.)
Awareness<-
  qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..Awareness.of.and.appreciation.for.human.achievements.
Awareness[Awareness==99]<-NA
```

```
#College has given you...Awareness and appreciation for human achievements Min, Median, Max, Mean
summary(Awareness)
```

```
#College has given you...An ability to communicate effectively (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..An.ability.to.communicate.effectively.
summary(qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..An.ability.to.communicate.effectively.)
Communicate<-
  qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..An.ability.to.communicate.effectively.
Communicate[Communicate==99]<-NA
```

```
#College has given you...An ability to communicate effectively Min, Median, Max, Mean
summary(Communicate)
```

```
#College has given you...Empathy towards others (Variable Rename and Missing Value Recode)
qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..Empathy.towards.others.
summary(qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..Empathy.towards.others.)
Empathy<-
  qualtrics$College.has.given.you..last.one..I.promise.....Agree.or.disagree..Empathy.towards.others.
Empathy[Empathy==99]<-NA
```

```
#College has given you...Empathy towards others Min, Median, Max, Mean
summary(Empathy)
```

```
#Multivariate Regression STEM Job Feelings
summary(lm(STEMjob~Knowledge+Learn+Reason+Ethics+Self+Leadership+Service+Political+Openness+Awareness+Communicate+Empathy, data=anes2008,na.action=na.omit))
```

```
#Multivariate Regression Business Job Feelings
summary(lm(Businessjob~Knowledge+Learn+Reason+Ethics+Self+Leadership+Service+Political+Openness+Awareness+Communicate+Empathy, data=anes2008,na.action=na.omit))
```

```
#Multivariate Regression Education or Literature Job Feelings
summary(lm(Educlitjob~Knowledge+Learn+Reason+Ethics+Self+Leadership+Service+Political+Openness+Awareness+Communicate+Empathy, data=anes2008,na.action=na.omit))
```

```
#Multivariate Regression Government or Law Job Feelings
summary(lm(Govlawjob~Knowledge+Learn+Reason+Ethics+Self+Leadership+Service+Political+Openness+Awareness+Communicate+Empathy, data=anes2008,na.action=na.omit))
```

#Multivariate Regression Arts Job Feelings

summary(lm(Artjob~Knowledge+Learn+Reason+Ethics+Self+Leadership+Service+Political+Openness+Awareness+Communicate+Empathy, data=anes2008,na.action=na.omit))

#Multivariate Regression Vocational Job Feelings

summary(lm(Vocjob~Knowledge+Learn+Reason+Ethics+Self+Leadership+Service+Political+Openness+Awareness+Communicate+Empathy, data=anes2008,na.action=na.omit))

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