

The Challenge of Higher Education – Employability: Does the Workforce Have What Employers Need

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Evelyn Kaelin is a Senior Manufacturing Engineer with Acuity Brands Lighting. She graduated with an A.A.S in Computer Integrated Manufacturing from Vincennes University; going on to complete a B.S. in the same discipline from Indiana State University. After spending over 15 years in Manufacturing she decided to pursue her passion of being a leader by completing a M.S. in Technology, Leadership, & Innovation from Purdue University. Thinking outside the box and looking at different perspectives is what sets a leader apart. As leaders are faced with obstacles that become their responsibility to overcome. It's in these moments that the reaction and allowances made for change and progress are center stage. It is this skill to overcome and push forward as part of a team that drives continuous improvement. Evelyn is passionate about the prospect of intertwining leadership with hard and soft skills to make continuous improvement within herself, her team, her company, and the world around her. She currently resides in Crawfordsville, IN with her husband and daughter. Her family is heavily involved in their local community theater (The Vanity Theater). She can be reached at libeve@gmail.com.

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Abstract

Higher Education has been tasked, and is being charged, with providing the required skills and knowledge essential to employers in today's high-tech globally-oriented workforce. To better understand the requirements of the workforce today, it is necessary to look at employability and employment needs from three seemingly related, yet clearly separate perspectives; namely, opportunities in the government, private and non-profit sectors.

The research contained herein, studied the impact on employability from each of these three identified sectors of employment. The evidence and data collected represents the 2010 to 2018 timeframe, but suggests similar requirements through past decades, adjusted for technological growth and historical period-specific employment opportunities. The original hypothesis focused on employability from the standpoint of what employers are looking for and what skills applicants possess within the three sectors identified above, all within the United States.

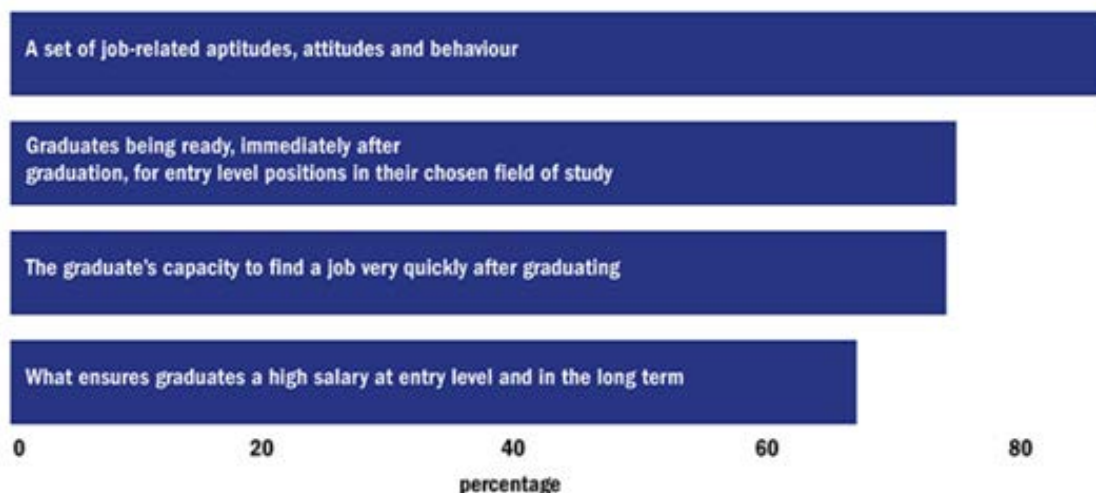
The results of the study showed that the above target markets have changed over the years and that employers in these markets are looking for overlapping skillsets with a few unique differentiating attributes across the distinct sectors.

The examination of different aspects of employment, specifically unemployment and availability of applicants, uncovered data suggesting there are numerous, yet potentially different skills and attributes that employers require that are paramount to the knowledge, experiences, and perspectives applicants are required to bring to the job market.

Overview

Before unemployment rates were at historic lows, organizations were at a loss for employees, specifically qualified employees. In reviewing the unemployed, the question arises is there a shortage of jobs or a shortage of qualified workers? The qualities or attributes that employers look at in job applicants is not a one size fits all nor is it a strict hard skills environment. While hard skills are quantifiable, soft skills are more subjective but according to a survey conducted by CareerBuilder in 2015, 77% of over 2,000 respondents claimed that soft skills were just as important as hard skills while 16% said that soft skills were actually more important than hard skills [1]. What does that mean for the workforce in terms of being qualified for positions in the open market? Do potential job applicants understand the need to become more versatile in their skills to be more employable? This becomes the definition for this paper of employability: "A set of achievements, understandings, and personal attributes that make individuals more likely to gain employment and to be successful in their chosen occupations." Another way to look at what employability means is to compare recruiters' definition based on the survey shown in Figure 1 [ref]. The data suggest recruiters strongly agreed with the definition given with the top two categories.

Recruiters agree or strongly agree that employability means:



Source: Global University Employability Survey 2016 © Emerging

Figure 1 - 2016 Employability Survey

This paper addresses the following questions:

- 1) What attributes are employers looking for in job applicants among the government, non-profit, and private sectors?
- 2) Do candidates have the attributes that prospective employers are looking for?
- 3) What trends in unemployment and job projections are tied to a person's employability?
- 4) Which employability skills overlap and are transferrable through multiple job markets?

Definitions

Employed: Being an employed person means having reached an agreement between an employer and an employee that the employee will provide certain services on the job. The work will occur in the employer's designated workplace. The work is designed to accomplish the employer organization's goals and mission. In return, the employee receives compensation [2].

Gainfully Employed: Employment situation where the employee receives consistent work and payment from the employer. Gainful employment is most often associated with college graduates who become employed after they graduate as a way to measure or rank the college or university where they received their education and training [3].

Government/Public Sector: The public sector is the part of the economy concerned with providing various governmental services [4].

Hard Skills: Hard skills are teachable abilities or skill sets that are easy to quantify. Typically, hard skills are learned in the classroom, through books, training materials, or on the job [5].

Non-Profit Sector: A nonprofit organization (NPO, also known as a non-business entity) is an organization that uses its surplus revenues to further achieve its purpose or mission, rather than distributing its surplus income to the organization's shareholders (or equivalents) as profit or dividends [6].

Private Sector: The part of the economy, sometimes referred to as the citizen sector, which is run by private individuals or groups, usually as a means of enterprise for profit, and is not controlled by the state [7].

Soft Skills: Soft skills are character traits and interpersonal skills that characterize a person's relationships with other people. In the workplace, soft skills are considered a complement to hard skills, which refer to a person's knowledge and occupational skills [8].

Underemployed: An underemployed person is when an employee's current employer does not demand the use of learned skills, education, or availability to work. There are two types of underemployment: visible and invisible [9].

Unemployed: Unemployed is defined as not having a job, having actively looked for work in the past four weeks, and is currently available for work [9].

Unemployment Rate: The unemployment rate is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by all individuals currently in the labor force [10].

Attributes may reside along lines of:

- Education
- Values
- Market
- Passion/Happiness
- Financial Gain
- Soft Skills

What attributes are employers seeking in job applicants?

Government/Public

Interviews conducted with seasoned managers currently trying to fill open positions and a Human Resources (HR) staffing agent revealed several interesting pieces of information about employment at a government installation. Employability begins when the category of the position and the skillset(s) needed to fulfill the job requirements are established. As a position's technical competence and experience requirement increase, there is less flexibility for hiring managers to extend consideration to applicants who do not satisfy all stated criteria, even though they may have the potential to do great in the targeted position. In each of the independent interviews, the interviewees said this formality is driven by accountability standards established at the highest levels of government (personal communication, September 6, 2017). More than

one interviewee said this principle has become standard practice because of increased accountability and audit requirements [Human Resources staffing agent (HR), Senior Program Manager (SPM), personal communication, September 6, 2017]. It also shows that employers are trying to debunk the "good ole' boy" network stereotype and biases that are widely perceived by people outside of the government sector (HR, personal communication, September 6, 2017).

Some additional information gleaned from the interviews included the importance of applicants having the right educational background as well as demonstrated experience. The combination of the two, leads to having the necessary knowledge to be able to perform the required job duties [Program Manager (PM), personal communication, September 6, 2017]. All interviewees stressed the importance of hopefuls having knowledge of the job and its associated responsibilities. While on the subject of appropriate education, one manager said that while institutional prowess can be a differentiator, he and others alike maintain objectivity when performing preliminary reviews of either a resume or curriculum vitae (CV). He further explained, "While a degree from top tier school with a reputation for producing technically competent individuals is a good indicator of knowing the educational theory, one should not immediately discount someone else for attending a lesser known institution, because uncontrollable variables may have limited where the individual was able to get their education and who's to say they aren't just as qualified" (SPM, personal communication, September 6, 2017).

All three interviewees said once technical criteria have been met, the next step in determining employability is assessing the applicant's interpersonal skills and motives. Unbeknownst to each of the interviewees, they agreed that an applicant must possess interpersonal skills that will allow them to interact constructively with their potential coworkers and customers. The government sector has a clever way of assessing a person's interpersonal skills. The interview guides used at the government installation where these data were collected are designed to provide insight into an applicant's interpersonal skills among other things. In many cases, the interview panel can indirectly assess an applicant's interpersonal skills simply through the Situation-Task-Action-Result (STAR) formatted questions they ask (PM, personal communication, September 6, 2017). Though generally very important, sometimes interpersonal skills can take a backseat to job specialty, especially if coworker and/or customer interactions will be minimal.

With each new hire comes risks and employers constantly seek ways to minimize those risks. Both managers interviewed stated that they view motive as a potential risk, and it plays heavily into determining applicant employability. While a direct line of questioning may break acceptable interview protocol, insight into a person's motives can usually be ascertained indirectly by the way an applicant answers certain questions like, "Where do you see yourself in 5 years? 10 years," or "what about the position appeals to you," or even "what prompted you to look for different employment opportunities?" The answers to these questions play into more than the person's hope for their future and their personal goals but also how professional they are in addressing their previous employer. "There might be some underlying unhappiness, but a potential employee that speaks highly of their previous company despite having left is one that is both respectful and loyal [11]." Loyalty and respect are good indicators that you are mitigating your risks with the potential employee.

Limited information was found linking direct studies to employment needs for the government/public sector. In fact, the HR representative interviewed was not able to produce or suggest any specific information regarding known references on the subject of employability and specific employer needs when asked by the interviewer, but countered by requesting the results of this study. The lack of documented studies within the government sector does not mean agencies are not collecting data and transforming it into the recruitment of top-tier employees.

Research did uncover deep connections for science, technology, engineering and mathematics (STEM) partnerships between institutions of higher education and branches of government like the Departments of Energy, Defense, and Homeland Security. Within the Oak Ridge Institute for Science and Education (ORISE) contract, there is a program specifically tasked with growing the STEM workforce pipeline. This program takes a dual pronged approach to filling the employment needs of federal agencies and ensuring potential employees have developed the technical skillsets necessary for employment in the STEM fields after completing their degrees. The ORISE workforce development programs utilize a multitude of resources, such as career fairs, university career centers and social media, to identify individuals interested in employment within the government sector. Additionally, because ORISE is funded through a Department of Energy contract it is privy to the unique needs, both current and future, for technical positions within the sector.

The mechanisms for seeking this foot-in-the-door connection with ORISE are not well publicized. In fact, human networking continues to be a major factor in identifying and selecting candidates for employment. In 2016, Oak Ridge Associated Universities (ORAU), the government contractor who manages the ORISE contract, developed and launched a product called Zintellect. Zintellect capitalizes on the dual pronged approach mentioned above by allowing applicants to conduct advanced searches that yield only the government or private sector employment, fellowship, or scholarship opportunities matching their needs and preferences. Mentors, personnel currently employed within the network of employers, can likewise review applications submitted for opportunities and recommend candidates. ORAU recently incorporated a search engine optimization tool to increase the visibility of the programs it manages, and subsequently the employment opportunities that exist within the government and private sectors.

As stated in the beginning of this section, employment within the government/public sector is highly scrutinized and must comply with strict accountability standards. Therefore, individuals seeking employment, research opportunities, and/or scholarships must first demonstrate they possess or are in search of the technical skillsets necessary to earn them employment. Until tools like Zintellect gain more recognition across the nation, persons seeking careers in government need to develop their professional networks as early as possible.

Having worked in the government and private sectors, many employer needs are known to transcend industry lines. This is attributable to the realization that similar job positions are present in both even though funding streams have different origins.

Private Sector

The private sector encompasses any industry or enterprise where the end goal is to return a profit. This includes manufacturing, customer service, retail, financial institutions, law firms, advertising firms, and so many more. In terms of employability; the private sector looks at the prospect of getting the most skill at the lowest cost from employed labor. Iowa State researcher Dave Swenson provided insight into this theory when he provided the following comment on the supposed skill gaps in manufacturing, "...when an employer says there's a skill gap, what they're really saying is they can't find workers willing to work for the pay they're willing to pay [12]." This does not mean that skills are not important in the private sector, because they are, especially as technology increases. Technological advances have created a need for employees to have at least a basic set of computer skills that are transferrable through all industries of the private sector. Many of the technological advances have in fact resulted in the need for fewer employees, or allowed for employees to more effectively multitask. The flexibility and adaptability of employees is something that employers are looking for as they look to get the most from each employee in terms of output. Guinn [13] described how the needs of an employer have changed from the "old world" manufacturing to the new in Figure 2.

Old World	New World
Learning one or two specific technical roles	Mechanical reasoning, logic trouble shooting, and spatial visualization
Physical strength and flexibility	Personal flexibility, communication, and cooperation
Ability to follow fixed, unchanging procedures	Initiative, persistence, and independence
General attention to production and safety procedures	Attention to detail, self-control, and dependability
Following orders	Making independent decisions
Operating, maintaining, designing mechanical machinery	Operating computers or computerized machinery and using computers for a wide range of critical functions

Figure 2 - The Changing Needs of Employers

As can be seen, what was once a very straight forward skill is turning into a more complex set of skills and while this is representative of the manufacturing industry, a person could take those same skills and transfer them across the private sector in a variety of combinations. Beyond the change in skills needed with technological advances there are some core attributes that have not changed in the private sector: education, work ethic, experience, and dependability.

Education and Experience are both pre-requisites that go towards answering the question "Can you do the job?" Green [14] explains this as an employer's search "for concrete evidence in your past that shows that you can," whether that be from education, job experience, training, volunteer work, etc. It is not uncommon to hear supervisors say they'd rather have someone with a good attitude over someone that excelled technically. Experienced personnel know there is some truth to this.

A positive attitude speaks to someone's aptitude to be receptive of on the job training, but they still have to have the basic skills needed to perform the job. This is especially true for software engineers, an interviewer may come across a candidate that has a great attitude and everyone on the interview committee appreciates their personality but if the candidate does not have the education and/or experience that shows they can do the actual job, their soft-skills, alone, are not enough to extend an offer of employment

These are things that the private sector looks at relative to positive returns and profit. Organizations in the private sector are not inclined to waste time or money hiring someone who is not going to work out because they do not possess the technical skills to perform the job. The following personal example provides numerical significance to this statement. A person was hired for a position with an annual salary of \$35,000 based primarily on their interview skills in absence of the technical skillsets required of the position. Unfortunately, the lack of technical skills and overall ability to perform the required duties of the position led to the dismissal of the employee after a mere six months. The mathematical impact was: ~\$28,000 between paying the individual's salary for six months and the 30% of the individual's salary it cost the company to replace this person. Having an individual in a role they were not qualified for over the course of six months also adversely impacts the employer's projected profit margins. Private organizations generally do not view this as an acceptable standard practice where profits are the driving force. Figure 3 displays a chart from Boushey and Glynn that shows the cost of replacing an employee [15].



Figure 3 - The Cost of Replacing an Employee.

Another aspect that can negatively impact the bottom line in terms of profit, and, possibly having to pay to replace an employee is dependability. Finding the perfect candidate goes beyond the consideration of “can they do the job” to “will they do the job”. Can the employer depend on the person to show up as well as perform as expected?

Dependability is tied to both reliability and work ethic. Green sums this up succinctly as, “It's not enough to just show up at work every day and do the minimum required. Employers are looking for candidates who care about getting things done and who don't start distracting the receptionist or open up Facebook or Gmail the moment the boss leaves for lunch [14].” Further, Smykal explored a Careerbuilder survey done in 2015 where out of the over 2,000 respondents made up of HR managers and those in hiring positions resulted in a 73% tie of two skills they were looking for in potential employees - Strong Work Ethic and Dependability [1]. The description for employees those that possessed strong work ethic were those that set goals for themselves and achieved them; this shows a “willingness to do more than clock in and clock out every day [1].” Dependability is described as someone that follows through on tasks [1].

Following the literary research, a local HR generalist was contacted to assess the attributes she looked for in job applicants. The HR Generalist interviewed works for a high-profile international manufacturing corporation. The attributes she looks for in a job applicant are motivation, education, experience, work ethic, and adaptation to the culture of the company. Motivation is defined as being prepared for the interview process, then following up by taking the necessary steps to get the job (drug test) and do what it takes to keep the job. She gave several examples where candidates would sit through the entire interview process and then refuse to go for the drug screening. Additionally, some candidates would show up in cut off shorts, or not answer her phone calls and others even hung up on her. The HR Generalist said, “It's hard to hire people that aren't motivated to even fulfill the interview process.”

The interviewed HR Generalists also looks to ensure they meet the education requirements for the position or meet the work equivalency. For example: a candidate may not have the degree but they have 20 years of relevant work experience. In some cases, a candidate's experience can be acceptable substitution to the formal education requirement. This willingness by employers to consider a candidate's professional experience and ability to collaborate in a team culture highlights the importance employers put on hiring the right person for a given position. The HR Generalist added she not only looks for people that can do the job, but also those that will do the job while being successful in terms of productivity and fit in with the area/culture of both the team the candidate is interviewing for as well as the company itself. This shows that employers look to make deeper connections with the other attributes previously discussed but also reaffirm that the hiring process is not a one size fits all approach. These attributes discussed are important in the private sector as they speak to the bottom line; profit. It is important to address that each position, each industry, and even each company can look for different attributes beyond those discussed in this document.

Non-Profit Sector

The Non-Profit sector thrives on the services that each employer is able to provide. The community, employees, and the organization itself depends upon each other for success. Services are only able to be provided when the employees are doing their part. Employers in the nonprofit

sector are seeking individuals who are determined to live by the mission and vision of the organization. According to Classy an online fundraising platform there are five essential traits to look for when hiring for a nonprofit. Elizabeth Chung [16] states the need for a passion for the cause, excellent communication skills, humility, self-motivation and resourcefulness, and flexibility. Non-Profits thrive on individuals that live for the cause that the organization stands for, that passion helps drive them forward towards each of the other traits that Chung describes. Passion for the cause drives employees to go above and beyond to do the right thing for the organization to be successful.

There is much ambiguity as each nonprofit is different and will need different traits from their applicants. One thing that is evident is the need for a passion or vision for the mission of the organization.

Soft-Skills are some of the hardest to glean from an interview yet some of the most important skills needed for the success of an organization, especially a non-profit. Idealist Careers lists the following as crucial soft skills for an applicant [17]:

- Ability to collaborate with diverse groups, both internal and external
- Genuine authenticity
- Self-motivation / self-starter attitude
- Approach to work that is resourceful and innovative
- Long-term commitment to and passion for mission-driven work
- “Millennial advantage”

Yet again the vision and passion are mentioned as crucial parts of the applicant's abilities. This is one of the major areas that differs in this sector in business. Ultimately finding an applicant's passion for the company along with seeing their soft skills are the most important pieces for employers when looking to hire generally within the nonprofit industry.

Do candidates have the attributes that perspective employers are looking for?

The interviews conducted with the government/public sector managers and HR representative revealed that there are typically "30:1 or more," technically qualified applicants for each job posting. A Forbes article presented statistics from interviewsuccessformula.com which stated the average number of applicants for one position is 118, and only 20% of those are selected for an interview [18]. This is similar to the average observed by the government affiliated managers interviewed. The data indicate that not only are numerous people seeking employment in all sectors, but that applicants also possess the technical education and experience employers are seeking, or at least enough to be selected for an interview.

Statistics found on the Uptowork website [19] written by Severt, shed additional light on the question of whether candidates have the attributes that prospective employers are looking for. Several of those statistics are summarized below. The article also notes the sources for the statistics presented. The data are presented as they appeared in the article and have not been

manipulated. References to graduates in this study represent students between the ages of 18 and 24 that have completed a four year degree.

- 69% of 2017 grads expect to make more than \$35,000 a year, only 49% of recent grads make that much. (Gen Z Report Accenture 2017)
- 66% of 2017 grads believe they can make more than \$35,000 a year at large companies vs. 44% at small companies. (Gen Z Report Accenture 2017)
- 81% of 2017 grads believe they can advance their careers in large companies, vs. 63% in small companies. (Gen Z Report Accenture 2017)
- 78% of 2017 grads completed an internship or apprenticeship. (Gen Z Report Accenture 2017)
- Recruiters are hiring recent graduates for:
 - IT Positions - 27%
 - Customer Service - 26%
 - Finance - 19%
 - Business Development - 19%
 - Sales - 17% (Careerbuilder)
- Recruiters are looking for candidates with the following majors:
 - Business - 35%
 - Computer and Information Sciences - 23%
 - Engineering - 18%
 - Math and Statistics - 15%
 - Health Professionals and Related Clinical Sciences - 14%
 - Communications Technologies - 11%
 - Engineering Technologies - 11%
 - Communication and Journalism - 8%
 - Liberal Arts and Sciences, General Studies, and Humanities - 7%
 - Science Technologies - 7%
 - Social Sciences - 6%
 - Biological and Biomedical Sciences - 6%
 - Architecture and Planning - 6%
 - Education - 5% (Careerbuilder)

- 94% of 2017 grads expect to find a job in their field of study. (Gen Z Report Accenture 2017)
- Only 57% of recent grads work full-time in their field of study. (Gen Z Report Accenture 2017)
- In 2016, 68% of new grads said they wanted on-the-job learning and 67% received training from their first employer. (Gen Z Report Accenture 2017)
- 97% of 2017 grads said they will need on-the-job training to further their careers. (Gen Z Report Accenture 2017)
- One in three people (36%) do not work a job that is line with their degree. (Careerbuilder)
- Only 24% of employers feel that new graduates are not prepared for work at all. (Careerbuilder)
- Recruiters blame missing skills on
 - Book Learning Over Real-world Learning - 47%
 - No Blend of Technical and Liberal Arts Skills - 39%
 - Not Prepared for the Complexity of Entry-level Roles - 25%
 - No Focus on Internships - 13%
 - Are Up-to-date with Technology Changes - 13%
 - Wrong Degree - 11% (Careerbuilder)
- 83% of 2017 grads believe their education prepared them for their career, but 84% still expect formal training. (Gen Z Report Accenture 2017)
- 54% of recent grads consider themselves underemployed, up from 51% in 2016 and 41% in 2013. (Gen Z Report Accenture 2017)
- Recent grads are 2.5x more likely to stay for 5+ years if they don't feel underemployed and their skills are being used. (Gen Z Report Accenture 2017)
- 2017 grads are flexible about:
 - Relocating for the Job - 75% (up from 72% in 2016)
 - Weekends and Evening - 58% (up from 52% in 2016)
 - Unpaid Internship in Place of Paid Opening - 71% (Gen Z Report Accenture 2017)
- In 2016, 92% of new graduates said that it's important that their company is socially responsible. (Accenture 2016)

This list of recent statistics serves as a substantial resource for comparing candidate expectations to what perspective employers are looking for. Severt [19] says, "It's good to know how fierce the competition is and what you're up against whether you're a recruiter or a job seeker." She also illustrates how important it is for a job seeker to put time and effort into their resume. One

might conclude that it may not be a matter of candidates not having the attributes that employers are seeking, but more about candidate expectations being higher than their respective skill level.

A deeper assessment into the quality of individuals entering the job market led to research focused on the impact of degrees that align with the needs of the job markets over the years versus the degrees that are less marketable. Research also reviewed the impact of gaining a college degree and how attaining a degree could be a huge undertaking for recent high school graduates. Adding to the issue is the increasingly greater expense of college these days. It is also imperative to consider the student's ability to find a job after college based on their major. Taking a look at a student's employability based on major chosen can help the individual or family have a quicker return on their investment. As of 2016 [20], Powell describes the importance of understanding the labor market performance for a particular degree before you decide on your own personal major. Understanding the "worth" of a major can help a student see how long it will take to find a job and at what rate the job will pay linking it back to the return on investment from the degree.

The following list is provided in an effort to ensure employability and a faster return on college investment [20]:

- Look at projected labor outcomes
- Check whether the school posts employment data on recent graduates
- Compare the return on investment for a degree

Through the years and changes in society the needs of the work force have changed, which also changes the demand for certain degrees at the collegiate level. The information provided from Forbes describes the top five worst degrees based on unemployment rates for recent graduates [22].

1. Anthropology and Archeology
 - a. Unemployment rate: 10.5%
 - b. Median earnings 28k
2. Film, Video, and Photographic Arts
 - a. Unemployment rate: 12.9%
 - b. Median earnings 30k
3. Fine Arts
 - a. Unemployment rate 12.6%
 - b. Median earnings 30k
4. Philosophy and Religious Studies
 - a. Unemployment rate 10.8%
 - b. Median earnings 30k
5. Liberal Arts

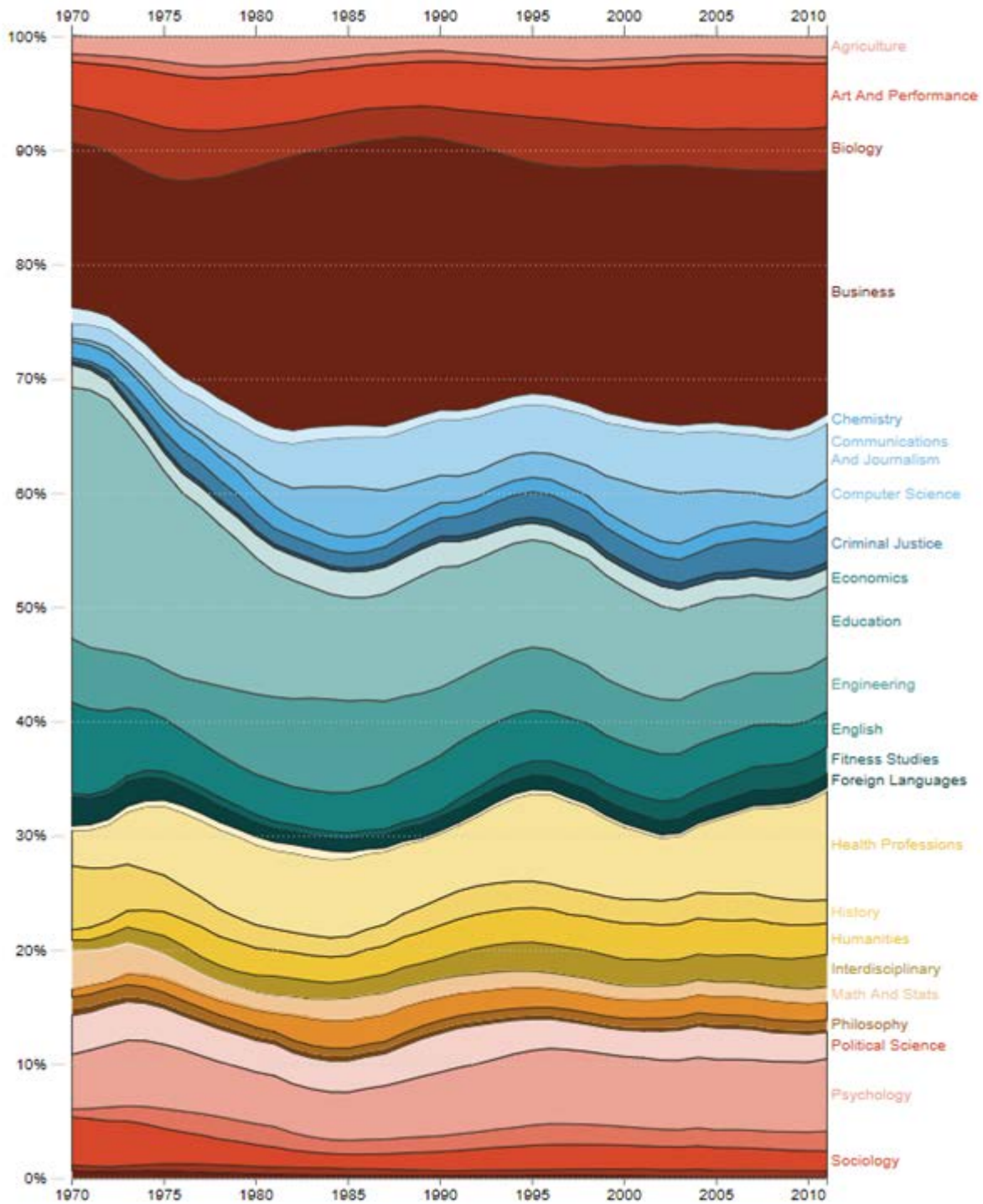
- a. Unemployment rate 9.2%
- b. Median earnings 30k

The combination of the salary and the unemployment rates may not provide a good return on investment when looking at collegiate undergraduate degrees.

While choosing a degree in today's society can be cumbersome it is also imperative to recognize the changes that have happened through the years within employability of others. Figure 4 is a graph that depicts the rising and falling of graduates in specific areas [22].

College Majors, 1970-2011

Share Of All Bachelor's Degrees Awarded By Field



Source: Digest Of Educational Statistics
 Credit: Quoc Trung Bui/NPR

Figure 4 - Bachelor Degrees by Field from 1970-2011

Information retrieved from the Bureau of Labor Statistics concerning the unemployment rate by education attainment for ages 25 and over also suggests that individuals are more marketable as they achieve higher levels of education (Figure 5). However, the unemployment rate for persons with a bachelor's degree or higher has remained relatively steady at approximately 2.5% from 2015 through 2018 graduates [23].

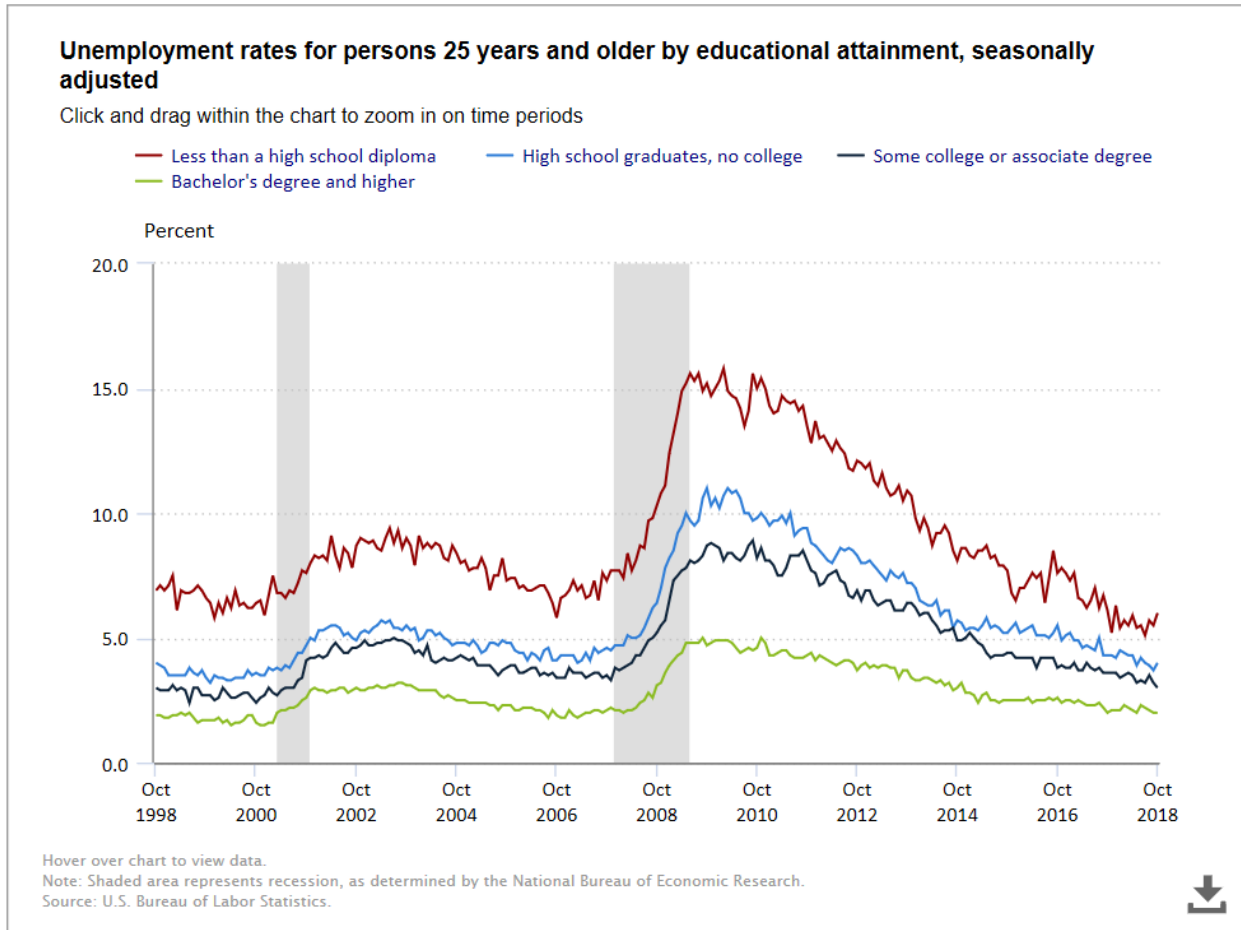


Figure 5 - Unemployment Rates for the Last 20 Years

The Bureau of Labor Statistics (BLS) also posted further research conducted by Gallup into the real unemployment rate which Figure 6 shows is currently higher than the widely publicized BLS reports. Gallup's study for real unemployment looks at people who are unemployed, underemployed, and marginally attached to the workforce. In other words, individuals who are not gainfully employed. According to Gallup the real unemployment rate at the beginning of November 2017 was 8% [24]. This data represents the most current available from Gallup as of December 2018.

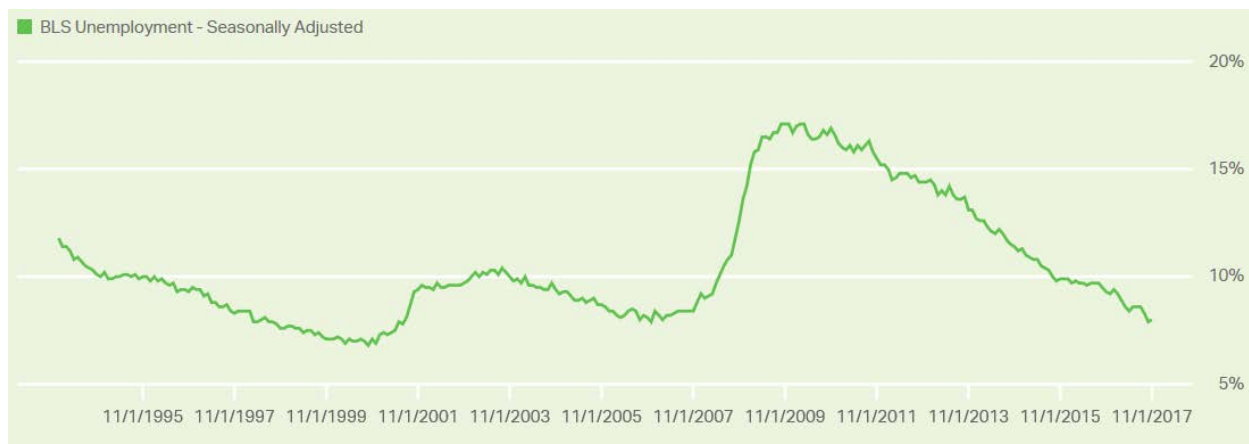


Figure 6 - Real Unemployment Rates

In 2017, Reuters reported that even with a real unemployment rate around 8%, claims for unemployment are lower than some economists projected. The claims were actually the lowest they had been since March 1973. This suggests that the U.S. economy continues to improve as labor market slack twiddles. In fact, the four-week average of continuing claims fell 40,500 between September and October 2017 [25]. Moreover, Unemploymentdata.com recently published the real unemployment rate being 7% in October 2018 further supporting the notion of continued economic growth in the U.S. over the past year with full employment on the horizon [26].

Gallup also performed a comparative analysis of underemployment and unemployment that shows a general decline in both over the past 17 years (Figure 7) [27]. The same analysis shows a consistent gap between both underemployment and unemployment with a higher percentage of employees being underemployed. Gallup ceased publishing underemployment statistics in July 2017, [26]

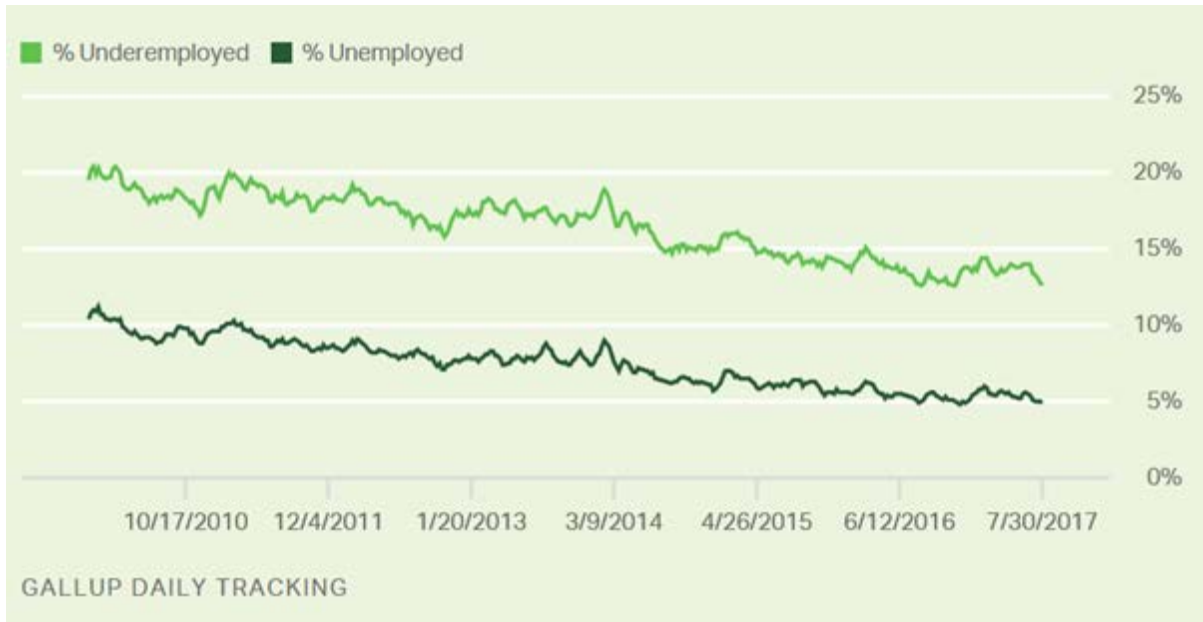


Figure 7 - Comparison of Underemployment and Unemployment

Gallup's U.S. Employment Measures, May 2017

	Most recent month (May 2017)	Previous month (Apr 2017)	Month a year ago (May 2016)
	%	%	%
Employed full time for an employer (GGJ)*	45.4	44.7	45.5
Employed full time for self*	6.3	6.2	5.7
Workforce participation rate*	68.0	67.6	67.3
Unemployment rate**	5.3	5.5	5.5
Employed part time, wanting full time**	8.5	8.5	8.2
Underemployment rate**	13.9	14.0	13.7

*Metrics represent percentages of the population aged 18+ who have a job or are actively seeking work.
 **Metrics represent percentages of the workforce.

GALLUP DAILY

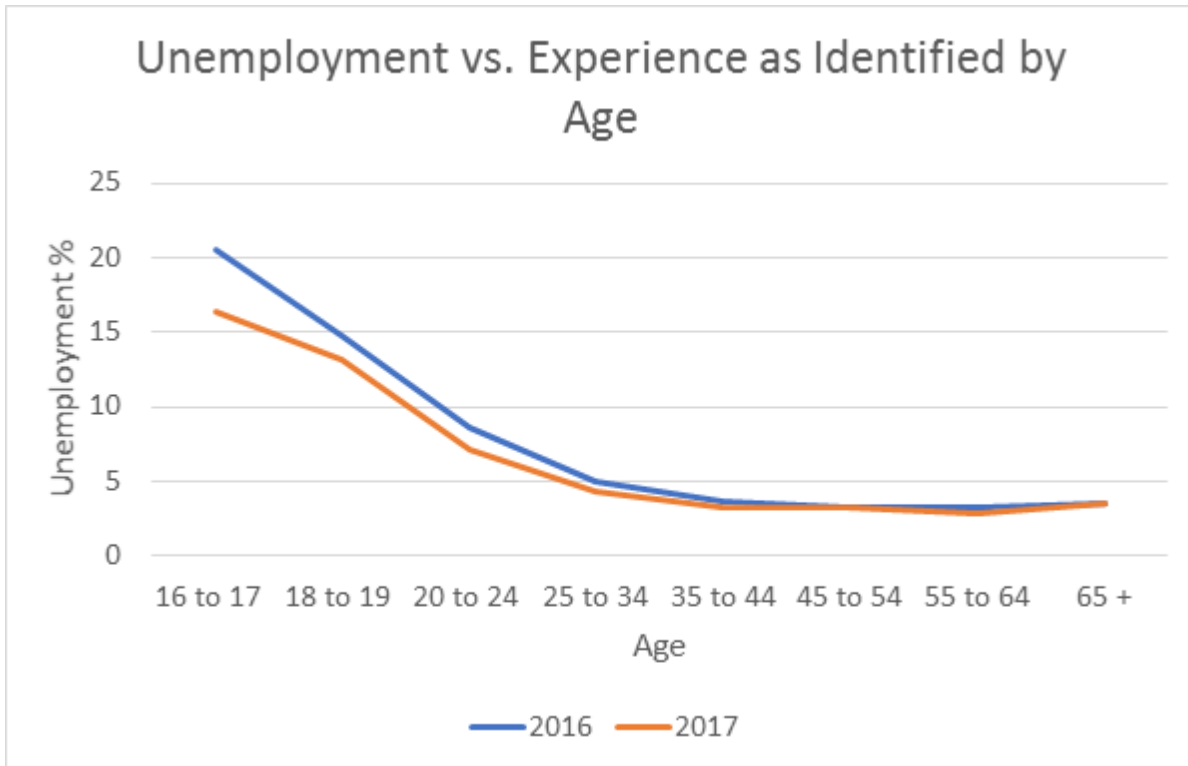
Figure 8 - Employment Measures through May 2017.

Figure 8 is also a result of a recent Gallup analysis related to employment rates in the United States. A couple notable take-a-ways from Figure 8 are steady employment rates, an increase in the workforce participation rate, and an increase in the number of employees wanting full time employment [28]. One could potentially conclude that these data show an increasing need for job seekers to possess the employable skillsets required by employers in order to achieve gainful employment.

A study conducted at Georgetown University [29] showed one possible alternative to becoming gainfully employed without a college degree is for job seekers/employees to pursue certificate programs. In fact, some certificate programs are said to have outperformed two and four-year degrees. In order for the certificate to be effective though, they need to be tied to the same field the employee is working in or the job seeker is vying for.

What trends in unemployment and job projections are tied to a person's employability?

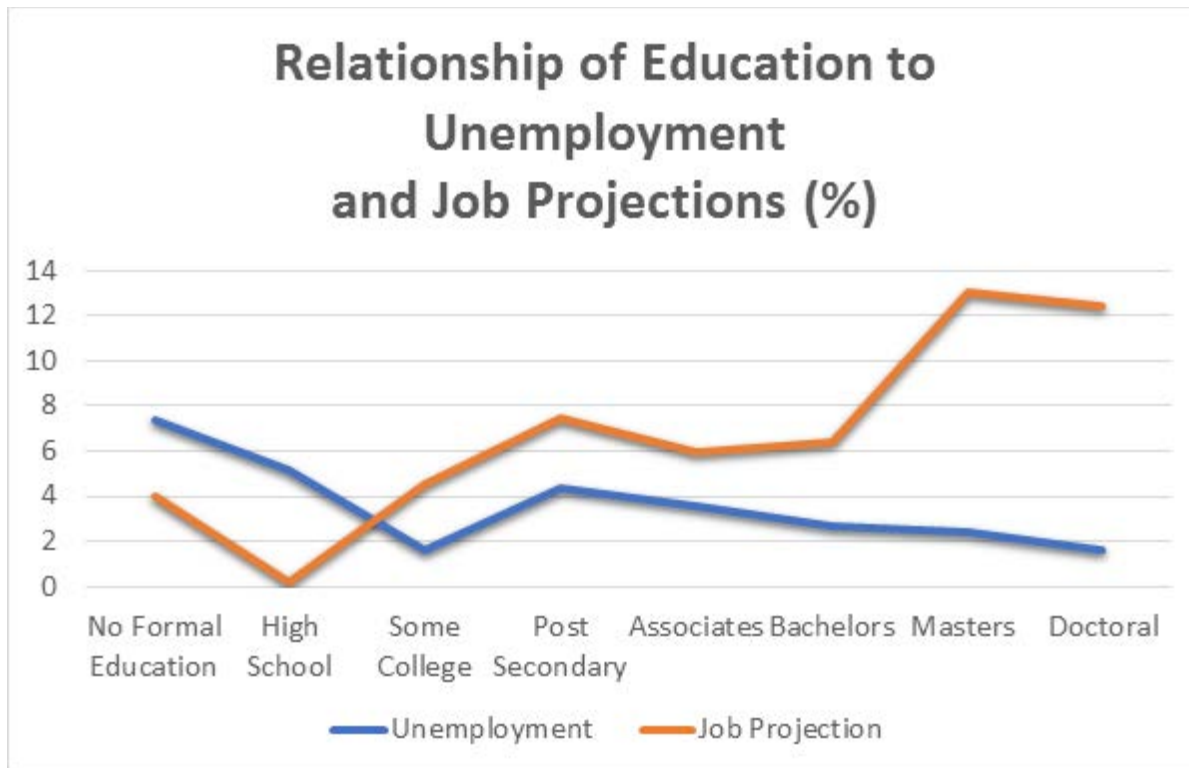
The discussion up to this point has shown hard skills and soft skills play into a person's employability. The following data shows the relationships between two of those hard skills, experience and education, and unemployment and job projections. The data suggest a connection between a person's experience and age (i.e. as a person gets older their experience level increases). The trend does not account for those that change career paths. The chart in Figure 9 shows the decrease in the unemployment rate as the workforce ages [30]. It can therefore be inferred that as a person gets older they increase their experience level, in turn, making them more employable compared to those with less experience (i.e. younger).



Source: United States Bureau of Labor Statistics; Labor Force Statistics from Current Population Survey, 2017

Figure 9 - Labor Force Statistics from Current Population Survey, 2017.

Stemming from the relationship between experience and unemployment is the relationship between education and unemployment. It was noted earlier that employers compare an applicant's educational attainment to the requirement for the position. Some positions may require no formal education while others require an advanced degree. The question remains how important is education when assessing the employability of an employee? To answer this question, research led to BLS reports that looked at the unemployment rate and job projections by educational attainment. The BLS data show job projections of over 800 jobs from 2014 to 2024 [31]. An analysis of this information was performed by the entry level education of each job and determined what the projection would be based on the education level. Comparing that to the unemployment rate by the same educational level shows a relative trend of the importance of education in employability (Figure 10).



Source: United State Bureau of Labor Statistics; Employment Projections & Unemployment rates & earnings by educational attainment, 2016

Figure 10 - Employment Projections & Unemployment Rates & Earnings by Educational Attainment, 2016

The trend shown supports the need of education over the next 6 years in job projection but also suggests to those facing potential unemployment and have additional education they are more employable. These data only speak to the hard skills of education and experience, but there are many other soft skills that also play a large role in employability.

Employability skills, which overlap and are transferrable through the job market?

Each of the three job sectors examined look for a general skill set to begin the employment process. The skills discussed in the following section seem to be the baseline of necessary skills that all employers are looking for. These skills are a combination of soft skills and hard skills. According to Careerwise [32] these skills are spread out between foundational skills and elevated to interpersonal skills, communication skills, problem solving skills, teamwork, and ability to make ethical decisions.

Interpersonal skills enable a person to interact properly with others whether in the work place or out of the work places. Bedwell’s “Developing the Future Workforce” [33] describes the importance of integrating interpersonal skills into business and collegiate programs. He states, "Research has linked interpersonal skills to other beneficial work-related outcomes, such as job

commitment." Among the most important interpersonal skills include respect for others, taking criticism, and being polite and kind.

Communication can take on many different roles within the work force. Companies seeking new applicants are able to begin assessing communication abilities from the initial meeting and interview. Being able to articulate oneself in a respectful manner to peers and supervisors is crucial when in the workforce. Specifically understanding the four main types of communication will make a huge impact on an applicant's ability to successfully communicate in the workforce.

Problem solving is defined by the business dictionary as, "The process of working through details of a problem to reach a solution. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills." [34] This comes into play in day to day activities in the workforce, demonstrating the flexibility and ability to solve anything thrown at an applicant.

Teamwork culminates with interpersonal skills and honesty. Making ethical choices are also crucial to the success of the organization. Organizations thrive on the honesty and ethical choices that are made within it. Ultimately, there are many skills that can lead to an individual being employable. The examples listed above are just the beginning. Each organization has specific needs and skills they are looking for when filling vacancies. Some of these skills are in the nature of the person being interviewed and some are easily taught given the right conditions and the applicant's abilities.

How can a candidate improve their Employability?

Isaac Morehouse, founder & CEO of Praxis is a promoter of reaching beyond the piece of paper you receive with a college education by participating in an apprenticeship that gives real world experience [35]. While having a college education may meet a requirement on a job application it doesn't set you apart from other applicants. What can set you apart?

Language Skills

Not everyone can speak multiple languages so being able to converse with an international client or supplier can be a crucial differentiator for a bi or multilingual applicant, especially in today's job market. When looking at how to increase your employability venturing into learning another language can be a huge advantage. According to a poll of 500 employers by the Centre language skills came in 2nd only to IT skills [36]. However, it is important to keep in mind which languages are most advantageous; French (34%), German (25%), and Spanish (23%) are among the leading languages that employers are looking for according to a study out of the UK [36].

Volunteering

Volunteering can help a person gain important skills for employability. Jason Lear from Lear Training said, "...the fact someone has given up their time to benefit others shows an attitude and commitment that is transferable into any working environment" [37, pg. 22]. According to the results of Volunteer Now research project, volunteers felt they learned significantly valuable skills from volunteering. Figure 11 shows the breakdown of those skills.

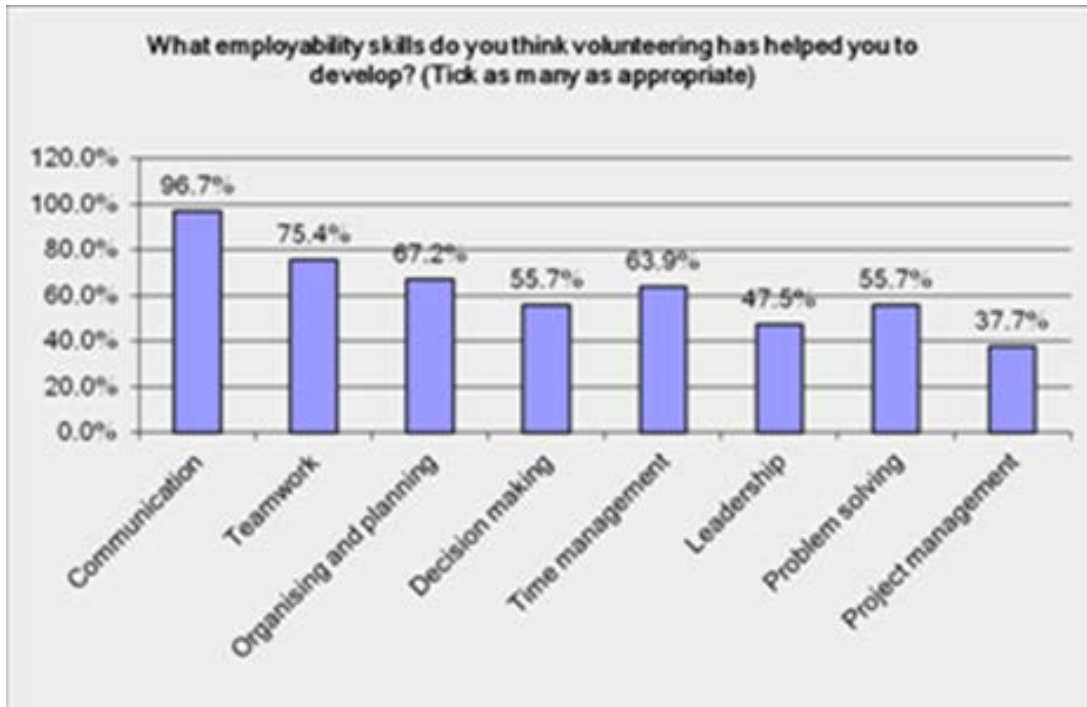


Figure 11 - Employability Skills Developed Through Volunteering [37, pg. 14]

While the act of volunteering may not be a defining attribute for skills possessed by a candidate, it can be the differentiator in terms of employability. However, it is important to keep in mind that to get the most out of volunteering the focus should not be just about increasing your employability, Jason Lear said it another way; in terms of volunteering one must have a “self-motivated passion in what you are doing” in order to then “enhance transferable employment skills” [37, pg. 22].

Networking

Networking is a way to take the old adage of “it’s who you know” to a new level. It’s a deliberate action of getting to know people. Why is networking so important in the current job market [38]?

Networking is the best way to find a job because:

- **People do business primarily with people they know and like.** Resumes and cover letters alone are often too impersonal to convince employers to hire you.
- **Job listings tend to draw piles of applicants,** which puts you in intense competition with many others. Networking makes you a recommended member of a much smaller pool.
- **The job you want may not be advertised at all.** Networking leads to information and job leads, often before a formal job description is created or a job announced.

Figure 12 – Job Success and Networking

Following these tips will help make the most of your network [38]:

1. Identify your network
2. Reach out to your network
3. Build relationships with your network
4. Evaluate the quality of your network
5. Identify both strong and weak ties and how they can strengthen your network
6. Maintain your network

This may seem like a lot of work in terms of building relationships and fostering continual reciprocal interactions within a respective network, but the benefits can far out-weigh the time spent [39, 40]. Figure 13 identifies several of the benefits a person can gain through networking.



Figure 13 - Benefits to Networking

Personal Development

Niace completed a learning survey in 2012 that showed a strong connection between continual learning and sustained employment [41]. Whether this is due to the ever-changing job market and the need to stay current with the times, personal desire to improve one's self leans, or part of becoming to a more motivated employee is hard to say. It would make sense for personal development to improve one's employability if only due to the personal performance enhancement it provides. There are many ways a person can work on their development [41]. Figure 14 highlights some of those disciplines a person can develop.



Figure 14 - Areas that Facilitate Personal Development

Conclusion

Employment in the United States comes down to supply and demand. The question is raised why do we have unemployed workers if there are jobs available? When there are 30 plus applicants for each job it is easy to say that there are more people than jobs, but the truth is not so straightforward. One cannot assume that all thirty of those people are unemployed; some applicants may be gainfully employed or underemployed but are looking for a new opportunity.

This paper argues that employers have honed their skill of choosing new employees based on an individual's overall employability. It also shows that employers look at both an applicant's hard skills and soft skills when considering them for a position. The granularity and importance of each skill can differ by position and even by the work sector an applicant is applying for. This is evidenced by the overwhelming need for passion when looking for a position within the non-profit sector, while education and experience may serve best in a governmental and private sector positions which place greater influence on being able to perform the job and being adaptable to an ever-changing job scope.

Even though all three of these sectors differ in terms of some of the finite attributes, they look at: soft skills such as communication skills, interpersonal skills, problem solving, teamwork, ethics and other attributes that can carry an individual from one sector to another. These skills appear to be a core requirement once hard skills are established. The skills and attributes discussed in this document are not a comprehensive list, but they highlight several that are transferrable and can increase an individual's opportunity for employment.

The challenge for prospective employees is to determine how they compare in terms of employability. Since employability is a combination of both hard and soft skills and soft skills are subjective, it may be hard to know for sure with any degree of precision. It can be concluded that while soft skills can definitely give an applicant an edge in terms of employability it is the hard skills such as education and experience that will allow an applicant to increase their employability in terms of meeting position requirements. Possessing the hard skills will assist an applicant through the first round of resume/CV reviews; allowing the applicant to showcase their soft skills during the interview process. The applicant with the desired combination of hard and soft skills has a higher probability of being selected for the position. Higher Education plays a huge role in increasing an applicant's employability; by acting as a foundation for meeting a position's requirements as well as setting an applicant up to gain experience and further soft skills during their career. An applicant cannot expect to be viewed as employable for any position they apply for without the necessary hard skills that pertain to that particular position;

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