

University Education is No Longer Optional

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Ever since I was in high school, I wondered what I will pursue in the future. My parents told me that education is the foundation for a stable and well-respected career and I must attend university. When they were my age, their parents told them that a post-secondary degree can get them a well-paid and respected position; however, upon researching into this area, it turns out that the result is not the same today. The number of people who attend a university, college, trade school or polytechnic is continuing to rise and this trend is labelled as the massification of higher education according to Hornsby, professor of international affairs and the vice-president of the Norman Patterson School of International affairs, and his team (Hornsby et al., 2014, p.712). As more people become overly qualified for their positions, the employer can employ the most qualified candidate. For example, if two candidates with similar levels of experience and other factors, but the only difference is that one has a college degree and the other has a bachelor's degree, the employer will most likely employ the latter. This is known as degree inflation, where positions which previously did not require degrees now requires them due to the large number of over-qualified applicants, as described by Cooper (2019, para.2), a research analyst in education policy at the American Enterprise Institute. In order to ensure employment opportunities, both my parents and their coworkers believe that it is crucial to obtain a post-secondary degree, but my parents believe that a college degree is not enough and a university degree should be the minimum standard. In addition, Vomiero, a journalist from *Global News* who frequently writes about business, finance consumer trends, and the Canadian innovation economy, asserts that 50% of the jobs in Canada may be affected by automation (2018, para.1), which plays an important role in deciding whether one should pursue a college or a bachelor's degree. After finishing high school, one should pursue a post-secondary education in order to overcome the negative effects of degree inflation, but it should be better to pursue a bachelor's degree, because

this will increase their employment opportunities by preventing them from being replaced by automation, and providing them with the additional opportunities such as the ability to innovate new solutions to occurring problems or pursue an advanced degree.

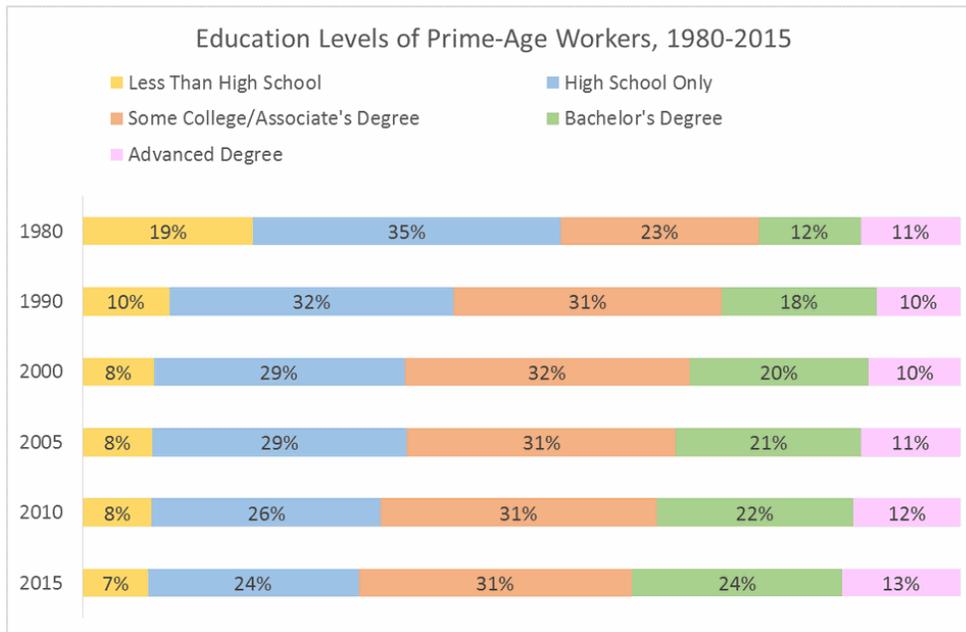


Figure 1. The percentage of people with college, bachelor and advanced degree between 1980 to 2015. From “How Degree Inflation Weakens The Economy,” by P. Cooper, 2018, Forbes. Retrieved June 17th, 2019, from <https://www.forbes.com/sites/prestoncooper2/2018/01/08/employers-demanding-college-degrees-weaken-the-economy/#4e4ae7206b11>. Copyright 2018 by P. Cooper.

By obtaining at least a post-secondary education, including college or Associates degree as well as university degrees, one will have an increased chance of finding employment because of degree inflation. Cooper (2019), has visualized the percentage of employees with different education levels in a graph with data collected by the University of Minnesota (see Figure 1). The graph conveys that the number of workers with less than a high school degree plummeted

between 1980 and 1990 and is continuing to decrease (see Figure 1). The number of workers with a college or associate's degree is stable in the recent years after the huge rise between 1980 and 1990 (see Figure 1). On the other hand, the number of workers with university education, including a bachelor's degree or an advanced degree, is continually rising by about 2 percent every 5 years (see Figure 1). In 2015, 37% of the workers have a university degree and by extrapolating the data, by 2025, 41% of the workforce in the United States will have a university degree (see Figure 1). Since the percentage of employees with university degrees continue to rise, eventually, the number of workers with college degrees will start to decline, due to the effects of degree inflation because the former is more prestigious. However, this should not happen until the number of workers with less credentials than post-secondary degrees approach 0, which will not be anytime soon (see Figure 1). With degree inflation, one should obtain a post-secondary degree, whether it is a university degree or a college or trade school degree, in order to ensure employment opportunities because a high school education will not suffice.

A post-secondary degree will help individuals find jobs which are less likely to be automated; however, positions which require a trade school or college degree are still facing the risk of being automated today, unlike the bachelor's or master's degree. Countries such as China, Singapore, United States and Germany are actively finding new innovative ways to automate tasks resulting in a lower number of jobs for workers without a post-secondary degree. Currently, Hema, a supermarket chain with an integrated restaurant, opened by Alibaba with over 59 stores in China during 2019, have nearly fully automated their waiters and waitresses with robots which delivers food, according to Aldama, a reporter for *Inkstone News* (2019, para.5). This store allows shoppers to purchase live seafood and other fresh food in the supermarket and after purchasing, they may pay an additional fee to have it cooked and served to them (Aldama, 2019,

para.7-8). The purchased items will be delivered to the kitchen through conveyer belts and the service process of the cooked food will be accomplished by a robotic server, according to Choudhury, a journalist for *Consumer News and Business Channel* (2017, para.4). In Singapore, a store called Habitat by Honest Bee and in the United States, Amazon Go, are currently using the exact same technology, resulting in reduced employment opportunities for unskilled labour, meaning jobs that do not require credentials such as degrees or diplomas according to Low, an author for *CNET* (2018, para.4). In the logistics sector, the world's largest logistics service provider, Deutsche Post (DHL), based in Germany, who employs 477,000 personnel, is innovating new ways to deliver cargo through the use of automation (Coe, 2014, p. 7). Coe, a professor of Economic Geography at National University of Singapore and the dean of Economic Geography for six years, mentions that in the early 2000s, DHL has implemented radio frequency identification (RFID) to reduce the number of manpower needed to sort cargo in order to ensure it will be delivered to the right destinations (2014, p. 11). In a larger sense, the introduction of machine sorting has reduced the number of employees needed, which is the one step to achieving automation. During my class field trip to the DHL Innovation Center in Singapore for my geography class at National University of Singapore on March 11th, 2019, we were shown the latest technologies of automated drones for cargo delivery, which will be implemented over the next 5 years. The result of this would be a lower demand for employment. As seen in the service industry, including restaurants and the logistic sector, the number of positions that are available are diminishing, making it harder for workers without a post-secondary degree to find work. However, the employment opportunities of trade school and college graduates are also diminishing due to automation, but not as prominent as ones that do not require a post-secondary degree. According to Kwok, the chair professor of space science

and the former dean of science from 2006 to 2016 at the University of Hong Kong (HKU), the tasks are being automated are “technical tasks”, meaning practical or repetitive tasks with a clear starting point and end goal such as automobile construction or carpentry, which are taught by trade schools, are being automated and simply emphasizing on “computational techniques”, meaning tasks that can be done through computation such as scanning a contract for signs of weaknesses or diagnosing a patient for a medical condition, is not enough to guarantee employment (2015, para.5-6). Kwok mentions that universities are improving their students’ ability to innovate and critical thinking skills allowing, which are skills that are not possible to be automated today (2015, para.1). A university education will still help individuals to gain a competitive edge in finding employment despite the negative effects of degree inflation; hence, people should obtain a university degree.

A bachelor’s program helps one to further expand their qualifications for different carriers by enhancing their critical thinking skills or innovation skills and providing them with the opportunity to pursue an advanced degree, which college or trade schools do not offer. Kwok claims that a university education is not only about providing graduates with career opportunities, but also to expand the minds of the students in order for them to be able to make connections to analyze the current problems that the human race is facing, and innovate solutions to solve them (2015, para.1). For example, the university graduates can identify current problems such as landfill waste or global warming and innovate solutions to reduce their negative impact, whereas trade school graduates are only capable of performing “technical tasks” or focus on “computational techniques” (Kwok, 2015, para.4). Kwok is ultimately inferring that universities indirectly enhance the student’s ability to become successful leaders where they can create opportunities for themselves rather than finding employment (2015). A bachelor’s degree also

permits students to pursue advanced degrees such as the equivalent of masters and PhD in various fields and there is an increasing number of employment opportunities for them which is increasing by 1% every 5 years since 2000 (see Figure 1). In the field of law in Canada, an undergraduate degree is considered as a Pre-Law degree and which allows one to work as an entry level lawyer, who analyzes contracts (LawyerEdu, 2015). According to Kaplan, an American computer scientist, author, futurist and serial entrepreneur, graduated from University of Pennsylvania and The University of Chicago, who researches automation and the impact it has on university and trade school graduates, it is possible that entry level lawyers will be automated as IBM's supercomputer Watson is currently capable of sifting through 1 million books in less than 3 seconds, meaning that it has the capacity to easily identify the weaknesses of any contract (2015, p. 145). Therefore, in order to maintain employment opportunities, lawyers with bachelor's degree have the option to upgrade their degrees to an advanced degree which will allow them to become defense attorneys, persecutors, and so on, and these positions cannot be automated because a trial requires the physical appearance of a human attorney in court (LawyerEdu, 2015). In a larger sense, one should obtain a bachelor's degree because it creates more opportunities for the individual such as allowing them to become successful entrepreneurs or allowing them to pursue an advanced degree which cannot be automated anytime soon.

However, there are controversies on the fact that trade schools are also good choices for finding employment and a university degree is not necessary. Coates, the Canadian Research Chair in Regional Innovation of the Johnson-Shoyama Graduate School of Public Policy at the University of Saskatchewan claims that trade schools and polytechnics focus on practical skills and have excellent connections to local and regional job markets which can help their graduated students to find a job in the industry with the practical skills that they have acquired (2014,

para.7). Moreover, by attending a trade school, one can also face additional benefits such as a cheap and shorter trades' degree. Hamm, the founder of the website *The Simple Dollar* and an opinion leader who specializes in financing and investing, mentions that the tuition is much higher considering that a trade school degree is typically 2 years rather than a bachelor's which requires 4 in the United States (2019, para.3). In a larger sense, trade schools offer degrees which focus on practical skills resulting in a shorter duration and they can provide graduates employment opportunities through their connections with the industry.

Having industry connections, learning practical skills is useful for finding a job; however, universities are better because they also have industry connects and teach the required practical curriculum and additional skills. Taylor, an expert on studying in Canada mentions that universities offer co-op programs, where students in different fields can work during specific semesters of the school year (2009, para.2). According to D'Souza, a chief operating officer of an active learning program, Top Hat, the co-op program offers the students a chance to gain experience and a competitive salary by working during their studies (2018, para.4). Upon graduation, there is also a high chance that the student will be hired by the co-op company they have previously worked at (Taylor, 2009, para.6). In addition, Kwok, claims that colleges teach their students practical skills whereas universities teach students the concepts and help them enhance their critical thinking on top of the practical skills (2015, para.4). It may be true that certain practical fields such as plumbing is not offered in universities; however, many fields which were not offered in university are offered today, such as nursing, and those with a nursing degree from a university are not equal to those with a college degree (Karstadt, 2012, p.444). Karstadt (2012, p.444), the Deputy Dean of the Faculty of Health and Human Sciences at University of Hertfordshire, elaborated on one major point, the difference between further

education and higher education, made by professor Watson based on the presentations made in the Society for Research into Higher Education during their annual conference on December 8th, 2012. The difference between further education and higher education is that the former aims to expand the student's knowledge in one area and the latter aims to not only accomplish the same as the former, but also incorporates additional skills including critical thinking and the ability to innovate (Watson, 2012, p.3). In a larger sense, Karstadt conveys that a nursing program at a college focusses on further education which is practical and it will be enough to prepare the student to work in the field just as well as a nursing degree; however, a nurse with a nursing degree will be regarded as a potential scholar in the field, meaning that they will have access to research positions in addition to jobs that are offered for nurses with a college degree (2012, p.444). It is true that a nursing degree will take longer than a nursing diploma; however, they will have the opportunity to enhance their critical thinking abilities, and have access to more positions upon graduation. Moreover, due to degree inflation (see Figure 1) employers will select university graduates over college graduates because they can perform all the tasks that the latter can, and more; therefore, students should pursue university degrees rather than college diplomas.

For future career prospects, students must enroll in a post-secondary institution in order to find employment; however, they should enroll in universities to earn at least a bachelor's degree. With a bachelor's degree, one will have a higher chance of finding employment due to degree inflation, less likely to be replaced by automation, and one will have the opportunity to increase their employment opportunities by improving their ability to innovate and qualifications to enroll in an advanced degree. My parents' assertion on the fact that I must obtain a university degree in order to find a well-paid and stable job is correct. As a result, I am currently studying at Simon Fraser University, and upon graduation, I plan on enrolling in graduate school to

complete my PhD. As degree inflation is prominent and as technology continues to improve, resulting in a rampant growth in automation, I recommend anyone who wants a secure and well-paid job to invest their time, effort and money into pursuing a university bachelor's degree, and an advanced degree if possible, but one must obtain at least a post-secondary degree. Eventually, we will reach structural unemployment, which can be described as one day during our lifetime, we would be submitting countless resumes for potential jobs and we would never be matched because there are no jobs to match us with, not because of the reduced demand in positions, but because machines can perform the tasks we can perform more efficiently, according to Kaplan, but this will not happen anytime soon (2015, p. 137). When this occurs, even an advanced degree being the equivalent of a master's or PhD degree may not be enough to guarantee employment.

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