Alison Tomooka

Professor Tyndall

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Is College Worth It?

These days, in the United States, going to high school means taking tests prepping for post-secondary education. It does not really matter whether college is a place you are hoping to go or not, high schools push for students to seek out higher education. Is it really worth it, though? College tuition, *just* tuition, can go anywhere from $11,000 to $40,000. On top of that, considerations for room, board, textbooks, and miscellaneous fees are to be considered. Then, comes the notion of how and the amount of interest accumulated for, likely, student loans. Multiply that for the typical four years needed for a bachelor's degree, and well, the idea of post-secondary education is an expensive one.

In the short run.

Once an individual graduates, finds a career, and starts earning a steady income, one would likely, possibly slowly, see returns from their post-secondary education. In a study conducted by Georgetown University's Center on Education and the Workforce, it was found that:

> No matter how you cut it, more education pays. The data presented here show that there is a sizeable economic return to going to college and earning at least a two- or four-year degree. The 33 percent of Bachelor's degree holders that continue on to graduate and professional schools have even more prosperous futures ahead.

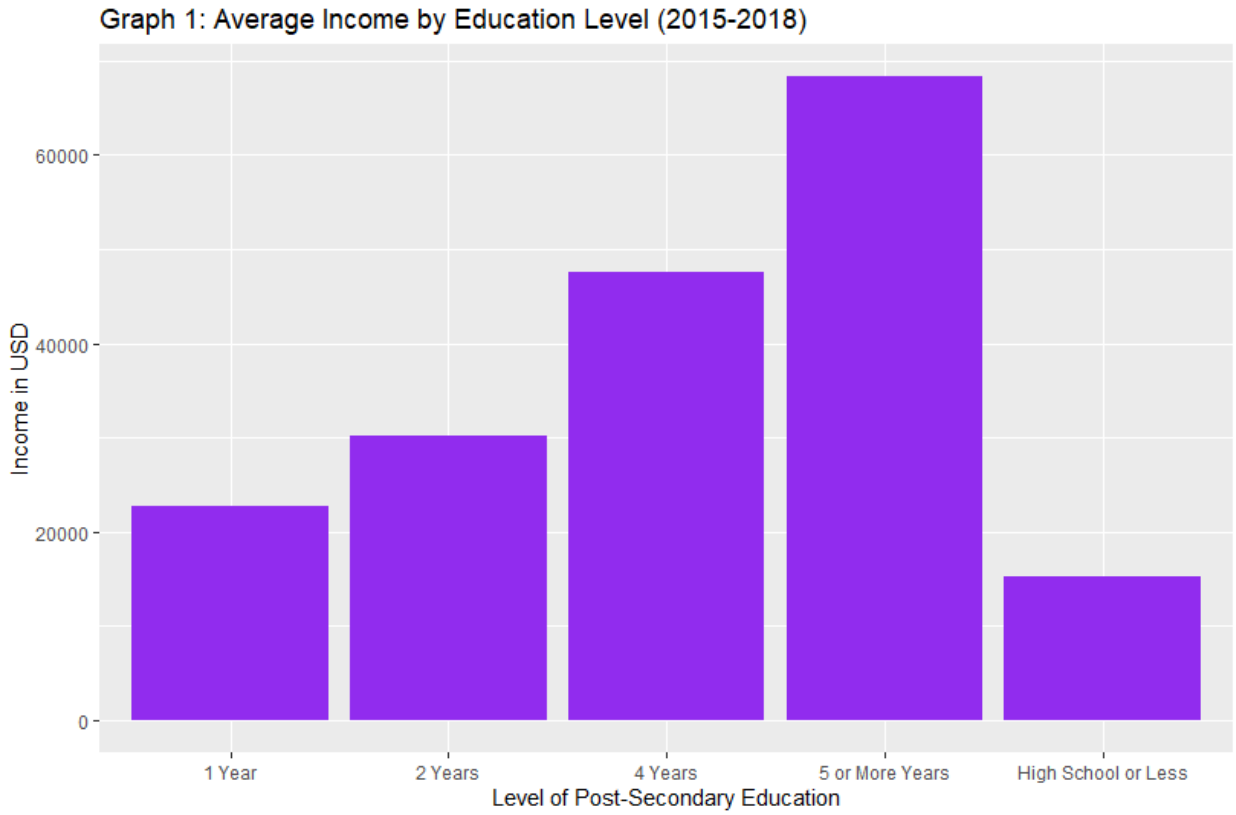
> Moreover, the difference in earnings between those who go to college and those who don't is growing—meaning that postsecondary education is more important than ever. (Carnevale et al 20)

The research supports that for lifetime earnings, post-secondary education pays off and increases an individual's income, compared to those with just high school degrees. Granted, the data from the study does not take into account career changes and various moments of unemployment or leave.

With data from the United States' census from 2015, 2016, 2017, and 2018, via IPUMS, this report examines the value of college in terms of yearly earnings of various groups by their level of post-secondary educational attainment. It must be noted that individuals with incomes greater than $999,998, were not included in the following data, as the values would not have reflected precise numbers, compared to lower incomes, along with their standing as great outliers of the data set. Additionally, individuals who did not report information were also excluded from the following data.

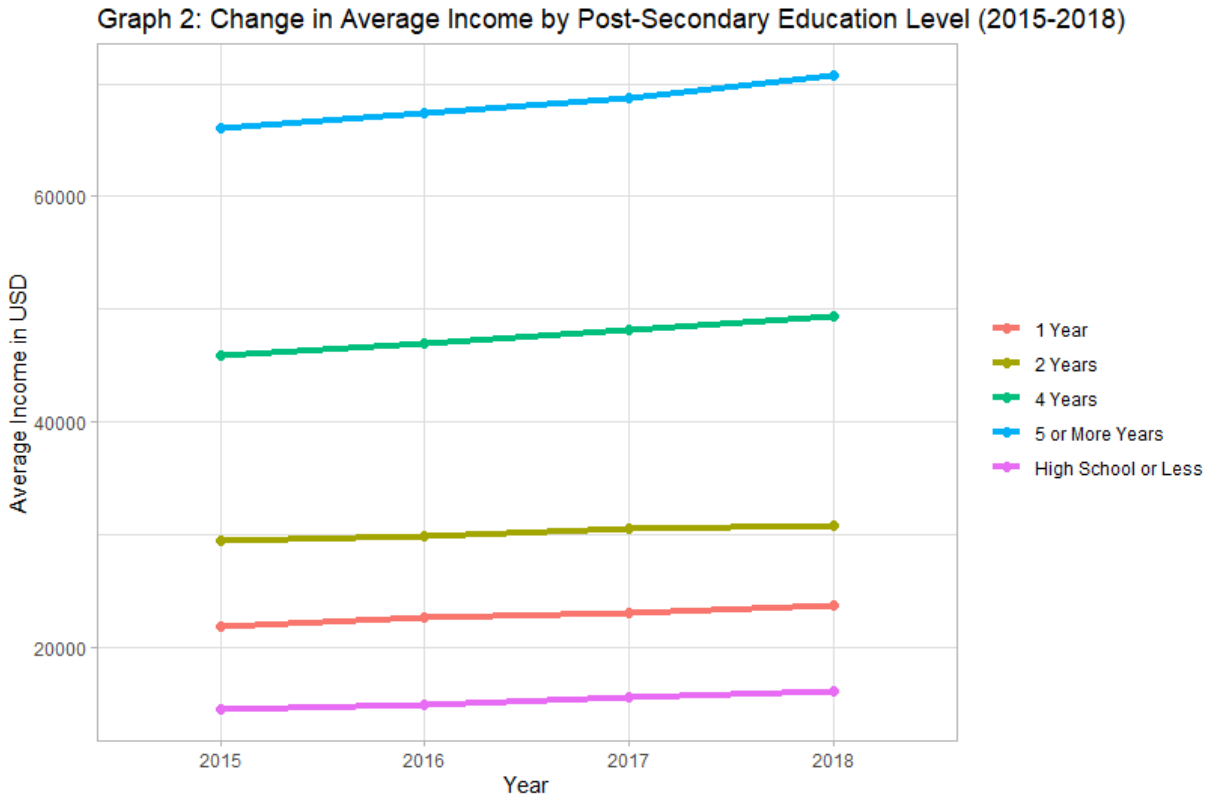
Graph 1, below, depicts average national income of individuals from 2015 through 2018, separated by highest level of post-secondary educational attainment. Those with a high school degree, or lesser education, are shown to have an average yearly income of less than $20,000. On the other hand, those with five or more years of post-secondary education, annual income averages just under $70,000. The difference in average income between those with one year versus two years of post-secondary education is approximately $8,000. Between two and four years, a difference of approximately $18,000. Then going from four years to five years or more, approximately $20,000. Graph 1, thus, shows a positive correlation between years of post-secondary education and annual income. The graph also expresses increasing marginal income

by years of schooling, higher levels of post-secondary education averaging greater annual earnings.



Expanding on the previous graph, Graph 2, below, depicts the changes in average yearly incomes by level of post-secondary educational attainment by year, from 2015 through 2018. Reflecting the averages shown in Graph 1, those with only a high-school degree, or less, average the lowest annual income, while those with five or more years of post-secondary education have the highest average incomes, every year. Graph 2, additionally, showcases greater differences between the average incomes, with higher levels of education. Note that the space between four and five or more years is almost double the gap between one and two years of post-secondary education. The greater incline of the lines for the average incomes of those with four and five or more years of post-secondary education express greater, positive, changes in annual income as

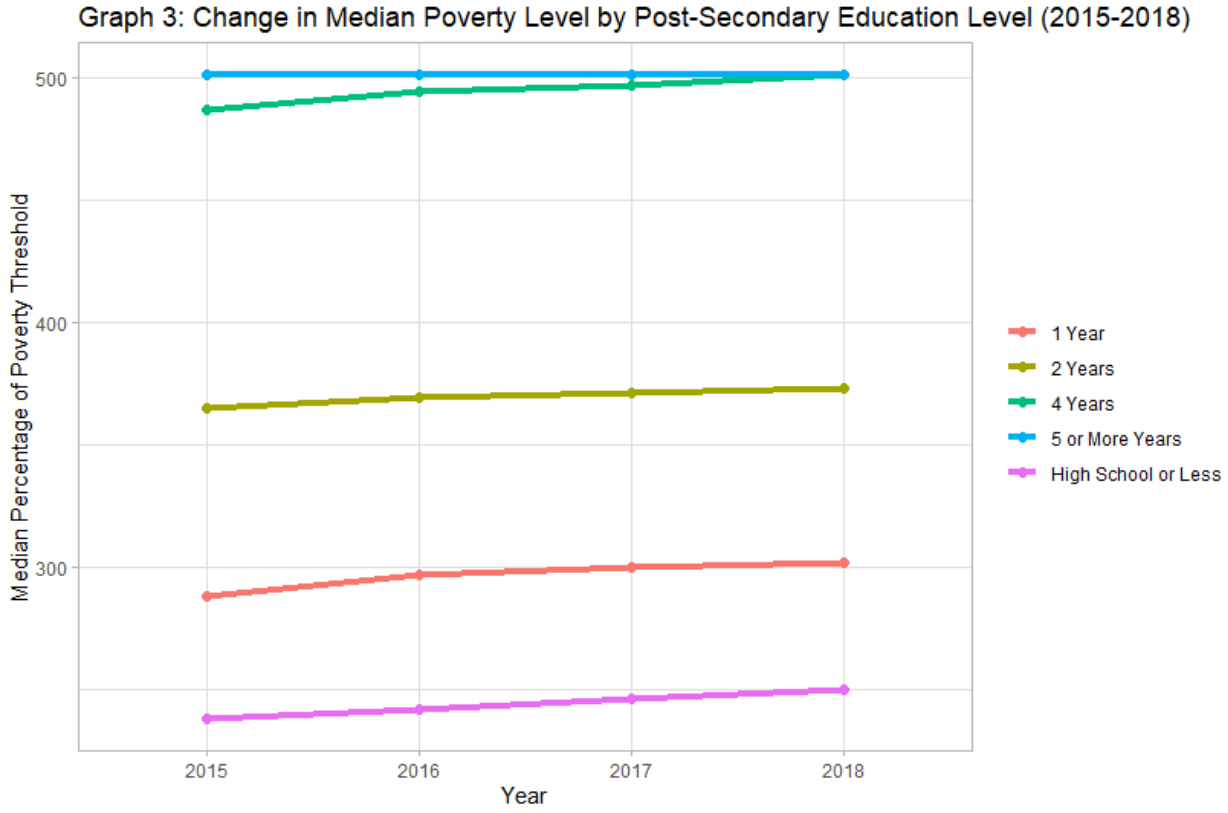
time passes. Thus, it can be seen that, not only do those with graduate and post-graduate education have higher average annual incomes, but future earnings for these groups also have a positive outlook, with average incomes steadily rising.



Similar to the differences in average yearly income, data from the national census describes that higher levels of post-secondary educational attainment lead to existing higher above the poverty threshold. Graph 3, below, features changes in median percentages of the poverty threshold, separated by educational attainment, over the four years of 2015 through 2018.

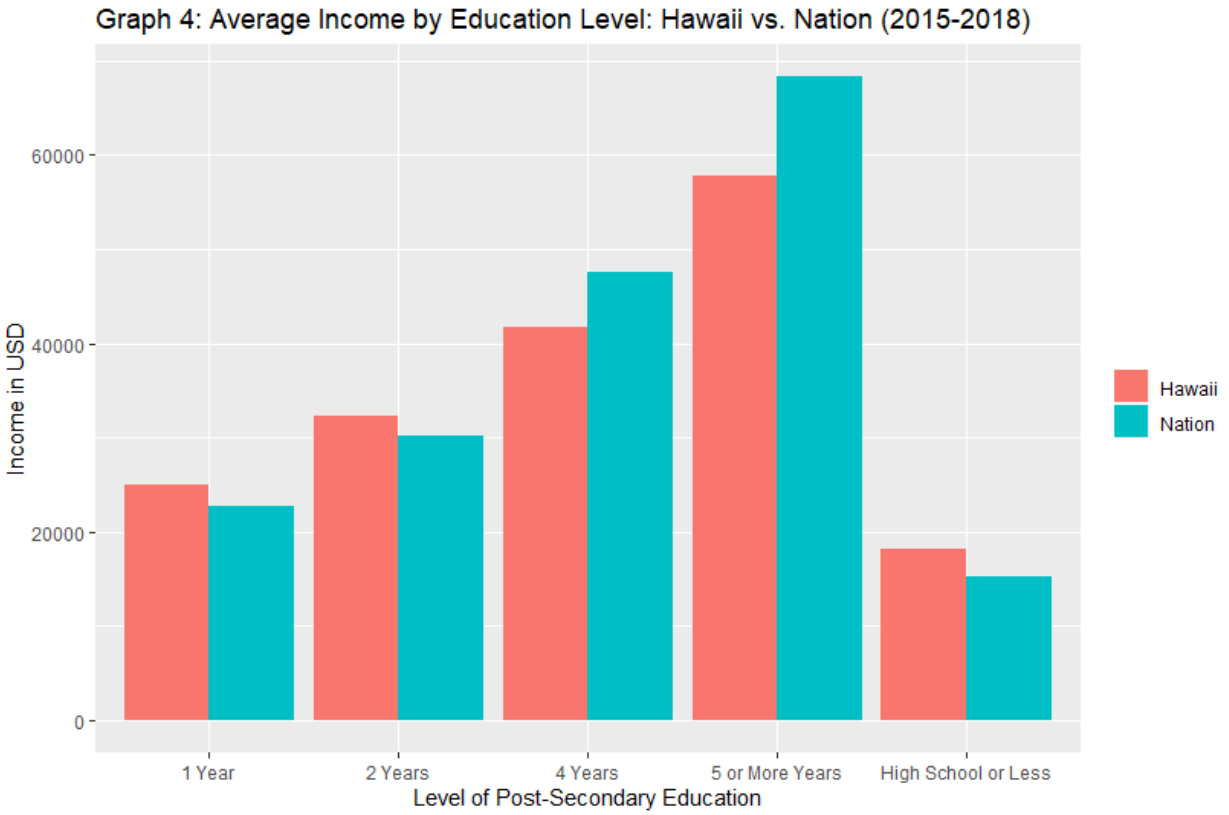
The percentage of the poverty threshold is found by dividing the individual's income by their corresponding poverty threshold and multiplying by 100 percentage. Note that those with incomes of 5 times or greater income than their poverty threshold were assigned 501, denoting

the plateau of line for the group with five years or more of post-secondary education. Looking at the other data on Graph 3, however, it can be seen that groups with higher levels of post-secondary attainment achieve incomes further from their poverty threshold. Additionally, the median percentages have increasing positive trends, showcasing that higher education equating to living higher above the poverty threshold is quite likely in the future.



On a local level, Graph 4, below, compares the average annual incomes by level of post-secondary educational attainment between Hawaii and at the nation level from 2015 through 2018. The red bars account for average incomes of Hawaii residents, while the blue bars account for the national averages. Corresponding with Graph 1's average annual incomes, it can be seen that greater levels of post-secondary education relate to higher average incomes, both at a national and state level. Additionally, those with high school degrees, or lower educational

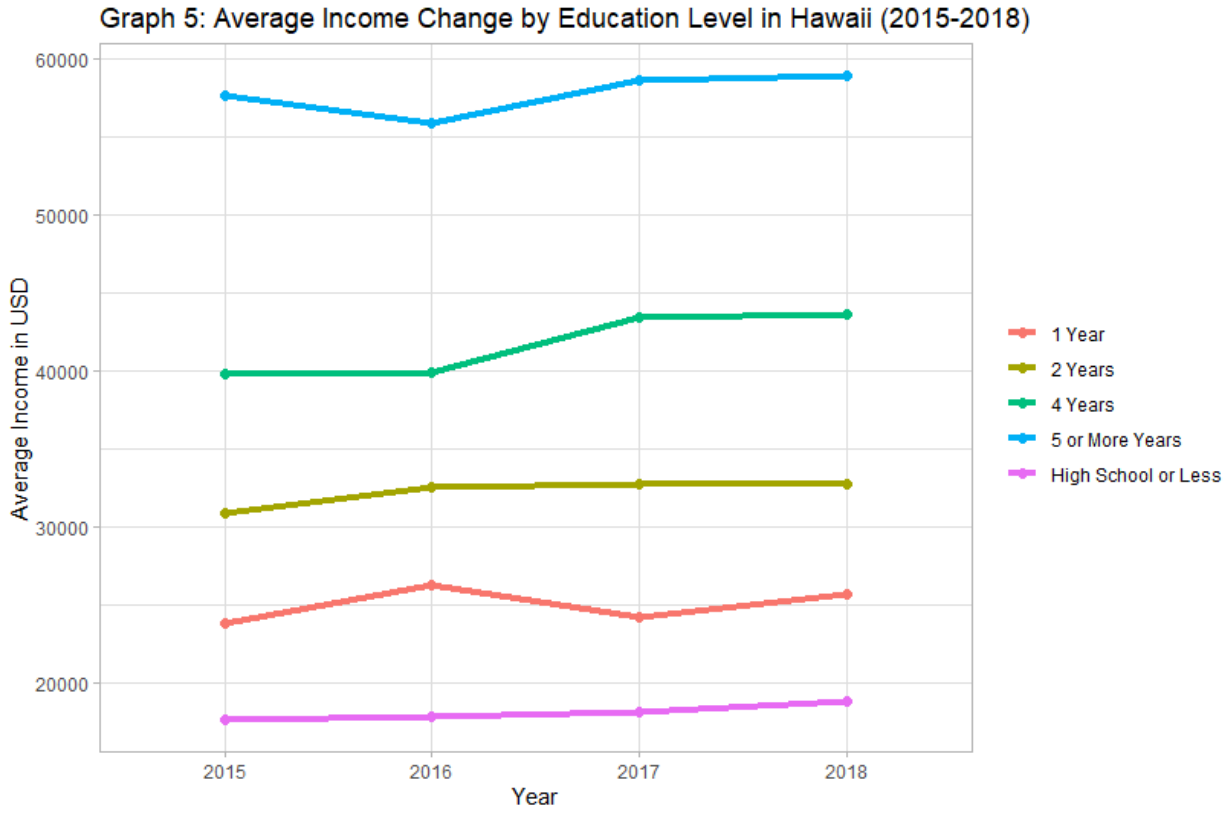
attainment, maintain the lowest average income.



Between Hawaii and the nation, however, differences in averages by post-secondary education are not as large. Where Hawaii residents with two years of post-secondary education average yearly incomes greater than the national average, Hawaii residents with four years of post-secondary education average incomes approximately $5,000 less than the national average. Likewise, average annual income for the five years or more of post-secondary education group is approximately $10,000 less than the national average. Graph 4, thus, reflects that positive trends seen at the national level between post-secondary educational attainment and average annual income are reflected at the state level, though to a lesser degree in Hawaii.

Graph 5, below, tracks the changes in average yearly income by level of post-secondary educational attainment of the period of 2015 through 2018, in the state of Hawaii. In the same

way that Graph 4 showcased Hawaii averages following national trends in Graph 1, the trends shown in Graph 5 are reflective of the trends described by Graph 2. However, for the groups with five or more years and one year of post-secondary education, the lines are not continuously increasing over the time period of the data displayed.



Across the four years, higher levels of post-secondary education correspond with higher average annual incomes. Generally speaking, the differences in earnings have a positive relationship with the years of post-secondary education. This strongly correlates Hawaii-level monetary benefits of higher education to the national benefits shown in Graph 2. However, Graph 5 depicts decreases in average income of approximately $4,000 for the group with five or more years of post-secondary education from 2015 to 2016. A drop of approximately $3,000 is also seen from 2016 to 2017, in the group with one year of post-secondary education. With other

educational attainment groups not seeing similar changes in average incomes in the same years, Graph 5 is unclear in describing why the changes occurred.

Unlike Graph 2, however, Graph 5 does not showcase increasing marginal changes in average incomes between years. With the exception of the one year of post-secondary educational attainment group, recent increases in average annual income from 2017 to 2018 appear to be less than $1,000. Coupled with the aforementioned decreases in other groups in 2015 to 2016 and 2017 to 2018, there is an unclear outlook for future average yearly incomes, at every level of post-secondary educational attainment in the state of Hawaii. Thus, Graph 5 expresses that statistics at the state level may vary from overall national data, giving variance in the degree of positive relationship and trend between income and higher education depending upon local economies and environments.

As seen throughout all five graphs, there is a significantly higher average yearly income for those with higher post-secondary educational attainment. Each additional year of post-secondary schooling leads to greater annual earnings, with high school graduates, or those with lesser education, averaging around $18,000 a year, while those with five or more years of post-secondary education averaging approximately $68,000. Even then, those with just four years of post-secondary education average close to $48,000 per a year, still a $30,000 difference between high-school graduates. On top of that, yearly earnings for all five educational attainment groups are shown to have steadily rising average incomes, across the nation, over the four-year span of 2015 through 2018. This supports a more positive outlook for national averages, making it quite likely for the positive relationship between post-secondary education and income to continue.

However, as mentioned with the analysis of Graph 4 and Graph 5, the relationship between post-secondary educational attainment and income, while still positive, may not be to as

great of a degree at state and local levels, as compared to that of the national level. While the state of Hawaii is shown to still relate higher average annual income with higher post-secondary attainment, it can be seen that those with one to two years of schooling, average more at the state level, while those with four or more years of post-secondary education average less at the state level, as compared to nation averages. Granted, however, averages can be heavily affected by outliers, which would be more common in the inclusion of the national versus Hawaii census data. Even then, the differences in yearly earnings are clear to see and post-secondary education relates to higher annual incomes.

So, does that make college worth it? Yes, if we solely take into account monetary earnings. When it comes to analyzing for the value and cost of college, there are countless variables and the mere subjectivity of interpreting possible pros and cons to college, make the question difficult to answer.

In a paper by Dr. David Card, the relationship between geographic locations and earnings is examined. Through surveys and statistics, Card analyzed how differences in an individual's or their primary and secondary school's proximity to local universities and colleges might affect earnings. Card concludes:

> College proximity has a larger impact on the schooling choices of men with poorer family backgrounds. Thus, an interaction of college proximity and low family background can be used as an instrumental variable for observed schooling even in earnings models that include a direct college proximity effect. […] While none of the instrumental variables estimates of the return to education is very precise, they all point toward relatively high returns to schooling for children of poorly-educated parents. (Card 26)

This analysis, while conclusive of post-secondary education positively relating to higher earnings, reflects that the degree of how much more post-secondary education gives in returns, is fairly dependent upon financial background. This then, also shows, that the worthiness of college extends past the consideration of monetary returns.

Regardless, it is clear, both in the data presented and the studies aforementioned, post-secondary education can be correlated to higher income and earnings of individuals. In addition to that relationship, the marginal earning between each additional year of post-secondary education is quite positive, as those with higher completion and degrees showcase higher incomes. Yet, in future and realistic considerations for the value of college, one must reflect on a variety of things, ranging from financial background, proximity to colleges, what college, careers, and the necessity of degree levels by career, along with the ever-changing society we live in.

Works Cited

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