



Educational Attainment

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Executive Summary

The highest level of education that a person has attained is referred to as educational attainment. It can be determined by the type of diploma or degree obtained, such as a high school diploma or a bachelor's degree, or by the total number of years spent in school. A person's level of education can be determined by looking at their educational attainment. It is crucial since a greater level of education is frequently linked to better employment prospects and increased earning potential. It is also an effective method for determining a population's general level of education, which is crucial for policymakers and educators. Simply said, educational attainment is a manner of expressing a person's level of education. It is important because it can affect their ability to succeed in the workforce and their overall quality of life.

A subject of great interest and significance is the link between income and education. Higher education is frequently linked to more income, better employment prospects, and better social and economic consequences. White people typically have higher levels of education than racial minorities, but there are also large gender and racial differences in educational achievement and wealth.

In this research, data on income and educational attainment for men and women in the US are analyzed. According to the findings, highly educated people tend to earn more money on average than less educated people, whether they be men or women. Men earn more than women at all educational levels, but there are also sizable gender inequalities in the link between education and income.

This report is a comparison between Ohio and rest of the nation in terms of educational attainment. It shows how education levels have changed from the year 2000 to 2019. In the report various factors were considered such as Race and Gender and detailed research was done considering how these factors affect education levels.

Methodology

The data for this project was collected from the IPUMS website. The data consisted of the following variables

YEAR	State Name	SEX	AGE	Race	Education	INCWAGE_CPIU_2010
2000	South Dakota	Male	54	White	High School	10637
2000	South Dakota	Female	47	White	1 year of college	6331
2000	North Dakota	Female	74	White	High School	0
2000	New York	Female	45	White	5+ years of college	108901
2000	Texas	Male	53	White	5+ years of college	58756
2000	Alabama	Male	67	White	High School	0
2000	Alabama	Female	64	White	High School	0
2000	Alabama	Male	22	White	1 year of college	1393
2000	North Carolina	Male	46	Asian or Pacific Islander	High School	0
2000	North Carolina	Male	16	Asian or Pacific Islander	High School	101
2000	Colorado	Male	48	White	1 year of college	22034
2000	Colorado	Female	49	White	High School	37989
2000	Idaho	Male	41	Other race, nec	High School	48119
2000	Idaho	Male	21	Other race, nec	1 year of college	1646
2000	Illinois	Female	25	Black/African American	High School	22793
2000	Illinois	Male	25	Black/African American	High School	101

The reason for selecting these variables were as follow, the variable YEAR was selected to Identify the year in which the survey

Figure1

was conducted, STATE to filter out the target State, which was Ohio for this project, RACE for identifying how each race is performing and for comparison across the races, AGE to filter out the age range required for this project, EDUCATION to find out the educational attainment of the participants, INCWAGE to find out the Pre-tax Salary and wages of the participants which was adjusted by CPI.

The next step was to clean and adjust the data for which I filtered out all the NA values from the education field and later adjusted it to contain only the values High School, 1 year of college, 2 years of college, 4 years of college and 5+ years of college which was being used for the project. Later I filtered out the races to only show the following races: American Indian or Alaska Native, Asian or Pacific Islander, Black/African American, White.

Change in Education Levels

There are several factors that can affect an individual's educational attainment one of which is economy. If a state is doing economically good more of its population will be motivated to pursue higher level of education as there will be more job opportunities and getting a higher degree can increase an individual's potential for higher earnings. On the other hand, if there are economic crises individuals would prefer working rather than going for higher education.

The below graphs show how the education levels have changed from the year 2000 to 2019 in Ohio compared to nation.

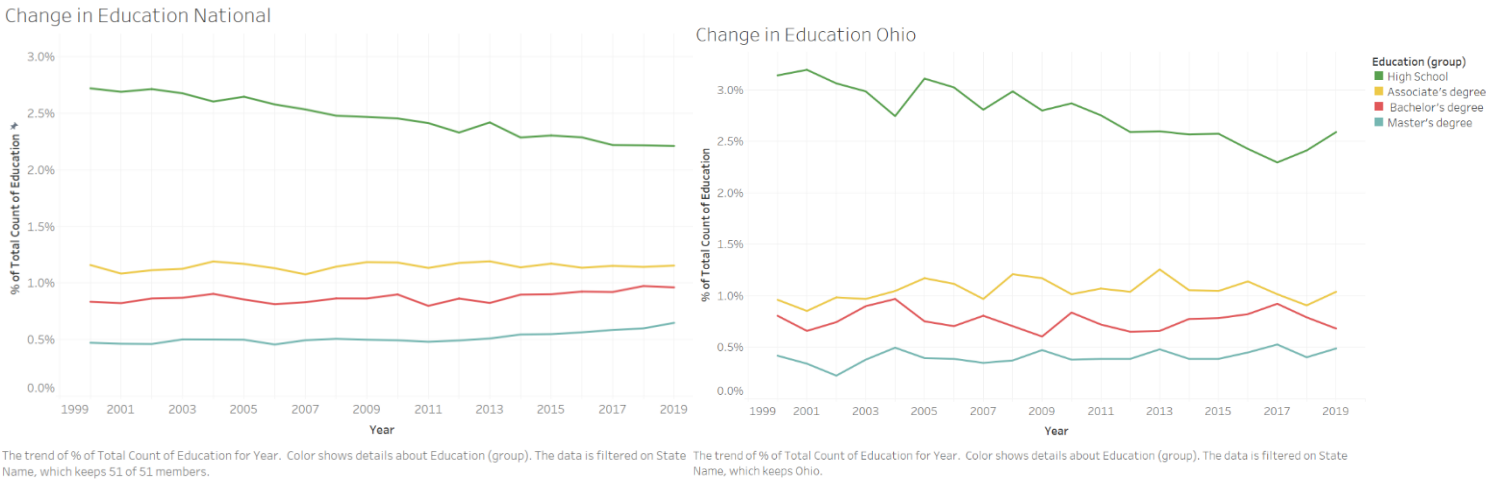


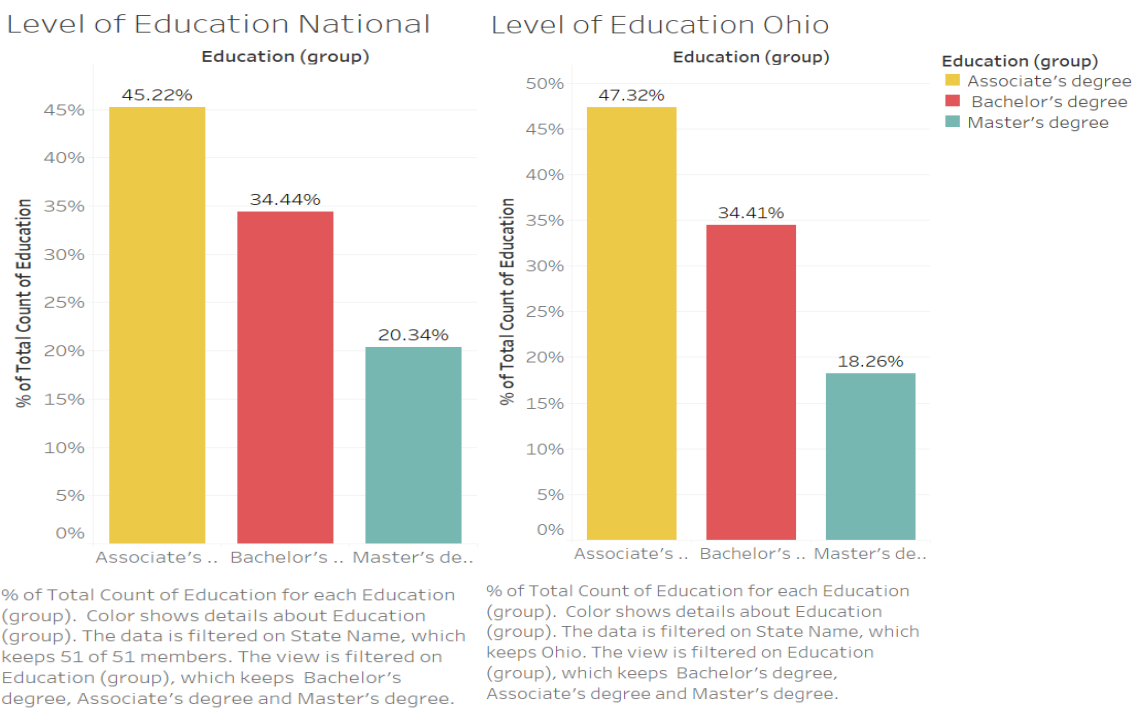
Figure 2

There might be numerous reasons why we can see an increase in more population getting higher education, one of which would have been better job opportunities that require higher level of education other reason in increase might be that education has become more accessible via things like distance learning and online education.

Differences in level of education

There are several factors that affect the difference in education levels from state to state, there are factors that influence educational attainment of an individual like funding for education where the government emphasises on education and provide scholarships to students with financial hardships or by creating programs for specific skills which are in high demand in the job markets. The other factor is access to education which might be a case for students with low financial background where they cannot continue education and have to work, or they might not have support at home. Access to education might be another reason where individuals have limited means of transportation or inadequate schools etc.

The below graphs show a comparison of the education levels in Ohio compared to nation.



The graphs show an average of individuals educational attainment from the year 2000 and 2019.

Figure 3

Ohio’s average number of individuals with an associate degree is higher in comparison to the national average, Average individuals with a bachelor’s degree in Ohio was almost similar to that of the National average. However, the average number of individuals with a master’s degree was comparatively low in Ohio compared to the national average.

Differences in level of education based on race

The graph below demonstrates that students of certain racial backgrounds might have difficulties pursuing higher education due financial problems where they can’t afford it since the cost of getting higher education is more.

The below graphs show a comparison of the education levels based on race.

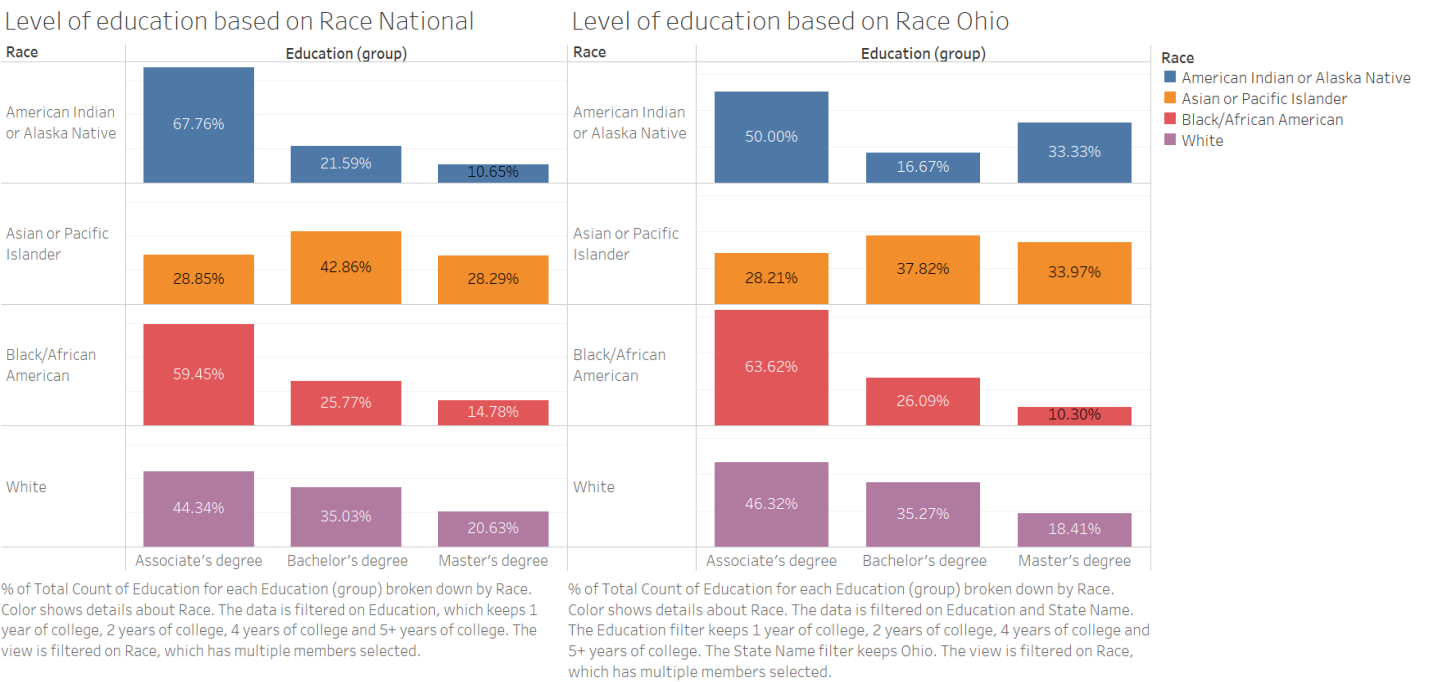


Figure 4

According to graphs there is a significant difference in graduation rates among different racial and ethnic groups. The associate degree graduation rate in Ohio for white students was 46.32%, while the graduation rate for black students was 63.62% which was comparatively higher than national average. Similarly, the graduation rate in master’s degree for American Indian which was 33.33% and Asians which was 33.97% were much higher compared to that of the national average. Overall, these statistics suggest that there are significant disparities in educational attainment among different racial and ethnic groups in the United States.

Income by educational attainment

There is a strong relationship between higher education and higher income. In general individuals with higher educational attainment seem to earn more money compared to individuals with lower level of education. The basic reason behind it is that higher education teaches an individual advanced skills that can lead them to get a better paying job, other than that individuals with higher education have more job opportunities as compared to individuals with lower levels of education.

The below graphs show Income based on the individual's education levels

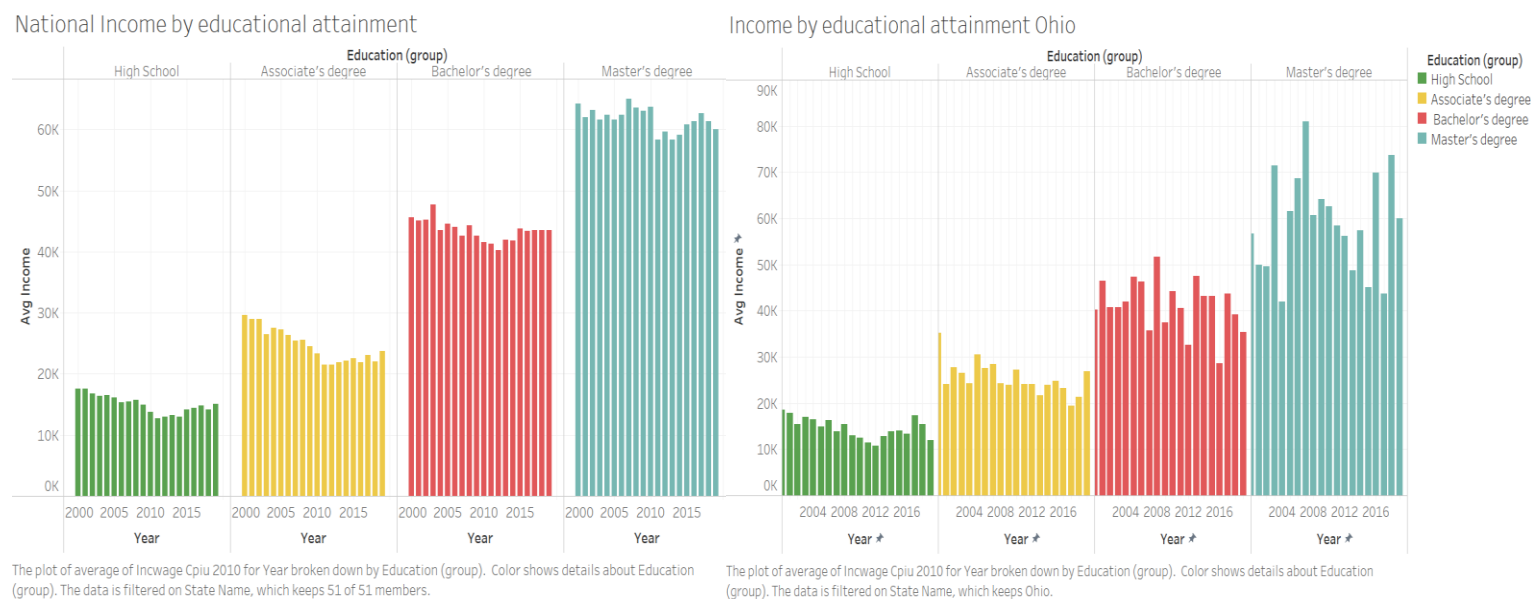


Figure 5

It can be seen in the graphs above that the average income for people just with high school equivalency is the lowest and people with master's degree have the highest average income indicating that income changes based on an individual's education levels. The higher the education level the higher the average income.

Income by education and Gender

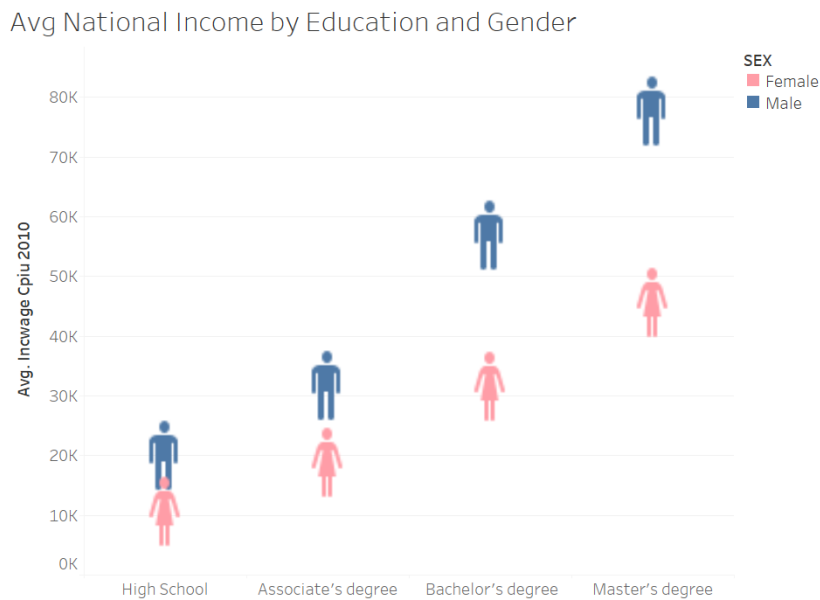


Figure 6

It can be observed that even when both men and women have the same degree of education, men tend to earn more than women.

Summary

Higher level of education is an important factor that determines an individual's earnings. Individuals having higher level of education seem to have advanced skills than those with lower level of education and get better job opportunities. The higher level of education also helps the society since individuals with higher education more likely to be productive members of society and contribute to the overall well-being of their communities. Overall education is an important factor that determines an individual's overall success and well-being.

References: https://en.wikipedia.org/wiki/Educational_attainment

<https://usa.ipums.org/usa/>

There is a strong relationship between education and income for both men and women. In general, both men and women with higher levels of education tend to earn more money than those with lower levels of education.

The graphs show Income based on the individual's gender and education levels.