



Educational Attainment Inequality in Indonesia

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Abstract. This study aimed to analyze how higher education students' backgrounds can lead to inequality in terms of educational attainment. We employed Chi-Square analysis on 127 respondents gathered from an online survey questionnaire completed by undergraduate students. The finding suggests that inequality did exist. From the perspective of high school origin (vocational high school compared to traditional high school), there is a significant difference between the two, with the number of students coming from traditional high schools more than vocational high schools. Furthermore, inequality also did exist from the perspective of socioeconomic status (SES). The result suggests that there is a significant difference between the number of students from low, medium, and high SES. We recommend decision makers, both from the government and university levels, to make new policies that can help unprivileged groups so that educational attainment gaps can be reduced, if not eliminated.

Keywords: Socioeconomic status · educational attainment · inequality · Indonesia

1 Introduction

Despite efforts to broaden educational inclusiveness, however, social differences in post-secondary education still remain [1]. In Indonesia, when a student finishes their education at the Junior High School level, they will be faced with two big choices: continuing their education at Senior High School (known as SMU in Indonesia) or Vocational High School (known as SMK in Indonesia). The most striking difference between graduates from SMK and SMU is the stream after they finish or finish their education. SMK graduates are considered to have skills that can help them find jobs in the labor market more quickly, while high school graduates are limited in preparation to continue their education at a higher level. Nevertheless, unfortunately, since 2019, the most significant contributor to Indonesia's unemployment rate has come from SMK, and the percentage continued to increase in 2020. The decline occurred in 2021, but this decline was caused by a decrease in the aggregate unemployment rate, which also decreased so that the graduates of Vocational High School still contributed the highest unemployment rate [2] (Fig. 1).

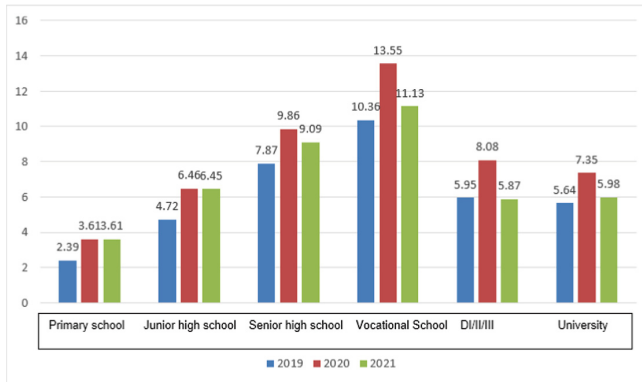


Fig. 1. Indonesia's unemployment rate by level of education

Compared to SMK and SMU, the unemployment rate for university graduates is much lower, be it in 2019, 2020, or 2021. This is not surprising because this phenomenon is in line with what is known as the human-capital theory and signaling theory. From the point of view of human-capital theory, a person can invest in himself, and the most common self-investment to do is through education. At a more advanced stage, this will impact the signaling they give to employers, that they are considered more capable or have higher competence than others because they have a higher degree, so it will be easier to get a job [3].

This is undoubtedly ironic, where the labor market highly values academic degrees, while educational attainment is primarily determined by the type of high school they choose. However, this problem is very structural because inequality arises from the essential factors in a person and is difficult to overcome solely through hard work or grit, a terminology popularized by Duckworth [4]. Most of the time, universities and the state do not pay attention to this situation, when in fact it is the duty of the state and educational institutions to provide inclusive educational opportunities.

Based on the literature review and the phenomena that have been carried out, this study will fill the gap by examining the opportunities for obtaining higher education based on the educational background before entering university. In addition, as far as the author's research is concerned, until now, there has not been any similar research conducted to investigate this in Indonesia.

2 Method

Data collection will use an electronic questionnaire. In addition to efficiency considerations, this is also due to lectures that have not fully implemented face-to-face learning, so that data collection through paper-based is difficult to do.

Because this study aims to see whether there is a difference in the educational attainment of students seen from the educational background of senior high school (SMU versus SMK), the data analysis technique used is chi-square [5–7]. Chi-square is used to see whether or not a data is significant to the expected data; in this case it is the mean in the group, [5–7], where it is in accordance with the purpose of this research.

3 Result

The sample of this study amounted to 127 people who were undergraduate students of the Faculty of Economics, State University of Medan. From the type of high school they chose before entering the undergraduate level, it was found that the sample from high school was much more than vocational school, with the percentage from high school being 77.2% and 22.8% from the vocational school (Table 1).

A chi-square statistical test was performed to determine whether there is a significant difference in the number between groups from high school and vocational school. The research question that is attempted to be answered in this study is whether there is an educational attainment gap in the student's school origin (SMA or SMK). Table 2 shows that based on the sample studied, the number of observed data for the high school group is 98, with the expected data being 63.5. Thus, the residual in the high school group is 34.5. Furthermore, for the SMK group, the number of observed data is 29, whereas the expected data in this group is 63.5. Thus, the residual is -34.5. To see whether or not the actual difference between the data and the mean is significant, it is necessary to look at Table 3. Table 3 shows that for the SMA type, the value of $\chi^2 = 37.488$, $p = 0.000$. This indicates that there is a significant difference in the amount of data in the SMK and SMU groups.

Table 1. Sample number

Jenis SMU	n	Persentase
SMU	98	77.2
SMK	29	22.8
Total	127	100

Table 2. Expected Value

	Observed N	Expected N	Residual
SMU	98	63.5	34.5
SMK	29	63.5	-34.5
Total	127		

Table 3. Result of Chi-Square Analysis

	Type of Senior High School
Chi-Square	37.488 ^b
df	1
Asymp. Sig.	0.000

4 Conclusion

This study seeks to answer the extent of the educational attainment gap based on their high school education (SMU or SMK). The results showed that the educational attainment gap in the Faculty of Economics, State University of Medan, is real. The chi-square analysis results show a significant difference in the number of those from high school and vocational school. Based on sample data, students from the Faculty of Economics who come from high school far exceed students who used to be in vocational school.

On that basis, of course, there is a need for intervention for policymakers to be able to overcome the gap in university entry opportunities caused by high school origin. In terms of preventing the educational attainment gap caused by high school origin, it is necessary to change the policy on student recruitment. With the realization of the gap caused by the origin of high school, there should be a separation of entry routes between high school and vocational school. Alternatively, there are differences in the entrance test questions for prospective students from SMK. Because so far, the selection test questions for vocational and high school students are the same. How can SMK students have the same opportunities if, from the beginning, the subjects taught to focus on their respective majors? It is true that SMK is intended to work immediately after they finish school. However, in the introduction to this research report, empirical data has shown that the contributor to the unemployment rate from SMK is the largest. So the urgency to continue higher education is important to overcome this. Furthermore, equality in the opportunity to enter higher education is important because higher education is one of the keys to overcoming unemployment and poverty, especially in developing countries such as Indonesia [8, 9].

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