



Evaluating. the impact of government financial support on student outcomes in selected public universities in Nkhotakota District , Malawi.

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ABSTRACT :

Government financial aid to students in public universities enables economically disadvantaged students to pursue high quality university education. This study is aimed at assessing the importance of financial aid by estimating and comparing completion rates between students on financial aid from non-recipients of financial aid. In this cross-sectional study, students on financial aid were matched by a control group of non-recipients of financial aid group. Continuous data were summarized using means and standard deviations with mean differences assessed using the independent samples t-test. Categorical data were summarized using counts and percentages and associations between categorical variables were established from the Chi-square test of association. The study included 60 students of which 50% were on financial aid and the rest were not on financial aid. The completion rate between the two groups of students was estimated at 90% and 70% respectively. All female students who received financial aid completed their studies on time compared to 80% of the male students who were also on financial aid. 93.3% of the students on financial aid taking bachelor's degrees completed their studies within the stipulated time frame compared to 86.7% of the master's degree students. Financial aid to students in public universities is a government investment tool for reducing access to higher education among students from low-income families, income inequality and enhance social equality. However, it should be adjusted for inflation and increased to match the financial needs of the students if a completion rate of 100% is to be achieved.

Key words: Financial aid, cross-sectional study, student performance in higher education; class attendance.

Background :

State owned public universities are institutes of higher learning that are owned and financed by the state. They contribute to the enhancement of in-depth knowledge, development of skills and innovative ideas necessary for development, training of experts needed in industry and research. Sijde et.al. (2012) suggested that the main role of institutes of higher learning are teaching, learning, research, consultancy and services to the society.

To ensure equal and affordable access to quality higher education, the government of Malawi introduced limited financial aid schemes aimed at students from low-income families. The financial aid has a direct impact on student enrolment from poor families, retention and completion rates of the desired degree programs and post-graduate success. It is believed that students receiving State's financial aid are more likely to persist and graduate from their institutions and are more likely to graduate on time. These effects are particularly impactful for low-income students. Furthermore, financial aid enables economically disadvantaged students to pursue high quality university education, thereby achieving upward social mobility. This is a crucial investment by the government in promoting the State's economy and providing residents with a better life.

We postulate that financial aid is positively related to college performance. This postulate is driven by two aspects. First, students who receive financial aid are more likely to have higher class attendance because of their utmost gratitude to the State and their desire to be part of the university they are attending. Second, financial aid recipients devote most of their time on studies unlike some non-financial aid recipients who may be forced to engage in economic activities to pay for their tuition fees and meet other academic expenses. This means that the financial aid they get from the government helps them to be less anxious about how to finance their university education and be more focused on their studies. This is supported by scholars such as Bean & Metzner, 1985; Cabrera, et al., 1990 who suggested that financial aid can lower anxiety, leaving students to devote more time and energy to academic pursuits and therefore achieving more academic integration.

In many cases, financial aid is given to economically needy students who also have strong academic records. These are merit-based-aided students. Tinto (1975) argued that merit-based aid recipients are more motivated and prepared to perform better academically and to be more integrated academically. In addition, as suggested by Richardson et al., 2012; Schneider & Preckel, 2017, due to their past academic success, merit-based aid recipients perceive they are more academically capable and performant, which have been found to be positively related to college performance.

PROBLEM STATEMENT

Cabrera et al., 1992; Allen, 1999; Kuh et al., 2008; Goldrick-Rab et al., 2016; Bettinger et al., 2019 have all discussed the impact of financial aid on academic outcomes such as attendance to college, persistence in college, grade completion, or student dropout. Slater (2009) and Kuh et al., 2008 have

examined the effect of financial aid on students' grades. According to Slater (2009), grades are very important as they are strong predictors of college persistence and completion. However, there is little evidence on the impact of financial aid in Malawian public universities in terms of completion rate. This paper is an attempt to fill this gap in the literature by researching the impact of financial aid on students' completion rate.

LITERATURE REVIEW :

The current surge in demand of higher education (HE) in developing countries like Malawi is necessitated by a strong desire to acquire the necessary knowledge and master skills. The higher education degree or diploma is the credential that employers look to as a signal of the skills and knowledge needed when hiring productive employees (Spence, 1973). This reliance on degrees of higher education is not only common in developed economies but also in developing economies. However, the increase in demand of higher education is also associated with higher costs, which most families from developing countries find it hard to meet. Johnstone and Marcucci (2010) argued that it is ever more critical to consider the costs associated with the expansion and delivery of higher education required to meet the demand. Indeed, despite large increases in demand of higher education over the past several decades in Malawi, university attendance of potential students from low-income families continue to lag behind their counterparts from middle- and upper-income families. Ellwood & Kane (2000) argued that low-income students have a lower probability of enrolment than do more affluent students, even after controlling for academic achievement. This means that there are pronounced differences in degree attainment by social economic status. One primary reason for this difference, which we have already alluded to is lack of university affordability by student from low-income families. According to the Advisory Committee on Student Financial Assistance (ACSFA, 2010), the cost of college has risen at a much faster rate than have median family wages, meaning that tuition as a share of family income has steadily increased.

Students from low income backgrounds benefit the most from financial support (Brown 2021)

Methodology :

Study design, sample size and data collection

In this cross-sectional study, data were collected from 30 university students who received financial aid from the Malawian government. We also collected data from 30 non-recipients of financial aid students. The 30 non-recipients of financial aid acted as the control group. We attempted to match the control group with the 30 students who received financial aid in terms of gender, the degree program they were pursuing and the year in which they received the financial aid. The primary outcome was a binary variable coded as 0 if the student failed to complete the degree within the stipulated time frame and 1 if the student completed the degree program on time. The data were collected in Microsoft excel and exported to StataSE 18 for further analysis.

Other variables

The findings from this study would have been adjusted for unforeseen circumstances such as illness. Fortunately, there were no unforeseen circumstances that we observed.

Statistical analysis

Descriptive statistics in the form of means and standard deviations (SDs) were used to summarize continuous variables. Mean differences between the groups were assessed using the independent samples T-test. Categorical data were summarized using frequencies (counts) and percentages (%). Associations between categorical variables were established from the Chi-square test of association. All analyses were performed in StataSE (StataCorp. 2023) and the significance level was set at 5%.

Results :

Sample characteristics

Table 1 shows the demographic characteristics of the 60 students who participated in this study. The students on financial aid were significantly younger with a mean age of 31.3 years compared to students who did not receive financial aid who had a mean age of 42.5 years, ($P = 0.032$). There was an equal distribution of students on financial aid by gender with 15 (50%) of the student being female and the rest being male. Of the students who were not on financial aid, 40% were females and 60% were males.

Table 1. Demographic characteristics of the study participants (N = 60)

	Received financial aid (n = 30)	Did not receive financial aid (n = 30)	P-value
Age in years (mean ± SD)	31.3 ± 4.2	42.5 ± 3.6	0.032
Gender: n (%)			1.00
Female	15 (50.0)	12 (40.0)	
Male	15 (50.0)	18 (60.0)	

The role of financial aid on degree completion rate

Table 2 shows the distribution of completion rate of bachelor's and master's degrees among the students on financial aid and among non-recipients of financial aid. The results showed that the completion rate of degrees in the group of students on financial aid was significantly higher at 90% compared to non-recipients of financial aid group who had a completion rate of 70%, $P = 0.045$. All 15 female students on financial aid completed their degrees on time whereas 80% of the male students on financial aid completed their degrees on schedule. Nine of the 15 female students who were not on aid completed their degrees on time compared to 12 of the 15 male students who were not on financial aid.

The completion rate of 100% among the female students on financial aid was significantly higher compared to non-recipients of financial aid females whose completion rate was 60%, ($P = 0.01$). Male students on financial aid had a completion rate (80%) that was similar to the completion rate of males who were not financial aid.

Fourteen of the 15 bachelor's degree students on financial aid completed their degrees on schedule compared to all 15 bachelor students not on financial aid. However, the completion rate of 86.7% among master's degree students on financial aid was significantly higher than the completion rate of 40% of non-recipient of financial aid master's degree students, $P = 0.01$. These findings are presented in Figure 1.

Table 2. Distribution of the completion rate stratified by financial aid

	Received financial aid (n = 30)	Did not receive financial aid (n = 30)	P-value
Performance			
Overall graduation rate (%)	90	70	0.045
Graduation rate by gender (%)			
Female	100.0	60.0	0.01
Male	80.0	80.0	1.00
Number of degrees produced			
Bachelor's (n = 15)	14 (93.3)	15 (100)	0.31
Master's (n = 15)	13 (86.7)	6 (40.0)	0.01
Not yet completed	3 (10.0)	9 (23.1)	0.01

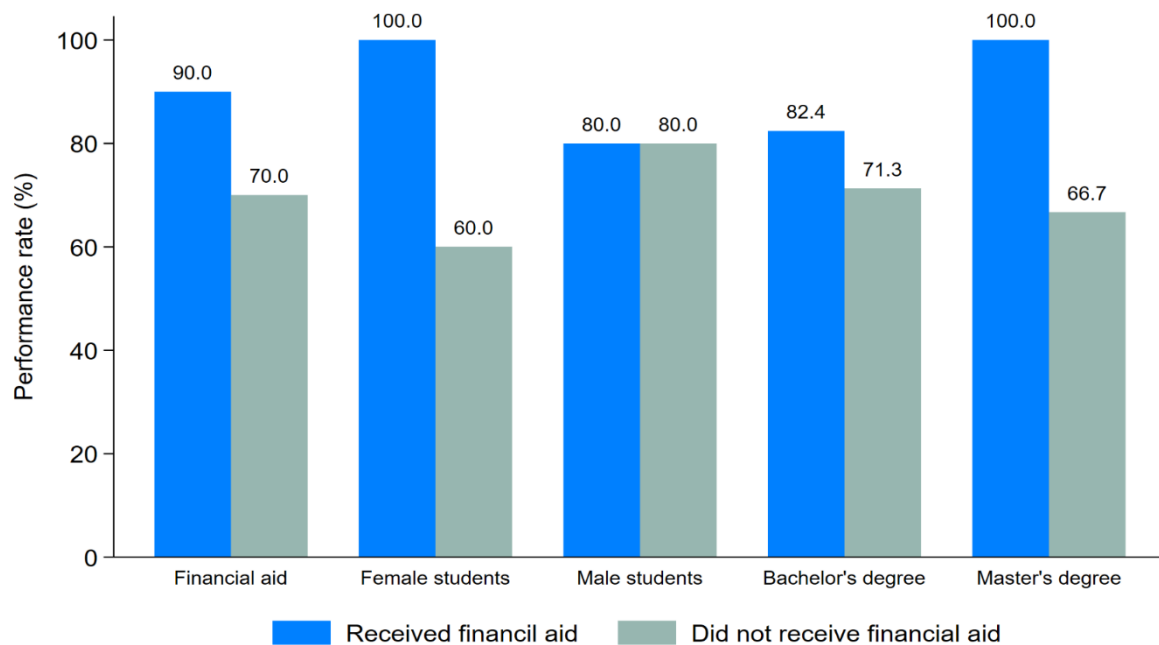


Figure 1. Completion rate of degrees stratified by financial aid

Discussion :

In this study, we have looked at the importance of financial aid on the performance of university students by evaluating the rate of completion of the degree programs they were taking. Our findings showed a significantly higher overall completion rate of 90% among the students on financial aid compared to a completion rate of 70% among non-recipients of financial aid. This result confirms findings from previous studies that showed a significant positive relationship between financial aid and student performance (Kuh et al., 2008; Cabrera et al., 1992; Allen, 1999).

As we have already alluded to, students on financial aid are motivated by the financial aid they receive to excel in their studies. They also stand a better chance of getting more financial aid should they consider pursuing further higher education studies. Furthermore, students on financial aid are gratuitous to the State, hence are motivated to work hard in pursuance of academic excellence. We have also argued before that students on financial aid are less anxious about tuition fee and academic expenses, which are covered by the State, hence they have more time for studying and passing their exams. One may also argue that all the student on financial aid in Malawi are from low-income families hence the level of commitment to the institution, the state and to themselves is exceptionally high. They are driven by the desire to move up the social ladder from their poverty stricken past by excelling in their studies. Schneider & Preckel (2017) have suggested that class attendance and performance is higher among students on financial aid because these students do not need to find alternative sources of income.

Yet another finding in this study is that the recipients of financial aid are on average significantly younger than those not on financial aid. This can be explained by the fact that non-recipients of aid have been in the work force for years before they decide to pursue further studies and are therefore in better financial position than the younger group of recipients of financial aid. Another interesting finding from this study is that the completion rate of female students on financial aid was 100% compared to completion rate of 80% among male students on financial aid. It is possible that this is due to two possible reasons. First, female students are more likely to study degree programs that are less demanding like teaching compared to male students who may decide on natural sciences and engineering. Second, in addition to taking care of their needs, most male students are already bread winners in their respective families. Therefore, they tend to supplement the financial aid they get from the government with income from part-time jobs.

Strength and limitations :

One of the major strengths of this study is that it had a matched control group, which helped to assess the importance of financial aid. We managed to collect data both from student taking bachelor's and master's degree programs. In statistics, a sample of size of > 30 is considered large enough to run descriptive analysis, which was the focal point in our findings. Hence the study was adequately powered. However, the study had a number of limitations. Although the sample size of the study may be regarded as enough, it is nevertheless not large enough to do inferential statistics like binary logistic regression analysis. This means that we were not able to control for confounding in our estimates, hence the findings from this study can not be generalized to the wider population.

Further, we did not collect study data on specific degree programs. This could help in evaluating the impact of financial aid in different fields of study. Yet another limitation of this study is that we were not able to collect data of the amount of financial aid given to these students and whether the students were engaged in the economic sector to supplement their financial aid. Other important variables missing include marital status, number of dependencies including their own children residency. These variables are important in understanding whether the financial aid adequately meets their expectations of studying without being anxious.

Conclusions :

This paper makes important contribution to the understanding of the role and importance of financial aid to students as a tool for reducing income inequality and enhance social equality. In order to renew their financial aid each academic year, students on financial aid are incentivized to be efficient and perform well by attending classes, getting good grades and completing their studies within the stipulated time frame. However, the cost of living has increased over the years since the pandemic while the financial aid has not matched the level of inflation. Despite the financial aid, most students are supplementing their financial aid with income from part-time jobs. In the long run, this may have a detrimental effect on class attending, hence completion rate may be negatively impacted.

Declaration :***Acknowledgements***

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Ethics approval and consent to participate

The study protocol received ethical approval from the National Committee on Research in the Social Sciences and Humanities. Participation was based on written consent.

Consent for publication

Not applicable

Author's contribution

The author, Lucy G. Mdala initiated and designed the study. The author also performed the statistical analysis and prepared the tables and figures.

Availability of data and materials

Due to ethical restrictions and confidentiality of the participants, not all data can be made publicly available. However, data are available upon request directly from the author Lucy G. Mdala (lucymdala2@gmail.com)

Declaration of conflicting interests

The authors declare that there is no conflict of interest.

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