



AN IMPACT EVALUATION OF GOVERNMENT SCHOLARSHIPS ON STUDENTS SUCCESS: A CASE STUDY OF UNIVERSITY OF TURBAT

Riaz Ahmed, Adeel Ahmed, Waseem Barkat & Rehmat Ullah

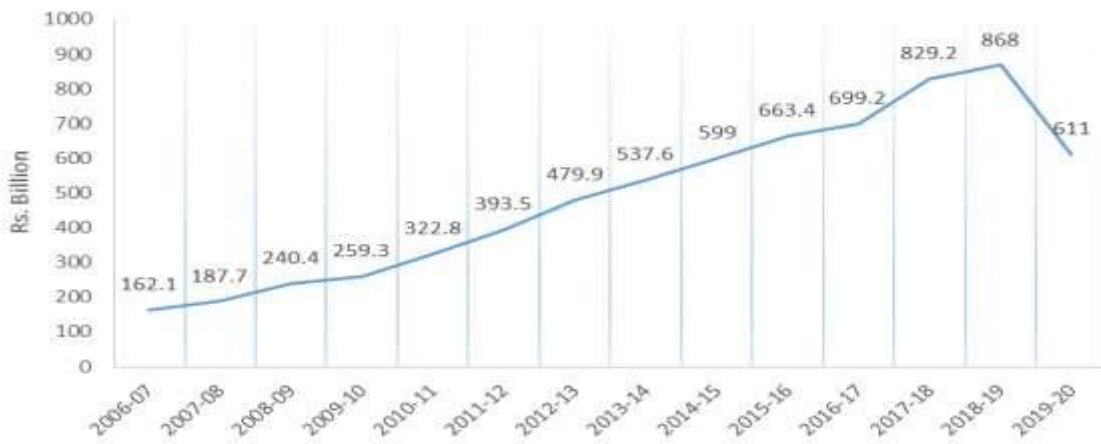
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INTRODUCTION

In a global context the significance of scholarships is profoundly acknowledged across all levels of education. Specifically, in the year 2015 it got more importance when the United Nation Sustainable Development Goals (SDGs) emphasized the inclusion of scholarship programs as a tool for achieving its goals. The research has also identified scholarships as significant instruments for the nation's development and growth. In this connection, under SDGs, Goal 4, 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all', some global targets were set by representatives of the global education community, including to ensure equal access of affordable and quality higher education to all genders, persons with disabilities, and indigenous peoples (targets 4.3-4.5) (UNESCO Institute for Statistics (UIS), 2019).

The situation of higher education in Pakistan is not adequate compared to its neighboring countries. The chance of getting higher education in Pakistan is only 4% of people which is much lower than in India and China – 11% and 20% respectively (Nasreen & Afzal, 2020). One of the major reasons for this poor condition of higher education in Pakistan is due to low level government attention on education spending. The government spending on education for the last two decades remained only around 2% of GDP (Ali, Hakim, & Abdullah, 2016). Though it has been increased to 2.9 percent in 2017 (Hunter, 2020), that was much lower than the target of 4 percent of the GDP. Recently the government further reduced expenditure on education from Rs. 868 billion (2018-19) to Rs. 611 billion (2019-20), almost a 30 percent reduction in education expenditure (see Figure 1).

Figure 1: Expenditure on Education

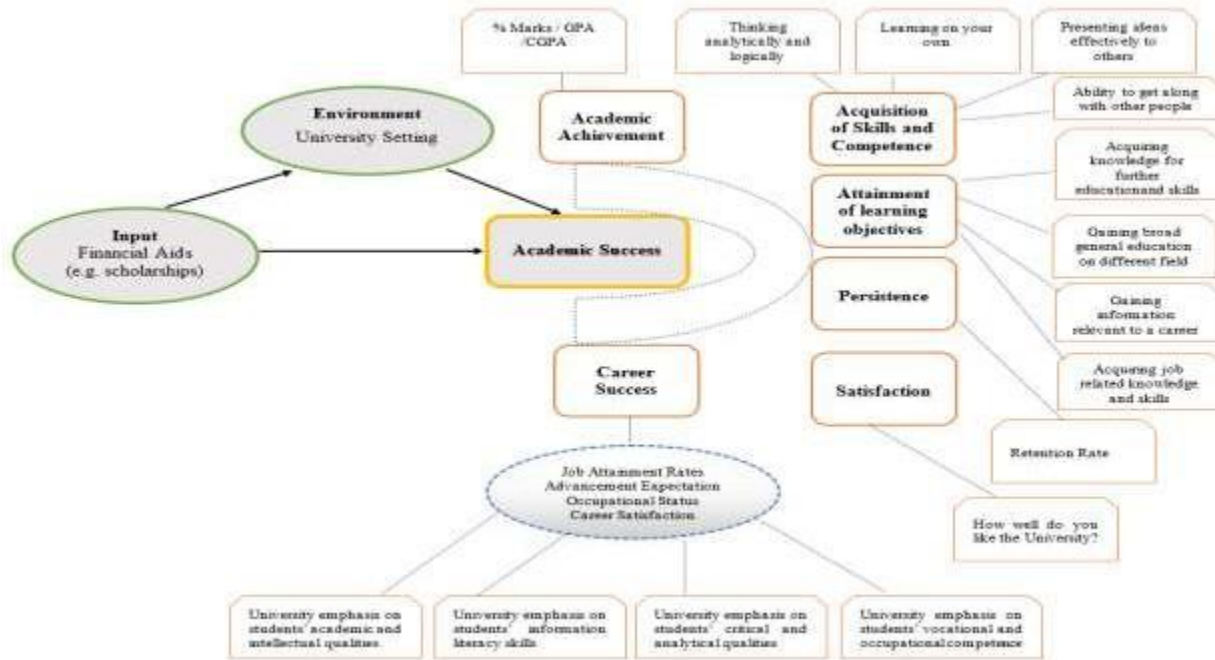


Source: Economic survey of Pakistan (various issues)

This study examined the short to medium term impact of government sponsored scholarships on undergrad students’ academic performance and other success outcomes by taking University of Turbat as a case study. Using the Astin’s Input-Environment-Outcome (I-E-O) Model (Astin. 1991) in which the outcomes of higher education are conditioned to inputs and environment, this study took financial aids to students as another input for students’ academic success (see Figure 2). The students succeed academically better than others in a university setting if they get financial support by the government. Because such students do less part time jobs and concentrate more on their academic activities. In this study academic success includes academic achievement as well as other success outcomes such as acquisition of skills and competences, attainment of learning objectives, persistence, and retention and career success.

This study found a positive impact of need based scholarship on male students’ success outcomes including academic achievement, retention, engagement and satisfaction, acquisition of skills and competences, and career success. However, this study did not find any evidence on the impact of merit based scholarships on students’ academic performances.

Figure 2: Conceptual Framework for Impact of Financial Aids on Students’ Academic Success



METHODOLOGY

This study tries to investigate the short to medium term impact of government sponsored scholarships on undergrad students’ academic performance and other success outcomes. Taking advantage of recent initiatives by the government of Pakistan at both federal and provincial level for introducing several undergrad scholarship programs which provides us a quasi-natural experimental research design. The study utilized a difference-in-differences (DID) approach to estimate the impact of scholarships on students’ academic and success outcomes. Using University of Turbat (UoT) as a case study, we compared academic performance outcomes – Percentage marks, GPA, or CGPA – of students who held scholarships with academic performance outcomes of those in the same sessions, departments and degree programs without having scholarships before, during and after the awards.

This study used a triangulation of mixed method for data collection and analysis purpose. This study used a wide range of secondary quantitative data (e.g. students’ academic performance measured by student’ marks in percentage GPA and CGPA; students’ retention rates, and students’ percentage marks in matric and intermediate levels) along with data from a self-monitored survey conducted at UoT.

In addition to that, the scope of this study was extended to the areas of need assessment, programs’



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monitoring and process evaluation, budget constraints, barriers for implementation, delays in payments, knowledge and information dissemination, data recording, maintaining and updating etc. That's because institutional context factors such as institutional failure in managing the process of scholarship can distort the overall discussion of governance issue. The required data for this analysis were extracted from key informant interviews (KIIs), focused group discussion (FGDs) and policy documents from five public sector universities of Balochistan (UOT, UOB, BUIITEMS, SBKWU, and UOL) as well as from the scholarship monitoring bodies (Higher Education Commission of Pakistan (HEC) and Balochistan Educational Endowment Fund (BEEF).

FINDINGS

From the results of this study, it is observed that the need based scholarship programs are far better instruments for targeting and educating the underprivileged population of Pakistan. For instance, the HEC Ehsaas scholarship program—target to needy students—seemingly increases the academic performance of male students with a percentage point of 4.10 in their semesters' marks (see Table 1). This significant improvement in semester's mark is important for students because an increase of 4.10 percent marks on average may help them to retain their enrollment during their degree program or it may change their grades (e.g. from B to B+).

Table 1: Impact the Government Scholarships on Students' Academic Performance

Outcome Variables:	(1)	(2)	(3)	(4)	(5)	(6)
Semester Marks (in percent)	Need Based Scholarship (Ehsaas Program)			Merit Based Scholarship (BEEF Programs)		
	Total	Male	Femal e	Total	Male	Femal e
Scholarship Holders	2.43**	1.21	4.52**	9.39***	10.31**	9.18**
	(1.17)	(1.31)	(2.26)	(0.90)	(1.21)	(1.26)
Post Scholarship Semester	4.41**	3.01	8.75**	4.27***	3.37**	6.61**
			*			



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	(1.86)	(1.96)	(3.17)	(1.51)	(1.69	(2.61
Scholarship Holders x Post	3.10**	4.10***	-2.58	-0.75	-1.58	-0.13
Scholarship Semester	(1.39)	(1.55)	(2.51)	(1.47)	(1.86	(1.98

Note: Observations comprise of students enrolled in session: 2017-20 (5th to 8th) and session 2018-21 (3rd to 8th). Controls include parents' education, intermediate and matric marks in percentage, and district, semester, and program fixed effects. Robust standard errors are in parenthesis. * p<0.1,

** p<0.05, *** p<0.01. Models estimated by OLS.

Data Source: Authors' own calculation based on UoT's, results gazettes, awardee list and authors' surveys, and authors' own survey at UoT.

Doing further analysis, this study also traced out some potential channels through which the impact of the need based scholarship programs have an impact on male students' academic performance. Such students when obtained scholarships are less likely to depend on their parental income for university related expenses than the female students of same university. Also, they are more likely to focus their studies seriously by taking class notes compared to their counterpart male students who did not hold any scholarships (see Table 2).

Table 2: Possible Channels of scholarship that improve male students' academic performance

Outcome Variables	Parents meet students University expenses (Value = 1, and 0 otherwise)	Students Took Detailed class notes during class (never, occasionally, often, very often)
Scholarship holders	-0.14*** (0.05)	-.031 (0.23)
Male	-0.13*** (0.04)	-1.10*** (0.20)
Scholarship Holdersx Male	-0.12* (1.06)	0.69** (0.28)



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Note: Observations comprise of students enrolled in sessions 2018-21 to 2021-24. Robust standard errors are in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Model (1) is linear regression model (2) is an ordered logistic regression.
Data Source: Authors' own calculation based on UoT's, results gazettes, awardee list and authors' survey's data.

The recipients of scholarship spend much of their stipend amounts on such materials (e.g. books, gadgets, online courses etc.) that are necessary for attaining higher level of education. There is evidence that students also invest their stipend amount beyond their own education expenses such as on their siblings' educations or on purchase of capital good (for instance, a student in a FGD told us that with the scholarship stipend amount, he bought a "Rickshaw" on a loan installment and with that he works in part time and earns a good amount for his family).

Using survey data, it is also observed a positive impact of scholarship on students' others success outcomes (e.g. students' retention, engagement and satisfaction, acquisition of skills and competences, and career success). However, this study did not find any impact evidence of merit based scholarships on students' academic performances, though there exists other benefits than academic performance of such scholarships (e.g. creating a competitive environment for learning in the class).

POLICY RECOMMENDATIONS

The evidence of this study reveal the impact of financial aid—particularly need based scholarship—on academic performance of undergrad male students who were enrolled in the public sector universities of Balochistan. In light of above findings, the following are some policy recommendations:

Need based scholarship programs require greater government attention: The under investigation of government scholarship programs have very comprehensive and well defined set of objectives. The findings of this paper suggest that the need based scholarship programs were seemingly designed better and contributed toward achieving the programs objectives in a greater extent. Particularly, the HEC Ehsaas program seemingly supported poor families for meeting the university related expenses of their sons. Such financial supports seemingly reduced the burden of male students who previously did jobs for financing their education. However, the BEEF scholarship program—mainly a merit based—provided incentives to those students who already had better



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academic records due to their better socio-economic conditions and families status. Given that the scarce resource and socio-economic conditions of the province Balochistan, the need based scholarship programs are providing greater benefits than merit based scholarships programs that target students of the underprivileged regions of Balochistan for accessing to higher education, therefore, we recommend the government of Pakistan and policymakers for giving more attention on need based scholarship programs.

Continuation of scholarship programs: Government and policymakers should learn the lesson from the discontinuation of the Prime Minister Fee Reimbursement Program (PMFRP) in universities of Balochistan that severely affected their master degree programs; a drastic reduction in the enrolment of master degree programs in almost all universities of Balochistan was observed after closure of the program. Since the ongoing HEC Ehsaas scholarship program—the main scholarship program for undergrad students at national level— provides financial aids to students of the underprivileged regions of Pakistan and if it would discontinue after the incumbent government just like the PMFRP, the impact on undergrad education could be disastrous across the country. Therefore, the government of Pakistan should find means to continue the HEC Ehsaas scholarship programs particularly in the underprivileged regions of Pakistan.

Improvement in the programs design: Though, the objectives of the programs (both HEC need and BEEF merit programs) are well defined, a revision in their policies could better target the underserved/deprived population of Balochistan. Though need assessment is one of the best criteria of HEC Ehsaas scholarship program for targeting the population who need government supports and could not continue their higher education otherwise, the threshold of Rs.45000 of family income is unreasonable for its initial eligibility criteria. Given that the demographic conditions of rural population (i.e. joint family structure is common with large family size and few earning hands), we suggest per capita family income (income of the family/number of family member) could be a better threshold for its initial eligibility criteria. On the other hand, due to its inclusion criteria, the BEEF scholarship program captures those students who mostly belong to well-off families because of their strong academic records and having education related facilities at home. Without revision in its policy, the BEEF program rarely supports needy students for accessing higher education. However, its financial model is more sustainable than the HEC Ehsaas Program. The BEEF invests its endowment funds that not only provides scholarships to student from its proceedings of invested fund but also covers its' operational and other costs. Overall, we suggest that a better scholarship program design for targeting the students in the under-privileged regions of Balochistan could be the



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one that combines the inclusion criteria of HEC Ehsaas Scholarship Program including the above mentioned modification with the self-sustainable financial model of BEEF program.

Conduct an experiment research: The results of this study may be generalizable to other universities in Pakistan with similar characteristics of UoT such as similar location, less diversified students (ethnic, language, socio-economic conditions). Since, HEC Ehsaas scholarship program is a national level program which has been operating in 135 universities and 87 campuses of degree awarding institutes, it may be possible to conduct an experimental research design for teasing out the causal impact of scholarship on students' success.

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