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Higher Education Dropout of Non-Traditional Mature Freshmen: the Role of Sociodemographic Characteristics

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Research Domain: Access and widening participation (AWP)

Abstract:

This paper examines the role of sociodemographic characteristics on non-traditional mature freshmen higher education dropout rates. One of Chile's largest higher education institutions, which has an important number of mature students from more deprived social sectors, was used as a case study. A quantitative methodology was applied, based on the estimation of logistic regression models, where freshmen dropout rates were defined as the dependent variable and three types of independent variable were considered: family/demographic conditions, socio-economic situation and institutional structures. The results indicate that students who are parents, have a job, are not the heads of their households, are enrolled in longer programmes and who attended adult high school are more likely to drop out of higher education during their first year of study. Policy implications to better integrate mature students into higher education are discussed.

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Introduction

During the last few decades, many higher educational systems worldwide have seen a transition from elite to mass systems. These changes have given new social groups - previously without the opportunity to access post-secondary education – the opportunity to continue their formal studies after finishing secondary education (Altbach, Reisberg and Rumbley 2009).

A specific group that has benefited from this trend is that of mature or adult students. In line with more general tendencies associated with the importance of promoting both formal and informal educational opportunities for adults, the proportion of adult students accessing higher education has increased globally during the last few years (Schuetze and Slowey 2002; European Commission 2010).

In this scenario, the need to understand factors and experiences associated to access for and the success of mature students in higher education has emerged as a relevant research field. Considering the specific nature of these type of students, for whom domestic responsibilities and financial issues play a comparatively more important role, different studies have started to examine how students who begin post-secondary studies at a later stage than normal students can be better socially and academically integrated (see de Greef, Verté and Segers 2015; Reay, Ball and David 2002; Thomas 2015).

Chile's higher education system has also followed these international trends. After important reforms during the eighties that liberalised the educational market, Chile's higher educational system recently expanded to incorporate non-traditional students. Moreover, these changes have also led to increasing numbers of adult students in higher education.

In this context, this study aims to examine the role of sociodemographic factors on student dropout rates, using mature freshman enrolled at INACAP, one of Chile's largest higher education institutions, as a case study. For this purpose, a quantitative methodology was applied, considering logistic regression models in order to examine factors associated with the odds of dropping out of higher education before the second year of study.

Methodology

In order to accomplish this research's aim of examining the role of sociodemographic characteristics on freshmen dropout rates, a quantitative design was used. Based on administrative data and contextual information taken from INACAP's 2017 freshmen survey, logistic regression models were estimated. A quantitative design was considered as reliable data was available on different students' attributes that are known to affect their academic results.

Results

Table 1 presents the results from the estimated models for predicting dropout rates among INACAP's mature freshmen. In terms of family/demographic conditions, it can first be seen that there is a significant association at the 1% level between gender and student dropout. Specifically, it is estimated that, controlling for the other variables included in the model, the odds of dropping out are 25.5% higher (exp (b) = 1,255) for men than for women.

Table 1: Logistic regression models for predicting student dropout rates

Variables	Model 1	
	b (s.e.)	exp (b)
Gender (Male)	0,177* (0,093)	1,193
Age	-0,001 (0,007)	0,999
First College Generation	-0,008 (0,114)	0,992
Having Children	0,193** (0,094)	1,213
Head of Household	-0,222** (0,094)	0,801
Occupational Situation		
Unemployed	-0,191 (0,128)	0,826
Inactive	-0,337** (0,153)	0,714
Completed Tertiary Education	0,082 (0,120)	1,086
Mothers' years of education	-0,008 (0,013)	0,992
Income Level		
Middle	-0,123 (0,116)	0,884
High	-0,044 (0,132)	0,957
High School Vulnerability	0,901*** (0,322)	2,461
Type High School (Adult)	0,296*** (0,110)	1,344
Programme Duration (2 years)	-0,318*** (0,083)	0,728
Type Study Programme (Daytime)	-0,125 (0,098)	0,882
Constant	-1,299	0,273
Nagelkerke R-square	0,036	
Hosmer-Lemeshow chi2	13,49	
Brier Score	0,181	

*** = $p<0.01$, ** = $p<0.05$, * = $p<0.1$

Similarly, the results indicate that, controlling for the rest of the included variables, the odds of dropping out before the start of the second year are 20% higher for students who have children than for students who do not.

Another two variables that are significantly associated to dropout are being head of the household and occupational status. For the first variable, it can be seen that the odds of dropping out of higher education are 18% lower for students who are head of their household. Regarding occupational status, the results show that dropout rates are significantly lower for unemployed and inactive students compared to employed students.

In terms of the family/demographic conditions that are not significantly associated to dropout rates, it can be seen that first generation students' odds of dropping out do not significantly differ from those of students whose parents have previously attended college.

The association between dropout rates and students' socio-economic indicators can also be observed. The results show that neither students' income level nor previous education are significantly associated to dropout rates. Specifically, it is shown that students' odds of dropping out do not differ when examining separately by their income level and their previous educational achievements.

Finally, the role of institutional variables on student dropout rates should be examined. It is initially seen the odds of dropping out are 58% higher for mature students that attended adult high schools than for those who attended traditional schools. Similarly, it is also seen that students enrolled in

two-year programmes have significantly lower odds of dropping out (22%) than students enrolled in programmes lasting longer. Lastly, the results show that there is no significant association between study programme type (daytime/evening) and student dropout rates.

Discussion

This study aimed to examine the role of sociodemographic factors on mature freshmen dropout rates, using one of Chile's largest higher education institutions as a case study. This was justified by the fact that mature students' characteristics - for whom domestic and financial issues play a more important role - cause them to face more obstacles when adapting to higher education.

As far as specific policy recommendations are concerned, based on these findings it is suggested that institutions in the Chilean context or in countries of similar characteristics interested in supporting the success of non-traditional mature students in higher education should develop means of support that help lessen the effect of some of the sociodemographic variables described. Based on the findings of this research, these plans could include specific support strategies for parents, for students who work, for those enrolled programmes of a longer duration and for those who attended adult high schools. In terms of concrete actions to target this type of student, the provision of childcare services and the development of flexible curriculum strategies and counselling sessions are highlighted in literature as potential successful activities (Boeren, Nicaise and Baert 2010; Anderson 2011). Likewise, it is recommended that special attention should be paid to understanding the academic and social skills of mature students who went to adult high schools.

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