

## IMPACT OF THE "SALARY SCHOLARSHIP": IMPACT PROFILE AND STUDENT ACHIEVEMENT

*[Incidencia de la beca salario: impacto, perfil y rendimiento de los  
estudiantes]*

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### Abstract

In Spain, within the framework of Strategy 2015, the implementation of scholarships, especially the *salary scholarships* adapted to the new situation of European Higher Education, was intended to ensure university education access to those most economically disadvantaged social groups. This research makes an ex post facto, descriptive-comparative study aimed at assessing the impact of the *salary scholarships* as an economic factor on equity, access and academic performance in the first year of college. The study was conducted with a total of 10,394 new students in the 2010-11 cohort at the University of Barcelona, according to the database from the institution itself. A total of 642 students agreed to the *salary scholarship* with differences depending on their branch of knowledge, gender, and path to college. In relation to their peers, scholarship students come from families with lower levels of occupation and / or education, so a scholarship model contributes to equity in access. In relation to performance analysis, scholarship students enrolled in and took, on average, a larger number of subjects in order to meet the academic requirements for scholarship renewal, but the final academic results were shown to be negatively influenced in various branches knowledge. One possible explanation is the greater academic pressure on this group during an already complicated phase: the transition to college.

### Keywords

Equity, grants policy, salary scholarship, performance, branch of knowledge.

### Resumen

En España, dentro del marco de la Estrategia 2015, la implantación de las becas de estudio, y especialmente las *becas salario* adaptadas a la nueva situación del Espacio Europeo de Educación Superior, pretenden garantizar el acceso a los estudios universitarios a aquellos grupos sociales más desfavorecidos económicamente. La presente investigación realiza un estudio ex post facto, de carácter descriptivo-comparativo dirigido a valorar la incidencia de la *beca salario*, como factor económico, sobre la equidad, el acceso y sobre el rendimiento académico en el primer año de universidad. El estudio se ha realizado con un total de 10.394 estudiantes de nuevo acceso de la cohorte 2010-11 de la Universidad de Barcelona, a partir de la base de datos procedentes de la propia institución. Un total de 642 estudiantes accedieron con la *beca salario*, con diferencias en función de la rama de conocimiento, el sexo y la vía de acceso a la universidad. En relación a sus compañeros, los estudiantes con beca provienen de familias con niveles ocupaciones y/o de estudios inferiores, de manera que el modelo de becas contribuye a la equidad en el acceso. En relación al análisis del rendimiento, los estudiantes con beca se matriculan y se presentan, en promedio, a un mayor número de asignaturas con la finalidad de cubrir los requisitos académicos de renovación de becas, pero los resultados académicos finales se ven, en varias ramas de conocimiento, influidos negativamente. Una posible explicación es la mayor presión académica de este colectivo en una fase de por sí complicada: la transición a la universidad

### Descriptores

Equidad, política de becas, beca salario, rendimiento, rama de conocimiento.

The social dimension of Higher Education was one of the core elements of university policy at an international level during the start of the XXI century (Eurydice, 2011). Emphasizing the social dimension of the university system is essential, among other things, to prevent good and excellent students with talent from leaving the system due to their socioeconomic condition. As Ariño (2009) notes, simply increasing access to the university for a greater number of people will also increase access to talent opportunities in an environment based on the production of knowledge. The social dimension of superior education represents the largest challenge for European cooperation, since participatory equity must exist in superior education, and for that we must provide the necessary resources and services.

The concept of participatory equity has to do with checking to what extent the group of participating students that enroll in and complete university studies reflects the socioeconomic and cultural diversity of our societies. Although a systematic analysis of the factors of inequity hasn't developed, in recent documentation of the Bologna process, when it mentions underrepresented groups, it is referring primarily to the following: categories defined by their socioeconomic status, categories defined by their cultural and educational capital, minorities, people with disabilities, gender, people of higher age, people with insufficient formal qualifications and residents in under-served geographic regions.

Spain is in a state that we could qualify as transition, along with countries such as Poland, Italy and Portugal, characterized by an under-representation of students from families with low educational levels. This suggests that our education system has the capacity to motivate students from families with average educational levels to go to universities (a very positive aspect that allows expansion and improvement), but at the same time has an inability to attract the children of families with low educational levels, an aspect which goes clear-

ly in a hierarchical and segregating direction (Ariño and Llopis, 2011).

In short, the new role that educational inequalities play in society, the persistence of inequalities in education, and the possibility of stagnation in the process of broadening the base of university tuition as a result of early failure are worrying. In sum, there can be no excellence without equity.

### **Economic factors in transition and university persistence**

Recent international studies on university dropouts indicate economic conditions as one of the key factors that explain persistence and university graduation. The results contribute to targeting data on the importance of considering different strategies to ensure fairness in the system, since the concept of participatory equity is formulated as the equitable distribution not only of opportunities of access, but also of trajectories (persistence) and outcomes (graduation). Transition paths, the risk of dropping out, and persistence have different results between certain groups, specifically: pupils from socially disadvantaged contexts, ethnic minorities, and first generation students (Bowen, Chingos and McPherson, 2009; Figuera and Torrado, 2013; Gairín, Figuera and Triadó 2010; Rowan-Kenyon, Bell and Perna, 2008).

Especially significant is the work of Cabrera and colleagues (Cabrera, Burkum, LaNasa and Bibo, in press, John, Cabrera, Nora and Asker, 2000), who conclude that the determinants of persistence and graduation rates vary by the socioeconomic levels of students, placing previous academic background as a key differentiating factor that is influenced by SES (socioeconomic status). This economic factor carries weight in any decision about continuing university study, and its influence is much more significant at the beginning of activity as a university student. Apparently, the most relevant consequences of economic factors occur at the time of entering into higher education, as it is in this period that most students must

consider their economic situation when structuring their decisions (Tinto, 2010).

For this reason we can say that the aid provided to students in the form of scholarships is an important factor in the chance of retention and, as noted by Yorke and Longden (2008), the funding model and the system of scholarships and grants are institutional factors that must be included in a dropout prevention model. Thus the Nora model (1990) describes economic variables as influential in the decisions of persistence of students and indirectly in the results themselves.

Consistent with the results of previous research, interesting intervention programs of a preventative nature have developed, including action prior to university access, that increase opportunities for educational training, coupled with a system of grants to facilitate the commitment to studies and to the university life. These programs increase involvement in studies and in the university, key factors of integration and persistence in the system, especially for those students with low educational levels, as highlighted in the works of Tinto, Pascarella, Terenzini and Cabrera (cit. to, Figuera and Torrado, 2013).

### **The scholarship policy as a measure of retention**

Among measures of retention, the policies of scholarships and study aids favour equity and guarantee an income for families with lower levels of resources, thereby enhancing equal opportunities. We should avoid generating a new kind of inequality between rich and poor in knowledge, instead facilitating equal opportunities in higher education through an appropriate impulse of the policy of scholarships and grants. In an international framework, the policy of scholarships has been treated as an institutional key factor in the prevention of abandonment of studies and in the persistence and retention of students. We must strengthen the system of scholarships and student aid, stimulating at the same time the highest performance of the students and paying special

attention to those who are in a disadvantaged situation.

In the Royal Decree 1721/2007 of December 21, which established the system of study grants and personalized scholarships, a scholarship is defined as: "the quantity or the economic benefit granted to start or continue studies leading to the acquisition of a degree or an official certificate valid throughout the national territory, taking into account the socio-economic circumstances and the applicant's academic application." It is in its very definition where we link "scholarship" as an economic factor to the factor of "persistence and transition" in all those studies leading to obtaining an official degree (graduation).

In Spain, within the framework of Strategy 2015, the implementation of study scholarships and especially *salary scholarships* that are adapted to the new situation of European Higher Education represent an important development. The aim of these new scholarships is to ensure access to university studies for those economically disadvantaged social groups. The incorporation of the *salary scholarship* indicates one of the early stages of implementation of the new funding model.

This new model of scholarships and grants began to be introduced during the 2009-10 school year (Royal Decree 922/2009, of May 29) with the incorporation of the *salary scholarship* (initially 2,800 Euros) for undergraduate students, which is expected to increase year after year, both in amount and in the number of beneficiaries. The *salary scholarships* consist of an evolution and modernization of the old compensatory scholarships to scholarships that are truly a substitute for wages (IPREM). This *salary scholarship* involves full-time dedication to studies, and is aimed not only to increase the amount annually to reach 6500-7000 euros, but also to increase the number of grants under this section by updating the corresponding thresholds. The amount of the scholarship for the academic year 2010-11 was 3,500 Euros, and the threshold of income 1

was established at a maximum of 3,962 euros for families of the student. We remind you that the students who are in this threshold are entitled to, as long as they meet the other requirements, other assistance: compensatory aid, maintenance grant, travel, residence, schooling, tuition, school or study supplies and a final project.

It was planned to progressively include the rest of scholarships described in the new model, so that by 2020 the new established model would be completely into force and the current scholarship system would be repealed. You have to consider that the economic situation has limited the application of the model in the past two academic years.

### Objectives

The purpose of the investigation is to assess the impact of the scholarship as an economic factor on equity, access and academic performance in the first year of college. We examine, in relation to the general population, the volume and characteristics of students entering the University of Barcelona with a *salary scholarship* and their academic performance in the first year of college. We use the available data on all students who entered undergraduate studies at the University of Barcelona during the 2010-11 academic year to try to analyze to what extent these objectives are met.

In our analysis, we assume that the goal of the *salary scholarship* system is to contribute to the fairness of the university system, which is specified with two objectives: 1) provide university access to students who could not afford these studies without this scholarship, and 2) improve the academic performance of students with *the salary scholarship* by freeing them from the need to combine their studies with a work commitment.

Regarding the first point (1), the only way to determine this information is by identifying whether the students with a *salary scholarship* have a different profile than the rest of the other students. The extent that these two pro-

files differ could be interpreted as favourable evidence supporting the proposed hypothesis. That is to say that thanks to these scholarships, students are entering the university that wouldn't enter otherwise.

In relation to the second point (2), we are going to compare the performance of *salary scholarship* students with the rest of the students to check if it is true that granting these scholarships has an effect on the student's performance.

### Methodology

#### Procedure

The research is an ex post facto descriptive-comparative study where we have analyzed data from the institutional base (an analysis tool) that integrates information from incoming students belonging to a total of 68 degrees in the knowledge branches of Arts and Humanities, Science, Engineering and Architecture, Health Sciences, Social Sciences and Law, of the University of Barcelona<sup>[1]</sup> during 2010-11.

From a methodological perspective there has been selected as a dependent variable the *salary scholarship* and the following independent variables: socio-demographic variables (sex, age, income, occupational status and parental education), previous academic background (via access and PAU note), branch of knowledge and performance (subjects enrolled, subjects submitted, subjects passed and average grade of the first year).

#### Population

The study population consists of 10,394 new students in the 2010-11 cohort at the University of Barcelona, of which 642 are university students with the *salary scholarship*. The cohort of access to the university in the academic year 2010-11 has been taken as a reference for the study because it is the academic year in which we can consider the new scholarship program implemented.

#### Data Analysis



For the treatment and analysis of data, the computer program SPSS (Statistical Package for Social Sciences) version 18.0 has been used. The following analysis has been made: univariate descriptive of all the variables involved, bivariate descriptive exploring the relationship between the variables, Normality tests, and nonparametric contrast tests to determine the significance of the differences found.

## Results

The results presented here form part of a broader study with more information about the effectiveness and efficiency of the *salary scholarship*. The study has plans to include, in addition to the academic information of students at various universities, general information on the overall *salary scholarships* awarded in the Spanish university system, as well as the results of a survey and a set of interviews from the students, some with and some without a *salary scholarship*.

### Reality of a salary scholarship

To situate our analysis correctly, it seems appropriate to first define some characteristics of the context of these *salary scholarships*. In the 2009-10 academic year, 333 *salary schol-*

*arships* were awarded to undergraduate students from the University of Barcelona, while in the year 2010-11 there were 642, almost double, a number representing 6.2% of the total number of students (10,394) entering programs at the University of Barcelona in the 2010-11 academic year. This is a significant percentage considering that the economic conditions to be met by students applying for this scholarship are really demanding. If we take the latest data available on the incidence of *salary scholarships* at the Spanish territory level (2009-10 year), data shows that the percentage of students who obtained a *salary scholarship* at the University of Barcelona is clearly lower (4.8%) than the state as a whole (8,1%)<sup>[2]</sup>. This difference can probably be attributed to the territorial differences in the level of available income.

The distribution among branches of knowledge of students with *salary scholarships* shows a higher proportion of students enrolled in studies of Social Sciences, as observed in chart 1, and, at the other end, underrepresentation of students from the branch of Engineering and Architecture (degrees represented in the University of Barcelona).

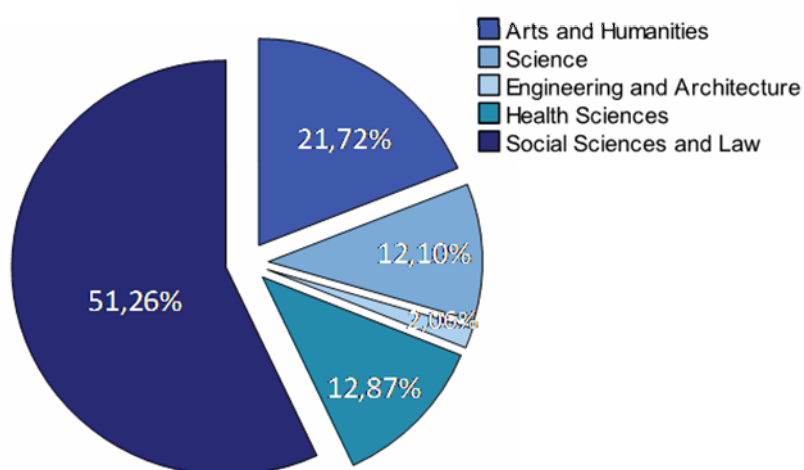


Chart 1. Branches of knowledge according to a scholarship student.

The analysis of the data based on the number of students in each branch of knowledge shows interesting differences, and the highest proportion of students with *salary scholarships* is in the branch of Social Sciences and Law (Table 1).

Table 1. Valuation of students with a salary scholarship by branches of knowledge

Branches of knowledge	% of students with a scholarship salary	Total number of new students
Arts and Humanities	5.4%	2,227
Science	5.5%	1,241
Engineering and Architecture	4.8%	210
Health Sciences	5.7%	1,324
Social Sciences and Law	6.8%	5,335
<i>Total UB</i>	<i>6.2%</i>	<i>10,337</i>

### Profile of students with salary scholarship

In relation to socio-demographic characteristics, we can see that the volume of women

with *salary scholarships* is considerably higher in general than men (445 women versus 197 men). While the University of Barcelona and social studies in particular are feminized, the data shows that women receive in proportion more *salary scholarships* (7% of women compared with 4.9% of men in the case of the students of the University of Barcelona). 75% of freshmen (with a *salary scholarship*) are aged up to 22 years, with no differences among the group of new students.

Regarding socioeconomic variables, the database includes two indicators of social and family background: the occupational level and the educational level of parents. The results show differences in relation to the general profile of the class. The educational level of the parents of the students who have obtained a *salary scholarship* is lower than that of the other students, as shown in chart 2. The relationship is maintained in the analysis of the second family background indicator considered: occupational level.

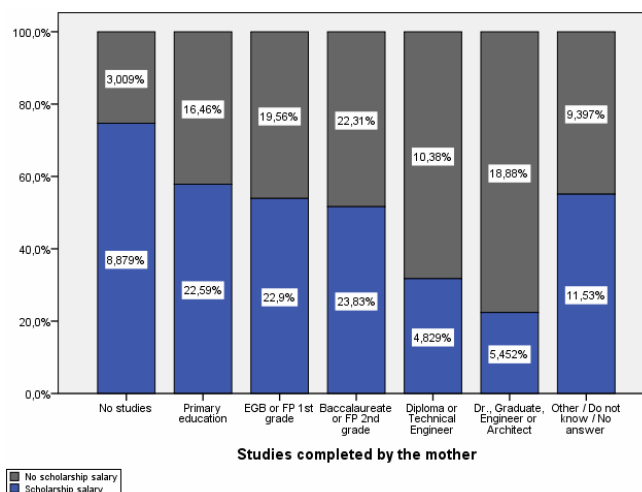
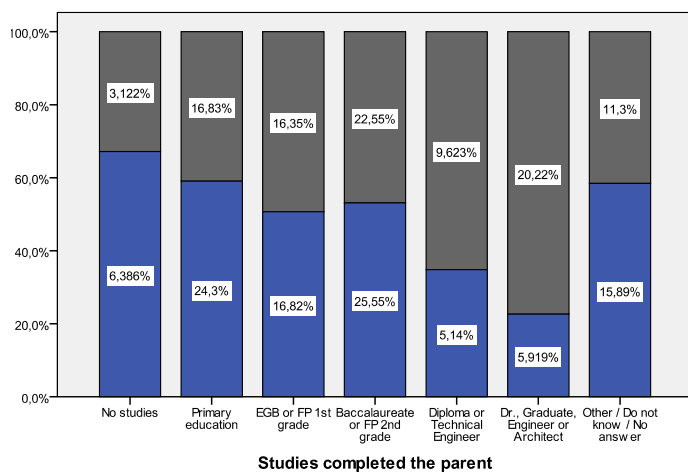


Chart 2. Educational level of the parents

Regarding the previous academic background we only find significant differences in the path to university. So, the proportion of students with *salary scholarships* that attend university after completing the Higher Level Training Cycles are clearly superior compared to students in the same class that have no *salary scholarship* (32.2% compared to 16.8 %).

In reference to the marks obtained in the entrance exam to the university (PAU), the Levène test, which is used to verify the homogeneity of variances, rules out the possibility of using a parametric test for which reason we use nonparametric tests: Mann-Whitney U (Ferrán, 2002) to analyze if there are any differences between groups. The result of this test

reveals that there are no significant differences in relation to peers without a *salary scholarship* ( $p \leq 0.183$ ).

### Salary scholarship and academic performance

To analyze the extent to which a *salary scholarship* may be helping to improve the academic performance of the scholarship students, we are going to consider two measurements: a) the number of subjects submitted, and b) the average grade of the subjects submitted. In addition, we also consider other performance indicators such as the filing fee, the success rate and the rate of return.

The performance in the first year of university is one of the main conditions of the persistence of scholarship students who must meet the academic requirements to maintain aid: the number of subjects enrolled in and approved. To put the data on the number of subjects submitted it must be noted that at the University of Barcelona the new students may enroll full time (10 subjects of 6 ECTS each) or part time (30-36 ECTS). But the reality is that the proportion of students who choose part-time enrolment has been below a 1% ratio in recent testimonial courses. In the case of the students that apply for scholarships it is required to enroll full-time. This is the reason why it was decided to measure the performance from the number of subjects submitted instead of the percentage of subjects enrolled. For the immense majority of students, the number of enrolled subjects is the same, except for those students with previous studies that allow some form of academic recognition (old validations).

Below in Table 2 we present a data comparison between students with *salary scholarships* and the rest. The information available allows us to compare whether these values are statistically different. The results of the Mann-Whitney U test reveal that the difference is significant with a confidence level of 95% as to the number of subjects enrolled ( $p \leq 0.000$ ) and the success rate ( $p \leq 0.008$ ). Specifically,

students with a *salary scholarship* enroll in more subjects (due to the conditions imposed by the granting of the scholarship) but their success rate is lower than their non-scholarship classmates.

Table 2. Differences between students with scholarship and without scholarship

	No scholarship	Scholarship	p-value
Subjects enrolled > 5	85.6%	93.9%	<b>.000</b>
Subjects submitted > 5	75.4%	85.4%	.096
Courses approved > 5	64.5%	72.4%	.891
Filing Fee <sup>1</sup> > 0.75	85.9%	87.9%	.177
Success Rate <sup>2</sup> > 0.75	74.7%	70.1%	<b>.008</b>
Rate of Performance <sup>3</sup> > 0.75	69.2%	66.5%	.118

<sup>1</sup>Filing Fee (Subjects submitted / Subjects enrolled)

<sup>2</sup>Success Rate (Courses approved / Subjects submitted)

<sup>3</sup>Rate of Performance (Courses approved / Subjects enrolled)

On the other hand, if we look at the average, the medium contrast (Mann-Whitney U test) reveals that significant differences exist ( $p \leq 0.001$ ) between scholarship students and non-scholarship students. The difference is in favour of the non-scholarship students with an average of 6.03 compared to an average of 5.83 on students with *salary scholarship*.

The initial data of the subjects presented shows that 46.4% (Table 3) of the students with scholarships have submitted to 10 or more subjects. That is, to all registered, as in the case of the new students in the University of Barcelona the maximum of subjects enrolled is 10. The comparative analysis with fellow students without a scholarship that study shows that the volume of subjects submitted is greater in those who have received a scholarship. The Mann-Whitney U test confirms that there are significant differences ( $p \leq 0.001$ ) between the profiles. A parametric test hasn't been used, as the data did not meet the standard of homoscedasticity necessary. This means that students without a scholarship

submit to fewer subjects, on average 8.2 subjects instead of 8.6.

### Salary scholarship and branches of knowledge

#### *The number of subjects submitted*

Moreover, the analysis of the subjects submitted by students who enjoy a *salary scholarship* in relation to other students shows a different pattern when analyzed in terms of the branch to which each degree belongs to (Tables 3 and 4).

First we observe in these tables significant differences in the number of subjects submitted by students according to the branch of the degree. Thereby, in the branch of Science and Social Sciences and Law, the percentage of

students who submit to all the subjects is much higher than in the fields of Arts and Humanities, Health Sciences and Engineering and Architecture.

If you look at the differences between students with a *salary scholarship* and the rest we can see other interesting aspects. On one hand we have in the branches of Social Sciences and Law, Engineering and Architecture and Arts and Humanities Scholarship students who submit to more subjects than the students with no scholarship. In contrast, in the branches of Health Sciences the exact opposite happens, that students with a *salary scholarship* submit to fewer subjects. In the branch of science, however, there no such differences.

Table 3. Valuation of subjects submitted by branches of knowledge

Branches of knowledge	Subjects submitted					
	No scholarship salary			Scholarship salary		
	=<7	8-9	>= 10	=<7	8-9	>= 10
Arts and Humanities	44.5%	38.5%	17.0%	27.4%	47.0%	25.6%
Science	29.6%	19.1%	<b>51.3%</b>	34.3%	14.9%	<b>50.7%</b>
Engineering & Architecture	45.7%	19.7%	34.6%	50.0%	10.0%	40.0%
Health Sciences	16.5%	41.9%	41.6%	7.3%	61.8%	30.9%
Social Sciences and Law	22.4%	30.6%	<b>47.1%</b>	13.4%	31.7%	<b>54.9%</b>
<i>Total</i>	28.1%	31.7%	40.1%	18.5%	35.1%	<b>46.4%</b>

Table 4. Contrast of half of the number of subjects presented by branches of knowledge

	No scholarship	Scholarship	p-value
Arts and Humanities	6.8	7.6	<b>.001</b>
Science	8.1	8.0	.771
Engineering and Architecture	7.4	7.5	.970
Health Sciences	9.5	9.3	.254
Social Sciences and Law	8.5	8.9	<b>.002</b>

Anyway, they should consider the qualifications of the engineering and architecture branch as a separate case since the number of subjects that the student must pass to keep the scholarship in subsequent courses is 6 instead of 8, as occurs in the degrees in the rest of the branches. This result is important as it demonstrates that the requirements and / or criteria for the concession or renewal of the scholarships have a direct impact on the strategies of the students. So, up to 50% of *salary scholarship* students are in this situation, compared

with 45.7% of those without a *salary scholarship*. While another group of students choose to submit to more subjects so that a 40% of *salary scholarship* students submit to all enrolled subjects, instead of the 34% among those without the scholarship.

The Mann-Whitney U test confirms that there are significant differences between profiles (scholarship and non scholarship) by branch of knowledge. We have identified two branches of knowledge with significant differences in relation to the number of subjects



submitted: the Arts and Humanities branch ( $p \leq 0.001$ ) and the Social Sciences and Law branch ( $p \leq 0.002$ ), where the scholarship students submit to more subjects than the rest of their non-scholarship.

*The average of the subjects submitted*

In contrast the Mann-Whitney U test shows that there are significant differences ( $p \leq$

0.000) in the performance in the first year of university, measured by the average of the subjects submitted. The averages show that the differences are in favour of the non-scholarship students, for the average score of students with scholarships (5.6) is less than their peers (5.9).

Table 5. Distribution of the average score by branches of knowledge

Branches of knowledge	Average					
	No scholarship salary			Scholarship salary		
	=<4.9	5-6.9	>=7	=<4.9	5-6.9	>=7
Arts and Humanities	19.5%	49.7%	30.8%	27.2%	50.9%	21.9%
Science	33.6%	45.9%	20.5%	42.4%	47.0%	10.6%
Engineering and Architecture	60.3%	29.3%	10.3%	60.0%	30.0%	10.0%
Health Sciences	14.7%	40.3%	44.9%	14.9%	41.9%	43.2%
Social Sciences and Law	27.9%	45.6%	26.5%	33.5%	45.7%	20.8%
Total	25.8%	45.5%	28.8%	31.5%	46.1%	22.5%

Table 6. Average contrast of the average grades by branches of knowledge

Branches of knowledge	No scholarship	Scholarship	p-value
Arts and Humanities	6.2	6.0	.080
Science	5.6	5.1	<b>.017</b>
Engineering and Architecture	4.5	4.6	.912
Health Sciences	6.6	6.5	.604
Social Sciences and Law	6.0	5.8	<b>.017</b>

The analysis by branches of knowledge through contrasting hypotheses performed using the Mann-Whitney U test evidence that there are some significant differences. In Science degrees ( $p \leq 0.017$ ) and in the Social Sciences and law ( $p \leq 0.017$ ), the results follow the same trend of the whole, that is to say the performance between students with scholarship is lower (Tables 5 and 6). Coincides with those careers where scholarship students enrolling a larger number of subjects (see Table 3) and therefore academic pressure would be higher. We observe how in the Social Sciences and Law branch scholarship students submit to more subjects but their average score is lower than the rest of their peers (Tables 4 and 6). In all the rest of branches of knowledge there are no differences between the two groups of students.

**Discussion and conclusions**

The social dimension is one of the objectives of the 2015 Strategy. In this new framework, scholarships and grants are to provide equal opportunities, promote research and academic performance and national and international mobility. The importance of scholarship programs isn't limited to their contribution to equity, but also is that they aspire to improve educational efficiency by utilizing the potential and persistence of youth from low income families to obtain degrees.

The results display data in relation to the early stages of applying a new funding model through the incorporation of the *salary scholarship*. The data confirms an increase in the student's access to university with a *salary scholarship*, in relation to the previous promotion. However, the distribution by areas of knowledge is uneven.

One can observe through the analysis of the whole population that there aren't any significant differences in the access profile of both groups of students, regardless of socioeconomic variables and the sex. The data shows that women receive in proportion more scholarships (7% of women compared with 4.9% of men in the case of students of the University of Barcelona). To explain this difference we can advance some hypotheses that a greater motivation or active attitude from the students played a part. Although the available information does not allow us to confirm whether this is the cause or not, in any way it is an important difference that must be taken into account. In reference to the average age of the new students, the data allows us to rule out that the *salary scholarship* allows access to the university students that are already inserted in the labour market.

As expected the family member background variables (occupational level and studies of the parents) of the university students with scholarships show differences in relation to the overall profile. The educational level of the parents of students who have obtained a *salary scholarship* is lower, a relation that is maintained in the analysis of the second family background indicator considered, occupational level. Therefore, the *salary scholarship* is no longer an input mechanism for those students that without the scholarship would have had greater economic difficulties in accessing university. The results also show a type of student who does not follow this tendency: they are children of qualified and / or superior studies that access with a scholarship salary. Although the proportion is small we can advance some possible explanations, like the influence on the household economy of the economic crisis that has affected our country at all occupational levels; or the source from single parent families.

Regarding the previous academic background, the profile of both types doesn't present significant differences with one only exception: the path of entry. The proportion of

*salary scholarship* students entering university after completing the Higher Level Training Cycles is clearly superior compared to students in the same class that have no salary scholarship. One possible explanation would be in the main presence of students of Higher Level Training Course in the careers of Social Sciences. But one could also consider the fact that low-income students initially will pose an academic project of short route (as is the case of Higher Level Training Course, first level of higher education in Europe) and that the scholarship has allowed access to university studies. In this sense it is important to consider the specific study of this group of students whose promotion at university level is increasing year by year. No differences in the grade obtained in the entrance exam to the University (PAU), since the obtainment of the salary scholarship does not have any academic requirements in the first year of university.

In relation to the influence of the *salary scholarship* on the students' performance, the results are not so conclusive. The analysis of the database at this early stage of research has showed that scholarship students enroll and submit to, on average, a greater number of subjects in order to meet the academic requirements for renewal of scholarships. We remind you that to extend the scholarship to the next year its necessary (during 10-11) that the student with a scholarship exceeds the 80% of the credits enrolled. It seems that the granting of the scholarship permits a more intense dedication to studies, releasing the student from the need to engage in any paid work. But the performance on the set of knowledge areas shows differences to highlight. Scholarship students of Social Sciences and Law, Engineering and Architecture and Arts and Humanities submit to more subjects than those who do not have scholarship. In Health Sciences the exact opposite happens, that students with a *salary scholarship* submit fewer subjects, while in the field of science, there are no differences between them. Although we must consider that the entry requirements are different, the observed differences are at least inter-

esting. They call for a study that takes into consideration the academic requirements and educational and organizational characteristics of each discipline area as a possible explanation to the results obtained.

In general, scholarship students submit to more subjects but their success rate (approved courses / subjects submitted) and average grade is lower than their classmates without scholarship. This is a very interesting difference because it goes against what could have been a plausible hypothesis in our analysis. Specifically, it had seemed reasonable that students with *salary scholarship*, to the extent that it would allow a more intense dedication to studies, would have received a higher note. Instead, we note that scholarship students haven't got an average grade higher than non-scholarship. The explanation or justification of this result may be related with two possibilities:

- a) That the absence of a grade point requirement to continue to have the scholarship salary in later courses causes the student to lack incentive to achieve better grades.
- b) That the need to ensure a number of subjects submitted and passed as a requirement to continue the availability of the scholarship (8 with general character and 6 degrees in the case of Engineering and Architecture) causes an increased pressure on the student with scholarship.
- c) A third possibility has to do with the fact that, given the unfavourable socio-economic conditions of students with a *salary scholarship*, these students have a wealth of knowledge and skills less than the rest and that the scholarship does not always compensate for this initial bias. Yes it affects the number of subjects submitted but not in the performance measured from the grades.

Therefore, a first conclusion would be that the concessions of a *salary scholarship* do not guarantee by themselves a more intense

dedication to studies that yields a higher achievement. One possible explanation is that the largest academic pressure of this group is in a phase usually complicated: the transition to university. But we must also consider that the effects of family context variables may indirectly influence the academic results of the students, through factors such as cultural context, the possibility to access additional courses at the university, social network, etc. (in line with the ideas of writers like Cabrera and others, 2012). Therefore beyond financial support, the university should assess the application of institutional programs including cultural support of these groups to ensure equity persecuted by the system.

Another conclusion that emerges from the data is that the student's reaction to the need to ensure a minimum number of subjects submitted to retain the scholarship in subsequent courses is not the same in the different branches. Thus, the observed differences between the different types of study suggest the existence of multiple realities related to teaching and organizational characteristics of each discipline area. It would therefore be advisable a study in-depth of the processes of transition to the university of the students in order to analyze the real impact of the *salary scholarship*. The results presented in this paper suggest that this is an important dimension to examine the differences in the academic performance.

Finally note that basing the analysis on data related to a single university can be targeted for prevention to the extent that the results can't be extrapolated to the entire university system. However, the University of Barcelona is the largest university in Catalonia in terms of degree students and the second largest in Spain. It also includes a very diverse range of titles including studies of the five branches of knowledge.

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## NOTE

[1] We thank this University and, in particular, the staff of the Academic educational Planning area, there collaboration to make this research possible.

[2] Check Facts and Figures of the Spanish university system. Course 2010-11.


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## ARTICLE RECORD / FICHA DEL ARTÍCULO

<b>Reference / Referencia</b>	Berlanga, Vanesa; Figuera Pilar & Pons-Fanals, Ernest (2013). Impact of the "salary scholarship": impact profile and student achievement. <i>RELIEVE</i> , v. 19(2), art. 2. DOI: <a href="https://doi.org/10.7203/relieve.19.2.3023">10.7203/relieve.19.2.3023</a>
<b>Title / Título</b>	Impact of the "salary scholarship" impact: profile and student achievement. [ <i>Incidencia de la beca salario: impacto, perfil y rendimiento de los estudiantes</i> ].
<b>Authors / Autores</b>	Berlanga, Vanesa; Figuera Pilar & Pons-Fanals, Ernest
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<b>Abstract / Resumen</b>	<i>In Spain, within the framework of the Strategy 2015, the implementation of scholarships, grants and wages especially adapted to the new situation of the European Higher Education, intended to ensure access to university education to those most disadvantaged social groups economically. This research makes an ex post facto, descriptive-comparative aimed at assessing the impact of the grant salary, as an economic factor, on equity, access and academic performance in the first year of college. The study was conducted with a total of 10,394 new students in the 2010-11 cohort at the University of Barcelona, from the database from the institution itself. A total of 642 students agreed to grant salary, with differences depending on the branch of knowledge, gender, and the path to college. In relation to their peers, scholarship students come from families with occupations and / or study less, so scholarships model contributes to equity in access. In relation to performance analysis, scholarship students enrolled and present, on average, a larger number of subjects in order to meet the academic requirements for scholarship renewal, but the results are final academic in several branches knowledge, influenced negatively. One possible explanation is the largest academic pressure of this group in a phase usually complicated: the transition to college.</i>

## ARTICLE RECORD / FICHA DEL ARTÍCULO

<b>Abstract / Resumen</b>	En España, dentro del marco de la Estrategia 2015, la implantación de las becas de estudio, y especialmente las <i>becas salario</i> adaptadas a la nueva situación del Espacio Europeo de Educación Superior, pretenden garantizar el acceso a los estudios universitarios a aquellos grupos sociales más desfavorecidos económicamente. La presente investigación realiza un estudio ex post facto, de carácter descriptivo-comparativo dirigido a valorar la incidencia de la <i>beca salario</i> , como factor económico, sobre la equidad, el acceso y sobre el rendimiento académico en el primer año de universidad. El estudio se ha realizado con un total de 10.394 estudiantes de nuevo acceso de la cohorte 2010-11 de la Universidad de Barcelona, a partir de la base de datos procedentes de la propia institución. Un total de 642 estudiantes accedieron con la <i>beca salario</i> , con diferencias en función de la rama de conocimiento, el sexo y la vía de acceso a la universidad. En relación a sus compañeros, los estudiantes con beca provienen de familias con niveles ocupacionales y/o de estudios inferiores, de manera que el modelo de becas contribuye a la equidad en el acceso. En relación al análisis del rendimiento, los estudiantes con beca se matriculan y se presentan, en promedio, a un mayor número de asignaturas con la finalidad de cubrir los requisitos académicos de renovación de becas, pero los resultados académicos finales se ven, en varias ramas de conocimiento, influidos negativamente. Una posible explicación es la mayor presión académica de este colectivo en una fase de por sí complicada: la transición a la universidad.
<b>Keywords / Descriptores</b>	<i>Teaching practices; Teacher training; Developing countries; Frontal teaching; Whole class method; In-service learning; Discussion method.</i> Prácticas docentes; Formación profesional; Países en vía de desarrollo; Instrucción frontal; Método clase global; Formación en servicio; Método activo.
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