

Financial aid received by students enrolled in public and private postsecondary institutions in Puerto Rico: How do they compare?

Autor: Marcos Torres-Nazario, Ed.D.

Sumario

Este estudio compara el tipo y la cantidad de ayudas económicas que reciben los estudiantes matriculados en las instituciones universitarias públicas y privadas en Puerto Rico. Los hallazgos revelan que existen diferencias en el perfil y el poder de compra de los estudiantes matriculados en las instituciones públicas y privadas. En general, el argumento de que un aumento en los costos de matrícula de las instituciones públicas limita el acceso a la educación de los estudiantes de bajos ingresos no se apoya con los datos recopilados de los IPEDS. Los estudiantes matriculados en instituciones públicas tienen mayor capacidad económica que aquellos matriculados en las instituciones privadas.

Summary

This study compared the financial aid received by students enrolled in public and private postsecondary institutions in Puerto Rico. The findings revealed differences in the student profile and purchasing power of public vs. private students. In conclusion, the argument that a higher tuition will affect low-income students forcing them to leave postsecondary education is not supported by the data. Findings revealed that student's enrolled in public institutions have more purchasing power than those enrolled in private institutions.

Introduction

The University of Puerto Rico System (UPR) is the biggest public institution of Higher Education in Puerto Rico. In 2005, they enrolled about 70,000 undergraduate students in 11 campuses (Tendencias PR, n.d). Also, it is considered

one of the cheapest postsecondary systems within the United States (Puerto Rico Council of Higher Education-PRCHE, 2004a). In comparison, private institutions in Puerto Rico enrolled more than 125,000 undergraduate students and their tuitions fees are between 2,300-\$2,500 per semester.

In July 2007, the University of Puerto Rico (UPR) announced an increase of 4% in tuition fees for all first-time freshman for the next five years. In general, the cost rose from \$40 to \$45 per credit for those entering on August 2007, increasing a full-time tuition of 15 credits from \$600 to about \$675 per semester (this amount neither include general and other fees, nor the cost of student health plan). This amount represented about 35% of the total amount of Pell Grant students received per semester.

Immediately, students and faculty raised their voices against the tuition increase. They argued that a higher tuition will affect low-income students forcing them to leave postsecondary education (Serrano, 2007). To test this assumption, the researcher compared the financial-aid characteristics of the student who were enrolled in public and private postsecondary institutions in Puerto Rico. For all the analysis, a classification group of 28 public and private postsecondary institutions of Puerto Rico were chosen by the Integrated Postsecondary Education Data System (IPEDS) data sets.

Research questions

The study posited the following question:

- Is the amount and type of financial aid received by students similar by institutional control (i.e. public vs. private institutions)?

Definitions and Variables

For this study, the researcher established the following definitions:

- IPEDS – The Integrated Postsecondary Education Data System (IPEDS) conducted by the NCES began in 1986 and involves annual institution-level data collections of all postsecondary institutions that have a Program Participation Agreement with the Office of Postsecondary Education (OPE). IPEDS currently consists of the following components: Institutional Characteristics (IC); Completions (C); Employees by Assigned Position (EAP); Fall Staff (S); Salaries (SA); Enrollment (EF); Graduation Rates (GRS); Finance (F); and Student Financial Aid (SFA). (NCES, n.d.)
- IPEDS Data Cutting Tool - An NCES web application that is part of the IPEDS Peer Analysis System (PAS). The DCT allows users to quickly (a) obtain complete datasets for analysis and comparisons, (b) obtain complete data files and codes, and (c) create customized datasets according to your specifications (NCES, n.d.).
- Control of institution - A classification of whether an institution is operated by publicly elected or appointed officials (public control) or by privately elected or appointed officials and derives its major source of funds from

private sources (private control). For this study, public institutions are those operated by the Commonwealth of Puerto Rico. Private institutions combine both private for profit and non profit postsecondary institutions (NCES, n.d.).

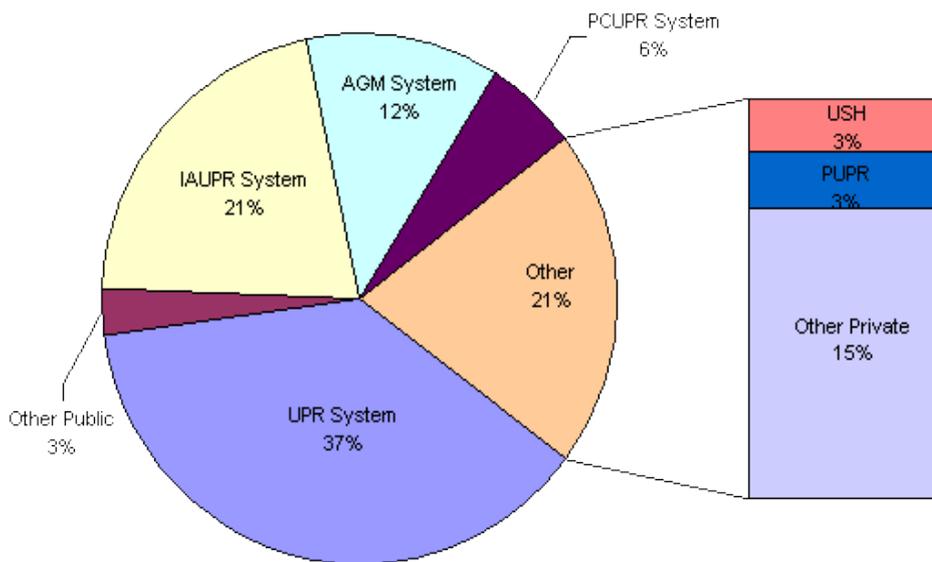
- First-time student – a student attending any institution for the first time at the undergraduate level. Includes students enrolled in academic or occupational programs. Also includes students enrolled in the Fall term who attended college for the first time in the prior summer term, and students who entered with advanced standing (college credits earned before graduation from high school (NCES, n.d.).
- Financial aid – this variable includes federal, state, institutional grants and loans the student received for 2004-05 year.
- Spanish SAT – the postsecondary admissions test used in Puerto Rico “: Prueba de Evaluación y Admisión Universitaria (PEAU)”, also known as the Spanish SAT. This standardized test was developed by the College Board for Puerto Rico and Latin America Office.
- Comparison group – according to the online glossary of IPEDS, refers to the group of peer institutions used for comparison purposes within the IPEDS Peer Analysis System (PAS). Comparison groups may be identified by the analyst by name or UnitID, they may be built by using characteristics (variables) from the IPEDS data, or they may be automatically generated by the system. Also, referred as a peer group (NCES, n.d.).
- Classification based-group – refers to a peer or comparison group selected using Carnegie Classification. The Carnegie Classification is a coding structure developed by the Andrew W. Carnegie Foundation for the Advancement of Teaching. The 2005 classification describes the overall student population, by grouping institutions according to the mix of students enrolled at the undergraduate and graduate/professional levels (Knight, 2001; NCES, n.d.)
- Federal grants (grants/educational assistance funds) - Grants provided by federal agencies such as the U.S. Department of Education, including Title IV Pell Grants and Supplemental Educational Opportunity Grants (SEOG). Also includes need-based and merit-based educational assistance funds and training vouchers provided from other federal agencies and/or federally-sponsored educational benefits programs, including the Veteran's Administration, Department of Labor, and other federal agencies (NCES, n.d.).
- Dependency status - For federal financial aid purposes, all students are considered to be dependent unless they meet one of the following criteria for independence: (a) age 24 or older, (b) veteran of the U.S. Armed Forces (c) enrolled in a graduate or professional program beyond a bachelor's degree, (d) married, (e) orphan or ward of the court, or (f) have legal dependents other than a spouse. (NCES, n.d.)

Related literature

A large body of research focuses on the effects of financial aid on student decisions about whether to go and where to go to college. Also, common sense suggested that economic circumstances played an important role not only in whether and where the student goes to college but also, for how long they remained (Pascarella & Terenzini, 2005). To contextualize the reader with the Puerto Rico’s postsecondary scenario, below is a description of some of their institutions and the students characteristics by institutional control.

Enrollment trends demonstrated that in 2005, more than 207,000 students were enrolled in about 64 postsecondary institutions in Puerto Rico (Tendencias PR, n.d). Of them, about 40% were enrolled at the University of Puerto Rico System and other public institutions (Puerto Rico Council of Higher Education-PRCHE, 2004b). As a consequence, 6 of every 10 undergraduate students were enrolled in private institutions and at least 75% are in one of four university systems: University of Puerto Rico, Inter American University, Ana G. Mendez System and Pontifical Catholic University System (see Figure 1).

Figure 1: Percentages of Postsecondary Enrollment by institution: Year 2000-01.



Source: PRCHE (2004a). La Educación Superior en Puerto Rico (p. 15).

Note: IAUPR-Inter American University; AGM- Ana G. Mendez; PCUPR – Pontifical Catholic University of Puerto Rico; USC – Universidad of Sacred Heart; PUPR- Polytechnic University of Puerto Rico.

In 2000, the average cost in tuition for full-time undergraduate enrollment was \$720 per year, at public and \$3,351 in private institutions (PRCHE, 2004a), which meant that tuition was 4 times higher at private than in public colleges. Those

circumstances lead our attention to another issue; revenues from student’s tuition only represent 6% of their budget. By law, all public institutions budget is assigned using a formula. Public colleges receive 9.3% of the state budget, which means that they are no tuition dependent institutions. Despite that, tuition represents 81% of the private institutions budget, which means that they are essentially tuition dependent institutions. Any changes on federal aid policies had a stronger impact on private than public institutions.

Moreover, tuition costs were combined with differences in the student’s who entered at public and private sectors. The Profile of Entering Students in Postsecondary Education in Puerto Rico (PRCHE, 2004b), revealed that students enrolled in the Fall of 2002 had the following characteristics:

- One of four (27%) of all students enrolled in one of 9 public undergraduate institutions.
- More than half (53%) of all students enrolled in public institutions came from private high schools. In contrast, the majority of students enrolled in private institutions came from public high schools.
- The average age of those enrolled in public postsecondary institutions fluctuated from 17.7 years to 21.3 years for private institutions.
- The GPA and Spanish SAT results of students enrolled in public institutions were higher than those enrolled in private institutions (see Table 1).

Table 1: Entering student characteristics by sector at postsecondary institutions in Fall 2002

Characteristic	Public institution	Private institution
Age (Std. Dev)	17.7 (2.0)	21.3 (6.2)
GPA (Std. Dev.)	3.48 (0.43)	2.59 (0.61)
Public high school graduate	47%	84%
Spanish SAT-Verbal	560	436
Spanish SAT-Math	587	456
Dependent student*	79%	56%

Source: * IPEDS – DAS

In summary, the literature review established that public postsecondary institutions in Puerto Rico are cheaper and more selective than their private counterparts. Also, students enrolled in private institutions tend to have a nontraditional profile (higher age and percentages of independent students).

Methods

This section describes the participants, data sources and the analysis used in the research.

Participants

The participants of this study were 28 postsecondary institutions of Puerto Rico; eight public and 20 private non profit 4-year or above. All of them had a 2005 Carnegie Basic Classification of Baccalaureate's Colleges-Diverse fields (i.e. code = 22). In 2005, those institutions enrolled about 15,400 first-time; full-time, degree-seeking students. From the public sector, the UPR Mayaguez, UPR Medical Sciences and UPR Rio Piedras campuses were not included because they are classified as Research I or Research II institutions.

Data sources

The researcher carried out the following procedures to answer the research question.

- First, the data from this study was collected from the IPEDS datasets available through the National Center for Educational Statistics of the U.S. Department of Education homepage (i.e. <http://nces.ed.gov/ipeds>).
- Then, using the IPEDS Dataset Cutting Tool (DCT) a classification-based group was developed (Knight, 2001). The DCT allows users to quickly (a) obtain complete datasets for analysis and comparisons, (b) obtain complete data files and codes, and (c) create customized datasets according to your specifications (NCES, n. d.)
- Two datasets were developed: one of public and other of private postsecondary institutions. Both datasets included aggregated data of student's federal, state/local and institutional grants and the amount they borrowed for the 2004-05 year. The IPEDS DCT provided both the percentages and average financial aid received by students for each of the 28 public and private institutions selected.
- Finally, the dataset was exported to Excel in order to compute overall percentages and averages of the amounts of financial aid received by each sector (see Figures 2 and 3).

Findings

The first step for the researcher was to develop two comparison groups. The peer institutions groups incorporated 20 private and eight public institutions. Appendix A contains the list of institutions selected for this study. The following question guided this study: *Is the amount of financial aid received by students similar by institutional control (i.e. public and private institutions)?*

Data collected for this purpose revealed differences in the amount students at public institutions received when compared with their private counterparts.

Using the IPEDS Dataset Cutting Tool, the researcher found that:

- A lower percentage of the students enrolled at public institutions received federal and state/local grants.

- In contrast, a higher percentage of the student's enrolled at private colleges received institutional grants and loans (see Figure 2).

Figure 2: Percentage and Type of Financial Aid Received by Institutional Control

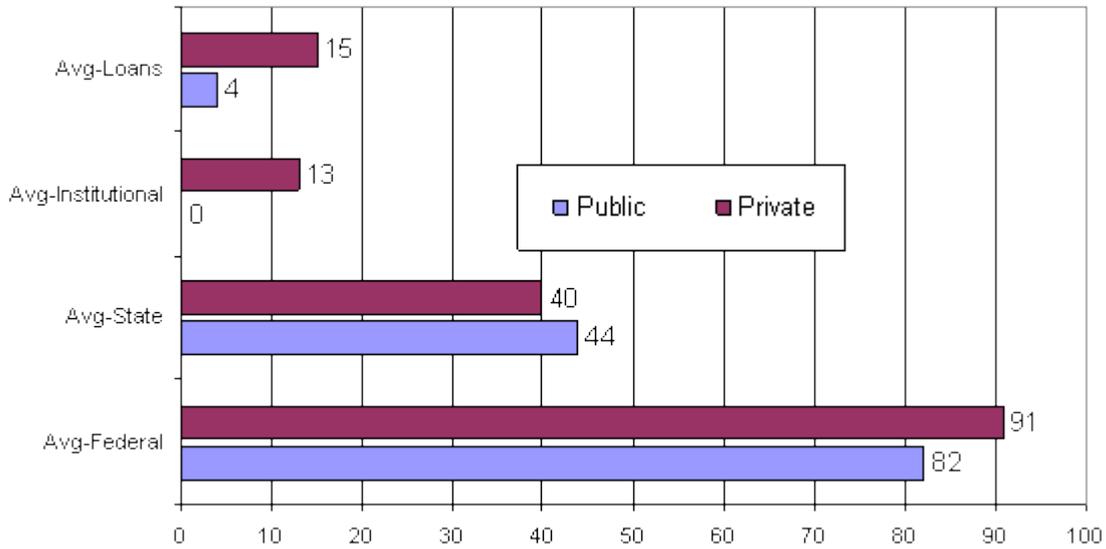
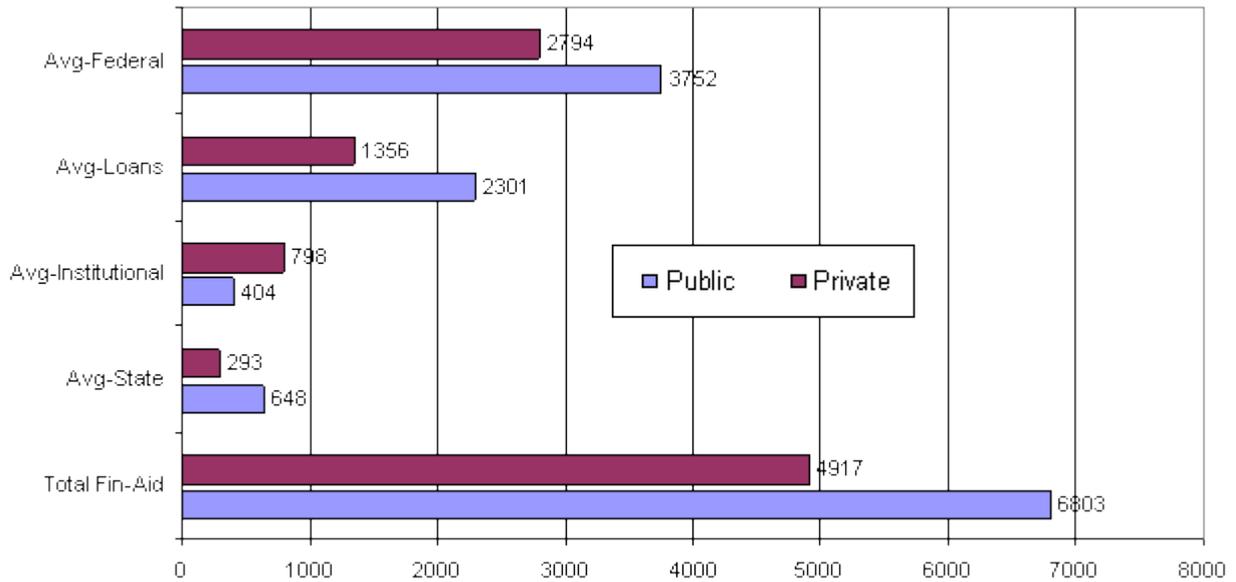


Figure 3 describes the amounts of financial aid by type the student's receive. Data revealed that:

- Students enrolled in public institutions received about \$1,300 more federal and state grants than the students enrolled in private institutions.
- In general, students enrolled in public institutions received about \$1800 more than those enrolled in private institutions.

Figure 3: Average and Type of Financial Aid Received by Institutional Control



Note: The sum of all aid may sum more than the total values presented in the table. Public institutions and some at the private sector, do not provide institutional aid to students.

Conclusions

The purpose of this study was to compare the financial aid received by students enrolled in public and private postsecondary institutions in Puerto Rico.

The literature review showed obvious differences in the profile of admitted or entering students' and tuition costs among public and private institutions. Furthermore, data collected through the IPEDS revealed differences in the percentage and amount of financial aid received by institutional control. The study showed a gap among the percentage of students at public and private colleges who received federal aid and the amount they receive. One possible explanation was that the financial aid package provided at public institutions included higher proportion of merit-based aid.

This research also found no sound evidence to support the argument that a \$5 increase on tuition will affect student access to public education, forcing them to leave postsecondary education. Numbers revealed that more than half of the students enrolled at public postsecondary institutions came from private high schools where tuition is higher than \$675 per semester. For them, an increase of \$5 for 30 credits a year only represents an increment of \$150 annually; amount that represent less than 8% of the remaining \$1880 they obtain in financial aid (see Figure 3). Further research in this issue is needed to help develop policies aimed to remove the inadequacies in the distribution of financial aid, especially against those enrolled at the private sector.

Limitations

This investigation had the following limitations:

- Only one year of data analysis used, no trend analysis was performed.
- IPEDS data did not differentiate between need-based and merit-based aid.
- Student's dependency status was not used in this study.

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Appendix A: UnitID, Institution Name, City, State and Institutional Control of the Selected Peers

Unit ID	INSTITUTION NAME	CITY	STATE	PRIVATE	PUBLIC
241100	AMERICAN UNIVERSITY OF PUERTO RICO	BAYAMON	PR	X	
241128	AMERICAN UNIVERSITY OF PUERTO RICO	MANATI	PR	X	
241377	CARIBBEAN UNIVERSITY-BAYAMON	BAYAMON	PR	X	
241386	CARIBBEAN UNIVERSITY-CAROLINA	CAROLINA	PR	X	
363907	CARIBBEAN UNIVERSITY-PONCE	PONCE	PR	X	
363916	CARIBBEAN UNIVERSITY-VEGA BAJA	VEGA BAJA	PR	X	
243832	ELECTRONIC DATA PROCESSING COLLEGE OF PUERTO RICO INC	SAN JUAN	PR	X	
2426	INTER AMERICAN UNIVERSITY OF PUERTO	AGUADILL	PR	X	

26	RICO-AGUADILLA	A			
2426	INTER AMERICAN UNIVERSITY OF PUERTO RICO-ARECIBO	ARECIBO	PR	X	
2426	INTER AMERICAN UNIVERSITY OF PUERTO RICO-BARRANQUITAS	BARRANQUITAS	PR	X	
2427	INTER AMERICAN UNIVERSITY OF PUERTO RICO-BAYAMON	BAYAMON	PR	X	
2426	INTER AMERICAN UNIVERSITY OF PUERTO RICO-FAJARDO	FAJARDO	PR	X	
2426	INTER AMERICAN UNIVERSITY OF PUERTO RICO-GUAYAMA	GUAYAMA	PR	X	
2426	INTER AMERICAN UNIVERSITY OF PUERTO RICO-SAN GERMAN	SAN GERMAN	PR	X	
2426	INTER AMERICAN UNIVERSITY OF PUERTO RICO-PONCE	PONCE	PR	X	
2413	PONTIFICAL CATHOLIC UNIVERSITY OF PUERTO RICO-ARECIBO	ARECIBO	PR	X	
2435	PONTIFICAL CATHOLIC UNIVERSITY OF PUERTO RICO-MAYAGUEZ	MAYAGUEZ	PR	X	
2411	UNIVERSIDAD ADVENTISTA DE LAS ANTILLAS	MAYAGUEZ	PR	X	
2433	UNIVERSIDAD DEL ESTE	CAROLINA	PR	X	
2434	UNIVERSITY OF SACRED HEART	SANTURCE	PR	X	
2431	UNIVERSITY OF PUERTO RICO-AGUADILLA	RAMEY	PR		X
2431	UNIVERSITY OF PUERTO RICO-ARECIBO	ARECIBO	PR		X
2431	UNIVERSITY OF PUERTO RICO-BAYAMON	BAYAMON	PR		X
2431	UNIVERSITY OF PUERTO RICO-CAROLINA	CAROLINA	PR		X
2431	UNIVERSITY OF PUERTO RICO-CAYEY UNIVERSITY COLLEGE	CAYEY	PR		X
2431	UNIVERSITY OF PUERTO RICO-HUMACAO	HUMACAO	PR		X
2432	UNIVERSITY OF PUERTO RICO-PONCE	PONCE	PR		X
2431	UNIVERSITY OF PUERTO RICO-UTUADO	UTUADO	PR		X