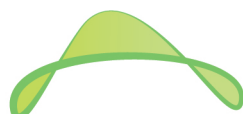


“Becas Chile”:

Between the Snowledge Society and University Rankings

Summary version

Por Eduardo Rivera



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1. Introduction

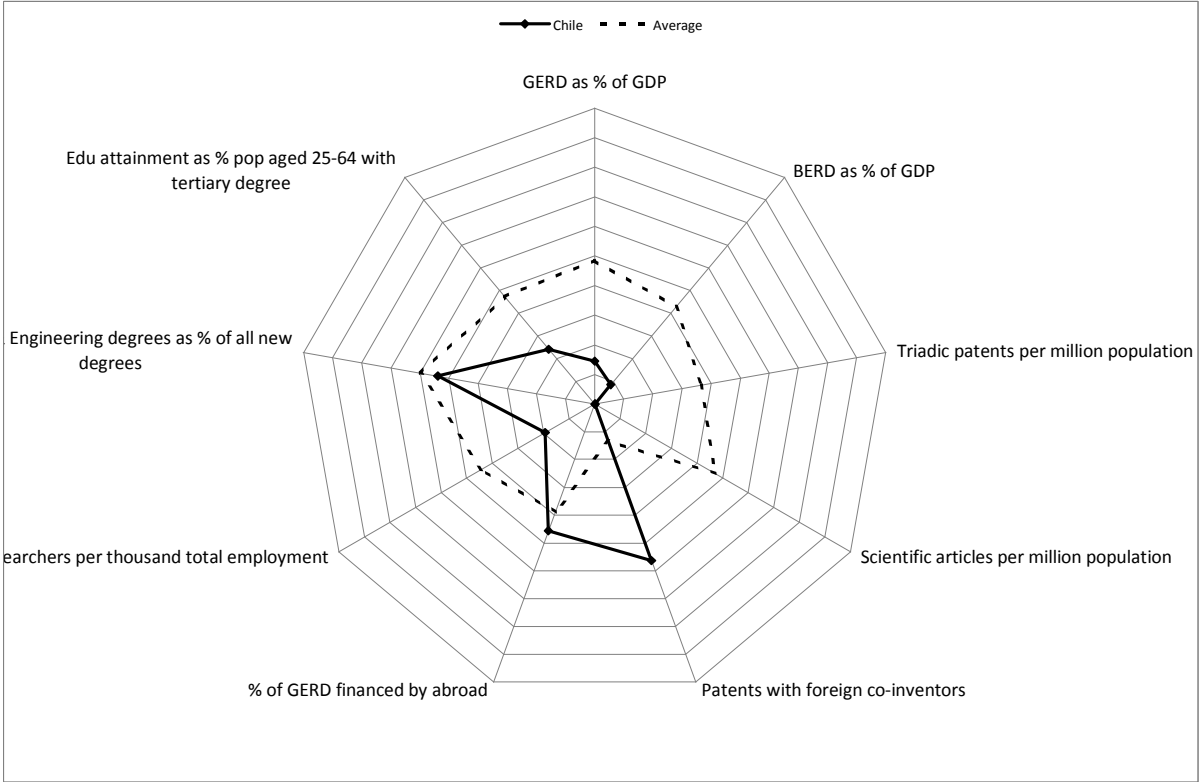
In 2008, Chile began to implement an ambitious scholarship program intended to develop advanced human capital, a fundamental area in the development of a knowledge economy. This program was called the Becas Chile (Chile Scholarships) Program (BCP). Based on the assumption that foreign universities offered better conditions than national ones for postgraduate and advanced studies, the decision was made to offer financial aid to earn advanced degrees at foreign universities. However, the program also assumed that not all foreign universities could offer the same conditions (i.e. that not all foreign universities were better quality). Thus, the government designated the Times Higher Education (THE) World University Ranking, the Academic Ranking of World Universities (ARWU) and the QS World University Ranking as appropriate ways of measuring quality and determining the best foreign universities.

2. Background

By 2008, several publications had pointed out the need for new national policies for developing the knowledge economy in Chile. In the essay “Hacia la economía del conocimiento: El camino para crecer con equidad en el largo plazo” (Towards the Knowledge Economy: The Road to Long-Term Equitable Growth) (Eyzaguirre et al. 2005), several economists and consultants to President Ricardo Lagos’s government (2000–2006) who would later help to develop the BCP emphasized that the role of the Chilean state in investing in human capital was essential to the social and economic stability of the future Chilean economy, through the promotion of a “knowledge economy developed around natural resources” (ibid, p. 11). According to the authors, investment in human capital is crucial if the threat of a “natural resources race” (ibid, p. 12) is to be avoided.

In the same vein, Brunner and Elaqua (2003), the OECD (2007) and the OECD-World Bank (2009) also drew attention to the growing importance of advanced human capital for future economic development, highlighting the science and innovation indicators that showed Chile’s relatively poor performance in these areas compared to developed economies, as seen in Graph 1.

Graph 1. Selected indicators of Science and innovation Chile-OECD countries.



From: Science, Technology and Industry Outlook (OECD, 2008)

3. BCP Scholarships

The widespread belief in the importance of investing in training human capital (Eyzaguirre 2005; Meller et al. 2004; OECD 2007), the studies pointing out the inefficiencies of the current system of scholarships and aid for students abroad (CONYCIT 2008a; Instructivo 2008) and the extraordinary economic resources resulting from copper exports (Bachelet 2008; OECD 2010) paved the way for the creation of a new scholarship system. In September 2008, President Michele Bachelet created the *Comité de Ministros del Sistema Bicentenario de Formación de Capital Humano en el Extranjero* (Ministerial Committee for the Bicentennial System for Training Advanced Human Capital Abroad) (Instructivo 2008). The committee was tasked with advising the president on the creation of a new national scholarship program called Becas Chile. By December 2008, the BCP had been officially created, and it came into force by decree in March 2009 (MINEDUC, 2009). The program’s core was the ambitious goal of increasing the number of graduate students in advanced programs (master’s, doctoral and others) in foreign countries from fewer than 300 to up to 3,000. This part of the program was called the Bicentennial System for Training Advanced Human Capital Abroad.

3.1 Program Objectives and Actions

Formally, the program has one main objective: “To award scholarships to study or research any area of knowledge in any country in the world, except Chile, with the exception of language courses” (article 2, Decree 664, MINEDUC 2009) as part of “a long-term strategy

to define a comprehensive policy of advanced human capital training abroad” (Becas Chile 2011).

This objective gave rise to three action lines (Instructivo 2008; Becas Chile 2011):

- To reorganize and strengthen the participating institutions in the national innovation system project.
- To increase the total number of publicly funded scholarships. Both the number of scholarships awarded for studies abroad and the graduate enrollment rates in advanced (master’s, doctoral) degree programs in the national higher education system were lower than in similar economies and compared to advanced OECD economies (OECD 2007, 2007B, 2009).
- To increase international links and international cooperation.

3.2 Program Characteristics

The BCP is overseen by the Ministerial Committee for the Bicentennial System for Training Advanced Human Capital Abroad. The committee is led by the education minister and tasked with defining the policies, action lines, strategies and planning for securing this training. The National Commission for Scientific and Technological Research (CONICYT) and the different areas of the Ministry of Education are the executive bodies for 11 study programs (MINEDUC, 2009).

3.3 Selection Criteria

The minimum eligibility requirements for candidates are basically related to citizenship, the type of higher education qualification earned, employment status at the time of application, the support of the home or host institution or of a professor, and foreign language skills (MINEDUC 2009).

The decree established that candidates must be evaluated by a review committee, which will assess their academic records, their background or professional experience, their objectives and arguments in support of their application, their letters of recommendation or the approval of a curriculum, the quality and records of the foreign institution, and the specific program. To address the last criterion: “The international rankings of the institutions must be taken into consideration, when available, as well as the opinion of the respective reviewer, based on the records submitted by the candidate. The international rankings to be used will be determined by the executive bodies” (paragraph 3, article 12, Decree 664, MINEDUC 2009). Other factors are also taken into consideration, such as the region of residence, indigenous background, socioeconomic level, physical disability and field of employment or proposed studies in one of the priority areas determined by the ministerial committee.

The “quality of the institution” criterion was reinforced for the 2011 process, which includes an explicit and mandatory requirement for candidates: “the candidate must have been accepted by the foreign university at the time of application. The candidate must: a) submit a letter of acceptance from an institution ranked among the top 150 universities according to the 2010 Times Higher Education ranking, the QS World University ranking or

the Academic Ranking of World Universities (Shanghai ARWU), or the program must be ranked among the top 50 in the aforementioned rankings in the program’s specific field” (article 4.2, Becas Chile 2011b).

Table nº1: Weighting table for the evaluation of the “Level and quality of the university or study centre”.

Scholarship program	% of the total evaluation				
Doctoral	45%	International rankings	100%	University	50%
				Program	50%
Master	45%	International rankings.	100%	University	50%
				Program	50%

Elaborated from “Manual del evaluador”, Conicyt 2009; Becas Chile 2011b.

The weight of the selected institution’s ranking in the overall evaluation of the candidate’s scholarship application (45% for both master’s and doctoral programs), plus the requirement of having first been accepted at a ranked institution, makes this criterion decisive in the awarding of the scholarship.

4. International University Rankings and the BCP

The BCP accepts only three rankings to certify an institution’s quality (article 4.2, Becas Chile 2011b): the Times Higher Education (THE) World University Ranking, the Academic Ranking of World Universities (ARWU) and the QS World University Ranking. Table 2 compares the indicators used by each one.

Table nº 2: Weight in the overall index per each ranking indicators.

Individual indicators	THE Ranking	QS Ranking	ARWU ranking
Research income from industry (per academic staff)	2,50%		
Ratio of international to domestic staff	3%	5%	
Ratio of international to domestic students	2%	5%	
Ratio of Students to faculty		20%	
Reputational survey (teaching)	15%		
Employers/ recruiters review		10%	
PhDs awards per academia	6%		
Undergrad. admitted per academia	4,50%		
Income per academia	2,25%		
PhDs/undergraduate degrees awarded	2,25%		
Size of the institution (score/fulltime staff)			10%
Reputational survey (research)	19,50%	40%	
Research income (scaled)	5,25%		
Papers per research and academic staff	4,50%		

Public research income/ total research income	0,75%		
Citation impact	32,50%	20%	20%
Nobel prizes and field medals			10%
Number of an institution staff with Nobel price and field medals			20%
Number of articles published in Nature and Science			20%
Number of highly cited researchers in 21 broad subjects			20%

Own Elaboration, from: ARWU 2011, THE 2011, QS 2011

Phil Baty, editor of the THE ranking, writes, “We are aware that higher education institutions are extraordinarily complex organizations. They do many wonderful, life-changing and paradigm-shifting things that simply cannot be measured. Data on some of their most valuable endeavors simply do not exist or cannot be meaningfully compared on a global scale; many of the proxies commonly used are less than satisfactory” (THE 2011a; INSIDE 2010). Baty also notes, “We do believe that rankings have some real uses, and love them or hate them, they are here to stay” (INSIDE 2010).

International research shows that rankings have impacts on different stakeholders in higher education systems. No record of use of international rankings to allocate funds for student and research mobility or to select scholarship recipients was found during this study. In this sense, the BCP’s special international ranking requirements may be a unique approach.

Rankings have been subject to close scrutiny, and many methodological objections, as well as doubts about the rationales and motivations, have been raised (Liu et al. 2005; Dill et al. 2005; Florian 2006; Holmes 2006; Goodall 2006; Altbach 2006; Stella and Woodhouse 2006; Usher et al. 2006; Usher et al. 2009; Khem et al. 2009; Buela-Casal 2007; Thakur 2007; Harvey 2008; Teichler et al. 2011). There is a broad consensus, even among the editors and directors of the rankings, that they are flawed and limited approaches to a vertical differentiation, and that there is plenty of room for improvement. None of them claims to be a definitive list of “the world’s highest-quality learning institutions” as the BCP intends them to be.

4.1 Possible Rationales behind the Use of Rankings

The official BCP documents offer no explicit explanation for the use of rankings, although three general rationales can be identified.

First, there is the “operative” rationale. In the vast world of global institutions, rankings are chosen as a compass. With more than 30,000 applications (Becas Chile 2011a), the BCP secretariat and evaluation experts must process thousands of applications each year for hundreds of possible programs and institutions. In this context, international rankings may seem like the easiest available “objective data” on which to base the scholarship assignment process. However, the use of rankings as a prism to look at the world of higher education institutions does not offer a complete or informed picture of the landscape of institutions or, more importantly for the BCP, of specific programs.

Second, there is the “principle” rationale. The desire to send the most meritorious students to the world’s “best” universities may be a genuine objective. Part of the process for selecting the most suitable candidates is based on the candidate’s academic and personal records, letters of recommendation, and research or academic proposal. The evaluation body’s familiarity with Chilean higher education makes the process relatively smooth. The option chosen for deciding which the best universities in the world to send these students to might be was to follow easy-to-read international rankings. Nevertheless, the use of rankings to identify the best institutions is unaligned with the basic rationale of the BCP: the development of advanced human capital to build a knowledge economy. The assumption that the top 150 universities in these rankings are more suitable or better at training advanced human capital has no theoretical or practical basis and falls prey to what Pascarella and Terenzini (1995, p. 25) call the third myth: “Institutional resources and prestige equal educational quality.” There is no reason to think that the 152nd university differs in any way from the previous ones.

Finally, there is the “market” rationale. From this perspective, “the consumers of tertiary education are also looking for indicators that enhance their capacity to identify and access the best universities” (Salmi 2009, p. 18). The BCP’s administration as a body to guide “consumers” trying to identify the right “provider” results in the use of rankings. If the BCP is to play any role in the selection of the providers, it should reflect the importance of the task: the BCP should select them according to the program’s rationales, in order to follow policies with a long-term strategy in mind.

4.2 Implications of the Use of Rankings

The use of the THE, ARWU and QS rankings has implications for several areas. First, there is a mismatch between the BCP’s rationales and objectives and the selection method. The program intends to send students and researchers to programs anywhere in the world that may potentially have a greater impact on building a knowledge economy or contributing to social and economic development. However, there is no evidence that the departments or faculty at the institutions in the rankings actually offer programs with greater potential to train students and researchers and thus make them better equipped to contribute to the social or economic development of a Chilean knowledge economy.

Second, the most relevant programs for the intended objectives may not be selected. The BCP requirement of prior acceptance at a ranked university does not take into account that the rankings focus on the institution as a whole. In other words, it fails to consider that universities have particular strengths in certain fields and areas (as do faculty, departments and programs), or that they can be focused more on research or on teaching (and thus also have weaknesses in one or the other). Moreover, the BCP ranking requirement does not consider the difference between a master’s and a doctoral degree (or how such degrees might differ in different countries), but rather merely designates the same three rankings as the “quality tables” to be used.

Third, there is an impact on applicants’ actual preferences and expectations. Some highly relevant study or research programs cannot even be considered by potential students/researchers, forcing them to choose a program at a ranked institution instead. The use of rankings to select the training programs is indicative of a misunderstanding of the wide variety of ways in which higher education institutions are conceived in different regions

and countries and of how study and research experiences can have an extraordinary impact on the development of advanced human capital.

Fourth, the rankings offer a narrow view of the complex and heterogeneous world of institutional, political and cultural environments in higher education, which can lead to homogeneity in students' and researchers' experiences abroad. Certainly this is not conducive to the desired outcome of heterogeneous perspectives to tackle the complex problems of a global society.

Finally, the use of rankings reduces the international study/research experience to a merely academic one. Research shows that the academic experience (the experience that the rankings try to address by ranking the best universities) is but one part of a much more complex set of experiences. Higher education in general changes students in many ways (Pascarella and Terenzini 1991, 2005) and international study/research experiences involve a rich and complex mixture of experiences at different levels (Teichler et al. 1990, 1997, 2002). The life-changing experience of studying/researching abroad can be as important for the development of a knowledge economy as the academic experience, and it is also of great value in training advanced human capital.

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