

Case Study: Brazilian Scientific Mobility Program (*Programa Ciência sem Fronteiras, Brazil*)

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4.1 INTRODUCTION

No other initiative is more emblematic of a new era in the internationalization of Brazilian higher education than the Brazilian Scientific Mobility Program (BSMP). Launched by President Dilma Rousseff at the end of 2011, “Science without Borders”—a literal translation of the program’s original name in Portuguese, “*Ciência sem Fronteiras*”—has since then become one of the largest government-sponsored academic mobility programs in the world (Luna and Sehnem 2013). Immediately after its inauguration, BSMP gained international recognition and put Brazil, for the first time, on the map of global higher education (Coudaha and Kono 2012; Monks 2012).

The main target of the program was rather ambitious: to send 101,000 fully funded students to study and research in top universities in North America, Europe, Asia and Oceania.¹ The program was designed

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around individual scholarships awarded by mainly two federal agencies—Coordination for Improvement of Higher Education Personnel (CAPES) and National Council for Scientific and Technological Development (CNPq)—to students in STEM disciplines. Most of the students were undergraduates in their second to fourth year of studies in Brazil, sent abroad for non-degree programs and, in some cases, for an additional period of foreign language instruction. Most participants had no previous international educational experience.

Individual candidates applied directly to open application calls, and those selected were placed at institutions in different host countries through contracts signed by the Brazilian Government with experienced partner organizations, such as the Institute of International Education (IIE), Campus France, Universities UK, and the German Academic Exchange Services (DAAD). Those foreign partners also provided entry visas and monitored the students' academic progress. Meanwhile, universities and other sending institutions in Brazil were usually minimally involved in the selection, placement and monitoring of students abroad, although they committed to evaluate international transcripts upon students' return, for equivalency purposes as well as to meet graduation requirements.

Perhaps more impressive than the program's original goals was the fact that they were virtually accomplished by the end of its first phase, in 2015, at an estimated cost of USD 3.8 billion in Federal Government spending.² As we shall see, because of its unprecedented magnitude and ambitious design, *Ciência sem Fronteiras* impacted various areas of educational policy-making and reshaped the debate around international education in Brazil.

This case study is an attempt to contribute to a broader understanding of the original motivations, controversies and multiple outcomes—attested or expected—of BSMP. The following section begins by recollecting the historic precedents of *Ciência sem Fronteiras* and the increasing relevance of internationalization in the Brazilian higher educational agenda for the twenty-first century. Later, we present and analyze some of the most updated data available on the program, and reflect on the larger scope of social transformations set forth by *Ciência sem Fronteiras*; transformations that will certainly continue to unfold in the years to come.

4.2 BSMP: HISTORICAL AND CONTEXTUAL PREMISES

Similar to other complex governmental initiatives, the story of *Ciência sem Fronteiras* cannot be adequately captured by a simplistic narrative. Rather than having a single origin, this pioneering program is the culmination of a series of historical circumstances. In an attempt to organize the story of BSMP in a comprehensive manner, the following paragraphs classify part of those contextual factors into four complementary domains: *historical*, *economic*, *demographic* and *political*.

From a *historical* perspective, Brazilian higher education has always been influenced by and geared towards foreign references. Since their inception in the nineteenth century and later consolidation in the 1900s, Brazilian universities were designed to mirror the centers of excellence from Europe (Schwartzman 2014). As noted by Luiz Cunha, rather than conflicting with the post-colonial mission of building a truly *national* higher education system, the promotion of ties with institutions and individuals from abroad was traditionally seen as a major component of this mission (Cunha 2007). In a broader sense, “nationalism” and “internationalization”, at least in regard to higher education policy, have never been in conflict, and institutional efforts to promote internationalization have been—more or less successfully—undertaken throughout the (short) history of Brazilian higher education.

Perhaps the most concrete example of such efforts was the simultaneous creation of two federal agencies, in 1951: CAPES and CNPq (now subordinated to the Ministry of Science, Technology and Innovation³). Via these two agencies, the Federal Government funded regular cohorts of Brazilian students and scientists abroad. Both agencies have also facilitated hundreds of international cooperation agreements and directly sponsored thousands of foreign scholars in Brazil since the 1960s. In effect, the establishment of CAPES and CNPq—and the subsequent creation of other state level agencies—provided the foundational framework for sustained public investments in national science and international academic mobility. Over the decades, those institutions consolidated their position as strategic policy-makers in the areas of higher education and science, and were crucial in transforming Brazil into the leading nation in scientific development in Latin America (Balán 2013).

CAPES, CNPq and many other state bodies endured severe budgetary constraints in the 1980s and 1990s. During this period, government investments in international scholarships declined and a new emphasis was placed

on reverting “brain drain”, repatriating Brazilian scholars and developing the domestic graduate programs. By the turn of the millennium, however, as the country regained its economic vitality, the existing institutional apparatus would prove to be a valuable asset for a new phase in the internationalization of Brazilian higher education. Alongside the restructuring of international relations departments at CAPES and CNPq, direct federal investments in internationalization were propelled to a new level (Vaz and Inoue 2007).

Evidence of the increasing relevance attributed to internationalization was the proliferation of multiple agreements, such as the “China Brazil Earth Resources Satellite Program (CBERS)”, the “Inter-American Collaboration in Materials (CIAM)” and multiple student exchange initiatives with institutions such as the German “DAAD” and the British “Universities UK”. In the wake of CAPES and CNPq’s expansion, universities—mainly the large public research ones, but also prestigious private institutions—multiplied their own independent ties with foreign institutions with the establishment of new dual-degree programs, multinational research groups and the creation of their own international offices. This process was facilitated by the empowerment of organizations such as the Brazilian Association for International Education (FAUBAI), the Council of Brazilian University Rectors (CRUB) and also by the inauguration of Brazilian branches of foreign universities, like Harvard and Columbia, since the 2000s.

In addition to these historical factors, *Ciência sem Fronteiras* was also inspired by more immediate *economic* concerns. As the country regained its economic dynamism, it became increasingly evident to businessmen, state officials and observers in general that Brazil needed to invest heavily and urgently in the capacitation of its workforce if it intended to compete in the global knowledge economy. By 2010, multiple analyses suggested that Brazil’s labor market lacked an estimated 40,000 engineers and thousands more highly skilled and trained professionals in order to improve productivity levels and sustain healthy margins of growth (Salerno et al. 2013). Insufficient levels of professional or academic experience abroad and the low levels of foreign language proficiency among the Brazilian workforce were also factors that concerned government authorities.

Moreover, the economic preoccupations with international competition, human capital formation and skills-driven education were commonly used by the Government to justify the need for a program of the magnitude of *Ciência sem Fronteiras* and its exclusive emphasis on the STEM fields. The

widely advertised success of multilateral academic agreements in other parts of the world—the Bologna Process, in particular—also served as compelling evidence that the intensification of international academic mobility had not only become an irreversible process in the twenty-first century but could also yield gratifying economic rewards to the nations that are better positioned in the international higher education market (Unterhalter and Carpentier 2010). In this sense, participating in the “global circulation of knowledge”—even if initially as an exporter of students rather than a top destination—became an economic imperative for developing nations like Brazil.

A third set of factors that influenced the creation of *Ciência sem Fronteiras* refers to the broad domain of *social* and demographic transformations taking place in Brazil in the last couple of decades—and in particular how these transformations impacted higher education policies during the period. Since the 1990s, Brazil has experienced an unprecedented rise in the levels of secondary education enrollment and attainment (Pedrosa et al. 2014). Furthermore, political, social and macroeconomic conditions enabled over 30 million Brazilians to rise out of poverty, thus participating more actively in consumer markets and enjoying relatively higher standards of living (Pochman 2014). These factors—added to a proportional expansion of the university-age population, a historically suppressed offer of tertiary school placements and the increased economic payoffs of a university degree in the job market—were ingredients that combined to form an explosive popular demand for higher education by the mid-1990s (Carnoy et al. 2013). As consequence, the Brazilian higher education sector had nowhere to go but to grow.

The numbers indicate this unprecedented expansion: in 1990 Brazil had a total of 1.5 million students matriculated in undergraduate and graduate programs. Twenty-five years later, this population had risen to more than 7.2 million.⁴ In the same period, the total number of higher education institutions in the country went from 874 to 2391⁵; the number of graduate programs alone grew from less than 1000 to 5200.⁶ This expansion was propelled by a disproportionate growth of the private sector, which today accounts for 90% of the higher education institutions in Brazil and over 70% of enrollments (Sampaio 2012).

Despite the saviness of entrepreneurs in the for-profit and non-profit education sectors, the massive expansion of the last 20 years was only possible due to a series of government incentives to democratize access to universities. Since 2004, through policies such as Reuni (National Program for Restructuring and Expanding Federal Universities), the Federal

Government created new public universities, expanded existing ones and amplified the availability of online courses, adult learning programs and professional training (Schwartzman et al. 2015). The government also stimulated enrollments in public (tuition free) and mainly private universities via broad financing programs targeted at low-income students. The largest and most widely commented among these programs was Prouni, which distributed almost 3 million scholarships and cost approximately 4.7 billion *reais* in its first decade of existence.⁷ Lastly, following a heated national debate, Congress approved, in 2012, new affirmative action legislation granting university admission rights to students from underprivileged educational, income and ethnic backgrounds (Guimarães 2016).

Overall, the consensus among analysts is that those initiatives—although recent—have indeed contributed to a greater socioeconomic diversification of the Brazilian university population, which is now less elitist than ever before (Barreyro and Costa 2015). It is unclear how this recent democratization of Brazilian higher education has influenced the promulgation of new internationalization policies such as *Ciência sem Fronteiras*. Yet it would be fair to say that the widening access to universities and the popularization of tertiary degrees have at least contributed to form a favorable atmosphere for the adoption of expansive governmental policies. Historically in Brazil, studying abroad has always been a privilege of the few. In this sense, expanding the opportunities for academic mobility among underprivileged groups was in line with the *social-developmental* orientation that has characterized many of the Federal Government's initiatives since 2002 (Morais and Saad-Filho 2012).

The fourth decisive domain of transformations leading to the creation of *Ciência sem Fronteiras* was *political*. According to government officials and educational authorities who were directly involved in the planning and implementation phases of the program, BSMP would not have gained enough momentum if not for a combination of geopolitical intentions and the particular character of the Federal Government around the time of the program's announcement.⁸

On the one hand, beginning in the 1990s and increasingly in the 2000s, the Federal Government has engaged systematically in the pursuit of new educational cooperation agreements both regionally and globally. At the regional level, through Mercosur, Unasur and other platforms of multilateral negotiations, ministers of education from Brazil and the other member states signed a number of agreements designed to facilitate educational cooperation and the mobility of highly qualified human resources in the

region (Gomes et al. 2014). The Brazilian Government also inaugurated, from 2009 to 2012, four new federal universities with explicit internationalization mandates, an action that signaled the consolidation of academic and diplomatic ties with other countries from the “Global South” (Sá et al. 2015). Together, the formalization of new educational agreements and the rehabilitation of existing institutions like CAPES and CNPq sparked a significant increase in the mobility of Brazilian scholars to nations in South America and Africa and, to a lesser extent, to new emerging partners in Asia (De Brito Cruz and Chaimovich 2010).

Beyond the immediate geographic borders in South America and “cultural frontiers” in Portuguese-speaking Africa, educational diplomacy also became an increasingly salient theme in the delineation of Brazil’s relations with traditional allies in Western Europe and North America. In an era when the focus of Brazilian foreign and trade policy was shifting towards the “Global South”, higher education and scientific exchange represented strategic areas through which the country could maintain its indispensable ties with the North (Spears 2012). The Government understood, moreover, that in order to consolidate the international projection of Brazil as an emerging global power, it would be crucial for the country to participate more effectively in the increasingly interconnected production and circulation of knowledge worldwide. In this regard, the evidence that the number of Brazilian students in US or European universities was much lower than that of students from other emerging economies propelled the Government to take action (Monks 2012).

In sum, a certain nationalistic impetus to promote Brazilian science, technology and recent economic achievements worldwide was at least in part responsible for the creation of such an ambitious program as *Ciência sem Fronteiras*. The sense of urgency provided by this impetus may also help to explain why the program was designed and administered in a rather centralized fashion by the Presidency. In effect, from its inception, BSMP relied on minimal consultation with higher education institutions, scientific associations, student unions or other civil society organizations. Whereas some interpret this political orientation as an excessive centralization of the program’s administration, others believe that BSMP would never have been possible without the direct involvement of the Presidential Cabinet in the program.

4.3 OUTCOMES AND IMPACTS: A TENTATIVE ANALYSIS OF BSMP

It is still early to analyze the long-term outcomes of *Ciência sem Fronteiras* on Brazilian higher education, economy and society at large. The program was launched in 2011, and the first cohorts of international students only started to return to Brazil in 2013. Therefore, comprehensive data about the initiative are not yet widely available.

In order to engage in a more thorough analysis of *Ciência sem Fronteiras* and its social impacts, it is important to describe what is already known about the program.

4.3.1 *Existing Data and Preliminary Observations*

According to the most recent data provided by CAPES and CNPq, the co-administrators of BSMP, a total of 92,862 scholarships had been granted by 2016.⁹ The inauguration of BSMP created an immediate impact on the overall number of Brazilian students and scholars sponsored by Federal Government scholarships overseas. In less than 2 years, from 2011 to 2013, the number of Brazilian students abroad more than quadrupled. In the United States—historically the most important partner of Brazil in the areas of educational and scientific cooperation and arguably the most prominent nation in the global landscape of international education—BSMP had a particularly remarkable impact. From 2009 to 2015, according to the International Trade Administration, Brazil went from 14th to 6th place in the ranking of leading nationalities of foreign students in US higher education institutions.¹⁰

Of the total number of BSMP students worldwide, approximately 39% began their studies abroad in 2014, a year before the last open call for scholarship applications.¹¹ The charts below show the distribution of implemented scholarships by starting year (Figs. 4.1 and 4.2), by host countries (Fig. 4.3) and by fields of study (Fig. 4.4).

Among the most distinguishing features of *Ciência sem Fronteiras* is its emphasis on college-level students. In this respect, it is important to highlight that 79% of all BSMP scholarships distributed during the first phase of the program (2011–2015) benefited undergraduate students who were already regularly matriculated in post-secondary programs in Brazil. Those students—usually in their second or third year of studies in one of the “priority areas” of BSMP,¹² and also with a demonstrated record of high

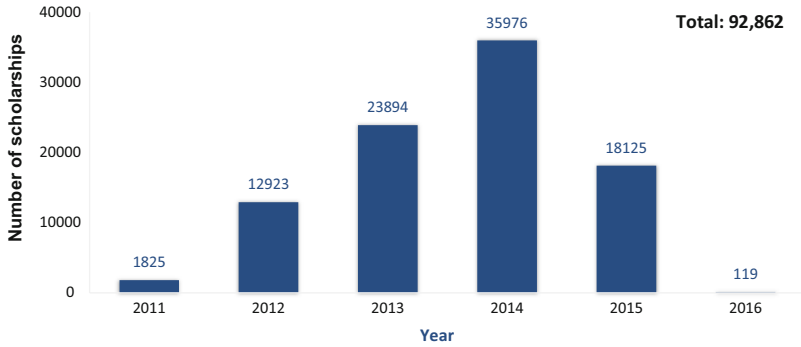


Fig. 4.1 BSMP scholarships by year of implementation (Source: CAPES/CNPq. Last update: April 14, 2016)

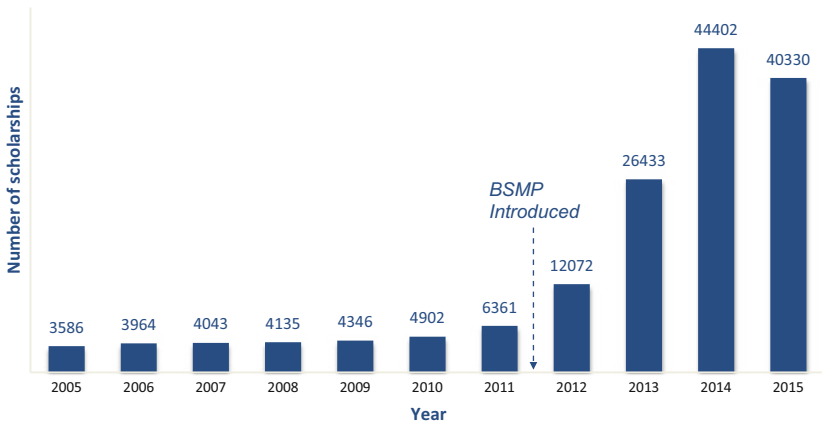


Fig. 4.2 Total number of federal government scholarships overseas per year (not only BSMP) (Source: DRI/CAPES)

academic performance—were enrolled as non-degree seekers abroad for 1 academic year or up to 18 months in the case of those needing prior training in a foreign language.¹³ Undergraduate BSMP students were also encouraged to engage in internships and other academic training activities before their return to Brazil.

BSMP’s focus on undergraduates should not be underestimated. By targeting younger scholars and by offering an unprecedented number of

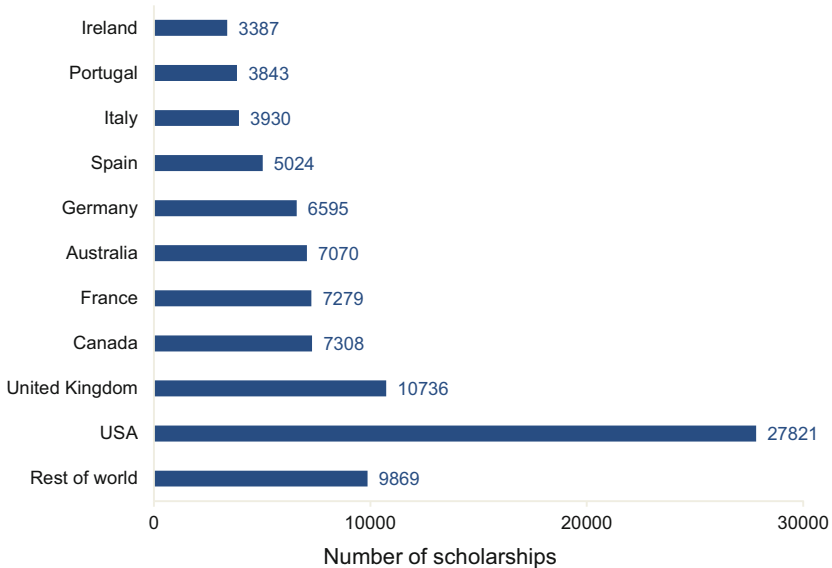


Fig. 4.3 Distribution of BSMP scholarships according to host countries (2011–2016) (Source: DRI/CAPES)

fully funded scholarships, *Ciência sem Fronteiras* was designed to expand and democratize the opportunities for international education to groups of students who would otherwise never have a real chance to study, work or even travel abroad. In this sense—although this has never been explicitly stated in official communications about the program—the aim of BSMP was not simply to train highly qualified scientists and already established mid-career scholars. More than that, the program had the potential to cause a deep impact on the Brazilian higher education system—usually criticized for being overly hierarchical, bureaucratic and lacking in innovation. By funding young talents directly—regardless of departmental affiliations, family background, university of origin or level income—BSMP can thus be seen as an attempt to “shake things up”, and contribute to a bottom-up infusion of entrepreneurship and meritocracy into Brazilian higher education.

Moreover, the emphasis on undergraduates suggests a more comprehensive conception about the social, cultural and political meanings of international education. Understood as more than a strictly economic investment

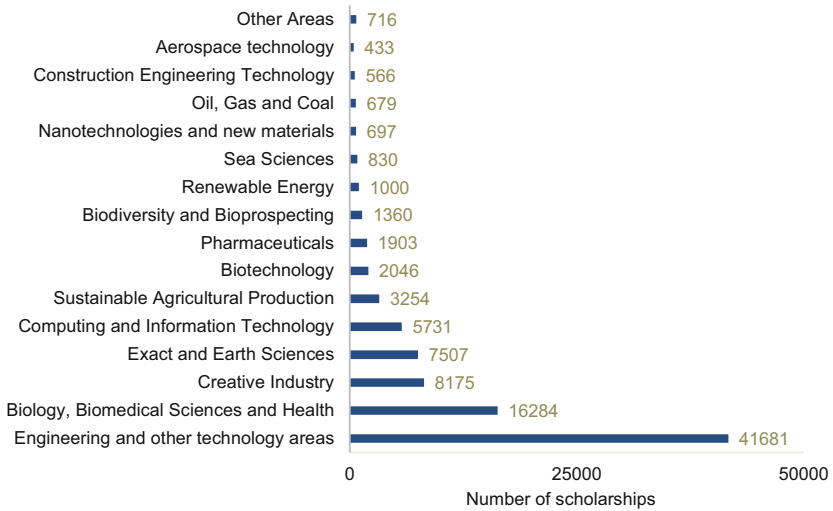


Fig. 4.4 BSMP scholarships by fields of study (Source: DRI/CAPES)

in the nation's scientific capability, *Ciência sem Fronteiras* was devised as an investment in the *lives* of a potentially transformative generation of young Brazilians. Studying and researching abroad were then arguably thought of as meaningful *life experiences*, and not only *educational* ones. Investing in young students—at least in hypothetical terms—was understood as an investment in broader social change, and not simply in human capital formation or scientific development.

As for the geographic and disciplinary distribution of scholarships, the graphics above indicate other noticeable patterns. English-speaking countries (Canada included) concentrated around 60% of all BSMP fellows, with the United States disproportionately leading the pack. Discipline-wise, engineering-related fields predominated and accounted for over 45% of scholarships, followed by 17% in biomedical sciences. These numbers reflect the atmosphere of urgency originally created by the government and the business sector around the need to train engineers and English proficient professionals for the Brazilian labor market.

Also worth mentioning, BSMP scholarship recipients were recruited from all regions of Brazil and from a wide variety of higher education institutions. In absolute terms, students from São Paulo and Minas Gerais represented 38% of the scholarship recipients. Both states, however, are the

most populated in Brazil and disproportionately concentrate the existing higher education institutions in the country. When controlled by overall university population per State, numbers show that BSMP scholarships were evenly distributed throughout all regions of Brazil.¹⁴ This suggests that talented students, regardless of their region of origin, indeed had a fair chance to be funded to study abroad.

Gender equality was also broadly observed, with women representing 45% of BSMP scholarship holders.¹⁵ Therefore, although *Ciência sem Fronteiras* did not prescribe any form of affirmative action or quota system during its selection process, it is possible to say that the impacts of the program were widespread. It is true that selected students came mostly from the top universities in the country and had to demonstrate a good record of academic performance in order to be eligible for a rather competitive scholarship. In this regard, BSMP was inevitably an elitist policy, which benefited only the very high stratum of the Brazilian academic population (today with over 7 million undergraduate and graduate students). Nonetheless, although difficult to measure with precision, it is also beyond doubt that a large portion of the 90,000-plus students who benefitted from *Ciência sem Fronteiras* would otherwise never have had the chance to study abroad. This fact, in itself, represents an indisputable social impact.

4.3.2 *Social Impacts—Preliminary Evidence*

Multiple efforts are currently being undertaken in order to map, understand and better evaluate BSMP.¹⁶ Although results from a proliferation of new studies are still inconclusive, it is worth mentioning at least part of their preliminary evidence.

In 2016, staff members of CAPES began to conduct an exploratory study¹⁷ targeted at the first cohorts of *Ciência sem Fronteiras* fellows who returned to Brazil since 2013. The study aimed at measuring the insertion of former BSMP students into the labor market and their impact on post-graduate studies. The analysis revealed that 28% of former BSMP undergraduates had enrolled in masters and doctoral programs at Brazilian universities after their return. As a comparison, the rate of enrollment in graduate school is only 7% among Brazilian undergraduates who did not have the chance to study abroad. More importantly, of the total number of former BSMP students who enrolled in graduate studies upon their return to Brazil, approximately 23% entered the highest-rated graduate programs in the country. These programs admit less than 10% of graduate students

annually, which indicates that BSMP alumni who decided to pursue an academic career in Brazil are doing so in the best and most competitive universities in the country.

If the experience of *Ciência sem Fronteiras* may be interpreted as a passport to a successful academic career, the same cannot be concretely affirmed in the case of the insertion of BSMP alumni in the labor market. CAPES's study has crossed data obtained from multiple governmental databases. However, because specific information about the socioeconomic and ethnic background of BSMP participants was not collected before 2012, longitudinal studies about the impacts of BSMP on individuals' income, labor situation and general welfare are not yet available. In addition, any substantial analysis about the professional performance of returned BSMP students would need to account for the economic crisis, one of the most severe in the country's history, that has worsened since 2015.

Another widely advertised—but also inconclusive—study was produced by the Office of Transparency of the Brazilian Senate.¹⁸ Published in October 2015, the study consisted of a survey sent out to 82,000 BSMP participants and alumni. The results of the inquiry—to which only 18.3% of the students in the sample responded—contained important revelations. First, more than half of the respondents reported family earnings inferior to 10 minimum salaries (approximately USD 30,000 annually), which may confirm that BSMP in fact benefited individuals who would not have been able to pursue international education without governmental help.

The Senate's survey also indicated that 92% of BSMP participants were happy or very happy with the program; 97% declared that studying abroad was an “excellent” or “good” experience, which contributed decisively to “deepening knowledge in one's area of study”, “gaining fluency in another language” and “establishing academic contacts overseas”. Perhaps even more revealing was the fact that twice as many respondents (53% vs. 24%) said they would prefer to pursue careers in Brazil rather than abroad.

The results of the survey, although very preliminary, were important to debunk claims that BSMP would only serve to stimulate brain drain of Brazilian scholars and young talents to universities and research institutes in Europe and North America. The overall academic and language-learning performance of BSMP students abroad, their remarkable satisfaction with the experience overseas and their declared commitment to “give back to Brazil” were also signs that the unprecedented investments in a program like *Ciência sem Fronteiras* were not totally unjustified.

4.4 MOVING FORWARD: A FEW (IN)CONCLUSIVE REMARKS

By all measures, *Ciência sem Fronteiras* was an unprecedented initiative in the landscape of higher education policy in Brazil. From an institutional perspective, the program has been pivotal to revive an old and yet usually dispersed debate around the “need to internationalize” Brazilian universities, curricula, science and academic activity in general. In only half a decade of existence, it is fair to say that BSMP pushed agencies such as CAPES and CNPq, for instance, to work together as never before, and quickly adapt their 65-year-old bureaucracies to the needs of internationalization in the twenty-first century.

The implementation of BSMP also opened new avenues for Brazilian international relations. Since the establishment of the program, the Brazilian Ministry of Foreign Affairs inaugurated new educational offices in many of its embassies and consulates around the world. These new offices are concrete examples of the new emphasis placed by the Government on educational diplomacy. Most importantly, the unprecedented flow of Brazilian students to university campuses and research institutes across the world, the direct involvement of international educational institutions in the management of BSMP overseas and the increasing number of international academic missions to and from Brazil have all contributed to profound transformations in the ways Brazilian higher education is perceived internationally.

BSMP served, moreover, as a focal point for several initiatives of Brazilian international student engagement worldwide. As the annual number of Brazilian students abroad quadrupled by 2013, local Brazilian student associations were revitalized and new networks of academic expatriates flourished—Rede CsF, PUB-Boston and BRASA, to name only a few. Spontaneous initiatives, these networks operate in the interface between Brazil and the broader world and have sparked renewed interest in the community of Brazilian students and scholars scattered around the world—also known as the “Brazilian Scientific Diaspora”.

Whereas on the global stage Brazilian higher education was in many ways (re)discovered by foreigners, inside Brazil BSMP was an emergency call for university administrators, public officials and academics in general to invest in their international portfolio. With the establishment of *Ciência sem Fronteiras*, at least one thing became certain: internationalization could no longer be ignored. Although difficult to affirm with accuracy, *Ciência sem Fronteiras* may have influenced a noticeable increase in the

participation of Brazilian scholars and universities in international academic publications in recent years.¹⁹ Above all, BSMP contributed to reshape the relationships between the Federal Government and the very heterogeneous universe of higher education institutions in Brazil—a universe that, as we saw, has almost tripled in size in the last couple of decades.

It is true that the program's design—centered on individual scholarships—as well as its administrative centralization around the Presidency generated initial resentment among many stakeholders. Representatives of the large, historically autonomous and research-based public universities felt particularly left out of the planning, operationalization and potential benefits of BSMP. Sectors of the media and parts of the Brazilian scientific establishment also repeatedly questioned why large amounts of public resources were being invested in an initiative that did not seem to have clearly defined evaluation criteria or expected outcomes from its outset (Castro et al. 2012). In addition, BSMP was criticized for disproportionately benefiting undergraduate students—many of them with insufficient knowledge of a foreign language—instead of supporting mid-career scholars, post-graduates or even infrastructural improvements in the country's crumbling public universities.²⁰ The program's restrictive focus on the STEM fields irritated academics in the arts and humanities, as well.²¹

Motivated in part by these multiple critiques, an animated debate arose recently around how to build from the legacy of BSMP's initial phase. The widespread consensus today is that *Ciência sem Fronteiras* must be seriously reformed and improved, but not ended. In 2014, amidst a very contentious presidential campaign and despite generalized skepticism about the financial sustainability of the program, President Rousseff announced a second phase of BSMP, promising that by 2019 another 100,000 scholarships would be awarded.²² The downfall of Brazilian economy since then forced the program to be “frozen” in September of 2015, after which no new undergraduate scholarships were offered. A couple of months later, however, in an opposite direction to the austerity measures implemented by the government, a bill was submitted to the National Congress proposing that BSMP become institutionalized as a permanent state policy.²³ An attempt to make *Ciência sem Fronteiras* immune to partisan disputes and sporadic budgetary constraints, the bill was proof that *Ciência sem Fronteiras* still had a broad base of support.

In 2016, the Ministry of Education requested that the Senate remove the bill from Congress' agenda so that it could be revised before it was put into vote. A number of institutions are currently being consulted with the

intent to re-cast *Ciência sem Fronteiras* as the centerpiece of a long-term, integrated national plan for the internationalization of Brazilian higher education. The plan should be anchored in at least three pillars: (a) active participation of Brazilian universities in the selection, monitoring and placement of students abroad; (b) governmental support for foreign language proficiency programs in Brazilian universities (targeted at both students and faculty); and (c) better incentives for foreign scholars and students to participate in Brazilian academia (including infrastructure investments to make Brazilian universities more attractive to foreigners, expansion of programs offered in English and a new legal framework for dual-degree programs and the accreditation of international diplomas).

To conclude, although the long-term social outcomes of *Ciência sem Fronteiras* are still impossible to measure, the debates and transformations it has already sparked in its very few years of existence allow us to foresee lasting impacts of the program in the years to come. In particular, the numerous, diverse and young “BSMP generation” will hopefully be a decisive force for continuous innovation in Brazilian economy, politics and society at large. As they return from transformative experiences abroad to a country in social, political and economic turmoil, this unprecedented generation of alumni is expected to contribute to changes in curricular practices and in the expansion of international cooperation. These BSMP alumni may also help to shake up the structures of the typically hierarchical, exclusionary and excessively bureaucratic academic sector in Brazil. Time will tell us how and when these transformations will take place.

NOTES

1. <http://www.cienciasemfronteiras.gov.br/web/csf-eng/>
2. Originally, 25% of BSMP’s budget would come from the private sector. This goal has not been maintained, and the Federal Government ended up covering 93% of the program’s total expenses. (Source: MEC; Federal Budget—CGU, 2015).
3. The Ministry of Science, Technology and Innovation was incorporated into the Ministry of Communications in 2016, after the ministerial reform conducted by President Michel Temer.
4. MEC. Secretaria de Educação Superior.
5. Mapa da Educação Superior, 2015.
6. Diretoria de Avaliação (CAPES).
7. MEC. Receita Federal.

8. Interviews with civil servants and former state officials from CAPES, Embrapii, CNPq and FAUBAI—April and May 2016.
9. CAPES/MEC presentation, Washington, DC, May 2016.
10. ITA (2016).
11. The last round of BSMP scholarship application and selection process was concluded in September 2015. The first phase of the program, initiated in 2011, officially ended in 2016, when the last cohort of scholarship holders began to return to Brazil. Since then, a combination of financial constraints and political turmoil has forced the Federal Government to announce a temporary halt in the program.
12. The priority areas of the program are mainly the ones listed on Figure 4.
13. As an example: 58% of the undergraduates who came to the United States undertook a period of intensive English language training prior to beginning their academic programs (IIE Fast Facts Overview, June 2016).
14. Presentation Capes (September 2015—New York).
15. Painel de Controle: www.cienciasemfronteiras.gov.br
16. Among the growing academic production about BSMP, at least two recent studies are worth mentioning: Chaves (2015) and Grieco (2015).
17. Unpublished study (Adi Balbinot Jr.; “Plataforma Sucupira”).
18. DataSenado, October 2015.
19. CAPES: Scopus/Elsevier DataBase.
20. <http://opinioao.estadao.com.br/noticias/geral,ciencia-sem-verba-imp-,1615482>
21. <http://posgraduando.com/por-que-o-ciencia-sem-fronteiras-exclui-as-ciencias-humanas/>
22. <http://www.brasil.gov.br/educacao/2014/06/dilma-rousseff-lanca-segunda-etapa-do-ciencia-sem-fronteiras>
23. Projeto de Lei do Senado nº 798 de 2015.

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