

# The Rockefeller Foundation and the Training of Agricultural Specialists for Latin America: a Profile of Scholars from Latin American Scholarship Program in Agriculture (1951-1962)

Flavio M. Heinz<sup>1</sup>, Ana Paula Korndörfer<sup>2</sup>, Cristiano Enrique de Brum<sup>3</sup>

## ABSTRACT

Between 1951 and 1962, the Rockefeller Foundation (RF) maintained a scholarship program, the Latin American Scholarships program in agriculture (LAS), which financed the training of 226 Latin American students and researchers who, together, received 297 scholarships for short study periods at leading research centers in countries in the region. These centers were, above all, structures linked to the Office of Special Studies (OSS), a partnership between the Rockefeller Foundation and the Mexican government, and North American universities. The LAS provided the training and circulation of Latin American scholars in a period of great technological advancement in agricultural research and sought to give continental scope to RF's main and most successful laboratory in the area: Mexico. The profile analysis of 226 LAS scholars is made from a database of 9057 minibiographies of scholars available in the Directory of Fellowships and Scholarships published by the Rockefeller Foundation in the 1970s.

**Keywords:** Rockefeller Foundation; Latin American Scholarship Program in Agriculture; scholars; training; scholarship.

<sup>1</sup> PhD in History (University of Paris-Nanterre). Professor at the Department of History (Federal Rural University of Rio de Janeiro, UFRRJ, Brazil). ORCID: 0000-0002-2906-7458. CV Lattes: <http://lattes.cnpq.br/6016604770248827>. E-mail: [flavioheinz@ufrj.br](mailto:flavioheinz@ufrj.br)

<sup>2</sup> PhD in History (Pontifical Catholic University of Rio Grande do Sul). Professor/researcher of the Postgraduate Program in History (University of Vale do Rio dos Sinos, Unisinos, São Leopoldo, Brazil). ORCID: 0000-0001-8643-3867. CV Lattes: <http://lattes.cnpq.br/6609152362276078>. E-mail: [anapk@unisinos.br](mailto:anapk@unisinos.br)

<sup>3</sup> PhD in History (Pontifical Catholic University of Rio Grande do Sul). Substitute Professor at the History Department of the Seridó Higher Education Center (DHC), Campus Caicó (Federal University of Rio Grande do Norte, UFRN, Rio Grande do Norte, Brazil). ORCID: 0000-0003-4119-4158. CV Lattes: <http://lattes.cnpq.br/0887170285281577>. E-mail: [cristianodebrum@gmail.com](mailto:cristianodebrum@gmail.com)

Latin America experienced profound transformations in terms of production and technology starting in the 1940s and 1950s. In addition to the evident changes driven by accelerated industrialization (partial, in many cases) and urbanization, the region had a varying degree of intervention and reform experiences in current production practices, notably in agriculture<sup>4</sup>. Part of these changes can be apprehended by a historical research that questions the social history behind the technological transformations and their organizations, public and private, that is, a historical research that seeks to understand the trajectories of the individuals who embodied these innovative and even “revolutionary” perspectives (the “green revolution” in its flesh and blood agents), the technicians, agronomists and scientists of agricultural modernization. Thus, at the intersection of a social history of professions, science and its institutions and university education, there is a fertile field for historical-sociological analysis. The initiative presented here sought, supported by biographical and prosopographical research<sup>5</sup>, to analyze a fraction of the thousands of scholars – 9,057 in total – whose training the Rockefeller Foundation financed between 1917 and 1970. Out of the total number of scholars, about 1/7 were associated with programs in the agricultural area, 226 of them being scholars in the specific program that will be detailed here.<sup>6</sup>

The Rockefeller Foundation (RF) is a philanthropic institution created in 1913, from the unification of different initiatives of the Rockefeller family in the United States.<sup>7</sup> Early on, the Foundation made the internationalization of its activities an irreversible trend, creating, in the same year of its foundation, the International Health Commission, and specific national programs, such as the China Medical

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<sup>4</sup> Deborah Fitzgerald, *Exporting American Agriculture: the Rockefeller Foundation in Mexico, 1943-1953*, *Social Studies of Science* 16, p. 457-483, 1986; John H. Perkins, *The Rockefeller Foundation and the green revolution, 1941-1956*, *Agriculture and Human Values* 7, no. 3, p. 6-18, 1990; Hebe Vessuri, *Foreign Scientists, the Rockefeller Foundation and the Origins of Agricultural Science in Venezuela*, *Minerva* 32, no. 3, p. 267-296, September 1994; Claiton Márcio da Silva, *De agricultor a farmer: Nelson Rockefeller e a modernização da agricultura no Brasil* (Guarapuava: Editora Unicentro/Editora UFPR, 2015).

<sup>5</sup> According to a well-known definition by Christophe Charle, prosopography consists of “[...] defining a population based on one or several criteria and establishing, based on it, a biographical questionnaire whose different criteria and variables will serve to describe its social, private, public, or even cultural, ideological or political dynamics, depending on the population and the questionnaire under analysis. [...] Once the documentation has been gathered, and this is the longest part of the work, the examination of the data may resort to multiple or quantitative techniques, manual or computerized counts, statistical tables or factor analysis, depending on the richness or sophistication of the questionnaire and sources.” Christophe Charle, “A prosopografia ou biografia coletiva: balanço e perspectivas” in Flávio Heinz (org.), *Por outra história das elites* (Rio de Janeiro: Editora FGV, 2006), p. 41.

<sup>6</sup> The authors participate in the project “Politics of Science: The Rockefeller Foundation fellowship program and the emergency of scientific elite for the peripheral world” (UFRRJ/Unisinos), which created a database with biographical information on the 9,057 Rockefeller Foundation scholars available in the Directory. The Rockefeller Foundation, *Directory of Fellowships and Scholarships (1917-1970)* (Nova York: The Rockefeller Foundation, 1972).

<sup>7</sup> This is the case, for example, of the General Education Board and the Sanitary Commission for the Eradication of Hookworm Disease.

Board<sup>8</sup>, in 1914. Over the following decades, RF established itself as a reference in a field of “scientific philanthropy”<sup>9</sup>.

In the action of the Rockefeller Foundation on a global scale, we can highlight two stages: (a) in the first one, there was an emphasis on medicine and public health actions; (b) in the second one, from the late 1940s onwards, the focus would be on the development of medical, physical and biological sciences, and agriculture education.<sup>10</sup> Between the 1920s and 1960s, the Foundation helped to “[...] build and implement an extensive network of scientific institutions that enabled the diffusion and consolidation of a science model. In this sense, it is correct to say that Rockefeller’s performance can be seen as decisive in the institutionalization of science on a world scale”.<sup>11</sup>

Since its beginnings (1917), the Foundation has established, as one of its main action strategies, a scholarship program that sought to train specialists in various areas, such as public health, medicine and agriculture. Over the years, different programs were created or expanded and became one of the very core of the Foundation’s action. The granting of scholarships provided those contemplated with the possibility of “qualified training, which could last some months or a few years and occurred mainly in North American universities”, and would constitute, according to the Foundation, a “dramatic illustration” of the growing dividends that could be obtained from a “well-planned, carefully directed and sharply focused training program”.<sup>12</sup>

Indeed, the ambition that seemed to direct the initiatives to train specialized technical and scientific staff for “developing” countries involved the formation of individuals who could not only replicate modernization strategies and solve old structural problems, but also transform themselves into leaders, whether in higher education and academic research, whether in the public space, in agencies or state

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<sup>8</sup> The role of RF in China is explored, for example, in Liping Bu’s recent article, *Saúde Global da Fundação Rockefeller e Desenvolvimento da Saúde Moderna na China. História: debates e tendências* 21, no. 3, p. 54-79, 2021.

<sup>9</sup> Maria Gabriela S. M. C. Marinho, *Norte-americanos no Brasil: uma história da Fundação Rockefeller na Universidade de São Paulo (1934-1952)* (Campinas, São Paulo: Autores Associados, São Paulo: Universidade São Francisco, 2001), p. 14.

<sup>10</sup> Lina Faria, *Saúde e Política: a Fundação Rockefeller e seus parceiros em São Paulo*. (Rio de Janeiro: Editora Fiocruz, 2007), p.77-79.

<sup>11</sup> Lina Faria; Maria Conceição da Costa, *Cooperação Científica Internacional: Estilos de Atuação da Fundação Rockefeller e da Fundação Ford. Dados – Revista de Ciências Sociais* 49, no. 1, 2006, p. 164; Lina Faria, *Saúde e Política: a Fundação Rockefeller e seus parceiros em São Paulo*. (Rio de Janeiro: Editora Fiocruz, 2007), p. 80-81.

<sup>12</sup> The Rockefeller Foundation, *Directory of Fellowships and Scholarships (1917-1970)* (Nova York: The Rockefeller Foundation, 1972), p. VII.

bodies, occupying leadership positions in these institutions and guiding the formation of policies in their countries, thus impacting their areas of activity for a long time<sup>13</sup>. It aimed to establish, in its initiatives to expand training programs, not the encouragement of exceptionally well-evaluated students in their specialties, but a standard, a profile of a scientist/researcher working in peripheral countries, which could replicate scientific advances and collaborate for the generation of new technical and scientific improvements in their countries. As Glick<sup>14</sup> rightly pointed out, the

Rockefeller Foundation [...] had a specific and generally undefined set of values, a *modus operandi* that was to “make the highest peaks” to identify the scientific talents already imbued with the science value system or representing a good chance to be inculcated with this system. Dreyfus observed in 1948, when looking for possible members for a student team: the Rockefeller Foundation, he wrote, “is not interested in dilettantes, no matter how brilliant.”

It is not possible here, for reasons of scale, to speak of the formation of a “new” scientific elite, but rather of the training of future leaders who, well positioned and intellectually in tune with the conceptions of modernization emanating from the Foundation, would remain solidarily associated with it – through the experience of enjoying the scholarship period and the scientific and symbolic ties established there. In this sense, as Birn<sup>15</sup> points out, the scholars were transnational professionals<sup>16</sup>, moving ideas and practices across borders.

## I. SCHOLARSHIP PROGRAM

As one reviews the history and the growth of this Foundation program, one cannot fail to be impressed by the number and quality of young men and women who have been given the chance to develop their scholarly and scientific potential with the benefit of fellowship or scholarship awards.<sup>17</sup>

The Foundation’s scholarship program began in the 1910s, but it was mainly in the second phase of Rockefeller’s activities, after the Second World War, that the number of scholarships destined to the agriculture area significantly expanded.

<sup>13</sup> The Rockefeller Foundation, *History of the Fellowship Program at the Rockefeller Foundation*, RAC, RF, RG 10.2, Fellowship Recorder Cards.

<sup>14</sup> Thomas Glick, “A Fundação Rockefeller e a emergência da genética no Brasil, 1943-1960” in: Heloisa Maria Bertol Domingues; Magali Romero Sá; Thomas Glick (eds), *A recepção ao darwinismo no Brasil*. (Rio de Janeiro: Editora Fiocruz, 2003), p. 159.

<sup>15</sup> Anne-Emanuelle Birn, *Marriage of convenience: Rockefeller International Health and revolutionary Mexico* (Rochester: University of Rochester Press), p. 201.

<sup>16</sup> Darwin Stapleton also underlined, in an article about the RF scholarship program and the globalization of knowledge in public health between 1915 and 1940, the transnational perspective as an important element of analysis. Darwin Stapleton, “An Investment in Leadership”: Rockefeller Foundation Fellowships and the Globalization of Public Health Knowledge, 1915-1940, *História: debates e tendências* 21, no. 3, p. 16-34, 2021.

<sup>17</sup> The Rockefeller Foundation, *Directory of Fellowships and Scholarships (1917-1970)* (Nova York: The Rockefeller Foundation, 1972), p. VII.

Beginning in the early 1950s, the Foundation introduced a series of programs aimed at training specialized technical personnel in the field of agricultural science<sup>18</sup>.

These programs had a great impact on the training of researchers around the world and their effects reached Latin America directly (Perkins, 1990). Three of the Rockefeller Foundation's most impactful programs would be dedicated to the area and would succeed each other over two decades: the Natural Sciences and Agriculture program, between 1951 and 1955; Agriculture, between 1955-1959; and Agricultural Sciences, between 1959 and 1970.

Despite the fact that these were the main programs structured at the time, the granting of scholarships to Latin American researchers was preceded by another program, perhaps less well-known: "Latin American Scholarship program in agriculture (...) preceded the introduction at scholarships into others disciplines sections of Foundation activity"<sup>19</sup>. The Latin American Scholarship program in agriculture (LAS) was, in turn, preceded by at least one very successful "national" program and which served as a basis for the expansion of the entire RF training system in the agricultural area: the Mexican Agriculture Program (MAP), created in 1943, which will be discussed below. It is possible to assert that the LAS meant, in large part, the continuity of scholarship support to the Mexican program, at the same time that it significantly expanded the circulation of researchers from other Latin American countries for training focused on the dissemination of the experience achieved by the MAP.

Rockefeller's training programs included fellowships and scholarships, and precision on both is required. The Foundation has always granted fellowships in close connection with its ongoing programs, mostly for confirmed researchers at the doctoral level or professionals with established careers<sup>20</sup>. It also seems clear that the training was not directly aimed at a diploma policy at the postgraduate level, but at the formation of technical staff who could or could not follow the classic postgraduate academic path, but who should bring the knowledge and scientific

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<sup>18</sup> L. M. Roberts, The Rockefeller Foundation Program in the Agricultural Sciences, *Economic Botany* 15, no. 4, October-December, p. 296-301, 1961; Deborah Fitzgerald, Exporting American Agriculture: the Rockefeller Foundation in Mexico, 1943-1953, *Social Studies of Science* 16, p. 457-483, 1986.

<sup>19</sup> The Rockefeller Foundation, *Directory of Fellowships and Scholarships (1917-1970)* (Nova York: The Rockefeller Foundation, 1972), p. XII.

<sup>20</sup> Ibid.

‘mentality’ consolidated in North American universities. Thus, Deborah Fitzgerald will remember, in the case of Mexico, that the newly graduated agronomist engineers were inexperienced in fieldwork and research, and that their participation in the activities of the Office of Special Studies (a Rockefeller Foundation’s agency in collaboration with the Mexican authorities, created in 1943) acted as a postgraduate school in Agriculture. According to Fitzgerald, “By assisting in the field or laboratory the student gained not only practical experience, but learned how a research Project was conceived and carried through. For the promising student, one of two things happened after his tenure with the OSS. In the regular scheme of things, the student would be sent back to the Ministry where he would assume administrative and research responsibilities, and from where he might be sent to one of the specialized regional bureaus. If he appeared research-oriented he might be sent to the USA for further education in the graduate Division of a land-grant college. Acquiring a masters or doctoral degree was not necessary, after a stay of one or two years some received a degree, but more did not”<sup>21</sup>.

Over time, in the years that followed the Second World War, scholarships also began to be awarded, especially in areas of research related to agriculture. This change highlights an inflection in the Rockefeller Foundation’s training policy, directing its efforts to provide local specialized technical staff in the different countries in which it operated, notably for conducting the programs and research institutes it supports. In this sense, according to the RF,

Recipients of fellowships are most often persons who either have achieved the doctorate or have considerable experience in their chosen fields. In the Early Years of the Foundation’s history, for example, the awards provided the training in the fields of public health and medical education. Later, when the Foundation program was expanded to cover many scientific and cultural Fields, the areas in which fellowships were awarded were similarly extended. About twenty-five years ago scholarships were added to fellowships as a means of providing individual education support and of furnishing aid to the graduate students in the pre-doctoral category. The latter awards have been especially helpful in the training of agricultural scientists to staff the operating programs and research institutes which the Foundation has assisted in establishing on an international scale.<sup>22</sup>

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<sup>21</sup> Deborah Fitzgerald, *Exporting American Agriculture: the Rockefeller Foundation in Mexico, 1943-1953*, *Social Studies of Science* 16, 1986, p. 474.

<sup>22</sup> The Rockefeller Foundation, *Directory of Fellowships and Scholarships (1917-1970)* (Nova York: The Rockefeller Foundation, 1972), p. VII.

The Foundation itself would recognize the importance and prominence of scholars once they return to activities in their home countries, underlining the academic leadership of many in large universities, departments and research centers, as well as successful careers that others would follow in governments and international organizations. The perception was that the training offered and the sharing of experience by the scholars resulted in obvious benefits, especially for the training of leaders who would assume the confrontation of structural problems in their countries:

All have shared an experience as a Rockefeller Foundation Fellow and an opportunity to make a contribution to the advancement of knowledge and the solution of continuing problems. Training for leadership in a planned and selected priorities basis has indeed been fundamental to the long-range success of the Foundation's entire program<sup>23</sup>.

Out of a total of 9,057 Rockefeller Foundation scholars listed in the Directory of Fellowships and Scholarships covering the period 1917-1970, 1,297 have been awarded scholarships in fields related to agriculture, making up less than 14.3% of the total scholarships in five decades. However, if we take into account that, in the period prior to the Great Acceleration<sup>24</sup>, only 39 scholarships had been awarded for the agricultural area, the logical conclusion is that the changes of the Great Acceleration are accompanied by a massive investment by the Foundation in programs related to training and to the study of the agricultural sector.

Indeed, the programs for the sector, Natural Sciences and Agriculture (1951-1955), Agriculture (1955-1959), Agricultural Sciences (1959-1970) and the one that is the object of this study, the Latin American Scholarship program in agriculture - LAS (1951-1962), bring together 1,258 scholars, almost 97% of the total number of recipients in the sector throughout the Foundation's history, until 1970. If the first three are general programs that may include scholars from Latin America and other regions of

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<sup>23</sup> Ibid.

<sup>24</sup> The expression/concept of Great Acceleration refers to the period of intense technological change at different levels of human activity, in production systems, in the exploitation of natural resources and in consumption, which followed the Second World War and which generated broad and lasting effects in terms of the planet's environmental and climate imbalance. On the Great Acceleration, see J. R. McNeill; Peter Engelke. *The Great Acceleration - An Environmental History of the Anthropocene since 1945* (Cambridge, Massachusetts: Belknap Press of Harvard University Press, 2014). On its effects in Brazil, for example, analyzes can be found in a dossier organized by Antoine Acker and Georg Fischer in the magazine *Varia Historia*, v. 34, n. 65, 2018, especially Claiton Márcio da Silva, "Between Fenix and Ceres - The Great Acceleration and the Agricultural Frontier in the Brazilian Cerrado", *Varia Historia* 34, no 65, p. 409-444, 2018, dossier The Great Acceleration, edited by Antoine Acker and Georg Fischer.

the world, the LAS is specific to Latin America.<sup>25</sup> Furthermore, the scholarships awarded by the LAS were distributed in a specific modality, without information of Scholarship (S) or Fellowship (F) in the biographical entries of the Directory, as was the case with almost all other Rockefeller scholars. For 223 individuals, there was only 'LAS' written, another 3 people appear as 'LAS-TA' (TA being 'Training Award'). In the next section, we will present data on the profile of the scholars of this program.

**Table 01. Scholars in fields of study related to agriculture in RF programs**

Program	Total
Natural Sciences and Agriculture (1951-1955)	140
Agriculture (1955-1959)	326
Agricultural Sciences (1959-1970)	566
Latin American Scholarship program in agriculture	226
Scholarships granted to Agriculture not linked to these programs, prior to 1951	39
Grand total	1297

Source: Database of Rockefeller Foundation scholars 1917-1970, from the 1972 Directory of Fellowships and Scholarships.

Note: Data refer to the number of scholars and not to the number of scholarships awarded. The same scholar may receive more than one or two scholarships from the Foundation over time.

## II – SCHOLARS OF THE LATIN AMERICAN SCHOLARSHIPS PROGRAM IN AGRICULTURE (LAS)

Before presenting the data on LAS scholars, it is necessary to take an incursion into the creation of the program, in 1951. At the origins of LAS is the successful initiative of the Rockefeller Foundation in the creation of the Office of Special Studies (OSS), *Oficio de Estudios Especiales*, organized in cooperation with the Secretaria de Agricultura y Fomento, later the Department of Agriculture of Mexico, in 1943. The Office was an important reference for the activities of the Rockefeller Foundation in Mexico and throughout Latin America: "RF scientists brought to Mexico habits learned in U.S. land grant colleges, where fieldwork and academic research were integrated"<sup>26</sup>. The RF's Mexican Agricultural Program (MAP) had as its main objectives "[...] breed varieties of wheat and corn, improve agronomic-production-management practices and train a corps of Mexican scientists"<sup>27</sup>. In the Foundation's

<sup>25</sup> According to Marcos Cueto, 664 RF studentships (fellowships, scholarships and training awards) were distributed to Latin Americans between 1917 and 1962 in the Agricultural and Natural Sciences areas. Marcos Cueto (ed.). *Missionaries of science: the Rockefeller Foundation and Latin America* (Bloomington: Indiana University Press, 1994), p. XI.

<sup>26</sup> The Rockefeller Foundation, *The Rockefeller Foundation - a digital history: Mexico*.

<sup>27</sup> Jennings, 1988, p. 48 apud Chris J Shepherd, *Imperial Science: The Rockefeller Foundation and Agricultural Science in Peru, 1940-1960*, *Science as Culture* 14, no. 2, p. 113-137, jun. 2005, p. 114.



reports, the administrators of the institution did not fail to notice the extraordinary growth of the experiment. Thus, in 1955 the Office of Special Studies operated four training stations/centers, in Chapingo, La Cal Grande, Ciudad Obregón and Cotaxtla, and had 17 Foundation's employees and researchers<sup>28</sup>. Two years later, in 1957, there were 38 agricultural scientists as resident staff in four different countries, which evidenced the rapid expansion of their Mexican experience in a wider range of countries in Latin America<sup>29</sup>. In 1960, there were 11 research sections under the coordination of the Office.<sup>30</sup> According to the Foundation, in the first 20 years of the Mexican Agriculture Program, more than "550 graduates of Mexican agricultural colleges served as apprentices and interns in the OSS".<sup>31</sup> The MAP, which operated between 1943 and 1965<sup>32</sup>, played a decisive role in creating the basis for future programs by the RF. As Cotter states, "the foundation exerted substantial influence on the evolution of Mexican agronomy and learned that the MAP was an excellent model for agricultural programs in the developing nations"<sup>33</sup>.

When approaching the cooperation between the Mexican government and the RF – the MAP –, Diana Rojas highlights the training of specialists through the award of scholarships as one of the objectives or important phases of cooperation. According to the researcher,

As part of the first phase, the exchange between the Rockefeller Foundation and the national governments was established, in order to create chains of reciprocity, funding and common goals. The second stage was focused on the granting of specialization fellowships for students and key civil servants in areas of agriculture, and, naturally, those linked to the collaborative programs from the first phase. The main idea of these stipends was to train a new generation of specialists who not only had links to scientific research networks, but also spoke the international language of the agricultural sciences. At the same time, it was anticipated that the fellows be able to

<sup>28</sup> The Rockefeller Foundation, *Annual Report*, 1955, p. 107.

<sup>29</sup> The Rockefeller Foundation, *Annual Report*, 1957, p. 45.

<sup>30</sup> The Rockefeller Foundation, *Annual Report*, 1960, p. 48. In the 1960s, the Office of Special Studies and the Instituto de Investigaciones Agrícolas (IIA) merged, giving rise to the Instituto Nacional de Investigaciones Agrícolas (INIA), a program managed by the Mexican government without the cooperation of the RF. According to Gabriela Soto Laveaga, "Designing Agricultural Programs in Mexico and India: Challenges, Successes and Missed Opportunities". *RAC Research Reports*, 2022.

<sup>31</sup> The Rockefeller Foundation, *The Rockefeller Foundation - a digital history: Mexico*.

<sup>32</sup> Rockefeller Archive Center. *The Rockefeller Foundation's Mexican Agriculture Program, 1943-1965*, accessed July, 2022, <https://resource.rockarch.org/story/the-rockefeller-foundations-mexican-agriculture-program-1943-1965/>.

<sup>33</sup> Joseph Cotter, *Troubled Harvest: Agronomy and Revolution in Mexico, 1880-2002*. (Westport, Connecticut; London: Praeger, 2003), p. 179. It is important to note that the expansion of programs and structures coordinated by the Rockefeller Foundation, notably in agriculture and public health, in partnership with local agencies, was taking place at this moment in other parts of the world, including Brazil. Take the case of the Belém Virus Laboratory, organized at the end of 1954, and whose creation follows that of similar laboratories installed by the RF in India, Egypt and Trinidad and Tobago. On the Belém Virus Laboratory, see Rômulo Paula de Andrade, "Uma floresta cheia de vírus!" *Ciência e desenvolvimento nas fronteiras amazônicas*, *Revista Brasileira de História* 39, no. 82, p. 20-42, September-December 2019.

promote modernization, even after the RF had withdrawn its presence and funding. The third stage was focused on institutional development, including professionalization and public-interest agricultural research and teaching at national and international levels.<sup>34</sup>

Also according to the researcher, 294 scholarships were granted to Mexicans (or residents of Mexico), between 1940 and 1970, to carry out studies mainly in the United States, but also in Germany, Canada, Australia, Colombia and Costa Rica.

This information also suggests that the Mexican experience was fundamental to the creation of the LAS, and although during that time the special programs of Mexico, Colombia (1950) and, later, Chile (1955) continued, the 1951 Annual Report suggests that the Latin American Scholarships program in agriculture was conceived to provide some rationalization of the administration of resources for training inside and outside Mexico: “Now that the initial, experimental stage of the scholarship program has been successfully passed, the need for unity in these activities has become evident. Instead of making a series of relatively small grants to individual institutions, all scholarship functions pertaining to the Mexican program are to be combined in a single appropriation”.<sup>35</sup>

Thus, LAS grants would allow to rationalize support activities for students and researchers by unifying different processes and unique endowments to institutions in the first place and, secondly, by increasing the circulation and training of researchers from other countries, especially the contact with research initiatives considered successful by the RF, such as the case of the OSS and, to a lesser extent, Colombia. According to the 1950 Report, “The purpose of these grants was to provide a stimulus to the student body; to supplement theoretical training by intensely practical work, under conditions similar to those in the trainees’ own countries; and to strengthen the international aspect of the Mexican program. In an effort to extend the same type of assistance to faculties of agronomy in other Latin American countries, including Peru, Bolivia and Brazil (...)”<sup>36</sup>. For Fitzgerald, the Foundation’s expansion to other Latin American countries represented “a distillation of their Mexican efforts and a codification of elements would form the RF’s international research agenda. Two such

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<sup>34</sup> Diana Alejandra Méndez Rojas. “The Rockefeller Foundation Fellowship Program in Mexico: Circulation of Students, Agronomic Professionalization and Modernization, 1940-1970”. *RAC Research Reports*, 2019, p. 3.

<sup>35</sup> The Rockefeller Foundation, *Annual Report*, 1951, p. 290.

<sup>36</sup> The Rockefeller Foundation, *Annual Report*, 1950, p. 163.

elements – the training of agriculturalists from other countries in the OSS and coordination of international agricultural conferences – grew out of the Mexican programme in the 1940’s (...)<sup>37</sup>.

### ORIGIN AND DESTINATION OF SCHOLARS<sup>38</sup>

The following chart shows the pattern of scholarship distribution in the countries participating in the LAS, with a total of 226 scholars awarded. Residents in Mexico represent the largest group receiving scholarships, with 74 scholars, or 32.7%, followed by Colombia (17.7%) and Brazil (13.7%). These scholars received a total of 297 scholarships over an 11-year period. A first approximation to the data suggests an important asymmetry between the countries benefiting from the granting of scholarships under the program.

**Table 02. Scholarships received by individual, according to the recipient’s country of residence at the time of granting (N=226)**

Country of residence at time of award	Only 1 scholarship	x2 scholarships	x3 scholarships	Total scholars	Total scholarships
Argentina	3	1		4	5
Bolivia	9	4	2	15	23
Brazil	30	1		31	32
Chile	13	2		15	17
Colombia	29	11		40	51
Costa Rica	4	1		5	6
Ecuador	5	1		6	7
Guatemala	2			2	2
Honduras	2			2	2
Mexico	39	35		74	109
Nicaragua	7		1	8	10
Panama	3			3	3
Paraguay	2			2	2
Peru	10	5	2	17	26
Uruguay	1			1	1
Venezuela	1			1	1
Grand total	160	61	5	226	297

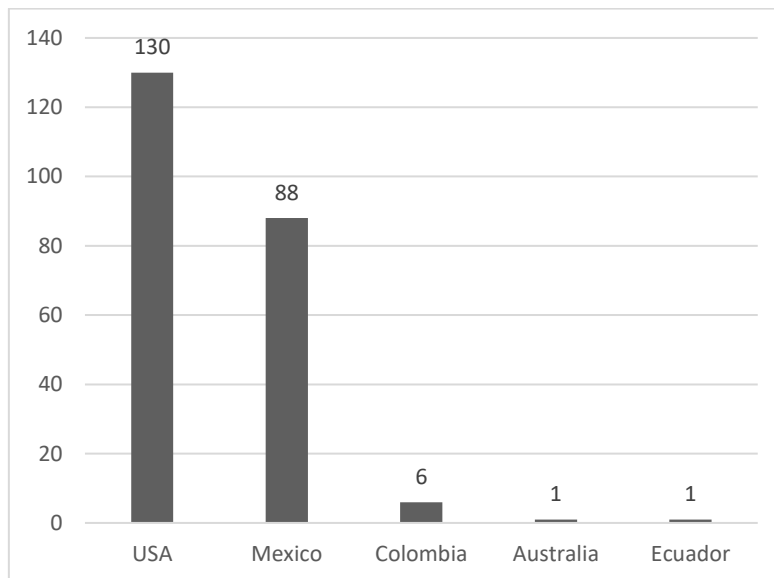
<sup>37</sup> Deborah Fitzgerald, *Exporting American Agriculture: the Rockefeller Foundation in Mexico, 1943-1953*, *Social Studies of Science* 16, 1986, p. 477.

<sup>38</sup> All data presented here and not cited as coming from other sources refer to the Database, organized by the authors, with the scholars that appear in the RF’s Directory of Fellowships and Scholarships, with entries for 9,057 scholars of the Foundation between 1917 and 1970. The source used in its elaboration, the nominal entries of the Directory, presents the following information: 1. Name, 2. Country of residence at time of award, 3. Date and country of birth, 4. Academic degree held at time of award with name of granting institution and date, 5. Institution where employed or studying at time of award, 6. Foundation program designation and dates of award, 7. Country of study, 8. Degree received during award with name of granting institution and date e 9. Field of study.

Source: Database of Rockefeller Foundation scholars 1917-1970, from the 1972 Directory of Fellowships and Scholarships.

These scholars carried out studies, on average, from one to two years, mostly in the USA, which was the case of 130 scholars, or 57.5% of the total (N=226). A large number of scholars studied in Mexico (88 individuals, or 38.9%), in addition to Colombia (6 individuals), Australia and Ecuador. It was common for some scholars to travel to several countries during the scholarship, but our source does not always present information about secondary countries in a detailed way. However, it helps to get an idea of the places of interest for training. However, only 17 cases present this data.

**Chart 01 – 1st country of destination for carrying out the studies (N=226)\***



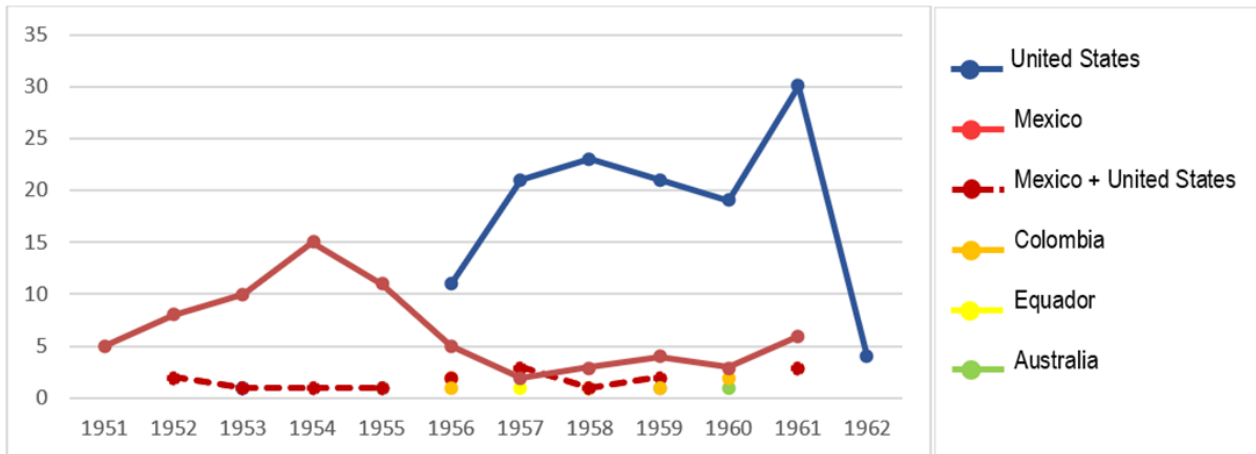
Source: Database of Rockefeller Foundation scholars 1917-1970, from the 1972 Directory of Fellowships and Scholarships. \*Here, only the 1st scholarship received by each scholar was counted.

The data reported in Chart 1 point to final totals that correspond to the “main” destination of the scholars, as stated in the source. Considering that in several cases there was more than one destination for the scholars in their training, the source offers a note regarding the “secondary” destination. In this case, it is important to point out that, out of the 88 scholarship recipients destined for Mexico, only 72 had the country as their only destination, and 16 others combined this destination with the United States.

The distribution of these scholarships over time, as shown in the next graph, also suggests that the program favored the awarding of scholarships to study in

Mexico in its early years, until the mid-1950s. From 1956 onwards, there is a growing participation of the United States as a destination for scholars, culminating in 30 scholars admitted to American institutions in 1961 alone.

**Chart 02. Annual distribution of LAS scholarships by country of study (N=297)**



Source: Database of Rockefeller Foundation scholars 1917-1970, from the 1972 Directory of Fellowships and Scholarships.

## FIELD OF STUDY

The preliminary analysis of the scholars' field of training reveals a strong concentration in Plant Science and Soil Science studies, with more than 4/5 of the scholarship recipients specializing in these areas. If we combine it with other mentions of both areas, sometimes counted in the Directory in an associated way, we reach almost 85% of the total. These are the areas, therefore, in which the scholars of the Latin American Scholarships program in agriculture worked and graduated at different levels.

When we analyze the data on the origin of the scholars and the type of study, the same proportion appears, with the three largest national groups having approximately 2/3 of the scholarship recipients dedicated to the area of Plant Science. Thus, Mexico with 47 (63%), Colombia with 26 (65%) and Brazil with 21 (66%) show the concentration of scholarships in this area.

**Chart 04. Field of study of scholars, as indicated in the Directory of Fellowships and Scholarships (N=226)**

Field of study	Total	Total %
Plant Science	150	66.37%
Soil Science	33	14.60%
Animal Science	19	8.41%
Rural Development	9	3.98%
Agricultural Engineering	3	1.33%
Plant Science, Animal Science	2	0.88%
Soil Science, Chemistry	1	0.44%
Journalism, Agriculture	1	0.44%
Soil Science, Plant Science	1	0.44%
Biometry	1	0.44%
Journalism, Rural Development	1	0.44%
Chemistry	1	0.44%
Soil Science, Economics	1	0.44%
Plant Science, Biometry	1	0.44%
Library Science	1	0.44%
Plant Science, Soil Science	1	0.44%
Grand total	226	100.00%

Source: Database of Rockefeller Foundation scholars 1917-1970, from the 1972 Directory of Fellowships and Scholarships.

If we take the destination of scholars in relation to the field of study, we observe a strong concentration of students and researchers in Plant Science in institutions in the United States and Mexico, with 85 and 63 scholars, respectively. Another four scholars studied in this area in Colombia, one in Australia and another in Ecuador. The same is repeated in Soil Science, with 17 and 18, respectively, plus 1 for Colombia. North American universities and research institutes hosted the majority of Animal Science scholars (16). Another 3 scholars went to Mexico. In Rural Development, there were 6 for the US and 3 for Mexico. The three main recipient countries, USA, Mexico and Colombia, also received 3 agricultural engineering scholars. Finally, the 5 scholars from other areas (Chemistry, Biochemistry, Journalism/Agriculture, Journalism/Rural Development and Library Science) had the United States as their place of study.

## COUNTRY OF STUDY

If the United States was the country that most welcomed the Latin American Scholarships program in agriculture, it is also the only country to offer information in

the Directory of Fellowships and Scholarships about the target institutions. It is also necessary to consider the high number of scholars who received two scholarships in Mexico (35) and Colombia (11), suggesting that part of the training was carried out in these two countries and another one in the United States.

The target institutions of the scholars were, all of them, universities, and there is a moderate distribution across the country, with 113 scholars working in 27 universities (for 17 others it was not possible to know the target institution). In most cases, the target institution was a land-grant college, as is the case with the three institutions that received the most LAS scholars: University of California (17 cases), University of Wisconsin (13) and Purdue University (11).<sup>39</sup>

**Table 03. Maximum degree received during the scholarship (N=226)**

Degree received	Total
M.S.	75
Ph.D.	48
M.S., Ph.D.	4
M.Agr.	2
M.Eng.	1
s.i.	96
Grand total	226

Source: Database of Rockefeller Foundation scholars 1917-1970, from the 1972 Directory of Fellowships and Scholarships.

\*Also considering the 2nd and 3rd scholarships.

Although the individual entries in the Directory – the source of our database – do not always contain information about the degree obtained, which suggests that, in some cases, the scholars may not have applied for the postulation of academic degrees or been approved, or simply that the information was not compiled in their individual files, it was possible to identify the obtaining of a degree for 57.2% of the scholars. Most are masters (33.1%) and doctors (21.2%). Four scholars, or 1.7% of the total, obtained both degrees.

One aspect that can be explored in the future concerns the careers developed by these individuals after receiving the scholarship. It is possible to scrutinize the areas in which they were recruited, and whether they were attracted to public or

<sup>39</sup> Other universities that received LAS scholars in the USA: Univ. of Nebraska and Cornell Univ. (8 each); Iowa State Univ. of Sci. and Tech. (7); Univ. of Minnesota, Oklahoma State University and Michigan State University (5 each); Univ. of N. Carolina (4) Kansas State Univ. of Agr. and Appl. Sci., Univ. of Georgia, Oregon State University, Pennsylvania State Univ., and Colorado State Univ. (3 each); Louisiana State Univ., W. Virginia Univ. and Univ. of Maryland (2 each); Washington State Univ., Iowa State Coll. of Agr. and Mech. Arts, Univ. of Tennessee, Ohio State Univ., N. Carolina State Univ., N. Dakota State Univ., Univ. of Massachusetts, Rutgers Univ. and Univ. of Florida (1 each).

private positions. However, since the information present in the item “address” of the Directory is very vague and only concerns a position occupied by alumni at the time of a consultation with the RF, for only one stage of the professional activity, it would be necessary to make a further investigation, perhaps further exploring the Fellowship cards that gave rise to the Directory information and are available at the Rockefeller Archive Center, as well as additional biographical research from other sources, to compile more solid information about careers.

In any case, the analysis of the database offers us a perception of Rockefeller’s action in Latin America in a long-term perspective, assessing the continuities and eventual ruptures in the Foundation’s planning for the training of professionals in strategic areas of the region, associating them to the social context and the political injunctions of the period. Furthermore, it offers the social history of technical and scientific professions a privileged space for the observation of scientific careers.

### **III – FINAL COMMENTS**

The Latin American Scholarship program in agriculture provided funds for the training of students and researchers in agriculture from different countries in Latin America. Motivated by the need to rationalize the distribution of resources observed in its pioneering and successful program – the Mexican Program in Agriculture (MAP) – and wanting to attract students and researchers from other countries in the region, especially in the area of plants and soils, to learn about and replicate, in part, the Mexican experience, the Rockefeller Foundation decided to unify dispersed training support initiatives. In doing so, the RF sought to better manage the mobility of students in the Mexican program, in addition to the equivalent programs that were being created – the Colombian (from 1955) and Chilean (from 1960) –, but also established a gateway to students and researchers from other Latin American countries. The action of RF in the creation of this scholarship program allowed the circulation of researchers and the largest continental exposure of the results of its consolidated action in Mexico, and offered, in the eyes of the institution, a virtuous example of its philanthropic action while at the same time serving as a prototype for larger projects at a global level.



It is important to note that the LAS was not characterized by concentrating investments in postgraduate studies, unlike other programs, at least not in its early years. The evidence points to a program whose original characteristic was to offer training and circulation of Latin American researchers in direct contact with the modernizing experiences underway in Latin America. This seems to be the reality at least until the mid-1950s. In fact, it was not until 1956 that the LAS awarded the first scholarships to the United States. An analysis of the distribution of scholarships over time makes it clear that the first phase of the program took place basically in Mexico or, in some cases, associating Mexico and the USA. In the second half of the decade, there was a decline in the number of scholarships awarded for studies in Mexico and elsewhere, and a vertiginous growth in the number of scholarships awarded for studies in North American universities.

From a global perspective, the action of the Rockefeller Foundation, through the Latin American Scholarship program in agriculture, is part of the great economic and technological transformations that impacted Latin American agriculture in the post-World War II period, and these transformations are, in turn, a regional expression of global processes taking place within the framework of the Great Acceleration. The “success” of the program analyzed here can be partially suggested by the expansion of the agricultural/agronomic training system and the implementation of an agricultural research structure in different countries, and notably in Brazil, which would have a great impact on the expansion of business agriculture that exported agricultural commodities. A strategy to assess this impact could be found in the formulation of research that analyzed, based on the data contained in this article, the circulation of Brazilian scholars graduated from the LAS, and that investigated their later careers in public research agencies, in university research or in the agricultural business sector.

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## **A Fundação Rockefeller e o Treinamento de Especialistas em Agricultura para América Latina: Um Perfil dos Bolsistas do Latin American Scholarship Program in Agriculture (1951-1962)**

### **RESUMO**

Entre 1951 e 1962 a Fundação Rockefeller (FR) manteve um programa de bolsas de estudo, o Latin American Scholarships program in agriculture (LAS), que financiou o treinamento de 226 estudantes e pesquisadores latino-americanos que, juntos, receberam 297 bolsas para períodos curtos de estudo em centros de pesquisa de referência em países da região. Estes centros eram, sobretudo, estruturas ligadas ao Office of Special Studies (OSS), parceria da Fundação Rockefeller com o governo mexicano, e em universidades norte-americanas. O LAS propiciou o treinamento e a circulação de bolsistas latino-americanos em um período de grande avanço tecnológico na pesquisa agrícola e buscou dar amplitude continental ao principal e mais bem-sucedido laboratório da FR na área, o México. A análise do perfil de 226 bolsistas do LAS é feita a partir de um banco de dados de 9057 minibiografias de bolsistas disponíveis no *Directory of fellowships and scholarships* da Fundação Rockefeller.

**Palavras-chave:** Fundação Rockefeller; Latin American Scholarship program in agriculture; bolsistas; treinamento; scholarship.

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