

THE ACADEMIC CAPITALIST REGIME IN COLOMBIA: DISCOURSES FROM  
NATIONAL RESEARCH POLICIES AND PROFESSORS

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the  
dissertation entitled

THE ACADEMIC CAPITALIST REGIME IN COLOMBIA: DISCOURSES  
FROM NATIONAL RESEARCH POLICIES AND PROFESSORS

presented by Isabel Cristina Montes Gutiérrez,

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and herby certify that, in their opinion, it is worthy of acceptance.

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“In order to change the world, to understand what needs changing, to know what sort of change is possible, to know what goals we should aim for, to understand what sort of actions are most likely to produce radical change (there are no certainties), to understand what risk they entail and how we might avert or mitigate them, we need to be constantly seeking to improve our understanding of the existing reality... Our understanding of the existing reality has to include – not as an optional extra but as a necessary and essential part – understanding of the relations between discourse and other elements of social life”  
(Fairclough, 2015, p. 5)

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### List of Abbreviations

ACT	Academic Capitalism Theory
AHCI	Arts and Humanities Citation Index
CDA	Critical Discourse Analysis
Colciencias (Minciencias)	Colombian Ministry of Science, Technology and Innovation
Conpes	National Council of Social and Economic Policies
GRA	Graduate Research Assistant
HES	Higher Education System
IBN	National Bibliographical Index
IDB	Inter-American Development Bank
IMF	International Monetary Fund
JCR	Journal Citation Report
JIF	Journal Impact Factor
MEN	Ministry of National Education
NSF	National Science Foundation
OCyT	Colombian Observatory of Science and Technology
OECD	Organization for Economic Cooperation and Development

Publindex	The National System of Indexation of Specialized Scientific Publications
R&D	Research and development
SCI	Science Citation Index/Science Citation Index Expanded
SJR	SCImago Journal & Country Rank
SSC	Social Science Citation Index
SNCTI	National Science, Technology, and Innovation System
STEMM	Science, Technology, Engineering, Mathematics, and Medical
STS	Science and Technology Studies
TINA	There Is No Alternative
The UC system	The University of California system
UNAM	Universidad Nacional Autónoma de México
WoS	Web of Science

## Abstract

This dissertation is centered on whether and how the production (research) and transmission (education) of knowledge are considered public or private goods. Drawing on the theories of academic capitalism and neoliberalism as an important underlying ideology, this dissertation analyzed national research policies that shape professors' work as well as professors as the 'users' of these policies. Particularly, the first phase of this dissertation examined four national research policies: *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications*, and *Spin-off Policies*. The second phase was based on a multicase study that examined the link between these four national research policies and professors' actions. This study found that the academic capitalist regime was reflected and accepted in Colombian national research policies and, with some resistance, among professors. The final analysis demonstrates that the academic capitalist regime generated a growing stratification at country, field and individual levels that was reproduced and perpetuated through the creation of a common sense among national research policies and professors. Theoretically, this dissertation also extended the theory of academic capitalism by adding the commercial for-profit model of academic publishing as a new layer and essential component of the academic capitalist regime that generates prestige behavior among professors.

*Keywords:* Academic capitalism, neoliberalism, educational policy, higher education, the professoriate, critical discourse analysis.

## Chapter 1: Introduction

During 2018, there was a massive student movement in Colombia against the continuous drastic budget cut for public universities since 1990s. Initially, students, parents and presidents of all the 32 public universities went on strike and organized a number of marches for October 10. Despite a subsequent agreement between university presidents and the president of Colombia, students continued to protest because they did not consider the agreement to be an adequate solution for the economic needs of public universities. Finally, after several massive protests, students and the government reached a historic agreement which included a significant increase in the budget for public universities for the period 2019-2022 (Semana, 2018a, 2018b, 2018c). This example, along with other massive student movements in Latin America—e.g., Mexico between 1999-2000 (Rhoads, Torres, & Brewster, 2006) and Chile in 2011 (Guzmán-Valenzuela, 2016)—shows how Latin Americans have been resisting neoliberal policies and practices such in public higher education institutions (e.g., Alcántara, Llomovatte, & Romão, 2013; Guzmán-Valenzuela, 2016; Rhoads et al., 2006; Vega Cantor, 2015).

In a broad sense, neoliberalism is understood as an intellectual, cultural and political project (Escalante Gonzalbo 2016). As an ideology, neoliberalism is based on a market-centered epistemology (Mirowski, 2011) and economic theories (Escalante Gonzalbo 2016; Harvey, 2005). Market-centered epistemology means that the market is seen not only as a means for the exchange of goods, but virtually the only way that reality can be known and constructed (Lave, Mirowski, & Randalls, 2010). In other words, neoliberalism is based on convictions about free-global markets, the reduction of the state's responsibility to administer public resources, the importance of individual responsibility, and the belief that

economic growth will generate economic development and income and wealth distribution (Escalante Gonzalbo 2016; Fairclough, 2013; Mudge, 2016; Torres & Schugurensky, 2002). These ideas are based on competition as the central tenet, the role of state as an opener of new markets instead of being an agent of social welfare, and individuals as a competitive entrepreneur, a rational maximizer and responsible for his or her choices.

These ideas are reproduced and sometimes challenged largely through discourses and policies at all levels. Neoliberalism is reflected in changes in higher education systems across the globe such as budget cuts in public funding, the replacement of permanent faculty with temporary positions, and privatization and commercialization of research outcomes. These changes have led universities to reconsider their social missions, academic priorities and organizational structures, and have penetrated the heart of higher education systems: faculty and students' academic experiences (Slaughter & Rhoades, 2004; Torres & Schugurensky, 2002). Slaughter and Rhoades (2004) conceptualized these changes in higher education as a shift from a public good knowledge/learning regime to an academic capitalist knowledge/learning regime (hereafter referred to public good and academic capitalist regimes). In the latter regime, higher education institutions, especially universities, compete not only to maximize the commercial potential of knowledge in order to obtain profit (Slaughter & Rhoades, 2004), but also to obtain national and world-class status and prestige (J. A. Johnson & Taylor, 2019; Slaughter & Taylor, 2016a).

Up until now, scholarship on the academic capitalist regime in higher education has mainly focused on English-speaking developed countries, in which universities are most often embedded in highly competitive and individualist societies (Rhoads et al., 2006; Slaughter & Cantwell, 2012). In contrast, this dissertation is situated in the Global South within the specific context of Colombia. As discussed below, this country offers an



opportunity to explore both resistance and responsiveness to neoliberal policies and practices, which can further the field's understanding of the academic capitalist regime.

### **Statement of the Problem**

Academic capitalism and neoliberal policies have become the dominant regime in higher education (Kezar, DePaola, & Scott, 2019). The ideas of prestige, competition, privatization, and marketization embedded in this regime are leading to unintended consequences (Slaughter & Taylor, 2016b), such as the growing stratification that disfavors certain fields (Rosinger, Taylor, Coco, et al., 2016), non-elite higher education institutions (Gonzales, Martinez, & Ordu, 2014; Mendoza, Kuntz, & Berger, 2012), and professors' core activities (Gonzales et al., 2014). However, thus far there has been no comprehensive account of how these powerful are being promoted, normalized, and justified, especially in the Global South. This lack of comprehension is in part because (as I argue in Chapter 2) neoliberalism is treated a taken-for-granted backdrop in the theory of academic capitalism. This theory, as one of the most important lenses of research that seeks to understand the neoliberal transformation of higher education, has mainly explored the shift from a public good regime (the old regime) to an academic capitalist regime (the new regime), *how* the new regime works, and *what* the unintended consequences are. However, *how* this regime is strengthened and *how its* tenets remain powerful have been less explored and understood.

To explore the growing prominence of the academic capitalist regime in higher education, it is important to consider the critical role of neoliberalism, especially how it is expressed and transmitted through discourses in policies and professors as agents of change. Policies and professors are agents that introduce (or resist) the academic capitalist regime and its neoliberal roots, but we need more research on both. First, although policies are the frequent instrument for transforming university practices (Marginson, 2009;

Metcalfe, 2008; Musselin & Teixeira, 2013; Slaughter & Leslie, 1997), there is a lack of research attention to policy analysis of research policies (Metcalfe, 2008).

Second, as the ‘users’ of policies and active agents (Gonzales, 2012; Slaughter & Rhoades, 2008), professors are key individuals who play a vital role in the success (or failure) of policies. In this sense, professors affect the policy process through their actions, generating tension between the part of their academic life that involves the commodification of research outcomes and educational services, and the part that contributes to the public good (e.g., D. R. Johnson, 2017; Mendoza & Berger, 2008; Mendoza et al., 2012; Szelényi & Bresonis, 2014). However, professors can have a different degree of ability to interpret policies and act upon them because they are influenced by contextual factors in regard to: (a) level of funding and prestige among institutions (J. S. Levin & Aliyeva, 2015; Mendoza et al., 2012), and (b) field of specialization and academic department characteristics (Campbell & O’Meara, 2014; Rosinger, Taylor, Coco, & Slaughter, 2016; Ylijoki, 2003). The differences among professors (e.g., unit-level conditions, agency, gender, type of higher education institutions, countries) have been scarcely addressed in the literature on academic capitalism (e.g., Collyer, 2015; Metcalfe & Slaughter, 2008).

To address these gaps in the literature, this dissertation examined the discourses that have emerged from four national research policies that directly shape professors’ daily lives in Colombia. Policies are understood as larger social structures that are embedded in a broader context of discourses and ideologies, and introduce particular directions toward desired goals (Ball, Maguire, & Braun, 2012; Coburn, 2016). In other words, beyond textual representation of policies, complex frameworks of sense and assumptions about the world shape policies and how people respond to policies. Such frameworks are called

discourses, and include the actual words that people and policies use; discourses also reflect and construct social and value structures (Fairclough, 2015; Rogers, 2011). Specifically, I analyzed the discourses of four national research policies that are close to professors' work as well as the discourses derived from professors' ideas, experiences, and actions.

### **Context of the Study**

The shift from a public good regime to an academic capitalist regime can be considered as the shift from social welfare that considers higher education and knowledge as public goods to neoliberal pro-market policies and practices that considers higher education and knowledge as private goods. This shift is nuanced due to the different ways neoliberalism has been promoted, resisted and negotiated in each context and institution (Torres & Schugurensky, 2002). The United States, as the preeminent international model for other countries (Rhoads, 2011), can be considered the best example of the neoliberal transformation. This country has experienced the rise of a neoliberal political, economic and cultural agenda since the 1970s, creating opportunities for market-driven practices in higher education through policies such as student financial aid starting in 1972, technology transfer in 1980, and the patenting of federally funded research in 1980 (D. R. Johnson, 2017; Mendoza, 2015; Slaughter & Rhoades, 2004). The academic capitalist regime has been well documented in the United States context and other English-speaking nations. However, this regime is global in nature because the United States neoliberal model of higher education has been also promoted across the globe, influencing policies and practices in Latin America and beyond (Rhoades & Slaughter, 2006). The academic capitalist regime might be expected to play out differently in other contexts such as Latin America; this 'Global South' has been less visible for the community in higher education studies (Guzmán-Valenzuela & Brunner, 2019). For this reason, more research and critical

theorization in this region is needed (Brunner, Labrana, Ganga, & Rodríguez-Ponce, 2019; Maldonado-Maldonado, 2014; Slaughter, 2014a).

Latin America is a complex region that has experienced tensions between applying and resisting neoliberal policies and practices in higher education. Following the US-based neoliberal model, higher education policy in Latin American has incorporated free trade and private profit values in the legal structure (Rhoades & Slaughter, 2006). One main source of the physical presence of US academic capitalist internationally has been through negotiations in international law regarding trade and intellectual property (Rhoades & Slaughter, 2006). In the 1990s, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), a negotiation between all the member nations of the World Trade Organization (WTO), was instituted by the Uruguay Round negotiations in the General Agreement on Tariffs and Trade (GATT) in order to promote global protection to intellectual property (Mirowski, 2011; Plata López & Cabrera Peña, 2011; Rhoades & Slaughter, 2006). Guided by the United States, this negotiation defined and enforced intellectual property rights, affecting the political economies of national higher education systems (Rhoades & Slaughter, 2006) and facilitating the academic capitalist regime within universities in different countries throughout the accumulation of intellectual property, specifically technology transfer as a key practice that generates external revenue (Kaidesoja & Kauppinen, 2014; Kauppinen, 2013). In the Colombian case, particularly, this negotiation has influenced the development of intellectual property policies (Plata López & Cabrera Peña, 2011).

The resistance to the neoliberal model in Latin American has also varied greatly from country to country, and is mostly based on the long-standing social contract between the governments and their citizens based on the belief that free education is a social right

along with other public services (Rhoads et al., 2006). For example, Colombia is in a middle position between countries that have been pioneers in these reforms (e.g. Chile), and those that have seen greatest resistance (e.g., Argentina or Mexico) (Rabossi, 2009).

The complex dual-scenario in Colombia can be illustrated through academic community responses to neoliberal changes in higher education. In this sense, despite the students' movement against budget cuts in public higher education institutions, there has not been any massive protest against the development of science, technology and innovation in Colombia through national policies that include privatization and commercialization of knowledge and prestige-seeking.

### **Research Questions and Purpose of the Study**

According to Slaughter and Rhoades (2004) the academic capitalist regime is the way to name changes toward the commercialization and privatization of knowledge and education in not-for-profit higher education institutions. Under this regime, higher education institutions along with academics, are engaging in market behaviors (the inclusion of profit motive into the academia) and market-like behaviors (competition for external funds). These behaviors seek to maximize the commercial potential of knowledge and to obtain prestige, and are justified through narratives and discourses (Slaughter & Cantwell, 2012). In this way, policies, seen as a set of rules and as discourses (Ball et al., 2012), help to incorporate the academic capitalist regime by, for instance, promoting, justifying and normalizing marketization and competition in higher education. Because the implementation of policies depends on how individuals and institutions act in response (Dorner, 2012), I am interested in the discourses at policy and individual levels, and especially in individuals' actions, in which discourses are manifested at micro level. In this

sense, and given the complex aforementioned dual-scenario in Colombia, the overarching question was:

How does the academic capitalist regime and its neoliberal roots function in the Colombian systems of science, technology and innovation and higher education?

This question was explored through a study of how neoliberal discourses are promoted, normalized, justified, and/or resisted within national research policies that are ultimately enacted by professors in their daily lives. Thus, my specific research questions for this dissertation were:

- a) How do the national research policies that shape professors' work promote, justify, and normalize the academic capitalist regime and its neoliberal roots?<sup>1</sup>
- b) How do Colombian professors implement national research policies by translating them into actions?
- c) How do professors' actions promote, justify, normalize, and/or resist the academic capitalist regime and its neoliberal roots?

This dissertation has two primary goals. First, drawing on the theory of academic capitalism, I refine and clarify the neoliberal foundation for studying the academic capitalist regime theoretically. In other words, this dissertation presents a new conceptualization of academic capitalism by examining its neoliberal basis in order to contribute to the literature that explores the corporatization and marketization of higher education. After elaborating the link between academic capitalism and neoliberalism, the

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<sup>1</sup> Exploring "resist" was also part of this original question. I finally removed it due to the lack of findings.

second goal is to empirically explore the academic capitalist regime in Colombian national research policies, and through the analysis of professors' ability to incorporate, negotiate or resist this regime in the Global South, a region under-researched in the literature of academic capitalism.

### **Theoretical Framework and Literature Review**

This study draws on the theory of academic capitalism, and its neoliberal bases, as a theoretical framework. Specifically, the neoliberal bases of academic capitalism are redefined in order to gain a deeper understanding of the marketization of higher education. In this overview, which is expanded in Chapter 2, I first define academic capitalism broadly. Then, I present the relationship between the theory of academic capitalism and neoliberalism, and I explain how the lack of inclusion and understanding of neoliberalism limits the scope of this theory, influencing empirical studies that tried to understand the transformations of higher education. Then, I discuss how the link between academic capitalism theory and neoliberalism enriches the analytical constructs of this theory. Finally, I present the great potential of this theory to explore discourses that promote, normalize, justify and resist the academic capitalist regime in the Colombian context.

### **Academic Capitalism Theory**

Academic Capitalism Theory (ACT) seeks: (a) to understand the processes by which universities, as central places in knowledge development, integrate with the new economy or postindustrial economy, in which knowledge is seen as raw material that can be transformed in products, processes and services (Rhoades & Slaughter, 2006; Slaughter & Rhoades, 2004), (b) to understand how and why non-profit higher education institutions are behaving like private enterprises (Metcalf & Slaughter, 2008; Rhoades, 2006), and (c)

to understand how academics are engaging in market and market-like behaviors (Metcalf & Slaughter, 2008; Rhoades, 2006).

### **The Academic Capitalist Regime**

Slaughter and Rhoades (2004) theorized neoliberal changes—particularly the importance of privatization, marketization and secrecy to maximize the commercial potential of knowledge and profit-seeking—as a shift from a public good regime (the old regime) to an academic capitalist regime (the new regime). While the former is based on knowledge as a public good and the strong separation between the public and private sectors, the latter values knowledge privatization, profit taking and the blurring boundaries among markets, state and higher education (Slaughter & Rhoades, 2004). In the newer regime, higher education institutions, especially universities, are trying not only to maximize the commercial potential of knowledge to obtain profit (Slaughter & Rhoades, 2004), but also to obtain national and world-class status (Slaughter & Taylor, 2016a). This newer regime is supported by national and institutional policies, practices and programs and is expressed through interconnections and non-boundaries among state, higher education, and market organizations (Rhoades, 2014a; Rhoades & Slaughter, 2006; Slaughter & Rhoades, 2004). According to Slaughter and Rhoades (2004) both knowledge regimes coexist, but the newer regime is displacing and gaining prominence without totally replacing the older regime (Slaughter & Rhoades, 2004, 2008; Slaughter & Taylor, 2016b).

### **ACT and Neoliberalism**

The shift from a public good regime to an academic capitalist regime can be considered as the shift from social welfare ideas to neoliberal ideas in higher education. However, pioneering and subsequent work did not offer a complete understanding of neoliberalism. In general, ACT sees neoliberal changes in higher education as a global



phenomenon that have local impacts within higher education institutions (Rhoades, 2006). Slaughter (2014b) explained that the theory of academic capitalism assumed that “the rise of neoliberalism created many openings for entrepreneurial education and scientific endeavor” (p. 19). However, she pointed out that “the rise of neoliberalism is not explored in depth but serves as a *taken-for-granted* backdrop” (p. 19, emphasis added). This understanding of neoliberalism has influenced the starting point and conclusions of empirical studies.

### **Empirical Literature on Academic Capitalism and Neoliberalism**

The scholarship on academic capitalism can be divided in three groups. The first group is focused on how the academic community negotiate the intersection between knowledge regimes, and the second group is focused on how the academic community incorporates traditional and commercialist values. These studies are mostly based on research-intensive universities and professors that are heavily involved with industry to attract research and development funding. The third group is a growing (but still limited) literature on academic capitalism that highlights the segmentation and stratification in higher education derived from the marketization and corporatization of higher education.

In summary, this last group of scholarship has tried to incorporate the Global South (Brunner, Labrana, et al., 2019) and to include diverse contexts in the U.S. They found that higher education institutions and professors are immersed in a stratified environment among institutions (Mendoza et al., 2012), elite institutions (Rosinger, Taylor, & Slaughter, 2016; Taylor, 2016), academic units (Rosinger, Taylor, Coco, et al., 2016), and even within the same academic unit (Johnson, 2017). This group of literature also found that higher education institutions and academics unquestioningly follow the prestige economy and its discourses about what it is considered prestigious. However, since neoliberalism is taken as

given rather than something that might be critiqued, this literature leaves aside ways to challenge or question the current landscape of corporatization and marketization of higher education. In this way, taking into account the neoliberal roots of ACT, a needed area of study is how neoliberal initiatives are infiltrating higher education and professors, especially “in a more subtle and covert way” (Levin & Aliyeva, 2015, p. 538).

### **ACT and Neoliberalism: Extended Definition**

As detailed in chapter two, I offer a redefinition and retheorization of the neoliberal bases of ACT. As an extended definition, neoliberalism could be understood as an ideology that is based on economic theory and the new form of capitalism, and is reproduced and challenged largely through discourses. The extended definition of neoliberalism redefines the academic capitalism a theory that explains changes and global trends in higher education as well as the process by which universities integrate with the neoliberal ideology. By considering neoliberalism in the analysis of the academic capitalist regime, it is possible to show how discourses from the neoliberal ideology are used as a way to justify and normalize this regime and individual actions.

### **Research Design**

The overall research design for the first research question was a Critical Discourse Analysis (CDA) (Fairclough, 2013, 2015, 2018), and for the second and third questions was a multicase research design (Stake, 2006) where I employed CDA in the analytical process.

### **National Research Policies**

The first research question—how do the national research policies that shape professors' work promote, justify, and normalize the academic capitalist regime and its neoliberal roots?—focused on policies understood as larger social structures that are embedded in discourses and ideologies (Ball et al., 2012; Coburn, 2016). For this reason,

CDA, as a form of critical social analysis (Fairclough, 2013, 2015, 2018), was the selected research design and analytical approach. Particularly, discourses that promote, justify and normalize academic capitalism and its neoliberal roots were examined across 46 policy documents related to four national research policies: *Quality of National Publications*, *Faculty Promotion*, *Research Groups and Researchers' Classifications*, and *Spin-off Policies*. These policies were selected because they are related to the academic capitalist regime and related to work roles of professors.

Data analysis followed Fairclough's (2015, 2018) most recent version of CDA, which is understood as a form of practical argumentation. The analysis considered the dialectical relations between discourse and social elements (Fairclough, 2015). In other words, the method considered how discourses, as a way of representing ideas about the world, figures in social practices (e.g., research, classroom teaching, television news, family meals, medical consultations) and vice versa. With this dialectical relation between discourse and social practices in mind, I initially analyzed the data inductively to understand the specific aspects of the national research policy, especially if the new knowledge derived from research was valued as a public and/or private good. Then, through specific questions, I explored the elements related to the academic capitalist regime. The questions that guide this part of the analysis were: how do the ideas presented in the national research policies justify/promote/normalize the academic capitalist regime and its neoliberal roots? Justification is related to the rationale behind the policies and presents the reasons why the analyzed policies introduce the academic capitalist regime. Promotion is related to the actions established by the policies in order to introduce the academic capitalist regime. Normalization considers the accepted worldview that includes assumptions about what is right, normal, or desirable. In other words, it shows how the

policies naturalize certain ideas derived from the academic capitalist regime and its neoliberal roots. The analysis was focused on questioning the accepted opinions or beliefs, and it explained the relationship between the identified discourse and the social practices.

### **Professors**

The second and third research questions—(a) how do Colombian professors implement national research policies by translating them into actions? And (b) how do professors' actions promote, justify, normalize, and/or resist the academic capitalist regime and its neoliberal roots?—were based on the idea that it is important to consider the points of view and experiences of those individuals for whom policies are designed (Dorner, 2012). Professors are seen as agents who promote, normalize, justify, and/or resist the academic capitalist regime and its neoliberal roots. Thus, drawing on a multicase research design based on Stake (2006), I examined each professor as a case. As the setting of the study, I selected full-time professors in a public university that is one of the most important research-intensive universities in Colombia, incorporating the academic capitalist regime.

Within this university, I invited full-time professors affiliated with two distinct academic departments to participate in this study. The first academic department—electrical engineering—produces academic knowledge closer to the market. The second academic department—anthropology—produces academic knowledge further away from the market. The reasons for the selection of two opposite departments were: (a) to avoid replicating the predominant pattern, in the literature on academic capitalism, of a narrow selection of fields that are heavily engaged with industry (Mendoza, 2007, 2012; Mendoza et al., 2012; Szelényi & Bresonis, 2014), and (b) to cover the heterogeneity of disciplines that are affected for the increasing segmentation among fields that confer status to some academic units such as engineering at the expense of others such as humanities (e.g.,

Rosinger, Taylor, Coco, et al., 2016). The electrical engineering department is similar to what is being explored in the literature: departments heavily engaged with industry and with a high ability to generate external revenues through federal grants and contracts, industry funds, or consulting agreements such as life science or engineering (e.g., Mendoza, 2007, 2012; Szelényi & Bresonis, 2014). Anthropology, on the other hand, represents a department considered less considered in the literature (Slaughter, 2014a), especially due to its limited access to external revenue sources (e.g., Rosinger, Taylor, Coco, et al., 2016).

Initially, I collected institutional documents to understand the selected national research policies at the institutional level. I also interviewed the department chairs at these academic departments to understand the dynamics, the implementation of the selected policies at their departments, and a general view of the professors. In the electrical engineering department, I additionally interviewed a retired professor that created the first and only spin-off company of this academic department. Then, among the total of 33 professors, I invited 22 of them to participate in the study. Finally, I interviewed nine professors, two or three times each, five electrical engineering professors and four anthropology professors.

Among the nine professors, I selected four professors as cases: two faculty women and two faculty men. For the electrical engineering department, I selected the only faculty woman of the academic department and one faculty man who was in charge of the most important research group for this department. His experiences shed light on the institutionalization of research group as part of the *Research Groups and Researchers' Classifications Policy*. For the anthropology department, I selected the only faculty woman that accepted the invitation to participate in the research and a faculty man that was the lead editor of a national journal that was created in this academic department. His experiences

contributed to the understanding of *Quality of National Publications Policy*. Given the focus on the academic capitalist regime and its neoliberal roots, this analysis was based on Räsänen's (2014) orientations of actions and Fairclough's view of Critical Discourse Analysis (CDA). A more in-depth discussion of this methodology is provided in chapter three.

### **Significance of the Study**

This study contributes to higher education research and theory. Theoretically, this study links the theory of academic capitalism and neoliberalism, opening the door to include neoliberal bases of ACT through studies of discourse. Additionally, this study expands the understanding of the academic journal publishing market as another layer of the academic capitalist regime. Empirically, by incorporating Colombia in the literature on academic capitalism, this study contributes to the emerging body of literature that observes non-elite universities through the lens of academic capitalism. Moreover, this study turns greater attention to research policy, which has been largely overlooked in the field of higher education (Metcalf, 2008), and the way in which professors for whom those policies are designed interact with them. This critical perspective of educational policy contributes to the dialogue about how the academic capitalist regime, especially the privatization and commercialization of knowledge, is strengthened and how it is reproduced and perpetuated regardless of its unintended consequences.

### **Limitations of the Study**

Important limitations should be taken into consideration. First, although CDA strives to make social life better through analyzing discourse and ideology, there is not a direct line from CDA to transformative action and social change (Fairclough, 2015). In regards to the choice of policies studied, the study focuses only on management policies

and other types of policies—mission, support, and translation (Metcalf, 2008)—that are equally important within the academic capitalist regime in Colombia. This limitation signals a need for future research that include other types of policies in the analysis.

Another factor is that I only collected data at one university in Colombia, which may limit the transferability of findings in other contexts. However, this multicase study is not intended to make generalizations across Latin America or the globe, but rather to begin an understanding of the academic capitalist regime in the Colombian context and to add to our understanding of the theoretical relationships between neoliberalism and academic capitalism. Additionally, I only included full-time faculty at a public university. Other actors such as graduate students, lecturers, part-time faculty, administrative staff, as well as the private sector, could be included in further research to illuminate different perspectives of the academic capitalist regime in Colombia. Also, although this dissertation considered gender and rank balance, it did not use a gender lens or framework to gain a deeper understanding of how the selected policies intersect with the lives and careers of different genders. Finally, as presented in my positionality statement in Chapter 3, my previous experience in Colombia was only with private universities, which may both limit my personal understanding of the public higher education context, and also provide me a fresh perspective on the public-university context.

### **Definition of Key Terms**

These key terms for this study are purposely organized in a way that provide the reader with the conceptual elements needed for understanding:

*Discourse* is seen as an abstract and a count noun (Fairclough, 2013). As an abstract noun, discourse or semiosis (Fairclough, 2006) is seen as a relational view of language or language and its dialectical relations with other elements in the social process such as social

relations, people with knowledge, beliefs, attitudes and values, and elements of the material world (Fairclough, 2013, 2015). Relational signifies that discourse includes a complex set of relations that constitute social life: meaning and making meaning (Fairclough, 2013). Discourses (as a count noun), genre and style are the three main ways “in which semiosis figures in social practices” (Fairclough, 2004, p. 112). Discourse (as an abstract noun) “in the representation and self-representation of social practices constitutes *discourses* [as an count noun]” (Chiapello & Fairclough, 2002, p. 194, original emphasis). In other words, discourses (as a count noun) are ways of representing ideas about the world.

***Ideology*** is an accepted worldview or “system of ideas, values and beliefs oriented to explaining a given political order” (Chiapello & Fairclough, 2002, p. 187). It involves the representation of the world from the perspective of a particular interest (Fairclough, 1985). This does not imply that all discourses are ideological or ideologically invested to the same degree (Fairclough, 2013). An ideology becomes naturalized through the common sense (Fairclough, 2013).

***Academic vs Faculty.*** Following Slaughter and Leslie (1997), academic includes faculty, academic professionals and administrators. Throughout the dissertation the term faculty is used interchangeably with academics and professors.

***Policy*** is understood as a set of rules embedded in a broader context of discourses and ideologies that emanate from centers of power (Ball et al., 2012). Policies are adapted based on actors’ interpretations and actions at the level of implementation.

***Market behaviors*** refer to for-profit outputs on the part of higher education institutions such as patenting and subsequent royalty and licensing agreement, spinoff companies, arm’s length corporation, research park and university-industry partnership,



when these activities have a profit component and the sale of goods and services (Slaughter & Leslie, 1997).

*Market-like behaviors* “refer to institutional and faculty competition for moneys, whether these are from external grants and contracts, endowment funds, university-industry partnership, institutional investment in professors’ spinoff companies, or student tuition and fees” (Slaughter & Leslie, 1997, p. 11). The center is that those activities involve competition for funds (Slaughter & Leslie, 1997).

*Academic Capitalism (Concept)* involves institutional and professional market or marketlike efforts and behaviors to secure external money (Slaughter & Leslie, 1997; Slaughter & Taylor, 2016b). The external money is often tied to market-related research (Slaughter & Leslie, 1997). Later, the literature also showed prestige as another important element to add into this definition because it also incentivizes market and marketlike efforts and behaviors (Rosinger, Taylor, Coco, et al., 2016).

*Technology transfer* is understood as the movement of products and process from the university to the market. For example, the movement of a research outcome or idea from the laboratory of a professor to commercial product development (Rhoades & Slaughter, 1991). This movement is considered the most direct form of academic engagement with the market or manifestation of academic capitalism (Slaughter & Leslie, 1997).

*Intellectual Property* is the right to ownership a product of mental or creative intellectual work and a form of intangible asset that can contribute to knowledge development and technological progress (Hsu, Chen, Chen, Wang, & Banking, 2013; Mingaleva & Mirskikh, 2015).

***Intellectual Property Rights (IPR)*** are legal rights to protect the intangible assets from infringements such as plagiarism, latent exploitation of intellectual labor or intellectual parasitism (Mingaleva & Mirskikh, 2015). IPR “confer rights on the person responsible for conceiving ideas and reducing these to some usable format” (Mingaleva & Mirskikh, 2015, p. 221), for example patent or copyright are forms of IPR that prevent third persons from use of an intellectual property without special permission or license (Mingaleva & Mirskikh, 2015). In the case of patents, “the primary purpose of patent protection is encouragement of inventive effort and the investment necessary to bring inventions to the market” (Dratler Jr & McJohn, 2006, p. 4).

***Spin-off companies*** are based on knowledge production derived from higher education institutions’ research activities, and protected by intellectual property rights (CRC, 2017).

***Entrepreneurism*** are “activities undertaken with a view to capitalizing on university research or academic expertise through contracts or grants with business or with government agencies seeking solutions to specific public or commercial concerns” (Slaughter & Leslie, 1997, p. 114 - 115).

***New economy*** refers to the shift from industrial to postindustrial economy in which knowledge is seen as raw material that can be transformed in products, processes and services (Slaughter & Rhoades, 2004).

***Neoliberalism*** is an ideology that is based on a market-centered epistemology. In the second chapter, I argue that in order to increase the analytical scope of ACT, neoliberalism must be understood as the central pillar of academic capitalism. I also argue that neoliberal ideas can be both reproduced and challenged through discourse.

*Academic Capitalism Theory (ACT)* explains changes and global trends in higher education as well as the process by which universities are being integrated into the new economy (Slaughter & Rhoades, 2004). However, I argue that ACT explains changes and global trends in higher education as well as the process by which universities and academics are being integrated into neoliberal ideology.

## **Chapter 2: Theory of Academic Capitalism and its Neoliberal Bases**

This chapter revisits the theory of academic capitalism and its empirical literature that shows the current expectations and realities of being faculty. Studies in this line have showed how the academic profession has been widely reconfigured by neoliberal changes, with implications in the real-life choices that each faculty member has to make. However, despite the critical role of neoliberalism in characterizing policies as well as behaviors and actions of faculty and higher education institutions, the rise of neoliberalism is only considered as a taken-for-granted backdrop in Academic Capitalism Theory (ACT); therefore neoliberal changes as such have been less explored and understood in the empirical literature.

The purpose of this chapter is to explore the main patterns found in the empirical literature based on academic capitalism and to understand how the lack of inclusion and understanding of neoliberalism have limited the scope of this theory and its capacity to deeply explain transformations of higher education. I argue that by taking into account the neoliberal roots of the theory of academic capitalism, this theory can reinforce the potential to understand how and why higher education institutions and academics are engaging in market and marketlike behaviors in a more subtle and covert way, and particularly how professors promote, normalize, justify, and/or resist the corporatization and marketization of academia.

The chapter starts presenting the theory of academic capitalism as a theoretical lens to understand neoliberal changes. However, I point out how the seminal and subsequent work on academic capitalism has not offered a complete understanding of neoliberalism. Then I explore the main patterns found in the literature that used the theory of academic capitalism and the interpretation of neoliberalism. To achieve this goal, I begin with an

overview of the main trends in the empirical literature that points to the growing stratification of higher education institutions, disciplines and professors. Then, I review how the empirical literature on academic capitalism has understood neoliberalism. I then argue that it is important not to take for granted neoliberalism in the ACT. In other words, to better understand the academic capitalist regime, it is important to include how neoliberalism and academic capitalism are interrelated under a broad definition of neoliberalism rather than under the new economy. I offer an integration of the neoliberal bases into the theory of academic capitalism by incorporating four ways to understand neoliberalism through discourse studies. I then transition to Chapter 3, which describes higher education in Colombia, taking into account these theories of academic capitalism and neoliberalism.

### **The Development of Academic Capitalism**

In 1997, Sheila Slaughter and Larry Leslie published their book *“Academic Capitalism: Politics, Policies, and the Entrepreneurial University.”* This book examined changes in the nature of academic labor in response to the emergence of global markets. Drawing on different theories, Slaughter and Leslie (1997) conceived academic capitalism as a concept that captured “the encroachment of the profit motive into the academy” (p. 9) better than other concepts such as academic entrepreneurship or entrepreneurial activity. They defined academic capitalism as the pursuit of market (for-profit) or marketlike (competition for external funds) behaviors and activities on the part of universities and faculty to secure external money. Later, Slaughter and Rhoades (2004) offered academic capitalism as a theory, upon which higher education scholars have drawn extensively. In fact, the seminal works, Slaughter and Leslie (1997) and Slaughter and Rhoades (2004),

have been cited 9,910 times according to Google Scholar as of 2019 (April 26), becoming an important lens for research in higher education.

The theory of academic capitalism has sought to understand (a) the processes by which universities, as central places in knowledge development, integrate with the new economy or postindustrial economy, in which knowledge is seen as raw material that can be transformed in products, processes and services (Rhoades & Slaughter, 2006; Slaughter & Rhoades, 2004), (b) how and why non-profit higher education institutions are behaving like private enterprises (Metcalf & Slaughter, 2008; Rhoades, 2006), and (c) how academics are engaging in market and market-like behaviors (Metcalf & Slaughter, 2008; Rhoades, 2006). These purposes are based on theoretical considerations at both the individual and macro level.

At the individual level, the seminal works by Slaughter and colleagues conceived that actors should be seen as active rather than passive, and that higher education institutions should be seen as something different from corporations. This means that higher education institutions and faculty are not seen as mere victims of external forces but as agents who can negotiate the environment, in some cases being the initiators and major players in marketizing higher education (Rhoades, 2014a; Rhoades & Slaughter, 2006; Slaughter & Rhoades, 2008). Also, even though higher education institutions and corporations have become more similar, this theory does not see the higher education institutions as companies. As Slaughter and Rhoades (2004) expressed “they [higher education institutions] want the best of the both worlds” (p. 330), the advantages from not being corporations such as receiving public funding from grants and appropriations, but also the flexibility, opportunities, and revenues streams of the private sector (Slaughter, 2014a; Slaughter & Rhoades, 2004). These aspects highlight that higher education actors

and institutions, as players with agency, have a vital role in the success (or failure) of market-driven policies and activities.

At the macro level, Slaughter and Rhoades (2004) theorized neoliberal changes—particularly the importance of privatization, marketization and secrecy to maximize the commercial potential of knowledge and profit-seeking—as a shift from a public good regime (the old regime) to an academic capitalist regime (the new regime). While the former is based on knowledge as a public good, the latter values knowledge privatization and profit taking (Slaughter & Rhoades, 2004). In the newer regime, higher education institutions, especially universities, are trying not only to maximize the commercial potential of knowledge to obtain profit (Slaughter & Rhoades, 2004), but also to obtain national and world-class status (Slaughter & Taylor, 2016a). This newer regime is supported by national and institutional policies, practices and programs and is expressed through interconnections and non-boundaries among the state, higher education, and private corporations (Rhoades, 2014a; Rhoades & Slaughter, 2006; Slaughter & Rhoades, 2004). According to Slaughter and Rhoades (2004) both knowledge regimes coexist, but the newer regime is displacing and gaining prominence without totally replacing the older regime (Slaughter & Rhoades, 2004, 2008; Slaughter & Taylor, 2016b).

### **Neoliberalism and Academic Capitalism Theory**

The shift from a public good regime to an academic capitalist regime can be considered as the shift from social welfare ideas to neoliberal ideas in higher education. However, I later argue that the seminal and subsequent work on academic capitalism has not offered a complete understanding of neoliberalism. First, in a broad sense, neoliberalism can be understood as an intellectual, cultural and political project (Escalante Gonzalbo 2016). As an ideology, neoliberalism is based on a market-centered epistemology

(Mirowski, 2011) and economic theories (Escalante Gonzalbo 2016; Harvey, 2005). In other words, it is based on convictions about free-global markets, the reduction of the state's responsibility to administer public resources and to foster the market, individual responsibility, and the belief that economic growth will generate economic development , as well as income and wealth distribution (Escalante Gonzalbo 2016; Fairclough, 2013; Mudge, 2016; Torres & Schugurensky, 2002). Neoliberalism has inspired changes in higher education systems across the globe such as budget cuts, the replacement of permanent faculty with temporary positions, and privatization and commercialization of research outcomes. These changes have led universities to reconsider their social missions, academic priorities and organizational structures, and have penetrated the heart of higher education systems, especially through: faculty and students' academic experiences (Slaughter & Rhoades, 2004; Torres & Schugurensky, 2002).

In general, ACT sees neoliberal changes in higher education as a global phenomenon that has local impacts within higher education institutions (Rhoades, 2006). In the first book on ACT, Slaughter and Leslie (1997) understood the global context as forces that drive the restructuring of higher education through three theories: (a) neoliberal political economy, (b) post-Keynesian, and (c) post-Marxist. These theories helped to explain the emergence of a global market and the decline of budgets for social welfare and education. In this way, neoliberalism was initially understood as an economic theory that helps to explain the global political economy as a force that shapes global changes, especially in higher education. Later, other academic publications pointed out some neoliberal aspects that have facilitated the incorporation of market activities within universities, such as the neoliberal state that promulgates important policies, the reduction in public funding and the rising cost of higher education that make universities more



willing to engage in market activities (e.g., Metcalfe, 2010; Rhoades & Slaughter, 2006; Slaughter, 2014a; Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004). All of these explanations are related to neoliberal thought, policies and practices, but such relationships are barely mentioned in the literature of ACT. Recently, Slaughter (2014b) explained that the theory of academic capitalism assumed that “the rise of neoliberalism created many openings for entrepreneurial education and scientific endeavor” (p. 19). However, she pointed out that “the rise of neoliberalism is not explored in depth but serves as a *taken-for-granted* backdrop” (p. 19, emphasis added). In the next section I explore how this lack of inclusion and understanding of neoliberalism has influenced the starting point and conclusions of empirical studies that are based on ACT, limiting the scope of this theory to deeply understand transformations of higher education across the globe.

### **Empirical Literature on Academic Capitalism**

The scholarship on academic capitalism has largely focused on the individual level: academics’ behaviors, activities, and experiences with the marketization and corporatization of higher education mainly in scientific areas that are heavily engaged with industry (e.g., Collyer, 2015; Gonzales et al., 2014; Mars & Rhoades, 2012; Mendoza, 2007; Mendoza et al., 2012; Szelényi, 2013; Szelényi & Bresonis, 2014). Although in a lesser extent, studies at the national and organizational levels have included the analysis of national policies (e.g., Metcalfe, 2010), institutional competition (e.g., Taylor, 2016), and differences among academic units (e.g., Rosinger, Taylor, Coco, et al., 2016; Taylor, 2016).

The literature, especially related to the professoriate, can be divided in three groups. The first two showed how the academic profession has been reconfigured due to the academic capitalist regime, with implications in the real-life choices that each faculty member has to make. The first group is focused on how the academic community

negotiates the intersection between knowledge regimes, and the second group is focused on how the academic community incorporates traditional and commercialist values. These studies are mostly based on the U.S research-intensive universities and professors that are heavily involved with industry to attract research and development funding. The third group is a growing (but still limited) literature on academic capitalism that highlights the segmentation and stratification in higher education derived from the marketization and corporatization of higher education.

### **The Intersection between Knowledge Regimes**

One important discussion in this literature is how mainly academics, but also students, are responding to the coexistence of public-good-oriented and academic capitalist-oriented approaches in the production of knowledge in the contemporary university, as well as how they are negotiating between the two regimes (e.g., Mars & Rhoades, 2012; Mars, Slaughter, & Rhoades, 2008; Mendoza, 2009; Szelényi & Bresonis, 2014). Most of this literature has pointed out different types of intersection between academic capitalism and the public good (e.g., Mars et al., 2008; Szelényi & Bresonis, 2014). Specifically, according to Mendoza (2009) faculty work can lie within one of the two regimes—the public good regime and the academic capitalist regime—but most importantly faculty work can lie within both regimes at the same time, engaging with private sector but contributing to the advancement of knowledge according to traditional faculty norms (e.g., Mendoza, 2007; Mendoza & Berger, 2008). Although, the pioneering work of Slaughter and Rhoades (2004) had already highlighted that the “two [regimes] coexist, intersect, and overlap” (p. 29), Mendoza (2009) explicitly addressed the suitability and reality of combining both regimes because “the interests of industry do not necessarily conflict with faculty interests” (Mendoza & Berger, 2008, p. 18). Later, analyzing one department, Mendoza (2012) found

that industry was not only a source of funding, but also a source of “social capital for research ideas, insights, feedback, and scientific collaboration” supporting traditional faculty work (p. 36).

In general, much of this literature has examined how professors, graduate students and student entrepreneurs have responded to the contemporary idea of being an academic in the academic capitalist regime, along with the public good regime. Although several studies have found that doctoral students and faculty usually tried to complement both regimes, some studies found that a significant group of professors are not usually interested in for-profit academic activities and find more valuable the core mission of the university that includes conducting basic science, publishing and educating students, showing a complicated landscape in the intersection between the regimes (e.g., D. R. Johnson, 2017; Mendoza & Berger, 2008; Mendoza et al., 2012; Szelényi & Bresonis, 2014). In summary, most of the empirical literature on academic capitalism highlighted tensions between the commodification of research outcomes and educational services and the contribution to the public good in academic life.

Mars and Rhoades (2012) described an “overlooked organizational space” in the intersection of academic capitalism and public good regimes that enhance the socially oriented activities of student entrepreneurs, and support market-oriented activities and social change agendas. They explored this intersection between student-entrepreneurs’ market oriented and socially-oriented goals. Szelényi and Bresonis (2014) extended Mars and Rhoades’ (2012) findings and added a dual definition of the public good and its intersection with academic capitalism. They highlighted two expressions of the public good: the long-term serendipitous social impact (unfettered scientific discovery related to contributions that basic research makes to society) and the accelerated social impact

(related to contributions that applied research makes to society such as developing an antibody to treat breast cancer) (Szelényi & Bresonis, 2014). Both expressions can overlap with academic capitalism to a different degree. They found three ways—complementary, cautiously complementary and oppositional—that individuals negotiate the relationship between academic capitalism and the public good. In the complementary negotiations, professors and graduate students embraced the opportunities to contribute to health issues such as cure diseases, but with a strong focus on profit generation. Along with Mendoza (2012) and Mendoza, Dayioglu Ocal, Wang, and Zhou (2018), Szelényi and Bresonis (2014) also found that some professors and students are more cautious in protecting their academic freedom and research interests based on basic science with serendipitous societal impact. The oppositional negotiation is similar to what D. R. Johnson (2017) found, in which some academics were traditionalist and rejected the corporate mentality.

Regardless of the funding insecurity associated with industry grants, the literature mostly highlighted positive benefits from the combination of the two regimes, especially through industry-academia collaborations. Some of the benefits highlighted were: funding to conduct research and support graduate students, research topics for students' dissertations, employment opportunities for students, networking, equipment gains, and spillover effects on research and teaching (Mars et al., 2008; Mendoza, 2007, 2009, 2012; Mendoza & Berger, 2008; Slaughter, Archerd, & Campbell, 2004). Notwithstanding the benefits of the coexistence of public good and academic capitalism knowledge regimes, these studies also subtly mentioned dark sides of the intersection between academic capitalism and the public good. For example, despite faculty and students being considered as active agents, traditionalist faculty and students, regardless of the discipline, faced more challenges than commercialist faculty and students when navigating the world of

intersecting spaces between academic capitalism and public goods (D. R. Johnson, 2017; Szelényi & Bresonis, 2014).

Despite the amount of research in this area, further discussed below, some of the shortcomings of this literature are (a) the lack of inclusion of different contexts—the literature has been centered in top departments and top universities' experiences and in certain fields only—and (b) the lack of inclusion of neoliberalism as an ideology and practice. Specifically, ignoring neoliberalism as a backdrop neglects that academic capitalism is based on convictions about free-global markets, the reduction of the state's responsibility to administer public resources and to foster the market, and the belief that economic growth will generate economic development and income and wealth distribution (Escalante Gonzalbo 2016; Fairclough, 2013; Mudge, 2016; Torres & Schugurensky, 2002). These neoliberal ideas have inspired changes in higher education systems across the globe and, as discussed later, are reproduced and challenged largely through discourses.

### **Traditional versus Commercialist Values**

Another important discussion in the literature on academic capitalism is how the process of engagement with the private sector has reshaped Mertonian or noncommercial scientific values and norms. This literature noted the quandaries and tensions between the commodification of higher education, including research outcomes and educational services, and contributions to the public good through the education of youth, free production and dissemination of knowledge, and service (D. R. Johnson, 2017; Mendoza, 2009; Mendoza et al., 2012; Slaughter et al., 2004). In general, these studies mainly explored faculty members who were acting as commercialists, or capitalists or state-subsidized entrepreneurs based on industrial mentality, who show a willingness to invest professional energy to engage in commercial activities in order to gain status and economic

resources beyond the standard salary such as space, equipment and funding for graduate students or postdoctoral researchers/scholars (D. R. Johnson, 2017; Mendoza & Berger, 2008; Mendoza et al., 2018; Slaughter & Leslie, 1997). In contrast, a recent study by D. R. Johnson (2017) expanded this work by examining the views of traditionalist professors who are not engaged in commercial activities but are affected by the commercialist reward system.

This group of literature has analyzed the context of academic capitalism by contrasting (a) traditional academic norms (e.g., share knowledge freely, do not seek personal gain) and reward systems based on peer-review publications and recognition for discoveries, and (b) commercialist or business-oriented values (e.g., secrecy of knowledge) and reward systems based on the commercialization of knowledge and profits among those professors that engaged in commercial activities and a strong culture of commercialization (D. R. Johnson, 2017; Mendoza, 2007; Mendoza & Berger, 2008; Mendoza et al., 2018). Along with the first group presented, this literature has been mostly positive and maintained that it is possible for faculty and students to engage in partnerships with industry while maintaining the pursuit of basic knowledge, academic freedom, free dissemination of knowledge, and education of youth as the core of the traditional norms of the academic profession (e.g., Mendoza, 2007, 2009, 2012; Mendoza & Berger, 2008). In other words, faculty members and graduate students continued to value academic freedom, publishing, basic science, and collegiality despite the opportunities to engage in industrial partnerships (Mendoza, 2007; Mendoza & Berger, 2008; Mendoza et al., 2018; Slaughter et al., 2004).

In contrast, D. R. Johnson (2017) expanded Mendoza's and colleagues work (Mendoza, 2007, 2009, 2012; Mendoza & Berger, 2008) by analyzing "traditionalists," professors who do not participate in the commercialization of research outcomes, versus

“commercialists” professors who are engaged in commercial activities. D. R. Johnson (2017) found tensions between commercialists and traditionalists due to the polarization among norms, forms of status, career paths, and identities. Specifically, he found stratification and inequality in the academic profession between commercialists and traditionalists that are “tied to a conflict over the role of the university, how careers within it should be constructed, and how rewards should be allocated” (D. R. Johnson, 2017, p. 4). In this case, the stratification and segmentation among academics are favoring commercialists who not only hold higher status and more salary, but also more rewards and influence, creating inequality, for example, between the careers of academics within chemical and biological engineering departments who are closer to market-driven activities. However, given this is the only study found that focused on “traditionalist,” there is more research to be done with professors from different disciplines that have little or no participation in market-driven research and with departments that do not have a strong culture of commercialization.

The growing body of literature presented points to positive scenarios that are more likely to be successful under certain conditions: those with faculty members with a willingness to participate in market-oriented research who belong to top-ranked research universities and to departments that are heavily involved with industry (D. R. Johnson, 2017; Mendoza, 2007, 2012; Mendoza & Berger, 2005, 2008; Slaughter et al., 2004; Szélenyi & Bresonis, 2014). Their conclusions then cannot necessarily be transferred to other academic settings, especially those that do not have such privileged positions. The transferability of findings depends on contextual circumstances as well as material and symbolic forms of capital (Mendoza, 2009, 2012).

### **The Recent Body of Literature on Academic Capitalism**

The aforementioned scholarship on academic capitalism has been mainly based on the commercialization of research and revenue generation in “successful” cases at elite or top-ranked research universities in the United States context (e.g., D. R. Johnson, 2017; Mendoza, 2007; Mendoza & Berger, 2005; Mendoza & Berger, 2008; Slaughter & Rhoades, 2004; Szelényi & Bresonis, 2014). Additionally, these studies have mostly considered practices and perception of professors in fields that are heavily engaged with industry such as (a) science and engineering (Mars & Rhoades, 2012; Mars et al., 2008; Mendoza, 2007, 2012; Mendoza et al., 2012; Szelényi & Bresonis, 2014); (b) Science, Technology, Engineering, Mathematics, and Medicine (STEMM) (Mendoza et al., 2018); and (c) material sciences (Mendoza & Berger, 2008). In a competitive context, “it seems that winners include those institutions and those countries with historical privilege and resources, and longer higher education legacies” (Gonzales & Núñez, 2014, p. 13) as well as particular disciplinary foci. In this sense, the narrow selection of the ‘winning’ fields, institutions, and countries has inadequately taken into account the heterogeneity of universities, disciplines and faculties (Collyer, 2015). The result is a literature with limited conclusions, which overlooks the consequences of the ascendant academic capitalist regime broadly, especially among those in non-STEM disciplines and in less privileged positions with less access to external resources that create prestige such as unrestricted or federal research funding (e.g., Mendoza et al., 2012; Szelényi, 2013). Little attention has been given to less privileged universities, fields and countries that are also immersed into the growing marketization and corporatization of higher education (Brunner, Labrana, et al., 2019; Collyer, 2015; Gonzales et al., 2014). Also, despite the fact that men in the entrepreneurial academia has been able to recapture some of their historic privilege in



higher education (Metcalf & Slaughter, 2008), the literature on academic capitalism has less explored the effects of the academic capitalist regime on academic women and the disparities between men and women (e.g., rank or salary) (Metcalf & Slaughter, 2008). A recent body of literature on academic capitalism has tried to address the lack of inclusion of different contexts by focusing on (a) the Global South, (b) gender, (c) the growing stratification between and within higher education institutions and fields, and (d) striving universities.

*The Global South.* The empirical studies on ACT have been mainly centered on English-speaking developed countries, in which universities are embedded in a highly competitive and individualist society (Brunner, Labrana, et al., 2019; Rhoads et al., 2006; Slaughter & Cantwell, 2012). Other contexts where the academic capitalism regime could be expected to play out differently have been less explored, and more exploration and theorization are needed (Brunner, Labrana, et al., 2019; Maldonado-Maldonado, 2014; Slaughter, 2014a). In the last decade, the theory of academic capitalism began to be applied in Latin America (e.g., Bensimon & Ordorika, 2006; Montes & Mendoza, 2018). Brunner, Labrana, et al. (2019) and Brunner, Vargas, Ganga, and Rodríguez-Ponce (2019) explored the reception of academic capitalism theory Latin America. In order to explore the use of ACT in English, Spanish, and Portuguese' academic publications, both papers analyzed 33 documents in English and 14 documents in Spanish and Portuguese. According to these authors, ACT has an asymmetry between those who produce the theory that are located in a prestige environment at the center such as the U.S, and those who import and apply the theory in a less prestigious environment at the periphery such as Latin America. In this sense, although Spanish and Portuguese documents mentioned this theory, they used the concept of academic capitalism uncritically and in a descriptive manner (Brunner, Labrana,

et al., 2019; Brunner, Vargas, et al., 2019). Most of the Latin America's documents poorly discussed the characteristics of ACT, and they did not emphasize the incorporation of the profit motive into the academy and the shift from an industrial to a postindustrial economy in which universities are seen as a central place in knowledge development. The discussion of Spanish and Portuguese documents was centered on how market trends jeopardize the essence of the university without completely understanding the theory and its concepts. In summary, ACT has not been well understood and adapted to the local context in Latin America, and there is a need to enrich and transform the reception of ACT in Latin America in order to better understand the dynamics of higher education in this region (Brunner, Vargas, et al., 2019).

Brunner, Vargas, et al. (2019) used Montes and Mendoza (2018) as one of the few examples in the Latin American context that incorporated more conceptual elements of ACT, even though it kept the uncritical reception of this theory. Montes and Mendoza (2018) analyzed teaching and research policies in Colombia from the perspective of academic capitalism. Specifically, in this paper the authors analyzed how two Colombian universities, one public and one private, responded to five policy reforms related to research and teaching. Drawing on a multiple case-study design, they found an overvaluation of research activities, tensions in these institutions to maintain their traditional roles based on the idea of educating citizens, and to incorporate the idea of becoming a contemporary university based on market logic. Montes and Mendoza's (2018) paper was one of the entry points to this dissertation because they found professor' interpretation and actions as a needed area of research in order to understand how policy reforms are implemented at the individual level.

***Gender & Rank.*** Few studies have linked the theory of academic capitalism with gender and rank. Metcalfe and Slaughter (2008) argued that the academic capitalist regime creates conditions to privilege men. The authors presented the complex agency of women in higher education, in which there have been substantive gains by women in academia, but the situation is far from equitable. Using data from a single institution, they examined salaries and rank of male and female faculty and administrators. They found that women are underrepresented in male-dominated fields (business, law and engineering). However, taking rank into consideration, women's salary is approximately the same amount as that of men within academic units, with high variation between fields close to the market and those further away from the market. They highlight that some women who hold leadership positions earn salaries to male peers. They concluded by questioning if women leaders are making any difference in academia's gender balance. Their study opens the door for future studies that include gender dynamics under academic capitalism.

In the same line, J. A. Johnson and Taylor (2019) explored gender differences in faculty compensation from the lens of academic capitalism. Drawing on a quantitative analysis of institutional-level data, J. A. Johnson and Taylor (2019) examined the relationship between institutional emphasis on science and engineering (S&E) and the faculty salary gap at 130 public research universities. They pointed out that under the academic capitalist regime there is a growing emphasis on S&E, which has produced a gendered organization “that is likely to reward men more generously than women” (J. A. Johnson & Taylor, 2019, p. 25). In other words, the expansion of research through peer-papers publications, patents, and commercialization has favored S&E and, thus, men. The authors argued that the hegemonic academic capitalist regime and its S&E emphasis is implicitly gendered. Similar to Metcalfe and Slaughter (2008), J. A. Johnson and Taylor

(2019) found that women were underrepresented in S&E fields. However, unlike Metcalfe and Slaughter' findings (2008), their findings were based on the idea that faculty compensation is heavily based on countable "masculine" research activities and the salary gap between males and females of the same academic rank can be affected within academic units. J. A. Johnson and Taylor (2019) also found that the salary gap decreased at institutions with greater emphasis on S&E and increased at institutions with lower levels of S&E. This means that the pressure to engage in S&E work can shape higher education institutions.

***The growing stratification.*** Most of this emergent literature has understood the stratification and segmentation in higher education as a consequence of competition and the prestige economy (Rosinger, Taylor, Coco, et al., 2016; Slaughter & Cantwell, 2012). The inter-institutional stratification is understood as "hierarchical differentiation among universities both globally and nationally" (Cantwell & Taylor, 2013, p. 196), and stratification within-university, also called organizational segmentation, refers to the stratification within higher education institutions by disciplines or types of academic labor (Cantwell & Taylor, 2013; D. R. Johnson, 2017; Rosinger, Taylor, Coco, et al., 2016). These studies analyzed both prestige and revenue generation, emphasizing that universities are not only driven by the later, but most importantly by prestige and status in order to maximize their positional value and academic qualities (Marginson & Considine, 2000). There is a symbolic meaning of money linked to prestige and status that shape the identities, values and practices (or discourses, as discussed later) of universities, professors and graduate students (Szelényi, 2013). Although such research mainly addresses the United States context, this literature includes various types of institutions and professors from different fields, highlighting pressures and disadvantages among those professors and

fields who are not the ‘winners’ as well as the pressures among those “at the top of a steep hierarchy” (Rosinger, Taylor, Coco, et al., 2016, p. 46) in the new configuration of higher education toward market-based logic.

Among the few studies on academic capitalism that have tried to understand faculty work experiences in less prestigious universities, Mendoza et al. (2012) analyzed the daily life of faculty at four science and engineering departments with a different number of National Science Foundation (NSF) grants, a proxy of prestige. The first department had the highest number of NSF grants (42) and the last department had the lowest (4), reflecting inequalities within higher education. The authors found that faculty industrial experiences and departmental prestige shaped faculty participants’ academic work. For example, those faculty members who had industrial experiences had more industrial funding and provided industry-related knowledge in their classes. Also, those faculty members at more prestigious departments were more confident in attracting competitive funding and more effectively protected their academic interests than those who were in lower-ranked departments. Faculty participants also balanced their work based on type of funding (unrestricted/restricted), type of research (basic/applied), research agendas (self-directed/resource-directed), timelines (long/short-term), intellectual property (autonomous/controlled) and student socialization (academic/industrial). Those who belonged to wealthier departments were able to obtain more of the unrestricted funding and long-term timelines, to have a self-directed research agenda, to combine basic and applied research, and to protect students from potential labor exploitation. Linking the concepts of habitus (the shared worldview among professors in the same discipline and status) and academic capitalism, they concluded: “the less stock of symbolic capital available, the more likely faculty may experience the negative implications of academic

capitalism” (Mendoza et al., 2012, p. 580). In sum, the intersection of habitus and capital, both material (funding) and symbolic (prestige) seems to reproduce the unequal distribution of funding and collaboration between industry and academia, reinforcing the stratification and accentuating the uneven distribution of resources and prestige among institutions.

Taylor (2016) along with Rosinger, Taylor, and Slaughter (2016) analyzed inter-institutional stratification within top-research universities in the United States context. He found that federal research policy is linked to the growing stratification among these prestigious institutions as well as inequality among higher education institutions in general. Taylor (2016) along with Mendoza et al. (2012) found that elite-public universities most successfully obtain federal funds in comparison to non-elite higher education institutions. Taylor (2016) also found that public universities were unable to achieve the same results as elite-private universities. This was because elite and super elite private universities had advantages: (a) a growing wealth and tax advantages for endowments, (b) high capacity to collect federal funding for research that significantly exceeded the capacity of public research universities, (c) richer compensation for professors and (d) generous infrastructure. In contrast, public universities had uncertain revenues and resources with the decline of state appropriations (Rosinger, Taylor, & Slaughter, 2016; Taylor, 2016). In this context, elite-private universities had accumulative advantage to compete for more resources and maintain their status (Rosinger, Taylor, & Slaughter, 2016), and those called new ‘winners’ in the competition did not become elite, or in Taylor’s words (2016), “intensifying competition for federal R&D [research and development] support seemed to have produced no true ‘winners,’ a few moderately successful entrants, and a good many more ‘losers’.” (p. 70). In summary, the increased competition for resources is generating increased stratification.

Rosinger, Taylor, Coco, et al. (2016) expanded the understanding of academic capitalist processes by analyzing the prestige economy between faculty in segmented fields at a US university (high-resource science and engineering and low-resource humanities departments). The prestige economy is related to the external resources derived from research that creates prestige in comparison with other resources (e.g., those derived from instruction), exacerbating segmentation among academic units within universities, especially within those whose main activity is research, “by conferring status on some revenues (and academic units that generate them) at expense of others” (Rosinger, Taylor, Coco, et al., 2016, p. 28). By establishing that high levels of research support contribute to prestige, the authors divided academic units into those that generate substantial revenue as high-resource areas such as science and engineering and those that are low-resource units such as the humanities. Examining organizational segmentation and faculty work, they found uneven resources and status within university units. High-resource units depended on external bodies’ authority and research revenues, and faculty had high-status. In contrast, low-resource units depend on campus administrators’ authority and teaching as the main way to generate revenue, and faculty had low-status. Also, Rosinger, Taylor, Coco, et al. (2016) found that decision makers seemed to exacerbate the segmentation because they tended to valorize research over teaching following the prestige economy (e.g., internal resources flowing to high-resource units), even if research resources had high maintenance costs.

***Striving universities.*** Inside of a non-elite university, Gonzales and colleagues’ scholarship have explored U.S. faculty work experiences in a striving university (Gonzales, 2012, 2013; Gonzales et al., 2014). Drawing on the theory of academic capitalism, Gonzales et al. (2014) explored a striving university, which is defined as the “pursuit of

prestige within the academic hierarchy” through actions designed to achieve better positions in rankings and other measures of prestige (see O’Meara, 2007, p. 123). In general, the authors showed that faculty members at this striving university faced increasing expectations and felt pressure due to new expectations (such as increasing research productivity) with little additional support. Faculty consistently used the word “pressure” in their responses, and it seemed that their analysis of the university mission led to an increasing workload for faculty. In this context, faculty members needed “to do more with less, to be more creative without support” (Gonzales et al., 2014, p. 1106). Professors attributed the struggles to balance professional and personal responsibilities due to the lack of boundaries in their own time, by trying to manage their time in a more efficient manner, even sacrificing their personal time by sleeping less or working on weekends, and by trying to position themselves as resource generators to mirror top-research universities. This striving university tried to follow current measures of prestige, that is, what research universities are doing, while also having high teaching loads. Faculty manifested a heightened sense of pressure and less favorable working conditions than those classified as prestigious or top universities. Seeking status, the striving university created tensions between the seeking of prestige, the local context, and the communities they are serving (see also Gonzales, 2012, 2013).

In summary, this last group of scholarship has tried to incorporate the Global South (Brunner, Labrana, et al., 2019) and to include diverse contexts in the U.S (e.g., Gonzales, 2012, 2013; Mendoza et al., 2012). They found that higher education institutions and professors are immersed in environments stratified across (a) institutions (Mendoza et al., 2012), (b) elite institutions (Rosinger, Taylor, & Slaughter, 2016; Taylor, 2016), (c) academic units (Rosinger, Taylor, Coco, et al., 2016), (d) gender (J. A. Johnson & Taylor,



2019; Metcalfe & Slaughter, 2008), as well as within (e) the same academic unit (D. R. Johnson, 2017).

Regardless of the unintended consequences, the ideas of prestige, competition, privatization and marketization promoted through the academic capitalist regime remain powerful (Slaughter & Taylor, 2016b). For example, the generation of new revenue streams from for-profit markets is often not fulfilled (Slaughter & Cantwell, 2012), but it has remained as a solid discourse to follow. Moreover, the academic capitalist regime has exacerbated stratification by disfavoring fields such as humanities (J. A. Johnson & Taylor, 2019; Rosinger, Taylor, Coco, et al., 2016), and has neglected core activities such as teaching and faculty's work conditions at most universities (Gonzales et al., 2014). However, thus far there has been no comprehensive account of how the ideas of marketization and competition are being promoted, normalized, justified and/or resisted. In the ensuing pages, I discuss how the lack of inclusion and understanding of neoliberalism have limited the scope of this theory and its capacity to deeply explain the transformations of higher education.

### **Neoliberalism and the Empirical Literature on Academic Capitalism**

The literature on academic capitalism has tried to capture the market-based transformations of higher education, especially in terms of graduate students' and professors' behaviors and actions. As higher education scholars have drawn upon academic capitalism as a concept and as a theory extensively, the lack of inclusion of neoliberalism in ACT, beyond a taken-for-granted backdrop, has had implications for scholarship. As a result, pioneer authors and the subsequent empirical studies on academic capitalism have not fully considered the neoliberal roots that have led to changes in higher education and its consequences for society, leaving aside a critical view of how neoliberal ideas, policies and

practices (discourses, as discussed later) have been permeated and reinforced within higher education (e.g., Mars & Rhoades, 2012; Mendoza, 2007; Mendoza & Berger, 2005, 2008; Mendoza et al., 2012; Szelényi & Bresonis, 2014).

Since neoliberalism is taken as given, this literature often begins and finishes by (often unconsciously) suggesting neoliberal trends in higher education are impossible to change and to challenge. As an explicit example of this, Mendoza (2007), similar to Mendoza and Berger (2005), began with “In the last two and a half decades, the U.S. government has fostered cooperation between industries and universities in order to cope with funding gaps and global competitive markets” (p. 71). In this way, the neoliberal context in which higher education has been immersed and which led to the mentioned funding gaps is neglected; neoliberal practices are presented as ‘given’ rather than something that might be critiqued. In the same vein, Mars and Rhoades (2012) also mentioned that “Over the past three decades colleges and universities have become increasingly aligned with the private marketplace” (p. 436). In another paper, Mendoza and Berger (2005) finished by suggesting that “more studies such as this one would allow us to better understand this new trend in order to discover ways to intentionally guide *the fate* of higher education in light of *external* economical and political forces such as academic capitalism” (p. 17, emphasis added). Similarly, another author concluded “*We have to live within what is*, recognizing the opportunities and perils of the present day” (Walker, 2014, p. 69, emphasis added). Thus, this body of literature has tried to understand the commercialization and commodification of higher education and knowledge within higher education institutions while seemingly accepting the neoliberal landscape as “the fate” of higher education. In other words, although this literature is anchored in a political-economy approach (Gonzales et al., 2014), it has mostly overlooked the neoliberal link between

political economy and higher education that can potentially contribute to a deeper understanding of the transformations of higher education.

Without seeing the roots of the changes in higher education, the focus and the conclusions of this literature described scientific knowledge production at universities without a critical perspective. Since the empirical studies have accepted the current situation of higher education as its “fate,” the focus of these studies is usually on how to increase the social benefits from the corporatization and marketization of higher education and minimize the negative impacts in an adaptive manner, always within the institutions most benefit, without consideration for the whole higher education system, and only taking into accounting its potential benefits for society in the short term (e.g., Mars & Rhoades, 2012; Mendoza, 2009, 2012; Szelényi & Bresonis, 2014). For example, the pioneers of this theory, Slaughter and Rhoades (2004), argued that the academic capitalist regime is neither inevitable nor irreversible and offered alternatives to mitigate the unintended consequences of the academic capitalism. These authors concluded that the external revenue generation can be directed enhance social benefits of intellectual property and educational services, creating “incentives for developing products that have socially productive purposes” (p. 338). They also added that market activities can be also encompassed with other commitments by supporting equitable access to higher education for students from under-represented groups, and also by working on some topics (e.g., environmental engineering or clean energy alternatives) that can be attractive not only for the market, but also can be beneficial to society as a whole.

Additionally, this scholarship found positive effects of industrial partnerships for some departments and universities. For example, Mendoza and Berger (2005) provided recommendations for increasing patenting levels at public Research I universities (in the

United States), such as having an optimal balance between control over faculty professional and academic rewards structures. This recommendation means to increase the corporatization process and managerialism, does not question the existence of patents, whereas Johnson's (2017) question of if it is "a good thing that universities contribute to innovation and economic growth" (p. 2) or Mirowski's (2011) if "do patents help or hurt science?" (p. 144). These questions submit for consideration the assumption behind patents that commercialization and the privatization of knowledge is good for society as a whole. In another paper, Mendoza (2007) noted that the analyzed department has benefited from partnerships with the private sector due to, in great part, "the large amount of federal grants that faculty members bring in, which allows them to maintain a comfortable stream of revenue" (p. 93). For this reason, "the results of this study indicate that in the absence of adequate traditional federal block grants, academic institutions might depend too much on industry as a source of research funds, which might jeopardize fundamental academic values and the quality of education" (p. 93). In this context, she pointed out the importance of maintaining federal grants "in order to keep the balance between research supported by industry according to their own corporate interests and the academic freedom necessary to conduct basic research academic values and the quality of education" (p. 93). In another study with similar results, Mendoza and Berger (2008, p. 19) concluded that "if federal grants are concentrated in a few institutions, those departments in fields relevant to industry with less federal funding might be compromising their core values to service industrial sponsors in exchange for funds." For this reason, they suggested that "federal funding agencies should also consider ways to better support faculty members in less prestigious departments" in order to "enable faculty members to be in stronger negotiating positions of industrial contracts, which would better protect the ability of faculty members to drive their

own research agendas and have more control over intellectual property” (Mendoza & Berger, 2008 p. 20). These examples point out how this literature is under the assumption that there is a status quo, and they have to deal with it and mitigate it and work to eliminate the resulting inequalities by calling for government intervention. Instead of confronting the inequality, questioning the accumulative advantage that generates negative effects, and imagining new alternatives, this literature addresses academic capitalism as the irremediable destiny that should be mitigated through, for example, programs that allow access to resources to some less privileged institutions while elite institutions cannot lose their status and privileges.

Although this literature has documented very well the unintended consequences derived from the academic capitalist regime such as the growing stratification among and within higher education (e.g., Rosinger, Taylor, Coco, et al., 2016; Taylor, 2016), more work needs to be done to illuminate the drivers of inequality (Pusser, 2016), especially by examining the growing amount of ‘losers’ and ‘striving’ higher education institutions, both within the U.S. and throughout the globe. Specially, how this regime is strengthened and *how its* tenets remain powerful needs to be understood, and how the status quo can be changed.

Surprisingly, only one study of this type seems to challenge the neoliberal status quo. Although Gonzales et al. (2014) conflated academic capitalism and neoliberalism, they tried to understand the consequences of neoliberalism for faculty work experiences. The authors proposed ‘striving universities’ as a manifestation of academic capitalism and problematized the fact that striving has become ‘normal’ or the next step for a higher education institution, pointing out that its analysis has been detached from a critical political-economic perspective (e.g., O’Meara & Bloomgarden, 2011). Nevertheless, there

is still too little research about how neoliberal ideologies themselves have shaped faculty and their professional work (J. S. Levin & Aliyeva, 2015), especially through the theory of academic capitalism. Although there is no doubt that ACT and its empirical literature have had a significant impact on the study of higher education, this omission leaves significant questions unanswered regarding the consequences of the growing academic capitalist regime that is manifested through growing stratification among elite institutions, academic units, and especially among striving universities where neoliberal discourse as well as the lack of opportunities and resources is felt the most. Taking into account the neoliberal roots of ACT, a needed area of study is how neoliberal initiatives are infiltrating higher education and faculty, especially “in a more subtle and covert way” (J. S. Levin & Aliyeva, 2015, p. 538).

### **Redefining Neoliberalism under ACT**

Slaughter (2014a) pointed out that ACT is seen as “provisional and as something to explore, modify, expand and interweave with other theories” (Slaughter, 2014a, p. viii). To that point, the following pages outline a retheorization of the neoliberal bases of ACT. The reason for this is because the way in which neoliberalism has so far been addressed under ACT is difficult to grasp and therefore it constrains the theoretical capacity to explain the corporatization and marketization of higher education, and how it has been strengthened and reproduced, as well as rejected.

In general, neoliberalism is an ambiguous, vague and politicized concept (Birch, 2016; Kezar et al., 2019; Mudge, 2016), sometimes criticized (i.e., O’Neill & Weller, 2016; Venugopal, 2015), and sometimes seen as irreplaceable because it includes ideology and explains the political pro-market transformation (Mudge, 2016). As a way to understand the contemporary transformation of society and its social order, neoliberalism covers ideas,

concepts, policies and instruments, as well as social, political and ideological power relations (Plehwe, 2016). In a broad sense and as a starting point, neoliberalism is understood as an intellectual, cultural and political project, a phenomenon of politics and government that attempts to reduce the state's responsibility, and a period in capitalist and geopolitical development that is based on the convictions about free-global markets (Escalante Gonzalbo 2016; Fairclough, 2013; Mudge, 2016). However, other ways to understand neoliberalism in order to capture the slippery nature of this concept and to establish neoliberal bases that expand the scope of the theory of academic capitalism.

Among specific definitions and perspectives of neoliberalism that allow a more precise analysis and link to ACT, Holborow (2012b) identified four ways to understand neoliberalism in order to capture its elusive nature: (a) as an economic theory; (b) as a new form of capitalism, (c) as a new discourse in the contemporary world, and (d) as a hegemonic ideology. Although all the four definitions are related, the first and second develop the theoretical roots, and the last two explain how neoliberalism has proliferated and proved resistant to change, especially through discourses or ways of representing ideas about the world (Fairclough, 2013), in this case, ideas about higher education. Finally, I offer a new definition of neoliberalism that agglomerates different aspects of the four perspectives to build a solid backdrop of ACT.

### **Neoliberalism as an Economic Theory**

As an economic theory, neoliberalism is based on Neoclassical, Austrian and Monetarist schools of thought. According to Harvey (2005), neoliberalism is a theory of economic and political practices such as deregulation (i.e., flexibilization of the labor market or less control over the financial system), less state participation, primacy of the financial sector, privatization of state-owned sectors, discouragement of unions, and the

individualization of health, welfare, and education (Harvey, 2005; Kezar et al., 2019; Smith, 2012).

**Central tenet.** Neoliberal practices created a new economic configuration based mainly upon the promotion of free markets "to extend the boundaries of the market and set it free from all constraints" (Holborow, 2012a, p. 42), freedom of commerce or free trade of goods and services as the best way to increase productivity, and to obtain the trickle-down effects of wealth production to reduce poverty and inequality (Harvey, 2005). However, the introduction of competition through the market is also seen as a central tenet behind neoliberal practices. The alleged aim of competition is to eliminate bureaucracy, increase efficiency and productivity, improve quality, allocate resources and status efficiently and fairly, and to reduce costs (Harvey, 2005; Olssen, Codd, & O'Neill, 2004). For example, the deregulated labor market is thought to be the way to provide the same opportunity for people to compete by using their skills.

**Neoliberal State.** The role of state and the relationship between the individual and society were transformed under neoliberalism (Harvey, 2005; Hursh, 2007). Instead of its previous conception as an agent of social welfare, the state is now seen as the mediator for the proper operation of the market (Olssen et al., 2004) and as an opener of new markets. As such, the state should create conditions for the quality and integrity of money, secure property rights and the proper functioning of markets, reduce barriers to the movement of capital, establish free trade agreements with other nations, and create markets in different areas such as health care, social security, and education as well as a good business climate (e.g., taxes incentives for corporations) (Harvey, 2005). For example, education changed from being considered a citizen's right to a service that must be purchased or chosen in the marketplace (Boron, 2006). In this context, the state should not interfere in the market, but



rather should generate laws and institutions that promote the free functioning of the market (Harvey, 2005).

**Individuals.** Social inequality is structural and justified based on personal choices (Harvey, 2005; Macrine, 2016). According to neoliberal theory, individuals exercise choice rather than possess rights (Ambrosio, 2013). Each individual—“not citizens but clients or consumers” (Boron, 2006, p. 148)—is seen as a competitive entrepreneur, a risk-taker, an innovator, a rational maximizer, an economically self-interested, equally competent, and perfectly well informed person, autonomous and responsible for his or her own choices (Boron, 2006; Holborow, 2012a; Hursh, 2007; Olssen et al., 2004). Also, there is an assumption that all individuals acting in the market have access to the same information to make decisions (Harvey, 2005). In this sense, the fact that many people do not succeed is not society’s fault, but due to their bad choices; and they only have themselves to blame (Hursh, 2007; Macrine, 2016; Passas, 2000). In other words, individual success or failure is considered to be based on their self-interest, educational investment, hard work and merit as a way to access benefits like higher education (Harvey, 2005). Thus, in the neoliberal world, “there are no social problems, only individual challenges” (Saunders, 2010, p. 48).

**The introduction of practices.** Harvey (2005) and Holborow (2012b) highlighted differences between neoliberal theory and its actual political and economic practices. States have been more economically and politically engaged than theory imagines (Holborow, 2012b). One of the reasons is that the state needs to provide the conditions necessary for the free market to operate (Holborow, 2012a). Some examples include advocating for free trade while imposing tariffs in order to gain electoral support, or having as a principle that everyone should be responsible for their own mistakes but bailing out financial institutions during a crisis (Harvey, 2005; Holborow, 2012a). In higher education, the initial idea was

to minimize the role of the state. However, in practice state subsidies shifted into new areas such as less standard appropriations and more competition-based research funding (Slaughter & Taylor, 2016a).

At the individual level, neoliberalism denies systemic differences and assumes symmetry of information. However, the exercise of personal choice requires other financial and cultural resources as well as information in order to determine good and bad choices (Olssen et al., 2004). In this sense, neoliberal policies and practices have protected the privileges of those who have better resources and access to information, which in turn, fosters social inequality (Harvey, 2005). To hinder the questioning of neoliberal practices, neoliberalism, as a dominant ideology (as described below), has obscured the economic and social impacts of its policies and practices while highlighting its beneficial outcomes (Saunders, 2010).

Because the provision of higher education is an essential function of the state (Pusser, 2016), the role of the neoliberal state has been considered important for the study of academic capitalism as a general explanation for universities and professors' increasing engagement in market and marketlike behaviors (Pusser, 2016; Slaughter & Cantwell, 2012). ACT and its empirical studies mainly pointed out that this regime depends on the growth and power of the neoliberal state (e.g., Metcalfe & Slaughter, 2008; Slaughter & Rhoades, 2004, 2008; Taylor, 2016). Some studies have acknowledged the irony that marketization of higher education has occurred mainly through state funding, even though the discourse is based on new revenues streams (Rhoades & Slaughter, 2006; Slaughter & Cantwell, 2012). However, there is negligible critical discussion about the role and practices of the neoliberal state that is essential to ACT's critical perspective. In addition, although scholarship on academic capitalism has been centered on academics' behaviors,

activities, and experiences, the theory and empirical studies have not considered individual characteristics and tenets under neoliberalism.

### **Neoliberalism as a New Form of Capitalism**

The second way to understand neoliberalism is also known as the knowledge society, the information society, the learning society, the new economy or new knowledge economy. This perspective highlights the rise of knowledge as source of capital, and complements neoliberalism as economic theory by recognizing (a) the change from an industrial economy to knowledge, post-industrial or information-based economy, (b) the crucial role of the internet, mobile telephones, technology, communication, and information, (c) the global scope of neoliberal ideas, and (d) the production of knowledge (Holborow, 2012b; Mirowski, 2011; Olssen & Peters, 2005; Välimaa & Hoffman, 2008).

Although ACT has made subtle references to all four perspectives on neoliberalism, Slaughter and Rhoades (2004) mainly and explicitly based their work on this perspective. Thus, ACT understands the “new form of capitalism” or “new economy” as the shift from an industrial to a postindustrial economy in which knowledge is seen as raw material that can be transformed into products, processes and services and is considered central to the rise of the academic capitalist regime (Slaughter & Rhoades, 2004). Thus, higher education has gained greater relevance during the transitioning from an industrial to a postindustrial political economy due to the importance of advances in science-based knowledge and university-educated personnel, especially from science, engineering, MBAs and attorneys (Slaughter & Leslie, 1997).

The new economy is based on the assumption that knowledge should be privatized. The justification for the privatization of public funding for research or the privatization of public research outcomes is “the increased growth expected from a strong knowledge

economy” or in other words, the privatization of knowledge contributes “to economic growth that benefits the whole society (Slaughter & Rhoades, 2004, p. 29). All the “knowledge economy” narrative is based on the commercial utility of knowledge with the aforementioned premise as a justification, that is, the only source of growth comes from private property, in this case of knowledge. The founders of ACT recognized the shortcoming of the new economy or this perspective of neoliberalism: “The benefits of economic growth do not always fall evenly on the population. Treating knowledge as a private good may make much of it inaccessible, perhaps constraining discovery and innovation” and “Basic science for use and basic technology may provide narrow forms of discovery and education that do not sit well with concepts of public good” (Slaughter & Rhoades, 2004, p. 29). Relatedly, Cantwell and Kauppinen (2014) replaced the term new economy with globalization. However, while globalization accounts for transnationalization of social relations, it maintains the aforementioned conceptual basis of the knowledge economy. For this reason, it is important to enrich the neoliberal basis of ACT with other perspectives that allow a better understanding of the academic capitalist regime.

### **Neoliberalism as a New Discourse in the Contemporary World**

Neoliberalism as a new discourse in the contemporary world and as an ideology (as presented in the next section) are also based on neoliberalism as an economic theory and new form of capitalism. Both explain why neoliberal ideas and policies have been internalized and resistant to change, and why thinking outside the neoliberal box has become difficult, or even unimaginable. The definition of discourse is based on Fairclough (2013) who describes discourse as an abstract and a count noun. As an abstract noun, discourse is seen as a relational view of language or language and its dialectical relations with other elements in the social process such as social relations, people with knowledge,

beliefs, attitudes and values, and elements of the material world (Fairclough, 2013, 2015). Discourse is relational because discourse includes a complex set of relations that constitute social life: meaning and making meaning (Fairclough, 2013). In turn, discourse (as an abstract noun) “in the representation and self-representation of social practices constitutes *discourses* [as a count noun]” (Chiapello & Fairclough, 2002, p. 194, original emphasis). As a count noun, discourses are ways of representing ideas about the world. Discourses include ideologies, tensions, and contradictions are represented through statements that include values, emotions, beliefs, and bodily positions (Rogers & Wetzel, 2013).

Neoliberalism as a discourse is understood as the mode in which neoliberalism is expressed and transmitted (Holborow, 2012b; Simbürger & Donoso, 2018). Harvey (2005) acknowledges that neoliberalism is also a hegemonic mode of discourse based on political consent among a large group of individuals. The Gramscian concepts of hegemony and common sense can help to explain how neoliberalism has achieved and maintained a dominant position. For Gramsci, hegemony is an active process that seeks the legitimation of dominant groups and it is achieved through compromise and consent within society and culture rather than coercion (Harvey, 2005; Levinson et al., 2011). Coercion can be another means of achieving hegemony (e.g., the Pinochet Regime that ruled Chile between 1973 and 1990), but this perspective is centered on consent as a way to inculcate neoliberal ideas through means such as think tanks, political agendas, universities and media (Macrine, 2016).

In the process of naturalization of neoliberalism, pedagogical lessons are important ways to transmit dominant ideologies through the reproduction and preservation of discourses, language, and the production of knowledge (Macrine, 2016). In this sense, the neoliberal marketplace of ideas can be circulated through laws and different means of

communication that influence society and peoples' common sense (Mirowski, 2011). Common sense is an incoherent set of general assumptions about the right, normal or desirable state of social and political affairs that are uncritically absorbed through cultural values and fears as well as different channels—media, corporations, intellectuals—promoting the conversion to neoliberal ways of thinking (Harvey, 2005; Levinson et al., 2011). In other words, the hegemonic neoliberal discourse “has become incorporated into the common-sense way many of us interpret, live in, and understand the world” (Harvey, 2007, p. 3). Thus, neoliberalism as a discourse brings to light how neoliberalism is conforming to an ideology in individuals' common sense.

To some extent, ACT recognizes that market logic is embedded in everyday discourse inside universities (Rhoades, 2014b), and the promotion of academic capitalism is based on rhetoric about competitiveness, stimulating economic growth and employment (Slaughter & Rhoades, 2004). In other words, the “academic capitalist knowledge-learning regime is not abstract: it is embedded in higher education practice and culture” (Slaughter & Rhoades, 2004, p. 69). In addition, discourse was recently considered as an analytical construct in ACT (Slaughter & Cantwell, 2012) to explore the narratives that allow actors to move from the public good regime to the academic capitalist regime. However, ACT needs to acknowledge this perspective of neoliberalism and carry out further studies that include it.

### **Neoliberalism as a Hegemonic Ideology**

Holborow (2012b) defined an ideology as reality through a certain lens, or a “one-sided representation” (p. 29) that expresses a specific social interest through different symbols, belief systems and power (Holborow, 2012b; D. R. Johnson, 2017). In the case of neoliberalism, the ideology expresses the interest of those who have the control of capital,

even though it is presented as driven by external forces of the market (Holborow, 2012b). In this case, neoliberalism is also understood as a market ideology that has gradually become hegemonic (Alcántara et al., 2013), and it is based on the first perspective presented above, neoliberalism as an economic theory and as new form of capitalism, as unquestionable truth or accepted worldview. One way to spread market ideology is through the introduction of vocabulary related to economics and the business world—i.e., customer, entrepreneur—to other contexts such as education (Holborow, 2012a, 2012b). Neoliberalism as an ideology has managed to successfully define social, economic and political institutions, and also how individuals make daily decisions and plans as natural choices (Saunders, 2010).

An ideology has contradictions in its construction and reception, and it is also highly sensitive to world events. For these reasons, it could be vulnerable to crisis and often needs to be readjusted (Holborow, 2012a, 2012b). However, to combat resistance, there are ways to legitimize an ideology such as being less visible (Fairclough, 2015). In this case, neoliberal practices and policies can be seen through arguments such as “any inequalities of wealth are a result of individuals not working hard enough” (Saunders, 2010, p. 52), among other narratives, which present only a partial picture, but which people are willing to accept. In this way, despite economic and financial crises as well as the extreme concentration of wealth, proponents of neoliberalism have been successful at excluding rival forms of thought and claiming that “There Is No Alternative (TINA)” in the words of Margaret Thatcher (Harvey, 2005; Saunders, 2010). Discourse and ideology are related. Discourse embodies ideological assumptions in the common sense or, in other words, the common sense is merged with ideology as the background of discourse (Fairclough, 2015). ACT also mentioned this perspective somewhat, but without explicitly introducing it in the

theory. For example, Slaughter and Rhoades (2008) point out that the “idea of an academic capitalism regime captures the many ways and means through which market and market-like behaviors as well as market ethos and ideology have been incorporated into postsecondary education” (p. 19-20).

These four definitions have been acknowledged by ACT in different degrees. As discussed below, all together they can build a solid definition as a backdrop of ACT: Neoliberalism is defined as an ideology that is based on economic theories and is reproduced and challenged largely through discourses. In this sense, discourses help to explain how neoliberalism and its theoretical conceptualization, the academic capitalist regime, have proliferated through particularly tenets, the role of the state and individual views. This definition opens the door to studies of discourse that can begin to fill the knowledge and theory gaps described here.

### **Applying Neoliberalism to ACT**

Although J. S. Levin and Aliyeva (2015) claimed that “The question is not whether ‘academic capitalism’ is part of a neoliberal ideology or reflects or advances neoliberalism” (p. 538), I argue the opposite. As presented earlier, the focus of empirical studies based on ACT has offered ways to minimize the negative impacts derived from neoliberal policies, practices and tenets in an adaptive manner. The lack of inclusion of neoliberalism in ACT, then, closes the opportunity to challenge or question the current landscape of corporatization and marketization of higher education. This is in part because the spectrum of analysis of this scholarship overlooks the focus on why the academic capitalist regime works as it does, or, in other words, it takes for granted and accepts the neoliberal ideology that underpins the academic capitalist regime.



A social theory is “a set of interlinked concepts that minimally aspires to give an account of *how* and *why* “society” works,” (Levinson et al., 2011, p. 6, emphasis added) or it “attempts to explain why things work the way they do” (Ravitch & Riggan, 2016, p. 43). In this sense, ACT and its empirical literature has explored mainly *how* the academic capitalist regime works, and *what* the unintended consequences are. However, it is also important to understand *how* this regime is strengthened and *how its* tenets remain powerful. In this way, neoliberalism should be taken as a backdrop that can be analyzed and understood rather than taken-for-granted backdrop.

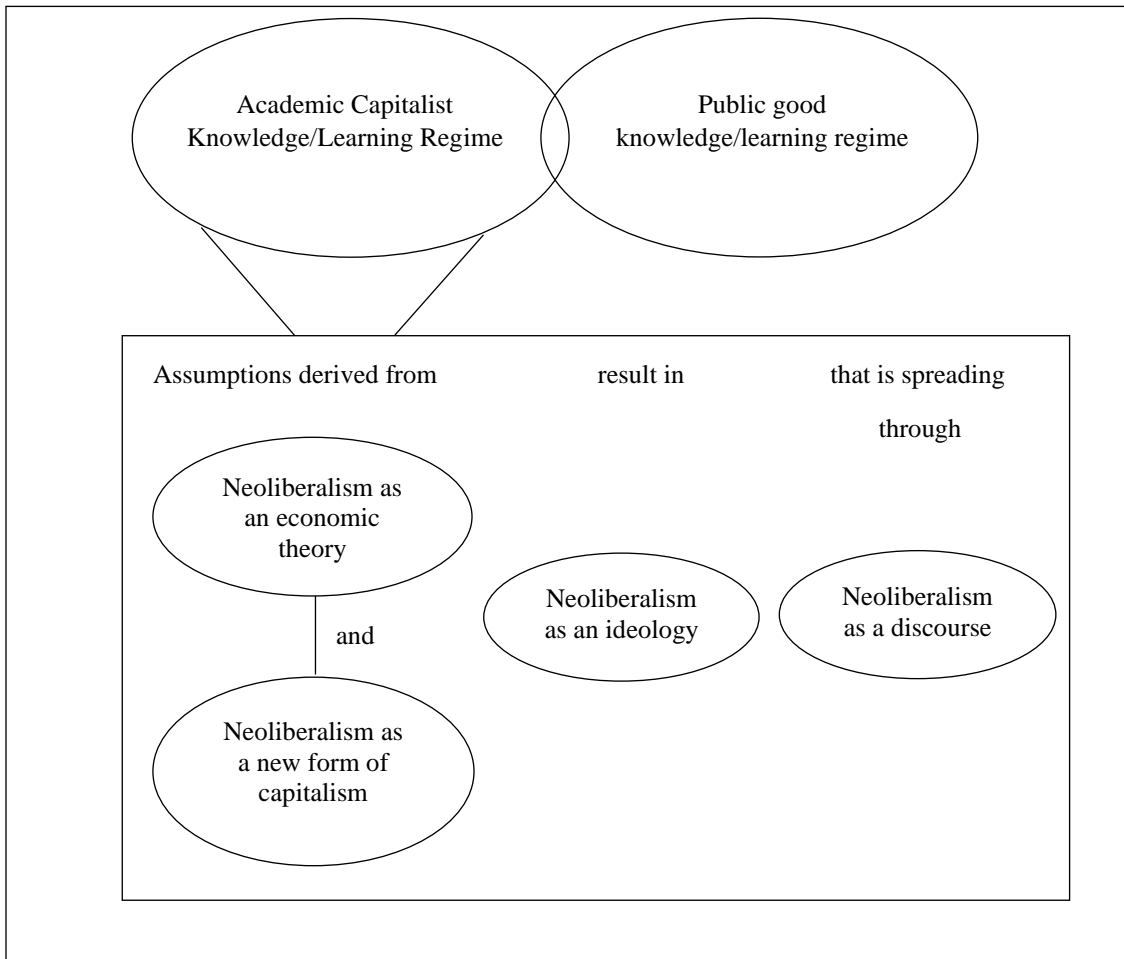
As an extended definition, neoliberalism could be understood as an ideology that is based on economic theory and the new form of capitalism. This ideology is reproduced and challenged largely through discourses. The extended definition of neoliberalism integrates all of the presented perspectives of neoliberalism and opens the door to understanding neoliberal practices and policies through ACT within institutions, narratives and common sense. Thus, “neoliberal ideology” has a wider scope than the “new economy” within the initial definition of ACT. Therefore, academic capitalism can be understood as a theory that explains changes and global trends in higher education as well as the process by which universities integrate with the neoliberal ideology (see Table 1).

Table 1. *Neoliberal Backdrop of ACT*

Slaughter and Rhoades (2004)	Academic Capitalism and Neoliberalism
<p>Academic capitalism is a theory that “explains the processes by which universities integrate with the <i>new economy</i>” (p. 14, emphasis added).</p> <p><i>New economy</i> as the shift from an industrial to a postindustrial economy in which knowledge is seen as raw material that can be transformed into products, processes and services and is considered central to the rise of the academic capitalist regime (Slaughter &amp; Rhoades, 2004)</p>	<p>Academic capitalism is a theory that explains the process by which universities integrate with <i>neoliberal ideology</i>.</p> <p><i>Neoliberal ideology</i> is based on economic theories. Neoliberal ideology is reproduced and challenged largely through discourses, and is reflected in policies at all levels</p>

Each presented perspective of neoliberalism contributes to the understanding of the academic capitalist regime. First, economic theory and the new form of capitalism perspectives are the theoretical roots. The last two (new discourse in the contemporary world and hegemonic ideology) help to explain how neoliberalism, particularly tenets, the role of the state and the individual view of neoliberalism, has proliferated and proved resistant to change. By considering neoliberalism, the analysis of the academic capitalist regime will make visible the neoliberal ideology embedded as a way to justify and normalize this regime and individual actions. In this way, the analysis of the academic capitalist regime includes neoliberalism as the backdrop in the analysis rather than taking it as given background (see Figure 1).

Figure 1. *Neoliberalism as the Backdrop of the Academic Capitalist Regime*



In this way, literature on ACT, which is “often reduced in citation and application to revenue generation efforts” (Rhoades, 2014a, p. 113), can explore other issues such as the political and economic perspective of academic capitalism and the power embedded when neoliberalism is understood as the essential backdrop of ACT. In fact, one of the founders of this theory mentioned:

“When Slaughter and I wrote about colleges and universities engaging in market behaviors, we were foregrounding not just revenue generation efforts that commodify and commercialize higher education, but also political

economic efforts that restructure and rationalize professional work” (Rhoades, 2014a, p. 114).

In conclusion, ACT is immensely useful, and the redefinition of its neoliberal bases push this theory forward to spearhead research toward a deeper dimension and new conclusions that better enable us to uncover the complex layers and roots of the academic capitalist regime.

### **Conclusion**

This chapter has pursued two main objectives. First, it compiled the contributions of the theory of academic capitalism and its empirical literature. Empirically, the literature on academic capitalism was classified into three trends. The first two account for the main patterns found in the literature related to faculty and graduate students’ academic lives, while the third involves a growing literature on academic capitalism that highlights the segmentation and stratification derived from the marketization of higher education. This study contributes to the latter group of literature by focusing on a less privileged context, Colombia, which is expected to be part of the increasing inter-institutional stratification and organizational segmentation in higher education. Another important contribution of this chapter is the redefinition of the neoliberal bases of ACT. Since academic capitalism is a theory that helps to view and to explain the phenomenon of neoliberalism in academia, which thus far offers only a vague understanding of neoliberalism, it is important to link ACT and neoliberalism more explicitly. In sum, instead of considering the new economy, academic capitalism is here understood as a theory that explains the process by which universities integrate with neoliberal ideology. Neoliberal ideology then is based on economic theories, which include tenets, the role of state and individual views. This

ideology is reproduced and challenged largely through discourses, and is reflected in policies at all levels.

This dissertation expands on this literature based on national research policies and professors' own understandings and actions. In this context, language is considered a key to communicate, frame, reframe, and resist neoliberal ideology. As explained in the following chapter, Critical Discourse Analysis (CDA) was used to examine the language of policies and how professors engage with them, translating policies into the language of practice and actions. By considering neoliberalism as the backdrop of ACT, we have a better understanding of the academic capitalist regime from a more critical perspective. As Fairclough (2018) mentioned "critique alone cannot change reality but it can contribute to political action for change by increasing understanding of existing reality and its problems and possibilities" and then he added "better understandings require better explanations" (p. 13). As a way to explore the neoliberal roots of ACT, this dissertation used CDA that combines critique of discourse and explanations of how discourse is part of social reality, contributing to build a basis for action to change reality (Fairclough, 2018).

### **Chapter 3: Colombian Higher Education and Science Systems through the Lens of Academic Capitalism**

The conception of higher the production (research) and transmission (education) of knowledge as private goods has reshaped Latin American higher education, altering the social function of universities (Mollis, 2006). Despite this, Latin American countries in general have shown strong resistance to the market-driven policies and practices in higher education. One of the reasons for this resistance is the traditional, public model that supports the wider social mission of universities (Boron, 2006; Mollis, 2006; Pineda, 2015). Additionally, the scarce budget dedicated to higher education has worsened the consequences of the neoliberal transformations (e.g., Boron, 2006), while having the same expectations for global competition (e.g., global rankings).

Each country has incorporated the privatization of the production (research) and transmission (education) of knowledge through neoliberal policies at their own pace and with different degrees of emphasis according to each country's cultural and political circumstances (Kempner & Jurema, 2006). Thus, while Chile has been a pioneer in neoliberal reforms, Mexico and Argentina have seen greater resistance to these reforms, and Colombia can be classified in a middle position (Rabossi, 2009; Rhoads et al., 2006). An example of this is evident in the differences in the expansion of access to higher education mainly the private sector—for-profit institutions in some cases—as a way to complement public higher education (Boron, 2006; Mollis, 2006; Rabossi, 2009). Countries with less resistance such as Brazil, Chile, Colombia, Dominican Republic, and El Salvador have the majority of students enrolled in private universities, countries with greater resistance such as Argentina, Guatemala, Mexico, Paraguay, Perú, and Venezuela have the opposite situation (Boron, 2006). In fact, in 2012, while 72% of Chilean and 71% of

Brazilian tertiary students were enrolled in private institutions—the for-profit sector exceeds the public sector in student enrollment in Brazil (Salto, 2017)—only 20% of students in Argentina, 32% of students in Mexico, and 47% of students in Colombia were enrolled in such institutions (Fischman & Ott, 2018).

Colombia's middle position is reflected, on the one hand, by the decreasing budget for public universities, responsiveness to privatization, and the promotion of industry-academia linkages, and on the other hand, on the social resistance to policies such as the legalization of for-profit higher education institutions (Vega Cantor, 2015) and recently, the student movement against cuts to the budget for public universities (Semana, 2018a, 2018b, 2018c). The country offers a complex scenario of resistance and responsiveness to neoliberal policies and practices in higher education. To understand the complex dual-scenario in Colombia, this contextual chapter seeks to analyze the characteristics of the academic capitalism regime in Colombia through national policies on higher education and science development.

Drawing on the general policies and Conpes, this chapter briefly introduces the systems that guide higher education and science development in Colombia and the characteristics of the academic capitalist regime in these systems. It starts with the Colombian higher education system, and then it presents the Colombian National Science, Technology, and Innovation System. I then transition to the focus of study: national research policies that shape professors' work as well as professors as the 'users' of these policies.

### **Colombian Higher Education System**

The contemporary Colombian higher education system is relatively young: it was only legally-established in the 1980s through the Decree 80 (MEN, 1980). This initial

legislation included the definition and purpose of research activities as one of the main functions of universities (Montes & Mendoza, 2018; Orozco, Ruiz, Bonilla, & Chavarro, 2013), which was novel because Colombian universities were initially more oriented toward teaching. This legislation, Decree 80 of 1980, defined research as a core activity of higher education (article 8), that supports teaching and generates knowledge that solves the problems of society (article 9). In this sense, the academic capitalist regime was not incorporated into the initial legal structure of Colombian higher education.

The Decree 80 of 1980 was replaced by the current Law 30 of 1992 (CRC, 1992). This legislation subtly incorporated the profit motive into academia and can be seen as the initial introduction of the academic capitalist regime in the Colombian higher education system. Law 30 of 1992 concretely established that public funds for universities would be based on the resources available in 1993, and additional funding would depend on the increase of the gross domestic product (GDP) (article 86 and 87). In other words, the public universities' budget held steady as in 1993. In this way, the intended economic resources did not anticipate the needs of the growing sector of higher education (e.g., growing enrollment, increasing technological needs, access to databases, the need of professors' doctoral education, research resources, accreditation processes, etc.) (Jaramillo, 2010). To complement the economic resources, article 86 of this legislation established that, in addition to public funds, public universities' budget was formed by the revenues they produce via tuition, fees and services (Quimbay & Villabona, 2017). In this way, the current Law 30 of 1992 laid the foundations for a drastic cut in public expenditure for public universities and led universities to seek alternative sources of funding.

Up to this point, the introduction of the academic capitalist regime through the current Law 30 of 1992 did not explicitly consider the commercial potential of knowledge



as a way to capture new revenue streams, which was the center of this regime in English-speaking countries, especially the United States (e.g., Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004). However, this legislation promoted the marketization and privatization of higher education (Blanco Suárez, 2014). As presented below, the privatization of higher education can be considered a significant characteristic of the academic capitalist regime in Colombia.

Unlike public funding for public universities, Law 30 of 1992 boosted private universities' finances. This legislation (article 122) along with Decree 110 of 1994 (PRC, 1994a) allowed the private institutions to increase their tuition above the average inflation rate without a threshold (article 1), only if the growth of tuition costs was in line with higher education's aims and objectives. As a consequence, the cost of tuition in private institutions has risen well above inflation rate. Between 2007 and 2014, as an example, while the minimum wage increased 42%, tuition costs in private institutions, especially in the elite private sector, increased between 80% and 120% (Semana, 2017). Another boost for private institutions came via financialization. The Constitution of 1991 established as a function of the State to facilitate financial mechanisms to allow the access to higher education (article 69). Accordingly, Law 30 of 1992 also strengthened the shift from subsidized tuition to educational loans that mainly favored the private sector over the public.

It is worth noting that Law 30 of 1992 did not allow for-profit higher education institutions (article 32 and 98). In this sense, despite the promotion of privatization, this legislation was reluctant to allow market behavior among higher education institutions at the level of private enterprises. However, in 2011, there was a failed attempt to reform Law 30 of 1992. Instead of fostering the necessary budget for public higher education

institutions (article 106), the reform tried (a) to include for-profit higher education institutions (article 13 and 32), (b) to continue the promotion of private higher education institutions (e.g., article 108 and 111), and (c) to introduce more educational loans for higher education (e.g., article 118, and 119). Therefore, these changes tried not only to open the door to the profit motive into the academy mainly through for-profit institutions, but also to increase the enrollment of students in private universities, intensifying the role of the private sector in the country. The academic community, especially students from public universities, completely rejected this reform. After a massive student movement that included eight protest marches and a student strike, President Juan Manuel Santos (2010-2012) removed this attempt to reform from the Colombian Congress on November 11th of 2011 (Semana, 2011), and the final version of the reform does not include for-profit institutions in the Colombian higher education system (MEN, 2011).

The changes promoted in the failed reform of Law 30 of 1992 followed a neoliberal rationale that was based on (a) the aim of competition among higher education institutions to “encourage the pursuit of excellence” (article 108), (b) the growth of educational loans to promote student choice between public and private education, and (c) the idea that higher education is a private good rather than a citizen’s right and a public good. Although the reform of Law 30 of 1992 was not approved, it shows both the intentionality of government leaders to deepen academic capitalism, and the resistance of these ideas among the students and the general public, that defend higher education as a public good. Defenders of tuition-free public universities are based on the Latin American Model, in which the government needs to support the wider social mission of universities (Boron, 2006; Pineda, 2015).

Originally, Slaughter and Rhoades (2004) highlighted that the continued decrease in state block grants plays an important part in the introduction of the academic capitalist

regime, particularly through new sources of external revenues, in which science was embedded in commercial endeavors. Similarly, Colombia, like other Latin American countries, has had a gradual and steady decline in public funds for higher education (Boron, 2006; Fischman & Ott, 2018; Rabossi, 2009). However, rather than foster the commercialization of knowledge as a new source of external revenues, the introduction of the academic capitalist regime in Colombia was initially oriented through privatization and marketization of higher education. The current legislation, Law 30 of 1992, incentivized a higher education market that “empowered students by making them consumers” (Slaughter & Rhoades, 2004, p. 45). This market is based on loans to meet enrollment targets and to reduce the pressure on the public sector budget. Despite that public higher education in Colombia—specifically undergraduate programs—has remained state-subsidized with low or no-tuition cost, Law 30 of 1992 introduced higher education as an individual or private good, which is a characteristic of the academic capitalist regime (Slaughter & Rhoades, 2004).

Regarding research, Law 30 of 1992 mentioned research as a university’s functions (article 19) and established that it would be promoted through public funding (article 126). In this sense, the legislation that organized the higher education system did not encourage academic institutions to generate revenues from research in order to reduce the economic dependence on public funds, which has been the hegemonic neoliberal rhetoric in other contexts (e.g., Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004). As presented in the next section, research policies and ideas were regulated by the implementation and strengthening of the national science, technology and innovation system.

## Colombian National Science, Technology and Innovation System

The creation of Colciencias in 1968—as the national science agency—and the consulting group for the national government *Consejo Nacional de Ciencia y Tecnología*, created also in 1968, were the initial institutional efforts to establish the national system of science, technology and innovation. This system was in charge of supporting research policies and developing the scientific capacity in Colombia (Jaramillo Salazar, Botiva, & Zambrano, 2004). Law 29 of 1990 was the first formal legislation that promoted research outcomes in the country (CRC, 1990).<sup>2</sup> This legislation fostered the creation of knowledge, looking for the investment of productive sectors (article 2). Along with Law 29 of 1990, there were a significant number of governmental initiatives in the second part of the 1990s, such as programs to support doctoral studies, funds for research areas, and the creation of a database of scientific indicators (Pineda, 2015).

Almost 20 years later, Law 29 of 1990 was replaced by Law 1286 of 2009 (CRC, 2009). Law 1286 of 2009 gave a more prominent role to Colciencias, the national science agency. Since then, Colciencias was established as an administrative department (article 5), closer to a national economic planning agency. This position allowed the allocation of more public funds for research and increased Colciencias' substantial participation in the creation of scientific policies (Guzmán Aguilera, 2014, 2019a; Pineda, 2015). Recently, Colciencias was transformed into the Ministry of Sciences (Minciencias) through Law 1951 of 2019 (CRC, 2019). This recent legislation only modified the article 3, 5, and 8 of Law 1286 of 2009 (CRC, 2009). For this reason, both Law 1286 of 2009 and Law 1951 of 2019 are

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<sup>2</sup> For a detailed history of science and technology in Colombia see Villaveces Cardoso (2002), Jaramillo Salazar et al. (2004), Plata López and Cabrera Peña (2011), Salazar (2013), J. F. Miranda (2014), Nupia Martínez (2014), Guzmán Aguilera (2014), Pineda (2015), Quintero Campos (2015), Moncayo Jiménez (2018), Guzmán Aguilera (2019a), and Cabrera Peña and Márquez Rodríguez (2019).

presently in force. The transformations introduced by these laws are part of the institutional consolidation to boost science and technology in the country.

Colombian research legislation—Law 29 of 1990, Law 1286 of 2009 and Law 1951 of 2019—along with official documents from the National Council of Social and Economic Policies (hereafter referred to as Conpes, by its Spanish initials) are an essential framework in the introduction and reinforcement of the academic capitalist regime in the country, but also maintain some aspects of the public good regime. As presented below, the following key aspects of the academic capitalist regime, Conpes documents and science legislation reveal an overlap between the academic capitalist regime and the public good regime. As Slaughter and Rhoades' (2004) concluded for the United States context, the academic capitalist regime in Colombia has become more and more important but has not completely replaced the public good regime.

### **Knowledge Society or New Economy**

The introductory paragraphs of the Conpes documents linked science and technology policy to the new economy or knowledge society, which shows the shift from an industrial to a postindustrial economy in which knowledge should be at the center (DNP, 1991, 1994, 2000, 2009). In the same line, the Law 1286 of 2009 (CRC, 2009) set as one of the general goals for the National Science, Technology and Innovation System (hereafter referred to as SNCTI, by its Spanish initials) to aggregate value to products and services in the country and foster economic development (article 1, 3.1 and 17.1), making universities agents of economic development (article 17.2). The law also mentioned the new economy and the relationship between knowledge and economic development as the dominant rhetoric. Additionally, these Conpes highlighted that Colombia had a disadvantaged position due to the low expenditure in science and technology, and that universities,

research centers, and companies are very important actors that were isolated from social needs and must be connected as a scientific community, in order to contribute to the productive transformation in the country (DNP, 1991, 1994, 2000, 2009; Quintero Campos, 2015). As Slaughter and Rhoades (2004) explained, the new economy—neoliberalism as a new form of capitalism—is central to the rise of the academic capitalist regime. In this case, knowledge society has been one of the ways to justify the privatization of knowledge to maximize its commercial potential, which means the introduction of an academic capitalist regime in this country.

### **Intellectual Property System**

The academic capitalist regime construes knowledge as a private good that generates profit. This regime sees science embedded in commercial possibility (Slaughter & Rhoades, 2004). However, knowledge has characteristics of a pure public good: (a) it is non-rivalrous or it is neither depleted nor diminished by use and (b) it is non-excludable or, in the absence of defined property rights, users cannot be excluded from using it (Thursby & Thursby, 2008). In this sense, intellectual property law can shape knowledge as a private good, which is at the heart of the academic capitalist regime. Intellectual property law defines a right of ownership, which means, in simple terms, the power to exclude others to access or use of knowledge in order to protect the knowledge creation (Dratler Jr & McJohn, 2006). Unlike the control of tangible products such as cars or furniture, intellectual property rights refer to intangible products that include concepts, information, symbols or creative expressions (Dratler Jr & McJohn, 2006), and are covered through: (a) author's rights or copyright associated with artistic, cultural, literary, and scientific work; (b) industrial property associated with inventions, industrial models, patents, and brands, and (c) plant variety protection (DNP, 2008a; Guzmán Aguilera, 2019b). An intellectual

property system then included economic incentives, as well as the legal tools and managerial capacity to create and use knowledge (DNP, 2008a).

Intellectual property rights are justified in two rationales. On the one hand, the rationale *ex ante* says that knowledge producers or researchers need adequate incentives for knowledge creation (Dratler Jr & McJohn, 2006). In that sense, property over the invention works as an incentive for the researcher to invest in the project. However, some authors have argued that scientists are intrinsically motivated to conduct research (Thursby & Thursby, 2008). On the other hand, the rationale *ex post* is based on the idea that firms need to receive the revenue resulting from the shift from research outcomes to commercial applications as a reward for their effort and risk of commercializing a new product with no previous market (Thursby & Thursby, 2008). Accordingly, and opposed to the *ex ante* rationale, firms must be the proprietors. Both rationales, therefore, see knowledge as a private good and promote the academic capitalist regime, but differ on who must be the owner of knowledge.

Colombian general legislation has mainly followed the *ex post* rationale for intellectual property rights to encourage the private sector of the economy to invest in knowledge production, with the objective of promoting economic growth, productivity and competitiveness. In fact, the first Conpes pointed out that industrial and intellectual property were an “essential requirement” (DNP, 1991, p. 16) to have technological progress, to strengthen competitiveness, and to stimulate private research investment (DNP, 1991, 1994). Furthermore, this first official document, Conpes 2540 of 1991, along with the next Conpes 2739 of 1994 established the necessity of intellectual property policies and mechanisms to generate close ties with the productive sector (DNP, 1991, 1994). In general, the official documents argued that the private sector of the economy needs not only

tax benefits for research investment, but also intellectual property rights to ensure a positive return on that investment in order to increase their participation in the knowledge economy (DNP, 1994, 2000, 2008a).

In addition to the active role of the private sector, these official documents assigned a secondary role to state and the academic community. First, following the theory of academic capitalism, these Conpes were based on the conception of the neoliberal state, whose role is not only to create the conditions to make research, define intellectual property, and commercialize research outcomes, but also to allow private sector of the economy to lead and receive the direct benefits (DNP, 1991, 1994, 2000). Second, the Conpes and legislation did not consider market or for-profit behavior of professors, and universities. They are only seen in the general policies as those actors that generate knowledge with commercial potential and high-skilled professionals, but without any personal incentive (DNP, 1991, 1994, 2000). Instead of *ex ante* rationale, part of the strategy to foster the generation of research outcomes among professors and universities was through quality assurance policies (DNP, 2009). Because quality (e.g., institutional accreditation or quality of national publications) is linked to prestige (Pineda & Celis, 2017), the quality assurance incentive for universities and professors was initially through the “prestige economy” (Rosinger, Taylor, Coco, et al., 2016) rather than the possibility to ensure a positive economic return.

Notwithstanding the above, Conpes 3527 of 2008 began subtly to include the *ex ante* rationale. Although this Conpes linked intellectual property system to the development of companies (*ex post* rationale), it included as one of the specific goals for science, technology and innovation “to support researchers and higher education institutions’ protection and exploitation of research outcomes” (*ex ante* rationale) (DNP, 2008b, p. 42).



This means that professors and universities started being considered as active market players. However, this Conpes did not explicitly explain how to promote professors and universities' market behavior or how to include the profit motive. Also, this Conpes did not establish that universities and professors seek to obtain profits like companies, as the theory of academic capitalism pointed out, or need economic incentives to ensure their commitment. In this sense, the *ex post* rationale continued stronger than the *ex ante* rationale for intellectual property rights.

### **The Social Appropriation of Knowledge**

Since the 1990s, the social appropriation of knowledge has been established as one important activity to be funded by Colciencias/Minciencias that was centered on “results dissemination” (DNP, 2009, p. 48). Several Conpes established the need to integrate science and technology into the Colombian cultures, and to generate ways of accessing knowledge such as videos and books employing simple wording with a limited use of technical jargon, science museums and scientific programs for children and youth (DNP, 1994, 2000, 2008b, 2009; Quintero Campos, 2015). The social appropriation of knowledge was based on the idea that knowledge is a public good and the research outputs lead to public benefits (DNP, 2000; Quintero Campos, 2015). The social appropriation of knowledge is an expression of the public good regime, which stipulates that scientific knowledge should be shared. However, it is not clear the relationship between the opposing ideas that these legal documents have: knowledge as a public good that should be shared vs. the privatization of knowledge based on corporate values that “are understood as opposed to the public good because they stress profit for individual firms rather than the well being of society as whole” (Slaughter & Rhoades, 2004, p. 79).

### **Circuits of Knowledge and Intermediating Organizations**

One of the policy strategies was to promote innovation networks (e.g., University-Industry-State committee) in order to facilitate the interconnections between industry, development centers, and universities (DNP, 1994, 2000). These networks are called “circuits of knowledge” from the angle of academic capitalism. The reviewed legal documents also promoted the creation of intermediating organizations that, as the theory of academic capitalism explained, are in charge of research problems to facilitate circuits of knowledge and to foster technology transfer (Slaughter & Rhoades, 2004; Slaughter & Taylor, 2016b). Some of the mentioned interstitial organizations are technology and productivity centers, technology parks, and business incubators (DNP, 1994, 2000, 2009).<sup>3</sup>

### **Knowledge Areas**

The Conpes and legislation underscored some fields considered strategic for their potential economic contributions, to ensure that economic benefits were fully employed. For example, some official documents talk about agriculture, mining, and natural resources, and how to extract them in a sustainable manner (DNP, 1991, 2000). The Conpes promote strategic knowledge areas at the expense of others, in order to achieve economic development and competitiveness as well as to contribute to the solution of national problems (DNP, 2000, 2009). Only the first two Conpes—2450 of 1991 and 2739 of 1994—mentioned the importance of fostering social research that help to understand Colombian society (DNP, 1991, 1994), regardless of the emphasis of fostering economic development. In sum, the official documents mainly included strategic fields that are closer to the market, promoting the academic capitalist regime.

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<sup>3</sup> For a detailed presentation and analysis of intermediating organizations in Colombia see Quintero Campos (2015).

## **The Regional Dimension**

The regional dimension linked local necessities to the generation and use of knowledge (Moncayo Jiménez, 2018). In Colombia, the inequitable distribution of wealth, resources, and, in this case, research and development capacity between the major cities and the rest of the country, was an important reason to promote scientific capacities around different regions (Quintero Campos, 2015). The regional dimension was presented as a permanent strategy in the first official document that presented the science and technology policy, Conpes 2540 of 1991 (DNP, 1991). Later, it was explicitly introduced in the next Conpes in order to link local necessities to the generation and use of knowledge (DNP, 1994, 2000, 2008b, 2009). In 2011, the President Juan Manuel Santos (2010-2012) promoted the general royalty system that allocated 10 percent of income from royalties for science and technology. This allocation significantly increased public research funds and marked a milestone in the institutionalization of research in Colombia (Pineda, 2015). The aim of royalty funds was to support regional development. The criteria for distributing the funds in the different regions followed a formula that includes aspects such as unsatisfied basic needs or poverty, population size, and level of employment (Moncayo Jiménez, 2018). These criteria were more related to social welfare than to the academic capitalist regime.

## **The Promotion of Doctoral Education**

Due to the low, but growing, amount of people with doctoral degrees in the country, the Conpes and the legislation incorporated the importance of skilled workers—number of people with doctorate—to foster science and technology. The first official document, Conpes 2540 of 1991 (DNP, 1991), introduced doctoral education and refresher courses as permanent activities. In the next Conpes and the Law 1286 of 2009 (article 6.5 and 7.8)

doctoral education remained as one important part of the policy to have an effective link between science and development (CRC, 2009; DNP, 1994, 2000, 2009). Doctoral education was in general associated with the public good regime (Slaughter & Rhoades, 2004), and with the necessity to increase highly skilled researchers and professors in the country.

### **Conclusion**

This chapter presents the systems and policies that guide higher education and science development in Colombia and identified some characteristics of the academic capitalist regime in these systems. Overall, the higher education system in Colombia has grappled with fiscal stringency, which is an important part of the development of the academic capitalist regime (Slaughter & Rhoades, 2004). However, although the privatization of the public sector and the participation of private and not-for-profit higher education providers have been strengthened, for-profit universities are not still allowed in the country. This means that the academic capitalist regime has not completely replaced the public good regime in Colombian higher education. To some extent, the idea of access to higher education is closer to the public good (education as a right, benefiting the whole society) than to the private good conception (education as a commodity, benefiting individuals). On the contrary, the growth of academic capitalism in the development of science is evident, and the academic capitalist regime has become more predominant for Colombian knowledge production. In this case, the conception of knowledge is aligned with a private good that follows market and revenue generation logics. Under this conception, research activities and universities are seen as agents of economic development.

Nevertheless, the official documents and general legislation did not completely develop: (a) the role of higher education institutions and professors in the privatization of knowledge, and (b) the inclusion of the profit motive into academia, especially through professors' intellectual property rights. The presented general policies can be classified as mission policies or general statements, expressions of intent and values regarding science and technology (Metcalf, 2008). For a deeper analysis of the relationship of national policies and professors, the central topic of this dissertation, it is necessary to analyze other strands or categories of research policies that directly shape professors' daily lives in Colombia. To this end, this dissertation analyzes in a first stage four national policies that are related to professors' work: *Quality of National Publications*, *Faculty Promotion*, *Research Groups and Researchers' Classifications*, and *Spin-off Policies*. Additionally, in the second stage, it analyzes professors as the 'users' of these policies. The process for each of these analyses is described in the next chapter on methodology.

## **Chapter 4: Methodology**

I begin this chapter by presenting the research questions, followed by the research paradigms, giving the rationale of its choosing. Then, I present the research design to analyze national research policies, which was based on Fairclough's view of Critical Discourse Analysis (CDA). Next, I describe the research design to analyze professors, which was based on a multicas e research design (Stake, 2006). I discuss the criteria used for selecting professors as the cases, the research site, the data collection procedures, and the data analysis methods. Finally, I state my positionality, and address trustworthiness and ethical considerations.

### **Research Questions and Paradigms**

As presented in chapter one, I am interested in the discourses at both the policy and individual levels. Considering both those levels and the complex aforementioned dual-scenario in Colombia, the overarching question of this dissertation was:

How does the academic capitalist regime and its neoliberal roots function in Colombian higher education?

This question was explored through a study of macro level neoliberal discourses within national research policies that are ultimately enacted by professors, in which discourses are manifested at the micro level through social practices. Thus, my specific research questions for this dissertation were:

- a) How do the national research policies that shape professors' work promote, justify, and normalize the academic capitalist knowledge regime and its neoliberal roots?
- b) How do Colombian professors implement national research policies by translating them into actions?

- c) How do Colombian professors' actions promote, normalize, justify, and/or resist the academic capitalist knowledge regime and its neoliberal roots?

I addressed these questions through both constructivist and critical paradigms. First, I conceive that knowledge is socially constructed based on multiple realities of a single event at a specific time (Merriam & Tisdell, 2015; Rallis & Rossman, 2012). Second, since I also consider that knowledge is political, and multiple realities are mediated by power relations (Merriam & Tisdell, 2015), my worldview is also critical. These paradigms support my qualitative study that is based on discourses in national research policies and professors, giving accounts of the neoliberal ideology embedded in policies and everyday practices, and creating critical awareness of the unintended consequences that need to be readdressed (Fairclough, 2018).

### **National Research Policies**

The first research question—how do the national research policies that shape professors' work promote, justify, and normalize the academic capitalist regime and its neoliberal roots?—was focused on policies understood as larger social structures that are embedded in discourses and ideologies (Ball et al., 2012; Coburn, 2016). For this reason, CDA, as a form of critical social analysis (Fairclough, 2013, 2015, 2018), was the selected research design and analytical approach.

### **Defining Discourse**

Discourse, as an abstract noun, figures in three ways (genres, discourses, and styles) in social practices (Chiapello & Fairclough, 2002; Fairclough, 2013). First, “discourse as part of the social activity constitutes *genres*” (Chiapello & Fairclough, 2002, p. 193, original emphasis) or *ways of interacting*. Genres are diverse ways of acting, interacting and producing social life, modes of language such as humor, politeness conventions,

changing the topic of the conversation, and turn-taking/interruptions (Rogers, 2011). Second, *discourses*, are “the representation and self-representation of social practices” (Chiapello & Fairclough, 2002, p. 194), or *ways of representing*. In this sense, discourses, as a count noun, include ways of representing reality from particular positions or ways of signifying ideas about the world that include imaginaries or “representations of how things might or could or should be” (Chiapello & Fairclough, 2002, p. 195). The third order of discourse focuses on *Style*, or *ways of representing*. Styles include attitudes, positions or identities that people enact such as the styles of business managers or political leaders (Chiapello & Fairclough, 2002).

Discourses (as a count noun), genre and style are called the orders of discourse “in which semiosis [or discourse as an abstract noun] figures in social practices” (Fairclough, 2004, p. 112). The orders of discourse are dialectically related and constitute a network of social practices that shape and reshape what people do (Chiapello & Fairclough, 2002; Fairclough, 2018; Jessop, 2004). For example, “discourses may become enacted as genres and inculcated as styles and, in addition, get externalized in a range of social and/or material facts” (Jessop, 2004, p. 166). An order of discourse may become hegemonic or part of legitimizing common sense. However, the order of discourse is not a rigid, but rather an open system (Chiapello & Fairclough, 2002). An example of hegemonic struggle is when a new managerial discourse come into a university without being enacted or inculcated, or the extent of inculcation is very limited because most academics do not “own” the new management discourse (Chiapello & Fairclough, 2002, p. 195).

### **CDA as a Research Design**

CDA is a form of critical social analysis that not only offers a critique of social reality (including its discourses and ideology), but also how this reality needs to be changed



for the better (Fairclough, 2013, 2015, 2018). Any social reality consists of what is called social objects or entities such as physical objects, places, social institutions or people. The beliefs, ideas about, and representations of these social objects are manifested through discourse (Fairclough, 2015, 2018).

Over 40 years, Norman Fairclough has developed three versions of CDA that are associated with major socio-economic changes in three forms of capitalism: Fordism and the welfare state, neoliberalism, and the financial crisis in 2008. In his versions of CDA the emphasis of critical analysis has changed in a cumulative way (Fairclough, 2015, 2018). For example, critique of ideology remains important through the three versions (Fairclough, 2018).

**First form.** The focus of the first version of CDA was on power, but most importantly on power behind discourse, including critique of ideology, and particular aspects of existing social reality and its capitalist character, as well as its impact, such as how forms of social life can damage people unnecessarily (Fairclough, 2018). There is a place for resistance and the realization of change, which depends on people's critical consciousness of domination (Fairclough, 2015).

**Second form.** The second version was focused on neoliberalism and the critique of discourse related to "the attempts to impose 'top-down' restructuring of the socioeconomic order as part of the neo-liberal agenda" (Fairclough, 2015, p. 2). The analysis includes the ideological change in common sense assumptions (Fairclough, 2018).

**Third form.** The third version was focused on strategies to overcome the 2007+ financial and economic crisis and the critique of discourse in political debate and policy-making. It focused on practical argumentation of what should be done, and the elements of the two earlier versions such as ideology are addressed in the form of arguments

(Fairclough, 2018). The focus is on capitalist societies because this is the dominant economic system that affects all aspects of social life (Fairclough, 2013).

This dissertation is based on Fairclough's (2015, 2018) most recent version of CDA. In this version, CDA is seen as a dialectical reasoning and a form of practical argumentation or "a way of reasoning from critique of discourse to what should be done to change existing reality, by way of explanation of relations between discourse and other components of the reality" (Fairclough, 2018, p. 13). CDA as dialectical reasoning or dialectical argumentation extends and includes the dialectical relations (Fairclough, 2015, 2018). Dialectical relations between discourse and social elements means that they do not constitute a one-way relationship; both are products and producers (Fairclough, 2015). Dialectical reasoning provides a technique of thought and a way of arguing that "brings dialectical relations between discourse and other social elements into critical focus and scrutiny (in explanatory critique), and advocates changes, which would include change in dialectical relations" (Fairclough, 2015, p. 18).

In order to understand the dialectical relations at work, it is important to consider social structure and social practices. Social practices are a relatively stabilized form of social activities (e.g., management in educational institutions, research, classroom teaching, television news, family meals, medical consultations) (Chiapello & Fairclough, 2002). Social practices' discourses are mediated by social structures (Fairclough, 2015). Social structures can be concrete as the social structure of the school or abstract as the relationship between social classes in society (Fairclough, 2015). More concretely, the social structure of the school as a social institution consists of the 'social space' where discourse occurs (class, assembly, playtime, etc.); it also includes a set of recognizable 'social roles' such as teachers, principals, students, and their particular way of participating in discourse (e.g.,

teacher discourse, school leader discourse, student discourse). In any social structure, those who have a particular subject position or social role reproduce the social structure through their discourse (Fairclough, 2015). In other words, there is a dialectical relationship: “social structures not only determine social practice, they are also a product of social practice. And more particularly, social structures not only determine discourse, they are also a product of discourse” (Fairclough, 2015, p. 68).

### **Data Collection**

Metcalf (2008) classified the scope of research policy into four thematic categories: mission, support, management, and translation policies. Mission policies “are expressions of intent or ideology regarding research that occur at the international, national, and regional levels” (p. 255) such as science and technology, innovation or national competitiveness policies. Support policies facilitate academic research. Some examples are research funding policies, infrastructure and facilities policies or policies that enable students to be part of the research process. Management policies are related to the execution of the research process such as ethical review of research, conflict of interest, intellectual property or tenure and promotion. Finally, translation policies refer to the movement of ideas from academia to society (Metcalf, 2008), such as technology transfer policies. Although all of these categories are connected, this dissertation focuses on four policies, three national management policies (*Quality of National Publications, Faculty Promotion, Research Groups and Researchers’ Classifications Policies*) and one translation policy (*Spin-off Policy*).

The selection criterion of these policies was the relationship between these policies and professors’ work. These policies are related to the academic capitalist regime and its neoliberal roots, in which faculty are not only expected to educate young people, produce

and disseminate knowledge, but also to seek profit from academic products and to build their reputation through publications. In this sense, all the selected national policies influence professors' work in Colombian public universities. Particularly, discourses that promote, justify and normalize academic capitalism and neoliberal roots were examined across 46 policy documents related to four national research policies: (a) quality of national publications (14 policy documents), (b) faculty promotion (1 policy document), (c) researchers/research groups' classification (30 policy documents) and (d) spin-off policies (1 policy document).

### **Data Analysis**

I inductively analyzed the 46 documents related to four national research policies to understand the specific aspects of the national research policy, especially in respect to if the new knowledge derived from research was valued as a public and/or private good. After that, through specific questions following the newest version of CDA (Fairclough, 2018), I explored the elements related to the academic capitalist regime. The questions that guided this part of the analysis were: how do the ideas presented in the national research policies justify/promote/normalize the academic capitalist regime and its neoliberal roots?

Justification pertains to the rationale behind the policies and presents the reasons why the analyzed policies introduce the academic capitalist regime. Promotion refers to the actions established by the policies in order to introduce the academic capitalist regime.

Normalization considers the accepted worldview that includes assumptions about what is right, normal or desirable. In other words, the analysis studied how the policies naturalized certain ideas derived from the academic capitalist regime and its neoliberal roots. It also explored whether the policies questioned any accepted opinions or beliefs. Also, it looks at how contradictions are caused by or are a part of the wider reality (Fairclough, 2015). Next,

the analysis continued with an explanatory critique of features of social reality based on dialectical relations (Fairclough, 2015), highlighting the relationships among the identified discourse, social practices, consequences and assumptions. Finally, I pointed out features of reality that need to be changed “for the better” (Fairclough, 2018, p. 16).

### **Professors**

In accordance with my constructivist research paradigm, I answered the second and third research questions through a multicase research design based on Stake (2006). From a Stakian view, case is understood as “a noun, a thing, an entity,” (Stake, 2006, p. 1). For example, nurses can be cases instead of nursing activity. Managers, programs, or organizations can be cases too, but policies cannot be cases. In other words, a case is a specific entity or thing that is dynamic (e.g., it plays different roles or has stages of life) because it operates in real time (Stake, 2006). In this dissertation, four full-time professors affiliated with a Colombian research-intensive public university, and were affiliated with two specific academic departments, were considered “the cases.”

The selected cases should share a common characteristic, condition to be studied or phenomenon that is called a “quintain” (Stake, 2006). The aim of multicase research is to understand the quintain better through the cases and their situational uniqueness; for this reason, the research questions should seek to understand the quintain (Stake, 2006). However, the quintain is seen as contextual, interrelated with cases rather than as causally determined (Stake, 2006). According to Stake (2006) the interest could be in the case (intrinsic), in the quintain or phenomenon exhibited in those cases (instrumental), or in both. In this study, because I am investigating the academic capitalist regime and its neoliberal roots (the quintain), and how this quintain is shaping professors’ work, an intrinsic multicase design is an appropriate approach to analyze professors.

## **The Policy Implementation Process**

The research questions for the professors' side were based on the four selected national research policies: *Quality of National Publications*, *Faculty Promotion*, *Research Groups and Researchers' Classifications*, and *Spin-off* policies. These four policies are related to professors' work. While policies are understood as larger social structures that are embedded in discourses and ideologies (Ball et al., 2012; Coburn, 2016), professors are seen as critical policy agents because their agency can interpret and adapt or transform policies (Datnow & Park, 2009; Spillane, Reiser, & Gomez, 2006). In other words, the process of implementation generates different reactions or answers among actors, in this case professors, that are seen as the subjects and objects of policy with different levels of agency based on their relationship with the social structure (Ball et al., 2012; Coburn, 2016).

### **Study Setting 1: A Public University in Colombia**

Unlike private universities, public universities need to follow national research policies. For this reason, I selected one Colombian public university. To maintain the confidentiality of the research site, I designated the selected university as a public research-intensive, public university in Colombia. I specifically selected one of the most important research-intensive universities in Colombia, because of the probable influence of the academic capitalist regime. This selected university has incorporated the academic capitalist regime. For instance, the university: (a) created the first technology transfer office in the country, (b) led the creation of the national spin-off policy, (c) promoted the privatization of research outcomes through patents and spin-off companies; (d) has a vision to obtain national and world-class status. Additionally, this university has promoted the publication in subscription-based journals that are mainly founded by profit-oriented

transnational commercial consortia (Puentes-Cala, 2019). This database allows the construction of metrics such as the evaluation of journals based on citations—also called the Journal Impact Factor (JIF) and SCImago Journal & Country Rank (SJR) indicators—that are also a key source for rankings (See Chapter 5 for more details). This university is also one of the best three Colombian universities and one of the 15 highest-ranked universities in Latin America, which means that it is part of a competitive transnational network, which can affect faculty work, especially the production and evaluation of knowledge (Gonzales & Núñez, 2014). In other words, the academic capitalist regime has permeated the university.

Broadly speaking, at the time of this study, this university had around 1,400 full-time professors, 30,000 undergraduate students and 3,500 graduate students enrolled in 460 programs. The university also had eight journals classified in SJR quartile rankings: Q1=0, Q2=3, Q3=3, Q4=2, and five spin-off companies based on engineering, pharmaceutical, natural, and medical sciences, 25 research centers, and more than 250 research groups according to Colciencias/Minciencias, the Colombian Ministry that coordinates the National System of Science, Technology and Innovation; 20% of these research groups were classified in A1, which represents a portion of the top research groups in the country (see third policy, *Research Groups and Researchers' Classifications* policy, in Chapter 5). This university also had about 60 patents, 60 patents pending, 30 trademarks, and 30 software. This university is one of the Colombian research universities that lobbied for the national spin-off policy and one of the first public universities in Colombia to create a spin-off company.

Without a doubt, the selected higher education institution has incorporated the profit motive into the academy, which may have reconfigured the expectation of being a professor

by promoting commercial activities to obtain economic resources and to gain prestige. However, simultaneously, the students and professors of this institution have always been part of the massive protests that demand, among other things, free education as a social right, showing a paradox at this university: the incorporation of the academic capitalist regime suitable for this study, but also expressions of resistance. Due to these characteristics, this institution is an interesting place to examine discourses that promote, normalize, justify, and/or resist the academic capitalist regime and its neoliberal roots in the Colombian context.

### **Study Setting 2: Academic Departments**

Inside this public university, two academic departments were selected. These departments were considered as part of the context of professors as “cases” because they account for unique differences (e.g., academic culture, discipline, funding) that influence professors’ worldview (e.g., Rosinger, Taylor, Coco, et al., 2016). In fact, an important reason for doing the multicase study is to incorporate a diversity of contexts to show how the quintain appears in different contexts (Stake, 2006). In this sense, I invited full-time professors affiliated with two academic departments: one “closer to the market” and one “further away from the market.” The reasons for selecting two opposite departments are: (1) to avoid the narrow selection of fields heavily engaged with industry, which predominate in the literature on academic capitalism (Mendoza, 2007, 2012; Mendoza et al., 2012; Szelényi & Bresonis, 2014), and (2) to cover the heterogeneity of disciplines affected by increasing segmentation among fields, conferring status to some academic units such as engineering at the expense of others such as humanities (e.g., Rosinger, Taylor, Coco, et al., 2016). Although the literature has been focused primarily on U.S. and highly-ranked institutions, Colombia has followed similar patterns, in which the national research



policies have favored those fields that are considered “closer to the market” (Rodríguez Sánchez, 2017).

On the one hand, electrical engineering department was selected because it is heavily engaged with industry and with high ability to generate external revenues, similar to departments most frequently explored in academic literature (e.g., Mendoza, 2007, 2012; Szélenyi & Bresonis, 2014). The selected engineering department has a spin-off and is a leader and pioneer in relationship with the university and the industry within the university. Also, this department includes two research groups, one of them in the highest category, and five labs oriented to industrial and academic needs. On the other hand, the department of anthropology was selected because it does not have a strong culture of commercialization and, is infrequently considered in the literature (Slaughter, 2014a), especially due to its limited access to external revenue sources (e.g., Rosinger, Taylor, Coco, et al., 2016). The selected anthropology department is part of the social and human sciences college. I chose this department because its field does not engage with industry (or at least not in a visible way), it has a social orientation and practices that are not market-driven. Its practices are heavily based on ethnography methodology that require extended periods of data gathering and analysis, which is contrary to the compensation structure that maximize salary, and to the measurement of academic products as a way to obtain prestige. To maintain confidentiality, I did not name the departments under study to the participants in the other department.

### **Research Participants and Data Collection**

Professors as “the cases” were seen as agents that promote, normalize, justify, and/or resist the academic capitalist regime and its neoliberal roots (the quintain). This means that professors as “the cases” were relevant to the quintain. In other words,

professors provided insight to diverse experiences with the academic capitalist regime and neoliberalism.

**Recruitment.** By e-mail, I initially contacted the department chairs at both departments in order to explain the purpose of the study and to solicit an interview and permission to conduct the study (see Appendix 1). Before contacting professors, I interviewed department chairs in order to understand the national research policies at the department level and to have a general sense of the department and professors, I also interviewed one retired professor who was very important for the consolidation of the spin-off in the electrical engineering department (see Appendix 2 for the interview questions and Appendix 3 for the consent form).

Full-time professors (with job security or permanent contracts) in electrical engineering and anthropology departments and the aforementioned national research policies were the main source of empirical evidence. In each department, among the total of 33 professors, I invited 22 of them via e-mail (see Appendix 4). In the selection of professors, I considered career stages and gender. Career stages (earlier, mid, and senior career) help to understand how the element of time shapes individual perspectives (Hermanowicz, 2009). I also considered gender because in entrepreneurial academia, men have been able to recapture some of their historic privilege in higher education and disparity between men and women (e.g., regarding rank or salary) is seen across departments (J. A. Johnson & Taylor, 2019; Metcalfe & Slaughter, 2008). For this reason, I aimed for a gender balance among in my study in order to gain a deeper understanding of how the selected national research policies intersect with the careers of professors. Among the invited professors, I finally interviewed nine professors (4 from the anthropology department and 5 from the electrical engineering department). However, I selected four

professors as cases two faculty women and two faculty men. For the electrical engineering department, I selected the only faculty woman of the academic department and one faculty man who was in charge of the most important research group for this department. His experiences shed light on the institutionalization of research group as part of the *Research Groups and Researchers' Classifications Policy*. For the anthropology department, I selected the only faculty woman that accepted the invitation to participate in the research and a faculty man that was the lead editor of a national journal that was created in this academic department. His experiences contributed to the understanding of *Quality of National Publications Policy* (see Table 2).

Table 2. *Total of Cases (Research Participants) by gender*

Total	Electrical Engineering Department			Anthropology Department		
	Men	Woman	Total	Men	Woman	Total
Total of full-time professors	12	1	13	9	8	17
Total invited professors	6	1	7	6	5	11
Total professors interviewed	4	1	5	3	1	4
Total cases	1	1	2	1	1	2

**Interviews.** As I mentioned, I carried out contextual interviews with department chairs and a retired professor. Additionally, I interviewed each professor by using in-depth semi-structured interviews (Roulston, 2010). These interviews were via Zoom or Google Meet and addressed the following common set of discussable topics (Roulston, 2010): (a) a brief history of being a professor; (b) responsibilities as a faculty member; (c) habits, routine and motivations; (c) experiences with and perceptions of the selected national research policies; and (d) goals and future expectations as faculty members (see Appendix

5 for the interview questions and Appendix 6 for the consent form). In addition to their experiences with the national research policies, I considered their history and future as part of the case (Stake, 2006). We met as many times as possible until I found saturation with each case or professor had provided enough material to answer the research questions (Merriam & Tisdell, 2015). I conducted all the interviews and they lasted between 60-120 minutes, with a total number of 26,3 hours collected and 14,9 hours analyzed. All the interviews were recorded with the permission of the participants and transcribed verbatim in Spanish. The specific characteristics of the research participants are described in Table 3.

Table 3. *Interview Participants' Characteristics*

Characteristics	Electrical Engineering Department				Anthropology Department		
	Cristina Marin	Sebastian Ospina	Mariano Brito	Pablo Fernandez	Alicia Herrera	Andrés Velasquez	Gonzalo Echeverry
Gender	Woman	Man	Man	Man	Woman	Man	Man
Case or Context	Case	Case	Context	Context	Case	Case	Context
Career Stage	Early Career	Between early and mid-career	Retired	Mid-career	Mid-career	Mid-career	Mid-career
Age	36-40	36-40	+65	36-40	51-60	41-45	46-50
Academic Rank	Don't know	Associate professor <i>(in the process to be a titular professor)</i>	Titular professor <i>(before retired)</i>	Assistant professor	Titular Professor	Titular Professor	Associate professor
Years of experience	15	15	25 <i>(1981-2006)</i>	12	16	11	12
Research Group Classification	A1	A1	A1	A1	B	C	A1
Researcher' Classification	No	Senior Research	No	No	Associate Researcher	Associate Researcher	No
Highest level of education	Ph.D.	Ph.D.	Ph.D.	Master	Ph.D.	Ph.D.	Ph.D.

**Professors' Background.** Before each interview I reviewed information related to the professor's academic background through the institutional website, YouTube videos, and the online curriculum vitae in Colciencias/Minciencias called CvLAC. Each CvLAC includes information such as education, academic publications, conferences, patents, participation in spin-off companies and their classification in Colciencias/Minciencias (emeritus, senior, associate, junior, member/no classified, or student). This information gave me basic information about the interviewee and facilitated our conversation.

**Supplementary information.** Each case has a context, environment or outside features within the boundaries of the case (Stake, 2006). In Stake's (2006) words each "case to be studied is a complex entity located in its own situation. It has its special context or background" (p. 12). For this reason, in addition to collecting information of each professor as a "case," I collected information about the context of professors to understand the institutional and academic department where professors were affiliated. As supplementary information, I reviewed institutional documents and the university website to understand the selected national research policies at the institutional and departmental level. More generally, I reviewed institutional information related to the selected national research policies. I gathered information by using search terms related to national research policies: "promotion policy", "quality of national publications", "research groups classification" and "spin-off". The final information were institutional documents, press articles, videos that show how the university was communicating the national research policies through its website.

### **Data Analysis**

Initially, I reviewed the contextual information at the institutional level without coding, I simply identified some elements related to the incorporation of the academic

capitalist regime at the institutional and departmental levels as the context for the cases (Stake, 2006). Then, I inductively analyzed each case, taking into account the interviews and the background information to get a general sense of each one. Then, I analyzed the collected data in two stages to answer the research questions.

**First stage, professor's actions.** Following Stake (2006), I analyzed and separately reported each individual case in depth to understand its unique situation by taking into account interviews and background. Drawing on this analysis, I answered the second research question: how do Colombian professors implement national research policies by translating them into actions? To address the first question, this study was drawing on Räsänen's (2014) orientations that consider professors' actions. Räsänen (2014) highlighted that literature on academic capitalism accurately described what is happening at universities and to academics; however, particular aspects of academic work and academics as subjects are not fully explored. To complement studies of academic capitalism, Räsänen (2009) and Räsänen (2014) introduced the concept of academic work as practical activity in which the logic of action, rather than scholarly logic of thinking, have four orientations to be considered: (a) tactical orientation or how the work is done; (b) political orientation, or what should be accomplished or achieved; (c) moral orientation or why engage in particular forms of work), and (d) personal orientation or who am I and who I do want to become(. By taking these orientations in consideration, data collection was focused on professors' decisions as well as goals and motivations. According to Räsänen (2014), academics respond to these four orientations constantly in their everyday activities, an "academic has to respond every day to these calls: be skillful, goal oriented, morally motivated, and know who you are!" (p. 107). However, each individual "cannot necessarily deal with all the

orientations at the same time,” (Räsänen, 2014, p. 97), they can be based on one orientation in a particular situation or decision.

**Second stage, the quintain.** Following Stake (2006), I carried out a cross-case analysis to understand the quintain: the academic capitalist regime and its neoliberal roots. Based on this analysis, I answered the third research question—how do professors’ actions promote, justify, normalize, and/or resist the academic capitalist regime and its neoliberal roots?—The analysis was guided by Fairclough’s (2015, 2018) most recent version of CDA and Stake’s (2006) “case-quintain dialectic” recommendation. According to Stake (2006), the issues of the individual cases need “to be heard a while, then put aside a while, then brought out again, and back and forth (the dialectic)” (p. 46). In other words, I compared and contrasted each case different times in order to find differences and similarities related to the quintain.

With the dialectical relation between discourse and social practices in mind (Fairclough, 2018), I analyzed the recollected material for each case, guided by how the professor’s actions found in the first analysis justify/promote/normalize/resist the academic capitalist regime and its neoliberal roots. Similar to the analysis of national research policies, justification pertains to the rationale behind professors’ actions and presents the reasons why professors introduce the academic capitalist regime in their work. Promotion refers to what professors do in order to introduce the academic capitalist regime. Normalization considers the accepted worldview that includes assumptions about what is right, normal or desirable. In other words, it shows how professors naturalize certain ideas derived from the academic capitalist regime and its neoliberal roots. The analysis focused on questioning the accepted opinions or beliefs, and explained how the relationship between the identified discourse and social practices. Finally, resistance considers the

rationale, actions, and assumptions supporting the public good regime and/or opposed to the academic capitalist regime. Finally, I pointed out features of reality that need to be improved.

### **Ethics and Trustworthiness**

To enhance the trustworthiness of the findings, I systematically laid out each decision related to this research project and its participants, maintaining a chain of evidence with a detailed description in order to enhance the transferability of the findings to other settings (Merriam & Tisdell, 2015; Yin, 2018). In general, to minimize misperception and invalidity of the findings, I used Stake's (2006) techniques: had a redundancy of data gathering, read the collected material several times, triangulated the data by using multiple perceptions or information, but also by verifying the repeatability of an interpretation (member checking).

During the data analysis, I addressed rival explanations to enhance trustworthiness. To respect the privacy of participants, I asked each participant for permission to carry out an interview with them, explaining the general purpose of the study via email (Creswell, 2013). Before the interview, I provided a consent form in order to make explicit the study's purpose, number of participants, types of questions, the length of the interview, risks, confidentiality and contact information, "thus foreshadowing possible ethical questions" (Rallis & Rossman, 2012, p. 62) (See Appendix 3 and 6). I also used pseudonyms for participants to meet the goals of transparency and confidentiality. I let the participants pick their pseudonyms if they wanted, but only one chose it.

### **Positionality**

A researcher's background and position (personal, cultural, and historical experiences) shape their interpretations and influences the research process (Creswell,



2013). To some degree, my professional and academic experiences provided me with an “insider” viewpoint on national research policies in Colombian universities. At the same time, being in the United States and in a doctoral program gives me an outside perspective as well. Specifically, I am a Colombian woman who has worked in a private Colombian University for 10 years as a research assistant, assistant in a planning department, and an adjunct professor. Since 2015, I have been a professor-in-training at the same university. I identify myself as a privileged woman from a working-class background in my home country. I feel privileged because I have had access to a good education, scholarships, and work opportunities in a well-recognized private university in Colombia. I have also been able to pursue a doctoral program in a well-recognized public university in the United States. However, I also identify as a Hispanic international student, part of a minority group and in a position of financial vulnerability in the United States context. During my doctoral program, I have seen how the university and the well-funded department where I study have been adjusting to decreasing financial resources and other neoliberal decisions. For example, at the beginning of my program there were postdoctoral positions, and enough funding to participate and present at national and international conferences. It seemed possible—not just for me, but also for my advisor, professors and classmates—to have a Graduate Research Assistant (GRA) position. However, GRA positions gradually became scarcer and now only available to new students. Experiencing the neoliberal transformation of higher education firsthand has made me feel vulnerable. I also have seen the pressure on professors to publish in the U.S and in Colombia. Several professors have expressed the necessity to be efficient and not to waste time, struggling to balance professional and personal responsibilities. As a student and worker in a higher education institution, I have seen the growing inclusion of the profit motive in academia. As a researcher in the higher

education field, these multiple contexts have given me perspective about how changes in financial support and policies may affect my academic experiences.

Being an economist is also part of my positionality. I have been immersed in the neoclassical theoretical framework and positivist paradigm. This has helped me to link between political economy and higher education. However, during my doctoral studies, I could understand and incorporate a critical perspective. Humans under the neoclassical economic field are seen as self-interested, rational maximizers, and policies are built under this notion of a person, which I consider a short-sighted view. For this reason, I am more comfortable working from a constructivist and a critical perspective. I have a critical perspective of the corporatization of higher education, but I am also part of it. I operate within the dichotomy of striving to be a “successful” future scholar (e.g., publishing articles in top journals, having grants, speaking English fluently, etc.) and helping to build a higher education system that is meaningful in the Latin American context. Although these might seem non-contradictory goals, when I have to decide, for example, the language of my publications (English or Spanish) the tension becomes evident. Being in the United States as an international student (who is studying in English, my second language) and a student of marketization of higher education made me realize that I am both a researcher and a research subject. I am studying in the United States in part because of the idea of the United States higher education system as the preminent international model. I represent the Global South following the Global North hegemony, and I am observing faculty work while I am preparing myself to have a full-time faculty or administrative position. These insights along with the reflexivity process during the research project helped me with the trustworthiness of this study, and mitigating possible bias in the data analysis process. At the same time, I hope I can grow as a woman scholar who seeks and helps to recreate

alternatives to the neoliberal transformation of higher education, engaging in academic and activist work.

### **Limitations**

Important limitations should be taken into consideration. First, although CDA strives to make social life better through analyzing discourse and ideology, there is not a direct line from CDA to transformative action and social change (Fairclough, 2015). In regards to the choice of policies studied, the study focuses only on management policies and other types of policies—mission, support, and translation (Metcalfe, 2008)—that are equally important within the academic capitalist regime in Colombia. This limitation signals a need for future research that include other types of policies in the analysis.

Another factor is that I only collected data at one university in Colombia, which may limit the transferability of findings in other contexts. However, this multicase study is not intended to make generalizations across Latin America or the globe, but rather to begin an understanding of the academic capitalist regime in the Colombian context and to add to our understanding of the theoretical relationships between neoliberalism and academic capitalism. Additionally, I only included full-time faculty at a public university. Other actors such as graduate students, lecturers, part-time faculty, administrative staff as well as the private sector could be included in further research to illuminate different perspectives of the academic capitalist regime in Colombia. Also, although this dissertation considered gender and rank balance, it was not based on an appropriate gender lens or framework to gain a deeper understanding of how the selected policies intersect with the lives and careers of faculty of different genders. Finally, as presented in my positionality statement, my previous experience in Colombia is only with private universities, which may both limit my

personal understanding of the public higher education context, and also provide me a fresh perspective on the public-university context.

## **Chapter 5: The Academic Capitalist Regime and the National Research Policies**

This chapter presents findings from CDA of four national research policies that are closer to professors' work: *Quality of National Publications*, *Faculty Promotion*, *Research Groups and Researchers' Classifications*, and *Spin-off* policies. The chapter is based on the link between the theory of academic capitalism and neoliberalism (See Chapter 2). This link will advance not only how academic capitalism regime works and its unintended consequences, but also its ideas have remained powerful. The neoliberal rhetoric that justifies the academic capitalist regime is based on the conviction that knowledge is a source of capital that should be privatized. The rationale behind this is that privatization of knowledge fosters economic growth, economic development, and income and wealth distribution. Although this rationale does not always translate into reality (Slaughter & Rhoades, 2004), it is an example of the normalization of ideas, especially neoliberal ideas, that unquestionably support the academic capitalist regime.

In this chapter, I will argue that the academic journal publishing market is a new layer of the academic capitalist regime. The theory of academic capitalism established a dichotomy and a point of conflict between publishing and patenting (Slaughter & Rhoades, 2004). This theory linked academic publishing to the free flow of knowledge and values associated with the public good regime, whereas patenting was associated with academic capitalism and the privatization of knowledge (Slaughter & Rhoades, 2004). However, I will argue that academic publishing is more complex, and it can be part of the public good regime (open articles and journals), but it can also be part of the academic capitalist regime (subscription-based articles). To begin, I explain the wider spectrum of subscription-based journals and articles in greater detail through the academic journal publishing market, presenting this market as a new layer of the academic capitalist regime and as a topic that is

explored in this study, and can continue being explored and expanded in the future. Next, I describe and present the analysis of four national research policies: (a) quality of national publications, (b) faculty promotion, (c) researchers/research groups' classification, and (d) spin-off policies. The analysis of the policies is based on how these four policies promote, normalize, justify, and/or resist the academic capitalist regime and its neoliberal roots. I finally offer a conclusion and transition to Chapter 6, which is based on professors' actions under these policies.

### **The Academic Journal Publishing Market**

There are few for-profit companies—international commercial publishers—in charge of scientific publications. Companies such as Springer, Elsevier, Wiley-Blackwell, Thomson Reuters Corporation, and Taylor & Francis have become a highly profitable industry (Fyfe et al., 2017), promoting the privatization and commercialization of knowledge as well as measurements of research outcomes (Mirowski, 2011). Rather than giving free copies of journals to universities, as in the traditional model that was based on university presses, especially in the U.S and UK, these companies identified higher education institutions as consumers that could be charged per subscription (Fyfe et al., 2017). In this way, they created a commercial for-profit model of academic publishing with a large pool of international potential customers (Fyfe et al., 2017). This also created another layer of the academic capitalist regime. Whereas the academic capitalist regime was focused on the inclusion of profit motive into academia (especially through patents and industry-academia linkages), the commercial model of academic publishing introduced profit motive into professors' work through external commercial firms, in which professors receive prestige as a payment while the company keeps the monetary profits.

## **The Academic Publishing and Professors' Intellectual Rights**

In this academic publishing market, which I propose is a new layer of the academic capitalist regime, professors and universities are not behaving like private enterprises or engaging in market behavior in a direct way. Because subscription-based articles and journals are associated the best science and prestigious journals, professors and universities accept and normalize this model, in which their rights to that knowledge are constrained (Dodds, 2018). On that point, it is important to explain the differences in academic publishing rights between open access and subscription articles, because they affect the sharing and dissemination of ideas and resources (N. Levin, Leonelli, Weckowska, Castle, & Dupré, 2016). For example, Elsevier, as owners of journals, made the following distinction. For open access articles, that are based on the public good regime, authors sign an exclusive license agreement, where the author has copyright but gives license exclusive rights to their article to the publisher (Elsevier, 2020). For subscription articles, authors transfer copyright to the publisher as part of a journal publishing agreement, and access to the articles is limited in order to deliver value to subscribing customers before versions of the articles become freely available (Elsevier, 2020). Publications are seen more as a form of symbolic capital for academic career progression (Fyfe et al., 2017) rather than as a source of profit. In this sense, professors, as an important part of this market, produce the main inputs and transfer their copyrights to the subscription-based journals for free. As a result, they obtain payment in prestige, promotion or merit. In contrast, the for-profit companies such as Thomson Reuters Corporation and Elsevier International Publisher and Global Information Analytics Business receive all the monetary profit.

## **The Role of Bibliometrics**

As part of the academic publishing market, Thomson Reuters and Elsevier are the dominant producer of measurements through databases with systematic counting of publications and citations, known as bibliometrics (Godin, 2006). Bibliometric indicators tried to meet objective criteria for evaluating the past performance of four groups: individuals, departments, institutions, and countries, through citation analysis of journals and individual articles (Garfield, 2003). The dominant citation databases are: (a) Science Citation Index/Science Citation Index Expanded (SCI), (b) Social Science Citation Index (SSCI), and Arts and Humanities Citation Index (AHCI) (Larsen & Von Ins, 2010). These databases are lists of journals with the total number of times each journal is cited within a period of time. These journals have been included in the Web of Science (WoS) provided by Thomson Reuters Corporation since 1997. Drawing on the mentioned databases as the primary source (Reed, 1995), this company created the Journal Impact Factor (JIF) referring to statistics calculated and published by Journal Citation Report (JCR). JIF divides the total number of citations to the articles (the numerator) and the total number of articles published (the denominator) during the 2 preceding years (Kumar, 2018; R. Miranda & Garcia-Carpintero, 2019). The impact factor JIF is calculated based only on citations and articles that are included in the WoS database.

The second major source launched in 2004 is the bibliometric and citation database called Scopus. This database, provided by Elsevier—who is also owner of scientific journals (Mirowski, 2011)—has challenged the dominating role of WoS (Zhu & Liu, 2020). Scopus has a broader coverage in published journal titles, countries, and languages than the WoS (Falagas, Kouranos, Arencibia-Jorge, & Karageorgopoulos, 2008). Drawing on the Scopus database, Elsevier provides SCImago Journal Rank indicator (SJR) that divides



citations to a journal by its articles during a 3-year window, in a similar fashion as JIF (Falagas et al., 2008). However, in contrast to JIF, the SJR indicator uses different weights to citations depending on an established prestige of the citing journal without the influence of journal self-citation because it is limited to a maximum of 33% of self-citations received by a journal (Colledge, De Moya-Anegón, Guerrero-Bote, López-Illescas, & Moed, 2010; Falagas et al., 2008). Prestige is estimated with the application of the PageRank algorithm in the network of journals (Falagas et al., 2008, p. 2623). Although SJR indicator is similar to JIF and both seek to be an indicator of quality of journals, the former is an open access resource and the latter requires paid subscription (Falagas et al., 2008).

Both WoS and Scopus have specific criteria to select the journals for inclusion in the database (Mirowski, 2011) to ensure high-quality and trustworthiness (Baas, Schotten, Plume, Côté, & Karimi, 2020). The majority of journals are subscription-based journals, and open access journals have low contribution (~20%) in WoS and/or Scopus databases (Uribe-Tirado, 2016). Their citation impact indicators, SJR and JIF, classify the quality significance of each journal through rankings and quartiles that divide low impact journals (less-cited) and high impact journals (most-cited). For example, quartile rankings as field-normalized indicators for JIF are: (a) quartile one, Q1, covers the top 25% of the impact factor distribution. These journals are considered high impact factor journals and are associated with higher quality (Garfield, 2003; Liu, Guo, & Zuo, 2018); (b) quartile two, Q2, the middle-high position (between top 25 and 50%); (c) quartile three, Q3, the middle-low position (top 50 to 75%); and (d) quartile four, Q4, the lowest position (bottom 25% of the impact factor distribution). These journals are considered low impact factor journals (R. Miranda & Garcia-Carpintero, 2019). The assumption behind this classification is that “if you get published in high impact journals [the most-cited journals] that probably says

something about the general quality of your paper. However, it is no guarantee it will be cited” (Garfield, 2003, p. 365).

The rise of bibliometrics is based on the “neoliberal exaltation of competition” (Mirowski, 2012, p. 301) that includes number of publications, citations, journal impact factor, faculty and departmental rankings, and world university rankings. The presented indicators (SJR and JIF) as audit exercises have been useful for librarians, editors, publishers, authors, and especially higher education administrators (Mirowski, 2011; Reed, 1995), because they have become more of a tool for “the discipline and evaluation of institutions and a proxy output measure for the research” (Mirowski, 2011, p. 268). In this way, these indicators have played a predominant role in the evaluation of research (Liu et al., 2018; Waltman, 2016), university rankings, accreditation, among other higher education accountability processes (Czellar & Lanarès, 2013; Gonzales & Núñez, 2014). In other words, the number of times a particular publication has been cited by other authors has become the hegemonic or dominant and international way to demonstrate value or worth of the body of knowledge in a specific field and entails the pursue of excellence (Czellar & Lanarès, 2013; Gonzales & Núñez, 2014). Citation measurements have increasingly been used as tools for performance and quality evaluation for different actors, creating international standards to evaluate research and shaping a highly competitive environment (Czellar & Lanarès, 2013).

In the context of academic capitalism, bibliometrics can be included as part of the social technologies that are a formal analytic element in this theory (Slaughter & Cantwell, 2012). Slaughter and Cantwell (2012) explained that social technologies are audit exercises that have been used “to assess the success of universities in various aspects of competition” (p. 590), but also as a way to discipline the academic subject and to promote and normalize

marketization and competition (Slaughter & Cantwell, 2012). The theory of academic capitalism, in particular, and the contemporary science policy literature (Mirowski, 2011), in general, have not addressed the presented for-profit model of academic publication, and “how it might alter the character of the science produced” (Mirowski, 2011, p. 376) or how it might affect professors’ work. This work tries to make a contribution in this respect by exploring the introduction of the academic journal publishing market in national research policy.

The following provides an analysis on the four selected national research policies. The first three selected national research policies are strongly related to subscription-based publications and bibliometrics. The last policy reflects the incorporation of professors as agents who can engage in market behavior and can be major players in the commercialization of knowledge. Critical Discourse Analysis (CDA) was the methodological approach to analyzing the research policies (Fairclough, 2018). CDA is based on a dialectical reasoning, which is a form of practical argumentation (Fairclough, 2018). Through CDA it was possible to inductively identify themes related to the research question, but also, most importantly, to see how the selected research policies represented ideas, beliefs, representation, imaginings about how “things might or could or should be” (Chiapello & Fairclough, 2002, p. 195).

### **First Policy: Quality of National Publications**

At its inception (and still today) the *Quality of National Publications Policy* was related to academic or scientific publications. This policy has understood academic publications as the most-used way to disseminate the results of research and to obtain prestige (Colciencias, 2016a, 2016b). Formally, this policy was based on the resolution 790 of 2016 (Colciencias, 2016d), which was supported by the official policy document 1601 of

2016 (Colciencias, 2016b) and the latest model of classification of academic journals (Colciencias, 2016a). In general, this policy presents, as in other contexts, scientific publications as an essential part of scientific research (Vinkler, 1997), and bibliometric indicators as the most accurate proxy of quality of publications (Garfield, 2003; Liu et al., 2018).

Initially, as a context for this policy, Colciencias/Minciencias—the national science agency—began to select and classify national journals in the mid-90s in order to produce quantitative indicators (Colciencias, 2016a; Quintero Campos, 2015; Rodríguez, Naranjo, & González, 2015). Since then, although with some modifications, the process of classification of national journals has been applied every 2 years (Colciencias, 2016a). At the beginning of the 2000s, Colciencias/Minciencias also implemented the National Bibliographical Index (IBN by its Spanish initials) to select national scientific journals. Also, Colciencias/Minciencias implemented the National System of Indexation of Specialized Scientific Publications (Publindex), which was the first local scientific database. Publindex, as an accountability mechanism that creates a discretionary ranking of journals (Pineda, 2015), was designed to classify national publications, but also to make the national scientific production visible (Colciencias, 2016a). This system classified national journals into four categories, from the highest to the lowest: A1, A2, B, or C. Those journals classified in A1 were (and continue to be) considered to have the greatest academic value. Additionally, international journals were also standardized using the same classification (A1, A2, B, or C).

Publindex was a strategy that created a culture of accountability of academic publications and bibliographic indexes in Colombia (Colciencias, 2016a). However, according to the documents that support this policy, Publindex was considered behind the

international bibliometrics. In other words, Publindex's classification of national journals was not aligned with those journals known as "high impact journals," as included in and classified by the Web of Science (WoS) and Scopus databases (Colciencias, 2016a, 2016b). For instance, in 2016, only 70 Colombian journals of 551 were included in: (a) the WoS and/or Scopus databases; (b) the bibliometrics derived from the mentioned databases: Journal Impact Factor (JIF) or SCImago Journal Rank indicator (SJR); and, consequently, (c) the bibliometrics quartile rankings as field-normalized indicators, from the highest to the lowest: Q1, Q2, Q3, and Q4 (Colciencias, 2017a).

In this context, the goal of this policy was to improve the quality of national scientific publications in order to: (a) increase the number of national researchers' publications that were included in high impact citation indexes, and (b) increase the presence of national scientific journals into high impact databases and citation indexes. To achieve these goals, the policy established strategic actions to incentivize national researchers to publish in high impact journals and to align the national measurements of scientific publications with international standards.

The academic capitalist regime is seen here through the formal introduction of the commercial for-profit model of academic publishing and bibliometrics into the *Quality of National Publications Policy*. First, the promotion of the academic journal market through this policy pressured national journals to belong to high impact databases and citation indexes created by Thomson Reuters and Elsevier, introducing the profit motive of external commercial firms by using professors' publications as the knowledge material that has commercial potential. In this sense, this policy promoted publication in high impact journals among national scientific researchers. High impact journals, it is worth repeating, are mostly subscription-based journals in English that are included in the databases and

citation indexes created by international companies, Thomson Reuters and Elsevier. Finally, this policy introduced the measurement model as social technologies (Slaughter & Cantwell, 2012) or audit exercises through bibliometrics to promote competition and prestige among institutions and academics. The following analysis shows the justification, promotion, and normalization of the aspects of the academic capitalist regime in this policy.

### **Justification of the Academic Capitalist Regime**

The primary rationale to accomplish the policy goal—to improve the quality of national scientific publications—was based on the low quality of national journals, in terms of the editorial management problems and the low qualification of editors. First, according to Scimago Research Group, as presented in the policy (Colciencias, 2016b), the low quality of national scientific journals was mainly due to several editorial management problems such as: lack of abstracts in English and Spanish (“86% of the national journals”), the delay in the frequency and regularity of publications (“10% of the national journals”), and the lack of peer review process and high level of inbreeding through authors of papers from the same institution (“26% of the national journals”) (Colciencias, 2016b, p. 12). Additionally, because many Colombian professors’ publications were in national journals (“86.4% of articles”), their publications had low impact and international visibility as an inherent consequence of the low quality of these journals (Colciencias, 2016b, p. 9). The low impact of professors’ articles was measured through the low percentage (“13.8% of articles”) that were included in the WoS and/or Scopus databases (Colciencias, 2016b, p. 9).

It is important to mention that most of the factual information of this policy was based on a report about Colombia by Elsevier’s Research Intelligence to support the creation of this policy (Elsevier, 2015). In other words, the presented data to support this

policy was in charge of one of the two companies that produce the dominant bibliometrics. This explains, in part, why instead of including positive aspects of the national journals (they could have), the data focused on problems, even though some of the mentioned problems did not represent a significant percentage of the total. However, the message was that national publications were low quality in order to boost the argument for the importance of high impact journals and high impact databases and citation indexes as the center of the policy.

Another explanation put forth for the low quality of national journals was that the editors were poorly qualified, shifting responsibility away from Colciencias/Minciencias to the editors. In this sense, the policy was supported by two percentages to build this argument: the low academic level of editors (37% of editors without Ph.D.), and the low classification of them through CvLAC, which is an online curriculum vitae created by Colciencias/Minciencias, in which each professor has an online CV (Colciencias, 2016b). Drawing on the CvLAC information, each professor is classified as emeritus, senior, associate, junior, member/not classified, or student. In this case, only 9% of editors were classified as senior, 20% as associate, and 27% as junior (Colciencias, 2016b, p. 11). The use of these percentages was an attempt to show that the editors did not have the expected qualification to manage journals and the policy highlighted this as an important reason for the low-quality journals. The policy rationale presented tries to show how Colciencias/Minciencias had promoted and enriched national journals through related policies, but the editorial management problems and the low qualification of editors have resulted in the low impact of national publications (Colciencias, 2016b).

Finally, this policy argued that the participation of national journals in the global market was based on the increasing importance of the evaluation of scientific publications

and communication technology. The growing number of publications globally has led to the evaluation of the quality of scientific publications based on qualitative and quantitative processes (Colciencias, 2016b). The policy showed how global trends in communications technology has contributed to the creation of the academic knowledge, of which Colombia cannot escape (Colciencias, 2016b). Drawing also on these arguments, this policy concluded that Publindex must be redesigned based on “existing and commonly accepted criteria” (Colciencias, 2016b, p. 10). This rationale sought to introduce the high impact databases and citation indexes as well as the bibliometrics JIF and SJR—for-profit social technologies—created by Thomson Reuters and Elsevier.

### **Promotion of the Academic Capitalist Regime**

This policy, *Quality of National Publications*, formulated strategies and concrete actions in order to: (a) increase the national researchers’ number of publications that were included in high impact citation indexes, and (b) increase the presence of national scientific journals into high impact databases and citation indexes. For the former, two strategic actions were established: (a) to support paper submission to journals that were included in high impact citation indexes, also called high impact journals; and (b) to foster the interaction between national researchers and international peers, the results of which can be published in high impact journals. For the latter, the most important strategic action was the creation of the latest model of classification of national academic journals (Colciencias, 2016a). This model was part of the policy and included the recognition of the quality of scientific journals according to international measurements JIF and/or SJR, which are heavily based on the number of citations as a proxy of journals and researchers’ impact. Due to its relation to the academic capitalist regime, especially through the promotion of



the academic journal market and bibliometrics, the analysis that follows focuses on the new model of classification of national academic journals presented by Colciencias (2016a).

**I. The recent model of classification of journals.** The new model of classification of national academic journals had substantial changes in comparison with previous models (Colciencias, 2016a). This new model was mainly focused on the impact of national scientific publications in order to improve the quality of national journals and to establish Colombian academic knowledge at the international level (Colciencias, 2016a). To measure impact, this model of journal classification included the JIF and SJR indicators—referred to in the policy as “the most traditional indicators” (Colciencias, 2016b, p. 51)—produced through the WoS and Scopus databases.

It is worth remembering that the national system classified journals into four categories, from highest to lowest: A1, A2, B, or C. In 2016, the new model aligned the national classification with the JIF/SJR quartile rankings, from the highest to lowest: Q1, Q2, Q3, and Q4. However, national journals included in any category of JIF/SJR quartile rankings—Q1, Q2, Q3, Q4—were classified in the higher categories of the national system (Publindex) (A1 and A2) (Colciencias, 2016a). In other words, those journals classified in Q1 and Q2 were considered A1 (A1=Q1 and Q2), and those journals classified in Q3 and Q4 were considered A2 (A2= Q3 and Q4) (Colciencias, 2016a). For the next classifications, 2018 and 2020, the criteria changed and the alignment between the JIF/SJR quartile rankings and Publindex was: A1=Q1, A2=Q2, B=Q3, and C=Q4 (Minciencias, 2020). It is important to note that, as it will be presented in the third policy, *Research Groups and Researchers' Classifications Policy*, Colciencias had already introduced this alignment between the JIF/SJR quartile rankings and Publindex to measure research groups in 2013 (Colciencias, 2013a).

For the lower categories (B and C), the h-index (H5) was also calculated, which is also based on citations in a 5-year period. This indicator, H5, is based on a greater number of citations than JIF/SJR quartile rankings (Cárdenas & Nieto Cruz, 2018; Colciencias, 2016a). However, to be classified in the lower categories (B and C), the national journal needed:

- a) to be included in at least one bibliographic database such as MEDLINE, Linguistics & Language Behavior Abstracts (LLBA), SciELO Citation Index, and DOAJ (Directory of Open Access Journals) (Colciencias, 2016a; Minciencias, 2020)
- b) to have a  $H5 \geq 3$ , because the threshold was 3 in the latest call for indexation of national scientific journals – Publindex in 2020, and the threshold was 2 in previous calls in 2016 and 2018. As an example to understand the impact in the change of threshold from 2 to 3, if in 2016 the threshold would had been 3 (instead of 2), 297 (instead of 220) journals would have not been classified (Colciencias, 2017a).

There is a clear discrimination between the JIF/SJR quartile rankings and H5. “Whereas the former determine the inclusion of the journals in the highest categories (A1 and A2), the H5 determines the inclusion of the publications in categories B or C” (Cárdenas & Nieto Cruz, 2018, p. 8). In this sense, regardless of the h-index (H5) in the model of classification of journals, there has been a continued requirement for national journals, in that they must belong to the WoS and Scopus databases in order to be classified in the higher categories (A1 and A2).

**II. The results of the model.** Drawing on the new model of classification of national journals, the number of national journals classified by Publindex have significantly

decreased. While in 2015 there were 527 journals classified by Publindex, there were around 200 fewer journals in 2016 (Rubio, 2018) and 2018 (Minciencias, 2020). In 2015, 527 journals were distributed in the following categories: A1=29, A2=148, B=124, and C=226. In contrast, in 2016, 583 journals were initially presented to be classified, but only 246 journals were finally classified in the following categories: A1=1, A2=12, B=110, and C=123 (Minciencias, 2020). Similarly, in 2018, 570 journals were initially presented to be classified, but only 275 journals were classified in the following categories: A1=3, A2=10, B=119, and C=143 (Minciencias, 2020). Moreover, according to 2018 statistics, all the Colombian university professors in all fields of knowledge only have 13 national journals to publish in the highest category (A1 + A2). In contrast, professors used to have 178 national journals in the same category (A1 + A2) by 2014 (Guzmán Aguilera, 2019b).

### **Normalization of the Academic Capitalist Regime.**

After the presented justification and promotion of the academic capitalist regime took shape, it is important to bring to light those assumptions related to the academic capitalist regime that have been accepted without any explanation and are behind this policy. These assumptions about what is right, normal, or desirable show the common sense and legitimize the dominance of the commercial for-profit model of academic publishing and its bibliometrics (JIF/SJR quartile rankings). Regarding the “representations of how things might or could or should be” (Chiapello & Fairclough, 2002, p. 195), I identify the following assumptions:

**I. Journal editors are responsible for the quality of national journals and Colciencias/Minciencias is the mediator.** This policy asserted a strong relationship between editors and the low-quality journals. This argument makes two assumptions. First, if all of the editors had Ph.D. degrees and were classified as senior by

Colciencias/Minciencias, they would have managed the journals better. This is not necessarily true. Faculty members know the content, methods and theories of their field, and while editorial management is an activity that faculty members may agree to do, it is not included in graduate school curriculum (Buller, 2009). Also, the classification as senior can show professors' academic productivity, rather than knowledge, in editorial management. Second, journal editors were considered, in neoliberal terms, as solely responsible for the quality of the journal. In contrast, Colciencias/Minciencias was not considered responsible for the quality of the national journals, even though this science agency is in charge of creating and implementing the quality of national publication policies that have guided scientific publications in the country since the 1990. As the neoliberal state, Colciencias/Minciencias was portrayed as the mediator for the proper functioning of the academic journal publishing market, allowing the global competition among higher education institutions and academics. Colciencias/Minciencias created the conditions for the functioning of the academic journal publishing market through this policy, in which these two international companies dictate the standards of excellence and quality in national academic publications.

**II. Peer citation as the only acceptable standard of excellence.** Even though the word “impact” was mentioned 15 times in the policy, and one of the goals was to double up the amount of publications in “high impact” journals, neither “impact” nor “high impact” were defined (Colciencias, 2016b). However, it is possible to infer that this concept is related to citations and that it is assumed that the number of citations a scientist receives is the best indicator of the relevance of their academic work. Pedagogical and social impacts are not considered (Alperin & Rozemblum, 2017). Alperín (2015) found that students were the users of ~50% of research published in the two largest scholarly journal portals in Latin

America. This challenges the assumption that academics write for academics, and shows that there are alternative forms of impact beyond citations, especially in the Latin American region (Alperín, 2015). Additionally, Latin America is a world leader in an open access model of journals (Alperín & Fischman, 2015). The compulsory introduction of peer citations through JIF/SJR quartile rankings as the standard of excellence works against developing countries as Colombia.

**III. The excellence in research is outside of the country.** This policy built the argument based on the comparison between the low quality and impact of national journals and “the external” as the benchmark. This is expressed multiple times in many different ways, such as the focus of the policy on “the need to broaden participation in global circles of scientific communication” due to “the limited contribution of the country” (Colciencias, 2016b, p. 4). In general, the word “international” was used 76 times in the policy and “high impact citation databases and indexes” was used as a synonym for “international scientific journals.” For example, a policy goal was presented as “to increase national researchers’ number of publications that were included in high impact citation indexes” (Colciencias, 2016b, p. 13, emphasis added), and also as “to increase national researchers’ number of publications in international scientific journals.” (Colciencias, 2016b, p. 15, emphasis added). Additionally, the policy highlighted the importance of the interaction between national and international research in order to increase high impact publications (Colciencias, 2016b).

**IV. SJR and JIF are the most important measurements.** To improve the quality of national journals, this policy established the necessity of implementing “commonly accepted” objective tools (Colciencias, 2016a, p. 10) to measure national capacities such as JIF, SJR and h-index. The main bibliometrics, JIF and SJR, have become the “commonly

accepted” dominant tool for the assessment of research performance. These measurements, JIF and SJR, can be called social technologies that promote marketization and competition, but also to discipline the academic subjects (Slaughter & Cantwell, 2012).

**V. English is the dominant language of publishing.** Although not explicit in the policy, it encourages publishing in English over Spanish, through bibliometrics that diminish national journals and promote higher ranking international journals (Q1 or Q2). Moreover, the policy fosters the idea that "excellence" is achieved internationally through English language publications and peer citations.

**VI. Copyrights and barriers to accessing knowledge are the cost of prestige.** This policy institutionalized the for-profit model of international commercial publishers and bibliometrics. This model usually keeps the property rights of professors and higher education institutions’ knowledge (formally presented in scientific publications) in order to obtain profit for the few companies in charge of the scientific publications. Therefore, researchers and institutions exchange intellectual property rights (in the case of authors) for prestige and pay a fee in order to gain access to the content of journals (in the case of higher education institutions). This interchange is normalized in the policy and justified by the quality of publications, measured through bibliometrics.

### **Second Policy: Faculty Promotion for Public Universities**

Since the 1990s, faculty promotion policies have included mechanisms to remunerate faculty for publications in order to promote scientific research (Colciencias, 2016b). In this way, academic productivity, measured through publications, was established as the main factor to increase salary (Montes & Mendoza, 2018; Pineda, 2015). The first legislation, Decree 1444 of 1992 (PRC, 1992), and the current legislation, Decree 1279 of 2002 (PRC, 2002), have promoted scientific research and publications by professors

through economic incentives that link salary increases to the number of publications produced (Pineda, 2015). Other work, such as teaching, only play a marginal role in the promotion process (Montes & Mendoza, 2018). The current legislations—articles 12-18—is based on a pay-for-performance system through salary points as follows:

- a) Higher education degrees: (i) bachelor's degree = 178 points and (ii) master and doctoral degrees = 140 points.
- b) Academic rank: (i) instructor or auxiliar = 37 points, (ii) assistant = 58 points, (iii) associate = 74, and (iv) titular professor = 96.
- c) Academic productivity, examples: (i) journal articles=between 3-15 points per article, (ii) video and photography = between 7 and 12 points per production, (iii) books = up to 20 points per book, (iv) national and international awards = 15 points per award, patents = up to 25 points.
- d) Management positions when the professor chooses to keep a professor's salary: Department chair (2 points), Dean (6 points), Vice-chancellor (9 points), Chancellor (11 points), etc.
- e) Years of experience (seniority): (2 points each year).

Each salary point is established annually by the President of Colombia by decree (article 77, Law 30 1992). In 2020, each point had a value of \$14,938 (~ 4 USD) (PRC, 2020). When a professor is hired, their initial salary is determined in accordance with the total points awarded according to the aforementioned criteria. After that, each professor can accumulate more salary points and the sum of salary points multiplied by the value of each salary point determines the final salary for each full-time professor (Pérez Rincon, 2013). The process of going up for titular professor or full professor is not mandatory, each professor can decide when they meet the necessary requirements to advance such as time,

teaching evaluations and scholarly work. Because of the goals and focus of this policy, I start by analyzing the promotion of the academic capitalist regime.

### **Promotion of the Academic Capitalist Regime**

The Decree 1279 of 2002 (PRC, 2002) has promoted research, especially through academic publishing, by linking academic products to salary points, and by including patents.

**I. Salary increases linked to publications.** This policy put academic productivity at the center (Pérez Rincon, 2013; Rhenals M., Agudelo V., Pérez P., Correa L., & Tobón B., 2014). The process to be promoted includes a time period in the previous category (seniority) and a significant academic work (article 76). Accordingly, academic research is the major requirement in order to get promoted. However, the Colombian system of academic rank (instructor, assistant, associate, and titular professor) created by the *Faculty Promotion Policy* is not completely linked with an upgrade of status and salary, as would be expected (Tien & Blackburn, 1996). Regardless of the rank (instructor, assistant, associate, and titular professor), academic productivity is the main way to increase the salary points: the higher number of academic products such as published articles, the higher salary points for professors, and consequently, higher salary.

Nevertheless, the number of academic products is not the only important aspect, it is also the “quality” as presented in the first policy, *Quality of National Publications Policy*. The *Faculty Promotion Policy*, Decree 1279 of 2002 (PRC, 2002), is closely related to the *Quality of National Publications Policy* because the classification of national journals—A1, A2, B, or C—was created to support the implementation of the *Faculty Promotion Policy* for public universities (Colciencias, 2016b; Rodríguez et al., 2015). This classification has been a tool to calculate salary points for academic publications, which is the second most



effective means of increasing points after higher education degrees. *Faculty Promotion Policy* is based on the classification of national journals to allocate salary points (article 10). Each category corresponds with the following salary points: academic publication in A1 or Q1 journal = 15 salary points, A2 or Q2 journal = 12 salary points, B or Q3 journal = 8 salary points, C or Q4 journal = 3 salary points (article 10). This promotion policy gave the power to Colciencias/Minciencias to determine the classification journals. The current *Faculty Promotion* policy, Decree 1279 of 2002 (PRC, 2002), is impacted by the aforementioned model of classification of national academic journals that includes international measurements JIF and/or SJR produced by Thomson Reuters and Elsevier international companies. Thus, the academic capitalist regime has influenced the formal introduction of the commercial for-profit model of academic publishing and bibliometrics at another level, impacting professors' work, academic career, and promotions (Duque Quintero, 2020).

**II. The attempt to promote patents.** The current policy included patents—in which professors must transfer the right of ownership to the university—as one of the academic products for salary points (25 points for each patent, article 10). Because the primary purpose of patent protection is to bring inventions to the market (Dratler Jr & McJohn, 2006), the inclusion of patents in the *Faculty Promotion Policy* can be seen as a way to promote for profit or market behaviors among professors and institutions. Therefore, it is possible to say that this policy introduced the academic capitalist regime by promoting the privatization of knowledge to maximize commercial potential and to obtain profits. However, this policy fell short in promoting market behavior through patents or grants. First, the amount of salary points for a patent (25 points) was low compared with publications of academic articles (up to 15 points per article), thus a professor is likely to

prefer to publish rather than patent, because it is easier to publish. Second, although this policy introduced a focus on economics, it did not have other elements that promote the commercial potential of knowledge through the movement of a research outcome of a professor to the market. In fact, the Conpes which is a policy document dedicated to the intellectual property, Conpes 3533 of 2008 (DNP, 2008a), suggested that a reform of this policy, Decree 1279 of 2002 (PRC, 2002), should include a greater number of salary points for patents and plant variety protection.

### **Justification of the Academic Capitalist Regime**

The primary rationale that constituted the *Faculty Promotion Policy* was to introduce a research-oriented model for Colombian universities. This policy reflected the shift from teaching-oriented institutions to model focusing on university research. While the rise of the research university model in Europe and the United States was fostered in the second half of the nineteenth century (Delgado, 2011), it only recently started being fostered in Colombia, specifically through faculty promotion policies (Gómez Campo & Celis Giraldo, 2007). At the beginning of the 90s, the Decree 1444 of 1992 (PRC, 1992) aimed to introduce the culture of research through salary points for academic productivity (Montes & Mendoza, 2018). Although there have been some changes, the current policy, Decree 1279 of 2002 (PRC, 2002), maintains the incentive structure based on salary points. It appears that this policy sought to increase the number of academic publications as a way to change the teaching-oriented focus in Colombian public universities.

### **Normalization of the Academic Capitalist Regime**

The *Faculty Promotion Policy* incorporates all the assumptions presented in the first policy, the *Quality of National Publications Policy*, due to the strong link between both

policies. Additionally, I identify two other assumptions that form part of the common sense under the academic capitalist regime:

**I. Professors are rational maximizers.** Professors are seen as rational agents who make decisions based on cost/benefit analysis. They have had the choice to increase their salary regardless of personal conditions (e.g., gender, discipline) and external conditions such as changes in the model of classification of national academic journals, as presented in the *Quality of National Publications Policy* (Colciencias, 2016a). These pieces of legislation sought to increase publications efficiently and see all the professors as economically self-interested individuals who have the same opportunities to improve their salary by using their skills. Following this neoliberal rationale, if professors do not increase their salary, they only have themselves to blame.

**II. Research (publishing) is more valued than teaching.** Research is disproportionately valued over teaching in the *Faculty Promotion Policy*, which is a trend throughout higher education (e.g., Tien & Blackburn, 1996). In this promotion policy, publications were the main way for professors to increase their salaries (Rhenals M. et al., 2014). As an example, while academic productivity does not have a general threshold for salary points, article 18 established a threshold for the optional reward for outstanding teaching with salary points in each academic rank: instructor (up to 2 points), assistant (up to 3 points), associate (up to 4 points), and titular professor (up to 5 points) (Gómez Campo & Celis Giraldo, 2007). Additional to the threshold, the difference between the salary points for teaching (between 2 and 5 points) and for publications (between 3 and 15 points) is also significant, advantaging research over teaching.

### **Third Policy: Research Groups and Researchers' Classifications**

Beyond the academic the academic journal publishing market, the third policy, *Research Groups and Researchers' Classifications*, opened the door for new forms of marketization and privatization of knowledge. As it will be presented, this policy integrated different ways to introduce the academic capitalist regime into the roles of professors and universities.

This policy began in the 1990s, when Colciencias/Minciencias—the national science agency—sought to quantify the number of the scientific community and research outputs of the country (Orozco et al., 2013). For this initial purpose, which was later changed, Colciencias/Minciencias launched the first call for research groups in 1991. “Research groups” were purposely selected in order to understand and promote scientific activities in the country (Orozco et al., 2013). Research groups were considered informal organizational units at the level of researchers. These micro units were considered a way to break through the universities' bureaucratic structure, creating a direct relationship between Colciencias/Minciencias and researchers (Orozco et al., 2013). From the beginning, the majority of participant research groups were affiliated with universities (Orozco et al., 2013). This means that this policy was mainly created to quantify professors' scientific work, and in this way, has directly impacted professors' careers.

After the first call for research groups classification in 1991, there were four other calls (1996, 1997, 1998, and 2000) in order to consolidate and to strengthen research groups as micro units (Orozco et al., 2013). All these calls for research groups classification provided financial compensation for the best qualified research groups as an incentive for researchers to participate in the calls and to provide truthful and complete information (Orozco et al., 2013). However, regardless of the financial compensation, research groups

were also promoted through two more channels: (a) policies that established research groups as an essential requirement to create and operate graduate programs (PRC, 1994b, 1994c, 2001, 2006, 2010), and (b) quality policies that established research groups as an essential requirement for operating undergraduate and graduate programs known as the Qualified Registry (*Registro Calificado*) and for obtaining national accreditation of academic programs and higher education institutions (CNA, 2006, 2013; PRC, 2003, 2010). These two channels of promotion institutionalized and recognized research groups as essential units within higher education institutions, and, from 2002 onwards, the calls for research groups classification were detached from funding (Colciencias, 2013a). Colciencias/Minciencias began to launch two types of separate calls. The first type calls for the classification of researchers and research groups, and the second type calls for research proposals, in which those research groups classified among other actors (e.g., students, companies) could participate and compete for economic resources. The analysis here is based on the policy that supports the calls for researchers and research groups' classification.

Different versions of policies regarding the classification of research groups and researchers have established how to assess, measure, and rank the productivity of research groups and the scientific work of professors in Colombia. The first measurement model to monitor and classify research groups was introduced in the fourth call for research groups in 1998 (Orozco et al., 2013). This first measurement model was refined and applied in the next four calls for research groups between 2000 and 2006. By the ninth call for research groups in 2008, Colciencias/Minciencias had already: a) acquired the Brazilian software CvLattes, now known as CvLAC, to collect more accurate information related to researchers' curriculum vitae (CV) (Orozco et al., 2013); b) created the software GrupLAC

to link researchers' information (CvLAC) to research groups (Orozco et al., 2013); c) established and consolidated an index called ScientiCol to measure research groups; and, d) consolidated a measurement model and ranking of classified research groups into five categories, from the highest to the lowest: A1, A, B, C or D (Orozco et al., 2013; Rodríguez Sánchez, 2017). At the time of this writing, there have been 17 calls for research groups between 1991 and 2018. Nowadays, each Colombian professor should have a CvLAC, belong to an institutionalized and classified research group or participate in a Colciencias/Minciencias' calls for research groups. In other words, this policy, *Research Groups and Researchers' Classifications*, became part of the academic life of professors.

Ever since the policy was launched, two important measurement models were developed in 2008 and 2013, respectively, to assess and rank research groups and researchers, which are comprised of mainly university professors. Throughout the calls for research groups during this period, these models have been transformed, specialized and automatized (Rodríguez Sánchez, 2017). Specifically, the analysis of this policy is based on (a) the comparison between 2008 and 2013 measurement models (Colciencias, 2008a, 2013a), and (b) changes in policy goals for research groups and researchers' classifications between 1991 and 2019 (Colciencias, 2008b, 2010a, 2011, 2012, 2013b, 2014, 2016c, 2017b, 2018b; Orozco et al., 2013).

To begin this section, I first present the measurement models at the center of this policy as a means to promote the academic capitalist regime. Next, I present and discuss how this policy is aligned with the academic capitalist regime through the measurement models. Then, I foreground the rationale that introduced the academic capitalist regime through the measurement models and the policy goals. Finally, I explain what the

assumptions behind this policy are that help to build and sustain the dominion of the academic capitalist regime.

### **The Measurement Models**

In general, each measurement model began with an information collection process. In each call for research groups, researchers or professors needs to complete the online application, CvLAC, with their resume information (e.g., published articles, refereed research presentations). The collected information should have indicators of the existence (e.g., study certificate), and be backed by the research group leader (though GrupLAC application) as well as the higher education institution in order to be the input for the measurement model. Then, the information is classified and weighted, and finally, the index for research groups' classification into hierarchical categories is calculated. The following provides the measurement models in 2008 (Colciencias, 2008a) and 2013 (Colciencias, 2013a).

**I. The model of 2008.** This model classified academic products into four categories: a) New Knowledge Products (NKP), b) New Knowledge Products type A (NKPA), c) Products derived from Teaching-Advising Junior Researchers (TJR), and d) Knowledge Dissemination Products (KDP). These categories were the input for the index called *ScientiCol*, which is formally expressed as a weighted sum of factors (Chavarro & Orozco, 2011; Colciencias, 2008a; Rodríguez Sánchez, 2017).

$$\textit{ScientiCol index} = 5 * NKP + 3.5 * NKPA + 1 * TJR + 0.5 * KDP$$

Where NKP included scientific articles, books, book chapters, spin-off companies, norms, and patents granted. NKPA included the same type of products as the NKP, but only those with the highest category, which is also called type A category (e.g., doctoral dissertation with honors or articles published in top ranked journals). TJR included the

number of bachelor's and master's theses and the number of doctoral dissertations supervised per each research member. It also included master or doctoral programs and master or doctoral courses affiliated with research groups. KDP included conferences, technical services, textbooks, consultancies, and information leaflets.

Each academic product within each category (NKP, NKPA, TJR, and KDP) was classified hierarchically and had a weight assigned. For instance, research articles were classified according to the journals' classification: (a) type A publications = research articles published in A1 or A2 journals; (b) type B publications = research articles published in journals B; (c) type C publications = research articles published in journals C; or (d) type O publications = research articles published in peer review journals without classification (See the first policy, *Quality of National Publications Policy*). In terms of weight, type A = 1, type B = 0.7, type C = 0.4, and type O = 0.2. Finally, research groups were classified into five categories based on the index ScientiCol and the years of existence (Colciencias, 2008a, p. 26):

- Research groups A1: ScientiCol index  $\geq 9.0$  and at least 5 years of existence.
- Research groups A: ScientiCol index  $\geq 7.0$  and at least 5 years of existence.
- Research groups B: ScientiCol index  $\geq 4.0$  and at least 3 years of existence.
- Research groups C: ScientiCol index  $\geq 2.0$  and at least 2 years of existence.
- Research groups D: ScientiCol index  $\geq 0.0$  and at least 1 years of existence.

**II. The model of 2013.** Additional to the model of 2008, this model considered (a) a greater number of academic products and a new category of technological development and innovation products, (b) two new factors cohesion and cooperation indexes, and (c) researchers' classification as a new component of the model. First, the academic products



produced were classified into four categories: (a) New Knowledge Products (NKP), (b) Technological Development and Innovation Products (TDIP), (c) Social Appropriation of Knowledge Products (SAKP), and (d) Human Resource Training Products (HRTP). Each academic product within each category (NKP, TDIP, SAKP, and HRTP) was classified hierarchically and had a weight assigned. For instance, spin-off companies were classified as “A” (weight 10) when the company had market products and sales, and “B” (weight 4) when the company did not have market products. Drawing on this hierarchical classification, the four categories (NKP, TDIP, SAKP, and HRTP) were regrouped by type of products into six categories (Top, Type<sub>A</sub>, Type<sub>B</sub>, SAKP, HRTP<sub>A</sub>, HRTP<sub>B</sub>) as the input for Research Group Index (RG index) (See Appendix 7). RG index is formally expressed as a weighted sum of factors (Colciencias, 2013a, p. 68):

$$RG\ Index = 4 * Top + 2.5 * Type_A + 1 * Type_B + 0.2 * SAKP + 1 * HRTP_A + 0.5 * HRTP_B + 0.4 * Cohe + 0.4 * Coop$$

Where Top was formed by academic products such as research articles type A1 or A2 that are published in top or high impact journals, and patents with utility models. These academic products were grouped under New Knowledge Products (NKP). Type<sub>A</sub> was formed by academic products such as industrial design, integrated circuit diagram, software type A, pilot plant, trade secret, patents A3 or A4, spin-off companies type A, and research articles B or C. These academic products were grouped under New Knowledge Products (NKP) or Technological Development and Innovation Products (TDIP). Type<sub>B</sub> was formed by academic products such as software type B, patents B1 or B2, spin-off companies type B, and research articles D. These academic products were grouped under New Knowledge Products (NKP) and Technological Development and Innovation Products (TDIP). SAKP included all the academic products of Social Appropriation of Knowledge Products

(SAKP).  $HRTP_A$  included the number of doctoral dissertations supervised per each research member, and doctoral programs and doctoral courses derived from research groups' work.  $HRTP_B$  included the number of bachelor's and master's theses; research projects with graduate students classified by external or internal funding; research projects carried out in companies with graduate students; extension projects; master programs; master courses affiliated with research groups; and support and advice for the Ondas Program, which is a Colciencias/Minciencias for children and young people that promotes an interest in research.

Second, additionally to the mentioned factors, there are two other new factors “Cohe” and “Coop.” The former, cohesion index, assessed the interaction between research group participants within the same group (e.g., the group participants coauthor an article). The latter, cooperation index, assessed the interaction among research groups (e.g., participants from different groups co-author an article). Drawing on RG index results, research groups were ranked by quartiles in each field of knowledge. However, research groups need to fulfill some additional requirements in order to be in the possible categories (A1, A, B, C, or D). Since 2017, the category D was eliminated and the measurement model began to classify research groups into four categories: A1 (the highest), A, B, and C (the lowest). Regardless of the number of publications, there are other requirements for the research group to be classified in a certain rank such as years of existence, having a senior researcher, and cohesion index must be greater than zero. For example, a research group can have an RG index in quartile one, in the top 25% of the distribution, which means the possibility to be classified as A1 research group (the highest). However, if a research group does not have a senior researcher, it will be classified in a lower category.

Third and finally, unlike the model of 2008, the model of 2013 added another component to the measurement process where not only research groups are classified, but also researchers. This classification was based on researchers' level of education and academic production. Researchers' academic production included three of the four initial categories in terms of participants' academic production: (a) New Knowledge Products (NKP), (b) Technological Development and Innovation Products (TDIP), and (c) Human Resource Training Products (HRTP). The classification of researchers did not take into account Social Appropriation of Knowledge Products (SAKP). Researchers were classified into three categories: senior, associate, and junior.

- **Senior.** To obtain a senior classification, a researcher must have at least (a) doctoral degree or 15 academic products (Top or Type<sub>A</sub>), (b) 10 academic products (Top or Type<sub>A</sub>) in the last 10 years, and (c) supervised four master's theses or one doctoral dissertation in the last 10 years. To maintain this classification, the researcher must have produced a new academic product (Top or Type<sub>A</sub>) or supervised at least one master's theses and one doctoral dissertation within the last year.
- **Associate.** To obtain a classification of associate, a researcher must have at least (a) doctoral degree or seven academic products (Top or Type<sub>A</sub>), (b) two academic products (Top or Type<sub>A</sub>) and four academic products in the last 5 years, and (c) supervised one doctoral dissertation or eight bachelor's theses or two master's theses in the last 5 years. To maintain this classification, the researcher must have produced a new academic product or supervised a bachelor's or master's thesis within the last year.
- **Junior.** To obtain a junior classification, a researcher must at least (a) have a doctoral degree in the last 3 years, (b) be part of a research group, and (c) be the coauthor of

two academic products. Another option to be classified as junior, the researcher must have doctoral or master's degree and one academic product (Top or Type<sub>A</sub>) and four academic products in the last 5 years.

**III. Results of the models.** On the one hand, the model of 2008 was applied for four calls for research groups' classification between 2008 and 2012 (Colciencias, 2008b, 2010a, 2011, 2012). On the other hand, the model of 2013 has been applied, with some adjustments, in the last five calls for research groups and researchers' classification between 2013 and 2019 (Colciencias, 2013b, 2014, 2017b, 2018b). Between 2008 and 2012, the number of research groups increased from 3,712 in 2008 to 5,510 in 2012. In 2008 and 2010, research groups classified as "D," had the largest representation, around 40%, and around 10% of the research groups were classified as "A1" or "A," the highest classification (Colciencias, 2013a). Although no disaggregated data were available for 2011 and 2012, there were no reasons to suspect that this trend could change. With the new model, the number of research groups fell from 5,510 in 2012 to 4,304 in 2013. This was a big change because the number of research groups had not decreased since this policy started. For this reason, this decline reflected that the new model impacted the academic community and its research groups' classification. However, during recent years, the number of research groups has recovered and in 2019 there were 5,772 recognized research groups (see Table 4).

With regard to research groups' classification, between 2013 and 2019, the majority of research groups (around 40%) were classified as "C," since the classification "D" was removed. Research groups with the highest classification (A1 + A) have increased from 15% in 2013 to 25% in 2019 (see Table 4). There has also been a significant growth in researchers' participation and classification. In terms of participation, recognized

researchers almost tripled over the 5 year period, from 6,889 researchers in 2013 to 16,526 in 2019. Likewise, in terms of classification, while in 2013 there were 648 senior researchers, in 2019, there was 2,457 senior researchers. Associate and junior researchers showed the same trend. The growing participation of research groups and researchers in this policy has been indicative of the wide participation of professors and universities in the calls for the classification of research groups and researchers (see Table 4).

Table 4. *Recognized Research Groups and Researchers by categories, 2013-2019*

Characteristics	2013	2014	2015	2017	2019
Recognized Research Groups	4,304	3,970	4,638	5,207	5,772
Research Groups by Categories					
Research groups A1	8.6%	7.4%	8.8%	10.0%	10.0%
Research groups A	6.9%	9.7%	11.8%	14.6%	14.6%
Research groups B	16.8%	21.9%	20.5%	22.4%	22.4%
Research groups C	29.3%	38.9%	41.8%	40.6%	40.6%
Research groups D	25.9%	18.9%	13.2%		
Research groups without classification	12.6%	3.3%	3.9%	12.3%	12.3%
Recognized Researchers	6,889	7,989	9,752	12,693	16,526
Researchers by Category					
Senior researcher	648	1,049	1,158	1,690	2,457
Associate researcher	1,743	2,035	2,720	3,566	4,326
Junior researcher	4,498	4,905	5,807	7,336	9,694

Source: <https://minciencias.gov.co/la-ciencia-en-cifras/grupos>

### **Promotion of the Academic Capitalist Regime**

The measurement models and the calls for research groups introduced the academic capitalist regime in four ways. First, the measurement models were social technologies or audit exercises (Slaughter & Cantwell, 2012). Second, the calls for research groups along with the measurement models have promoted market behaviors among professors (Slaughter & Rhoades, 2004). Third, the calls for research groups along with the measurement models have promoted market-like behaviors and the prestige economy (Rosinger, Taylor, Coco, et al., 2016). Fourth, the measurement models that classify

research groups and researchers have promoted the formal introduction of the commercial for-profit model of academic publishing and bibliometrics.

**I. The measurement models as social technologies.** According to theory of academic capitalism, audit systems or social technologies are based on quantitative developments that assess the success of universities, reinforce certain types of knowledge, and promote the academic capitalist regime (Slaughter & Cantwell, 2012). In this case, the accountability of scientific inquiry was developed through measurement models that created league tables or rankings in order to assess “the success” of professors and higher education institutions. The measurement models were based on the academic productivity of professors and researchers, which was determined through selected criteria of academic products and weighting factors, such as the number of published peer-reviewed articles. These models are social technologies that not only introduced what professors/researchers, research groups, academic departments, and universities need to produce in order to be successful, but also disciplined the academics and higher education institutions to both regularly participate in the calls for research groups and produce certain types of academic products. Since the academic products with higher weights were in line with the marketization and competition of knowledge, the presented measurement models were not neutral; on the contrary, they promoted the academic capitalist regime as presented below.

**II. The promotion of market behaviors.** The presented measurement models promoted the academic capitalist regime because they pushed professors and higher education institutions into market behaviors to help their research groups and researchers obtain rankings in the highest categories (senior researcher and A1 or A research group). According to the theory of academic capitalism, market behaviors refer to for-profit activity on the part of higher education institutions or professors such as patenting or spinoff

companies, when these activities have a profit component (Slaughter & Leslie, 1997). In this context, knowledge is seen as integrated with the market and valued as much for its commercial potential and resource-generating capability as for the power of discovery (Slaughter & Leslie, 1997).

The measurement models are summarized in Table 5. In the index of 2008, ScientiCol index, New Knowledge Products (NKP) and New Knowledge Products type A (NKPA) received the highest weighting factor, 5 and 3.5 respectively, indicating that products such as scientific articles, books, book chapters, spin-off companies, norms, and patents granted were valued more than other academic products such as supervised doctoral dissertations or master programs. Similarly, in the index of 2013, RG index, the most valued products with the highest weighting factor of 4, were New Knowledge Products (NKP), such as scientific articles, books, and patents granted (See Appendix 7). Starting in 2013, a new category was added with a high weighting factor—Technological Development and Innovation Products (TDIP). This new category is strongly associated with the commercial potential of knowledge such as technology products (e.g., industrial design and software) and business products (e.g., trade secret, spin-off companies, business innovation) (See Appendix 7). Thus, TDIP, along with NKP, revealed how the policy has internalized the academic capitalist regime, impacting professors' work.

Table 5. *Comparison between 2008 and 2013 measurement models*

Model	Index
2008	ScientiCol index = 5 * NKP + 3.5 * NKPA + 1 * TJR + 0.5 * KDP
2013	RG Index = 4 * Top + 2.5 * Type <sub>A</sub> + 1 * Type <sub>B</sub> + 0.2 * SAKP + 1 * HRTP <sub>A</sub> + 0.5 * HRTP <sub>B</sub> + 0.4 * Cohe + 0.4 * Coop

Source: Colciencias/Minciencias (2008a, 2013a)

For both models, the most valued academic products with the highest weight were completely aligned with profit-seeking: publications in high impact journals (the new layer

of the academic capitalist regime), books cited in a high impact journal or with a book review, patents with market products, and spin-off companies with commercialized products and sales. Accordingly, researchers or research groups that wanted to be classified in the highest categories (senior researcher and A1 or A research group) needed to take into consideration the most valued academic products, with the highest weight, that are in line with to the academic capitalist regime.

The results in Table 6 show percentage of total of academic products from 2013 to 2019 for each category: New Knowledge Products (NKP) and Technological Development and Innovation Products (TDIP), Social Appropriation of Knowledge Products (SAKP), and Human Resource Training Products (HRTP). It is remarkable, however, that despite the importance of commercial academic products for the classification of research groups, Technological Development and Innovation Products (TDIP) barely increased its percentage from 1% of the total of academic products in 2013 to 4% in 2019. Even though, in absolute terms, all the commercial academic products have significantly increased. For example, spin-off companies with commercialized products and sales grew from 7 in 2013 to 722 in 2019. This growth shows that the promotion of the academic capitalist regime through this policy is slowly, but surely, generating results. In contrast, Social Appropriation of Knowledge Products (SAKP) increased from 6% to 24% from 2013 to 2014. The rest of the period SAKP maintained at percentage around 20%.

Table 6. *Commercial Academic Products, Research Groups' Classification 2013-2019*

Characteristics	2013	2014	2015	2017	2019
New Knowledge Products (NKP)	73%	48%	48%	51%	49%
Patents with market products	12	22	43	57	100
Plant variety	23	108	187	233	343
Technological Development and Innovation Products (TDIP)	1%	2%	2%	4%	4%
Trade secret		178	424	1,006	2,040



Characteristics	2013	2014	2015	2017	2019
Industrial prototype	28	106	657	1,791	3,395
Spin-off companies A (with commercialized products and sales)	7	58	169	439	722
Spin-off companies B (without commercialized products and sales)	1	14	41	103	210
Innovative procedures	7	139	277	776	3,768
Industrial design	5	49	72	108	125
Business innovation	5	29	298	685	2,590
Pilot plant	2	7	20	86	114
Social Appropriation of Knowledge Products (SAKP)	6%	24%	23%	21%	22%
Human Resource Training Products (H RTP)	20%	27%	27%	24%	25%

Source: <https://minciencias.gov.co/la-ciencia-en-cifras/grupos>

**III. The promotion of market-like behaviors and the prestige economy.** The presented measurement models also promote the academic capitalist regime through market-like behaviors and the prestige economy. According to the theory of academic capitalism, market-like behaviors refer to competition for external funds such as student tuition and fees or grants (Slaughter & Leslie, 1997). However, external funds derived from research are preferred over other external funds such as those derived from instruction, due to the prestige that comes with research funds, representative of prestige economy (Rosinger, Taylor, Coco, et al., 2016). This policy, the classification of groups and researchers, was not explicitly connected with economic resources. However, from 2005 to 2020 Colciencias/Minciencias launched 749 calls for funding for research activities, education and the commercialization of knowledge, and 404 of these calls (54%) were addressed to research groups and their researchers, sometimes along with other partners such as universities or Colombian companies.

**IV. The promotion of the academic journal market.** In the first two policies, the *Quality of National Publications* and *Faculty Promotion* policies, the measurement models promoted the publication in high impact journals that are mostly subscription-based

journals in English, included in high impact databases and citation indexes created by Thomson Reuters and Elsevier. The *Research Groups and Researchers' Classifications Policy*, specifically, the model of 2013, incorporated analogous, important changes. For books, this policy introduced Thomson Reuters Book Citation Index as a quality requirement. For research articles, this model used the citation impact indicators, SJR and JIF, and the quartile rankings as field-normalized indicators: Q1 (the highest), Q2, Q3, and Q4 (the lowest). In this way, it was aligned with JIF/SJR quartile rankings and the categories: A1=Q1, A2=Q2, B=Q3, and C=Q4. Namely, this policy incorporated the same change of journals as in the *Quality of National Publications Policy*. However, while this policy was established in 2013, the first policy, *Quality of National Publications Policy*, incorporated the same change in 2018. This temporal difference means that Colciencias/Minciencias did not use its own version of Publindex for research groups and researchers' classification since 2013. Although this might seem contradictory at first (Rodríguez Sánchez, 2017), it showed an earlier (but consistent) introduction of the alignment between the JIF/SJR quartile rankings and Publindex presented above. In other words, Colciencias/Minciencias had already introduced the academic journal publishing market in the national research policies in 2013.

### **Justification of the Academic Capitalist Regime**

During its 30 years of existence, the rationale to justify this policy went through some changes. Reviewing the verbs that have been used for the policy goals, it was possible to identify that the policy goals shifted from getting to know the academic community to assessment and ranking. The initial verbs, in 1991, were to “*estimate* the scientific community” and “*identify* research groups and research centers” (Orozco et al., 2013, p. 663, emphasis added). These initial verbs transmitted the desire to get to know the

Colombian scientific community at that time. In 1996 and 1997 the verbs were modified, and the policy goals were to “*support* and *consolidate* the strengthening of research groups and research centers” (Orozco et al., 2013, p. 663, emphasis added). This change expressed the purpose of strengthening research groups. In 1998, the concept of *categorizing* research groups to allocate economic resources was incorporated, and since then the focus of the policy goals are assessment and ranking. The belief behind is that science, technology and innovation should be mainly stimulated through evaluation, as the Conpes 2739 of 1994 established (DNP, 1994). In this way, the following examples of objectives express:

- “to create a ranking system for research groups” (policy goal, 2000) (Orozco et al., 2013, p. 663).
- “to consolidate a mechanism to acknowledge research groups” (policy goal, 2002), (Orozco et al., 2013, p. 663).
- “to measure research groups” (policy goal, 2004) (Orozco et al., 2013, p. 663).
- “to consolidate a mechanism to classify research groups” (policy goal, 2008) (Orozco et al., 2013, p. 663).
- “to classify research groups based on the academic production” (policy goal, 2010) (Colciencias, 2010b, p. 2).

### **Normalization of the Academic Capitalist Regime**

Given the strong link among the policies, this policy, *Research Groups and Researchers’ Classifications*, also incorporated the assumptions presented in the first policy, *Quality of National Publications Policy*, and second policy, *Faculty Promotion Policy*. I additionally identify the following assumptions or ideas that create a normalized and unquestioned common sense related to the academic capitalist regime.

**I. It is important to be efficient and not to waste time.** The measurement models, the heart of the *Research Groups and Researchers' Classifications Policy*, assumed constant creation of academic products in at least four ways. First, the last model established that a research group had to have at least one New Knowledge Product (NKP) or Technological Development and Innovation Product (TDIP), and also a Social Appropriation of Knowledge Product (SAKP) or a Human Resource Training Product (HRTP) per year. Second, the measurement models adopted an observation period for academic products. In the model of 2008, an observation period of 5 years was established. This means that an academic product published or produced before this period was not taken into account in the measurement model. For example, in the case of the call for research groups in 2008 (Colciencias, 2008b), the observation period was from 2003 to 2007, and academic products published or produced before 2003 were not considered. The model of 2013 introduced three types of observation periods: (a) 10 years for patents and plant/animal variety, (b) 7 years for research articles (type A1, A2, B, and C) and books, and (c) 5 years for the other academic products (Colciencias, 2013a). Like the model of 2008, academic products outside of the observation period were not considered. Third, senior, associate, and junior researchers needed to have a new academic product each year to maintain their classification (Colciencias, 2013a). The values behind these three aspects were efficiency and productivity, which are part of the goals of neoliberal practices and policies, and are aligned with the academic capitalist regime, in which faculty and institutional work needs to be more effective and efficient (Slaughter & Leslie, 1997). Fourth, from 2000 until now, the definition of research group incorporated the idea of the constant creation of academic products (Orozco et al., 2013; Rodríguez Sánchez, 2017). According to the last definition, a research group is a group of people that interact to carry

out research and to produce academic products. “The group would be acknowledged if it *continually* proves verifiable results, derived from research projects and other activities in its working plan” (Colciencias, 2018a, p. 44, emphasis added).

In this context, time pressure plays an essential role in the academic capitalist regime, influencing professors’ work. According to Walker (2009) there are three main understandings of time that can coexist: (a) the pre-modern understanding is related to a timeless perspective, guided by seasons, cycles or cultural events; (b) the modern understanding is related to a precise measurement of time or clock-time such as Ford manufacturing; and (c) the post-modern perspective does not consider a clear demarcation between work time and other time such as family time or personal time, especially with communications technology such as internet. In the last two perspectives, time is seen as a scarce resource that needs to be managed in a morally justifiable manner. Universities have been significantly driven by the pre-modern perspective of time. For example, “in the realization that research takes time and that many mistakes precede discovery” (Walker, 2009, p. 495). Many researchers may agree that it is difficult to predict how long research will take (Walker, 2009). However, the academic capitalist regime strongly introduced the modern and post-modern time approaches, challenging the pre-modern perspective (Walker, 2009). In the same vein, this policy introduced time-bound research activities associated with academic products, thereby removing the pre-modern perspective of time and constraining the work of researchers and research groups. Individually, since the measurement models demanded constant production in order to maintain the productivity levels, time became a limited resource. Therefore, this policy introduced the cult of speed, as part of the academic capitalist regime, in which it seemed that professors (and also

students) have significantly less free time and the sense of time crunch as normal and expected (Walker, 2009).

**II. Research (publishing and commercial products) is more valued than teaching.** For both measurement models, 2008 and 2013, research (publishing and commercial products) was more valued than teaching activities. For example, in 2008, products derived from Teaching-Advising Junior Researchers (TJR) had a weighting factor of 1, and the only item in this category related to undergraduate teaching, bachelor's theses, had a weight of 0.1 or 0.2. In contrast, New Knowledge Products (NKP) had a weighting factor of 5, and in this sense, the weight of its items was multiplied by 5. Additionally, type A products clustered in New Knowledge Products type A (NKPA), which were multiplied by 3.5. For example, an article published in A1 or Q1 journal had weight of 1, and it was initially multiplied by 5, and because this is a type A product, this publication was also multiplied by 3.5. Thus, while a distinguished bachelor's theses had a weight of 0.2, a type A article had a final weight of 8.5 ( $1*5 + 1*3.5$ ). With patents, the academic product with the highest weight, the difference is even bigger. A type A1 patent with a commercialized product, had a weight of 4, and it was multiplied by 5 (NKP weighting factor) and by 3.5 (NKPA weighting factor). In this sense, while a distinguished bachelor's theses had a weight of 0.2, a patent with a commercialized product has a final weight of 34 ( $4*5 + 4*3.5$ ). Therefore, there was very little incentive for teaching (Rodríguez Sánchez, 2017). The weights for academic products and the weighting factor for each category reinforced an image of high-status research professors with the weighting factors serving as guides to produce a select group of academic products in order to become “the ideal professor.”

**III. Science, technology and engineering are the most important fields.** The measurement model of 2013 added academic products strongly connected to science,

technology, and engineering (e.g., industrial design, pilot plant, trade secret, spin-off companies, and business innovation) and gave them the highest weighting factors. The measurement models delivered a clear message to the academic community that the privileged areas of research were in fields heavily engaged with industry. Although, the measurement model of 2013 assessed each field separately, social sciences were not part of the priority or commercial areas to be rewarded and funded by Colciencias/Minciencias, the main agency with external resources for research in the Colombian context.

The different treatment and attitude toward the social sciences and, humanities vs. fields that are close to the market and industry has been known as organizational segmentation by disciplines (Rosinger, Taylor, Coco, et al., 2016). This segmentation generated uneven distribution of resources and status due to the prestige economy that favor high-resource science and engineering at the expense of other fields, such as humanities (Rosinger, Taylor, Coco, et al., 2016). In this case, *Research Groups and Researchers' Classifications Policy* along with how resources were distributed normalizing the organizational segmentation among fields. A review of the 637 calls for research activities between 2005 and 2020 revealed that only 53 of these calls included social sciences and humanities disciplines, even though social science research groups represented more than 30% of the total of research groups (see Table 7). For this reason, it is highly likely that, instead of relying on external funding, social science research groups have mainly been supported through internal funding from research offices at universities (Rodríguez Sánchez, 2017). As a consequence, while social science research groups needed to achieve and maintain the highest classification (A1 or A) to compete with science, technology, and engineering fields, but they had limited access to external financial support

and potential for mainly two academic products that can have the highest weighting factor, scientific articles and books.

Table 7. *Research Groups Classification by Fields of Knowledge, 2013-2019*

Characteristics	2013	2014	2015	2017	2019
Social science research groups	35%	30%	37%	37%	38%
Basic science research groups	11%	13%	13%	12%	11%
Health research groups	15%	17%	17%	17%	16%
Biodiversity research groups	7%	6%	7%	6%	6%
Technological development and innovation research groups	7%	7%	8%	8%	9%
Information technology research groups	6%	7%	6%	6%	6%
Agro-livestock sciences research groups	6%	6%	6%	6%	5%

Source: <https://minciencias.gov.co/la-ciencia-en-cifras/grupos>

**IV. Research groups are essential academic units.** To improve the production of knowledge, this policy not only incentivized researchers to actively participate in research groups in order to gain notoriety and resources, but it was also reinforced by other policies that made research groups an institutional requirement for operating undergraduate and graduate programs and for obtaining accreditation (e.g., CNA, 2006, 2013; PRC, 2003; PRC, 2010). In this way, research groups have become part of the academic culture in Colombian universities.

According to the theory of academic capitalism a “number of new organizations have emerged from the interstices of established colleges and universities to manage new activities related to generation of external revenues” (Slaughter & Rhoades, 2004, p. 23). Examples of these new organizations, also known as interstitial organizations, are offices of technology transfer, economic development, trademark licensing, philanthropy (Metcalf & Slaughter, 2008; Slaughter & Rhoades, 2004). In the case of *Research Groups and Researchers’ Classifications Policy*, research groups can be seen as interstitial organizations. As presented earlier, these research groups were initially considered informal



organizational units without bureaucratic structure. However, this policy influenced not only the creation of research groups, but also their dynamic and institutionalization. The measurement models stipulated which type of knowledge is more desirable, the production levels over a period of time, and even details such as the need to do collaborative work among research group' participants and with other research groups to make the cooperation and cohesion indexes greater than zero. At the institutional level, each research group needed to be endorsed by a higher education institution in order to be acknowledged and classified. In this sense, they were institutionalized as a formal part within higher education institutions. Research groups as formal academic units (interstitial organizations) became very significant for Colombian higher education institutions for creating academic programs, obtaining accreditation, gaining prestige, and attracting financial resources to the point where it is almost impossible to think about a Colombian higher education institution without research groups.

**V. It is necessary to strengthen the administrative capacity.** The theory of academic capitalism highlights the necessity to extend the managerial capacity to increase the capacity to engage the market (Slaughter & Rhoades, 2004). For this policy, *Research Groups and Researchers' Classifications Policy*, in each call for research groups and researchers, the information collection process has been fundamental and has become more and more rigorous. For each academic product entered in the system, it was necessary a proof of its existence. For this reason, the participation in the classification of research groups and researchers became a cumbersome process that required assistance (Rodríguez Sánchez, 2017). During these years, research group participants have developed information management skills, and additionally, the provision of technical assistance and advice for this process have become the norm (Rodríguez Sánchez, 2017).

### **Fourth Policy: Spin-off**

Most of the analyzed policies widely introduced the academic journal publishing market, which I have identified as the new layer of the academic capitalist regime. However, although the third policy, *Research Groups and Researchers' Classifications*, also included other dimensions of the academic capitalist regime, this policy, *Spin-off Policy*, explicitly incentivizes professors to be more involved in the market through the creation of spin-off companies. These kinds of companies are formed by academics and based on research (Metcalf, 2008). Following a similar structure to the analysis of policies presented, this section begins with how the activities promoted by the policy introduce the academic capitalist regime. Then, I present the rationale or justifications for the introduction of the academic capitalist regime that have become accepted assumptions about what is normal or desirable.

#### **Promotion of the Academic Capitalist Regime**

Specifically, *Spin-off Policy*, established by Law 1838 of 2017 (CRC, 2017), promoted that (a) public universities can create spin-off companies from public funding research (article 2), and (b) professors (from public universities) who participate in these companies can produce earnings in addition to their salaries (article 3). Since this policy supported spin-off companies that have a profit component, it also promoted market behaviors among professors, a component of the academic capitalist regime (Slaughter & Leslie, 1997). Additionally, article 5 of this policy established that it was necessary to include a new administrative area in charge of the coordination between research activities and spin-off companies. The necessity to extend the managerial capacity is one of the mechanisms that constitutes the academic capitalist regime (Slaughter & Rhoades, 2004).

## **Justification and Normalization of the Academic Capitalist Regime**

The rationale to promote the creation of spin-off companies is based on the ideas that (a) knowledge as a private good can contribute to economic growth, and (b) academics can act as capitalists. These ideas serve both as justification and normalization of the academic capitalist regime.

**I. Knowledge should be a private good.** Initially, the title of this policy included: “By means of which regulations are issued to *foster* science, technology, and innovation *through the creation* of technology-based companies (Spin Offs) and other provisions are issued” (CRC, 2017, emphasis added). The conviction behind spin-off companies being the way “to foster” science, technology, and innovation is that knowledge should be privatized and commercialized rather than be considered as a public good, which is based on the non-secret and noncommercial character of science (Slaughter & Rhoades, 2004). This conviction is an unquestionable assumption for promoting a privatized form of knowledge through knowledge-based companies (spin-offs) that are created within higher education institutions as the result of research and development activities (CRC, 2017).

**II. Spin-off companies can contribute to economic growth.** The justification for considering the privatization of knowledge through spin-off companies as the best choice was based on the possibility of economic growth that benefits the whole society (Slaughter & Rhoades, 2004). The first article of *Spin-off Policy* established the objective of this law: “to promote *innovative entrepreneurship* and high added value in Higher Education institutions (HEI), in order to take advantage of research outcomes and transfer of knowledge to society as a factor of human, scientific, cultural and *economic development* at local, regional and national levels” (CRC, 2017, emphasis added). Although the expected economic growth hardly benefits the whole society (Slaughter & Rhoades, 2004), the

justification that supports knowledge as a private good has been an increasingly common and normalized standard across the globe (Mirowski, 2011), and this policy is no exception.

**III. Professors act as capitalists.** Contrary to the Colombian general legislation and Conpes that assigned a secondary role to academics, *Spin-off Policy* along with the third policy, *Research Groups and Researchers' Classifications Policy*, portrayed professors as agents who can engage in market activities and act as capitalists (Slaughter & Leslie, 1997). First, while the general legislation justified intellectual property rights on the *ex post* rationale that is focused on how firms can invest in knowledge production (Thursby & Thursby, 2008), this policy justified intellectual property rights on the *ex ante* rationale where knowledge producers (professors or researchers) need adequate economic incentives for knowledge creation (Dratler Jr & McJohn, 2006). Similar to the theory of academic capitalism, this policy saw that professors' scarce and specialized knowledge and skills can be applied to productive work and can yield economic benefits.

### Conclusion

Drawing on a Critical Discourse Analysis (CDA) (Fairclough, 2018), the main focus of this chapter was on the discourses that emerge from the four national research policies: *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications*, and *Spin-off* policies. The purpose of the chapter was to understand how these policies promote, justify, and normalize the academic capitalist regime and its neoliberal roots (the first research question). First, justification was built on the rationale for why the analyzed policies and the official documents introduce the academic capitalist regime. Second, promotion resulted from the actions established by these policies in order to introduce the academic capitalist regime. Finally, normalization occurred through the accepted worldview, as well as the process of naturalization that includes assumptions

about what is the right, normal or desirable, most of the time without any explanation (See Table 8 at the end of the chapter, page 155, for a summary of the findings).

The academic capitalist regime and its neoliberal roots, analyzed through the four national research policies, create and reinforce social practices and structures. Social practices are stabilized form of social activities (e.g., management in educational institutions, research, classroom teaching, television news, family meals, medical consultations) (Chiapello & Fairclough, 2002), and social structures can be either abstract (e.g., social class or the design for a television show) or concrete structures (e.g., schools, universities) that shape and are shaped by social practices (Fairclough, 2015).

### **Publishing as a Social Practice**

The first three policies promoted publishing as a social practice that is based on the academic journal publishing market. This social practice promotes a “certain type” of academic publications as a way (a) to improve the quality of national journals and national researchers’ publications (first policy, *Quality of National Publications Policy*); (b) to increase salary levels (second policy, *Faculty Promotion Policy*); and (c) to rank research groups and researchers in the highest categories (senior researcher and A1 or A research group) (third policy, *Research Groups and Researchers’ Classifications*).

The “certain type” of academic publications is part of the academic journal publishing market, framed here as a new layer of the academic capitalist regime. This new layer is based on the importance of the privatization and the commercialization of knowledge through subscription-based journals and bibliometrics. In this context, market behavior—promotion of activities that have a profit component (Slaughter & Leslie, 1997)—is connected with few companies, international commercial publishers. In the case of professors, the first three policies promoted a prestige behavior as the incentive for

publishing in “high impact” journals that are mostly subscription-based as well as the compensation for transferring copyrights to the publisher. The prestige behavior is linked to or at the heart of publications as the as a new layer of the academic capitalist regime.

In this context, the social structure of publishing included where and how to publish in order to be “the ideal professor,” creating a hegemonic or dominant discourse as the accepted worldview. Some of the most important assumptions that have established the common-sense are: (a) excellence is outside the country, (b) peer citation is the only acceptable standard of excellence, (c) English is the dominant language, and (d) SJR and JIF are the most important measurements. These assumptions were initially introduced with the first policy, *Quality of National Publications Policy*, and reinforced by the *Faculty Promotion and Research Groups and Researchers’ Classifications* policies. The created common sense is part of the process of the internationalization of journals in the Latin American context, which was based on the inclusion of national journals in the WoS and/or Scopus databases (Alperin & Rozemblum, 2017). Internationalization was a natural process in the Global North (e.g., the U.S and Europe) due to the high representation of their journals in the WoS and/or Scopus databases (Alperin & Rozemblum, 2017). In contrast, in different countries of Latin America, such as Colombia, internationalization has been at a high cost to the Latin American journals and the open-access model (Alperin & Rozemblum, 2017). For example, as a result of the *Quality of National Publications Policy*, Colombian journals have decreased from ~500 to ~240 (more than 40%) and only 13 of them were classified as Q1 and Q2 in 2018 (Minciencias, 2020).

### **Research Activities with Profit Orientation as a Social Practice**

*Research Groups and Researchers’ Classifications* and *Spin-off* policies also promoted research activities with profit orientation such as spin-off activities as social

practices. Research groups, having been consolidated as a social structure within Colombian universities, include different types of profit-oriented research activities as part of “the ideal professor.” The hegemonic discourse embedded in the *Research Groups and Researchers’ Classifications Policy* established a narrative that serves as a roadmap for research groups to achieve the highest rank. The roadmap mainly values publishing and patenting, and favoring productive academics who belong to fields closer to the market over those less productive academics (but with a valuable work), especially affiliated to fields with social orientation. Finally, *Spin-off Policy* promoted professors’ engagement in academic capitalism, and introduced the creation of spin-off companies as a social practice. Once a spin-off company is working, it becomes in a social structure, in which social practices occur. The hegemonic discourse was based on the privatization of knowledge and the inclusion of the profit motive into academia in order to maximize the commercial potential of knowledge. In other words, this policy solidified the prominence of the academic capitalist regime.

Publishing and research activities with profit orientation are social practices that are embedded in the academic capitalist regime that influence professors’ work. For these social practices, professors are seen as rational maximizers who can engage in market activities as capitalists. However, the actions and perceptions of not only full-time professors, but also contingent faculty, women faculty, administrators, journal editors, and graduate, and undergraduate students are critical to the successful implementation of research policies and the legitimation of the embedded discourse. In this vein, the next chapter explores how Colombian professors implement national research policies by translating them into actions, and how do professors’ actions (e.g., work-life balance,

distribution of time) promote, justify, normalize, and/or resist the academic capitalist regime and its neoliberal roots.



Table 8. *Summary of the First Research Question.*

*How do the national research policies that shape professors' work promote, normalize, and justify the academic capitalist regime and its neoliberal roots?*

<b>National Research Policy</b>	<b>The Academic Capitalist Knowledge Regime</b>	<b>Neoliberal Roots</b>	<b>Justification</b> (rationale) Why the policies introduce the academic capitalist regime and neoliberal roots	<b>Promotion</b> (actions) What are the actions established by the policies that introduce the academic capitalist regime and neoliberal roots	<b>Normalization</b> (accepted world view) Assumptions about the right, normal or desirable derived from the academic capitalist regime and its neoliberal roots
First policy: Quality of national publications	<ul style="list-style-type: none"> <li>- Formal introduction of the commercial for-profit model of academic publishing</li> <li>- Bibliometrics (JIF/SJR) as social technologies.</li> </ul>	<ul style="list-style-type: none"> <li>- The introduction of competition in order to increase the productivity of publications with “quality” or with “high impact.”</li> <li>- The role of state as the mediator for the proper functioning of the academic publishing market.</li> <li>- The role of editors as the only individuals responsible for the quality of the journal.</li> </ul>	<ul style="list-style-type: none"> <li>- Low quality of national journals due to editorial management problems and low impact and international visibility.</li> <li>- Low level of preparedness of editors.</li> </ul>	<ul style="list-style-type: none"> <li>- The creation of the latest model of classification of national academic journals, aligning the international JIF/SJR quartile rankings and the national Publindex: A1=Q1, A2=Q2, B=Q3, and C=Q4</li> </ul>	<ul style="list-style-type: none"> <li>- Editors are responsible for the quality of national journals and Colciencias/Minciencias is the mediator</li> <li>- Peers citation as the only acceptable standard of excellence.</li> <li>- The excellence in research is outside of the Country.</li> <li>- SJR and JIF are the most important measurements.</li> <li>- English is the dominant language of publishing.</li> <li>- Copyrights and barriers to accessing knowledge are the cost of prestige.</li> </ul>
Second policy: Faculty promotion policy	<ul style="list-style-type: none"> <li>- Formal introduction of the commercial for-profit model of academic publishing</li> <li>- Bibliometrics (JIF/SJR) as social technologies.</li> <li>- Market behavior through patents in order to bring inventions to the market and to gain prestige.</li> </ul>	<ul style="list-style-type: none"> <li>- Individuals as rational maximizer.</li> </ul>	<ul style="list-style-type: none"> <li>- The introduction of the research university model.</li> <li>- The increasing faculty labor costs.</li> </ul>	<ul style="list-style-type: none"> <li>- Salary increases are linked to publications.</li> <li>- The attempt to promote patents.</li> </ul>	<ul style="list-style-type: none"> <li>- Professors are rational maximizer.</li> <li>- Research (publishing) is more valued than teaching.</li> </ul>

National Research Policy	The Academic Capitalist Knowledge Regime	Neoliberal Roots	Justification (rationale) Why the policies introduce the academic capitalist regime and neoliberal roots	Promotion (actions) What are the actions established by the policies that introduce the academic capitalist regime and neoliberal roots	Normalization (accepted world view) Assumptions about the right, normal or desirable derived from the academic capitalist regime and its neoliberal roots
Third policy: Research groups and research classification	<ul style="list-style-type: none"> <li>- The measurement models as social technologies.</li> <li>- The promotion of market behaviors.</li> <li>- The promotion of market-like behaviors and the prestige economy.</li> <li>- The incorporation of research groups as interstitial organizations</li> <li>- the academic capitalist time regime</li> <li>- The incorporation of extended managerial capacity.</li> <li>- Formal introduction of the commercial for-profit model of academic publishing</li> <li>- Bibliometrics (JIF/SJR) as social technologies.</li> </ul>	<ul style="list-style-type: none"> <li>- Individual as equally competent and competitive entrepreneur</li> <li>- Tenets: competition, efficiency and productivity.</li> <li>- Accountability</li> </ul>	<ul style="list-style-type: none"> <li>- Initially the necessity to estimate the scientific community and later the necessity to control the conduct and choices of research groups and researchers.</li> </ul>	<ul style="list-style-type: none"> <li>- The calls for research groups</li> <li>- The creation of two measurement models to assess and rank research groups and researcher.</li> </ul>	<ul style="list-style-type: none"> <li>- It is important to be efficient and not to waste time.</li> <li>- Research (publishing and commercial products) is more valued than teaching.</li> <li>- Science, technology and engineering are the most important fields.</li> <li>- Research groups are essential academic units.</li> <li>- It is necessary to strengthen the administrative capacity.</li> </ul>
Fourth policy: Spin-off policy	<ul style="list-style-type: none"> <li>- The promotion of market behaviors</li> <li>- The incorporation of extended managerial capacity.</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge should be privatized to have economic growth.</li> <li>- Individuals as rational maximizer.</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge should be a private good.</li> <li>- Spin-off companies can contribute to the economic growth</li> <li>- Professors can act as capitalists.</li> </ul>	<ul style="list-style-type: none"> <li>- The creation of technology-based companies (Spin-offs)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge should be a private good.</li> <li>- Spin-off companies can contribute to the economic growth</li> <li>- Professors can act as capitalists.</li> </ul>

## **Chapter 6: The Academic Capitalist Regime and Professors**

This chapter focuses on professors as the “users” of policies and active agents (Gonzales, 2012; Slaughter & Rhoades, 2008). According to the theory of academic capitalism, professors are seen as key individuals with agency who play a vital role in the success (or failure) of the presented national research policies (See Chapter 5). While academic capitalism impacts the everyday practices of academics (Collyer, 2015), the reverse is also true; academics’ actions of conformity and resistance affect the academic capitalist regime (e.g., Collyer, 2015; Slaughter & Rhoades, 2004; Walker, 2009). In other words, professors can promote, justify, normalize, and/or resist the discourses related to the academic capitalist regime and its neoliberal roots that have been introduced through policies. Professors affect the policy process through their actions, at times, generating tension between the academic capitalist and public good regimes (Johnson, 2017; Mendoza & Berger, 2008; Mendoza et al., 2012; Szelényi & Bresonis, 2014). However, professors can have different degrees of ability to interpret policies and act upon them because they are influenced by contextual factors regarding level of funding and prestige of the institution (Collyer, 2015; Levin & Aliyeva, 2015; Mendoza et al., 2012), field of specialization and academic department characteristics (Campbell & O’Meara, 2014; Rosinger, Taylor, Coco, et al., 2016). The differences among professors (e.g., unit-level conditions, agency, gender, types of higher education institutions, countries) have been less addressed in the literature on academic capitalism (Collyer, 2015; Metcalfe & Slaughter, 2008). This chapter attempts to address this gap in the literature.

As a reminder, to cover different fields of knowledge, I selected two academic departments to study in the context of one public university in Colombia. The first one,

electrical engineering which is closer to the market, and the second one, anthropology, which is further away from the market. To understand professor's interactions with policy and the academic capitalist regime, I explore these two research questions:

- a) How do Colombian professors implement national research policies by translating them into actions?
- b) How do professors' actions promote, justify, normalize, and/or resist the academic capitalist knowledge regime and its neoliberal roots?

To answer these questions, I conducted an intrinsic multicas e research design (Stake, 2006), in which every professor was considered a case or "a complex entity located in its own situation" (Stake, 2006, p.12). In this way, the four professors, as cases, were analyzed as individual entities who were embedded in their own academic department, university, and the selected national research policies: *Quality of National Publications*, *Faculty Promotion*, *Research Groups and Researchers' Classifications*, and *Spin-off*. The analysis of professors' actions was based on the four orientations: (a) tactical orientation or how the work is done; (b) political orientation, or what should be accomplished or achieved; (c) moral orientation or why engage in particular forms of work), and (d) personal orientation or who am I and who I do want to become (Räsänen, 2009, 2014). The analysis of the academic capitalist regime and its neoliberal roots was based on Critical Discourse Analysis (CDA) (Fairclough, 2018).

The chapter is divided in three sections. After a general introduction to the departmental contexts, the first two major sub-sections present two cases for each academic department. In each case, I analyzed professors' activities and decisions carried out. Each professor is a policy agent, or individual who make choices for particular policies (Dorner, 2012). Through the analysis, I explain how each professor was implementing the national

research policies through their actions. In the third section, I present all the cases together to examine the quintain, which is the phenomenon to be studied (Stake, 2006). The quintain for this research is the academic capitalist regime and its neoliberal roots. Particularly, I analyze the quintain to explore how these professors' actions, especially actions linked to the selected national research policies, promote, normalize, justify, and/or resist the academic capitalist regime and its neoliberal roots.

As shown in the following sections, this analysis demonstrated that professors' actions were responding to measurement models, the academic journal market, the market-like behavior (i.e., competition for external funds) and the prestige economy as the manifestations of the academic capitalist regime and its neoliberal roots. The analysis also confirmed the importance of including the heterogeneity among professors, especially those from fields of knowledge that are not as involved in market activities. One important characteristic of the academic capitalist regime is the inclusion of market behavior (or the inclusion of profit motive) among professors. However, regardless of the area of knowledge, none of these professors intentionally incorporated the market behavior into their daily work. In contrast, two of the professors, one in each field, developed prestige behavior associated with publication outlets. This suggests the need to consider prestige behavior in the theory of the academic capitalist regime.

### **Professors' Actions in the Electrical Engineering Department**

The electrical engineering department is an applied field with close connections to commercial products and collaboration with industry. In fact, the department benefits from the energy industry, as it is one of the strategic areas in Colombian general legislation and Conpes (e.g., DNP, 2009). However, this department has unique characteristics that contribute to understanding the microenvironment where these professors work. Before

describing two cases, this section provides a historical and contextual overview of the department, specifically describing collegiality and the foundation and liquidation of the spin-off company.

### **Context of the Electrical Engineering Department**

This department, comprised of 13 professors, was shaped by Professor Brito's leadership and experiences. Professor Mariano Brito was part of the academic department from 1981 to 2006, when he retired. Although Professor Brito retired to enable access to a new generation of academics, he was involved in the department until 2017. During his time as a professor, he held the position of director and founder of the most important and well-recognized research group of the department. Later, he was one of the leaders and founders of the first spin-off company in the university. He was interviewed as part of the context, but most importantly, his name, lessons, and experiences were repeated many times throughout data collection. He has been a model of scholarship and personal kindness. Especially, he served as a model for his colleagues of what a professor should do and should not do. For this reason, he is mentioned at different times in the analysis.

In addition to the legacy of Professor Brito, the department chair, Professor Pablo Fernandez, cared about the wellbeing of professors. Instead of putting pressure on professors' workload, Pablo was focused on finding a work-life balance for professors. In his words, "I sit down with them and talk about finding ways to fulfill their academic responsibilities that they feel good about (in harmony) with their personal lives" [*Yo me siento y hablo con ellos y más buscando que estén bien (en armonía) como para poder responder en lo académico*]. For Professor Fernandez, one of his roles as a department chair is to advise each professor to not exceed the expected limit of 900 work hours each semester (40 hours a week for 22.5 weeks) because some professors can even work up

1,600 hours each semester. According to the department chair, each professor has to teach three classes every semester, when they are only dedicated to teaching. For those who have research projects or consultancies, the department chair and the professor negotiate the number of classes (two, one, or none) that will be taught. As the department chair explained, it is very often that professors in this department participate in many projects or different research activities, however, they do not want to quit teaching, especially undergraduate classes. This was really surprising to him because usually professors prefer research over teaching due to the salary points. This atypical characteristic was not only explained by Professor Fernandez, but it was also described by the rest of research participants.

All but one of professors were part of the most important research group of the department, which was created in 1996. Since 2008, this group has had the highest classification in Colciencias/Minciencias (A1). The professor who was not part of that group did not get along with the rest of professors and decided to create another research group in 2011. Except for this professor, who was mentioned in all interviews and was not a research participant, this group of professors was united, having built good relationships (even as close friends), supporting each other. Collaboration and collegiality were considered the main characteristics of their working environment. Professor Fernandez highlighted the good relationships among professors as another atypical distinction, which was also confirmed by the rest of research participants.

Another significant characteristic for this academic department was the creation and liquidation of a spin-off company. It is worth recalling that spin-off companies are based on knowledge production derived from higher education institutions' research activities, and protected by intellectual property rights (CRC, 2017). Even though Professor Brito was

already retired, he led the organization and implementation of the first and only spin-off company within the department (and the first within the university). Professor Brito always had the idea of the importance to link academia and industry, but he did not initially know the concept of “spin-off.” He tried to incorporate business plans since 2003, but it was not until 2008, when he got internal and external support that he was able to establish the first spin-off company. Finally, in 2010, Professor Brito, along with a group of professors affiliated to most important research group of the department, founded the first legally sanctioned spin-off company. Although the president of the university supported the creation of spin-off companies and the university’s strategic plan included the goal of creating spin-off companies, several academics and administrative staff expressed concerns, creating tensions and challenges to implement and operationalize this spin-off. Additionally, as this was the first time that the university was establishing a company, there were many legal barriers due to lack of knowledge in this area. For Professor Mariano Brito, being a retired professor had important advantages. First, he was able to avoid legal problems that an active professor might have had to face, and second, he had steady income that reduced uncertainty and risk.

Operationally, in 2011, this spin-off company received an initial investment (~110,000 USD), which was based on a combination of public and private funds. In this way, it was possible to start operations in the market. The spin-off company did not offer basic services nor very advanced ones, but rather services in between, so it did not rely on continuous researcher engagement. However, they tried to offer some complex services, which required a certain level of expertise, but not applied research. Undergraduate students represented the main workforce at this spin-off company. The team also consisted of an engineering who was not an active researcher, Professor Mariano Brito, who was the



only person dedicated to the company full-time; other colleagues sometimes participated without any payment. Later, a full-time administrative assistant joined the working group. According to Professor Brito, in addition to the services they offered, they aimed to participate to highly competitive consultancies. However, this was very difficult, and they only could sell services the first years. In 2014, the spin-off company finally got its first important consultancy project with a large company; however, this company wanted to contract with the university rather than the spin-off due to the lack to experience in the market. The spin-off team members learned how to navigate both the market and the legal issues with the university, but they still remained financially weak. Due to the initial investment, they were able to financially survive until 2013. This spin-off stopped working in 2017, and due to managerial decisions, Professor Brito had to sell his shares to the university. At the time my fieldwork, the university had legal control of this spin-off and it was listed as an active company on the University's website.

To sum up, this electrical engineering department is part of the selected Colombian public university that has supported the creation of knowledge as private good, which is aligned with the academic capitalist regime. This academic department provided a clear example of the university and professors' efforts and challenges in this regard. These efforts, the national research policies (See Chapter 5), and the caring and friendly environment within the academic department create the context where professors work. The following presents the experiences, perceptions and actions of the two professors who represent the cases for this academic department.

### **First Case: Professor Cristina Marin, Dealing with Gender Inequity**

Professor Cristina Marin (hereafter referred as Cristina) is the only full-time woman faculty member in this academic department. She saw herself as an early career academic

woman, in her mid-30s, who in recent years endured two difficult life events: divorce and a breast cancer diagnosis. By the time of the interviews, she had recently finished cancer treatment and lived alone with her 4-year-old son. Her academic life and the decisions she made have been shaped by her personal history and life events, as well as by her academic department and colleagues, the university, and the national research policies. Cristina's actions related to her academic life and their rationale, logic, or orientation are described in the narrative that follows and are summarized afterwards in Table 9 (see page 171).

After graduating from college, Cristina started her academic and professional life as part of a research group in another university. In 2005, she began to work in her current academic department as an “occasional professor” [*profesor occasional*]. This was a non-permanent position that could be renewed every year and had fewer benefits than permanent contracts. In 2010, she participated in a merit-based competition in the academic department and finally got a full-time position with a permanent contract. Being a professor and most importantly being an instructor was part of Cristina's identity. In her words, “I love being a professor, and what I like best, what I enjoy most is teaching” [*Me encanta ser profesora y lo que más me gusta, lo que más disfruto es dar las clases*]. However, having job stability was essential for her. At the time she got the full-time position, she only held a master's degree, but the university had created a policy to support doctoral education for professors. The support consisted of maintaining the full-time position and salary. Through this support, she was able to complete a doctoral program outside of the country from 2012 to 2017. As a risk averse woman, if she had not had the institutional support for pursuing a doctoral degree, she would not have started a Ph.D. program.

During her doctoral studies, she had a baby, and she had different priorities rather engaging in academic competition. Once she finished her doctoral studies and returned in

2017, she did not see her dissertation as publishable nor she was interested in publishing, despite her colleagues' helping spirit and pressure to engage in publications. She saw her colleagues as great people both personally and professionally. However, she also considered some of her colleagues highly competitive, and that they thought that all professors should engage in the same dynamic. She did not identify with their behavior, mainly because she always had to pay attention to other life events. She said, "good for them (her colleagues) ...but sometimes I feel a lot of pressure from them" [*Bacano por ellos (sus colegas) ...pero algunas veces presionan como mucho*]; later she explained why she did not have the same academic productivity as her men colleagues.

I thought... "I had a baby. I finished my Ph.D. Give me some time; give me a chance to get reestablished," because for them (men professors), it's easier to sit down, focus on their work, write, and publish. I don't mean to be making excuses, but we as women have an additional burden. [*Yo pensaba... 'tuve un bebé, termine el doctorado, dame una espera, dame un chance a que yo pueda nuevamente engancharme', porque, es que pa ellos (los compañeros hombres) es fácil, sentarse y dedicarse a su trabajo, producir publicar, pero bueno, no son excusas ni nada, pero si hay como una carga adicional para nosotras*].

Her narrative shows how she experienced gender disparities. For example, she needed more time and emotional support to achieve the same academic productivity of her men colleagues. In addition to the pressure for publishing, she was dealing with the process of getting divorced, which reflects the non-linear life trajectories people experience (e.g., divorce or re-marriage) that can influence their professional development.

Based on her own initiative, her first activity was to improve the condition of one of the laboratories. Rather than getting involved in research activities or focusing on academic

publications, she put all her efforts into a laboratory related to her field of expertise. She purchased new equipment and redesigned the lab. Cristina was very excited about it, as she described, “it was a wonderful project, because I love working there (in the lab), with students” [*Pues fue un trabajo maravilloso, porque a mí me encanta trabajar ahí, con los muchachos*].

However, one month after the reinauguration of the laboratory, on May 5<sup>th</sup>, 2018, she received the breast cancer diagnosis. She said to her mother, “With this happening now, I feel like I have everything and at the same time nothing. It’s like they pulled the rug from under my feet again” [*En este momento que yo me siento como que tengo todo, no tengo nada realmente, o sea otra vez me quitaron, pues me quitaron el piso nuevamente*]. She immediately started chemotherapy, then she had surgery, and finally she had radiotherapy. She responded with the spirit of a fighter and received great support from her colleagues, department chair, administrative assistants, and even from the dean of the College of Engineering. She was grateful for the support and said, “if I loved this university before, now I love it even more” [*Si yo quería la Universidad, ahora mucho más*].

Facing the disease, Cristina explained how she continued working, with fewer responsibilities, to restore equilibrium as part of her response to this difficult life event. In her words, “I really wanted to do that (continuing to work) because that is essential for me, I enjoy it. Working is not a burden for me” [*Lo quería hacer (continuar trabajando) porque eso es vital para mí, o sea me gusta, el trabajo no es una carga para mí*]. Two months before the interviews, she had finished breast cancer treatment and she was trying to re-establish her academic life, but she was dealing with teaching, working, and parenting now during pandemic. She had to work, while at the same time, she had to take care of her young child at home without any help. She explained: “I feel like my life is so busy,

because I have to work with my son here next to me” [*Me siento como demasiado llena con tantas cosas, porque no es lo mismo... yo tengo que trabajar con mi hijo aquí al lado*]. And she explained how this is an example of the additional burden that women can have.

Currently, at the time of the interviews, Cristina was teaching two classes and oversaw the international accreditation of the academic program. She felt that she was learning new things about higher education through the accreditation process and she also felt positive about her future. Her experiences in accreditation made her think about the future possibility of an administrative career rather than an academic career. As part of her personal history and experiences, Cristina explained how she, as a recipient of national research policies, translated these policies into actions and future intentions.

**First policy: Quality of National Publications.** At the time of the interview, Cristina was not dedicated to research. In the past, her mentors and advisors guided her in selecting where to publish because, for her, the academic publishing world was very complex. She was also not aware of the changes in *Quality of National Publications Policy*, and its relationship with *Faculty Promotion, Research Groups and Researchers’ Classifications* policies.

**Second Policy: Faculty Promotion for Public Universities.** At the time of our interviews, Cristina had not done anything related to promotion, and she did not even know her academic rank (assistant, associate or titular professor). However, she considered the promotion process important because it is a way to improve salary level. Although her activities were focused on teaching and services that were less privileged in terms of academic rewards, she agreed with how this policy put academic productivity at the center and linked salary increases to publications. In this respect, she stated “I think the idea (linking salary increase to publications) is great because it is a way to incentivize research”

*[A mí me parece genial (el vínculo entre el salario y las publicaciones) porque también es una manera de incentivar la investigación].* Cristina was confident that she will apply for the promotion process as soon as she has the time. Her colleagues, and especially her mentor (a professor in her academic department) explained to her the requirements for the promotion process and encouraged her to try. In her narrative, she noticed the difference between colleagues' support for getting promoted and colleagues' pressure to publish as presented above: "They (her colleagues) mention it (the promotion process) like 'Hey, you could do this,' ... but it's not like they're pressuring you, unlike when some colleagues who are very active with publications say: 'So, how are things going with your publications?' in a way that does bothers me" *[Lo mencionan (el proceso de promoción) como 've, ya tu podrías' ... pero no es así como una presión, como si pasa de pronto con algunos que son como muy activos en las publicaciones: Ve, ¿cómo vas con la publicación? ese sí me incomoda].*

**Third Policy: Research Groups and Researchers' Classifications.** Cristina saw herself as an outsider in relation to the research group, because even though she was part of the research group, she was not an active participant. In her opinion, there was a collaborative environment among the active research participants. However, she did not feel part of this highly competitive group, and, instead, she felt behind her men colleagues, because she was not working under the same conditions. In her words,

Well, if I were a high ranked faculty, I would love it (the policy), but I am not, and this bothers me, because we are not really in the same situation, I mean being a woman, being a mom, having experienced everything I have since I came back from (the place where she finished the Ph.D), all of this made me lag behind them

*[Bueno, si yo estuviera catalogada súper bien me encantaría, pero como no lo estoy*

*me genera como una molestia, cierto, porque, pues realmente no estamos todos en las mismas condiciones, o sea, el hecho de ser mujer, de ser mamá, de haber pasado por todo lo que he pasado desde que llegué (del lugar donde terminó el doctorado), eso ha hecho que me quede como un poco a tras de todos ellos].*

In this context, Cristina's response showed acceptance of the policy, but she was resigned to the idea that researchers' classification was not for her, and not for her capacities, but for favored men colleagues and the unequal conditions between them and her.

Additionally, she was not interested in meeting the requirements to be ranked as a researcher because of the extra effort and time that it would take. After surviving breast cancer, she wanted to move on with her life in a direction that was not aligned with *Research Groups and Researchers' Classifications Policy*. She wanted to engage in activities in which she could have more free time, especially with her son. For example, because she considered the link between university and industry as fundamental, she has sought permanent contact with firms. In fact, along with other colleagues, she created a certificate enriched by practical training with some companies and companies' experiences. She was aware of the fact that she would not immediately get a promotion nor a higher salary through her teaching, redesigning the laboratory, or creating the certificate. In her words "I do this by choice, but I do so with great pleasure, because this is gratifying for me, this is my personal fulfillment, I love this and this makes me happy" [*Yo lo hago por elección, pero lo hago con gusto, porque me eso me da satisfacción a mí...es una satisfacción mía, cierto, o sea es algo que yo me llevo, que me encanta que me hace muy feliz*].

**Fourth Policy: Spin-off.** Cristina thought that the spin-off company created in her academic department was a great idea, a good initiative. However, putting the spin-off into

practice was a very complex process. She remembered that they had numerous problems and the spin-off company went bankrupt. In the future, she would support the creation of another spin-off in the department, but she was not interested in leading this kind of initiative because she saw herself as a “pure professor” [*profesora neta*] who is dedicated to teaching and research, but without commercial, administrative, or legal knowledge to embark on this kind of project. In fact, she mentioned several times, “we don’t know about it.” [*es que nosotros no sabemos*]. Also, she did not believe that any of her colleagues would be interested in leading a new spin-off because it would require a lot of work, especially bureaucratic work.

Analyzing Cristina’s actions, the orientation of her actions, and especially her actions related to the national research policies in consideration, it is possible to see that her identity, motives, and goals have not been related to the policies’ guidelines and desired goals. She described herself as a “pure professor” who supported the link between academy and industry, but she did not have the intention to engage in entrepreneurial activities. She also saw herself as a woman faculty member and a mother with caretaking responsibilities, and she did not want to sacrifice her free time to be a high ranked researcher. Her goals were focused on having a well-equipped laboratory, preparing herself for an administrative profile, and offering quality education for her students. Although at the time of the interviews Cristina was not participating in research activities, she planned to get involved in research, to get promoted, and to offer an academic certificate that involves companies (see Table 9).



Table 9. *Professor Cristina Marin's Actions, Orientation and Concretization of the Actions and National Research-Related Policies*

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
In a merit-based competition, applied for a full-time position with permanent contract	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Becoming a full-time professor	Slightly related to <i>Faculty Promotion Policy</i>
Pursued a doctoral degree	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Becoming a full-time professor	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Finished a decent dissertation rather than a competitive dissertation	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: Holding a PhD	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Focused on other activities (teaching and improving the condition of the laboratory) rather than publishing	Political orientation ( <i>What to accomplish and achieve?</i> )	Goals: Having a good laboratory, especially for her students and Offering to students a good preparation	Related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Continued working as a professor despite receiving treatment for cancer.	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Coping strategy, having a will to live	Not related
Not to engage in academic research	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a female faculty member and a mother, caretaking responsibilities	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Be in charge of the accreditation process	Moral orientation ( <i>Why engage in particular forms of work?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Motive: Learning new things beyond her specific field of specialization  Goal: Having an administrative profile	Not related
Apply (in the future) to the promotion process	Moral orientation ( <i>Why engage in particular forms of work?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Motive and Goal: Having a better salary	Related to: <i>Faculty Promotion Policy</i>

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
Participate (in the future in research activities)	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a researcher	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Be part of the research group without making efforts to be part of researchers' classification	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Having free time	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Created an academic certificate that involves companies	Tactical orientation ( <i>How to do the work?</i> )	Means: Linking university and companies	Not related
Not to create or lead a spin-off company	Personal orientation ( <i>who am I? or who do I want to become?</i> )	Identity: Being a "pure professor"	Related to: <i>Spin-off Policy</i>

Note: Analysis based on Räsänen's (2014).

## **Second Case: Professor Sebastian Ospina, Building the Chain of Knowledge**

### **Production**

Professor Sebastian Ospina's (hereafter referred to as Sebastian) life history is successful in terms of the construction of "the ideal professor," which has been created, in part, through national research policies' discourses, guidelines and goals. He was very young when he became a university professor. Six months after he finished his undergraduate program, he applied and got accepted to a university program that hired young professors who were committed to study a Ph.D. program. Thanks to this program, Sebastian became a full-time professor with a permanent contract in the same public university and academic department where he did his university studies. He was convinced that he wanted to be a university professor because he worked in different companies as an undergraduate student and quickly realized that industry jobs become monotonous. He saw that an academic life could feed his curiosity and desire to be a lifelong learner. For this reason, and despite receiving a job offer with a higher salary, he decided to pursue an academic life. Regarding this decision he reflected "I said to myself 'I want to stay at the

university and I'm going to earn ten times less, but I'm going to stay.' This is what I decided, and I think I made the right choice" [*Dije 'me quiero quedar en la universidad voy a ganar 10 veces menos, pero, me voy a quedar y ya.' Eso fue lo que decidí y creo que tome la mejor decisión*].

Like for the seamless process of becoming professor, Sebastian's success in academia has been nurtured from different sources. In the following paragraphs, I present Sebastian's sources of success, as well as actions and motivations. Then I summarize his actions and orientations in Table 10 (see page 189).

To begin, Sebastian's personal qualities and boundaries between professional and personal life have helped him to achieve his academic goals. Sebastian is polite and unassuming, and at the same time, extremely organized and collaborative. For example, unlike other research participants, when I invited him to be part of the study, he responded promptly, and we easily organized a routine for the meetings, at the same time, day, and duration each week. While I noticed these personal characteristics, his narrative and actions showed how these characteristics were consistent with his productive approach to academic life.

Sebastian maintained clear boundaries between personal and professional life, as well as within his professional life. That helped him to be productive, without sacrificing his family and personal life. He recalled how Professor Mariano Brito taught him the idea of working without pause or boundaries. However, he saw another option: "But, that life of (Mariano) was a life of slavery...we stayed until 8:00 p.m. or 9:00 p.m. working with him...at that time I was very young, but now I'm older, I say 'No, I have a life and I'm not going to sacrifice so much'" [*Pero, esa vida de (Mariano) es una vida de esclavitud...porque nosotros nos quedábamos ahí con el trabajando... en su momento*

*cuando estaba chiquitico, pero ahorita grande uno dice 'No, yo tengo vida, yo no me voy a sacrificar tanto']*.

At the professional level, he clearly defined which activities are the most important for him. He saw himself as a researcher and tried to stay focused on his research goal. He tried to avoid activities that are not directly related to his research goals. In this sense, he mentioned several times “I delegate,” “I won’t do this,” “this activity does not contribute to what I want as a researcher,” showing that he thinks strategically, knows what he wants and is in control of his academic goals.

At the family or personal level, he explained how he needed to structure his time without mixing his family and academic life. He said “I am very organized...and I work from 7:00 a.m. to 5:00 p.m. and after that I go home and from that moment on my time is dedicated to my family” *[Yo soy muy organizado...y entonces cumpla jornada laboral de 7:00 de la mañana a 5:00 de la tarde, y a partir de las 5:00 de la tarde pues ya me voy para mi casa y entonces a partir de ese momento pues el tiempo es para mi familia]*.

Sebastian’s academic productivity has been enriched through good relationships with his colleagues and the department chair. He learned from his professors who were also mentors, and later peers how to respectfully and warmly interact with his colleagues and students without the influence of ego and by knowing people's individualities and personal interests. In his words, the key is “to handle things with respect and know that all of us are different in some way, and that I can publish a paper with one person while I can think about how to improve classes with another person, because there are so many possibilities” *[Manejar las cosas con respeto, y saber que todos somos diferentes de algún modo, y que puedo digamos con una persona puedo publicar un artículo mientras que con y persona puedo jugar más bien a mejorar las clases porque hay un montón de posibilidades]*.

Moreover, the department chair's care-oriented leadership allowed Sebastian to pursue his research goals most effectively. Although Sebastian's main faculty work role was research, he used to teach two classes regardless of the amount of research activities he had. The department chair, Professor Pablo Fernandez, advised him to only teach one class in order to avoid burn out. He shared the conversation with the department chair: "(Pablo) told me (Sebastian): 'I have seen that you are working very hard, I'm going to remove another course from your workload' " [(Pablo) me dijo (Sebastian): '*Te veo trabajando mucho, te voy a liberar de otro curso*'], and then added "but tomorrow if (Pablo) has a problem...I would teach the class again because I know we work as a solid team" [*pero el día de mañana si (Pablo) tiene algún problema...yo vuelvo a coger el curso porque yo sé que, nosotros lo manejamos como un equipo de trabajo muy sólido*]. Sebastian's good relationships and his cooperative and team spirit showed how he had created a collaborative work environment that, without intending to, helped him to build his academic productivity.

At the time of the study, Sebastian dedicated 70% of his time to research and he was the only professor who taught one class. His main research activities were carrying out research projects, writing academic papers, seeking funding, coordinating the research group, and advising students' thesis and doctoral dissertations. He strategically organized his activities, including teaching, to pursue his research goals most effectively. For example, he linked teaching and research. The class he taught was highly related to his line of research and allowed him to identify students with research potential early in their college careers. Later, he normally included the identified students in research projects and encouraged them to continue into graduate education. Sebastian explained his process of recruitment of potential students through his class: "Thanks to this undergraduate class, I

can identify students for my research activities, I am able to have a pipeline of students as they move from freshman [sic.] to senior year” [*Gracias a ese curso de pregrado, pues yo ahí tomo los muchachos para investigar cierto. Yo logro una cadena completa de suministro de estudiantes de pequeñitos a grandes*]. Then he added “from 30 students I can recruit two at most, not that many, but it’s enough for me. And I think it’s a good proportion because the most people should not become researchers, but rather should work in industry” [*De 30 estudiantes saldrán 2 por semestre si muchos, no son muchos, pero son suficientes para mí, y creo que lo que es una proporción buena, porque la mayoría de la gente no debiera dedicarse a investigar, sino más bien a la industria*].

Looking to the future, Sebastian had the personal goal of “becoming stronger as a researcher” [*yo quiero continuar consolidandome*]. His future goal also strengthens his academic productivity. He saw himself with: (a) his own well equipped research laboratory; (b) resources generated through the link between university and companies such as consultancies; and (c) good number of graduate students working on his research initiatives. As presented below, his experiences and goals have also been shaped by the national research policies. Three of four national research policies (*Quality of National Publications, Faculty Promotion, Research Groups and Researchers’ Classifications*) were sources of success and a way to gain “excellence,” as he understood it. The last policy, *Spin-off Policy*, is not aligned with his motivations, actions, and goals.

**First policy: Quality of National Publications.** Sebastian has published a substantial number of papers. He finished his doctoral studies in 2011, and since then, he has accumulated 10 years of experience as a professor. During this decade, he has published more than 70 articles, which means an average of 7 articles per year. Sebastian’s narrative showed that he saw publishing as a way to gain respect from his peers on the

faculty and higher education administrators. He liked that the dean, department chairs, and colleagues know how many publications he has, even though he only needed one academic work product to be promoted to the next rank. In his words “I like that they notice that, for example, to be promoted as a titular professor, you obviously only need to submit one article, but in my academic trajectory over the last 2 years...I published 28 articles” [*A mí sí me gusta que allá, se den cuenta que, por ejemplo, para subir a titular, obviamente uno presenta solamente un trabajo, pero en la trayectoria de los últimos 2 años... yo publique 28 artículos*].

For Sebastian, publishing is an important, if not the most important, activity for his academic career. He extensively described how through publication he can (a) gain respect from peers: “I am interested in gaining respect” [*ganar respeto me interesa*], “that no one looks down at me or disrespects me” [*que no me miren feo o que no me desprecien*]; (b) be seen as a good worker among peers in administrative positions: “I want the dean to see me as special, I want him to know that I’m working hard” [*Me interesa que el decano también lo mire a uno diferente, que el decano sepa pues que uno está trabajando*]; and (c) contribute to university indicators: “For the department chairs or deans, or even the chancellor, publishing is a very good indicator, they love when you have these kinds of numbers because they can show off the university” [*Para ellos como jefes o decanos, o hasta para el rector, que uno publique, pues eso es un indicador muy bueno a ellos les encanta, que uno tenga esos números, pues que ellos puedan mostrar la universidad*]. Sebastian wanted to be seen as a productive researcher; he had internalized that the constant creation of academic products, especially publications is very important.

Publishing is at the center of Sebastian’s academic life. For this reason, Sebastian also had sources of success that have helped him achieve his publications goals. I identified

five sources of success and actions related to publishing: (a) advisor's encouragement and personal motivation, (b) balance between research projects and students, (c) structured plans for graduate students' academic work, (d) teamwork and openness to new topics, and (e) diversity of journals.

***Advisor's encouragement and personal motivation.*** Since the first semester in his doctoral program, Sebastian began learning how to publish. His advisor, also his instructor, motivated him for the first time. Sebastian related enthusiastically how his advisor said, "Wow, this is really good. Let's publish an article. And that motivates me" [*Uy! eso está muy bueno. Vamos a publicar un artículo, y me motivo*]. Later, he pointed out an issue with another paper his advisor had published, and his advisor responded positively by saying "Well, let's write another article, then" [*Pues, escribamos otro artículo*]. He ended up publishing five articles during his doctoral studies, and reflected on his experience: "The key to publishing so many articles is to have a good tutor with a (publishing) culture, and being a hardworking student like me" [*La combinación de un alumno que saque tantos artículos es primero que tenga un buen tutor y que tenga la cultura (de publicar), y segundo que el estudiante sea intenso como yo*].

However, he considered that publishing is very complex and being curious is important, but it is not enough; it is necessary to have a willingness to learn. In his words, "If I am interested, but I am not familiar with the publishing industry, I won't be able to publish" [*Si yo soy inquieto pero no tengo la cultura de publicar no soy capaz de publicar*] and then he added "but you begin to submit papers and you say 'Yeah, I want this.' It's also the sense of wanting, I want to publish" [*pero uno empieza a mandar y uno dice es que yo quiero, es también querer, yo quiero publicar*]. In this way, after he finished his Ph.D. program and returned to Colombia, it was a difficult and a "gradual process" [*proceso*



*gradual*] for him to figure out the academic publishing world and then to publish in English. He stated “The next step was to publish only in English” [*El siguiente paso fue pasar a escribir solamente en inglés*].

***Proportion of research projects to students.*** Sebastian managed few research projects and limited economic resources because the administrative management of projects is a time-consuming activity that can limit his time for research and academic writing. As he described, “I carry out one project at a time, because, to be honest, it’s draining, very draining” [*Voy ejecutando de a uno porque, la verdad pues, es desgastante, muy desgaste*]. However, his focus was oriented toward getting scholarships for students rather than research grants. In his experience, he noticed, “Human resources are the most expensive part, but it’s MA students that you’re supervising and they’re focused directly on getting results in their research” [*El recurso humano pues es lo más caro, lo más caro que hay, ...pero es un estudiante de maestría que uno dirige y son enfocados directamente como a conseguir resultados de investigación*]. He later concluded “So, I do not have that many projects, but I do have a lot graduate students. That’s the difference...that’s why I can publish more” [*Entonces los proyectos no tengo ese bulto de proyecto, pero si puedo tener un bulto de estudiantes, es como el contraste...pues por eso puedo publicar más*]. This proportion of research projects to students allowed him to focus on research activities and publish more academic papers.

***Structured plans for advisee students.*** Sebastian structured a plan for his students advisees. For example, each master’s student had to divide their work into three parts: literature review, preliminary results, and final results or “the power paper” [*El artículo poderoso*]. Each part had to be finished as a publishable paper, and he helped them do that. He explained that this is an easy way to maintain a high rate of academic publications:

“You can see how easy it is to achieve this (publications rates) with students” [*Ya vas viendo cómo se puede lograr fácilmente con estudiantes*]. In fact, one of his students finished seven publications before graduation. He saw the connection with students as a strategy to increase the number of publications, as he said “This is a way to publish a large amount of academic papers with students. You start surrounding yourself with the right people. Initially, it’s very difficult, but once you can consolidate a group of people you trust...and you can get more results faster” [*Esa es una forma de publicar esa gran cantidad de artículos con estudiantes. Uno se va rodeando de gente. Al principio es más difícil, pero uno ya empieza a consolidar el grupo entonces, ya tiene gente de confianza... y va sacando resultados rápido cierto*]. However, as confirmed in his CV and Google Scholar profile, he made sure that his advisees were the first author, and he was normally the second or third author. He stated, “I appear as the second or third author in most of the papers; I am not interested in being the first” [*Yo aparezco de segundo o de tercero en casi todos porque a mí no me interesa pues como estar de primero*].

***Working team and openness to new topics.*** Sebastian considered that his work team (students and colleagues) was the reason for his high rate of academic publications. When I said, “you have a high number of publications,” he answered “Yes, it is a lot, but I have a good research team and we work well together...this can be achieved with a network” [*Si, es bastante, lo que pasa es que tengo buen equipo de trabajo, y nos va bien...eso se logra es con una red*]. However, an important piece was his openness to new topics. Sebastian described himself as a person who has a great ability to listen and learn. This combination has helped him engage in different research projects with students and colleagues, and even as a co-advisor. He stated, “I always chat with people and we’ve ended up using their ideas to write new articles together” [*Yo siempre he conversado con la gente y hemos sacado*

*productos muy buenos con ideas de ellos]. He later added, “Sometimes you turn into a researcher who has a main line of research, but you also have certain branches” [entonces, uno a veces se vuelve más un investigador que tiene su línea de investigación principal, pero que tienes digamos ciertas ramitas].*

**Diversity of journals.** Sebastian has understood and incorporated the change in the *Quality of National Publications Policy*. The newest classification of the quality of journals through rankings and quartiles that organized journals from highest to lowest, using Q1–Q4. However, he was not only focused on Q1 journals, he diversified his publications on purpose and submitted papers to all types of journals. He said “I diversify: there are products (publications) you can get published in top journals and, others you can’t” [*Yo diversifico: hay productos (publicaciones) que se pueden poner en el Top, hay otros que no*]. One of the reasons was because most of his publications are with students, and he balanced his academic production between the scope of the paper and the skills of the students, and made decisions based on the ranking scheme Q1-Q4. In his words, “I do not care if I publish in Q3 or Q4. With students you have to know what their capacities and possibilities are, and I cannot attempt to publish in Q1” [*No me importa si saco un Q3, Q4, para un alumno porque uno tiene que saber que capacidades tiene o que posibilidades, yo no puedo pretender sacar un Q1*]. However, when he decided to publish in a Q1 journal, he has created a strategy to achieve it. As he explained, “I said, ‘Well this article is a Q1, so we’re going to submit it to a Q1 (journal), and I lay out a strategy to do it’” [*Yo digo, ‘bueno este artículo es un Q1 vamos a tirarlo para Q1 (revista) y le planteó la estrategia súper bacana para lograrlo’*].

**Second Policy: Faculty Promotion for Public Universities.** When I asked Sebastian to reflect upon the promotion process, he seemed very knowledgeable about the

*Faculty Promotion Policy* and in control of the timelines and actions he needed to be promoted. Sebastian began as a candidate in the lowest level of the academic ranking, “assistant instructor candidate” [*profesor auxiliar aspirante*], and he remained at this level for 7 years, while he was doing his doctoral studies. The category “instructor candidate” did not exist and was only created for young professors selected for the university program without experience or studies above the undergraduate level like Sebastian. However, as part of the contract, they must start a Ph.D. program within 2 years, or the employment contract will expire. For this reason, Sebastian began a Ph.D. program. According to his contract, he had to finish in 5 years; he studied outside of the country and finished and returned during the expected time. He did everything on time because he did not want to lose his position as a full-time professor.

After Sebastian finished his Ph.D. program, he was soon classified as an assistant professor. Then, to be promoted to associate professor, as he thoroughly explained, he needed to wait 4 years. After that, he was able to apply for promotion with academic work that needed to be submitted for a peer review, and an oral defense. The oral defense of his academic work was with a committee composed of two evaluators; the department chair, and the assistant to the Vice-Dean. However, because this was a very significant achievement for him, he highlighted how he first selected the best academic publication he had for this process. In his words, “You look for the most powerful article you have, the best one” [*Uno busca el articulo más poderoso que tenga, pues el que mejor sea*].

Sebastian also compared his experience to colleagues’ experience to show why he chose a “power paper” for the promotion process: “I know that there are people who have gotten promoted with very simple things (academic production) compared to mine...the thing is that when you enjoy more complex things, you see it as an honor, that this (the promotion

process) should be with the best that you've got" [*Yo sé que hay gente que ha subido como con cosas más sencillas (producción académica) que con la que yo subí...lo que pasa es que a uno como que le gusta como lo más complejo, ¿cierto?, pero uno lo ve como por honor, esto tiene que ser con lo mejor que uno tenga*]. Along the same line, he prepared an oral defense that included his complete academic trajectory (i.e., papers, projects, students). Finally, even though it is not expected, he invited his friends and parents to his oral defense. In his words:

For me this was an awesome experience, because for many people this is a straightforward process, but I invited my mom, my dad, and all friends to show them what I've done: articles, projects, students. All my academic trajectory... Normally this presentation just included two evaluators ...but I packed the place with friends [*Y para mi pues si fue bacano, porque pues para mucha gente pues algo como muy sencillo, pero yo lleve a mi mamá, a mi papá, a mis amigos para que vieran pues que es lo que yo he hecho, y mostrar los artículos, los proyectos y los estudiantes, toda la trayectoria que tenía hasta el momento...Es que a esa sala que normalmente van los 2 evaluadores ...pero yo llene eso de amigos*].

This quote shows how important the promotion process was to Sebastian. For him, the promotion process represented not just a way of advancing, but even more so a way of showing and celebrating his significant accomplishments, as he said "I see it as a celebration" [*Lo veo como una celebración*] or "(it represents) the satisfaction of doing things well and it is more family-oriented like a graduation ceremony" [*(representa) la satisfacción de hacer las cosa bien, y ahí pues es más familiar como para un grado*].

**Third Policy: Research Groups and Researchers' Classifications.** Many actions of Sebastian's academic life were related to this policy and, for this reason, the information

is divided into two sub-sections, one for research groups and the other for researchers' classifications.

**Research groups.** Sebastian explained that his primary responsibility as a professor was to be the coordinator of the most important and well-recognized research group in his academic department, which was ranked in the highest classification in Colciencias/Minciencias (A1). This research group has around 100 members (students and professors) in total, between 15-20 of them are in his line of research. When Professor Mariano Brito retired, nobody wanted to take the lead on the research group, and, for this reason, he began to lead the research group in the last year of his doctoral studies without completely understanding what his responsibilities would be. As a research group coordinator, he learned how to take advantage of the benefits of being coordinator, to delegate the administrative tasks, to bring financial independence, and to select the kind of work in which research group members can engage. At the time of the interviews, he liked his role as coordinator, and he wanted to stay in this position. He said "At this moment, I think that I like it (being the coordinator) and I wouldn't want to leave this position" [*En este momento pues yo pienso que a mí me gusta y que tampoco lo quisiera dejar*].

Once Sebastian finished his Ph.D. and returned to work, he saw that being the coordinator of the research group had a high administrative burden such as applying to the measurement models guided by *Research Groups and Researchers' Classifications Policy*, but also had advantages such as teaching fewer classes and having economic resources to improve the condition of the laboratories. However, he was not willing to carry out the administrative burden because it would be detrimental to his academic career. Thus, he followed Professor Brito's (the retired professor) work model and hired an administrative assistant to support the workload of the research group. Sebastian explained the importance

of the administrative support for his academic career: “Since I returned from my doctoral studies, I’ve had an administrative assistant, and after 10 years I still have one. And if at some point, we do not have the resources to pay for this position I’ll pay for it myself. I know that losing my administrative assistant would make it hard for me to publish and I am not willing to accept that” *[Desde el primer día que volví del doctorado yo tenía el auxiliar administrativo ahí y después de 10 años todavía lo tengo y digo que, si en algún momento el grupo se queda sin plata porque, porque X o Y motivo, no conseguimos proyectos o lo que sea, yo sacaría de mi dinero... Yo sé que me bloquearía (no podría publicar), y yo no estoy dispuesto a eso].*

Sebastian’s research group normally attracted substantial funds (grants and contracts) for the group and for the individual researchers. For the research group, he distributed resources equitably based on the needs for graduate research assistants and materials. For researchers, he provided autonomy in resource management to have a better working environment and less administrative burden. He explained his idea of autonomy thus: “I think this (the lack of autonomy) creates a bad working atmosphere in other research groups because a professor works hard...and finally gets some funding...For this reason, we have the policy that if a professor gets funds, they have autonomy in how to use them, and I don’t have to worry about it” *[Eso (la falta de autonomía) yo creo que es lo que genera el mal ambiente en otros grupos de investigación porque un profesor se esfuerza... y finalmente, tiene su fondito...entonces, dentro de las políticas que tenemos es que cada profesor consigue sus recursos, pues tiene su autonomía también y eso me libra a mí de tanta cosa].*

Sebastian has tried to guide the activities of the research group toward research rather than less complex services in the industry. Before retiring, Professor Brito separated

the activities that the research group was in charge of from the activities that the spin-off was in charge of. While the spin-off activities did not require research activities, nor high-skilled professionals, the research group activities only focused on research projects (even with companies). For Sebastian, this was a good model because he did not want to participate in activities other than research. In fact, once the spin-off stopped working, he did not want to receive the spin-off's equipment and preferred to keep the separation between research projects and operational procedures with companies. He stated:

After the spin-off ended, the equipment was returned to the university, specifically to the electrical engineering department and not to (the research group)...I want to continue with the initial model with the research projects with outside industries and the electrical engineering department has its professors in charge of providing services to outside industries. *[Después de que la spin-off terminara, los equipos de la spin-off, volvieron a la universidad, y pasaron a manos del departamento de ingeniería eléctrica, y no al (grupo de investigación)...yo quiero seguir con el modelos de continuar con los proyectos que necesite la industria que requieran de investigación y el departamento de eléctrica tiene sus profesores, y personal encargado para prestar servicio a la industria].*

**Researcher' classification.** By contrasting the differences between the promotion and researchers' classification policies, Sebastian explained that the criteria to advance to titular professor in the promotion policy were so much easier than the criteria to advance to senior researcher in the researcher's classification policy. He said "for example, to get promoted to full/titular professor, you need an article and years of experience. However, to advance to senior researcher, you have to have 10 articles in top journals in a certain window of time...so you can be in the highest category in the university (full/titular professor) but the



lowest category at the national level (junior researcher)” *[Por ejemplo, para subir a titular, necesitas un artículo y el tiempo, pero para ser Senior, tienes que tener 10 productos Top, o en una ventana de tiempo.... uno puede ser de máxima categoría en la universidad (profesor titular), pero de mínima categoría en lo que es el tema de a nivel nacional (investigador junior)].*

Each process had a different meaning for him, while the promotion process means honor, the research classification process, like publishing, means respect. Sebastian saw the promotion process as a personal process with an intimate ceremony, and the research classification process as a competition that was based on productivity and winning respect. In his words, being senior “is a platform where you can show off” *[ahí si es como la vitrina donde uno se muestra más].*

At the time of the fieldwork, although Sebastian has had the number of academic publications required to be a senior researcher for some time, he only recently advanced to this classification. In his opinion, becoming a senior researcher in Colciencias/Minciencias was a major challenge *[es un reto mayor]* because it was difficult for him to achieve the number of supervised master's theses (at least four) or doctoral dissertation (at least one) in the last 10 years. In his narrative, he showed that he made a carefully calculated plan to become a senior researcher, as he described: “I reached senior level last year, because I’m telling you, it’s difficult, because it’s not just about the publications, but also the graduate students. In the past, not enough of my students were graduating...so I had to go into overdrive to get more of my students to graduate, and that helped me advance” *[El año subí pasado a Senior porque te digo, que es difícil no solamente son los artículos, si no estudiantes graduados, a mí me faltaban eran los estudiantes graduados...entonces me toco pedalear más duro, para graduar más estudiantes, y entonces subí de categoría].*

Finally, Sebastian highlighted the advantages he has enjoyed as senior researcher such as research funds and graduate students with scholarships “Being senior has the advantage that you can apply to certain grants...(For example) we’re going to give you a scholarship for the student, but the advisor must be senior” [*Ser senior también tiene la ventaja de que uno puede presentarse, a ciertas convocatorias...(Por ejemplo) te vamos a dar una beca para el estudiante, pero el tutor tiene que ser senior*].

**Fourth Policy: Spin-off.** Although Sebastian was aware of the *Spin-off Policy*, he did not think it was worth leading or having a spin-off company. He emphatically said, “Despite the changes (in the Spin-off Policy), I don’t think it’s worth it” [*A pesar de que las cosas han cambiado (la política de spin-off), yo creo que no vale la pena*]. For him, spin-off companies do not mix well with professors’ academic life. Researchers can offer the same services to the industry without that organizational structure. They can work comfortably, generating economic resources for research, graduate students, and labs. In this sense, when asked if he might consider creating a spin-off company in his future plans, he answered, “No, I don’t think so” [*no, no lo veo*]. He explained that a better model might be to help or encourage students to create their own company, but without any direct ties to the university or department. He said: “I think that it is better if students who learn some skills and abilities in the research group then go and create their own private company” [*Yo creería que más bien el estudiante si genera algunas capacidades y habilidades dentro del grupo pues que vaya y forme su empresa privada por fuera*] and concluded “I think that way of doing things is more interesting than mixing professors’ academic life with a spin-off company” [*Yo creo que esa modalidad es más interesante, que mezclar dentro de lo que es el que hacer universitario de un profesor lo que es ya una spin-off*].

Sebastian has had drivers that foster his academic productivity and success. For example, he has had the possibility to allocate his time mainly in research activities (the most rewarding activities) in comparison with his colleagues. His drivers of success along with his actions and personal characteristics connected well with most of the policies' guidelines and desired goals. The orientation of his actions showed how Sebastian saw himself becoming a productive and economically independent professor, researcher, and research group coordinator who is very proud of himself. Rather than creating a spin-off company or other commercial activity, his goals focused on: having economic conditions that allow him to work in a well-equipped lab with graduate students, publishing more academic papers in different journals, but mostly in English, and gaining respect from his academic and administrative peers. These goals are driven by intrinsic motivations, such as learning new topics, and extrinsic motivations, such as gaining respect. To achieve his goals and become the person he wants to be, Sebastian strategically organized his activities, focusing mainly on research and balancing his personal and academic life. From the beginning of the academic program, he identified highly motivated students and he also diversified the quality of the journals where he published (see Table 10).

Table 10. *Professor Sebastian Ospina's Actions, Orientation and Concretization of the Actions and National Research-Related Policies*

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
Applied and got accepted to a university program that hired young professors who were committed to study a Ph.D. program.	Moral orientation ( <i>Why engage in particular forms of work?</i> )  Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Motive: To never stop learning.  Identity: Becoming a professor and a researcher	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications policies</i>
Created a collaborative working environment	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: A person who has good relationships with his colleagues	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications policies</i>

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: Good academic performance in his academic department	
Reduced the number of classes taught	Tactical orientation ( <i>How to do the work?</i> )	Means: Balancing his work and personal life	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Taught one undergraduate class	Tactical orientation ( <i>How to do the work?</i> )	Means: Identified students with research potential early in their college careers.	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Maintained a high rate of academic publications	Personal orientation ( <i>Who am I? or who do I want to become?</i> )  Moral orientation ( <i>Why engage in particular forms of work?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Identity: Being a productive researcher  Motive: Gaining respect from his academic and administrative peers  Goal: Gaining respect from his academic and administrative peers	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Published as a graduate student	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Being curious and having a good guide or advisor	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Carry out one research project at a time	Tactical orientation ( <i>How to do the work?</i> )	Means: Avoiding being locked into particular administrative tasks/ Protecting his research time from other administrative responsibilities	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Favored a larger number of graduate research assistants over the number of research projects	Tactical orientation ( <i>How to do the work?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Means: Focusing on research activities  Goal: Publishing more academic papers	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Structured plans for graduate students' academic work	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: Publishing more academic papers	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies

Actions	Orientation	Concretization	National Research-Related Policies
Not to be the first author many of his publications	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: For him, it seemed inappropriate, and did not make much sense	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Listened to his students and colleagues' ideas	Moral orientation ( <i>Why engage in particular forms of work?</i> ) Tactical orientation ( <i>How to do the work?</i> ) Political orientation ( <i>What to accomplish and achieve?</i> )	Motive: Learning new topics Means: Creating research ideas through conversation Goal: publishing more academic papers	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Understood the academic publishing world	Personal orientation ( <i>Who am I? or who do I want to become?</i> ) Political orientation ( <i>What to accomplish and achieve?</i> )	Identity: Being a productive researcher Goal: publishing more academic papers in top level journals	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Published in English	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: publishing more academic papers in a higher quality level	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Diversified his publications between Q1, Q2, Q3, and Q4 journals, but with a specific strategy to publish in Q1	Tactical orientation ( <i>How to do the work?</i> )	Means: publishing in different types of journals	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Applied to the promotion process with an important academic product (the power paper)	Personal orientation ( <i>Who am I? or who do I want to become?</i> ) Moral orientation ( <i>Why engage in particular forms of work?</i> )	Identity: Being a professor and feeling proud of himself Motive: Sharing his academic trajectory with his parents and friends	Related to: <i>Faculty Promotion Policy</i>
Coordinated the research group	Personal orientation ( <i>Who am I? or who do I want to become?</i> ) Political orientation ( <i>What to accomplish and achieve?</i> )	Identity: Being the coordinator of the research group Goal: Having resources for research and labs	Related to: <i>Research Groups and Researchers' Classifications Policy</i>

Actions	Orientation	Concretization	National Research-Related Policies
Improved (and plans to continue improving in the future) the condition of his laboratory	Political orientation ( <i>What to accomplish and achieve?</i> )	Goals: Having a good laboratory, especially for his students	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Delegated operational tasks of the research group	Personal orientation ( <i>Who am I? or who do I want to become?</i> )  Tactical orientation ( <i>How to do the work?</i> )	Identity: Being a researcher  Means: Avoiding being locked into particular administrative tasks/ Protecting his research time from other administrative responsibilities	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Managed economic resources of the research group	Personal orientation ( <i>Who am I? or who do I want to become?</i> )  Tactical orientation ( <i>How to do the work?</i> )	Identity: Being a researcher  Means: Distributing resources equitably and providing autonomy among research group members	Slightly related to all the selected national research policies: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Promoted (and continue expanding in the future) the link between university and companies through research projects rather than operational processes	Personal orientation ( <i>Who am I? or who do I want to become?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Identity: Being a researcher  Identity: Being a resource generator  Goal: Having resources for research and labs  Goal: Being economically self-sufficient.	Slightly related to all the selected national research policies: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications, and Spin-off</i> policies
Applied to the researcher's classification process	Personal orientation ( <i>Who am I? or who do I want to become?</i> )  Moral orientation ( <i>Why engage in particular forms of work?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Identity: Being a productive research  Motive: Gaining respect from his academic and administrative peers  Goal: Gaining respect from his academic and administrative peers  Goal: Having access to economic	Related to: <i>Research Groups and Researchers' Classifications Policy</i>

Actions	Orientation	Concretization	National Research-Related Policies
		resources and students	
Only engaged in in activities that link university and companies through research	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a researcher	Related to: <i>Spin-off Policy</i>
Not to create or lead a spin-off company	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a researcher	Related to: <i>Spin-off Policy</i>

Note: Analysis based on Räsänen's (2014).

### **Professor's Actions in the Anthropology Department**

The anthropology department, formed by 17 professors, had a particular internal dynamic that was different from the dynamic of the electrical engineering department. Before describing two cases, this section provides the characteristics of this department, contrasting them with the characteristics of the electrical engineering department, especially regarding the selection of the department chair, relationships among professors, professors' priorities, and research activities.

#### **Context of the Anthropology Department**

The selection of the department chair is an important characteristic of the anthropology department. As a point of comparison, Professor Pablo Fernandez, the department chair of the electrical engineering department, held a non-permanent position, and had been in this position for 6 years, which made it a long-term administrative position. In contrast, the department chair in anthropology must be a full-time professor with a permanent contract. The professor in charge is elected through vote by the other full-time faculty members. The election must be backed by the dean, and the term of this position typically ranges from 1 to 3 years. The election process for the department chair was a relevant characteristic for the anthropology department, due to the authority granted to the chair beyond administrative duties. The relationships among professors can serve as an

example of why the election of the department chair is important. Unlike most of the professors at the electrical engineering department, professors in the anthropology department had formed subgroups and they had close and supportive relationships within the subgroup. But, as multiple research participants confirmed, while the internal dynamic within the department was based on respectful and professional relationships, there were many strained relationships between faculty members. For this reason, the sitting department chair normally privileged professors with whom they have closer relationships (the subgroup) in the activities and decisions made at the department level.

Another characteristic of the anthropology department is related to how professors organize their time each semester. The priority for the department chair was assigning teaching responsibilities, and the other activities were negotiated through reducing the teaching load. Similar to the electrical engineering department, a professor should teach three classes, but through negotiation with the department chair, they can teach fewer classes (two classes for each academic year) and participate in other activities, such as research. In fact, professors can teach one or two classes for one semester, and the rest of the academic year they can be dedicated to other academic activities. According to the department chair, Professor Gonzalo Echeverry, there were two groups of professors. The first group preferred to combine research activities and teaching, and the second group preferred to work only on research, without teaching. Unlike the electrical engineering department, Professor Echeverry expected that professors prefer to work on research rather than teaching due to the economic and personal incentives (See Chapter 5), which linked research to higher salary and reputation.

Regarding research activities, professors in the anthropology department participated in a variety of research groups. In this department, professors had completely



different research interests, even within the same areas of knowledge. Professors belonged to different research groups, and, in fact, the research groups were not associated with the anthropology department, like they were in the electrical engineering department. The main research group in the electrical engineering department was formed by most full-time professors and covered all their research interests. In contrast, professors from the anthropology department were able to select among a variety of multidisciplinary research groups that are related to their research interests. In this regard, the department chair, who was recently selected, was planning to ensure wider dissemination of professors' research activities. Professor Echeverry, the department chair, believed that this academic department did many different activities with diverse themes and academic production, but the communication both within the department and with the outside world, needs better organization and dissemination.

To sum up, the anthropology department provided a clear example of at less studied field of knowledge that is less engaged in market activities, but can be impacted by the marketization and commercialization of knowledge (Collyer, 2015). In fact, while the electrical engineering department had the experience of creating and leading a spin-off company, the anthropology department has one of the oldest scientific journals in the country. This journal is very important for this academic department and it has survived despite the decrease of Colombian journals promoted by the *Quality of National Publications Policy*. In comparison to the electrical engineering department, this department also provided an example of a difficult working environment with fewer collaborative relationships.

The following presents the cases of two professors, a woman and a man, who were part of the anthropology department. I discuss their personal histories, relationships with

colleagues and the department chair, research interests, and how institutional and national research policies have shaped their actions, motivations, and future plans.

**First Case: Professor Alicia Herrera, the High Personal Cost of her Profession**

Before meeting with each professor, I searched for information on the internet to learn as much about the professor as possible. With Professor Alicia Herrera (hereafter referred to Alicia), I found abundant information about her, both personally and professionally. She is an important academic in the Colombian context due to her research work focused on death. Alicia's research interests are relevant in the Colombian context due to the internal and violent conflict that has involved state security forces, right-wing paramilitaries, and leftist guerrillas (Dugas, 2012). This conflict has caused homicides, massacres, and disappearances, and has forcibly displaced populations. The human rights violations have taken thousands of lives and victims (Dugas, 2012). Although there is still an internal conflict within the country, in November 2016, a peace agreement was signed between the Colombian government and the Colombian Revolutionary Armed Forces (*Fuerzas Armadas Revolucionarias de Colombia, FARC*) (Botero, 2020). Alicia's research can help to identify the perpetrators of crimes committed during the internal conflict. Her research interests have shaped her personal and professional life. To protect her confidentiality, however, I have chosen not to share more details about her research agenda and type of research she conducts. Alicia's actions and orientation are described in Table 11 (see page 207) and the following paragraphs present the story behind those actions.

Since Alicia was around 14 years old, she knew she wanted to be a university professor, but she only wanted to be part of the university where she ended up working. She said: "This idea remained in my mind (studying and working at that particular university)... knowing that there were other universities" [*Se me quedó como eso en el imaginario*

*(estudiar y trabajar en esta Universidad)...sabiendo que habían otras universidades].* She used the verbs “I wanted,” “I decided,” and “I confronted,” several times during the interviews and videos that I collected, revealing her determination and strong character. In her narrative, it was possible to see that she enjoyed tackling difficult challenges, and also, that she set objectives and worked to achieve them. These characteristics could have developed because, although she was born into a poor household, her mother raised her to think that she could build whatever future she wanted. Thus, even though it was difficult to ensure access to higher education, Alicia started an undergraduate program in the same public university where she became a faculty member in 2004.

Alicia remembered her undergraduate education as an important milestone in her life. During her time as an undergraduate student, she enjoyed many dimensions of university life through extracurricular activities and social relationships, guided by her intellectual curiosity. After finishing the undergraduate program, she got a scholarship outside of the country to continue her master’s and doctoral studies. In 2004, she finished her graduate studies and returned to Colombia. However, before returning, she participated in a merit-based competition and got a full-time position with a permanent contract to work as an anthropology professor at the Colombian public university. For her, being a professor in a public university is a valuable profession. As an example, Alicia highlighted how she especially wanted to be a professor for students from low socioeconomic backgrounds. Her narrative showed not only an appreciation for this particular university, especially for its public nature, but also appreciation for education and knowledge as public, rather than private, goods. For instance, she said, “to be honest, my issue is not working for money...I studied in a public university with scholarships from public universities, with funds from public university, and so I give back, and I do not charge for conferences or anything like

that" *[Te soy honesta, mi problema no es trabajar por un dinero...yo me forme en universidad pública, con becas de universidad pública, con dineros de universidad pública, y yo devuelvo, yo no cobro las conferencias ni nada de esas cosas].*

Alicia's academic work was mainly divided into teaching, advising, research, managing the laboratory, and consultancies. She saw that every activity "oxygenates" *[oxigena]* her academic life, but she especially enjoyed how teaching and research can challenge her to do her best. In teaching, she usually taught one class and advised between 15 and 20 students' theses and doctoral dissertations. She liked teaching as a way to get direct contact with students and to study different topics in-depth. For example, she sometimes created new classes to make time for learning more about a specific topic. In research, she continually looked for new topics, and normally carried out a research project annually or bi-annually. To challenge herself or, as she said "to confront myself academically" *[para poder confrontarme académicamente]*, she invited well-known academics to coauthor with her and she chose the most selective journals. She normally published two or three papers annually.

To address her research interests, Alicia's actions focused on establishing the intellectual basis and infrastructure for future research and for laying the academic foundations beyond her own trajectory. She shared, "I dedicated myself to this academic field, and from that moment, I said, 'Ok, I'm going to do things for the university... things that will leave a lasting impact beyond my time here'" *[Yo me dediqué a ese campo, y a partir de ese momento dije, bueno voy hacer varias cosas para la Universidad... cosas que trascienden el hecho de que yo esté aquí].* In her case, instead of participating actively in highly prestigious conferences, she decided to focus on collecting a substantial amount of information for research purposes, creating a well-equipped research laboratory, a research

group, and a master's degree. Wanting to leave a lasting impact, she explained “When I retire, what I leave behind will be clear benefit things (to benefit) the university” [*Que el día que yo me vaya de la universidad, me jubile, quedan cosas claras como para (beneficiar) la universidad*].

Among the topics addressed, Alicia discovered and filled a significant gap in the academic literature on the armed conflict in Colombia. Between 2008 and 2009, she began to carry out different actions to study issues related to the internal and violent conflict in the country. She described how, when she “naively” [*ingenuamente*] began to study issues related to Colombia’s internal conflict, she was hoping to contribute to the understanding of the problem of violence in Colombia. But her research subject brought her many personal difficulties. In her words, “It brought me all the problems in the world” [*Me trajo todos los problemas del mundo*]. Alicia explained that the situation emotionally overwhelmed her and the people closest to her. People who were opposed to Alicia’s work subjected her and her family, and at least one of her research assistants, to different forms of persecution and intimidation including stalking and surveillance, theft of research data, and death threats. This situation affected her family, including her daughter. She explained how one day her daughter, who was around eight at the time, covered her head and said “I don’t want (to hear about) more disappeared people, no more disappeared people” [*No quiero (oir sobre) más desaparecidos, no quiero más desaparecidos*]. After that, Alicia decided not to talk about the problem of violence in Colombia in front of her daughter anymore. She concluded “I feel like this really affected her” [*Yo siento que esto la afectó muchísimo*]. However, media reports and interviews showed how Alicia had been a model for her courage. For example, her daughter also said “I learned from my mom, the biggest lesson is to confront things the way they are” [*Yo lo que he aprendido de mi mamá, lo que más he*

*aprendido es a enfrentar las cosas como son*]. Her research assistant, who experienced paranoid episodes due to the threats, still greatly admired Alicia, in an newspaper interview, her assistant said, “And it was a moment where I said ‘If (Alicia) can do it, I can (face the situation) too.’ In fact, she has been a role model in my life” [*Y fue un momento donde yo decía ‘si (Alicia) puede, yo también puedo (enfrentar la situación)’*]. *De hecho, ella ha sido un modelo en la vida mía*]. Due to the dangerous situation, Alicia and her family had to leave the country for a period of time. And although, upon her return, she vowed to focus only on research and teaching without getting involved in topics related to Colombian’s internal conflict, she continued working on some topics related to the Colombian conflict.

In 2012, Alicia and her family returned to Colombia for the second time. Living in Colombia has always been a conscious choice for her. Even though she and her husband had job offers in another country, they always wanted to live in their home country and city. In her words “I like my city, whatever people may say, despite the violence, despite all the issues this city has, I like my city” [*A mí me gusta la ciudad, digan lo que digan, pese a la violencia, pese a todas las cosas que tiene, a mí me gusta la ciudad*].

Recently, in 2018, Alicia and her family had to leave the country again due to death threats, primarily directed toward her daughter. She returned to the country, but her daughter and, now, ex-husband remained outside of the country. Because her daughter was underage and could not live in her home country, at the time of the interview, Alicia and her ex-husband took turns living with her. Facing this situation, she found refuge in academic work, and for this reason, she increased her publications. In this respect, she said “Since I can’t live with my daughter, there are two options: I can go crazy or I can focus (on her academic work) and grow” [*Como no puedo vivir con mi hija, entonces hay dos opciones o me enloquezco o me concentro (en su trabajo académico) y crezco*].

The high personal cost of Alicia's profession has not been an obstacle to advance academically, to pursue her goals, to remain passionate about her profession, or to have future academic goals. In fact, she imagined herself in the future as a university professor who is engaged in teaching and has research goals in the short, medium, and long term. For example, she explained how she had ideas for future books, articles, and research projects. In this manner, Alicia's experiences and actions are related to the national research policies, as presented below.

### **First and Second Policies: Quality of National Publications and Faculty**

**Promotion for Public Universities.** During her 16 years of experience, Alicia has done everything needed to get promoted within the established period. She described that she had very good academic production, and for this reason, as she explained, she has easily met the requirements for the promotion process. At the time of my fieldwork, Alicia was already in the highest faculty rank (titular/full professor) and saw herself as a mid-career professor. She saw the process of promotion as important because it recognized professors' experience and knowledge.

Alicia saw publishing as one of the most important activities, but also a natural stage of a research project. Rather than seeing publishing as a way to increase salary points, Alicia considered it a way to see her academic progress and to receive acknowledgement. She shared, "submitting a paper to a journal where other academic peers who know a lot about the topic can say yes, yes or no...it means I'm able to see if I am progressing in creating knowledge or not. For me the other part (salary points) is an added benefit"

*[Mandar el artículo a un journal donde otros colegas que saben mucho del tema que le digan si, sí o no...es poder mirar si con el conocimiento estoy avanzando o no. Para mí lo otro (puntos salariales) viene por añadidura].* Thus, the salary points related to

publications were not a valuable incentive for her. In fact, she suspected that the economic incentive will probably change to limit the number of salary points that each professor can accumulate for publications. In her words, “It is an incentive that may disappear in the future and that’s ok” [*Es un estímulo que hacia delante puede que no exista, y listo*], which means that she is willing to accept changes in the current *Faculty Promotion Policy*. In fact, her point of view was related to the attempt, in 2018, to modify the *Faculty Promotion Policy* and the justification for this change was based on the high-priced faculty labor costs (Delgado Murcia, 2018; DNP, 2018).

As mentioned, Alicia selected academic journals with very high standards to challenge herself and grow academically. For her, international peers and journals were her academic reference due to the lack of development of her field in Colombia. One of her goals was to publish with important authors who she has read. In this regard, she said: “The fact that you really can work with the authors who you are reading, I think this is very exciting. I mean, this for me is a challenge, a challenge that is related to building knowledge” [*Que puedas llegar realmente a, en términos de lo que estás leyendo vos, ya puedas trabajar con ellos. Eso me parece muy emocionante. O sea, para mí todo eso es un asunto de un reto, un reto que tiene que ver con el conocimiento*]. She stressed that she was very selective and only published in high impact journals with outstanding and self-driven students and colleagues.

For Alicia, English is the main language of publication and the language and access barriers derived from publishing in international journals were not problems for her. She believes that science is not a local issue, but that it has local applications. For this reason, she carried out other activities such as consultancies, teaching, and advising to get connected to make connections within the local context. She said, “You have to be clear



about how the local or specific context is connected to a global one” [*Vos tenes claridad de cómo ese contexto local y específico se proyecta a nivel mundial*] and then added that knowledge “can be useful for local application....(but) my output is going to be in academic and scientific terms” [*Puede ser útil en aplicaciones locales....(pero) me voy a producir en términos académicos y científicos*].

Additionally, when reflecting on open access and subscription-based articles and journals, Alicia did not see the difference between the types of journals, nor the privatization of knowledge through subscription-based journals and articles. She has published indistinctly in open access and subscription-based journals and she said that there are different “routes” to access such as Sci-Hub, a website that enables users to download scholarly articles, many of which are paywalled by their journal’s original site or by their publishers (e.g., Taylor & Francis Group). In this regard, she said: “What matters is what you are producing. One way or another (she smiles mischievously), whether through Sci-Hub, or through whatever Russian sources, one way or another that knowledge will be able to reach everyone, as it should be” [*Lo que importa es lo que estás produciendo en el conocimiento. Por alguna ruta (se sonríe con picardía) como Sci-Hub, por alguna de esas rutas rusas para la distribución, por alguna ruta llegará y en algún momento podrá llegar el conocimiento a toda la gente como se requiere*]. Although her answer may be controversial because she openly supported pirated scientific articles, she seemed to be guided by communalism, one of the Mertonian norms of science (Merton, 1973), which stipulates that scientific knowledge should be shared.

**Third Policy: Research Groups and Researchers’ Classifications.** Alicia’s narrative showed that the formalization of research groups and the measurement models were not relevant for her, but rather they have been an unnecessary and uncomfortable

formality. When I asked about *Research Groups and Researchers' Classifications* Alicia's first answer was "For me, this is complete nonsense...in real life we don't make any money from them (Colciencias/Minciencias). We have to get by on a shoestring budget, so I learned that I just have to adapt to the circumstances" [*Eso para mí es una bobada... (Colciencias/Minciencias) no nos dan plata en la vida real, tenemos que trabajar con las uñas, entonces que aprendí, mejor dicho me tengo que acomodar a las circunstancias*].

In the beginning, Alicia tried to be part of a research group, but she did not find a group, no one wanted to include her due to her research interests. Then, she created a research group, registered in Colciencias/Minciencias, and, for several years, her academic production and some papers published with a student (today, a colleague) were the only inputs for the measurement models (see more details in chapter 5, *Research Groups and Researchers' Classifications Policy*). At the time of the study, there were more students and professors from other academic departments than her own associated with Alicia's research group.

Alicia's way of working was based on research topics rather than on a formal research group. For example, if she is reading about a topic and she identifies an important academic who knows about it or she knows a colleague from another discipline who can complement her view, she invited them to work with her. For this reason, research groups did not make sense for her. She also explained that she has scarcely ever applied to grants for research activities through Colciencias/Minciencias. Beyond accessing funding or being classified by Colciencias/Minciencias, having time is more valuable to her because she has already collected a lot of information for research projects through consultancies and internal research projects. She has not even regularly updated the online curriculum vitae in Colciencias/Minciencias called CvLAC, which is the main input for measurement models.

In fact, based on Colciencias/Minciencias' measurement model, her research group was classified as B, and she was classified as associate researcher. However, both would have probably been classified in a higher category, if she and her colleagues had updated the CvLAC on time. In her words, "I would have added three more articles at that moment, but I did not add them on time...I didn't worry about it because I don't care about those things" *[Si hubiesen metido 3 artículos...que no los metí a tiempo...no me preocupé por eso porque yo no me preocupo por eso]*. Alicia also explained that in her opinion, one's reputation should be based on their academic work, rather than faculty rank or research groups and researchers' classifications.

When you are discussing and carrying out research projects with international peers, they don't ask those silly questions (such as) what's your classification in Colciencias?...When you're doing research and you're going to submit a paper to one journal, it doesn't matter if you are Colciencias A, B, C, D, etc.; it doesn't matter if you are a titular/full professor or not. None of that nonsense. What really matters is what you're producing....so I focus all my energy, my academic and scientific hopes there.

*[Cuando estás dialogando y desarrollando investigaciones con colegas a nivel mundial, ellos no te preguntan esas bobadas (como) ¿usted en que escalafón está en Colciencias?... Cuando vos vas a investigar y vas a meter un artículo en un journal no importa si sos Colciencias A,B,C,D etc., ni si sos profesor titular o no. Ni nada de esas bobadas. Lo que importa es lo que estás produciendo...entonces yo tengo mis afectos, mis esperanzas académicas y científicas puestas ahí].*

Her narrative showed that her actions are not designed with the *Research Groups and Researchers' Classifications Policy* in mind. However, she still centers them on

publications, especially publications in high impact journals with international peers, which is aligned to the goals of *Quality of National Publications Policy*.

**Fourth Policy: Spin-off.** Alicia was in direct opposition to the privatization of knowledge. As previously mentioned, her thoughts were based on a Mertonian idea of science, in which the advancement of knowledge should not be motivated by profit, but for the sake of science (Merton, 1973). For her, the function of the university is to train students, cultivate their talents and their understanding of sociopolitical realities, and, also, to promote science. For this reason, she did not engage in linking university with companies. In her words, “They (companies) say ‘We give back to the community.’ But this is false. How many people die for lack of access to pharmaceutical products, and the pharmaceutical companies are not going to give them away for free” [*Te dicen (las compañías) ‘no es que lo devolvemos socialmente’. Eso es falso. Cuánta gente se muere efectivamente por los elementos farmacéuticos, y la farmacéutica no la van a regalar*].

Alicia’s actions were part of, and have built, her life history. The orientation of her actions showed how Alicia’s identity is anchored in being a university professor who engages in academic life to learn through teaching and research; defend public education for less privileged populations and the advancement of knowledge without profit motivation; and seek acknowledgement from the university where she works, but even more so from international peers. Some of her actions were oriented through goals such as publishing in high impact journals and with the most important authors she read. Additionally, she was guided by the goal of establishing the intellectual basis and infrastructure for her academic work and for laying the academic foundations beyond her own trajectory. Also, she is guided by the goal of sharing scientific knowledge with the broad academic community through publications. Tactically, Alicia, as an active researcher,

selected where to put her efforts. For example, she preferred to submit papers to high impact journals than to participate in highly prestigious conferences. Many of her actions were related to the national research policies. Her priorities were aligned with publishing and the related policies' guidelines and desired goals, but were not aligned with *Research Groups and Researchers' Classifications*, and *Spin-off* policies (see Table 11).

Table 11. *Professor Alicia Herrera's Actions, Orientation and Concretization of the Actions and National Research-Related Policies*

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
Pursued master and doctoral degrees	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: to follow her research interests	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
In a merit-based competition, applied for a full-time position with permanent contract	Personal orientation ( <i>Who am I? or who do I want to become?</i> )  Moral orientation ( <i>Why engage in particular forms of work?</i> )	Identity: Becoming a university professor in a specific public university  Motive: Being a professor of students from low socioeconomic backgrounds.	Slightly related to <i>Faculty Promotion Policy</i>
Began to study issues related to the violence in the country	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: To contribute to the understanding of the internal conflict in Colombia	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Collected a substantial amount of information for research purposes	Political orientation ( <i>What to accomplish and achieve?</i> )  Moral orientation ( <i>Why engage in particular forms of work?</i> )	Goal: Establishing the intellectual bases and infrastructure for future research and for laying the academic foundations beyond her own trajectory	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Created a well-equipped research laboratory		Goal: Having a good laboratory	
Participated in the creation of a research group and a master's degree		Motive: Efficient and effective uses of public monies for the academic community	
Not to participate in highly prestigious conferences	Tactical orientation ( <i>How to do the work?</i> )	Means: Focusing on other activities such as	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups</i>

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
		publishing with international scholars	<i>and Researchers' Classifications policies</i>
Carried out a research project annually or bi-annually	Tactical orientation ( <i>How to do the work?</i> )	Means: Being active as a researcher	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications policies</i>
Created new classes based on research experiences	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Learning in-depth	Not related
Stopped talking about the problem of violence in Colombia in front of her daughter	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Protecting her daughter	Not related
Returned to Colombia the first, second and third time	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Living in her home country and city close to her family	Not related
Stopped engaging in academic application related to the internal conflict in Colombia	Tactical orientation ( <i>How to do the work?</i> )	Means: Preserving her and her family's life	Not related
Applied to the promotion process	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Receiving acknowledgement from the university	Related to: <i>Faculty Promotion Policy</i>
Selected the most exigent journals	Moral orientation ( <i>Why engage in particular forms of work?</i> )  Tactical orientation ( <i>How to do the work?</i> )  Political orientation ( <i>What to accomplish and achieve?</i> )	Motive: Receiving recognition from international academic peers	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications policies</i>
Invited important professors from other countries to participate in research projects and publications		Means: Challenging herself as a scholar and growing as an academic	
Submitted papers to high impact journals		Goal: Publishing with the most important authors she has read	
Published with outstanding and self-driven students and colleagues	Tactical orientation ( <i>How to do the work?</i> )	Means: Ensuring the quality of academic products	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications policies</i>
Created a research group	Tactical orientation ( <i>How to do the work?</i> )	Means: Having a formal research group that was classified in Colciencias/Minciencias	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Rarely applied calls for research activities	Tactical orientation ( <i>How to do the work?</i> )	Means: Avoid seeking funding	Related to: <i>Research Groups and Researchers' Classifications Policy</i>

Actions	Orientation	Concretization	National Research-Related Policies
through Colciencias/Minciencias			
Published papers through both open access and subscription-based journals, but mostly in English	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: Publishing in high impact journals	Related to academic publications: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Promoted pirated scientific articles through the website Sci-Hub	Tactical orientation ( <i>How to do the work?</i> )	Means: sharing scientific knowledge with the academic community	Related to academic publications: <i>Quality of National Publications Policy</i>
Not to updating the online curriculum vitae in Colciencias/Minciencias called CvLAC on time	Tactical orientation ( <i>How to do the work?</i> )	Means: Having other priorities	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Not to engaging in activities that link university and companies	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Avoid promoting the privatization of knowledge	Related to: <i>Spin-off Policy</i>

Note: Analysis based on Räsänen's (2014).

### Second Case: Professor Andres Velasquez: Building an Academic Life as an Outsider

Professor Andres Velazquez (hereafter referred to Andres) did not have any previous relationship with the university, unlike the other cases. This is an unusual situation that has been slowly changing. It is well known—the other three cases (and contextual interviews with the other five professors) also confirmed—that many of the full-time professors had a previous history at their university as students and/or “occasional professors” [*profesor ocasional*]. This is a typical characteristic in the Colombian higher education system, and this university was no exception. For Andres, having no prior connection with the university became important because he repeatedly positioned himself as an outsider without pre-existing relationships, such as with former professors, and how that might lead to a sense of inferiority. During the interviews, he often used expressions like “I didn’t have insider connections” [*yo no tenía palanca*], “I came in as an outsider” [*mi llegada como un externo*], “Because I was an outsider, without anybody’s stamp on

me, I never put my head down, I don't feel that I am in debt to the others" [*como yo era un externo, sin tener impronta de nadie, yo no le agachaba la cabeza a nadie, ni me sentía en deuda con nadie*], "I never had any relationship of subordination with anyone (none of his colleagues)" [*yo nunca tuve una relación de subordinación con nadie*]. As an outsider, Andres described himself as a person who studied in an elite private university for his undergraduate studies and in a top-research, public university for his graduate studies. And then, he explained how difficult it was when, after living abroad for over a decade, he returned to his home country, but not in his birth city, which is important due to the regional differences. He started working in a university that did not have the same economic resources as he had been accustomed to and with a hostile work environment. Learning to survive and to cope within this academic context has shaped his academic life as well as his decisions and actions. Like the other cases, the following provides the narrative behind Andres's actions and orientations, and Table 12 presents a summary (See page 231).

Initially, when Andres was close to finishing his Ph.D., his wife was expecting a baby, and he felt the need to apply for a full-time faculty position in different places, both inside and outside of Colombia. In his words, "I was an expecting parent, so as I was finishing the Ph.D., I was anxious and started looking for a job" [*Ya estaba yo embarazado (su esposa), y entonces ya terminando el doctorado me entró angustia y comencé a buscar trabajo*]. He finally finished his Ph.D. and got offered full-time positions in two public universities in Colombia. He selected the university where this study was carried out. He saw this university as a periphery university. However, he chose this university because the other university seemed to have fewer resources and a smaller academic network. He said, "(This university) is more recognized than the other one. The other was more rural, so I



would be in the periphery of the periphery” [(*Esta universidad era con más peso una que la otra, la otra era mucho más provinciana, entonces iba a estar en la periferia de la periferia*)]. His view supported the idea that even though this university is located in a less-privileged country, it is well recognized within the country.

The beginning of his work life was very difficult. In the first place, Andres’s previous experiences as a student created ambitious and less realistic expectations in terms of teaching and research. As an instructor, that he was from another region and he demanded a high level of reading, neither of which were well received. He explained, “I set really high standards for my students, like requiring a lot of reading, many things, so I came in feeling like I was above the rest and that didn’t help” [*Yo venía como con una expectativa alta sobre ellos, como exigirle mucha lectura, muchas cosas, entonces yo venía como muy alzado, muy arriba, eso no ayudó*]. As a researcher, although he was planning on carrying out research activities, initially he was unable to start them due to the inequitable, assigned workloads. He reflected on early workload issues, he emphasized how difficult it was: “Well, quickly they assigned me 40,000 things to do, a lot of teaching, and they wanted me to do extension work... So it was by no means an easy start, there were new things I’d never done before and there were high expectations, with a lot of pressure on me” [*Entonces, rápidamente me pusieron a hacer 40,000 cosas, y mucha docencia y me querían poner a hacer cosas de extensión... no fue para nada fácil esa llegada, cosas nuevas que no había hecho nunca en mi vida, y con una expectativa grande, con mucha presión sobre mí*]. Also, he explained the differences between the expectations and the reality of his job:

The job application was for a race car, and when you arrived, what they really were looking for was a dump truck, that was my sense. In other words, the job application

was for a Ph.D. to do research projects, so I arrived with that idea in mind. But what they were really looking for was a blue-collar professor who can teach a ton of classes and be willing to do all this other work, so that was where there was this mismatch. *[(Ellos) buscaban como en la convocatoria un auto de carreras, y uno llegaba y lo ponían de volqueta, entonces era como mi sensación. Digamos el perfil y la convocatoria y todo, buscaban un doctor que hiciera investigación y llegue como en la mente como doctor con ganas de hacer investigación. Y lo que querían realmente, pues era un profesor de overol que diera muchos cursos, y que estuviera dispuesto hacer todas las tareas posibles, entonces ahí, ahí hubo como ese desencuentro].*

Additionally, Andres perceived the work environment of his first year as a professor as chilly and unwelcoming. In fact, at least once, the department chair at that time angrily shouted at him and threatened him. The challenging environment, and issues with other colleagues, made him feel vulnerable because he was in a probationary period of one year and he could have lost his job. As a response, he had to work many hours and struggled to balance his professional and personal life, as he explained:

When I arrived, as I told you, it was difficult, I didn't have a good work-life balance. I dedicated myself to working like crazy, because as I said I had a complex situation. I had enemies who wanted to see me crash and burn ... So, the first year I was working 13 hours a day, like a madman, and my second daughter, she was a baby at that time, and honestly I barely saw her. I totally missed out on that time with my daughter when she was a baby. *[Pues cuando llegue, que te decía que fue difícil, en realidad no lo logre balancear. Me dedique a trabajar como un loco, por lo que te decía que tenía como una situación compleja. Con enemigos encima que*

*querían verme caer...Entonces estaba trabajando 13 horas (cada día) el primer año, entonces trabajaba como desesperado, y a mi hija, a mi hija menor, que era bebe en esa época pues realmente no la ví. Esa época de bebe me la perdí completamente].*

Andres had to cope with this situation because he was the only one financially supporting his family. He stated: “I must say that the first year was ugly, depressing. I looked for another job, I thought about going to another place, and leaving this position. And, if I hadn’t had my family and the responsibility of providing for my two daughters, I probably would’ve quit” [*El primer año debo decir que fue feo, deprimente. Busqué (trabajo), estuve pensando en irme para otro sitio, dejar eso tirado y si no hubiera tenido a mi familia, o sea la carga en ese momento de mis hijas, lo hubiera abandonado probablemente].*

Fortunately, a woman senior faculty member took him under her wing and helped him to navigate the university and, especially, the department. In his words: “A female professor took care of me and had my back the first year” [*Yo tuve ahí una profesora que me acogió, me cuidó, y me cuidó la espalda ese primer año,].* After the probationary period of one year, Andres felt less pressure and he was able to focus on fewer activities, but primarily teaching.

Andres’s relationships within the department transformed with the generational change. He explained that because powerful professors retired, and other senior professors were gradually losing their power, the balance of power began to shift. He encouraged and promoted his close colleague as a department chair, and he had more chances to participate in the decision making. He explained: “After 5 years or something like that, I felt this transition in the balance of power. I moved from being at the bottom and getting yelled at to a higher spot...Some of my close colleagues were in positions of power, and one of them

was department chair...So suddenly I had a seat at the table where decisions were made”

*[A los 5 años, o una cosa así, yo sentí como esa transición en las balanzas de poder, y pasé de estar abajo siendo gritoneado, a estar arriba...a tener a mis colegas cercanos en posiciones de poder, y alguno de ellos jefe de departamento... de repente yo ya estaba sentado en las mesas donde mandábamos].* Although the professors within the department continued having differences and “low-intensity fights” *[peleas de baja intensidad]*, his work environment was better than it was in the past. In this new phase, he gradually established friendly relationships with a small group of colleagues (around five) with whom he worked on common projects. In his words: “With my close colleague as department chair and other close colleagues shared connections...we started developing both friendships and an academic relationships, with a shared vision of what an academic department should be, and we started to move forward together” *[Ya bajo la jefatura de este que es un colega de mi edad y con otros colegas que sentíamos afinidad... Nos fuimos encontrando en la amistad como en academia, como en visión de lo que debía ser el departamento, y comenzamos a caminar juntos].*

At the time of the interviews, Andres had completed 11 years of experience and saw himself as a mid-career faculty member. Within the academic department, the difficult workplace environment has remained as a major issue. However, he can deal with the difficult moments and internal conflicts with less stress than before, as he explained: “The first 2 years I suffered a lot...I was always stressed, and now it doesn’t stress me as much. But that doesn’t mean that our work environment is pleasant, exactly” *[Los primero dos años pues yo sufría...me estresaba, entonces ya no me estresa de la misma manera. Pero eso no hace que el ambiente laboral sea como tan agradable].* Despite the difficult work environment, he has enjoyed being a professor and his academic life. When the academic

department hired new professors, he volunteered as a mentor to protect his new colleagues from an unwelcoming environment. He said: “I volunteered (to welcome them) so that they wouldn’t suffer the way I did” [*Yo me pedía (para darles la bienvenida) para que no les hicieran la vida amarga como a mí*].

Additionally, to work smoothly and harmoniously, he learned to balance work and family life better: “I understood that working so much wasn’t a good idea” [*Entendí que trabajar tanto no era una buena idea*]. For this reason, he set aside the weekend for him and his family. Regarding his academic activities, Andres dedicated 70% of his time to teaching (two classes) and 30% of his time as the editor of the scientific journal of the academic department. Additionally, he was writing a book, and occasionally he taught classes at the master or doctoral level.

As presented below, Andres’s career trajectory, activities, and actions are also shaped by the national research policies. Three of four national research policies (*Quality of National Publications, Faculty Promotion, Research Groups and Researchers’ Classifications*) were highly related to his professional live. Similar to the other professors, the last policy, *Spin-off Policy*, is not aligned with his motivations, actions, and goals.

**First policy: Quality of National Publications.** At the time of the interviews, Andres had recently taken the position as editor of the academic department’s scientific journal. He explained that this journal was the most important responsibility he had. In his narrative, he showed how important the *Quality of National Publications Policy* and, specifically, policy guidelines were for him and for his academic department:

At the moment, the journal is my biggest concern. After my classes, I have to immediately focus on the journal, because of everything linked to Colciencias/Minciencias and its indexing guidelines. They are like little machines,

treadmills, if you stop, you will fall and the journal will fall (in Colciencias' ranking). This would be a problem for the department, for all my colleagues. For this reason, I worry about it and it keeps me awake at night: don't let the journal fall, make sure to maintain its quality (in Colciencias' terms). *[En estos momentos, digamos (la revista) es como mi preocupación más grande, aparte de digamos doy mis clases e inmediatamente me tengo que concentrar en (la revista), porque como todas estas cosas que están con Colciencias, y que están con los lineamientos de indexación, y demás pues son maquinitas, son bandas de trotar, que si tu paras eso te tumba y dejas caer la revista (disminuye la calidad), y eso se vuelve un problema para todo el departamento para todos los colegas. Entonces, eso me preocupa y me desvela, no dejar caer la revista, y que tenga calidad (en los términos de Colciencias)].*

In addition to his great responsibility with the journal, Andres expressed concerns about *Quality of National Publications Policy*. As a researcher, and now a journal editor, he has seen that the journal of the anthropology department, like many national journals, has struggled to meet Colciencias/Minciencias' changing requirements for the ranking of national journals. It is worth remembering that, according to this policy, the national system classified national journals into four categories, from highest to lowest: A1, A2, B, or C, which are based on the JIF and SJR indicators and produced through the WoS and Scopus databases (see Chapter 5 for more information). In this regard, Andres said, "(This journal) doesn't fit Colciencias' terms and conditions. To meet the scientometric demands of this university and Colciencias, we would need to change topics, we would need to publish in English as other national journals in this university have been doing" *[No funciona en lo que los términos de Colciencias. Para que esta revista llegue a lo que quisiera*

*Colciencias, la universidad y la cienciometría, tendríamos que cambiar las temáticas, tendríamos que publicar en inglés, muchas de las revistas de la universidad lo han venido haciendo*]. However, Andres explained that he cannot incorporate all the Colciencias's requirements, due to the scope of topics of the journal:

Playing this game (meeting Colciencias's requirements), in reality, this would leave aside topics...(that) don't sell, don't generate points, aren't cited, or are less cited...because they aren't major topics, but we consider these topics important for our context, our reality. Playing the game of the big international commercial publishers...we would be completely left out. For this reason, we have resisted as best we can. *[Jugar ese juego nosotros (cumplir con los requerimientos de Colciencias), en realidad, dejaría sin espacios a temas...(que) no venden, no puntúan, no se citan, o se citan muy poco... porque no son temas grandes, pero son temas que consideramos importantes, son temas que corresponden a nuestro contexto, a nuestra realidad. Jugar el juego de las grandes editoriales...nos dejarían completamente fuera, entonces hemos resistido como hemos podido]*.

Andres explained that he and other editors have tried to keep the journal going, surviving with quality as a space for important topics that are less attractive to other journals. His narrative showed that his motivation as a journal editor and researcher was guided by science for the sake of science and not for other factors, such as profit or international prestige. He explained, "Keeping these spaces alive is a quixotic pursuit...if it was just for Colciencias, it wouldn't make sense...we don't carry out anything that affects GDP (economic growth)...so we end up doing things by choice, for the love of it" *[Entonces mantener esos espacios vivos son quirotadas...si fuera por Colciencias no tendría*

*sentido...no hacemos nada que influye en el producto interno bruto (crecimiento económico)...entonces termina uno haciendo cosas, por gusto por físico amor].*

Accordingly, keeping the journal alive has been challenging. During 2011 and 2012, the journal was ranked by Colciencias/Minciencias in A2 (one of the highest categories), but its classification decreased with changes in the models of classification. With the most recent model in 2016 (Colciencias, 2016a), the journal lost any ranking. In 2020, the journal was classified again, but in C (the lowest category). Andres explained how difficult it was when the journal did not get classified: “We were unclassified for a long stretch. This meant that we got more papers submitted that were trash, more lower quality papers. Being in any category (A1, A2, B, or C) magically increases your submissions and you can pick and choose the best papers” *[Tuvimos mucho tiempo sin clasificación. Eso hace que nos llegue más (artículos) basura, que nos lleguen artículos de inferior calidad. Tener una categoría (A1, A2, B, o C) hace que mágicamente te llega y te llega material, puedas desechar y quedarte con lo mejor].*

Andres reflected that the changes in the model of classification of national journals has created a tough situation for the country. In his words, “Colciencias hasn’t been able to understand who we are....it hasn’t been able to differentiate that scientometrics isn’t the only way to do things” *[Colciencias no ha podido entender quiénes somos, a qué jugamos, no ha logrado discriminar y entender que el único camino no es la ciencia métrica].* Then he added, “It pains me to see how our journal has fallen. It had been A (the highest category), and today it is C (the lowest category), and for a while it had no classification as a result of Colciencias’s measurements. The new criteria and all of these things bother and hurt me” *[Me duele ver que nuestra revista se vino abajo, llegó a ser A (la categoría más alta), hoy es C (la categoría más baja), y estuvo sin clasificación, como producto de estas nuevas*



*mediciones Colciencias, con los nuevos criterios y todas esas cosas me molestan y me duelen*]. For him, the natural, Colombian space for publications has been affected by *Quality of National Publications Policy*, resulting in fewer options for publishing and in a very challenging environment for a journal editor.

**Second Policy: Faculty Promotion for Public Universities.** There are two important topics that linked Andres's academic life and actions with this policy. His view and experiences with the promotion process, and also, his experiences, actions, and thoughts about the connection between salary level and publications, which are also related to *Quality of National Publications* and *Research Groups and Researchers' Classifications* policies.

**Promotion process.** When we talked about the promotion process, Andres showed that he understood the policy and agreed with the promotion process. He described the process of becoming a titular/full professor. He saw the process of promotion as an academic process that mainly consists of a written product; an evaluation committee and an oral defense, such as a dissertation. Initially, Andres began as an assistant professor, and then, after 3 or 4 years, he applied to advance from assistant to associate. Recently, at the end of 2019, he was promoted from associate to titular/full professor. For his initial process of promotion, he submitted the published book derived from his first research project for evaluation. He compared his experience to colleagues' experiences to show his opinion about the academic evaluation in the promotion process: "I realized that my colleagues often seek out friends (for an evaluation committee), those they have already worked with. Therefore, they end up being ceremonies with a lot of compliments and things like that" [*Yo me di cuenta es que los colegas buscan (como evaluadores) amigos con lo que han trabajado, y entonces ...se vuelven, como ceremonias de elogios y cosas de ese estilo*]. In

contrast, he tried to have an academic and rigorous evaluation process: “I didn’t want to play that game. I elected to go through a rigorous academic process...the department chair who was my friend prepared my defense and he searched for knowledgeable people in the field, we were entirely academic (in the process) rigorous” [*Yo no quise jugar ese juego, y lo hice en una cosa como más académica... el jefe amigo, el que tuvo que preparar esa defensa, y entonces él se puso a buscar gente que supiera, pero fuimos absolutamente académicos (en el proceso)*].

Andres explained that the promotion process is not mandatory, and in fact, he helped a senior colleague advance from assistant to associate. Institutionally, there was no real pressure to get promoted. As he said, “...in reality the promotion is based on personal interest, because this is one of the few ways you have to get a raise” [*El proceso de promoción no es obligatorio, y en realidad es del absoluto interés del profesor, porque es de las muy poquitas maneras que tienes, de digamos de tener una mejora*]. In his case, as an outsider, he considered that being promoted was a way to have a solid position within the department beyond the salary increases. “if (the relationships with) colleagues are the most difficult issue, the hierarchy (being in a higher rank) can help you...Because I’m an outsider in the academic department...having a solid position motivated me a lot more than the money” [*Si el colega es lo más difícil (las relaciones interpersonales con algunos colegas)), pues la jerarquía de alguna manera te ayuda (tener una categoría más alta en el escalafón)...en la medida en que yo soy una persona digamos una de las fichas externas del departamento...el tener una posición más sólida me movía mucho más que la plata*].

**Salary points for publishing.** During the fieldwork, Andres never explicitly stated his opinion regarding the link between salary points and publications. However, he argued that involvement in research activities was a distinctive factor that not only favored some

privileged professors, but also contributed to perpetuating the stratification among professors. Initially, Andres realized that, since the beginning of his experience as professor, the university statement that divided professors' responsibilities into three key domains (teaching, research and extension or service to the society) was not true: "The university has, in theory, three basic pillars... (with) equal breadth and importance, which are teaching, research and extension... But when you arrive, you realize that this is merely a discourse, and it forms part of a text, a university narrative, but it isn't true" [*La universidad tiene en teoría 3 pilares que son básicos... (con) igual importancia, igual grosor que es docencia, investigación y extensión... pero ya cuando uno llega se da cuenta pues que eso es simplemente como un discurso, y hace parte digamos de un texto y de una narrativa en la universidad, pero que no es cierta*]. According to Andres, the reality is that teaching was the core mission in this university. He described that each professor in this university is primarily an instructor who should teach three classes each semester, while research activities were a "privileged activity" [*la investigación es un privilegio*]. However, he was aware that research was the most highly valued activity in terms of promotion process, recognition, and salary levels. In his words: "research is what allows you to shine the most, and what is often the most difficult to achieve. So, doing research is very enjoyable, it's great, but it isn't easy to accomplish" [*Lo que da más brillo, y lo que, en realidad, a veces más difícil lograr es el tema de investigación. Entonces la parte de investigación es muy agradable, es muy chévere, pero no es fácil lograrla*].

To explain the imbalance between teaching and research activities among professors, Andres described how those full-time professors with permanent contracts have more possibilities to do research than the other professors with temporary positions (e.g., adjunct or lecture professors). In this regard, he explained:

If you look at the workload of professors with temporary positions or occasional professors, they are absolutely packed with classes, sometimes excessively. And the professors at the top of the hierarchy, higher rank, in the top-ranked research groups, probably... teach one class, while the other group may teach four classes. In the end, this is balanced out in terms of hierarchy and power. *[Si tu revisas la carga del plan de trabajo de un profesor no vinculado, de un profesor ocasional, están absolutamente llenos de docencia, muchas veces en exceso, y los profesores de más jerarquía, de mayor categoría, que están en los mejores grupos de investigación con mejor calificación, muy probablemente...no daban sino un curso mientras los otros pueden dar cuatro. Entonces, eso se termina equilibrando solo en un tema de jerarquía y de poder].*

Andres argued that, at the end of the day, there was no institutional pressure to do research activities because this was a privileged activity that was carried out by certain types of professors. In his words: “There isn’t really pressure to do research, because research activities are part of the privileges for those in top-ranked research groups and those higher up in the hierarchy” *[Para investigar no hay presión, en realidad no la hay, porque en la investigación hace parte como de los privilegios, de los grupos de investigación más pesados, y los profesores de más jerarquía].* Paradoxically, as a way to improve salary level, Andres accepted that there is a lot of individual pressure among all types of professors to carry out research activities and to publish. He said: “There is huge pressure to publish, because everything related to salary points is like candy for professors at a public university, we’re dying for salary points, and we pay attention to our points because it is the only way to increase our salary” *[Si hay una presión grande por publicar, porque todo lo que sea puntos eso es como la golosina del profesor, por lo menos de la pública,*

*nosotros nos morimos por los puntos, y estamos pendientes de los puntos porque es lo único que nos mejora el salario*]. In his narrative, Andres presented that although research activities were only for a few privileged professors, research outcomes were the most important way to get a higher salary. In this context, only privileged professors have the time and resources to carry out research projects and, through publication, they can obtain a higher salary than their less-privileged colleagues. In his words, “In theory everybody has the right to do research, but in reality, it doesn’t work like that” [*En teoría todo el mundo tiene derecho a investigar, pero en la práctica no funciona así*], and later added, “the department chair can’t allow everyone to do research, so that’s where the hierarchical system comes into play” [*El jefe de departamento, tú no puedes permitir que todo el mundo salga a hacer investigación, entonces ahí opera la jerarquía*].

In this hierarchical system, Andres has understood his position. As a full/titular professor with a permanent contract, he saw himself in a better position than those who were in temporary positions, but he recognized that he was not a professor with a privileged position such as those in other departments or in top-ranked research groups. In his case, after his probationary period of one year, he paid his dues [*derecho a piso*], and he felt more comfortable, but rather than combine research and teaching he was initially only allowed to teach. He learned to see himself primarily as an instructor who carries out research activity sometimes, when it is possible. He stated: “First of all being an instructor is what determines my life” [*Ante todo lo que determina mi vida es ser docente*]. During the interviews, he expressed, at different times, his disagreement with professors in anthropology department who considered research more important than teaching. As one example of his opinion, he said: “In my everyday life, I am an instructor and I should be an instructor. My issue with other colleagues is because a lot of them don’t want to be

instructors, they just want to be researchers.” *[entonces mi vida cotidiana yo soy profesor, y debo ser profesor, y las peleas con los colegas es porque muchos no quieren ser profesores, quieren ser investigadores]*. And he concluded his idea with vehemence, “We are above all professors (dedicated to teaching) who try, when they let us, when we can, to also be researchers” *[nosotros somos ante todo profesores, que tratamos de, cuando nos dejan, cuando podemos, somos algo de investigadores.]*.

Although research was not his primary activity, Andres has tried to be involved in research activities and in a research group. As presented in the next section, his experiences as a researcher have not been easy, but have been very meaningful because it has been his way to remain academically active.

**Third Policy: Research Groups and Researchers’ Classifications.** The relationship between Andres’s academic life and this policy was as difficult as his initial period in the anthropology department. As an outsider, he did not know anything about research groups, and he was notified that it was imperative that he belong to a research group. This was a very stressful situation for him due to the wide variety of research groups related to the anthropology department, in his words “This situation began to stress me out” *[Yo me comencé como a estresar con el asunto]*. Finally, his mentor, the senior faculty woman who supported him, suggested a specific research group that would be better for him academically and personally. Similar to the anthropology department, Andres experienced a chilly and unwelcoming environment in the selected research group. However, after a reconfiguration of this research group, in which some members left, Andres found the research group comfortable to work with and he started to think strategically about this policy.

**Initial resistance.** Andres's research group is formed by four professors affiliated with the anthropology department. These research group participants, including Andres, initially adopted a resistance style to *Research Groups and Researchers' Classifications Policy* that slowly changed. Initially, the research group participants did not want to follow the measurement models as the guideline. In this sense, they were willing to accept the consequences, which means that they would probably not be part of the highest categories (senior researcher and A1 or A research group). He described how his research group initially established a radical position regarding Colciencias/Minciencias: "We don't play Colciencias' game. We do research. We work, but we won't play Colciencias's game of musical chairs. We aren't interested, and if this means that we won't be classified, we don't care. We refuse to play the classification game" [*Nosotros no jugamos el juego de Colciencias. Nosotros investigamos, nosotros trabajamos, pero nosotros no vamos a bailar la danza de las sillas de Colciencias, no nos interesa, y si eso implica que no vamos a estar clasificados, no nos importa, nosotros no vamos a jugar el juego de las clasificaciones*].

Another implication of their position was the lack of economic resources, and in this regard, he said: "We don't play this game, I don't give a damn about Colciencias and if I have to get by on a shoestring budget, I will" [*Nosotros no jugamos este juego, Colciencias me importa un carajo y si yo tengo que investigar con mis uñas lo hare con mis uñas*].

The most important principle for the research group participants was not to take advantage of students [*cabalgar estudiantes*], as other professors do in order to increase publications, and gain prestige and economic resources. In his words, "(some researchers) use graduate student labor and ideas to maintain the prestige logo" [(*Algunos investigadores*) usan la mano de obra de los estudiantes y sus ideas para mantener el logo del prestigio]. Andres then explained that prestige is linked to the classification of research

groups: “To maintain the classification A...(is) like an endless treadmill, like a mad cow... because then you have to maintain that classification and have to maintain the economic resources that are linked to that classification. You start using the students, start having practices that in many cases lead to ethical conflicts” [*Para poder mantener esas clasificaciones A (es) como una banda sin fin, como una vaca loca...porque luego para poder mantener esa clasificación y poder mantener esos recursos y esos dineros que vienen con la clasificación. Comienzas a usar a los estudiantes, a tener prácticas que muchas veces riñen con la ética*].

In this context, Andres felt that he belonged to an isolated research group that, as a consequence of their values, was in the lowest level in the research group hierarchy. Through this experience, Andres noticed that there was also stratification and inequality among full-time professors with a permanent contract between and within disciplines. As a social science researcher, he identified that it was a very difficult process to have economic resources and time to carry out research activities. Externally, the Colciencias/Minciencias calls for research grants were focused on knowledge areas with commercial potential. Along the same line, the internal calls for research grants followed Colciencias/Minciencias guidelines. He highlighted that internally and externally “they are interested in the quote on quote ‘hard sciences,’ they are very interested in patents, they are very interested in increasing the gross domestic product of the country” [*...Les interesa mucho las ciencias duras entre comillas, les interesa mucho las patentes, les interesa mucho sumarle al producto al interno bruto del país*]. He then described that in the case of the social sciences there are limited options:

Competing one-on-one for research projects with other fields was very difficult...it was totally unequal, the battles were really hard...Colciencias and the university



have expressed a lot of interest in (funding) research projects in hard sciences such as technology and engineering over us. For this reason, this (access to research funding) was not easy. *[Competir de tú a tú con los proyectos de las otras áreas era muy muy difícil... era totalmente desigual, las peleas eran muy difíciles...el interés grande de Colciencias y la universidad digamos por (financiar) los proyectos en las áreas digamos de ciencia dura, de tecnología, de ingeniería, por encima de nosotros, entonces eso (acceder a fondos) no fue nada fácil].*

Given this context, only after 3 years at a full-time position, was Andres able to find funding and time for his first research project. He, along with his colleagues, concluded that they need to carry out research activities with their own resources and personal time: “You can’t count on the university or Colciencias to do research. If you want to do research, you have to do it with your own resources and in your free time” *[para investigar no puedes contar con la universidad ni puedes contar con Colciencias. Si tú quieres investigar de alguna manera tienes que hacerlo de tu bolsillo, tienes que hacerlo en los ratos libres]*. For example, Andres finished a second important research project in a sabbatical year because he could not get any funding. However, Andres also explained that professors have taken advantage of the free time due to the massive student movement, involving student strikes, that are very common in the Colombian public universities. He said: “When the university explodes (students go on strike), this oxygenates us (it gives them time to do research)” *[nos ayuda cuando revienta la universidad (hay paros estudiantiles) eso es como que nos entra oxígeno (les da tiempo para investigar)]*.

As the national journal editor, he saw that the research group was doing quixotic or idealistic research activities in terms of Colciencias/Minciencias and its requirements. However, the research group was also “an academic refuge” for him, in which he could be

intellectually active outside of teaching. He explained that having a research group that does not pursue what is promoted through the measurement models

...is like rowing upstream....it is an academic refuge from the day to day reality. (The reality is) that you are a workhorse and you have to teach. Your PhD is devalued day after day if you are only teaching...you end up brainless by repeating the same class again and again, and the only way to keep from turning into a zombie is through research, or by staying academically active, and this is the research group. However, when your topics are not the right topics, when national policy doesn't line up with your interests, this becomes in a romantic activity, a quixotic activity. But at the same time, it becomes a bubble that allows us to maintain our mental health [*Es remar contra la corriente...es el refugio académico frente a una realidad cotidiana. (Esta realidad) es que usted es un burro de carga y tiene que dar clases...Tu agarras tu doctorado, y lo devalúas día, día, dando clases...uno ya termina medio idiota de repetir el mismo curso, una y otra y otra vez, y la única manera de no realmente idiotizarte, es hacer algo de investigación, es tratar de mantenerte activo académicamente, y eso es el grupo de investigación. Pero cuando tus temas nos son los correctos, cuando la política nacional no camina por donde tu caminas. Entonces insisto, se vuelve un orden de romanticismo, se vuelve un orden de quijotadas, y al mismo tiempo una burbuja que nos permite como mantenernos sanos mentalmente*].

**Strategic change.** At some point, Andres reflected upon at radical position that he had along with the other research group's participants. He started applying to small funds to do particular projects and he started getting involved with students in activities that were not linked to the highest weighting factor in Colciencias/Minciencias's measurement

models. For example, he created a didactical game to learn about social theory and he promoted the student magazine. He also developed an interest in having a thorough understanding of Colciencias/Minciencias's measurement models, and he moved to a less radical position. He thought that "it was possible to play the game, without selling your soul, or something like that" [*que se podía jugar el juego, sin vender el alma o una cosa así*]. He started talking with the other colleagues in the research group: "If we're playing, then let's play it right. This was a phrase that I often repeated. Listen, we are playing anyway because we have to fill this crap out for Colciencias (the CvLAC and GrupLAC applications)...So, we are playing the game anyway, so let's play the best we can, within our ethical limits, but let's play it" [*Si estamos jugando, juguemos bien. Era una frase digamos repetida con ellos. Venga, estamos jugando el juego de todas maneras porque tenemos que llenarle cada año, cada año estamos jugándole llenarle estas porquerías a Colciencias (diligenciar CvLAC y GrupLAC)...entonces, estamos jugando de todas maneras, juguemos bien, juguemos lo mejor que podamos, con los límites éticos que tenemos, pero juguemos*].

As a result, at the time of the fieldwork, Andres was classified by Colciencias/Minciencias as an associate researcher (a higher rank) and the research group was classified in the C category (the lowest). To increase the research group classification from C to B, Andres observed that the only factor needed was a cohesion index above zero. This index assesses the interactions between research group participants (within the same group) (e.g., the group participants coauthor publications), and they implemented a plan to fulfill this index. He explained, "For example, as a product of this, we are doing a co-authored publication with two research participants to fulfill the cohesion index, and thus we can be classified in B, which is where we deserve to be" [*Por ejemplo, como producto*

*de eso, ya hay una ahoritica ya está andando una publicación conjunta de los dos colegas del grupo para que el índice de cohesión cero desaparezca, y que estemos en B, que es donde merecemos estar].*

**Fourth Policy: Spin-off.** Although during the interviews this policy was not addressed, Andres showed, in different moments, his position opposing the inclusion of the profit motive into his academic life, and as a consequence, his actions and future goals are not aligned with this policy. For example, he expressed that his research interests “don’t impact the GDP, there won’t be any patent coming out of them” [*no impacta en el PIB, no va a haber ninguna patente de ahí*]. Also, he explained the idea of seeking out profit derived from services of the academic department, “...Well, I’ve never done that, I’ve never been interested in doing that, and I will probably never do that. I’m bad at finding money” [*...Pues, yo no nunca la he hecho y nunca me ha interesado hacerlo, y probablemente nunca la haré, fui malo pa esas relaciones de buscar plata*].

To sum up, Andres’s academic life has been deeply immersed in three of four national research policies (*Quality of National Publications, Faculty Promotion, Research Groups and Researchers’ Classifications*). As an outsider and as a parent, who is the primary breadwinner, Andres needed job security and to ensure a better work environment in his academic department. In this sense, some of his actions were motivated by these needs. For example, the promotion process (*Faculty Promotion Policy*) helped him gain a more solid and secure position within the academic department. Andres positioned himself as a professor who is mainly dedicated to teaching, but who is also intellectually active through research. However, his engagement in research activities and his view of publications were not aligned with (a) *Research Groups and Researchers’ Classifications Policy’s* guidelines for the highest categories (senior researcher and A1 or A research

group), and (b) *Quality of National Publications Policy*'s measurement model for national journals. To participate in researcher activities and play the Colciencias's game within his ethical limits, Andres has been tactically involved in actions to protect and secure the research group and the national journal such as seeking a better ranking for the journal, the research group, and for himself (see Table 12).

Table 12. *Professor Andres Velasquez's Actions, Orientation and Concretization of the Actions and National Research-Related Policies*

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
In a merit-based competition, applied for a full-time position with a permanent contract	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: To earn a living to support his family	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Assigned a large amount of reading in his first classes	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a doctor who demands the greatest possible effort from students	Not related
Encouraged and promoted his close colleague as a department chair	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: To gain power and have more opportunities	Not related
Learned to balance work and family life	Moral orientation ( <i>Why engage in particular forms of work?</i> ) Tactical orientation ( <i>How to do the work?</i> )	Motive: To protect his personal time Means: Separating his personal and professional time	Slightly related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications</i> policies
Became the editor of the academic department's journal	Political orientation ( <i>What to accomplish and achieve?</i> )	Goals: Helping the department chair and to maintain the quality of the journal	Related to: <i>Quality of National Publications</i>
Tried to keep the national research journal alive by getting classified in Colciencias' classification of journals	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: To protect an academic space for important topics that are not attractive to international commercial publishers	Related to: <i>Quality of National Publications</i>
Applied to the promotion process with an academic and rigorous evaluation process	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive and Goal: To have a more solid and secure position within the academic department	Related to: <i>Faculty Promotion Policy</i>

<b>Actions</b>	<b>Orientation</b>	<b>Concretization</b>	<b>National Research-Related Policies</b>
	Political orientation ( <i>What to accomplish and achieve?</i> )		
Helped to a senior colleague in the process of going up from assistant to associate professor	Political orientation ( <i>What to accomplish and achieve?</i> )	Goal: To help his colleague to get better salary	Related to: <i>Faculty Promotion Policy</i>
Favored teaching over research	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a professor who is mainly dedicated to teaching	Related to: <i>Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications policies</i>
Became a research group participant	Tactical orientation ( <i>How to do the work?</i> )	Means: Following the department requirement	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Not to make efforts to be classified in the highest categories (senior researcher and A1 or A research group)	Moral orientation ( <i>Why engage in particular forms of work?</i> )	Motive: Being a researcher with good ethical and scientific standards	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Not to use students to increase publication and obtain economic resources			
Used his own economic resources to do research projects			
Became a master program coordinator and supervised master students	Due to the lack of information, I was not able to identify the orientation and concretization of this action		Not related
Had a thorough understanding of Colciencias/Minciencias' measurement models	Tactical orientation ( <i>How to do the work?</i> )	Means: To participate in research activities and play the Colciencias' game without sacrificing his ethics	Related to: <i>Research Groups and Researchers' Classifications Policy</i>
Participated less isolated and promoted the participation of the other member of the research group (e.g., applied to grants)			
Carried out his first research project as a professor			
Promoted students' magazine and small projects such as didactical games			
Applied to the research group' classification process.	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a professor who is intellectually active	

Actions	Orientation	Concretization	National Research-Related Policies
Applied to the researcher's classification process.			
Not to create or lead a spin-off company	Personal orientation ( <i>Who am I? or who do I want to become?</i> )	Identity: Being a professor and researcher	Related to: <i>Spin-off Policy</i>

Note: Analysis based on Räsänen's (2014).

### Linking Professors' Actions and National Research Policies

The orientations of actions—tactical, political, personal, and moral (Räsänen, 2014)—were the way to understand how Colombian professors implemented the national research policies by translating them into actions. By taking into account the specific contexts of Cristina, Sebastian, Alicia, and Andres, I analyze the policy implementation through the lens of the professors for whom national research policies were designed. These four professors demonstrated different types of academic lives within a public Colombian university that intersect with four national research policies: *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications*, and *Spin-off* policies.

Each professor had personal characteristics and worked in a particular department with dynamics that impacted their academic life. As presented, their individual contexts had factors that fostered or hindered them in becoming “the ideal professor” as promoted by national research policies (See Chapter 5). However, these professors had a leeway for interpreting the national research policies and acting upon them. For example, Sebastian embodied most of the national research policies' guidelines and desired goals (except for *Spin-off Policy*), and Cristina represented the opposite. She was (and felt like) an outsider of the policies related to publications (*Quality of National Publications, Faculty Promotion and Research Groups and Researchers' Classifications Policies*). In an intermediate

position, Alicia and Andres have incorporated the national research policies in their academic lives. Nevertheless, their actions did not completely follow the policies' discourses.

### **Professors' Actions Related to Publishing**

Professors' actions related to publishing are important for the analysis because they are linked to three of four national research policies (*Quality of National Publications*, *Faculty Promotion* and *Research Groups and Researchers' Classifications Policies*) and the academic publishing market as the new layer of the academic capitalist regime. In this regard, Cristina was not engaged in academic research nor publishing at that time, but doing research was one of her future goals. Like Cristina, Andres learned to favor teaching over research. However, Andres tried to be involved in research activities to remain intellectually active. In contrast, Alicia and Sebastian were very engaged in publishing. For both of them, the most important reasons to engage in academic publication was the acknowledgement and prestige. On the one hand, Sebastian sought internal acknowledgement through gaining respect from his academic and administrative peers. On the other hand, Alicia sought international acknowledgement through obtaining recognition from international academic peers in her field of knowledge. These two professors were engaged in prestige-behavior through publications in high impact journals.

Sebastian and Alicia linked high quality of publication with English language and international journals. For this reason, one important goal for both was to publish articles in English and in high impact journals. To achieve this goal, they employed different strategies, such as avoiding administrative tasks, in the case of Sebastian, or inviting important international professors to participate in research projects and publications, in the case of Alicia. Following international recognition, Alicia was co-author in peer-reviewed



publications only with outstanding students and she was only interested in selected high impact journals. Contrary to Alicia, Sebastian had a different approach to the academic publishing world, including the bibliometrics, which he understood very well, and tactically diversified his publication between Q1, Q2, Q3, and Q4 journals. Additionally, Sebastian structured plans for all his graduate students to publish more and more academic papers. On the opposite side, Andres, as editor of the academic department's journal, tried to keep this national research journal alive in Spanish and get classified in Colciencias/Minciencias. His justification or motive was to protect an academic space for important topics that are not attractive to international commercial publishers.

### **Professors' Actions Related to Faculty Promotion Policy**

Regarding the *Faculty Promotion Policy*, Cristina, Sebastian, Alicia and Andres seemed comfortable with the promotion process and the link between salary increases and publications. Sebastian and Alicia saw the promotion process as a ritual to share their academic trajectory and to earn acknowledgement from the university (in the case of Alicia), and from family and close friends (in the case of Sebastian). Cristina and Andres shared the idea that the promotion process helps increase salary, and this is the main reason that Cristina plans to apply to this process in the future. Andres, who was already a titular/full professor, also saw this process as a way to ensure a solid position within the academic department. Their position regarding the promotion process was also linked to their personal circumstances. Sebastian and Alicia saw the promotion process as a celebration because they were in a privileged position in terms of research, which is the most valued factor. Cristina and Andres had individual issues to overcome, and they saw this process as a victory for income and status.

### **Professors' Actions Related to Research Groups and Researchers' Classification**

*Research Groups and Researchers' Classifications Policy* was part of the academic life of all of these professors and generated different types of opinions and actions from each of them. All of them were members of research groups. In the engineering department, Sebastian and Cristina belonged to the same research group, which was classified in the highest rank (A1). While Sebastian was the research group's coordinator and a very active participant, Cristina was not an active participant and felt like an outsider in this highly competitive group. In the anthropology department, Andres and Alicia belonged to different research groups, Alicia's research group was classified as B and Andres' research group was C. While Andres saw his research group as an academic refuge, Alicia saw research groups as an unnecessary and unimportant academic unit. Although they had different attitudes toward research group classification, Andres and Sebastian had more actions related to research groups' classification than Cristina and Alicia. For Sebastian, being the research group coordinator was part of his identity, but so was being a productive researcher. He followed the *Research Groups and Researchers' Classifications Policy* and he seemed comfortable with its guidelines and requirements. Andres was another story. He and the other research group participants considered the essential use of graduate students to rank in the highest categories (senior researcher and A1 or A research group) as appropriate. For this reason, Andres decided to strategically participate in this policy without compromising his ethics and without seeking the highest categories.

### **Professors Actions Related to Spin-Off Policy**

Finally, none of these four professors were aligned with the *Spin-off Policy*. They were not interested in taking part in creating or leading a spin-off company. This is especially notable in the cases of Cristina and Sebastian, who were part of an academic

field that is heavily engaged with industry. Although Cristina and Sebastian's disinterest in spin-off companies was based on a personal orientation, the academic department's experience with a spin-off also reinforced their decision.

### **The Quintain: The Academic Capitalist Knowledge Regime and its Neoliberal Roots**

Drawing on CDA, this section analyzes the academic capitalist regime and its neoliberal roots, which is the quintain or the phenomenon studied across all the cases. Particularly, this section seeks to explain how professors' actions promote, justify, normalize, and/or resist the academic capitalist knowledge regime and its neoliberal roots. Promotion includes the actions carried out by national research policies in order to introduce the academic capitalist regime and their alignment with professors' actions. Justification is based on the rationale behind professors' actions and presents the reasons why professors' actions introduce the academic capitalist regime. Normalization is seen as the inclusion of the accepted worldview and the assumptions about what is right, normal, or desirable as promoted by the national research policies. Finally, resistance is seen as the actions, rationale, and assumptions related to knowledge and education as public goods and/or against the academic capitalist regime.

### **Promotion and Justifications of the Academic Capitalist Regime**

The analyzed national research policies promoted the academic capitalist regime and its neoliberal roots through: (a) the creation of measurement models (*Quality of National Publications Policy* and *Research Groups and Researchers' Classifications Policy*), (b) the incorporation of salary increases linked to publications and patents (*Faculty Promotion Policy*), (c) the creation of spin-off companies with profit for professors (*Spin-off Policy*).

**I. The measurement models as social technologies and the promotion of the academic journal market.** *Quality of National Publications and Research Groups and Researchers' Classifications* policies are based on measurement models (social technologies) to classify national journals according to international measurements JIF and/or SJR and to assess the success of professors and higher education institutions. As chapter 5 pointed out, these models promoted the academic journal market through the link between national publications, salary points, and research groups and researchers' classification with JIF/SJR. The measurement models are expressions of neoliberal accountability that has become pervasive and widely accepted in different contexts (e.g., Ambrosio, 2013) and introduce the academic capitalist regime (e.g., Slaughter & Cantwell, 2012). Both models have sought to control national research journals and the conduct and choices of research groups and researchers. Cristina, Sebastian, Alicia, and Andres have all acted in accordance with both measurement models. Regardless of their opinions and involvement, all of them accepted: the measurement model and were active members of research groups that has been classified by Colciencias/Minciencias, and the new classification of national journals A1 or Q1 (the highest), A2 or Q2, B or Q3, or C or Q4 (the lowest) aligned the JIF/SJR international quartile rankings and Publindex (local scientific database). In other words, this group of professors has incorporated the measurement models that promote the academic capitalist regime and its neoliberal roots in their academic lives.

***Research groups and researcher' classification.*** Even though the participation in research according to *Research Groups and Researchers' Classifications Policy* was voluntary, the primary rationale for professors to participate in this classification was based on seeing it as an obligation. Professor Fernandez, the department chair of anthropology

department, said it explicitly: “Colciencias forces us to have CvLAC updated” [*Colciencias nos obliga a tener el CvLAC actualizado*]. Cristina did not reflect upon this process, but it seemed that she assumed it was a part of academic life. Alicia, Andres, and Sebastian stated that their participation was a necessary process. For example, Alicia said “It is a formality” [*Es un asunto formal*] and then she added “You follow the formal process to meet the requirements that you’ll need at some point” [*(Usted) maneja la forma (el proceso formal) para lo que se requiere en determinado momento*]. Their position is understandable because being part of a research group became an essential requirement to create and operate undergraduate and graduate programs and for academic programs and higher education institutions to get accreditation.

***Quality of national publications and salary points.*** The new classification of journals promoted by the *Quality of National Publications Policy* was supported by the high quality of journals. It is worth remembering that the academic rank (instructor, assistant, associate, and titular professor) created by the *Faculty Promotion Policy* is closely related to *Quality of National Publications Policy* because the classification of national journals—A1 or Q1, A2 or Q2, B or Q3, or C or Q4—served to assign salary points. As an example, if a national journal is classified in A1, a published article would have 15 salary points. But if the journal is classified in C, a published article would only have 3 salary points. While Andres was focused on the quality of the national journal in Spanish in his academic department, which is a way to resist the policy discourse, Sebastian and Alicia focused on the quality of publications (national or internationally) in English. In terms of salary points, while Alicia and Andres acknowledged the link between publications and salary points, Cristina and Sebastian saw the link between salary points and publications as a good incentive that, as Sebastian said, “rewards those who work the

hardest” [*recompensa al que más se esfuerza*]. Sebastian’s explanation serves as an example of how the *Quality of National Publications Policy* was seen as a way to improve the quality of academic publications as well as the academic status. Sebastian saw the alignment between the JIF/SJR international quartile rankings and Publindex (local scientific database) as a way to “tighten the screws” [*apretar las tuercas*] in the sense of solidifying national standards:

Some years ago, it was a little bit easier to do it, and many people could increase (their salary points) with low quality publications. The government really got serious about aligning academic production with international standards and categorized (the publications) based on SCImago (SJR), which is Q1, Q2, Q3, Q4. This resulted in, for all of us, and particularly for me personally, taking things to another level... if the measurement hadn’t changed, I would probably be more laid back [*Pues hace algunos años, era un poco más fácil hacerlo, entonces mucha gente lograba subir (los puntos salariales) pues con productos (publicaciones) un poquito más bien malitos ¿cierto? Ya entonces el gobierno lo que se puso fue las pilas, a decir que los productos tenían que ser de acuerdo a los estándares internacionales, y los categorizo (las publicaciones) de acuerdo a SCImago (SJR) que es Q1, Q2, Q3, Q4. Y entonces eso que hizo que, de algún modo, pues para nosotros y personalmente para mí, pues subimos el nivel...pero si de pronto no hubieran apretado, uno va un poco más tranquilo también*].

**II. The promotion of market-like behaviors and the prestige economy.** The *Research Groups and Researchers’ Classifications Policy* promoted market-like behavior or competition for external funds and prestige based on those external funds (prestige economy). Except for Cristina, who was not engaged in research activities at the time,

professors from the engineering department also saw the classification of research groups and researchers as a beneficial process. Sebastian and the department chair explained that having the research group in the highest category and a group of senior professors allowed them access to resources, scholarships for graduate students, and maintain the accreditation. For example, Professor Fernandez explained “Colciencias requires us (to participate in research groups classification) to get the research group ranked, and being A1 level opens more doors for us” [*Colciencias nos lo exige (participar en la clasificación de grupos) para poder ranquear el grupo, y el grupo A1 nos abre más puertas*]. When Professors Fernandez said, “open many doors,” he mentioned “accreditation” as an example.

Sebastian showed his competitive spirit that incorporated, to some degree, the market-like behavior. Sebastian had a willingness to invest professional energy working to get his research group classified in the highest category (A1) and himself classified as senior, which is the highest rank for researchers. Moreover, as the literature has shown for professors in fields that are heavily engaged with industry, he also had the willingness to engage in competitions for external funds (market-like behavior) in order to gain status and economic resources beyond the standard salary such as space, equipment and funding for graduate students (Johnson, 2017; Mendoza & Berger, 2008; Mendoza et al., 2018; Slaughter & Leslie, 1997). However, he was only interested in research projects, not commercial activities. Also, in order to focus on his academic agenda and publications, he only carried out one or two projects at a time. In this sense, although Sebastian competed for research funds (market-like behavior), he, along with Professor Fernandez, did not link research grants to the prestige economy, as the literature has shown (Rosinger, Taylor, Coco, et al., 2016). For Sebastian, research grants were an important resource for carrying out research projects and maintaining publications, his main source of prestige. For

Professor Fernandez, research grants were a resource for maintaining accreditation and high status within the university.

### **Normalization of the Academic Capitalist Regime**

This group of professors has incorporated a number of the assumptions related to the academic capitalist regime. In other words, they accepted, without any explanation some of the ideas behind three of four national research policies (*Quality of National Publications, Faculty Promotion and Research Groups and Researchers' Classifications* policies). In particular, policies and professors shared the assumptions related to publishing and research groups.

**I. Journal editors are responsible for the quality of national journals and Colciencias/Minciencias is the mediator.** Andres, the only journal editor among these professors, felt completely responsible for the quality of the national journal that he edited. Although he was critical of the *Quality of National Publications Policy*, he followed all the requirements because the continuation of the journal depended on that. In turn, Andres saw Colciencias/Minciencias as the mediator that set the rules and interprets excellence and quality in national academic publications.

**II. Publishing is the most important activity.** Sebastian and Alicia have incorporated the hegemonic discourse of the commercial for-profit model of academic publishing and its bibliometrics (JIF/SJR quartile rankings) promoted by *Quality of National Publications, Faculty Promotion, and Research Groups and Researchers' Classifications* policies. Specifically, Sebastian has incorporated SJR and JIF as his guide for where to publish. He used JIF/SJR quartile rankings to decide where to publish. He diversified his publications between Q1, Q2, Q3 and Q4, but he had a strategic plan to achieve Q1 publications. In this sense, he considered SJR and JIF as the most important



measurements. However, although SJR and JIF is based on citations, Sebastian did not consider peer citation as the only acceptable standard of excellence, rather he saw it as a mafia, in which “you cite me and I’ll cite you” [*cítame, yo te cito*]. He highlighted that he had never asked to be cited, but he has seen this type research misconduct. For Sebastian and Alicia, publishing in Spanish was synonymous with low quality. They accepted that English is the dominant language of publishing and that international scientific journals represent excellence. In Sebastian’s words, “To have a higher impact article, you need to write in English” [*ya para poder tener un artículo de mayor impacto, se debe escribir en inglés*].

**III. Professors are rational maximizers.** According to *Faculty Promotion Policy*, professors are seen as rational maximizers who have the same opportunities to increase their salary through salary points. If they do not increase their salary, it is their fault and their choice. In other words, this policy rewards those who work hard and have merit, especially in research terms. Among professors, this idea has been normalized. As Professor Fernandez said “I for one see this is as very logical: why does he earn so much? Because he publishes a lot” [*al menos yo lo veo muy lógico: ¿por qué gana tanto? porque publica mucho*]. Andres was the only person who noted hierarchical differences among professors and saw research as a privilege, but in his narrative, he also normalized this policy’s assumption.

**IV. Research is more valued than teaching.** The *Faculty Promotion and Research Groups and Researchers’ Classifications* policies asymmetrically valued research over teaching. As presented, this group of professors accepted publications as the most rewarded activity. However, they also valued teaching. All of these professors saw teaching as an important assignment. In their narrative, they explained how much teaching meant to them.

Sebastian linked his research interests to his classes, incentivized students, and selected future research assistants. For Cristina and Andres, teaching was their most important activity, and Alicia saw teaching as a way to learn new things. In this sense, even though they accepted and normalized research activities as a way to increase their salary and to obtain a better classification for research groups and researchers, they also valued teaching responsibilities as an important aspect of their academic life.

**V. Science, technology, and engineering are the most important fields.** *Research Groups and Researchers' Classifications* asymmetrically promoted and normalized science, technology, and engineering over other fields. Along the same line, this group of professors have internalized this difference. Professors from the electrical engineering department have assimilated their privilege as normal without any explanation. Professors from anthropology understood this hierarchical system, they have accepted their lack of options, and learned to survive and to carry out research projects under these conditions (without resources and without being ranked in the highest categories).

**VI. Research groups are essential academic units.** The *Research Groups and Researchers' Classifications Policy* introduced research groups as an interstitial organization or as an important unit that is institutionalized for generating external research revenues (Slaughter & Rhoades, 2004). For these professors, being part of a research group was natural, expected, and, in some cases, desired. For example, Andres saw his research group as an academic refuge. For Alicia, it was also part of her academic life, even though she saw research groups and researchers' classification as an unnecessary and uncomfortable formality.

**VII. It is necessary to strengthen the administrative capacity.** According to the *Research Groups and Researchers' Classifications Policy*, the application process for

classification is very demanding and rigorous. It seemed necessary to have assistance, but only professors from the electrical engineering department had an administrative assistant. The professors from the anthropology department had to manage the demanding process on their own because they lacked the resources to pay an assistant.

### **Resistance to the Academic Capitalist Regime**

This group of professors—Cristina, Sebastian, Andres and Alicia—incorporated and accepted the presented elements related to the academic capitalist regime and its neoliberal roots. However, they also showed hegemonic struggle (Chiapello & Fairclough, 2002), which means that these professors did not completely acquire and internalize the hegemonic discourse enacted or inculcated through national research policies. This group of professors, with some variations, manifested resistance to: the market behavior (the inclusion of profit motive), the market-like behavior (competition for external funds) and the prestige economy, and some assumptions promoted by the national research policies.

#### **I. The (lack of) promotion of market-like behaviors and the prestige economy.**

Professors from the anthropology department did not incorporate market behavior nor its link to prestige economy promoted by the *Research Groups and Researchers' Classifications Policy*. Unlike the electrical engineering department, Andres and Alicia did not see the classification of research groups and researchers as a beneficial process. In fact, they have scarcely applied for research grants through Colciencias/Minciencias and have rarely participated in competition for external funds. In their narrative, Alicia and Andres showed that they carried out their research projects on a shoestring budget, and even used their own resources and unpaid time. Alicia and Andres did not make efforts to be classified in the highest categories (senior researcher and A1 or A research group). Andres stated:

This is a vicious circle. If you want to stay connected, if you want to stay (in the highest category), you have to play the A1 game. But if you want to be A1, you have to sacrifice your ethics (because) if you don't play the game, you're going to lag behind [*Es como un círculo vicioso. Si quieres estar conectado, si quieres mantenerte (en la categoría más alta), tienes que estar jugando el juego de la A1. Pero para ser A1 tu línea ética se tiene que adelgazar, (porque) si no juegas el juego te vas quedando atrás*].

In this sense, Alicia and Andres did not engage in market-like behavior, because as Räsänen (2014) stated, “Not all academics necessarily fight to secure the best and most prestigious position, and one reason may be that they do not regard the means of rivalry to be ethically acceptable” (p. 105).

**II. The (lack of) promotion of market behaviors.** Market behavior, which refers to for-profit outputs derived from research activities, were promoted through: (a) linking patents to salary points (*Faculty Promotion Policy*); (b) Technological Development and Innovation Products (TDIP), which was strongly associated with the commercial potential of knowledge such as technology products (e.g., industrial design and software) and business products (e.g., trade secret, spin-off companies, business innovation), and most especially, patents with market products and spin-off companies with commercialized products and sales (*Research Groups and Researchers' Classifications Policy*); and (c) the creation of spin-off companies (*Spin-off Policy*). Although there were three important sources to promote market behavior, none of the professors were interested or implemented related actions. In this case, there was an explicit difference between policies and the commitments and interests of professors. In fact, Alicia expressed her conviction that

knowledge should be a public good and called into question the use of economic growth as the rationale behind the privatization of knowledge.

Market behavior and neoliberal ideology view individuals as competitive entrepreneurs, rational maximizers, and economically self-interested. However, none of the professors manifested these characteristics in this respect. In fact, Professor Brito, who created the first spin-off company in the electrical engineering department, did not manifest market behavior. Regarding the spin-off company, he said: “I don’t think any of us were thinking about getting rich; we wanted to live that experience and we did” [*Yo creo que ninguno de nosotros estaba pensando en enriquecerse, sino en vivir la experiencia y la vivimos*].

**III. Assumptions.** This group of professors did not accept some of the following assumptions introduced by the national research policies.

***Rejected assumption: Copyrights and barriers to accessing knowledge are the cost of prestige.*** The *Quality of National Publications Policy* institutionalized the for-profit model of international commercial publishers and bibliometrics, in which most of the journals are subscription-based and keep the property rights of professors and higher education institutions. However, the professors who published in these types of journals, Sebastian and Alicia, did not see these characteristics as problematic. In fact, Alicia explicitly supported pirated scientific articles as a way to access the content of subscription-based articles and journals.

***Rejected assumption: It is important to be efficient and not to waste time.*** The *Research Groups and Researchers’ Classifications Policy* introduced time pressure as normal and desirable among professors. In this sense, it was expected that professors constantly produce academic products, which could create blurred boundaries between

work time and other time such as family time or personal time. Despite the expected time pressure, this group of professors learned to structure their time by demarcating their personal or family life from their academic life. Their position was contrary to what is found in the literature on academic capitalism. In the literature on academic capitalism, Gonzales et al. (2014) found that professors, in a striving or non-elite university, struggled to balance professional and personal responsibilities to mirror top-research universities. However, for this group of professors, it was different. At the time of the fieldwork, Sebastian, Andres and Alicia were well established in their mid-career. They had learned to balance their time from previous experiences, in which they faced many challenges, including excessively high expectations. For example, Sebastian learned from watching Professor Brito how to stop being a workaholic. Even though he was a very productive researcher, he knew how to disconnect from work and he did not sacrifice his personal time. Cristina was a junior faculty, but her particular life events (divorce, living alone with her child without support, and breast cancer) made her re-balance her priorities and put boundaries on her time.

***Rejected assumption: Professors do act as capitalists.*** The *Spin-off Policy* and *Research Groups and Researchers' Classifications Policy* saw professors as individuals who can engage in market activities, act as capitalists, and yield economic benefits. These policies promoted patents with market products and spin-off companies with commercialized products and sales. As presented earlier, this group of professors did not want to be involved in activities linked to the commercial potential of knowledge and did not identify with professors seen as capitalists. For example, Sebastian explained that he did not act as a capitalist or need economic incentives for knowledge creation:

I think that, if I'm going to create a company, I can't be affiliated with the university...But if we manage to create a useful product, I would be available to help the student exploit that product commercially. But this product wouldn't be mine or for me to get rich from, rather, let's give the opportunity to the student who work with us, let's help him gain a livelihood and a job. *[Yo pienso que, si yo voy a hacer industria, no puedo estar ligado a la universidad.... Pero si logramos que un producto se materialice, yo estaré dispuesto a que el estudiante lo explote comercialmente...y que el desarrollo no sea de (Sebastian Ospina) y que (Sebastian) se va a enriquecer con el producto. Más bien demosle la oportunidad a la persona que estuvo participando, a que consiga su sustento y su trabajo].*

### **Conclusion**

The main focus of this chapter was on the link between professors' actions and the four national research policies: *Quality of National Publications*, *Faculty Promotion*, *Research Groups and Researchers' Classifications*, and *Spin-off* policies. The purposes were to understand how professors implement these policies by translating them into actions (the second research question), and how their actions promote, justify, and normalize the academic capitalist regime and its neoliberal roots (the third research question). The analysis was based on four full-time professors (Cristina, Sebastian, Alicia and Andres) at a Colombian public university and showed how two professors from the electrical engineering department and two professors from the anthropology department incorporated and responded to the national research policies. Additionally, these professors and their actions allowed for an analysis of the relationship between professors' work and the academic capitalist regime.

The intersection between the national research policies and professors' actions can create and reinforce social practices and social structures. As presented in Chapter 5, social practices are a stabilized form of social activities (e.g., management in educational institutions, research, classroom teaching, television news, family meals, medical consultations) (Chiapello & Fairclough, 2002), and social structures are abstract (e.g., social class or the design for a television show) or concrete structures (e.g., schools, universities) that shape and are shaped by social practices (Fairclough, 2015). Publishing and research activities with profit orientation were the social practices that emerged from national research policies. However, the analysis of professors showed that this group of professors incorporated publishing, but rejected research activities with profit orientations.

With some differences, the professors' actions reinforced publishing as a social practice promoted by the *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications* policies. Cristina was not involved in research activities and Andres was focused on national publications, but Alicia and Sebastian tried to follow a "certain types" of academic publications as part of the new layer of the academic capitalist regime. However, they had not manifested a clear understanding, interest, or a complete awareness of the privatization and the commercialization of knowledge through subscription-based journals and bibliometrics. They were guided by the prestige behavior derived from interchanging copyrights for prestige, and, at least one of them, saw pirated scientific articles as a way to break down access barriers. In this sense, Alicia and Sebastian have also incorporated the social structure of publishing to build "the ideal professor." They believed and reproduced the hegemonic discourse related to publications that was introduced through national research policies. In contrast, Andres was not interested in realizing the image of "ideal professor" to secure the best and most prestigious position. As



Räsänen (2014) pointed out, Andres is one of the cases in which academics act against their interests (e.g., “the ideal professor”) because their conception of good work is different, and by following his convictions, he has ended up in a weaker position in terms of resources for research and salary level.

Regarding research activities with profit orientations as a social practice, all four professors completely rejected the hegemonic discourse promoted by *Research Groups and Researchers’ Classifications*, and *Spin-off* policies. This hegemonic discourse valued different types of profit-oriented, research activities, such as patents with market products and spin-off companies with commercialized products and sales. None of the professors were interested in the inclusion of the profit motive in their activities nor internalized the national research policies’ accepted worldview related to it. Professors’ rejection of market behavior was not at a high professional cost because publications were also part of the most valued academic products for researcher promotion and rankings.

## Chapter 7: Discussion and Conclusion

This dissertation was designed with the intention to understand the academic capitalist regime in the Colombian context. The academic capitalist regime is a well acknowledged theoretical construct used to explain the changing social understanding of “what is public?” in terms of the production (research) and transmission (education) of knowledge (Rhoades & Slaughter, 2006). This regime is based on the idea of research and education as commodities and services or consumption items, valuing knowledge privatization and profit-taking (Rhoades & Slaughter, 2006; Slaughter & Rhoades, 2004). It coexists and intersects with the public good regime, in which it is expected that research outputs lead to public benefits (Slaughter & Rhoades, 2004), and higher education responds to public interests rather than individualist and privatized interests (Rhoades & Slaughter, 2006). By redefining the public good in economic terms (Metcalf & Slaughter, 2008), the academic capitalist regime has displaced the public good regime (Slaughter & Rhoades, 2004), becoming part of the nature of educational and research policies, higher education institutions and professors’ academic lives.

Most of the recent literature on academic capitalism (e.g., Gonzales et al., 2014; Johnson & Taylor, 2019; Mendoza et al., 2012; Rosinger, Taylor, Coco, et al., 2016), does not address how the academic capitalist regime is strengthened and how its tenets and ideas, regardless of the unintended consequences, remain powerful. This study addressed these theoretical and methodological gaps by linking academic capitalism to neoliberalism, and by employing critical discourse analysis to examine policies and professors as agents who can introduce, promote, or resist the academic capitalist regime and its neoliberal roots. Specifically, this dissertation focused on national research policies and professors’ actions.

This concluding chapter begins by summarizing the findings of this study and the theoretical contribution of this dissertation. Next, I discuss the unintended consequences of the academic capitalist regime and the continuation of the regime beyond the unintended consequences. This section is followed by a discussion of the implications. Finally, I suggest future research topics that can enrich this study.

### **Summary of Findings**

The first phase of this study examined national research policies as one of the areas in need of research attention, because the higher education literature has not often discussed or addressed research policies (Metcalf, 2008). I analyzed four national research policies: *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications, and Spin-off*. These policies illustrated the growth of the academic capitalist regime in the Colombian context through the incentive of market, market-like, and prestige behaviors among the academic community, particularly professors, and the introduction of mechanisms such as social technologies or measurement models (Slaughter & Cantwell, 2012) that introduced and promoted this regime. Contrary to Colombian general legislation and Conpes that assigned a secondary role to academics (See Chapter 3), these four policies, in line with the theory of academic capitalism, assigned a major or leading role to academics (See Chapter 5). These policies positioned researchers or professors as a group of actors who participated productively and efficiently in the production of articles and commercialization of research to gain prestige and generate external resources.

The second phase of this study examined the link between these four national research policies and professors' actions. The analysis was based on four full-time professors from two academic fields, electrical engineering and anthropology, at a public university. The combination of two fields allowed me to cover the heterogeneity among

professors that has been insufficiently studied through the lens of academic capitalism (Collyer, 2015). While electrical engineering is an academic department with close ties to industry, the anthropology department represents fields with fewer apparent and direct ties to industry. These contrasting contexts allowed me to capture the variation between disciplines in professors' responses to the academic capitalist regime and to better understand the broad neoliberal tenets of the current regime in the Global South, in particular. The analysis of professors was supplemented with their departmental characteristics because they are a significant source of identity for professors, especially when studying the effects of academic capitalism on the academic profession (Mendoza, 2009). In this sense, the analysis showed how these four professors have built an academic life and responded to the national research policies based on their personal experiences, and beliefs as well as the academic department's dynamics that impacted their academic life. In terms of the academic capitalist regime, professors showed ways they promote, justify, and normalize this regime and its neoliberal roots, but they also showed forms of resistance to it.

### **National Research Policies**

The first research question was how do the national research policies that shape professors' work—*Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications*, and *Spin-off*—promote, justify, and normalize the academic capitalist regime and its neoliberal roots? For this research question, I followed the foundational works of Slaughter and Leslie (1997) and Slaughter and Rhoades (2004) to analyze how these policies introduced market (for-profit) or market-like (competition for external funds) behaviors on the part of higher education institutions and professors.

However, one of the theoretical contributions of this work was the introduction of prestige behavior through (but not limited to) the academic journal publishing market.

The analyzed research policies promoted market and market-like behaviors among professors/researchers. The market behaviors were introduced through activities that have a profit component such as (a) patenting (*Faculty Promotion Policy*), (b) patenting marketable products (*Research Groups and Researchers' Classifications Policy*), (c) creation of spin-off companies (*Spin-off Policy*), (d) classification of spin-off companies with commercialized products and sales (*Research Groups and Researchers' Classifications Policy*), and (e) measurement of business innovation (*Research Groups and Researchers' Classifications Policy*). The market-like behaviors were introduced through the promotion of competition for external funds, especially among professors from fields heavily engaged with industry (*Research Groups and Researchers' Classifications Policy*).

The analyzed *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications* policies also promoted publishing as a social practice that is based on the academic journal publishing market. I argue that the commercial for-profit model of academic publishing is a new layer, and an essential component of the academic capitalist regime, that generates prestige-behavior among professors. The theory of academic capitalism and its empirical literature pointed out that publishing is diametrically opposed to patenting and creates tension among professors. According to Slaughter and Rhoades (2004) publishing was “tied to the free flow of knowledge and values associated with a public good knowledge regime, whereas patenting was associated with academic capitalism” (Slaughter & Rhoades, 2004, p. 113). In this vein, empirical literature on academic capitalism reinforced the idea of publishing as a public good (Mendoza, 2009, 2015; Paasi, 2005). One of the reasons for seeing them as two

opposites was that publishing can interfere with patenting (Johnson, 2017; Slaughter & Rhoades, 2004). However, the boundaries between publishing as a public or private good have become blurred, and, as this dissertation found, publishing is moving to be a private good more than public. As private good, publishing is not associated with the free flow of information.

This dissertation introduced a more complex view of publishing by linking open access articles and journals with the public good regime, and subscription-based journals and articles with the academic capitalist regime (See Chapter 5). The academic journal publishing market is controlled by private international commercial publishers. In this market, professors and universities produce the main inputs and receive prestige in exchange for letting these publishers keep both the academic publishing rights and the monetary profits derived from the circulation of knowledge. In this sense, the circulation of knowledge is limited to subscribers, rather than open to the public, as established by the theory of academic capitalism established. As Maldonado-Maldonado (2014) pointed out, these private publishers “do not pay for the contributions made by scholars in activities such as editing, reviewing or authoring papers. However, universities pay high prices for publishers’ publications and subscriptions” (p. 192). Paradoxically, a significant amount of published articles have been sponsored by public financing (Maldonado-Maldonado, 2014). Like the academic capitalist regime, the academic publishing market is based in making profit from professors’ work. For this reason, it can be considered a new layer of the academic capitalist regime, even though neither higher education institutions nor professors keep the profits.

To introduce this market into professors’ work, private, international commercial publishers have also created bibliometrics (JIF/SJR) that mainly based on subscription-

based journals as a commonly accepted proxy of quality (Garfield, 2003; Liu et al., 2018). These citation impact indicators (JIF/SJR) have become a major instrument for the evaluation of research and researchers (Machin-Mastromatteo, Uribe-Tirado, & Romero-Ortiz, 2016; Paasi, 2005). In the case of national research policies in Colombia, these indicators have become an essential element for getting a higher salary (*Faculty Promotion Policy*) and being ranked as a researcher (*Research Groups and Researchers' Classifications*). In addition to the market and market-like behaviors introduced by the theory of academic capitalism (Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004), the academic capitalist regime also deals with prestige behavior on the part of universities and professors. Prestige behavior is derived from the competition or pressure to publish in certain types of subscription-based journals classified through JIF and SJR as high impact journals (most-cited) or Q1 journals. Prestige behavior is different from the prestige economy, a concept recently added to the theory of academic capitalism (Rosinger, Taylor, Coco, et al., 2016). While prestige behavior is derived from publishing (especially in Q1 journals), the prestige economy is derived from external funds that are linked to research rather than other external resources (e.g., those derived from instruction) (Rosinger, Taylor, Coco, et al., 2016).

The link between academic capitalism and publishing is not new. It has been critically addressed in the field of geography by Anssi Paasi (2005, 2015). According to Paasi (2005) the academic capitalism has resulted in the homogenization of publication practices in social sciences, especially in English-language journals, when publications were known to be heterogeneous and context dependent. However, he did not consider the academic journal publishing market as an essential part of the academic capitalist regime as I pose. The academic journal publishing market and prestige behavior expand the theory of

academic capitalism and help us to gain an in-depth understanding of contemporary higher education. Specifically, by analyzing the journal market as part of the academic capitalist regime we can better understand the hegemonic system where knowledge production is immersed, and the challenges that professors face, especially scholars from peripheral countries.

### **Professors**

The second research question was how do Colombian professors implement national research policies—*Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications, and Spin-off*—by translating them into actions? The findings are based on four professors at one Colombian public university, each of them was considered a case. Two professors, Alicia and Andres, were affiliated with the anthropology department, and two professors, Cristina and Sebastian, were affiliated with the electrical engineering department. To answer this research question, I followed Räsänen's (2014) orientations (moral, personal, tactical and political) to analyze the actions of each professor in relation to their academic lives. I also explored the final research question: how do professors' actions promote, justify, normalize, and/or resist the academic capitalist regime and its neoliberal roots? To respond to this question, I used Critical Discourse Analysis to analyze all the professors' responses together to understand professors' views and actions related to the academic capitalist regime.

The analysis demonstrated how this group of professors had individual contexts that fostered or hindered them from realizing “the ideal professor,” as promoted by national research policies, how they interpreted the national research policies, and how they acted in response to them. In terms of publishing, all the professors have accepted the promotion of the academic journal market through (a) the measurement models (*Quality of National*



*Publications and Research Groups and Researchers' Classifications* policies), and (b) the link between salary points and publications (*Faculty Promotion Policy*). However, Sebastian and Alicia, followed the paradigm of “the ideal professor,” incorporating the hegemonic discourse as the accepted worldview. This finding demonstrates that these two professors engaged in prestige behavior through publications in high impact journals, as promoted by national research policies. However, the other two professors, Cristina and Andres, did not follow this pattern. Cristina did not participate in research activities at the time of the interviews, but she had plans to be involved in research in the future, and Andres was an editor of a national journal. Andres was trying to maintain the quality of the academic department journal by following (from a marginalized position) the guidelines of the *Quality of National Publications Policy* that enforced the academic journal publishing market. It is worth remembering that national journals have been mainly in Spanish and have significantly reduced in number and classification rank in the last years. While in 2014 there were 178 national journals in the highest categories (Guzmán Aguilera, 2019b), in 2018 only 13 of them classified as Q1 and Q2 (Minciencias, 2020). For this reason, Andres was resisting by trying to keep the national journal alive.

Unlike the anthropology department, the electrical engineering department introduced market-like behaviors and the prestige economy. Among all of the professors, Sebastian had the strongest competitive spirit. He competed for research funds (market-like behavior), but rather than being a source of prestige (Rosinger, Taylor, Coco, et al., 2016), he saw research grants a source to maintain his high rate of publications, his main source of prestige. Sebastian's approach to prestige reinforces the incorporation of prestige behavior as part of the theory of academic capitalism. In contrast, professors from the anthropology department did not incorporate the market behavior, nor its link to prestige economy, as

promoted by the *Research Groups and Researchers' Classifications Policy*. Due to the lack of opportunities, they scarcely participated in competition for external funds and carried out their research projects on a shoestring budget, or even with their own resources and time.

The four professors accepted many of the premises related to publishing that were introduced by the *Quality of National Publications, Faculty Promotion and Research Groups and Researchers' Classifications* policies. The accepted assumptions, such as English is the dominant language of publishing that generated a status quo that (a) endorsed the academic journal publishing market; (b) portrayed professors as rational maximizers who have the same opportunities to increase their salary through publications; and (c) validated research as the most rewarded activity and science, technology, and engineering as the most important fields. Research groups, along with the promotion process and Publindex, are institutionalized social structures where these assumptions are visible and generate results such as higher salary and prestige. Notwithstanding, in this respect, this group of professors rejected two important assumptions. First, Alicia and Sebastian, the professors who were very engaged in publishing, did not consider copyrights and barriers to accessing knowledge important. Additionally, this group of professors learned to maintain boundaries between home life and work life. This is the opposite of what the national research policies and the literature on the academic capitalism and striving universities would predict (Gonzales et al., 2014).

One important aspect related to the academic capitalist regime is the promotion of research commercialization, which is defined as “the conversion of knowledge into products or services that can be sold” (Johnson, 2017, p. 1). However, these professors, regardless of the academic department, did not internalize the promotion of market behavior (i.e., the inclusion of profit motive). Similar to studies in other context have

shown (e.g., Johnson, 2017; Mendoza & Berger, 2008; Mendoza et al., 2012; Szelényi & Bresonis, 2014), none of these four professors were interested in research activities oriented toward developing commercial products and obtaining profit. They found more value in conducting basic science, publishing and educating students. Also, they did not appear to be competitive entrepreneur who have to generate industry-academia linkages and profits as the theory of academic capitalism proposed (Slaughter & Rhoades, 2004).

Regardless of the resistance to the academic capitalist regime, both national research policies and professors' actions and experiences contributed to, and reflected, unintended consequences. Next, I discuss the unintended consequences that the privatization and commercialization of knowledge fostered, as seen in this study.

### **The Academic Capitalist Regime and Its Unintended Consequences**

Publishing and research activities with profit orientation as social practices generated stratification at three levels: country, field and individual. At the country level, I demonstrated how Colombia, a Global South country, is trying to be part of the Global North academic circle. Although I did not find this in the literature, it can be related to inter-institutional stratification or hierarchical differentiation among universities, both locally and globally (Cantwell & Taylor, 2013; Mendoza et al., 2012), and related to striving universities that are trying to achieve a better position in the academic hierarchy (Gonzales, 2012, 2013; Gonzales et al., 2014). Meanwhile, at the field level, the analysis here showed how national research policies favored professors in fields that are heavily engaged with industry. This is known in the literature as organizational segmentation or stratification within-university (Cantwell & Taylor, 2013; Rosinger, Taylor, Coco, et al., 2016). Finally, at the individual level, I found stratification among professors regardless of the academic unit. This is known in the literature as segmentation or stratification between

and within academic fields (e.g., D. R. Johnson, 2017; Rosinger, Taylor, Coco, et al., 2016). These levels of stratification have been found in the literature on academic capitalism and confirmed through the analysis of national research policies and professors.

### **Stratification at a Country Level**

The inter-institutional stratification is between higher education institutions and academics in the Global North with those in the Global South, as well as competition for prestige among Colombian higher education institutions. For example, English language and peer citations are tied to the hegemony of Global North academic publishing (Fitzgerald & Jiang, 2020), punishing Southern publishing circuits (Valencia Grajales, Gelacio Panesso, & Vanegas Zapata, 2017). This study confirmed that Colombia was positioned as a periphery country with an aspiration to become internationally recognized for knowledge generation. This was reinforced by the four professors who got their doctoral degrees outside of Colombia. For example, Sebastian explained that he learned how to publish with during his doctoral studies.

The incorporation of the for-profit model of academic publishing, through the national research policies, produced a significant reduction of national journals (more than 40%), and the promotion of publishing in subscription-based journals that are in English, rather than in traditional Latin American open access model of journals that are in Spanish. The *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications* policies deepened an inter-institutional stratification between higher education institutions and academics in the Global North with those in the Global South (in this case Colombia). This model of publications has been internalized by some professors, such as Alicia and Sebastian.

As a consequence, national journals have become less attractive to professors than international journals, especially the highest-ranking journals (Q1 or Q2) that are included in the WoS and/or Scopus databases. The *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications* policies overlooked local progress in the circulation of the ideas because this progress did not meet the commonly accepted international standards of “high impact citation databases and indexes” (Colciencias, 2016b). In this sense, these three national research policies passively accepted these bibliometrics (SJR and JIF) without considering, among other things, the view of editors of national journals (Rubio, 2018).

Although the interaction among national and international academic peers has always been important, the first three policies introduced publishing internationally as the new normal, preferably with international peers. This international common sense was adopted in Colombia and sustained primarily by Thomson Reuters and Elsevier international companies. For this reason, the reduction of national journals was not seen as an unfavorable loss, but as the way the market adjusted itself to meet international standards. The dominance of the JIF/SJR quartile rankings as standards of excellence has had consequences for national scientific production. “Not classified” national journals have increasingly less probability of being classified in the future, and “classified” journals have to compete with international scientific production in order to maintain or improve the category (Agudelo Trujillo, 2016). This creates a vicious cycle for national journals: a strong disincentive to publish in national journals creates challenges for national journals to be classified (if they do not get classified), to maintain their classification (e.g., A1=Q1, A2=Q2, B=Q3) and/or to move up from one classification to another one. This has been the

experience of Andres, the anthropology professor who is the editor of the national journal of his department.

Another consequence is that the demand to publish in English and in subscription-based access journals generates language and access barriers (Uribe-Tirado, 2017). Accessibility through subscriptions is a high cost to assume for any higher education institution. If a library does not have subscriptions to journal databases, this creates a vicious cycle of research: reduced access to scientific knowledge creates less informed and competitive research production. As presented above, the interviewed professors did not see this as a problem and have found other alternatives for accessing scientific knowledge, such as supported, pirated, scientific articles. However, this is a limited solution that unquestionably accepts the academic journal publishing market, in which private international commercial publishers keep both the academic publishing rights and the monetary profits derived from the circulation of knowledge. This is an adaptive, survival mechanism rather than a resistance mechanism.

The competition for prestige through publication in a selected group of subscription-based journals privileges authors and institutions that have better resources, access to information, networks of knowledge, and proficiency in the official language, which is English. In this context, Colombian professors and national journals were positioned in the *Quality of National Publications, Faculty Promotion, Research Groups and Researchers' Classifications* policies as those working in a striving context (Gonzales et al., 2014) where they need to adjust to internationally accepted standards of excellence to reposition themselves as more prestigious or at least gain a little prestige and credibility (Gonzales, 2013). For this reason, Colombian academics, when viewed as rational maximizers, should choose publishable topics to fit a Q1-journal's aim and scope, and even then, they are less

likely than Global North scholars to publish due to the low diversity of countries, authors, and institutional affiliation in those high impact journals (Fitzgerald & Jiang, 2020).

Among the presented cases, Sebastian and Alicia were the professors who followed this globally unequal publishing model, which built the paradigm of “the ideal professor.”

Andres tried to resist and keep the national journals alive. Cristina focused on less valued activities in terms of promotion and recognition, such as teaching.

### **Stratification at Field and Individual Levels**

National research policies and professors’ academic lives and actions showed stratification at the field and individual level. Regarding fields of knowledge, the *Research Groups and Researchers’ Classifications Policy* not only incorporated the academic journal publishing market, but also introduced other practices and conventions related to the academic capitalist regime. The *Research Groups and Researchers’ Classifications Policy* introduced commercial items for research groups and researchers to achieve the highest ranks. The selection of the most valued academic products was related to fields that can easily engage with the industry such as science, technology, and engineering fields, generating an organizational segmentation or stratification and competition between fields of knowledge that engage in commercial activities and with fields that do not have that orientation. Additionally, Colciencias/Minciencias not only rewarded science, technology and engineering, but have also given more research grants to these fields.

Like Sebastian, professors from science, technology and engineering whose main activity is research, can achieve the higher salaries and rank (senior) in Colciencias/Minciencias more easily than other professors, mainly from other fields. Consequently, science, technology, and engineering professors can have accumulative advantages when competing for resources and maintaining their status. The *Quality of*

*National Publications, Faculty Promotion, Research Groups and Researchers'*

*Classifications* were based on efficiency and productivity values, without regard to differences (or even inequalities) in the academic publications and research processes among academic disciplines, and differences across university contexts. Therefore, these policies considered professors' academic lives as a production lines, which overlooked bumps and particular life events, such as the loss of loved ones, surgery, accidents, illness, separation, or the birth of a child.

Individually, the *Faculty Promotion Policy* incorporated the *Quality of National Publications Policy* as a mechanism to promote academic publications by linking salary to the number and type of publications (especially Q1 publications). These policies promoted a growing inequity at the individual level between professors, regardless of the academic department, who have more academic publications and professors who were unable to publish at the same speed. The professors interviewed exemplify this stratification. For example, within the same academic department, Sebastian was mainly dedicated to research, while Cristina was focused on teaching and service, which are less privileged activities because they do not generate high status nor career rewards (Hart, 2016; Johnson & Taylor, 2019). Sebastian published a significant number of articles, which is more associated with prestige and counted for research groups, researchers' classification, and promotion.

### **Beyond Unintended Consequences**

Until now, I mapped the deployment of the academic capitalist regime in Colombia, and, like the literature on academic capitalism, I found unintended consequences derived from the incorporation of knowledge as a private good that should be commercialized. In other words, the analysis pointed out how the academic capitalist regime works in



Colombia and its unintended consequences. However, as other studies have also shown, the market narrative that supports the academic capitalist regime remains powerful and increasingly hegemonic, perpetuating stratification at different levels (Slaughter & Taylor, 2016a, 2016b). Academic capitalism, theoretically and empirically, has had a significant impact for understanding the commercialization and commodification of higher education and knowledge within higher education institutions, offering some alternatives to increase the social benefits from the academic capitalist regime and minimize or mitigate the negative impacts (Mendoza, 2007; Slaughter & Rhoades, 2004). However, this literature has not gone beyond the unintended consequences from a critical perspective, as presented in Chapter 2.

This work contributes to the literature on academic capitalism by focusing on how the ideas that support strengthening the academic capitalist regime have remained powerful in the Colombian context. Although Slaughter and Rhoades (2004) pointed out that the academic capitalist regime “is far from hegemonic” (p. 40), the policies analyzed showed how this regime can be normalized, generating a common sense for professors’ work that is mainly based on neoliberal values and norms, referred to in this study as its neoliberal roots. In general, the way to promote the academic capitalist regime is through actions established, in this case, by the analyzed research policies and professors. However, the identified actions are not neutral, they include discourses or *ways of representing* that have embedded assumptions, values, and beliefs (Chiapello & Fairclough, 2002). The embedded discourse or “the language of the market makes the ascendance and expansion of an academic capitalist knowledge/learning regime seem inexorable” (Slaughter & Rhoades, 2004, p. 308). The analysis of the embedded discourse in the selected research policies can help to explain how the academic capitalist regime is strengthened and how its ideas and

tenets remain powerful in the Colombian context. In this way, the academic capitalist regime embedded in the policies was transmitted through unquestioned assumptions that created a common sense for professors:

1. **What are the main characteristics of a high-quality journal?** High quality journals are the most-cited journals according to the bibliometrics quartile rankings as field-normalized indicators, from the highest to the lowest: Q1, Q2, Q3, and Q4, which are based on the WoS and/or Scopus databases and their bibliometrics Journal Impact Factor (JIF) or SCImago Journal Rank indicator (SJR).
2. **What is the most important variable for evaluating scientific work?** Scientist citation is best indicator of the relevance of academic work.
3. **Where should a Colombian researcher/professor publish?** International scientific journals in English are a better option than national journals in Spanish.
4. **How should Colombian researchers/professors spend their time?** A researcher/professor needs to stimulate their productivity and try to do more in less time. Although the professors need time for everyday tasks such as doing research, teaching, sitting on committees, participating in meetings, applying for grants, and advising students, they also need to figure out how to constantly produce academic products, especially the most rewarded: academic publications, patents, and spin-off companies. It is normal, even expected, to feel that no matter how much time the professor is spending, it is never enough.
5. **How are Colombian researchers/professors seen?** Professors are seen homogeneously. Regardless of the gender, field of knowledge, or other differences, each professor is seen as a competitive entrepreneur; an innovator; a rational maximizer; economically self-interested; and equally competent, and responsible

for their choices. Each professor is responsible for their salary level and/or economic benefits, researcher' classification, and prestige.

These assumptions built a hegemonic or dominant discourse that introduced the academic capitalist regime and its neoliberal roots in an ideological way that should be unquestionably accepted. Thinking outside this box has become difficult, even if it drives inequalities, protecting the privileges of men faculty without major family obligations, who work in elite universities (within and outside Colombia), and are part of fields that are heavily engaged with industry. As an example, according to the dominant discourse and common sense for professors, professors should publish in international journals that have a greater number of citations received from "scientists." In this way, a published paper can be part of the required or recommended material in a course, but the established hegemonic discourse does not consider this as well as the social impact as part of the "high quality." This is how the unquestioned discourse became the normalized, is reproduced, and remains powerful.

### **Implications for Policy and Practice**

This study reveals that publishing, based on the academic journal publishing market, is the most solid social practice that generates prestige and higher salary in Colombia. However, research activities with profit orientation will probably start to consolidate in the next few years, as the *Spin-off Policy* was recently established in 2017, and the *Research Groups and Researchers' Classifications Policy* began to reward commercial research activities more strongly starting in 2013. In contrast, the culture of publishing was introduced in the 1990s. While the academic capitalist regime and its neoliberal roots gradually become increasingly hegemonic, professors may be led by active consent or conscious realization; passive consent or unquestioned views; assumptions and beliefs; or

apathy, which is also a form of consent (Levinson et al., 2011). Seeing the production (research) and transmission (education) of knowledge as private or public goods is complex and the realization of change, which depends on people's critical consciousness of domination (Fairclough, 2015), beyond survival mechanisms that could end up validating the same academic capitalist system, as in the case of piracy.

As Fairclough (2018) highlighted “academic critique alone cannot change reality, but it can contribute to political action for change by increasing understanding of existing reality and its problems and possibilities” (p. 13). In this sense, how should professors, policy makers, and academic leaders (at the department, college, and university level) who want to think outside the commonsense work? In Gramscian terms, being aware of the common sense is one way to develop a critical consciousness (Levinson et al., 2011), in order to question, challenge or dismantle the hegemonic ideology. Even if each individual works “in isolation, but with similar goals, it might lead to a broader-based change” (Hart, 2016, p. 628).

More broadly, policy makers and academic leaders should observe how Colombian higher education institutions, under the academic capitalist regime, are moving toward “*similar opportunities* rather than to any niche competitive advantage” (Slaughter & Rhoades, 2004, p. 308, emphasis added). It is important to think harder about what it is really valuable in terms of knowledge production for the country (in the case of policy makers) and for public universities (in the case of academic leaders) without uncritically adopting international discourses about how Colombian researchers/professors and higher education institutions can “fit in.” It is also important to consider if knowledge should be considered as a public good, private good, or the combination of both (Szelényi & Bresonis, 2014). Focusing on the privatization of knowledge, it is important to consider that

commercial activities are not beneficial to the citizenry as a whole (Slaughter & Rhoades, 2004), and only cover and benefit a small piece of a vast universe of higher education issues, fields, and community. Additionally, rather than generate external revenue, the commercialization of academic products can also generate economic loss such as the spin-off in the electrical engineering department, or the legal costs institutions incur for commercial licensing and patents.

At the professoriate level, policy makers and academic leaders should consider collegiality at the department level, as the working environment can affect professors' academic lives and how professors respond to policies. They also should think about how to recognize and holistically reward professors' responsibilities in teaching, research, and service. Professors can disrupt the common sense and hegemonic ideology by using their individual agency, even though it is not sufficient. They can also promote collaborative and collective work as part of the analysis and redesign of public policies and redefine the "ideal professor," rather than focusing on forcing different types of professors to achieve this ideal. The academic career must be accessible for all faculty regardless of their gender, career stage, discipline, marital/relationships and family status ( Denson & Szelényi, 2020; Hart, 2016).

### **Recommendations for Future Research**

In addition to the previously established value of the theory of academic capitalism (Cantwell & Kauppinen, 2014; Slaughter & Leslie, 1997; Slaughter & Rhoades, 2004), this study introduces new elements that can increase the value of this theory for scholars in different contexts. First, I linked the theory of academic capitalism and neoliberalism to reinforce its theoretical potential for understanding how and why higher education institutions and academics are engaging in market and market-like behaviors in more subtle

and covert ways. Second, I introduced the academic journal publishing market as a new layer and essential component of the academic capitalist regime. Third, I complemented the market and market-like behaviors introduced by the theory of academic capitalism with prestige behavior derived from publishing in subscription-based journals. However, future research should link the theory of academic capitalism with other frameworks to address gender issues and inequalities under the academic capitalist regime. Empirically, I contrasted two academic fields to show a variety of professors' academic lives under the academic capitalist regime. Future work should continue to advance the academic capitalism theory in different contexts and fields in order to explore the complexities of this regime, especially more studies outside of the Global North are needed.

In general, scholars should continue to examine how the academic capitalist regime is strengthened and how the embedded discourse remains powerful despite the unintended consequences. For example, future research should explore successful and non-successful cases in the privatization of knowledge (e.g., creditworthy and bankrupt spin-off companies, and problems and successes in technology transfer) and the lessons they can bring for policies and practices. Moreover, higher education research in both the Global North and South should continue to explore the commercial for-profit model of academic publishing, as the new layer of the academic capitalist regime, as well as the role of bibliometrics. Specifically, future work must continue to build the theory of academic capitalism to understand and make visible the academic capitalist regime in the Global South (Bensimon & Ordorika, 2006; Brunner, Labrana, et al., 2019; Montes & Mendoza, 2018).

The analysis should also be expanded to include other types of national and institutional research policies. Additionally, future studies should analyze the

implementation of the policies among different universities, academic departments, and academic actors, such as graduate and undergraduate students, full-time professors, contingent faculty, women and other marginalized gender faculty, administrators, and journal editors, are critical to the successful implementation of research policies and the legitimation of the embedded discourse. Regarding the analyzed researched policies, some professors expressed their discontent through articles, videos, and open letters to the Colciencias director and to the Ministry of National Education (Rubio, 2018; Uribe-Tirado, 2016, 2017). However, their expressions were very polite in comparison with the massive movement regarding the lack of a budget for higher education (Semana, 2018a, 2018b, 2018c). This might be because the access to higher education in Colombia is strongly related to public good, but the privatization of knowledge is difficult to identify as private good. But this needs further exploration.

### **Conclusion**

This study illustrates the academic capitalist regime in the Colombian context. At present, the privatization and commercialization of knowledge is solidifying as normal, expected, and unquestioned. In fact, thinking about the production (research) and transmission (education) of knowledge as public or private goods can be seen as meaningless. The current COVID-19 crisis is a closer example of why this discussion is still relevant (Hensher, Kish, Farley, Quilley, & Zywert, 2020). International commercial publishers opened access to articles related to the COVID-19, in order to support the efforts of the scientific community. Although this action can be seen as humanitarian and selfless, this actually shows us that it is important to put the current journal paywalls into question. Moreover, the COVID-19 pandemic has shown the weaknesses in the academic capitalist regime. Hensher et al. (2020) pointed out the danger of the current system of intellectual

property and patenting to ensure a cost-effective vaccine available to all. I have observed news about Covid-19 regarding the negotiation with pharmaceutical companies to get vaccines. Companies bargained privately with countries, outside of COVAX—the United Nations designed space for those negotiations—imposing terms of confidentiality similar to those of Thomson Reuters or Elsevier when negotiating with university libraries. For example, in Latin America, 13 countries changed their legislation to purchase vaccines en masse by signing secret vaccine deals and one of the conditions is the suspension of deliveries if countries reveal the price (Ruiz, Colman, Ocaranza, & Chávez, 2021).

The solutions to serious social problems such as the fast spread of COVID-19, that pose a significant risk to people's lives, cannot rely on international commercial publishers and pharmaceutical companies' dictates. We do not know the future societal challenges that we will face, but we can start by creating a critical consciousness of what type of knowledge we need and how to better disseminate it. Once we build that consciousness, we can start to seek opportunities to work collectively for a model of information and knowledge that helps us to safeguard human and planetary health and sustainability.



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## **Appendix 1. Permission to do Fieldwork in an Academic Department**

**Dear Professor XXX,**

I am writing to express my interest in collecting data at this department (Electrical Engineering or Anthropology). I am a Ph.D. student in Educational Leadership and Policy Analysis (ELPA) program at the University of Missouri. My dissertation will be focused on how full-time professors respond to national research policies.

I am writing to request your assistance in this study, I am interested in interviewing full-time professors at this academic departments. With your permission, I will contact each professor by email, and I will be collecting data during XXX.

Participation is completely confidential, and all the participants can withdraw from the study at any time. All the responses will be kept confidential and protected.

Your support is greatly appreciated. It will contribute by providing an increased understanding of policies that influence the daily life of Colombian professors.

Thank you for your time and consideration.

Sincerely,

Isabel Montes

Doctoral Student, Higher Education (Policy)

Department of Educational Leadership and Policy Analysis

College of Education - University of Missouri – Columbia

## **Appendix 2. Interview Protocol for Department Chairs**

*Thank you very much for this opportunity,  
I'm interested in learning more about how faculty members' have experienced national research policies in this University. The information obtained from this study will be used for educational purposes, and any information obtained through this interview, including identifying information, will remain confidential (give the consent form).*

### **1) Experience as a Department Chair**

- a) How long have you been professor at this university?
- b) How long have you been as a department chair?
- c) Describe your role as a department chair?
- d) Are your position related to the implementation of promotion, quality of national publications, research groups classification, and spin-off policies

### **2) National Research Policies**

- e) Tell me about research, spin-off and promotion policies at this department
- f) How are these policies implemented?
- g) How are these policies communicated to the professoriate?
- h) Tell me more about the tensions around these policies?
- i) What is the relationship between Colciencias and this department?
- j) Tell me about the university's experiences with patents, spin-off and university-industry relationships

### **3) About professors**

- a) How many full-time professors are in this department?
- b) How many of them would be available to participate in this research?
- c) How are these professors distributed by promotion category?
- d) What is the most important activity for the professors at this academic department?
- e) How many research groups are associated to this department?
- f) Are professors actively engaged in research activities?
- g) Who are the most engaged professors in research?
- h) how have you perceived faculty responses to the promotion, quality of national publications, research groups classification, and spin-off policies?

*Would you like to receive information about this research and/or be contacted for another interview as a professor?*

*Thank you very much for your time!*

## **Appendix 3. Consent Form 1 - Department Chairs**

### **Consent Form for Research Study**

#### **Researcher Name and Contact Information:**

Isabel Montes  
 Doctoral Student, Higher Education (Policy)  
 Department of Educational Leadership and Policy Analysis  
 College of Education  
 University of Missouri – Columbia  
 +1-573-554-63-74  
 icmzc2@mail.missouri.edu

#### **Why is This Study Being Done?**

There are few studies related to faculty and national research policies in Colombia. There are no studies focusing on how faculty members are translating these policies into actions. The purpose of this research study is to explore these policies and how full-time professors experience as a faculty as well as their decisions related to national research policies.

#### **How many people will be in the study?**

Two department chairs and professors affiliated to two departments.

#### **What am I being asked to do?**

You will be asked to participate in a one on one interview with the researcher about your experiences as a department chair as well as professors at this department, also about the implementation of national research policies, and finally about professors in this department.

#### **Types of data collected**

I will gather different sources of information: interviews, observations, institutional documents, university website.

#### **How long will I be in the study?**

The interview may last between *50-60 minutes*. With your permission, the interview would be audio recorded, but your comments will be kept confidential and protected.

#### **What are the benefits of being in the study?**

Your participation will contribute by providing an increased understanding of national research policies and professors' academic lives.

**What are the risks of being in the study?**

This project and your participation in this study are not expected to involve or cause any risks greater those encountered in everyday life.

**Confidentiality**

Your participation in this study will remain confidential. Prior to data analysis, codes or pseudonyms will replace the names of participants as well as the university to ensure that the material collected and analyzed will maintain completely confidential. Only the researcher will know the identity of the participants.

**What are the costs of being in the study?**

There is no cost to you

**Who do I contact if I have additional questions or concerns?**

If you have concerns or questions, please contact me by email anytime (icmzc2@mail.missouri.edu). Or, if you have questions about the study, please feel free to contact my advisor Lisa Dorner (dornerl@missouri.edu).

**Who do I contact if I have questions about my rights, concerns, complains or comments about the research?**

If you have any question regarding your rights as a participant in this research and/or concerns about the study, please feel free to contact my advisor:

Dr. Lisa M. Dorner  
Associate Professor  
Department of Educational Leadership & Policy Analysis  
dornerl@missouri.edu  
+1 573-882-7938

Or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Campus Institutional Review Board (which is a group of people who review the research studies to protect participants' rights and to guarantee a safe space for the participants.) at +1-573-882-95-85 or [umcresearchirb@missouri.edu](mailto:umcresearchirb@missouri.edu)

—

I have been given a copy of this consent form. By continuing, I acknowledge that I have read and understand the explanation provided to me. I have had all my questions answered

to my satisfaction, and I voluntarily agree to participate in this study. I am aware that I can discontinue my participation in the study at any time. I acknowledge that the contact information of the researcher and her advisors have made available to me along with a duplicate copy of this consent form.

#### **Appendix 4. E-mail: Invitation to Participate in a Research Study**

**Professor (name)**

My name is Isabel Montes and I am a doctoral candidate in educational policy in higher education at the University of Missouri in the United States. I am writing to request your assistance in a research study about how full-time professors' academic lives in your academic department. Your participation is requested because you are a full-time professor at this institution whose input is vital to this study and to build knowledge about the professoriate in Colombia. I am interested in your experiences and your decisions related to national research policies.

Data collection will be during XXXX.

As part of this study, you will be asked to take part in an interview between XXX and XXX, 2020. The interview will take approximately 60 minutes. I am open to your agenda; however, I would like to have two or three options to avoid overlapping with other participants' schedule.

Participation is completely confidential, and you can withdraw from the study at any time. With your permission, the interview would be audio recorded, but your comments would be kept confidential and protected.

If you have concerns or questions, please contact me by email anytime (icmzc2@mail.missouri.edu). Or, if you have questions about the study, please feel free to contact my advisor Lisa Dorner (dornerl@missouri.edu).

If you are interested, please let me know, so that we can set up a day and time that is most convenient.

Thank you for your time and consideration.

Sincerely,

Isabel Montes  
Doctoral Candidate, Higher Education (Policy)  
Department of Educational Leadership and Policy Analysis  
College of Education  
University of Missouri – Columbia  
573-554-63-74  
icmzc2@mail.missouri.edu



## **Appendix 5. Interview Protocol for Faculty Members**

*I'm going to start the interview with general background questions, and then, I'll ask more specific questions about national research policies and your perceptions about them.*

### **1) A Brief History of being a Professor**

- a. How long have you been professor at this university?
- b. How do you choose to be a professor?
- c. How did you get to be a faculty member at this institution?
- d. What were your motivation for being professor?
- e. What were your motivation for being researcher?
- f. How have your motivations changed? And why?

### **2) Describe your current responsibilities as a faculty member**

Note: As national research policies that shape professors' work roles in teaching, research and service, this section will give a context about participants' academic life and I will see how their answers are related to national research policies. This section is related to professors' academic live and it will help me to have a smooth transition to talk about national research policies.

- a. Describe your role as a faculty member, what are your main responsibilities?
- b. Among your responsibilities (teaching, research, and service), what is the most important activity for you? And why?
- c. What activity do you avoid? And why?
- d. How do you distribute your working time?
- e. Have you changed your work time allocation (for example, classes, research projects, students)? And why?
- f. How do you balance you personal live and your academic live?
- g. What is the hardest/worst part of your job and why?
- h. What is the most rewarding part?
- i. In your opinion, what is the most important responsibility (teaching, research, or service)? And why?

### **3) Habits, Routine and Motivations**

- a) How is your academic monthly/weekly/daily routine?
  - a. Classes (preparation and teaching)
  - b. Faculty Meetings
  - c. Research projects meeting
  - d. Writing time
  - e. Fieldwork
  - f. Conferences
  - g. Service activities (administrative activities such as committees, etc.)
- b) How does this routine change each semester?
- c) How do you set your priorities each day? And why?

**4) Describe your experiences with national research policies (research productivity, spinoff and promotion policies) that impact your daily life**

- a. What are the most important requirements for obtaining promotion?
- b. What are the advantages of this process for promotion?
- c. How have your research group experiences been?
- d. What is your opinion of the promotion process?
- e. What is your opinion of the research policies process?
- f. Tell me more about your experiences with the promotion process
- g. What are the challenges that you have experienced with the research and promotion policies?
- h. Which aspects of research and promotion policies are most controversial or contested in your department, college or university?
- i. Why do you have CvLac?
- j. Tell me your experiences about your research group and Colciencias?

**5) Describe your experiences publishing and connecting to industry**

- a. How do you choose journals to publish in?
- b. Why are these journals important?
- c. How many articles do you publish annually?
- d. Where are your co-authors from?
- e. How do you choose your research topics?
- f. Do you participate in university-industry connections? If so,
  - i. Tell me about your experience
  - ii. how is the relationship between university-industry connections and the spin-off policies or other policies?
- g. Do you do consulting work?
  - i. Tell me about your experience
  - ii. how is the relationship between consulting work and the research and promotion policies?
- h. Tell me about your experience with intellectual property policies

**6) Goals (short and long term)**

- a) What are monthly/weekly/daily goals? And why?
- b) How many research projects do you have in progress?
- c) How do you get financial support for your projects?
- d) How do you choose your projects?
- e) As academic, what is your main project(s) or interest(s)?
- f) What do you think about the prestige in Academia?
- g) In your academic life, what motivates you and challenges you every day?
- h) How many advisees/students do you have?
- i) What are the main goals with your advisees/students?
- j) How are your personal goals align with the departmental and institutional goals?

**7) How do you see yourself in the future?**

- a) In one year
- b) In five years
- c) In ten years

**8) Future expectations as a faculty member**

- a. What are your future academic goals?
- b. What are your plans to achieve your goals?

Finally, let me know if you have a pseudonym to be named in this research.

*Would you like to receive information about this research and/or be contacted for more interviews?*

*Thank you very much for your time!*

## **Appendix 6. Consent Form 2 - Professors**

### **Consent Form for Research Study**

#### **Researcher Name and Contact Information:**

Isabel Montes  
 Doctoral Student, Higher Education (Policy)  
 Department of Educational Leadership and Policy Analysis  
 College of Education  
 University of Missouri – Columbia  
 +1-573-554-63-74  
 icmzc2@mail.missouri.edu

#### **Why is This Study Being Done?**

There are few studies related to faculty and national research policies in Colombia. There are no studies focusing on how faculty members are translating these policies into actions. The purpose of this research study is to explore these policies and how full-time professors experience as a faculty as well as their decisions related to national research policies.

#### **How many people will be in the study?**

All faculty members in two academic departments at this university will be asked to take part in this study

#### **What am I being asked to do?**

You will be asked to participate in one interview with the researcher about your experiences at this institution and your perspectives on promotion policies. You will also be asked if you are available for another interview and observations.

#### **Types of data collected**

I will gather different sources of information: interviews, observations, institutional documents, university website.

#### **How long will I be in the study?**

The interview may last between *50-60 minutes*. With your permission, the interview will be audio recorded, but your comments will be kept confidential and protected.

#### **What are the benefits of being in the study?**

Your participation will contribute by providing an increased understanding of factors that influence the daily life of Colombian professors.

**What are the risks of being in the study?**

This project and your participation in this study are not expected to involve or cause any risks greater than those encountered in everyday life.

**Confidentiality**

Your participation in this study will remain confidential. Prior to data analysis codes or pseudonyms will replace the names of participants as well as the university to ensure that the material collected and analyzed will maintain completely confidential. Only the researcher will know the identity of the participants.

**What are the costs of being in the study?**

There is no cost to you

**Who do I contact if I have additional questions or concerns?**

If you have concerns or questions, please contact me by email anytime (icmzc2@mail.missouri.edu). Or, if you have questions about the study, please feel free to contact my advisor Lisa Dorner (dornerl@missouri.edu).

**Who do I contact if I have questions about my rights, concerns, complains or comments about the research?**

If you have any question regarding your rights as a participant in this research and/or concerns about the study, please feel free to contact my advisor:

Dr. Lisa M. Dorner  
Associate Professor  
Department of Educational Leadership & Policy Analysis  
dornerl@missouri.edu  
+1 573-882-7938

Or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Campus Institutional Review Board (which is a group of people who review the research studies to protect participants' rights and to guarantee a safe space for the participants.) at +1-573-882-95-85 or [umcresearchirb@missouri.edu](mailto:umcresearchirb@missouri.edu)

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I have been given a copy of this consent form. By continuing I acknowledge that I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I am aware that I can

discontinue my participation in the study at any time. I acknowledge that the contact information of the researcher and her advisors have made available to me along with a duplicate copy of this consent form.

### Appendix 7. Academic Products by Category and Type, Model of 2013

Type of products	New Knowledge Products (NKP)	Technological Development and Innovation Products (TDIP)	Social Appropriation of Knowledge Products (SAKP)	Human Resource Training Products (H RTP)
Top	<ul style="list-style-type: none"> <li>- Scientific articles (A1, A2)</li> <li>- Books (A1, A)</li> <li>- Book chapters (A1, A)</li> <li>- Patents granted (A1, A2)</li> <li>- Plant and animal variety (A1, A2, A)</li> <li>- Rules and regulations (A)</li> </ul>	Not Applicable	Not Applicable	Not Applicable
Type <sub>A</sub>	<ul style="list-style-type: none"> <li>- Scientific articles (B, C)</li> <li>- Books (B)</li> <li>- Book chapters (B)</li> <li>- Patents granted (A3, A4)</li> <li>- Plant and animal variety (A3, A4)</li> </ul>	Technology products <ul style="list-style-type: none"> <li>- Industrial design (A)</li> <li>- Integrated circuit diagram (A)</li> <li>- Software (A)</li> <li>- Pilot plant (A)</li> <li>- Industrial prototype (A)</li> </ul> Business products <ul style="list-style-type: none"> <li>- Trade secret</li> <li>- Spin-off companies (A)</li> <li>- Business innovation (A1, A2)</li> <li>- Rules and regulations (A)</li> </ul>	Not Applicable	Not Applicable
Type <sub>B</sub>	<ul style="list-style-type: none"> <li>- Scientific articles (D)</li> <li>- Patents granted (B1, B3, B4, B5, C)</li> <li>- Plant and animal variety (B1, B2, B3, B4)</li> </ul>	Technology products <ul style="list-style-type: none"> <li>- Industrial design (B)</li> <li>- Software (B)</li> </ul> Business products <ul style="list-style-type: none"> <li>- Spin-off companies (B)</li> <li>- Business innovation (B1, B2)</li> <li>- Innovative procedures</li> <li>- Rules and regulations (B, C)</li> </ul>	Not Applicable	Not Applicable

Type of products	New Knowledge Products (NKP)	Technological Development and Innovation Products (TDIP)	Social Appropriation of Knowledge Products (SAKP)	Human Resource Training Products (HRTP)
		<ul style="list-style-type: none"> <li>- Scientific consultancies</li> <li>- Technical reports</li> </ul>		
SAKP	Not Applicable	Not Applicable	<ul style="list-style-type: none"> <li>- Citizen participation in science, technology and innovation projects</li> <li>- Spaces for public participation in science, technology and innovation</li> <li>- Pedagogical strategies for the promotion of science, technology and innovation</li> <li>- Diffusion of knowledge (print, media content, online)</li> <li>- Circulation of knowledge               <ul style="list-style-type: none"> <li>- Conferences</li> <li>- Refereed research presentations</li> <li>- Circuits and networks of knowledge</li> <li>- Working papers</li> <li>- Editorships</li> <li>- Newsletters</li> <li>- Final research reports</li> </ul> </li> <li>- Awards and honors</li> </ul>	Not Applicable
HRTP <sub>A</sub>	Not Applicable	Not Applicable	Not Applicable	<ul style="list-style-type: none"> <li>- The number of doctoral dissertations supervised per research members (A, B)</li> <li>- Doctoral programs</li> <li>- Doctoral courses derived from research groups' work</li> </ul>
HRTP <sub>B</sub>	Not Applicable	Not Applicable	Not Applicable	<ul style="list-style-type: none"> <li>- The number of bachelor's and master's theses (A, B)</li> <li>- Research projects with graduate students classified into external and internal funding (A, B, C)</li> </ul>



Type of products	New Knowledge Products (NKP)	Technological Development and Innovation Products (TDIP)	Social Appropriation of Knowledge Products (SAKP)	Human Resource Training Products (H RTP)
				<ul style="list-style-type: none"> <li>- Research projects carried out in companies with graduate students (A, B)</li> <li>- Extension project in science, technology and innovation</li> <li>- Master programs</li> <li>- Master courses derived from research groups' work</li> <li>- Support and advice for the Ondas Program.</li> </ul>

Source: Compilation based on (Colciencias, 2013a, p. 74-87)

### **Vita**

Isabel Montes holds a Ph.D. from Department of Educational Leadership and Policy Analysis at the University of Missouri-Columbia. Her research focuses on educational policy implementation, academic capitalism and faculty issues in the Latin American context. In general, she is interested in the relationship between the higher education community and neoliberalism. More specifically, I have studied how the implementation of policies in higher education influence the heart of this system: faculty and students' academic experiences. Isabel's dissertation examined national research policies and professors' actions and its relationship with the academic capitalist regime. She published an article in the journal *Education Policy Analysis Archives*. Additionally, Isabel has presented his work and national, and international conferences, including the American Educational Research Association (AERA) and the Association for the Study of Higher Education (ASHE).

Before this academic experience, Isabel finished a bachelor's degree in economics and Master's degree in Science of Administration, she also worked for eight years at Universidad EAFIT, Medellin-Colombia, with the Planning Director and the Teaching Director in educational research areas. Finally, she has received different scholarships, honors and distinctions such as Fulbright scholarship, Higher Education Future Scholar Fellowship, and Dr. Barbara K. Townsend Memorial Scholarship for Dissertation Research in Higher Education.