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## LABOR MARKET

INSERTION OF PHDS IN MEXICO DURING THE LAST DECADE

**INSERCIÓN LABORAL DE DOCTORES EN MÉXICO DURANTE LA ÚLTIMA DÉCADA**

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## **ABSTRACT**

This work is the product of a research that has been developing for some years, and has as its main background a characterization of the scientific field of Mexico where an unequal distribution of economic resources in state public universities is reported. Likewise, the research shows that as of 2008 in the Mexican context the possibilities to enter the world of science in Mexico are reduced given that from that date onwards there has been a significant decrease in relation to academic places for research. In addition, there is a process of non-retirement of researchers that hinders the entry of new researchers. Hence, it was decided to pay attention to doctoral graduates from that date on to capture their strategies for entering the workforce.

### **Keywords:**

Job insertion, mismatch of dispositions, scientific field.

## **RESUMEN**

Este trabajo es producto de una investigación que se viene desarrollando desde hace algunos años, y tiene como principal antecedente una caracterización al campo científico de México donde se reporta una distribución desigual de recursos económicos en las universidades públicas estatales. Asimismo, la investigación da cuenta que a partir de 2008 en el contexto mexicano las posibilidades para ingresar al mundo de la ciencia en México son reducidas dado que a partir de esa fecha se presenta un descenso importante en relación con plazas académicas para la investigación. En complemento se vive un proceso de no jubilación de investigadores(as) que obstaculiza el ingreso de nuevos investigadores. De ahí que se decide poner atención a los egresados de doctorado a partir de esa fecha para captar sus estrategias para insertarse laboralmente.

### **Palabras clave:**

Inserción laboral, desajuste de disposiciones, campo científico.

## INTRODUCTION

Among the studies in relation to the labor market insertion of people with doctoral studies in the national context is the study by Ramírez & Bravo (2021). They analyzed social science postgraduates exclusively graduated in the private sector. The authors analyzed their motives for obtaining a doctoral degree and their labor market insertion strategies.

They report that their interviewees decided to pursue a doctorate to implement new ideas in the workplace and because they were pressured by colleagues to move up in management positions. Since they did not obtain scholarships for their graduate studies, it was difficult for them to work and study simultaneously. It was important to receive mainly emotional support from their family and friends in order not to give up.

Continuing in the national context, Navarro (2021), analyzed the labor market insertion strategies of three doctors who received the Cathedra scholarship offered by the National Council of Humanities, Science and Technology (CONAHCYT). This was a program implemented in Mexico to favor the labor insertion of doctors in the country. CONAHCYT supports higher education institutions by sending new researchers. The author reports that social capital is what allows the interviewees to comply with CONAHCYT's requirements to maintain the scholarship.

Researchers must achieve a significant number of scientific articles and they decide to participate in the research projects of their various colleagues to gain access to more resources, mainly by linking with their former tutors. The CONAHCYT scholarship holders are required to work teaching hours; in some cases, they work in institutions where teaching is not offered, so they turn to their colleagues to help them get teaching hours in other institutions. This has implied working more than the established time and they put their salary to fulfill all the functions.

Lozano et al. (2015), compared the employment situation of Mexicans with a doctoral degree living in both Mexico and the United States. The authors retrieved a recent theoretical perspective that deals with the waste of skills because there is no adequate utilization of people neither in the country of origin nor in the country of destination.

The statistical results point out that, in Mexico, postgraduates in physics, mathematics and engineering "*are punished*" because, compared to other areas of knowledge, they have fewer possibilities of performing in highly qualified positions; also, because there is little hiring of people under 40 years of age. On the contrary, in the United States they are "*rewarded*" because they have more access to jobs that match their skills and because they do so before the age of 40. This is even more favorable when the

migrant has U.S. citizenship and obtained a postgraduate degree in the United States.

At the international level, the employment situation for postgraduate graduates is not so different from what happens in Mexico. Schaer (2020) analyzed the biographical itineraries of three people with doctoral studies. The author reports that for them, research stays in different countries allowed them to accumulate more knowledge and improve their prestige. The first years of their stay meant enthusiasm; however, as the years went by, enthusiasm turned into frustration because they were unable to find stable employment. Job instability has translated into problems with the couple because when they moved to another country the couple did not always find a job that matched their skills.

Another country where the employment situation is complicated for doctoral graduates is Uruguay. Méndez et al. (2021), analyzed a census that has been taken over the years in Uruguay. The authors report that there is a high employment rate among Uruguayan PhDs since almost 100% are employed, but a quarter indicated being dissatisfied with their employment. Obtaining a doctoral degree was not synonymous with improving their employment situation because several returned to the job in which they were already working. Although they work in educational institutions where research in Uruguay is carried out, the respondents mainly teach. Doctors working in the areas of Law and Education are the ones who mainly work in multiple jobs.

In this section, studies were presented that offer a general overview of the employment situation both in Mexico and abroad. The recurrence that is found concerns the limited job opportunities according to their skills acquired with their graduate studies. What is shared is an approach that emphasizes the dispositions (ways of seeing, thinking, valuing and acting) according to their position in the world of science.

Bourdieu was a sociologist who offered methodological guidelines for deploying the theory of the economy of social practices in diverse contexts. In general, he establishes three moments: 1) to account for the relations of the field under study in relation to the field of power, 2) analysis of positions in the field as a function of the volume and structure of the capital at stake, and 3) analysis of dispositions. These three phases imply the empirical development of the three main concepts of field, capital and habitus (Bourdieu & Wacquant, 1992). We describe them below.

Based on Bourdieu (2002), the Mexican scientific field is conceived as a sector of society where there is competition to occupy positions that provide benefits and to impose the legitimate ways of doing science. He who emerges victorious in these struggles can obtain these benefits.

The first struggle is to occupy a working position, which means gaining a job that provides a salary that will be received in a relatively secure manner. The second is to obtain recognition in the guild, which translates into an economic stimulus, given that the science he is developing meets the production criteria of the scientific field. The autonomy of the scientific field consists in imposing the rules of the game of the previous struggles. Its dependence lies in the economic capital that distributes the subfield of power, understood as the State.

Capitals give power to individuals to be able to participate in the field and certain capitals are more effective in certain fields. For Bourdieu, capital in its different variants (economic, symbolic, social and cultural) can be considered power as it offers individuals capacity for action, because it can be accumulated and has effects on others.

Cultural capital has three states: embodied, institutionalized and objectified. The embodied state refers to the knowledge that the individual has accumulated. Those who grew up in a family with economic capital have greater advantages in accumulating internalized cultural capital because they will have more time to accumulate it, i.e., they will not need to work. Institutionalized status is about the academic degrees or certificates that the individual has obtained. Objectified cultural capital is equivalent to cultural objects such as encyclopedias or books (Bourdieu, 1982).

Social capital captures the access to resources that the individual has given the social network in which he or she is immersed. In order to maintain social capital, material or symbolic exchange relationships are necessary. It is useful to detect which resources were efficient to enter the scientific field in the population under study. Symbolic capital means the degree of trust or prestige that the agent has accumulated in a given field (Bourdieu, 1982).

Depending on the amount of capital, each individual occupies a position in the field. Bourdieu argues that a position in social space can be considered equivalent to a geographical position. By locating himself geographically in a place, the individual gains access to resources to which others do not have access. Therefore, there are struggles to appropriate a certain position. In the world of science, researchers not only seek to gain a job position, but also to reach spaces that offer them infrastructure and funding to develop research, and a space where they will have colleagues to do research. The latter means accumulating social capital.

Habitus is an important concept in Bourdieu's theory. The author argues that habitus are "*enduring and transferable systems of schemes of perception, appreciation and action that result from the institution of the social in the body (or in biological individuals) and fields*" (Bourdieu & Wacquant, 1992, p. 167). In another work and with few

terms, Bourdieu & Wacquant (1992) state that habitus refers to a lifestyle according to the goods consumed and the way of consuming them. This concept is recovered because we are interested in capturing the schemes of perception and action deployed by doctors in Mexico to position themselves in the scientific field.

A concept derived from the concepts of capital and habitus from the theory of fields is the concept of social trajectory. Bourdieu defines the social trajectory as "the series of positions successively occupied by the same agent (or the same group) in a space in flux and subject to incessant transformations" (Bourdieu, 1989, p. 31). Bourdieu (2002) establishes that a certain type of trajectory corresponds to a given volume of inherited capital. The social trajectory approached from Bourdieu (2002), requires knowing the volume and structure of the initial capital and its evolution over time. With the trajectories, what is being reported is the journey through different positions that individuals have experienced in order to reach a certain position.

An important element for the analysis of trajectories from Bourdieu's perspective is to know the "*position of origin*". This means locating the starting point of a trajectory. A study demonstrating the weight of social origin in relation to university studies is developed by Bourdieu & Passeron (2008).

In the 1960s Bourdieu & Passeron (2008), developed a research that allowed them to conclude that the French university system imposed barriers to the elimination of students from families with low cultural and economic capital. Their statistical analysis allowed them to see that those who did not have university-educated parents were less likely to enter university. Another barrier is manifested in the choice of a university career, as the children of farmers were less likely to enter medicine. Gender plays an important role in college entrance, with daughters of non-professionals having less access than men. The children of non-professionals enter higher education at later ages. A final barrier is the time to complete their studies; those who do not have sufficient economic resources tend to work and do not dedicate themselves entirely to study (Bourdieu & Passeron, 2008).

Closely linked to the concept of trajectory, Bourdieu (2002), develops the concept of "*social aging*". Here the author refers to a process of disinvestment that can be socially assisted and encouraged, resulting in agents having to adjust their aspirations to their objective opportunities and "*be content with what they have, even if it is by striving to deceive themselves about what they are and what they have.*" (p. 109).

With the concepts of field, capital, habitus and social trajectory, it is possible to access the economic, cultural and social resources that the individual has accumulated throughout his life, as well as the various dispositions that

he has internalized according to his socialization processes. Given that it is of interest to analyze their labor insertion; therefore, the notion of the right of admission is recovered.

According to Bourdieu (2003), under his notion of right of admission, the scientific field has relative autonomy to be able to establish rules that allow it to let in only professionals of science. An important rule can be seen in the academic degree required for admission. Currently, in Mexico and several other countries, it has been established that a doctorate degree is required to work in science. With the notion of the right of admission what we want to capture are the institutional and disciplinary logics that are established in the scientific field to allow the access of new agents to the scientific field.

Bourdieu, in the framework of the theory of fields applied to the scientific field, defines as “*newcomers*” those who have recently entered the scientific field. It is the researcher’s task to delimit in time what “*newcomers*” implies. For the purposes of this research, newcomers refer to those who graduated between 2009 and 2022. Bourdieu (2003), argues that newcomers can follow the rules of the game (with their legitimate ways of doing science) already established by those who occupy the positions of advantage and when they retire they can succeed them and thus receive the benefits of the field. But if they wish to compete with those who have positions of advantage, the path is risky and involves many innovations for the scientific field.

In summary, the concept of social trajectory is recovered in Bourdieu’s way, since it captures the position of origin of the researcher who is the object of study of this research. It is decided to analyze the different capitals proposed by Bourdieu in order to analyze the starting points, that is, with what resources he grew up and how he accumulated them throughout his life, thus reconstructing social trajectories. Labor income will be approached theoretically from Bourdieu’s notion of the right of admission. The concept of habitus is recovered to make an approximation to its dispositions.

## METHODOLOGY

The empirical material analyzed for this research refers to life stories provided by eight people who obtained a doctoral degree in the last ten years. The life story designates the story of a life as told by the person who has lived it. This is different from the life history, which, in addition to the story, needs to be constructed with various documentary sources. Bertaux (2005) argues that in the ethno-sociological perspective, the life story begins at the moment when a subject tells another person any episode of his or her life; it continues when the content of the lived experience is examined.

Another characteristic that Bertaux (2005) confers to life stories has to do with the fact that it is not just any discourse, it manifests itself in a narrative form and pretends to tell a real story. The life story emerges in an interview that has a dialogic character; in it, it is the responsible researcher who guides the content to be investigated, in order to obtain the description of the experiences that help him/her to understand the object of study.

At the time of the interview, four people worked in Guerrero and the other four in Morelos. The eight interviewees corresponded to the area of Humanities. On average, the interviews lasted 50 minutes. All interviewees received a letter of informed consent. Some of them were interviewed directly in their work space, especially in the educational institutions where they do not have a web page with contact information and a biographical sketch of their academics. The interviews were conducted in the work spaces, which allowed us to have a climate of trust for them. Working in an institution where there are few academics with doctoral degrees makes them very clearly identifiable, both administrative staff and students, as well as security personnel.

For the process of analysis of the life stories obtained, coding was carried out following the general principles of grounded theory (Straus & Corbin, 1998). Atlas Ti software version 9 was used for coding. Code networks were generated that allowed finding relationships and thus constructing propositions.

## DEVELOPMENT

As a result, in relation to social trajectories, it is reported that those who grew up with limited cultural and economic capital come from families where the parents did not achieve university studies, where there would be children of waiters, shopkeepers or railroad workers. The family was large because they had several siblings and grew up in geographic locations with limited educational opportunities. This translates into having little certainty of higher education. Those who grew up with high economic and cultural resources at home experience the opposite in relation to their entrance to university.

As a general result of the analysis of the labor insertion and the scientific habitus of the recent generation of doctors in Mexico, it is argued that there is a mismatch between the position occupied by the individual in the scientific field and the dispositions internalized during the different processes of socialization. The mismatch presents two sides of the same coin.

The first mismatch occurs because some doctoral graduates obtained this degree, but without a clear interest in doing research, several received a mandatory invitation to obtain a doctoral degree and thus meet the standards required of universities in order to obtain certification and



funding. An important evidence for this mismatch refers to the fact that at the time of the interview they did not have scientific articles derived from their doctoral thesis. In some cases, due to the pressure to obtain the degree, they ended up studying in the private sector, given the facilities obtained. Three informants present this type of mismatch.

The second mismatch that occurs between the position occupied in the scientific field is when there are doctoral graduates with an interest in developing a scientific career in Mexico, but they find themselves in workplaces where they only teach or are in an administrative position. In their case, as time goes by, the illusion (interest in the game) fades away and they see research as a distant future. This is reinforced because it has been difficult for them to accumulate social capital to participate in the scientific field because their postgraduate colleagues have not been able to insert themselves in spaces where research can be done. The above can also be read in the light of the notion of “*social aging*”, because there is a disinvestment both personal and assisted for the development of scientific activities.

In the few cases of the population under study in which there is a correspondence between the position they occupy and the dispositions internalized mainly in their postgraduate studies, their entry into the labor market was not at all easy. There is the case of one informant who took nine years after graduating from his doctorate to obtain a position as a researcher.

In a context of reduced spaces in the world of science, it is not enough to have been directed by one of the most important researchers in the world of science, nor is four years of postdoctoral stay in the most prestigious public university in Mexico enough. Teaching at levels prior to graduate school in both public and private institutions or working as an administrative employee has been a strategy for surviving unemployment in Mexico. It should be added that the administrative positions where they work do not correspond to high bureaucratic hierarchies, and they tend to be assistants.

## CONCLUSIONS

The review of the literature shows that both in Mexico and abroad the employment situation for postgraduate graduates is not the most adequate because they are being inserted in spaces that are not suitable for their abilities. Although the issue of labor market insertion is not something new, what was presented here was a different approach to a problem that has already been explored. What was developed mainly refers to recovering the concepts of trajectory, habitus and right of admission offered by Pierre Bourdieu's perspective of social practices.

Although the sample of informants at the moment is short given that only eight doctoral graduates of the last decade have been interviewed, the empirical material read theoretically allows affirming that the recent generation of doctors in Mexico is experiencing a mismatch between the dispositions internalized during their postgraduate studies and the position they occupy in the scientific field.

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