LIFE PATHWAYS AS TOOL TO IMPROVE THE GOVERNANCE OF THE HIGHER EDUCATION. AN APPLICATION TO GRADUATE FOLLOW-UP OF THE MASTER DEGREE OF CUCEA-UDEG (MEXICO)

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ABSTRACT: Good knowledge of students and graduates of higher education, based on research, is one of the essential technical requirements for Higher Education Institutions (HEI) governance. The goal of this article is to present a theoretical-methodological approach, the Life Pathways, capable of capturing and analyzing the itineraries of students and graduates of higher education when their diversity is increasing and the "traditional students" have become minorities in our HEI. The case that we have presented is an illustration of three things: a) the great diversity of the students participating in the same master degree programs, b) the usefulness of the Life Pathways approach to capturing and deepen this diversity, and c) the potentiality of this approach to support the HEI governance, identifying the diversity of students present in their programs and their transitions as critical points for their management.

KEYWORDS: Life Course, Student Life, Transitions, Work, Family Responsibilities.

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INTRODUCTION[1]

Formal education is not necessarily separated from the labor trajectories, nor the life as a couple, nor the raising of children. The profile of university students has changed both in context, in their practices, priorities and ways of life. Thus, for the governance of Higher Education Institutions (hereinafter HEI) and the education system as a whole, it is essential to have information about their university students, their diversity, their previous work and family trajectories, during and after, their term at HEI.

Good knowledge of students and graduates of higher education, based on research, is one of the essential technical requirements for HEI governance. As Aguilar (2010) points out, governance has its technical requirements for research and information.[2] A requirement for general governance is also a requirement for higher education governance.

As the report points out "Higher Education Governance Reforms across Europe" (ESMU, 2009), governance in higher education refers both to the autonomy of the institutions and the inclusion of actors involved in the proper functioning of the HEI (ESMU, 2009, p. 10), which implies a deep and thorough knowledge of them. In the case of the students a knowledge about who they are and what are their pathways that allows both to improve the opportunities of access to higher education and to increase the effectiveness and efficiency in training; In addition to guaranteeing the equity in graduation, thereby preventing abandonments and unnecessary delays in their training processes.

This requires the knowledge and recognition of its diversity, paying particular attention to the critical moments of its pathways to which we will call "transitions" and which we will discuss in later sections of this text. The moments to which institutions should pay particular attention in the context of the diversity of the student pathways.

The theoretical-methodological approaches for the follow-up analysis of students and graduates of higher education, at least in the OECD countries, have evolved with the changes in the type of students, mainly with the increase of their diversity (Gilardi and Guglielmetti, 2011), but also with changes in public policies concerning higher education (mainly those related to educational expansion in three aspects: those aimed at increasing coverage, extension of this to postgraduate studies and incorporation of higher education to "Lifelong learning"). But, also with

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1. We appreciate Doctors Adrián de Garay Sánchez and José Navarro Cendejas for their comments and criticisms of the draft version of this article.
2. "On the technical side, the first component of governance is scientific-technological knowledge, from which our proven causal beliefs about the behavior of nature and various social facts come from. Science and technology represent the fundamental reference to determine the causal suitability of activities, instruments projects, programs, forms of organization to produce effectively and even efficiently the preferred social objectives" (Aguilar, 2010, p. 48).

the evolution of management methods, evaluation of HEI as a whole and their programs. Evolution that includes the monitoring of students and graduates as one of the bases for their governance (Kehm, 2011 and ESMU, 2009).

In this text we present a proposal of a theoretical-methodological approach for the follow-up of students and graduates of higher education, which we consider adequate to the requirements of modern governance, because it reflects the changes that have occurred in students, which constitutes an indispensable requirement of information about one of its main actors.

The methods used "traditionally" for the follow-up of students and graduates of HEI are based on the "traditional student", which has been providing us information that does not allow us to deepen the real diversity of its students and its implications in the institutional design, in the indicators used for its evaluation (Planas and Acosta, 2014) and in the pedagogical model (Scott *et al.*, 2013).

Our HEI are now welcoming students who are increasingly stepping away from the "ideal student" (or "traditional" as they are accustomed to call in Anglo-Saxon literature), but not to be replaced by other homogeneous students but to increase their diversity. What we have called "ideal students" and others named as "traditional students", that is to say, young man or woman, who accedes to higher education around the age of 18, is a full time student, without combining his tasks as a student with work, single with no family responsibilities; Student who will finish their studies in the expected time, which according to the duration of their studies will end at 22-23 years and then will be dedicated to find a job according to their level and area of studies starting in this way his professional career. Similarly, we can describe the ideal "graduate student" by simply shifting the age of admission and the number of years corresponding to the expected length of the postgraduate cycles that he/she is in.

This type of student remains in our HEI but is a minority in the bachelor degrees and, even more, in the postgraduate courses.[3] The "ideal" or "traditional" student

3. See Data in National Center of Education Statistics. https://nces.ed.gov/pubs/web/97578e.asp for The United States of America, from Eurostudent V for Europe http://www.eurostudent.eu download_files/documents/EVSynopsis ofIndicators.pdf; and for Mexico, De Garay *et al.*, (2016) and Planas & Enciso (2014).

has not been totally replaced by other types of students, but also coexists with other types of students, hence one of the challenges today is to know and recognize the diversity of students coexisting in our HEI and to manage, institutionally and pedagogically, their entrance, permanence and graduation of the school cycles of degree and postgraduate, with inclusive, congruent and respectful proposals with the diversity present in the centers.

This diversity refers mainly to two types of events that vary with respect to the "traditional" student: on one hand, the moment in the life course of the students when they study, that is to say, their previous pathway and the future expectations that motivate their training and, on the other hand, the group of activities that the students carry out simultaneously to their studies (what Anglo-Saxons call "student life"), and for which, in the introduction to the program of a recent congress (May, 2016), Organized by SRHE[4] and OFFA,[5] held in London under the title "Making Sense of Student Lifecycles and Transitions", read as follows:

> The student lifecycle has become a normative term used in higher education policy in an effort to capture students' transitions, stages through and experiences of accessing, participating and completing a university degree.
> However, the term has not been fully problematized to consider for example how institutional systems, processes, spaces and temporalities might not connect with students' complex educational and social identities and experiences. Furthermore, the notion of the student lifecycle suggests a homogenous and linear pathway through higher education, which is not the experience for many students. As higher education student communities become increasingly diverse, and with national and institutional aims to widen participation and create more inclusive cultures and practices, the need to pay critical attention to the meanings we impose on the 'student lifecycle' has become particularly imperative.[6]

4. Society for Research into Higher Education.
5. Office For Fair Access.
6. https://www.acss.org.uk/news/making-sense-student-lifecycles-transitions/

Lifecycle tends to be normatively associated with generation or age group, but there is another interpretation, as O'Rand and Krecker (1990, p. 245) points out. We have to consider it "as a population-driven process, a more approximate notion to what most authors have been calling Life course".[7] Because cycle is not generation, meaning that not everyone is doing the same type of transition or do it at the same age.

For example, not all people start to work or start their careers at the same age. Nor do they emancipate from the family or construct their own family, in the same way, or at the same ages, nor study the same school cycles, in the same way or same ages. One of the objectives of a new methodology for the follow-up of ES students and graduates would be, as Hareven stated (1978, pp. 97-100): "[…] to investigate the synchronization of individual timing with the collective timing." "[…] The timing and synchronizations of transitions." "[…] Most individuals are involved simultaneously in several configurations, fulfilling different functions in each".

In other words, we intend to make sense of student life-cycle without locking ourselves in its normative sense, but understanding that a certain formation must be located as part of the itineraries of which it is part and considering the transitions that imply. That is, adopting the concept of Life course as understood by authors like Hareven (1978 and 1985) or Elder (1994), we will return to this aspect later.

For their part, the HEI managed following the governance model (which implies both autonomy and actor´s involvement) will have to be accountable, "upwards" the requirements of national, state and international authorities and the social institutions that govern and/or evaluate them, and "downwards" (in relation to their students and teachers), they must generate instruments to know and manage the diversity of their new students, in an equitable, effective and efficient way. In particular, this will require paying more attention to the transitions they must overcome in their access, permanence and graduation from the educational cycles.

7. "In much modern socio-demographic literature, the term life-course has replaced that of life-cycle in analyzing these sequences of events because the former carries fewer normative implications than the latter" (The Oxford Dictionary of Sociology, 2005, p. 363).

As an illustration of what was mentioned in the previous paragraph, the recent celebration in London of the aforementioned congress whose main objective was the search for new models of analysis that allowed to incorporate a diversity of students to the higher education through the development of new models of Institutions, which goes beyond the presents, which rigidness and homogeneous (especially regarding the profile of the students on which they are based) have had the effect of excluding certain types of students from HEI, by expelling *de facto* or even by preventing access, of those student candidates whose "Life course" does not fit with the normative concept of "Lifecycle" nor with the institutional modalities that are offered[8] and, therefore, with the institutional and pedagogical design that is offered to them.

Knowing the diversity of students, real and potential, recognizing it to manage it, is one of the present and future main challenges for the governance of our HEI. In this text we present a proposal with a theoretical-methodological perspective to understand the diversity of the students of the HEI and show a concrete application for the particular case, which we consider to be illustrative, of the master's degree graduates from A University Campus of Universidad de Guadalajara (Mexico) in order to show, through a concrete case, the relevance of our theoretical-methodological approach.

THEORETICAL BACKGROUND OF OUR PROPOSAL

The theoretical-methodological approach that we propose has its origins in previous ones that have been evolving with the context as we have exposed in the previous section. The main sources of inspiration for our approach are: a) the "School to Work transition" approach; b) the "Student Life" approach; and c) the "Life course" approach.

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8. State governments and HEI have already introduced timid institutional modifications to accommodate student diversity, such as in the UK, differentiating part-time and full-time students in Mexico with the different modalities at the postgraduate level. But these institutional adaptations are currently insufficient as shows, in the case of the United Kingdom, the convening of the conference in London.

"SCHOOL TO WORK TRANSITION" APPROACH

The approaches with the greatest tradition related to the follow-up of students and graduates of education, at all post-compulsory levels, are the analyzes of the "transition pathways from school to work", these approaches, simplifying, start from three premises: a) students are young, b) before they finished their studies they did not have active working life or this is irrelevant professionally and c) the transition is essentially labor.

These approaches were strengthened by OECD countries' policies that aimed to reduce unemployment and underemployment among young people whose educational level was growing within the framework of educational expansion during the 1980's, but their unemployment as well. In the European case, it is illustrative that the European Science Foundation constituted the "Network on Transition in Youth" in the 1990's (see Werkin, Breen and Planas, 1996) that still survives.

The OECD also performed research works in the same years compared to this approach (see, for example, Stern & Wagner, 1999). From the theory, these works had as reference the text of sociology of the youth of Coleman (1985), in which the social changes that young people faced are analyzed in a context of growing juvenile unemployment.

On the side of political intervention on the transition of young people from school to work, the report by Bertrand Schwartz (1982) "L'insertion professionnelle et sociale des jeunes. Rapport au Premier Ministre" inspirer of the "Missions locales" in France and later of the "Transition in Youth Programs" of the European Union during the second half of the 80s. Programs that subsequently have had continuity with other names, although maintaining a very similar approach.

As a consequence, most of the researches we have on the departure of students from education systems have focused only on the transition from education to work and only the young people who finish their studies and who begin to work only after they have finished.

"STUDENT LIFE" APPROACH

As a source of our current approach, we must also quote the works on student life, that is to say, those works that instead of dealing longitudinally with young people and their transitions focus on the holistic dimension of students' lives, not only as students, but also as workers, as subjects of health, housing, as caregivers of children, as persons who have a private, sexual and affective life, as members of associations, as citizens, as consumers, with special reference to cultural consumption.

Of particular note are the numerous "Observatoire de la vie étudiante" available at the French universities and the services which, in various ways, address these issues in European and American universities. Comparative studies have also been made, including diffe-rences in motivations, objectives and identities among university stu-dents (see for example: Hadji, Bargel, Masjuan, 2005; Garay, Miller and Montoya, 2016).

From the analysis on the professional insertion of French young people, Schwartz's (1982) book already proposed to expand the professional insertion to its social dimension, but, as far as we are interested, it kept the limitations of being focused only on young people and particularly those who were in danger of exclusion.

There are a large number of particular studies on student life, but there is no common theoretical-methodological articulation between them. In Mexico, the work of De Garay (2004) is worthy of a note; De Garay, Miller and Montoya (2016) and Miller (2009) on the students of the UAM that address the diverse dimensions of student life. But the greater production of analyzes that consider student life as a whole has taken place in the line of "non-traditional students", which contains a great diversity of collectives and characteristics that makes them difficult to synthesize (see Gilardi & Guglielmetti, 2011).

Moreover, some countries such as the United States and New Zealand have "Life Experiences Survey", but these surveys have poor specific information about the students and it has been scarcely used for the analysis of the student pathways and their transition.

"LIFECOURSE" APPROACH

The focus of "Life course", although it has a previous development centered on the "Historical study of family development" developed by Hareven (1978 and 1985), is of recent application in other subject areas as sociopsychology (Elder, 1994), or sociology on the pathway of transition to adulthood (Shanahan, 2000). More recently, it has also been applied to the analysis of students and graduates in general, and to university students in particular, as developed by Scott, Evans, Watson, Hughes, Walter & Burke (2013) used for the analysis of the transitions of postgraduate students in England.

Mexican authors (Caballero and García Guevara, 2007; Guerra, 2009) have also applied this approach to the career paths of Mexican professionals. The fact that these authors have focused their analysis on professional women has involved the incorporation of the family dimension in the itineraries of professionals and the functions that women perform in it, with much greater weight in the reproductive work than their male partners.

Reproductive work has been greatly forgotten in the follow-up of students and graduates of higher education. In part because the "traditional" student is placed at ages when reproductive tasks are assumed to be scarce or nonexistent. But this can no longer be assumed because older men and women, and / or with family responsibilities, start to study at universities, which is particularly present in postgraduate courses.

Life-course concept, born to understand different phenomena, and often very distant conceptually to student life or transitions from school to work, finds its application to university students as a theoretical-methodological approach due to the need to understand that the diversity of students and the conflicts that this diversity generates with some institutions of higher education thought of rigidly and normatively in relation to their students, identifying cycles with ages and, therefore, centered in certain determined generations which are anticipated to behave as the "ideal student".

As noted above, Scott *et al.* (2013) developed a theoretical-methodological proposal for the study of the transitions of students of education, especially postgraduate, that can be applied to the analysis of cycles and transitions of both students and graduates of higher education. The main elements of its proposal are:

- Individual decisions are part of a Life course that is shaped by the transitions that people make throughout their lives, although their decisions are affected by the context, both personal and institutional.
- The different transitions: leaving the parental home, start to work, changing work, moving from one cycle of studies to another, the end of a study cycle, marriage, the creation of an independent home, procreation or others, imply ruptures and / or reorientations in the life pathway of people.
- Each individual develops at a different pace and assumes a variety of roles during his lifetime and in each of the fields in which he acts.
- The steps from one position to another, in case they involve reorientations and / or "ruptures", are called **transitions.**

This type of methodology seeks to explore the interaction between the individual, family time and historical time. A similar concept can be made with regard to training and its cycles.

LIFE PATHWAYS

From the works cited above, what we intend in this text is to define an approach that we call **Life Pathways** (hereinafter **LP**) and articulate a) the **itineraries**, understood as a description of long and complex processes of transitions (Raffe, 2003); Which although conditioned by age and context, do not follow mimetically nor the generations, nor the context and in them great part of their diversity is concretized. Incorporating "Life course" perspective and, therefore, understood as different paths of life or careers in different areas, educational, labor, conjugal, reproductive.

It does not involve any sequence, nor determined speed, is influenced by what is socially and culturally assigned (Hareven, 1978 and 1985; Caballero and García Guevara, 2007); b) with **transitions** understood as a moment of rupture or reorientation in any of the areas of the itineraries (Scott *et al.,* 2014) and c) integration, in these itineraries and transitions, of the different dimensions of the **Life Course** (studies, work, family). And all this as an instrument to analyze the diversity of the students and alumni, who have in common to have participated in the same educational cycle.

Although there is an old debate about whether it is more appropriate to talk about "Pathways" or "trajectories" Raffe (2003) considers that the term "pathways" can be useful as a structuring concept that links politics to research. The analysis conducted in this report, both on the students and on the graduates. Are based on the theoretical-methodological approach of the "Life Pathways".

This perspective aims to place both training and professional insertion as a result and part of the itinerary of people in their various dimensions, which requires, in methodological terms, and using a photographic simile, to pass from the still photo, made in a single moment, to the film and from the close up, concentrated in a single aspect of the life of the people, to the scenic that covers the different aspect of his life or the diverse lives that constitute his life: the student life, the work life, the family life.

People's lives are not divided by themes or areas, but constitute an articulated whole, more or less complex, whose components interact with each other. We know that many of our students work during their studies and have worked before, often in areas directly related to their studies (Béduwè, Giret & Solaux, 2016; Navarro and Planas, 2016; Planas and Enciso, 2014), some of them study what they study because they work from what they work (Rivas, 2014). We also know that some (especially females) of our students assume family responsibilities before, during and after their formation, in their family of origin or from the creation of their own.

Whereby, both the work and the life forms that they have, the family responsibilities, condition and explain to a large extent their behavior regarding the same formation and their results of later professional insertion (for example, post-study inactivity, even superior studies, almost exclusively by females, because they dedicate to take care of the children).

We also know that our students, at the moment they start a post-graduate course, are in different moments of their professional and formative career which will imply different expectations and behaviors regarding their formation, conditioned by their experience in other areas of life depending on how long and complex their life trajectory had been prior to the access to training (even more in postgraduate studies).

The theoretical-methodological approach of LP is based on two analysis axes: one longitudinal and one transversal. The transversal axis is to approach in a global way the life of the people to be analyzed, simultaneously contemplating how the people articulate the student life, the work life and the family life; In this way, when analyzing students and graduates, the simultaneous analysis of the field of studies with the work and the family of the students will be maintained and when we analyze the insertion of the graduates we will do it simultaneously considering the family and student life of the graduates.

The longitudinal axis consists of situating the facts to be analyzed (in this case their passage through a determined educational cycle) in the itinerary of people´s life. At what point in the life of the people, consi-dered globally (transversally), are the formation and the professional insertion (first insertion / continuity / reorientation) of the people we analyze? In particular, at what point in their professional career and family (responsibilities) they were able to pursue their studies?

Summarizing, the application of the transversal axis implies that when we analyze the behavior of the students as students, we will do so taking into account simultaneously their work life and their family life. The application of the longitudinal axis implies to locate in which stage of the life (age, professional race, family responsibilities) are located the postgraduate studies and also the professional insertion of the graduates. By combining these two axes, we believe it will be our greatest contribution to the analysis of the diversity of students and the understanding of their implications for the governance of HEI.

But not all LP moments are equivalent; there are special moments whose overcoming implies greater difficulty. Moments of rupture or reorientation in any of the areas of life (work, family, education) which we will call "transitions" and we will have to pay special attention precisely because of the difficulties they entail. Transitions that accor-ding to our analysis will not be homogenous for all those enrolled in the

same educational program and of the same nature. Some will be more academic while others will focus on work and / or family aspects.

METHODOLOGICAL PROBLEMS

The methodological problems raised by the LP approach are mainly two: first, to have the adequate information, how to obtain the necessary information to carry out the type of analysis that we propose? And, secondly, to identify the "transitions", the points of rupture and/or reorientation in the pathways of students and graduates, whose overcoming should be a fundamental objective of the HEI governance to improve the efficiency and effectiveness of their educational programs.

The information required performing this type of analysis at the same time longitudinal and holistic (including the different aspects of people's lives). Our proposal for the follow-up of master's degree graduates is the beginning of a strategy that would also include an adaptation of the administrative data of the students and follow-up surveys of the same. It is not a coincidence that studies close to our approach, such as Scott, *et al.* (2013) are qualitative, quantifiable information systems, point surveys or regular statistics do not have the necessary information for this type of analysis. Our attempt, although very modest, aims to shed light on the feasibility of the approach.

We consider that for the follow-up of students and graduates of higher education required by modern governance must also be based on quantitative techniques, that provide us information on the proportion in which the different types of students and graduates and their itineraries are present in a concrete collective, and, more specifically, in surveys and in the accumulation of statistical monitoring data.

The application of this approach to the specific case of students and master's graduates of the University Center of Economic and Admi-nistrative Sciences (Centro Universitario de Ciencias Económico Administrativas CUCEA) of *Universidad de Guadalajara* (UdeG) in Mexico is based, for the moment, on a survey of graduates with longitudinal character, retrospective that responds to the LP approach. This survey was made in 2015 for the graduates of the CUCEA master degree, and the data are only a sample that, due to the numerical scarcity of the reference population, presents problems of representability, especially at the disaggregated level.

Regarding the content of the survey to the graduates, the questionnaire reflects the situation of the interviewees in four moments: before entering the master's degree, during their master studies, after leaving and at the time of the interview (2 years later). The information on these moments allows us to construct a temporal sequence based on

which we establish the pathways of the graduates. The fundamental axis of the survey is the labor, but, congruently with our theoretical-methodological approach, we also collect information about the academic and family trajectory, which allowed us to articulate the different areas of people's lives.

The sample obtained is reduced, in the two years after the graduation, 213 graduates of 14 master's programs of the CUCEA of the Universidad de Guadalajara in Mexico were interviewed, that is why the analysis cannot be disaggregated by separate programs, the main reason for this reduced sample is that the reference population is also reduced by being master degree of a single center of a single university in a school year. For this reason, we do not present the data as formally representative data of the students of each one of the master degree, but as an illustration of the phenomena and behaviors detectable by the methodology proposed, applied to graduates of the master degree's group.

CASE STUDY: LIFE PATHWAYS OF THE MASTER GRADUATES OF CUCEA FROM UDEG

The results of the analysis of the data obtained from the CUCEA 2015 graduates' survey, which were already reflected in a previous report,[9] show that they reinforce the importance of studying the current life pathways of the student and their diversity, mainly because is a student who does not follows the pre-established or "ideal" behavior patterns according to the institution. Understand that their behavior does not depend solely on their activity as a student but on the adaptation or adaptation of their activity as a student at the time of their life cycle, which also affects work, familiar and personal spheres.

BASIC DATA ABOUT DIVERSITY

What do we want to say when we assert that students and master degree graduated are diverse? As we

9. Adrián Acosta Silva (Coord.) Study diagnostic of graduates of CUCEA postgraduate programs. Phase 1 of the institutional studies of follow-up of graduates of the CUCEA -UdeG: social origin, school trajectories and strategies of academic and professional Mimeo.

see below, even considering only some basic variables, there is a remarkable diversity among the master degree students to which we refer:

a) Age and gender of the graduates

The ages of the master degree graduates interviewed are very diverse and goes from 24 to 61 years, with a median around 27 years. This is one of the main diversities that, in turn, are an indication of other diversities that we will analyze, such as the previous career or family responsibilities. Graduates of the post-graduate program are mostly men (60%), but this predominance is mainly because of age.

The greater the age of the graduates, the greater is the male presence, while for the young, the ones we have called "in initial formation", and the distribution by gender is equitable. This is due to the fact that the different generations have their own history and the older generations had less female presence at the undergraduate level and their lower postgraduate presence derives from this lower previous presence in the university.

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b) Previous Training

The CUCEA, in the Center of Economic and Administrative Sciences could be thought that the previous training of the students of their master degree is in bachelors of this area or related. And it is, students coming from related areas represent more than 60% of the graduates, but it should be noted that the remaining third come from other disciplinary areas, among which are very predominantly engineering, which account for 25% of the total of the graduates.

c) Previous job activity and its relation with the content of the Master Degree

More than 80% of the interviewees were already working before entering the master degree and 65% of them considered that their work prior to the master degree was already related ("much" or "totally") with their master studies. Add to this that about an additional 20% considered that the relation was "regular".

In terms of previous work experience, graduates of master degree, when they entered it, were divided into three groups: the majority, more than half of them worked previously in an activity "much or all" related to the master degree that they

choose to study, 20% did not work and the rest (almost a third) worked in activities that were "nothing or little" related to the master degree to be undertaken. Here, in terms of previous experience, and hence of human capital, there are three notably diverse groups.

d) Lifestyle and family responsibilities

The lifestyle of the graduates is quite diverse, and depends on the age but not automatically, the age does not determine the lifestyle nor, as we will see next, the number or the age of the children. The way of life is, along with the number of children, an indicator, although it is not very precise and depends on the gender of the person, of the intensity of domestic work.[10]

Just over half of those interviewed live as couples (with or without children), 20% continue to live with their parents and similar proportions live alone. A smaller percentage, but not negligible (more than 5%), live alone with children. Interviewees who have children do not reach 50% and half of those who have, have only one and the other half two or three. 90% of the children are minors and more than 60% under the age of 12. With these indicators we can affirm that the intensity in reproductive work is also very diverse among the students and graduates of the analyzed master degree.

e) Couple's Characteristics

The characteristics of the couple of respondents, in terms of level of studies and type of activity, are clearly dominated by high levels of studies and economic activity in high socio-professional categories (the most frequent are: director-management and teacher researcher), although among the female couples of the older men, 10% of them are "housewives". But we observed that the symmetry in the pair (formation and labor activity) is greater in young couples than in older couples, which shows a certain generational evolution also in the couple model.

10. In recent works we have incorporated more direct instruments of measurement of this work.

f) Main source of income during the post-graduate course

Despite the large number of postgraduates with public scholarship among the students interviewed, students who enjoy this type of income are only 60%, the remaining 40% of the students live from their work during their master degree studies, including one part of the scholarship holders (about 20%) which continue working during the postgraduate, so their income comes from the scholarship and their work.

BASIC WORK PATHWAYS

The clearest point of reference for organizing LP is the work pathways. In order to establish the work schedules of the graduates, the strategy was based on two types of data: objective (about work activity in four moments of its pathway) and subjective (self-assessment about the career stage –initial or advanced– in the moment of the access to master degree). The results are the following:

a) Work pathway: typology

By means of the survey to the graduates of the master degree, we have information about four moments of the work activity of the graduates: before the entrance to the postgraduate, during the postgraduate, the egress and the current situation. Based on these data we have constructed a typology of labor itineraries that are:

Inactive: those who did not work in any of the considered moments.

Expected: those who do what the educational system "expects" from them, do not work before or during graduate school, but they start to work immediately upon graduation, and are currently working.

Experience: those who worked at some time prior to master degree and currently.

Loss of employment: those who are not currently working but worked at some earlier time.

Scholar: those who worked at all times except during the master degree studies (master degree and some continued later with doctoral degree).

Permanent: those who have worked in the four moments, and those who stated to have a job during the postgraduate but licensed.

Based on the pathways that have been constructed, we see that the most frequent work pathway among the graduates is the "permanent"

that is to say the one of those who worked continuously from before entering the postgraduate until the present moment.

In Table 1 we observe that the majority work schedule among the master's degree graduates is the "permanent", that is to say those who worked in the four moments considered in the work pathways, followed by the "experience", The sum of the two totalizes three quarters of the cases. In the next section we analyze the relationship of these pathways with the self-assessment of the interviewees regarding to the professional stage in which they were when they entered the master degree.

b) Stage of professional career at the moment of access to master degree: IPC and APC

Another way of characterizing the interviewees was constructed by asking a question of subjective self-assessment in two groups: those who consider that at the time of access to the master degree were in an initial stage of their Initial Professional Career (from now on IPC) against those who were in an Advanced stage of their Professional Career (from now on APC).

The result of the survey based on the answer to this question shows us that IPC and APC are almost equivalent, which means that they exist, related to this self-assessment, two groups clearly differentiated in terms of experience, depending on the moment they were on their professional career at the beginning of the master degree studies.

In addition, this proportion is similar in each and every one of the master degree's programs analyzed. Regarding the age of these groups is usually very dispersed in both groups, and although of course IPC tend to be younger than APC, age does not predetermine belonging to one or the other group.

The division between IPC and APC is not a net division by age, if it were, it would be enough to establish age as the separation limit, but the results show that this is not the case. This fact is relevant because it indicates that there is no common age for the beginning of the professional career, which is closely linked with their work schedules before, during the postgraduate, immediately after and a few years later.

If we analyze the data showed in Table 1 about the crossing between IPC and APC with the typology of pathways presented in the previous section, it should be emphasized that the proportion of those who present a "permanent" labor pathway, that to say, they worked during the four times indicated above is almost double in the APC (where is close to 80%) than in the IPC. This itinerary represents 45% for IPC and 77% for APC. In the APC there are no routes of inactivity and in the IPC is around 5%. Finally, discontinuous work schedules (with moments of work

experience at the beginning and end of the trajectory but with work inactivity in intermediate phases) also show twice as much presence in the IPC than in the APC:

TABLE 1. PATHWAY TIPOLOGY WORK / PROFESSIONAL MOMENT
AT THE BEGGINING OF MASTER DEGREE

Type	Professional career at the beginning		Advance professional career		Total	
Inactive	6	6%	0	0%	6	3%
Expected	13	13%	6	5%	19	9%
Loss of employment	8	8%	7	6%	15	7%
Scholar	6	6%	2	2%	8	4%
Permanent	45	45%	88	77%	133	62%
Experience	21	21%	11	10%	32	15%
Total	99	100%	114	100%	213	100%

Source: Survey of Postgraduates CUCEA, 2015.

For the IPC, the impact of postgraduate courses to access their current job, a better salary and a better work position is greater than for the APC, which is logical since the same formal training, the postgraduate, has different weights for both groups depending on the set of competences, if there was previous advanced career experience, than if the student is in an early stage of the career.

But if we look at the salary levels of both groups, we see that the salary income of the graduates at the present moment is greater than it was before and there is a clear difference in in the perceptions of the IPC and the APC. Almost 60% of the IPC earn lower wages than $16,000 pesos, in the APC, the same proportion, 60%, stated that their salary is above $16,000, and close to a quarter of the total of the APC mention that their salary is above $32,000 pesos (top range present in the questionnaire). We also observe that the degree of connection between postgraduate studies with their current work, being high for all, is higher for APC.

For all these data, and because of the implications of postgraduate teaching management, it seems pertinent to maintain this division between the two groups in the analysis of the behavior of master degree graduates avoiding diluting the differences between them in misleading averages, as they are the result of very distant situations between them.

TRANSITIONS

We understand by transitions the ruptures and / or reorientation in the pathways of the interviewees, in this case in relation to the access and completion of the master degree that is the activity that all the interviewees have done. The identification of these transitions, which constitute critical moments in the pathways of students and graduates, is fundamental to the governance of HEI, as they are key to avoid failures and / or dropouts in the entrance and permanence in educational programs and/or in the later work reintegration.

These are moments that require a specific decided intervention, both in the institutional and pedagogical design, dedicated specifically to those groups of students or graduates who must overcome them. The transitions that we detect from the obtained data are the following:

a) From work to school
The vast majority of the graduates interviewed (remember that they were more than 80%) already worked before starting the master degree, but a non-minor part (about a third of the total) stopped working to study. What kind of changes does this change of status presents? And how does it affect the follow-up of their studies: changes in income? Do scholarships, in the case of the programs that have these, cover the economic needs of students in the case? Let's take into account that they are not the same for everyone according to their family situation, age and career moment. Does it involve loss of positions in their professional career? Do they require abandonment, even partially, of work?

b) From the active life to the school, after a long absence
But, in addition, for a significant proportion of those who worked before starting the master degree, their previous life experience (work or other) was intense and away from school. We have seen in previous sections that access to master degree occurred at very different times from the alumni LP and we can separate the students from those who were "in initial formation", those who acceded to the master degree without having interrupted during a long period their presence in the educational system and those who were "in continuous formation" because they reincorporate to the "school" world after having left it during a long period. For them, the re-entry into the "school" world implies additional difficulties that do not have those who are "in initial formation" who have not left the "school" world.

We also note important differences, in this case as far as previous experience is concerned, which implies substantially different

prior learning between those who enter at an early stage of their professional career (IPC) while others are at an advanced stage of professional career (APC), whose experience and learning paths do not have an explicit recognition in the master degree curriculum or in their pedagogical practices. These would be what we call "expert students".

These differences in the moment of the vital pathway in which they enter the master degree divide the students into two halves and demand special attention for those who are "in continuous formation" (particularly those that start the master degree in an advanced phase of its professional career), having abandoned their formal studies for an important period. They are not the type of student of reference of the school systems with the consequent difficulties of incorporation and, mainly, permanence.

c) From one disciplinary area to another

A second kind of transition that we observe is the disciplinary one. As mentioned previously, one-third of the students in the analyzed master degrees come from different academic areas. This means that a part of their students are subject to a reorientation or academic break that they have to overcome; Which would require a specific curricular treatment, with its implications in the institutional design, and differentiated depending on its academic origin, for an effective incorporation to the new disciplinary area.

d) From work to reconcile school with work

An even greater proportion of those who leave their work to study, are those who decide to reconcile their studies with their work, in many cases continuing the previous work, to start a postgraduate program. Most of the interviewed graduates worked during their master degree studies (globally they are about 60% of the students). In some master degree, the compatibility of studies with work is favored by the establishment of modalities of studies that require a lesser or concentrated presence at weekends, but we observe that this proportion also occurs in programs that offer a unique modality of presence, Designed for "traditional" students, or, full-time.

e) Reconcile children's dedication and to the work with master degree studies

Twenty percent of the interviewees had children at the beginning of their master degree or had them during their master degree studies, which implied, in a similar way to combine studies and works, a transition to approach the conciliation of these dedications. But, in addition, the great majority of those who had

children, also worked. The result we obtain is that 15% of the total of the students had to reconcile their dedication to the studies with a work and with the dedication to their children.

The proportion of men and women in this situation is very similar although we know that dedication to children exert a greater weight on women than in men; this is topic to be analyzed. But, in any case, the simultaneous activities to various occupations undoubtedly have an impact on the study rhythms, since the time of dedication to the various simultaneous occupations of daily life is limited.

f) From school to work: full reintegration after the master's degree
In relation to the postgraduate impact on the work continuity of graduates, their insertion or their reintegration into the work-force, we have focused on three aspects: access to their current position, improvement of salary and improvement of the position. The answer, in a synthetic way, is that, in a majority way, the postgraduate course has had a positive impact on all three aspects.

CONCLUSIONS

As we pointed out in the introduction of the text, the objective of this article is to present a theoretical-methodological approach, of LP, capable of capturing and analyzing the itineraries of students and graduates of higher education when their diversity is increasing and the "traditional students" have become minorities in our HEI. The "traditional" approaches for the follow-up of graduates are designed and serve to understand the behaviors of "traditional" students.

Which brings us to the subject already raised in the introduction to this text by the SRHE and the OFFA: "the notion of the student lifecycle suggests a homogenous and linear pathway through higher educa-tion, which is not the experience for many students." The students in the case study presented are an illustration that the budgets on which "traditional" follow-ups of graduates are based are false because of the diversity of our students in higher education, a diversity already seen in their basic characteristics: age and gender, previous training, previous professional experience and / or simultaneous to their studies, in their ways of life and sources of income. This diversity in its basic characteristics configures diverse personal pathways and a diverse location of the same formative cycle in the formative and vital pathways of the students.

The "traditional" model of students is what supports the "traditional" studies for the follow-up of students and graduates, and because

of this is a smaller part of the actual students, and also guides to a myopic management of HEI. "Traditional" follow-up of graduates is in conflict with the majority presence of "non-traditional" students in the classroom, as we have already mentioned in previous studies (Planas & Acosta, 2014). Modern governance requires information mechanisms that are closer to the reality of our students as we propose with LP.

The case that we have presented is an illustration of three things: a) the great diversity of the students participating in the same master degree programs, b) the usefulness of the LP approach to capture and deepen this diversity, and c) the potentiality of this approach to support the IES governance, identifying the diversity of students present in their programs and their transitions as critical points for their management.

The analysis of the diversity of the students has also allowed us to identify the different types of "transitions" (moments of rupture and / or reorientation) to which some and / or others have been subjected: a) Reinsertion for those who had left the education system, b) The disciplinary reorientation for those who came from a different of the master degree program, c) Moving from full-time work to full-time training, d) The difficulty of reconciling training with work for those who continued to work during their master degree, e) The conciliation, even more complex to study while at the same time continue to work with children that require intense dedication and f) Full reinsertion after master's degree.

The performed analysis has allowed us to identify and quantify these 6 transitions that affect differently the different groups that study the same cycle. The effective and efficient transitions that are detected in each case requires a special attention from the HEI addressed to those students who suffer them, in line with Scott *et al.* (2013) for the British case, to avoid exclusion and / or drop out of students.

Consequently, the need for new theoretical methodological approaches that allow us to capture the diversity present in HE students is not an intellectual whim of researchers, but a starting point, or an instrument, for the modern HEI governance. The governance of our HEI, and of the HE system as a whole, requires adequate scientific information tools about the characteristics of its students.

Trying to govern the HE with an information system that is based on the idea of the school cycle as corresponding to a normative "Lifecycle" and common to all its students, seems every day less viable, to the extent that it impairs survival and academic performance of "non-traditional students". The data presented show that a follow-up system that reveals and recognizes the vital diversity of its students and allows to identify and facilitate their transition is required.

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