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Chapter 3

France

Marginal Formal Changes but Noticeable Evolutions

Christine Musselin

In 2009, the French minister for Higher Education, Valérie Pécresse, issued a new decree regarding faculty at universities. After six months of demonstrations and negotiations, this decree was signed in April 2009 and it somewhat modified the 1984 decree. The French academic profession, however, has rarely been at the center of the many reforms in higher education within the last decade. These recent reforms addressed the governance of French universities (the LRU Act of 2007: Loi Responsabilités et Libertés des Universités [Responsibilities and Freedom of Universities Act]) and the institutional organization of research funding and evaluation of higher education and research (the LOPRI Act of 2006: Loi d'Orientation pour la Recherche et l'Innovation [Research and Innovation Act]), which led to the creation of a national research council, the Agence Nationale pour la Recherche (ANR) and a national agency for evaluation, the Agence d'Évaluation de la Recherche et de l'Enseignement Supérieur (AERES), today called Haut Conseil pour l'Évaluation de l'Enseignement Supérieur et de la Recherche [HCERES]).

A number of the novelties present in the 2009 decree have still not been implemented, such as the four-year evaluation of all permanent faculty members in universities, which has long been opposed by the national university body, the Conseil National des Universités (CNU) (National University Council), which was supposed to implement it.¹ As a result, the adjustment of (shift in) the balance between teaching, research, and service duties that university presidents

could have negotiated with each faculty member, based on the results of his or her evaluation, did not occur.² The main formal change that finally came into effect was the composition of hiring committees that, since the LRU Act, could now include from 8 to 16 members, half of which must be faculty members from universities different from the recruiting one (thus emphasizing the presence of external expertise).

Although not a focal point of the reforms, the French academic profession has nevertheless been affected by the transformation of the French institutional setting. The career paths stay the same and competitions remain the principal device for access to and promotion within the academic profession. However, while the number of available faculty positions decreased, a new group of permanently temporary knowledge workers emerged. In parallel, among the permanent faculty members, differentiation increased through the increase in project-based research, and the relationships between academics and their university has evolved.

<A>The French Higher Education System and the Main Recent Reforms

The French higher education system is a public system consisting of three institutional sectors: universities, *grandes écoles*, and national research organizations. Their emergence and development are strongly linked to historical junctures.

The Atypical Trajectory of French Universities

The French Revolution was foundational to the development of the French higher education and research system. In 1793, the revolution closed the universities in most of the main cities, and it was only thirteen years later, in 1806, that Napoleon created the Imperial University, that is, one university for all of France. In between, a few *grandes écoles* were created with the objective of offering more operational training and better serving the economic development of

France. With the new Napoleonic university, *facultés* were rebuilt, but they were first and foremost aimed at training and teaching.³ While the individual faculties may have been located in the same city, the faculties were not integrated into a single university structure. This conception of French higher education was therefore completely different from the one imagined at about the same time by the German Wilhelm von Humbolt, and that would give rise to the research university in many countries--starting with the United States--in the twentieth century (Renaut, 1995).

This faculté and teaching-based model, despite some reforms, remained in place until the 1968 Faure Act that followed the students' movement of May 1968. The Faure Act suppressed the former facultés, led to a complete restructuring of universities, and gave birth to the French institutions as we know them today. The act also provided the faculties with the possibility of electing their president and making decisions in bodies in which students, administrative, and academic staff (and in some cases, stakeholders) had a say.

Most of the reforms since 1968 (e.g., the Savary Act of 1984 and the LRU Act of 2007) aimed at strengthening the power of the president and increasing the institutional autonomy of the newly created universities. The emergence of French universities as stronger institutions was especially brought about by the implementation of four-year (now five-year) contracts between the ministry and each university at the beginning of the 1990s. A further important milestone was passed in 2007 with the LRU Act when universities became responsible for their payroll and therefore were able to decide on the management of human resources without obtaining an approval from the ministry for the creation or renewal of positions, as was the case before.

Because of the LRU Act, French universities can select their own staff and administer a lump-sum budget.⁴ They can also decide their academic programs, although they still need them to be accredited by the ministry in order to deliver national diplomas. All universities deliver

national diplomas called bachelor's, master's, and PhD and are all considered research universities. Their tuition fees are very low (less than 300 euros per year), and they are mainly funded through public resources. However, they cannot select their students or decide the level of tuition fees, and are still considered to have relatively low institutional autonomy in European comparative studies (European University Association, n.d.). They represent the larger share of the higher education system (over 1.5 million students out of 2.4 million), but they are not the most attractive or the most prestigious higher education institutions in France.

Elite Training and Research Developed Outside Universities

The development of French universities did not deter the continual emergence of grandes écoles in either the nineteenth or twentieth century. The grandes écoles became, for the best of them, the main reproduction system of the French elite, although until recently (and with the exception of the *Écoles normales supérieures*), they were professionalized and not research-oriented. The grandes écoles train only a small share of students, but they select them either after the baccalaureate or after two years of intensive preparation in the *classes préparatoires* (preparatory classes). Today, there are 71 universities in France but 222 grandes écoles are registered and recognized by the French Conférence des Grandes Écoles (the grandes école equivalent of the CPU, the Conference of University Presidents). They are rather differentiated, some of them considered to be highly prestigious while others are less reputed; nevertheless, many parents prefer that their children attend them rather than go through the university system.

Grandes écoles focused on business were the first to become international and research oriented. They were more subject to international competition and adopted global standards and norms for academic programs and faculty recruitment such as the PhD credential and a publication record. As quasi-private institutions, they also sharply raised their fees.⁵ Grandes

écoles focused on engineering started their transformation in the 1990s, and the public ones remain almost as inexpensive as universities. They claim that they should be allowed to raise tuition fees. Despite the academic drift of grandes écoles, their links to universities remain rather weak, and the flow of students from engineering schools to the university sector remains rare, even as it is increasing at the master and PhD levels.

Another consequence of the historical trajectory of French universities is their teaching orientation. Despite the 1896 Act⁶ that aimed at transforming them into research universities, research activities were still rather limited in the twentieth century, and national research institutions--starting with the CNRS (Centre National de la Recherche Scientifique [National Scientific Research Center]) in 1936, followed by many others⁷--were created to foster French research. Some of these institutions are still not very closely linked to universities, and even less to grandes écoles, but others—like CNRS or INSERM (National Institute for Medical Research)—have been providing a research label as well as human and budgetary resources to research teams located within universities since the mid-1960s. As a result, more than 90 percent of CNRS researchers currently work in university labs and research has become more and more central for French universities.

Despite this cross-fertilization (i.e., grandes écoles becoming more academic, research institutes located within universities, and so on), the French higher education system is still often considered to be too segmented in ways that undermine system performance.⁸ Some recent evolutionary reforms have aimed at changing that.

Recent Reforms at the Systems Level

Two main developments have characterized the evolution of the French higher education system since 2000. The first is the increase in competition between institutions, research units,

and individual academics. A large share of the budget is now allocated through selective national calls, and recurrent budgets are proportionately declining.

The second development is the creation of policies aimed at bringing universities, grandes écoles, and national research institutions together. The 2006 LOPRI Act created the possibility of establishing consortia of higher education institutions, called PRES (Poles for Higher Education and Research), in which universities, grandes écoles, and national research institutions located in the same city or region could coordinate and share some common activities or programs—for example, delivering a “joint” doctoral degree at the level of the PRES or relegating to PRES the international strategy of the different institutions.

In 2010 and 2011, these two evolutions were combined in a national program called the Grand Emprunt, or PIA (Programme d’Investissement d’Avenir, or initiative for the future). Some highly selective national calls for proposals were organized by the state to identify the best PRES and allocate a substantial amount of funding to them (16 billion euros in 2010) with the goal of fostering French research and, at minimum, maintaining France’s place in the world. Only PRES (no single institutions) could apply for this funding. One of the calls for proposals--IDEX (*initiative d’excellence*)--aimed at identifying consortia of universities with high potential, labeling them as IDEX, and providing them with more resources. Eight consortia were selected; three of them were composed of already-merged or about-to-merge universities, probably because mergers was seen by the international jury in charge of the selection as a proxy for the strength of the governance of the consortium: Aix-Marseille, Strasbourg, and Bordeaux. The Fioraso Act of 2013 went a step further: it required each higher education institution to be part of or associated with a consortium of institutions, now called COMUE (Community of Universities and Institutions), also including grandes écoles and national research institutions. These huge

consortia are expected to become the main institutional pillars of the French higher education system in the future.

A Co-Managed Governance of the Higher Education and Research Systems

These recent reforms, like the previous ones, are never simply brought about by administrative or governmental decisions. They always involve some members of the professoriate having access to the politico-administrative sphere. As I described elsewhere (Musselin, 2009), there is a long tradition of co-management between the ministry and part of the academic profession. Decisions at the ministry level involve academic experts solicited to review the projects submitted by universities for accreditation or funding.

Certain members of the academic profession are very active in pushing particular reforms and even implementing them when they occupy important functions at the ministry level (such as ministers themselves, members of cabinet, or directors of one of the administrative directorates of the ministry). The role of labor unions for higher education, although sometimes more visible than the discrete action of influential academics, is often not very efficient. The demonstrations of 2009, for instance, lasted more than six months but did not succeed in blocking the 2009 decree mentioned at the beginning of this chapter.

The role of professional associations (like the French Sociological Association, AFS, for instance), remains rather weak. There is no tradition of strong lobbying and they are also rather limited in scope and activities for their members.

<A>A Pyramidal Organization of Academic Careers and of Allocation of Work

A complete description of the French academic profession would require comparing the faculty (academic staff) of the universities, grandes écoles, and national research institutions such

as the CNRS or INSERM. While I will sometimes refer to the CNRS, this chapter will mainly focus on French universities because aggregated data exist for this sector but not for the other ones. I will not deal with the sector of the grandes écoles since very little data are available about the staff and the career framework of these schools.⁹

At French universities and national research institutions, the permanent faculty hold civil servant positions;¹⁰ therefore, academic careers are organized by national rules voted upon by the parliament. The structure of the French academic profession is very different from the German system (Enders and Bornmann, 2001; Enders and Teichler, 1995), where secured positions are very rare and restricted to the highest status only--that of the professor, all other positions being temporary. Among this “temporary” workforce, only some survive the long road to professorship and securing a permanent post. France is also very different from the US system and its two tracks (Finkelstein and Schuster, 2006): the tenure track that starts with six or seven years based on the up-or-out rule and can lead to a tenured position but is restricted to fewer positions over time, and the non-tenure track, where adjuncts and post-doctoral students are employed in temporary positions until they either get a tenure-track position, decide to continue to work in contractual roles, or pursue a career outside academia. Although France has evolved in the last decade, as will be explained below, the majority of the French academic profession consists of those who are civil servants.

<INSERT TABLE 3.1 ABOUT HERE>

It is possible to enter the group of permanent university staff after the preparation of a PhD by applying to a first tenured position as a *maître de conférences* (called *chargé de recherche* at national research institutions).¹¹ Only some will become professors (or *directeurs de recherche* at national research institutions): in 2014, there were 20,353 professors and 36,555 *maîtres de conférences*. The French academic profession consists therefore of a pyramid

structure, with a base that is much larger than the top: the way to the top is not for everyone, but those who do not reach professorship are not excluded from the system and remain maîtres de conférences until they retire. The first subsection below will describe how one can go from one level (PhD) to another (MCF) and the mechanisms that regulate this trajectory.

Finally, maîtres de conférences and professors enjoy academic freedom, which in France means that they can choose what they teach and research, and also that they can freely organize their time, except for the number of hours they have to teach each year, which is fixed by their status: professors 128 hours annually, MCFs 192 hours annually.

Before Access to a Permanent Position

In a study in which we compared cohorts of faculty members who obtained a first permanent position in 1976-77, 1986-87, 1996-97, and 2006-7, biographical interviews¹² with some members of each cohort (100 in total) showed how this first step toward an academic career has evolved over the last 40 years (Musselin, Pigeyre & Sabatier, forthcoming).

The first important transformation is that the PhD degree has become compulsory for an academic since the 1970s. Preparing for a PhD has also become more structured: the time that should be dedicated to it is not supposed to be more than three years (even if this is far from being respected in the social sciences and humanities); more doctoral fellowships were allocated in the late 1980s to permit full-time work on research (but they are still rarer in the social sciences and humanities); and doctoral schools were created in the mid-1990s and classes were formally introduced at the doctoral level with the Bologna Process. An increasing number of specific classes are offered to PhD candidates to help them find a job in academia or in firms; the idea that PhDs should not only be oriented toward academic jobs has spread in France. The doctoral period should therefore not only be dedicated to writing a thesis but also to prepare the

student for a future job, and supervisors are expected to be more attentive to whether their doctoral students “check all the boxes” necessary to succeed after they finish their doctorate.

This professionalization of the training process for PhD candidates goes hand in hand with a decrease in interpersonal mechanisms and relationships. Most of the academics recruited in the 1970s and 1980s whom we interviewed explained that they entered the academic profession because one of their professors had asked them to work as a research assistant for them, and they finally decided to obtain a PhD and got a first tenured position after--or even before--they graduated. Such narratives were less common among the interviewees recruited in the mid-1990s, and never occurred among those recruited in the mid-2000s. Within universities, such interpersonal relationships were replaced by more collective decision making: committees select their PhD candidates from among the best candidates with master’s degrees applying for a fellowship; the candidates are hosted in research units (even if it is still far from being the case in social sciences and humanities); and they are encouraged to exchange with faculty other than their supervisor. As for the PhD candidates themselves, we more frequently observed strategic¹³ behaviors: the rather passive enrollment of their older colleagues ceded the path to a more active choice of the place from which they wanted to graduate, the supervisor with whom they wanted to work, and the positions they would seek once they graduated.

Nevertheless, and despite these evolutions, the preparation of a PhD is still considered a period of apprenticeship (Musselin, 2009). Although France signed the European charter stating that PhD candidates are young researchers, they are still “in-between”: they are simultaneously potential future colleagues (integrated in the labs, sitting at meetings, producing knowledge) and students (taking classes, training in professional competences, being supervised).

Upon receiving a doctorate, they are confronted with a decrease in positions available at universities. The following figures show this phenomenon during the last decade, but this

situation will worsen in the coming years as retirement rates are slowing down and the state budget cannot support the creation of many new positions.

<INSERT FIGURE 3.1 ABOUT HERE>

In France, not all PhD holders are allowed to apply for academic positions. Holding a PhD is a necessary, but not a sufficient condition for entering the academic profession. Doctoral graduates have to be “qualified” by a national council of universities (CNU), which is organized around discipline-based committees. Each committee may have quite different qualification strategies: some are very selective and even model the number of candidates that they qualify on the number of positions that are opened (e.g., private and public law, information and communication technologies, and protestant theology qualify less than 35 percent of their candidates); others are less Malthusian (for example, mathematics, astronomy, and theoretical chemistry qualify more than 90 percent of the applicants).¹⁴ Nevertheless, all committees expect the same things from the candidates: an excellent PhD dissertation, diverse experiences in teaching, and some publications, which are qualifications that must have been acquired during the PhD program.

Being “qualified” by the CNU is mandatory to apply for academic positions, and the qualification is valid for four years; however, it does not guarantee a position. In 2013, 15.2 percent of those who applied for a position of maître de conférences were offered and accepted the position. However, among the 1,294 recruited in this category in 2013, almost 44 percent received their qualification the same year (this ratio was 46.52 percent in 2012 and 46.08 percent in 2011).¹⁵ That is, selection favored the most recent doctoral graduates.

The Intermediary and Ambiguous Situation of the Maîtres de Conférences

Those who are lucky enough to be recruited get a first permanent position as a maître de conférences. It is the largest category in terms of numbers (around two-thirds of the total number of permanent academic positions). This category is structured into two grades (maître de conférences and maîtres de conférences classe exceptionnelle). Some academics remain in this category their entire professional life. In terms of salary, civil servants are paid according to a national scale and progress according to seniority on the one hand and promotions on the other. They start at 2,070 euros per month gross.¹ If they remain in this category until the end of their career, they can leave with a monthly salary of 4,390 euros. This is not a very attractive profession and probably one of the least interesting intellectual professions, if you disregard the advantages you have as a public servant (in terms of pension or employment security). But, even with these generous benefits, after at least eight years of university training, starting with a salary that is only 1.4 times higher than the French minimum wage (1,466 euros/month) is not very attractive, especially if you consider that the mean starting salary for a student trained at the École Polytechnique (the best engineering school) is 3,750 euros per month gross and for a student trained at HEC (the best business school) is 3,340 euros/month, both having spent only five years as a student.

In the history of the French academic profession, the maîtres de conférences (called *maîtres-assistants* until 1984) were a category of academic staff working under the supervision of professors. But as the 1984 decree reads, the differences between the tasks and duties of maîtres de conférences and professors are marginal, except that the former are not allowed to supervise PhD candidates unless they defended a sort of second PhD called an *habilitation à diriger des recherches* (habilitation to supervise research). Therefore, this professional category is ambiguous: it is a step toward professorship for some, but it is also a “career” for those who will remain in this category until they retire. It is a lower position in the career trajectory: while for

those starting in this category it is still considered a stage of apprenticeship during which one has still to prove one's abilities, for those who are in this category for years and will never leave it, it does not make sense to speak of an apprenticeship.

Because of this ambiguity, and because the decrees of 1984 and then 2009 are themselves not very clear in pointing out what makes a professor different from a maître de conférences, the level of autonomy and responsibility of the latter and the type of relationships they have with the professors very much vary from one department to another, and even within the same department may vary from one activity to another. As shown with V. Becquet (Musselin and Becquet ,2008), some history departments maintain a hierarchical relationship between the two categories, but these dependent relationships mostly concern teaching activities and administrative responsibilities such as department heads but not research activities. Meanwhile, in hierarchical departments of physics, maîtres de conférences will also be dependent on professors for their research. Nevertheless, in these two disciplines, we also found departments where versatility prevailed at all levels, and where maîtres de conférences and professors were engaged in the same activities.

The seniority in the position also plays a role in the content of the tasks and in the nature of the relationships: almost everywhere newly recruited maîtres de conférences are not in a situation of negotiating what they will teach and what responsibilities they will assume. Most of their colleagues—professors as well as more senior maîtres de conférences—generally consider that the newcomer should take over what the others no longer want to do.

In such matters, the place where one gets a first position plays an important role, although French universities are supposed to be equivalent. The relationships between professors and maîtres de conférences vary, the pressure for teaching (or research) varies according to the student-to-faculty ratio, and the attention paid to the career development of faculty members also

varies as some departments try to encourage their young colleagues to become professors (for instance, by reducing their teaching load and leaving them time to write their habilitation), while others do not care.

The Professorship, at the Top of the Pyramid

Professors represent about one-third of the academic profession. Access to a professorship does not follow the same procedure in all disciplines. In law, economics, management, and political science, access to a professorship first of all relies on applying for and being successful at a highly selective national exam called the *agrégation du supérieur*.¹⁷ For all other disciplines, one has to pass an habilitation à diriger des recherches and then be qualified by the CNU. The rate of qualification at this level is as diverse as for maîtres de conférences: in 2013, it reached more than 90 percent in English literature, mathematics, and structure and evolution of earth, but less than 40 percent in urbanism, information and communication technologies, sport, and Catholic theology. The “qualified” can then apply for professorship positions. Again, those who are qualified the year they apply have quite a high success rate: 46.25 percent of those newly recruited as professors in 2013 were qualified in 2013 (this rate was 44.34 percent in 2012 and 45.61 percent in 2011).¹⁸

Within the professor category, there are three career levels—*seconde classe, première classe*, and *classe exceptionnelle*—and the progression from one to the other occurs through promotions granted either at the national level by the CNU or at the local level by universities. Each year, the ministry allocates 50 percent of the promotions to distribute to the CNU and 50 percent to the universities. In terms of salary, in 2016 the first grade started at 3,100 euros per month gross (but most are already higher as maîtres de conférences and do not start at the bottom of the scale) and could reach 6,149 euros per month gross if they rise to the highest pay grade.

In their activities, professors enjoy an even greater autonomy than *maîtres de conférences* and can balance their time between teaching, research, and other activities. They benefit from a long tradition of professional individual autonomy within institutions that in the past were weak. Professors are often described as being part of a *profession libérale d'état*, meaning that they are in a way like lawyers in terms of their independence but at the same time are civil servants and enjoy state security.

This description of the French academic career framework for university faculty shows it is hybrid. The university system is regulated at the national level, rules for civil servants apply to French *maîtres de conférences* and professors, and the state is still the employer. However, universities have become increasingly responsible for recruitment of their faculty, even if they can only choose among those who were qualified by the CNU. They cannot decide the salaries (even if it now happens in disciplines such as economics), but they can decide on the positions: they may transform a professor position into a *maître de conférences* position or an administrative one, or they can outfit a computer lab if they prefer. Finally, universities are also responsible for half of the promotions (the other half still being at the national level), and they allocate funding to the departments based on the evaluations by the AERES, which directly impacts the research capacity of the individual faculty member.

After this rather formal description of the French academic profession, I will now turn to a more analytical point of view and explain the mechanisms underlying mobility from one professional category to another and what changes these mechanisms have undergone in recent years.

<A>A System of Vacancy Chains and Competitions

Along with the stability of the structure of the French academic profession, two fundamental characteristics of the French system have not been challenged over the last years.¹⁹ First, the system continues to work according to a dynamics of vacancy chains. Second, the centrality of competitions over an academic's entire career remains high: applicants wait for a slot (for recruitment or promotion within a category) to be opened and when a slot is opened, many candidates apply and only one is selected. The combination of these two characteristics favors the constitution of a secondary labor market.

The Supremacy of Competitions and Their Results

In France, positions are opened if one becomes vacant or if a new position is created. There must be an existing slot available for a person to move up. Transforming a position of maître de conférences into a position of professor (as an associate might become a full professor in the United States, for instance) is not completely impossible,²⁰ but it is very rare because the basic principle is that in order to apply for a professor position, one post in this category must be vacant. This in turn liberates a position of maître de conférences, for example, and allows those who have no position or who want to get a position elsewhere (mobility) to apply for it. All are competing with one another to fill the slot.

This system of vacancy chains and competitions is the modus operandi in the French system. It starts with the first position as maître de conférences, after one has been successful with the qualification process. The number of candidates applying for one position is an average of 38:1, but it varies according to the location of the position. Large universities in big cities receive more candidates. The type of department offering a position also plays a role: positions in a department within an IUT (a two-year vocational college located within universities) are generally less attractive than those in traditional departments. Paris and its suburbs are also

usually more attractive than other parts of France, and the chance for universities to recruit through position vacancies is higher in this region than in others. In 2013, 11 universities were unsuccessful in their recruitments: 5 vacant positions received no applicants and 32 others remained vacant because all the ranked candidates opted for a position at other universities. The same competition process applies when one moves from maître de conférences to professor, even if most of the time there are fewer candidates for professor positions than for positions as maîtres de conférences. In 2013, the statistics provided by the ministry account for seven applications on average for each vacant professor position.

Despite this rather low level of competitive pressure, when we compared the four cohorts, and more precisely when we compared access to professorship of the first three cohorts after their first 10 years as maîtres de conférences, we observed that access to professorship was quicker for the 1976-77 and the 1986-87 cohorts than for the more recent cohort (1996-97)—despite the most recent cohort having published more than the earlier cohorts. One explanation for this is because in the past most candidates were applying for a professorship at the university where they were employed as maîtres de conférences and the number of slots opening was higher, thus providing more opportunities to apply and succeed. Today, there may be fewer openings; also, inbreeding (i.e., becoming a professor where you are already employed) is increasingly criticized: only those able to leave for another place may apply.

From a Transitory Labor Market to a Secondary Labor Market

This system of vacancy chains is very sensitive to changes in the number of position openings. What happens when the number of positions decreases and the supply of new doctoral graduates is stable or even increasing? One could expect that those who get an MCF position would have waited longer because recruiters would prefer candidates who have more experience

and stronger dossiers and whose competence would also be easier to appreciate because of their seniority. However, this is not what we observed when we compared the profiles of those recruited in history, management, and physics in the mid-1970s, 1980s, 1990s, and 2000s. Except for the cohort of the 1980s, we observed a strong stability of the profiles of those who obtained a first MCF position.

In some aspects, evolutions can, of course, be seen. For instance, more women are hired now (and more also apply), the newly hired have a higher number of publications, and they are less often hired where they graduated (again a consequence of the critiques against inbreeding). But in many other aspects, it is striking to observe that the characteristics of those getting a first position have not changed over time, despite the changes in the process described above. First, the average age of the newly recruited is astonishingly stable, varying from 32 to 33, with an exception in the mid-eighties when the market was completely blocked (I will come back to this point). Second, these new recruits generally had a very linear trajectory, from the *lycée*, to the university, and finally obtaining a PhD. Finally, the delay between when they received their PhD and their first tenured position was, most of the time, short—often less than three years. While today so many PhD holders are struggling to obtain a position, those who succeeded in getting one generally did not wait long before they got it. According to the most recent statistics provided by the ministry, 44 percent of those who got a first position of maître de conférences in 2013 got their qualification in 2013: as most new doctorates seek (pursue) their qualification just after their PhD, it means that these individuals generally obtained their PhD in 2012. If one considers that 28.4 percent of those who got a first position of maître de conférences in 2013 got their qualification in 2012, and 14.1 percent in 2011, this means that 86.5 percent of the newly recruited in 2013 were qualified within the three years preceding their appointment, thus quite rapidly obtaining a position. This figure is decreasing but nevertheless remains rather high.

How to explain this stability of the trajectories despite the changes in the focus and character of doctoral study (advent of doctoral schools with formal programs of coursework) and the variations in the number of vacant positions? In the 1970s, the high number of positions created to meet rising enrollment numbers could explain the youth, rapidity, and precocity of the newly recruited staff. Until 1984, temporary staff could stay at the same institution until a permanent position became vacant, and in the 1970s vacancies were frequent. For those holding such temporary positions, two main possibilities existed: either they decided to step down and to go on the job market for business firms, or they waited until a slot opened at their university and they worked in temporary positions until then. So the logic was either you finally entered the academic profession by getting a permanent position, or you stepped down and entered another job market. In this system, temporary positions were a transitory period. Rather than a pure secondary labor market (Doreinger and Piore, 1971), the temporary positions held before becoming a *maître de conférences* were a transition toward the primary labor market (Rosenfeld, 1992; Rosenblum and Rosenblum, 1996).

A vacancy chain system only functions if a certain number of positions at the top become vacant and allow the recruitment of new applicants. In France, the system was quickly stressed in the late 1970s and the beginning of the 1980s when fewer permanent positions were available because fewer were created (due to the stabilization of student numbers) and more senior positions were occupied by young professors, which meant that retirements became rare. The vacancy chain was blocked, and temporary academics early in their career stood long at the door of the permanent academic profession. The length of the transitory period expanded. For this reason, in our study, the 1986-87 cohort is rather different from the other three: for example, the age of entry is higher and the time between the end of the PhD and the first position is longer. Temporary staff generally stayed at their university, working with their former supervisor, in a

temporary position that was renewed every year. This constituted a group of “permanent temporary staff” that was expanding and which led to protests. At that time, a few years after the first election of François Mitterrand as president, the socialist government agreed to transform many of these temporary positions into permanent ones, but in order to avoid the repetition of such a situation they created new temporary positions that were either renewable only once or could not easily be renewed multiple times in the same place.

In the 1990s, even if the situation of PhD holders remained uneasy, the second massification that took place between the end of the 1980s to the mid-1990s led to the creation of new positions, and the system functioned quite well again. Unsurprisingly, the profiles of the new entrants in the 1990s are very close to those of the mid-1970s. However, in the early 2000s, when the academic labor market again faced a tense situation, surprisingly we did not observe the change in profiles that we noticed for the mid-1980s. The 2006-7 cohort is still young and received their position early and rapidly: as explained above, most of those who obtained a position got it close to the time they earned their PhD and did not wait long before being hired. But the number of positions per candidate declined and all PhD holders did not have this chance. Therefore, many newly obtained doctorates remain post-docs.²¹

In the 2000s, the number of temporary positions is increasing, favored by the development of more project-based research and the reliance on post-docs.²² But this new population of casual workers is rather different from those at the beginning of the 1980s. While their predecessors were immobile and could wait for a position to be vacated in their department, the temporary staff of today is obliged to move from one post-doc to another, when not abroad, and no one feels responsible for their career when their mission is over. In some disciplines (e.g., life sciences or physics), undertaking one or two post-docs has even become quasi-required before getting a permanent position. But as we observed in our own study, and as confirmed by the recent

ministry figures, it is not the candidates with more experience who have a better chance at getting a position: recruiters prefer young, newly minted doctoral graduates. As a result, the longer a candidate is a post-doc, the less chances he or she has to be recruited.

After the PhD, three trajectories now exist: there is always the possibility to leave for the nonacademic job market (and young PhDs are encouraged to opt for this solution); some young PhD holders still experiment with a short period of transition before they get a permanent position, but there is also an emergent secondary labor market—a group of precarious, lower paid, and less prestigious positions develop and have their own trajectory but do not lead to permanent positions. Those hired in such positions are, from this point of view, comparable with the “permanent adjuncts” of many US universities who will never get access to a tenure track. The positions these individuals hold is rarely transitory, and the longer they occupy it the less transitory it becomes. These temporary academic workers are engaged in a professional trajectory of their own, different from the career of the permanent staff, until they finally decide to leave the academic profession and find another professional path.

This is a rather silent but important transformation of the academic labor market in France (even if many times criticized and denounced by the French labor unions). Nonetheless, competitions and vacancy chains remain the central mechanisms at play.

<A>The Haves and the Have Nots

Along with this structural transformation of the French academic profession, three other processes affected it in recent years. These are linked to some of the reforms that were introduced in the last decade. First, in 2005, the Agence Nationale de Recherche (ANR), a national research council, was created, which led to an increase in project-based research funding and a decrease in recurrent budgets (inciting academics to apply for competitive grants. The ANR was also in

charge of the organization of the French Initiative of Excellence (Grand Emprunt) that aimed to very selectively allocate resources to a restricted number of projects (e.g., clusters of excellence, Idex, etc.). Second, in 2006, an agency for the evaluation of higher education and research was created to centralize all already-existing evaluation bodies into one. The main novelties introduced by this agency were to give grades (A+, A, B, or C) to labs and training programs and to make these results public on its website, thus providing funders with evaluations they could (and did) use to selectively allocate resources. Third, and as a result of the two preceding processes, performance-based funding was proportionately increased.

These changes were partly justified by the development of international rankings that occurred at the same period. The rather low results of French institutions legitimized the claims of critics who, for years, had said that the French academic system was declining. Reforms, performance, and excellence became key words in the French higher education system.²³

Three main consequences derived from these transformations. First, the competitive pressure for publications and grants became stronger and, even if criticized, was internalized by many academics. Second, differentiation increased within the French academic profession between those who published and got grants and those who did not. Finally, the latter were more dependent than ever on their university as the relationship between academics and their university approached an employer-employee relationship.

Internalization of New Norms

In a 2011 study of three French universities, where we interviewed administrative and academic staff involved in its governance (N=100),²⁴ we observed that the evaluation from the AERES, the success in obtaining project-based funding from the ANR and, more broadly, the

scientific productivity of the academic staff were taken seriously, despite the many critiques about these reforms by the interviewees themselves (Musselin, 2012).

The interviewees considered the evaluations led by AERES to be of particular importance, even when they were skeptical about the methods of evaluation. They were therefore very attentive to the reports sent by their labs and training programs, and centralized them and checked them before sending them on to AERES. They even sometimes modified what the programs or labs proposed, or imposed decisions. For instance, in one of the universities, the vice president imposed English-as-a-second-language (ESL) classes in the law training programs even though the jurists were against it. Some universities also organized mock evaluations before the visit of the AERES evaluators to try to improve their results when AERES came.

The pressure for publication also increased, as only academics reaching a certain level of publications were considered by AERES to be active in research. Emphasis was also put on publications in English and in peer-reviewed journals. Some of the directors of labs in social sciences whom we interviewed complained that their colleagues were not sufficiently aware of the changing context and some even developed indicators to follow the activity of their unit.

These directors also stressed the increasing importance of grants and the new pressure, especially in disciplines where grants were less frequent, to apply for these grants and to obtain external funding. Again, even if interviewees, especially in the social sciences and humanities, criticized this trend, many of the directors of research units nevertheless tried to pressure their researchers to apply for grants.

An Increasing Differentiation

With the creation of the ANR and AERES, budget allocations and the distribution of research-based rewards have become more selective but also more visible because the evaluation

results are made public and many universities, labs, or departments publicize their success to national (Grand Emprunt) or international (European Research Council) research funding agencies.

I have argued (Musselin, 2013) that the declining influence or diminution of the academic profession only affects one segment of it. The ANR and AERES, in fact, strengthened the role of peer review in decision making and in day-to-day activities. Academics solicited to assess research projects or evaluate labs and training programs produce scientific judgments but also establish the norms according to which an entity or a project will be considered excellent or not. Such norms are more transparent and explicit than before, but they are also not only “purely” academic: the impact of the project, its governance, or the accuracy of its budget are also part of the assessment. French academics, especially in the humanities and social sciences, had to learn how to fill out templates designed by the evaluation and funding agencies and, with the decrease in recurrent budgets, the ability to obtain grants became more important than ever before.

While the peers involved in the evaluation as well as the academics rewarded by the evaluation and by receiving grants benefited from the new systems (Münch, 2008; Whitley, 2009), the distance between them and those who did not receive grants increased, thus accentuating the internal differentiation within the academic profession.

This was especially visible when the calls for the initiative of excellence were launched in 2010 and concentrated a flow of supplementary resources to a certain number of projects. The map of the LABEX (LABs of EXcellence, i.e., scientific clusters) that were selected reflects a strong imbalance between Paris and the east and south of France on the one hand, and the west and north of France on the other. Although this imbalance already existed (the map is very similar to the distribution of the labs that are simultaneously affiliated to the CNRS and a university), the allocation of more resources to sites where they were already concentrated

increased this imbalance. It also radically changed the content of the political narrative on higher education in France: instead of arguing that the imbalance between different territories should be addressed, higher education policies from 2005 to 2012 stressed that research performance and excellence should be the primary goals. The theoretical equivalence between each university and each professor was no longer a legitimate goal and was replaced by rewarding the best.

Who Is the Employer? The State or the University?

All of these broad-based developments have had concrete implications within universities for two reasons. First, the 2007 LRU Act made French universities responsible for their payroll: until then, academic positions were managed by the ministry. That is, when a post for professor became vacant, the university had to ask the ministry whether it could open it again. This devolution of human resource management to universities raised many budgetary problems²⁵ and also changed the relationship between the university and its staff.

Indeed, French academics are still civil servants, and the president of the republic still signs the recruitment papers of French professors. Their employer remains the French state, but because of the devolution of payroll to the universities, positions are no longer managed by the ministry but by universities. Even if they are not officially the employers, universities can now be more active in managing their staff. They can use the results of the AERES evaluation and/or the allocation of ANR grants as a management tool.

Those who do not succeed in getting grants or who do not receive good evaluations are under pressure by university management, which uses these results to reduce their budgets or not replace vacant positions. As stressed at the beginning of this paper, competitive academic pressures (through evaluations and grant allocations) are now aligned with--and compounded by--local university managerial pressures.

In contrast, those who get excellent evaluations and are successful in obtaining grants are in a much better situation and are less dependent on university management: they can negotiate with administrators and resist managerial pressure. Nevertheless, there has been a transformation from their previous individual autonomy to a more “performance-based autonomy”; that is, their autonomy depends on their capacity to be productive

<A>Conclusions

The overall architecture of the system has not changed, but the new focus on selective excellence and its associated modus operandi have been introduced and are at work. Although they are often actively criticized by collectives like Sauvons la Recherche (Save Research) or Sauvons l’Université (Save the University), they are accepted and appropriated by part of the academic profession, especially when they benefit from them. Therefore, they provoke controversies and divergent views among French academics.

The divide is not only ideological; the new also increases the level of differentiation among French academics. Although far from being systematic and shared, new practices are also emerging in the grandes écoles--even public ones. Forms of tenure tracks are introduced, some universities are starting to offer start-up research funds to some of the newly recruited staff, and salary negotiation have been introduced in some places for some disciplines (especially economics).

The basis on which the development of academic careers relied is also changing. While the secondary labor market still plays the role of a “holding pattern” or transition from temporary to permanent positions for the few that are hired a few months after the end of their PhD, most of the time it becomes a “trapped” situation. Academic job seekers are going from one post-doc to another and the more post-docs they accumulate, the less their chance of securing a permanent

position. Paid less, unsecured, they also often do not have autonomy to work on their own projects but instead work on the research programs of those employing them. This process grows as the number of opened positions declines. As a result, the egalitarian principals of the French higher education system are slowly being encroached upon. Differentiation gains ground for access to, as well as progression in, the academic career.

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Notes

1. This is a national body organized in discipline-based sections with faculty members, two-thirds of which are elected by their peers and another third appointed by the ministry. Their main task is to examine the dossiers of those who would like to apply for a first position and to decide whether they are “qualified” to do so or not.
2. One of the points of discord in the 2009 movement against the decree was that it suggested that the president could decide and impose what the balance between teaching and research would be for each academic, according to evaluation results. Until now this balance was the same for all: 50 percent for teaching and 50 percent for research. According to the most recent version of the decree, this can be proposed but cannot go against the will of the faculty member in question.
3. In France, universities are composed of *facultés* (a potential translation could be “schools”). At that time, they were discipline-based (faculté of humanities, of sciences, of medicine, of law, and of theology until the end of the nineteenth century. These facultés were re-created in 1806 but not integrated into comprehensive individual institutions (university) in the city in which they were located. The facultés communicated directly with the national government.
4. A lump-sum budget permits reallocation across budget categories at the local level.
5. The grandes écoles rely on revenues generated by tuition fees and supplemented by revenues from the chamber of commerce as well as industry, which are quasi-public institutions.
6. By the end of the nineteenth century, French higher education experienced a series of reforms inspired by the Humboldtian German system. These reforms led to the 1896 Act and the re-creation of universities, regrouping the facultés located in the same city, but the

facultés remained the main organizational pillars and universities were a purely administrative entity.

7. For example, INSERM for the life sciences in 1964, INRA for the agricultural sciences in 1946, CEA for nuclear research in 1945.
8. Journalists, politicians, and even scientists speak of the decline of the French system, of the problems of French universities, and believe universities should do better.
9. Faculty members at the grande écoles often work on private contracts with tenure-track systems similar to those in the United States.
10. In contrast to all other civil servant positions in France, these are open to foreigners.
11. Recruitment at the CNRS is very different from that at universities: discipline-based national committees make the decisions; universities and research units have very little to say. When recruited, *chargés de recherche*—with the agreement of the recruitment committee’s CNRS institute—will choose the research units they will join among the two or three they contacted before the recruitment and which declared they would be ready to welcome this candidate.
12. In a “biographical” interview you ask people to describe their trajectory, how they became a faculty staff member and developed a career as an academic. It is different from interviews in which you ask people to describe their current activity, how they work with their colleagues, etc.
13. Traditionally, doctoral students in the humanities and social sciences work at home because they are not hosted by their labs.
14. Figures for 2013 are based on http://cache.media.enseignementsup-recherche.gouv.fr/file/statistiques/00/6/bilrec13_327006.pdf.

15. Figures for 2013 are based on http://cache.media.enseignementsup-recherche.gouv.fr/file/statistiques/00/6/bilrec13_327006.pdf.
16. That is, before social security tax and before income tax.
17. For those who do not succeed or do not apply for the aggregation, it is possible to apply to specific professor positions opened by the ministry, if one has a seniority of at least ten years as a maître de conférences. Nevertheless, very few of these positions open each year, and those who get them are always regarded as “second-class professors.” The current ministry is trying to reform this by decreasing the weight of the aggregation and increasing the number of positions opened without passing the aggregation.
18. Based on http://cache.media.enseignementsup-recherche.gouv.fr/file/statistiques/00/6/bilrec13_327006.pdf.
19. Unless other sources are cited, the figures in this section are based on the statistics of the ministry, http://cache.media.enseignementsup-recherche.gouv.fr/file/statistiques/00/6/bilrec13_327006.pdf.
20. This is called a position transformation, but it rarely happens.
21. Hiring committees still prefer “recent” candidates hired just after earning their PhD. But only a fraction of those who recently obtained their PhD have this opportunity. Many have to work as post-docs, and the longer they have been post-docs, the lower their chance of ultimately getting hired.
22. With the development of project-based research, permanent staff can rarely conduct all the research work themselves and post-docs are recruited by project managers using grant money. There is also the development of post-doc positions such as the EU Marie Curie programs, or regions or municipalities fund positions on a selective basis. Post-docs are recruited on time-limited contracts.

23. With the election of François Hollande in 2012, the emphasis on excellence and performance decreased, but the belief that the institutional restructuring of the French system was crucial to being competitive became even stronger, and the 2013 Fioraso Act promoted the creation of regional consortia of higher education institutions called COMUE.
24. University presidents and vice presidents, deans, members of deliberative bodies, senior administrators, and directors of labs and departments.
25. Budgetary problems arose because the calculation of the budgets needed for the positions run by the university was not well led (for instance, the increases in budgetary requirements linked to promotion, seniority, or merit were underestimated); the administrative staff of universities was not sufficiently trained to face this new responsibility; or some university presidents made inconsequential decisions.