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BENOIT CRET AND CHRISTINE MUSSELIN

## ACADEMIC HIRING AND INEQUALITY

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Academic hiring, like all hiring processes, is a selection process that distinguishes candidates from each other. In higher education, access to a permanent position is essential, given that this allows candidates to cross over from the secondary to the primary labor market, meaning they can leave behind the insecurity of the secondary market and move into the security that the primary market offers.

Once in the secondary market, the hiring processes that move candidates from one permanent post to another have a very different function, as their purpose is no longer to “wall-off” access to the profession, but rather to differentiate among its members. This is notably the case when hiring allows upward mobility<sup>1</sup>, plucking the candidate from one category into another (going from *maître de conférences*<sup>2</sup> to *professeur*<sup>3</sup> in the case of France), or from an institution with a certain reputation to a more prestigious one (as is the case for much of American academic mobility).

Thus, these two mechanisms create inclusionary (and exclusionary) effects within the academic profession and categorize individuals. They create inequality by their very definition. Consequently, in this article we adopt the point of view of conventionalist authors (such as Marchal and Eymard-Duvernay 1997 and Bessy *et al.* 2001) who believe that there are no inequalities as such, but rather selection mechanisms which are, by convention, seen as legitimate or not, and are regardless the root of the exclusion/inclusion of certain categories of individuals on labor markets.

The actors involved perceive these inequalities as legitimate or not, and these perceptions vary with time and from one group to the next. Thus, a lot of research in the academic world, particularly that based on the Mertonian tradition (Cole and Cole 1973, Hagstrom 1965), highlights the fact that the happy few who are hired must, first and foremost, meet criteria of scientific excellence. If those hired have the best scientific performance, these authors believe that the recruitment process did not produce any inequalities. In other words, as long as the scientific meritocracy is respected, the status inequalities this process creates, by including some and excluding others, are deemed fair and justified. Herein is one of the principles for the creation of any meritocracy-based selection process as described

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<sup>1</sup> This is not the case for all mobility that transpires after entry into the profession. Some mobility occurs within one status category or institution.

<sup>2</sup> Translator’s note: a *maître de conférences* is roughly the equivalent of a tenured associate professor in the US. They hold a PhD and have passed a competitive examination and an interview with the hiring committee to obtain this position.

<sup>3</sup> Translator’s note: a *professeur* is roughly the equivalent of a full professor in the US. To become a *professeur*, one must pass the habilitation and the *agrégation* (a competitive examination), if one exists for the given field. Most *professeurs* were previously *maîtres de conférences*.

by M. Duru-Bellat (2009: 15): “*La méritocratie privilégie l’égalité face aux règles de la sélection, en acceptant les inégalités de position auxquelles conduit la dite sélection*” (Meritocracy favors equality in the face of the selection rules, by accepting the status inequalities this selection creates).

In the field of higher education and research, this principle is of particular importance, as any hiring mechanisms inspired by different principles are banished as soon as they are observed. Hence, the use of interpersonal networks, which is considered effective on other labor markets (Granovetter 1974), is regarded with suspicion on the academic market (Combes, Linnemer et Visser 2008), while the use of particularist rather than universal methods and criteria has been observed and denounced on a number of occasions.

However, the principle of meritocratic selection has not always been the only legitimate guiding principle. In the past, other criteria, such as social origin, ethnicity, religion, and political affiliation, weighed heavily on the process. Currently, the belief in the supremacy of scientific meritocracy is not unanimously shared even in the academic community (Musselin 2005). A number of actors want all academic tasks to be taken into account, and feel that commitment to pedagogical tasks and research advancement activities should be granted the same importance as traditional scientific production. Lastly, the inequalities created by a meritocratic selection process, i.e. difference in salary, status, etc. between those who obtain a permanent post and those who do not and thus work contractually, are also a subject of great debate and vary significantly from country to country.

In this chapter, we will not address the aforementioned debates, and we will also not declare what is legitimate and what is not. The task we have set out for ourselves is to identify the factors which move the line that separates those who have access to a position or a promotion and those who do not. We thus attempt to understand what makes one candidate be hired over another in the case of two equivalent candidates. To do so, four factors will be discussed.

Firstly, we will identify the fluctuations that affect hiring conditions. These variations make it such that out of two candidates with equal qualifications, one will be hired and the other not, depending on when they apply.

Secondly, we will look at the factors that make candidates not have the same opportunities to sit an interview and succeed. In view of this, we will address the creation of inequalities early in the hiring process, which have an impact on the results of this process.

Thirdly, we will look at hiring processes themselves, and their potential to be more or less discriminatory. Are the criteria used for evaluating scientific excellence neutral? Do they not create inequalities, as they cannot be met equally by all candidates?

Fourthly and lastly, we will look at the results of the hiring process and show that the profiles of hired candidates evolve over time, in other words, the “best” candidates have different characteristics at different points in time.

To illustrate these different sources of inequalities, we will use data on hiring and promotion to full professor status in the field of management in France. We will also use research on hiring committees (*les commissions de spécialistes*) and

on the *agrégation* competitive examination that we carried out as part of a research project financed by the French Department of Higher Education and the French Department of Agriculture (Carrère *et al.* 2004). We will rely heavily on the results of the TRAJUNI<sup>4</sup> project, which is currently underway and is financed by the ANR (French National Research Council). This project studies career paths, from the 1970s to the present, of French academics in management, physics, and history. This research is based on the comparative study of cohorts of academics hired in these three fields in 1976-1977, 1986-1987, 1996-1997 and 2006-2007, as well as on the analysis of management *agrégation* juries, since the creation of this examination in 1976.

#### 1. ACCESS OPPORTUNITIES VARY WITH TIME ACCORDING TO RATES OF PRESSURE

The rate of pressure is one of the primary factors that create inequalities in access to academic jobs; this is defined as the variation in the number of applicants compared to the number of available positions. Some authors (namely L. Chauvel 1998) highlighted generational inequalities and showed that, all else equal, opportunities for social advancement between two individuals vary according to the year they were born.

In higher education, generational variations do have a significant impact on inequalities. Periods of rapid growth in the student body, such as that in France at the beginning of the 1960s when baby boomers began enrolling in higher education, and then again from 1985-1995 due to the set objective of an 80% high school graduation rate, led to soaring demand for higher education positions, followed by equally radical periods of stagnation. There have often been calls to level-off these fluctuations in order to put an end to the “stop and go” phenomenon in academic hiring (cf. Quermonne Report, 1981), but to no avail. Thus, the pattern is one of prolific growth followed by lean years. Within a given period of this cycle, significant variations are also observed from one year to the next. The change in the number of *enseignant-chercheur*<sup>5</sup> positions created between 1991 and 2000 is proof of the major irregularities of the system, and shows how job creation is pegged to, but lags behind, changes in the student body. The number of dissertations defended over this period did not vary in any significant way.

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<sup>4</sup> This project is funded from 2007 to 2010. It is directed by C. Musselin (Center for the Sociology of Organizations, Sciences Po, and the CNRS), Frédérique Pigeure (IRG, UPEC) and Maréva Sabatier (IREGE, Université de Savoie), who are respectively a sociologist, management scientist, and economist. The planning bureau (*bureau d'études prévisionnelles*) of the DGRH (Directorate General of Human Resources) of the French Higher Education and Research Department is also part of this project, through the work of Loïc Thomas, Marc Bideault, and Pasquin Rossi. Without their intimate knowledge and precise understanding of the available data on *enseignants-chercheurs* and the quality of the database that they created and analyzed, this project would never have been a success. We thus would like to warmly thank them for having agreed to participate in this research project.

<sup>5</sup> Translator's note: the term *enseignants-chercheurs* designates full, associate and assistant professors who work in French public higher education, and are thus civil servants.

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*Changes in the number of positions created and in the student body from 1991-1998 (based on the Fréville Report 2001-2002 and data provided by the planning bureau of the DGRH of the French Department of Higher Education)*

Year	1991	1992	1993	1994	1995	1996	1997	1998
# of positions created	1997	1484	2272	700	850	1118	948	1800
change/year n-1		-0.6%	14%	-70%	21%	31%	-15%	90%
Change in the student body	6%	5%	6%	8%	3%	2%	-1%	-2%

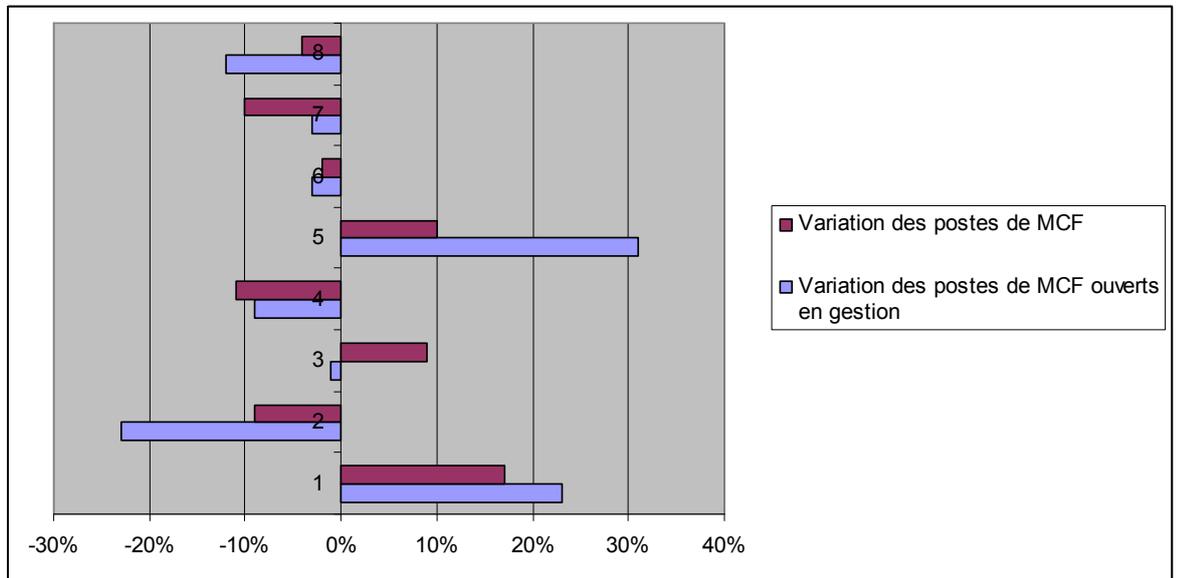
In this graph, we can see that there is a distinct variability in the number of positions created<sup>6</sup>. This is due to a number of factors: population growth, as mentioned previously, but also budgetary considerations (public finances vary according to the economic situation and/or the political objectives of the government), labor union issues, and political changes (as was the case for the decision to grant permanent positions to adjunct faculty who had completed their dissertation in the beginning of the 1980s).

In the years for which we have quantified data on the number of positions available (created and vacant positions combined), we can see that the number of *maître de conférences* positions in management and all other disciplines taken together can rise or fall by more than 30% from one year to the next, and that a drop one year can be followed by a subsequent drop the following year. Doctoral students in management who finished their dissertation in 2006 and thus were on the labor market in 2007, 2008, and 2009 (positions 6, 7, and 8) were faced with more restrictive conditions than those who had their defense in 2005 and went on the market in 2006.

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<sup>6</sup> In his research on physics, R. Freeman (1979) observed the same phenomenon in the United States and revealed the existence of cobweb cycles: at first, the number of positions goes up and the salaries offered are higher, which leads to a rise in the number of doctorates, thus creating, with time, a glut in labor supply, and thus a drop in salaries and the number of positions available, which generates a drop in the appeal of a doctoral degree and a shortage of young doctorates, etc.

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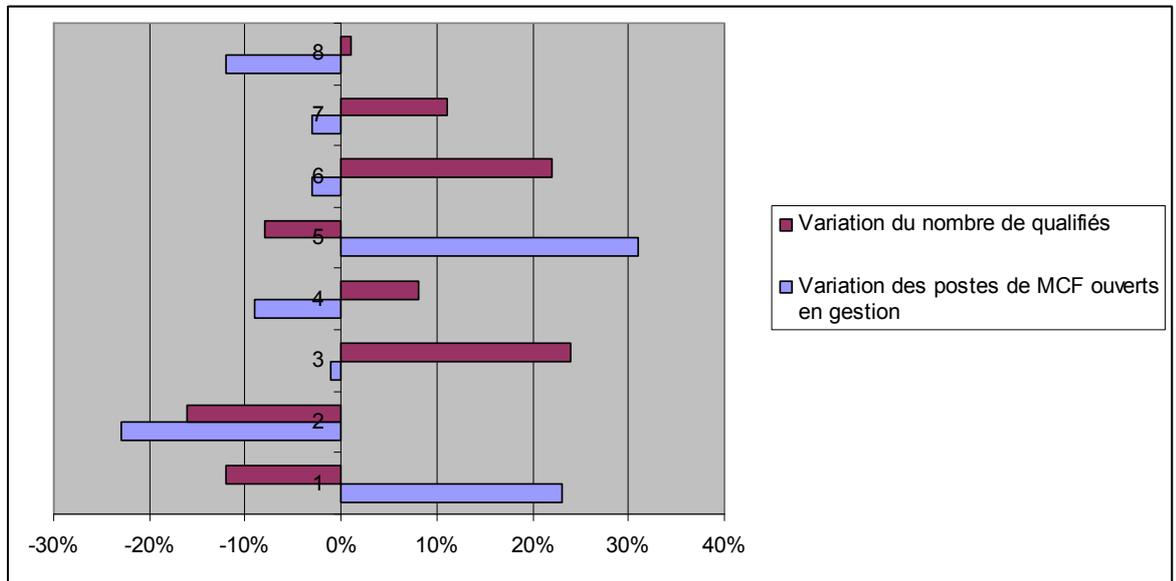
According to the Fréville Report (2001-2002), pages 27 and 29  
 (1 = change between 2002 and 2001, 2= change between 2003 and 2002, 3= change between 2004 and 2003, 4= change between 2005 and 2004, 5= change between 2006 and 2005, 6= change between 2007 and 2006, 7= change between 2008 and 2007, 8= change between 2009 and 2008)

Furthermore, on the following graph, we can see that the number of qualified applicants<sup>7</sup> is on the rise: the national committees (*les sections du comité national*) which grant candidates their qualification<sup>8</sup> don't seem to take into account changes in the number of positions available. The number of qualified applicants in position 2 (2003) went down despite the rise in the number of available positions in 1 (2002). The number of qualified applicants then shoots up in 3 (2004) even though the number of available positions dropped in 2...

<sup>7</sup> We cannot reliably calculate rates of pressure, simply because newly qualified applicants, *a priori*, make up only part of the pool of potential candidates for a given year, as candidates are qualified for a period of four years. We also cannot be certain that all qualified management candidates apply for positions in French universities. Some may use this qualification to apply for vacancies in the *grandes écoles* (elite institutions with competitive entrance exams).

<sup>8</sup> Translator's note: This qualification is granted by a state body, the CNU (*Conseil National des Universités*), and is a prerequisite for applying to state school positions.

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Graph drawn-up using data from the French Department of Higher Education and Research website, collected by the planning bureau of the DGRH (<http://www.enseignementsup-recherche.gouv.fr/cid22708/bilans-et-statistiques.html>)

The line that separates “the deserving” from the others fluctuates widely and is more or less difficult to cross, depending on the year. This was true for management science, even though this field had grown more than most over the last three decades and suffered from a relative shortage of candidates, due to the competition between universities and *grandes écoles* on the one hand and academic and business careers on the other hand. Even in this particular case, chances of obtaining a position varied from one year to the next, even for otherwise equal candidates. This phenomenon is even more pronounced in a field like sociology, wherein Olivier Martin (2009) observed that the chances of getting hired were halved for young doctorates in the space of ten years (1998-2008).

### 2. UPSTREAM MECHANISMS THAT IMPACT ACCESS OPPORTUNITIES

Variations in hiring conditions thus reveal the existence of latent inequalities between candidates who apply at different times. Looking at candidates likely to be on the market in a given year, we observe that before the actual hiring process begins, there is a combination of site effects and self-selection mechanisms which have an impact on the future chances of a candidate being hired, regardless of his/her merits. These effects and mechanisms are present when candidates are

initially hired as *maîtres de conférences*, and when they make the transition to becoming a full professor.

### 2.1 Site effects

First of all, the institution where candidates do their doctoral work, as well as where they work as *maîtres de conférences*, has repercussions on access to a permanent position. This is evident when we look at where hired candidates did their graduate work. A small number of institutions produce the majority of doctorates in management, and these individuals are among those hired.

This holds true no matter the cohort, but the interviews conducted nuance this observation, and show how the role of the “site” variable varies with time. Thus, for the first cohorts, the site is first and foremost associated with a name, that of the dissertation supervisor: interpersonal ties formed with this professor were the primary source of support. In the 1970s and 1980s, doctorates indeed were not (or very rarely) part of a laboratory. The members of these cohorts emphasized their feeling of isolation whilst they were writing their dissertation.

Professor X was nice – he was really busy as Economics director for the university. Not a specialist in the field. So he would meet with me when I asked, and he tried to give me useful advice, but really... I mean, I just ended up feeling really isolated.

Question: Were you able to participate in seminars at the time? Oh right – no, they didn’t have those then. No – they definitely hadn’t started those yet. No. It’s really too bad, because I... we all felt really isolated. And I had some really inane problems – like it was really hard to get a desk where I could work. (*maître de conférences*, 1976-1977 cohort)

The young doctorates in these cohorts were not encouraged to publish and they weren’t aware of the rules of the hiring game. The determining factor at the time was the power supervisors had over access to jobs.

At the time, it was really quite simple. My supervisor wanted me to get the assistant job, so he mentioned it to the director of the institute where I was. (Full Professor, 1976-1977 cohort)

At the time, to become an assistant, it was nothing like it is now – it wasn’t easy to become an assistant somewhere else. It was really complicated! You had to have local support to get the job. (Full Professor, 1976-1977 cohort)

For the cohorts that followed, the role of the laboratory gradually became more important; it slowly emerged as a place of guidance and apprenticeship. Of course, there were still individuals in the last cohorts who wrote their dissertation in isolation, either by choice<sup>9</sup> or because their university still did not have a structured

<sup>9</sup> This is particularly the case of doctorates who begin their dissertation later in life: after a first career in the private sector or in higher education (as a high school teacher who also teaches in higher education, PRAG or PRCE status in France).

doctoral program, but generally the role of interpersonal relationships diminished. Subsequently, dissertation directors' ability to procure a position for their advisees went down, while relationships developed within or without the laboratory, the awareness of which practices to adopt, and the skills learned by participating in the workings of the laboratory gave candidates, at the very least, the necessary toolkit to fulfill recruiters' criteria. All of this, however, was by no means a way of guaranteeing access to a position.

At university yes, not just to your supervisor. You would report on your progress by saying: "So, I'm at this point now, here's what I plan to do next year." You had to have a work plan. You couldn't just hang around. We weren't kids, you know! I mean, it was an effective system, and plus I had an advantage compared to my colleagues, because at the management lab people told me how important articles were. They would say "you have to write articles, more articles, do presentations, show us your work." So I was really motivated! Because writing articles, I don't know, I mean, in sociology it must be the same deal, go to conferences, write articles, revise them, publish them, it's a job, it's a craft, it's know-how. (*maitre de conférences*, 2006-2007 cohort)

Those who are encouraged and supported by a laboratory are better informed of the rules of the game and are more adept at strategically approaching the work market. Among these individuals, two candidate profiles emerge. On the one hand, "individualists" who work in structured laboratories, are supported by their supervisor, and use the laboratory to network and find a position. On the other hand, there are individuals who try to integrate into a laboratory in hopes of obtaining a permanent position there. Individuals who are more isolated must learn the rules of the game on their own: they often apply all over the place their first year, without forming ties with the departments that are hiring, and typically don't get hired. Their second year, they adopt a more targeted approach, and take care to apply for positions for which they are well matched.

Site effects also play a role during the transition to becoming a full professor, and in particular during the period of preparation for the *agrégation* competitive examination. Some departments "push" their young *maitres de conférences* to sit the *agrégation*, encourage them to publish, and even lighten their teaching workload or share of collective responsibilities to give them time to prepare for the higher education *agrégation* examination. To prepare, they must not only review the material and prepare a written application, but they must also prepare "lessons," i.e. speeches they will have to deliver in front of the jury. Some go on a "tour de France," from institution to institution to practice their "lesson" in front of different professors. They use this as an opportunity to prepare one part of the examination, to develop or strengthen their professional network, and to make themselves known. These "lessons" are very time and budget consuming, and are much easier to organize with the support of the department.

The size and composition of the department also play a role. Teams of “*maîtres de conférences* candidates” are formed in large departments, which make it possible for the candidates to prepare together.

I worked mostly alone, but at the IAE, Professor X had organized... because I wasn't the only candidate from the university: there were others who were going to sit the exam, so he organized lessons. So I participated in a few preparatory lessons.

Question: With your colleagues as well?

Yes. There was – who was there at the time? I can't remember their names. There were two from IAE, A... I think it was A... and B... who were sitting the exam as well. There was also a someone from the IUT who was sitting the exam as well, C..., if I remember correctly. So they organized lessons. (Bert, *maître de conférences* 06-07)

In addition, the chances of a *maître de conférences* finding one or many professors with the same specialty who would be willing to advise and help the candidate practice are much higher in large departments. A number of people mentioned how important it was to be able to exchange ideas with a faculty advisor to prepare for the exam.

## 2.2 Self-selection

The inclination to go on the market is also different from one candidate to the next, whatever their merits. This is obvious from the outset, when a candidate applies for a first job, as all candidates do not apply for all the positions for which they are qualified. Initially, instead of making decisions based on the scientific interest of a given department, candidates tend to prefer positions that are in geographic proximity. Some candidates will even dramatically restrict their applications based on constraints which are personal, more often than not.

I had also applied to Lyon, but, you know, I had applied mostly in the region because I have kids. I wasn't prepared to go to Rennes or just anywhere. (*maître de conférences* 1976-1977)

I had applied to Angers, Nantes, and somewhere else I think... Where was it? There were a number of positions available in Angers... oh that's right! I applied to several positions in Angers, two positions, and one in Nantes. That's right – no more!

Question: Always based on geographic criteria so that you could stay in the region?

Precisely. (*maître de conférences* 1996-1997)

The geographic mobility requirement (and the refusal to accept this requirement) was also often invoked by those, from the 2006-2007 cohort<sup>10</sup>, who systematically criticized the *agrégation*.<sup>11</sup> This was the case of eight members of this cohort that we interviewed, and of those eight, the ones who decided not to apply for the *agrégation* were extremely critical of it. The latter objected to the principal of the geographic mobility requirement and claimed their “right to immobility.” Often, *maîtres de conférences* from the other cohorts also held this point of view.

At the end of the day, there was something else as well, which I think played a role. I didn't really want to go anywhere other than Paris.

Question: Alright. You didn't want to live and work in two different places?

Well... I just didn't really want... I don't have anything against schools outside Paris. It's just that my husband is self-employed, and his work is based in Paris, his clientele is in Paris. You have to realize that I had done the commute from Nancy to Paris. I managed, but I was scattered and exhausted. So I didn't really want to do that again, because I already knew what that was like. But I've got nothing against the universities outside Paris. I just couldn't stand the commute. And this idea that you're never at home, always working out of a suitcase, always on the road, just doesn't appeal to me. (*maître de conférences* 96-97)

Among the professors who passed the *agrégation*, other potential self-selection mechanisms emerge, congruent with those that Carrère et al. (2004) observed in their work on gender-based discrimination. In our interviews with full professors, we often noticed that some had not initially built their career around the *agrégation*, but the opposite was also true. These individuals sat the *agrégation* only on the suggestion of colleagues, who pointed out their abilities and encouraged them to give the examination a try. In our sample, this was more often the case of women than men. This could just be a matter of chance, but we cannot dismiss the hypothesis of women's underestimation of their own abilities, or their tendency to overestimate the difficulty of the exam. Thus, Carrère et al. (2004) observed that women who became research directors at the INRA (a French national research institution) had much greater scientific credentials than the men when they first applied, as if they thought the bar was much higher than the men did. Among the candidates for the higher education *agrégation* (who are typically 30 to 40 years old), we found that there were twice as many male as female candidates.

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<sup>10</sup> This cohort is interesting on this point because it was composed of *maîtres de conférences* who had two years of experience at the time the interviews were conducted, and thus could not cite geographic mobility as an *a posteriori* explanation for not becoming full professors.

<sup>11</sup> The primary criticism, even from those who saw the *agrégation* as a necessary step which they should get out of the way as quickly as possible, was directed at the way this exam is carried out. The cohort members objected to the selection mechanism itself, as they felt that the ranking system and the ability to pass the exam were more based on political bargaining than on the intrinsic merit of the candidates.

Thus, the ideal of equal opportunity falls prey to numerous mechanisms in this process. Above and beyond the social or cultural status of an individual (which we were able to control for during the interviews), coming from a “good scientific family” had a significant impact on candidates’ opportunities. This family is one which knows the rules of the system well and passes them on to “its children,” or which gives them the best possible conditions for their success. The fact of being welcomed into a laboratory that has the necessary resources (including material resources to, for example, lighten the teaching burden during the preparation period for the *agrégation*) is an advantage, just as it is to be born into a family with high social and cultural capital. Individual factors (greater or lesser leeway in terms of mobility, more or less self-confidence) compound the status effects and give us a deeper understanding of the diverse individual trajectories we observed.

### 3. HIRING MECHANISMS THAT PRODUCE INEQUALITIES

A third factor that can influence access to a career in higher education is linked to the impartiality of hiring processes. If scientific merit (or any other criteria) is deemed legitimate, then the question is the following: is the hiring process fair, or does it create (or tacitly sanction) discrimination?

In a recently published article, C. Musselin and F. Pigeyre (2008) conclude that hiring committees (*les commissions de spécialistes*), if their members are diverse, mostly succeed at preventing direct discrimination. The presence of women on these committees, the fact that the process is collective and somewhat publicized, and the increasing use of more formal procedures, make it possible to limit (but never entirely eliminate) discriminatory practices. Thus, neither the research we carried out on management *agrégation* juries (based on a quantitative analysis of applications and candidates since the creation of this examination and interviews with jury members), nor that carried out on management hiring committees and on qualification decisions made by Section 06 (Management Sciences) of the CNU (*Conseil National des Universités*), revealed blatant gender-based discrimination. Hence, the women who apply have the same chances as men of passing the *agrégation* and the interviews did not reveal overt discriminatory behavior, while the percentage of women who apply for the *maîtres de conférences* qualification is equal or less than the previous years’ percentage of qualified or hired women (cf. graph below). In the field of management, women apply for qualification more than men and are more likely to be hired subsequently<sup>12</sup>.

*Percentage of women among candidates for qualification, those qualified and hired from section 6 (Management Sciences)*

Year	2005	2006	2007	2008	2009
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<sup>12</sup> We would of course need statistics on candidates and hiring for the *grandes écoles* of management to see if they have similar results, or if there are in fact more women who apply to universities because their hire rate is lower in the *écoles*. Unfortunately these statistics are not available.

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% of women among qualification candidates	43%	51%	44%	48%	54%
% of women among those who receive their qualification	48%	53%	49%	52%	56%
Women's success rate (# who receive qualification / # of applications)	49%	45%	52%	71%	62%
% of women among the <i>maîtres de conférences</i> hired*	54%	53%	53%	64%	68%

*\*Note that we do not know the % of women among the candidates for a given position, as this % is not the same as the % of women qualified, since the qualification lasts 4 years. Calculations based on data from the French Department of Higher Education and Research website.*

However, in the article mentioned above, the two authors remark that it is difficult to entirely prevent the risk of direct discrimination. On the one hand, it is difficult for hiring mechanisms to take into account inequalities which are linked to differences in candidates' respective trajectories. On the other hand, it is difficult to overcome recruiters' unconscious preconceptions and stereotypes which make them prefer candidates similar to themselves, and they therefore tend to reproduce preexisting social and cultural inequalities. And finally, it must be noted that network effects can have weigh heavily on the hiring process.

Among the latter, the one that is most well-known and denounced currently is "localism," meaning the hiring of young doctorates who were trained in the hiring institution (Godechot and Louvet 2008; Musselin and Sabatier 2008). This practice allows recruiters to remediate uncertainties regarding the work contract that are inherent to the hiring process. These uncertainties are particularly pronounced<sup>13</sup> for the non-scientific evaluation aspects of the candidate: pedagogical abilities, personality, and potential as a future colleague. Thus, when scientific criteria are granted less importance, chances are good that the recruiters will hire someone that they know and trust. This is, of course, perceived as distributive injustice (Cadin and Guérin 2003) by those who feel that only scientific merit should matter (Lazar 2001).

Another network effect is sometimes made manifest in a form of "pre-hiring:" this consists of deciding who will be hired long before the interviews. This phenomenon has grown increasingly infrequent with time, but is typical nonetheless of situations where a professor is able to use his/her influence to "give" a position to a young candidate.

So the following year I tried again. This time, I had a bit more information. I had friends who told me they could probably help me out a bit. I was in

<sup>13</sup> As C. Musselin (2005) showed, recruiters have a lot more information on the candidate's scientific credentials than on other aspects, and also give more credence to these scientific considerations.

contact with professor X, and he said: “Look, I can guarantee you a position, but there’s one condition – don’t apply to the IAE, apply to the IUT.” They’re the same university. I said deal, I applied, and I got the job. (*maître de conférences*, 1996-1997 cohort).

Lastly, other network effects, less visible and thus less frequently condemned, were updated through research carried out on candidates, successful and not, for the management *agrégation* (Pigeyre and Sabatier, forthcoming). This work laid bare the variables that determine, when all else is equal, whether or not a candidate passes the *agrégation*. This revealed that candidates whose PhD supervisor is on their jury are twice as likely to succeed<sup>14</sup>. The “supervisor” effect is only one of many network effects, and it is the only one that can be measured statistically<sup>15</sup>, but the interviews show that there are a number of others, e.g. the presence of a candidate’s mentor on the *agrégation* or habilitation jury.

#### 4. THE CHANGING PREFERENCES OF RECRUITERS

The last factor that we identified pertains to the changing preferences of recruiters, as evidenced by a comparison of the profiles of the hirees. Thus, inequalities of access to higher education careers are not solely linked to the number of available positions. These inequalities are also related to the changing preferences of recruiters over time. To prove this, we will compare the characteristics of first-time hirees for permanent positions (*maîtres de conférences* and full professors<sup>16</sup>) in the field of management in 1976-1977 (15 individuals), 1986-1987 (43 individuals), 1996-1997 (166 individuals), and 2006-2007 (178 individuals). This analysis indubitably reveals elements of stability and change.

If we look at all the people concerned when a given position becomes available (402 individuals between 1976 and 2006), 53% were men of nearly 34 years of age who had obtained a doctorate in the two years prior, 75% had already published, 87% had a doctorate in management, and 71% were hired by an institution other than the one where they got their doctorate, but which was often (47% of the time) in the same city.

*Descriptive data on academics hired in 76-77, 86-87, 96-97, 2006-2007.*

Cohorts	Total	1976-77	1986-87	1996-97	2006-2007
Women	0.47	0.40	0.16	0.48	0.54
Age when hired for their first position	33.97	32.00	41.44	32.47	33.72

<sup>14</sup> Combes, Linnemer and Visser (2008) came to similar conclusions regarding the economics *agrégation*.

<sup>15</sup> Thanks to the SUDOC database which near-systematically collects information on dissertations defended and supervisors.

<sup>16</sup> It is indeed possible to enter an academic career directly as a full professor, without having been a *maître de conférences* previously.

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Hired directly as a full professor	0.02	0.07	0.09	0.02	0.01
Time elapsed between dissertation and hiring	1.92	2.67	5.81	1.13	1.80
Had already published before being hired	0.76	0.33	1.42	0.47	0.92
Dissertation in management	0.87	0.17	0.57	0.92	0.94
Hired by the institution where they did their doctoral work	0.29	0.80	0.24	0.26	0.30
Hired in the same city where doctorate was obtained	0.47	0.82	0.46	0.42	0.51
Observations	401	15	43	165	178

This average profile changes if we compare the different cohorts to each other. Recently hired individuals have different characteristics from those of the first cohorts. The only element which seems to have remained relatively stable over time is the access age, as it remains around 33 to 34 years, with one notable exception: 1986-1987 when the average age was 41<sup>17</sup>. But as access age remains relatively the same over time, a number of other aspects change.

Firstly, the number of women among the candidates hired goes up: women represented 54.5% of hires in 2006-2007 versus 40%, 18% and 49% respectively in the first three cohorts.

Secondly, direct access to a position as full professor becomes increasingly rare, representing respectively 7%, 9%, 2% and 1% of each cohort. Individuals in this situation are on average older (40 years old) than those who begin as *maîtres de conférences*. We can hypothesize that these individuals had a different career prior to entering higher education, but we do not have quantified data to back this up.

Once again leaving aside the 1986-1987 cohort, which has its own specific characteristics, we observe that new hires were increasingly likely to have published before being hired. Only 33% of those hired in 1976 had already published once, versus 47% in 1996 and 92% in 2006.

In addition, new hires were increasingly likely to have defended a dissertation in management. This is by no means surprising: this discipline is relatively new in France (Chessel and Pavis, 2001) and management scientists hired in the 1970s had primarily studied economics, as training in management was still in its infancy at the time. Only 17% of new hires had a doctorate in management in 1976 versus 94% today and 92% as early as 1996.

Finally, a distinct drop in localist practices can be observed. The decline is dramatic between the first two cohorts, as the percentage of hires having defended their dissertation in the institution which subsequently hired them went from 80% to 24%, and that of those staying in the same city where they had written their dissertation went from 82% to 46%. Here again, 1986 seems to be an exceptional case, but nonetheless the 1976 numbers were never reached again by the last two cohorts. In 2006, only 30% of new hires had written their dissertation in the

<sup>17</sup> It seems that this “anomaly” is linked to a decision to grant permanent positions to adjunct professors who had completed their dissertation. These individuals, who had been waiting for a position for a number of years, were thus able to join the *maîtres de conférences* corps.

institution where they were hired, and 51% in the same city (versus 26% and 42% respectively in 1996).

If we compare the average profile of new hires in 1976 to that of new hires in 2006, two different individuals emerge. In 1976, it was a young man (32 years old) who had obtained his doctorate in a field other than management and had not yet published. In 2006, it was a young woman of nearly 34 years of age, with a doctorate in management obtained in the two years prior and with publications already under her belt, and she is recruited by a university other than the one in which she defended her dissertation.

The first conclusion to be drawn from these results is that, contrary to what is typically written about changes in the academic profession, the trajectory of those who obtain permanent positions today obeys traditional academic models and follows a distinctly organizational path: new hires have written a dissertation in the discipline for which they are hired and publish in journals of this discipline, after having following a rather standardized path (a dissertation at a young age, a position a short time after the dissertation). The comparison that we are currently carrying out with profiles from other disciplines (history and physics) will allow us to see if this situation is linked to the fact that the field of management is new and progressively being “institutionalized,” or rather if this is a more widespread phenomenon, which would lead us to call into question research heralding more boundaryless careers in higher education. (Enders 2001, Baruch and Hall 2004, Kaulisch and Enders 2005).

## 5. CONCLUSION

Instead of concentrating on the principles that govern access to the academic profession and their fairness, if we look at factors that, when all else is equal, give two candidates different results at the end of the hiring process, we are able to identify four phenomena that have an impact on equality of opportunity for those wishing to access an academic career.

Two of these factors are linked to application timing. Thus, pressure rates for a position are not static and depend on the number of available positions as well as the number of candidates at any given time. As a result, more or less favorable periods can be identified. On the other hand, the changes in profiles described in the previous section lead us to conclude that candidates who would have been hired in period  $t$  would not have been in  $t+n$  because recruiter preferences would no longer be the same (namely because the supply of candidates itself would have changed).

The two other factors are different in nature. On the one hand, they are linked to candidates' preparation conditions. As A. Coulon, R. Ennafaa and S. Paivandi (2001) clearly showed in their study on the future of *allocataires-moniteurs* (doctoral candidates with a three year fellowship and some teaching duties), some preparatory courses make it easier to obtain an ATER position (*Attaché Temporaire d'Enseignement et de Recherche* – an adjunct professorship of one year only renewable once), which in turn makes it easier to secure a permanent

position. In the same way, we noticed that candidates who were well integrated into their laboratories and networks were able to gain better access to good information and were more familiar with the practices and rules of the game. Whereas previously (in the first cohorts), supervisors' ability to find their advisees permanent positions played a central role, going through a standardized and collective preparation process has currently become an additional advantage.

However, hiring processes and the greater or lesser role played therein by direct or indirect discrimination, also have an effect on the candidates' equality of opportunity and whether or not legitimate selection criteria will be respected.

Generational inequalities, indirect discrimination produced by the process itself, unequal access to resources which prevent candidates from applying in the best possible conditions, and lastly inequalities in the way selection criteria are applied, all of these factors combined change, over time, where the line between included and excluded is drawn, and also make it more or less easy to cross that line for those who wish to be included at any given time. The feeling of injustice that is born when one was not in the right place at the right time does not so much call into question the selection principles themselves, but rather calls on us to make sure that they are applied in a more rigorous fashion. In other words, the scarcer the available positions, the more distributive injustice becomes intolerable.

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