

50% to the bachelor's degree... but how? Young people from working-class families at university in France

Yaël Brinbaum*, Cédric Hugrée** and Tristan Poullaouec***

Abstract – In France, the majority of baccalaureate holders enroll in university. Based on the panel of pupils who entered *collège* (secondary school for ages 11-14) in 1995, 70% of children whose parents are managers and professionals or in intermediate occupations obtain a bachelor degree vs. 52% of children whose parents are manual workers. With comparable social backgrounds, students of North African origin are less likely to get a bachelor degree. The differences in graduation rates are greater still between those with a vocational or technology baccalaureate and those with a general baccalaureate; those who got a baccalaureate “*avec mention*”, a grade higher than a pass, are also more likely to obtain a bachelor degree, especially if they have never repeated a year. Inequalities in learning in primary education have an impact on entry into higher education and getting the bachelor's degree. Five educational pathways can be distinguished among bachelor graduates. The “respectable” pathways of general baccalaureate holders are the most frequent. Next come the “middle-of-the-road” trajectories, which are neither excellent nor poor. Also fairly frequent are the “second-chance pathways” of students from the technology and vocational education system. More well-known, the last two are also the least frequent: on the one hand, the fragile and difficult secondary pathways identified by Beaud; on the other the “*héritiers*” described by Bourdieu and Passeron, or rather nowadays, the “*héritières*”.

JEL Classification: I24

Keywords: higher education, inequalities, migratory background, social classes, bachelor's degree, France

Reminder:

The opinions and analyses in this article are those of the author(s) and do not necessarily reflect their institution's or Insee's views.

* CNAM-LISE and CEET (yael.brinbaum@lecnam.net)

** CRESPPA, CSU team (cedric.hugree@cnsr.fr)

*** CENS, Université de Nantes (tristan.poullaouec@univ-nantes.fr)

We would like to thank Nadine Laïb and Olivier Monso for their help in constructing the dataset, Laurence Tual-Micheli and Julien Duval for their valuable advice in processing the data, and the peer reviewers.

Received on 21 December 2016, accepted after revision on 27 October 2017

Translated from: « 50% à la licence... mais comment ? Les jeunes de familles populaires à l'université en France ».

To cite this article: Brinbaum, Y., Hugrée, C., Poullaouec, T. (2018). 50% to the bachelor's degree... but how? Young people from working-class families at university in France. *Economie et Statistique / Economics and Statistics*, 499, 79–105. <https://doi.org/10.24187/ecostat.2018.499s.1941>

In 2002, the reform to the French bachelor's, master's and doctorate system (*Licence-Master-Doctorat*: LMD) changed the organisation of French university education. It transformed the bachelor's degree, known as the *licence*, into a qualification awarded at the end of a three-year post-baccalaureate undergraduate course. The bachelor's degree was then included in the objective of ensuring that 50% of a generation graduate from higher education, set by the Framework and planning act for the future of education (*loi d'orientation et de programme pour l'avenir de l'école*) of 23 April 2005. In 2015, the French national strategy for higher education (*stratégie nationale de l'enseignement supérieur* – StraNES) increased this objective and made it more specific to ensure that 60% of a generation graduate from higher education, with 50% of those at bachelor's level. As a result, the proportion of higher education graduates has risen, accounting for 42% of pupils who entered the first year of *collège* (secondary school for ages 11-14) in 1989, 44% of those who entered *collège* in 1995 and, in 2015, 44.7% of 25-to-34-year-olds were higher education graduates in metropolitan France (French Ministry of Higher Education, 2017).

In France, a number of studies have documented changes in the selection of pupils from working-class backgrounds as higher education became more accessible to them. The hypothesis of a change to the selection system is applied both in the large-scale quantitative studies on baccalaureate holders and in those focused on university students. Looking over the long term, analysis of Labour Force surveys (LFS) shows that the primary reason for the social expansion of higher education between the cohort of the early 1920s and that of the second half of the 1970s is the increase in the length of education of girls and boys from agricultural backgrounds in relation to the rest of the population (Selz & Vallet, 2006). In the more recent second education boom (1990s), those with technology and vocational baccalaureates are the main victims of university selection (Blöss & Erlich, 2000). A cohort analysis of the data from the 2003 FQP (*formation et qualification professionnelle* – training and vocational qualification) survey highlights that “the evident democratisation of the baccalaureate has resulted in limited democratisation in the access to higher education” (Duru-Bellat & Kieffer, 2008). In the Academy of Lille, Convert (2003) shows that students from the working classes (primarily those whose

parents are manual or non-manual workers) have, since that time, obtained baccalaureate results that are lower than those of children whose parents are in management, all other things being equal. Likewise, the Beaud and Pialoux survey (2001; 2002) on vocational baccalaureate holders enrolled in the first year of general programmes at a small university site in the provinces confirms that the many negative academic judgements accumulated by these students since *collège* was no longer preventing them from achieving a baccalaureate or enrolling in general programmes at university. Since then, the issue has been less that of self-selection by *lycée* (high school for ages 15-18) students from working-class backgrounds (Duru & Mingat, 1988) than that of their “under-selection” or of their academic level on entering university undergraduate courses.

In this new configuration, it appears necessary to consider the educational career – at *collège* and *lycée* – of children from working-class backgrounds. Poullaouec (2010) shows that children of manual workers are as likely as the children of managers to enter the general programmes at *lycée* as long as they have a good level of education on entering *collège*. Cayouette-Remblière and Saint-Pol (2013) noted the highly varied educational careers of working-class children in secondary education and the decisive role of “academic engagement” (*accrochage scolaire*) which they define as “the desire to remain on a more valuable programme than academic performance might allow, be it from the point of view of school officials or the objective requirements of those programmes.” Broccolichi and Sinthon's analysis (2011) of students' choice of programme according to their academic trajectory draws attention to the limitations of findings of academic “over-” and “under-selection” of working-class children when these are only observed at a single point in their educational career (the baccalaureate, for example). In fact, with identical initial levels of academic performance, the risk of failure varies according to social background due to learning differentials which accumulate each year and increase at *collège* (Duru-Bellat, 2002).

However, several studies have also examined the restructuring of academic inequalities by observing changes in the educational aspirations of families and pupils. These works highlight the divide between an increasingly shared ambition to continue in education, and the

highly differentiated academic results among children of manual workers (Poullaouec, 2010) and those of immigrants (Vallet & Caille, 1996; Brinbaum, 2002). Immigrant families have high aspirations (Vallet, 1996; Brinbaum, 2002). More precisely, parents from North Africa have higher educational aspirations for their children than French or Portuguese parents (Brinbaum & Kieffer, 2005), and these aspirations have a positive impact on educational career (Brinbaum & Kieffer, 2009). Lastly, Cayouette-Remblière and Saint-Pol (2013) highlight the limitations of the hypothesis that these are systematically transposed to academic inequalities.

Few research has expanded on the student educational career study by linking it with studies on social and migratory origins. Academic achievement among immigrant children at secondary and higher education level is primarily seen among girls (Brinbaum & Kieffer, 2009; Brinbaum & Guégnard, 2012; Brinbaum & Primon, 2013). In the working classes, the majority of those who entered higher education during the second education boom were girls with “respectable” educational pathways (Hugrée, 2010). These backgrounds cannot be reduced to academic excellence in the working classes (Laurens, 1992), nor should they be confused with the difficult schooling marked by failure at undergraduate level of their male counterparts (Beaud, 2002; Beaupère & Boudesseul, 2009). Achieved by these female baccalaureate holders and perceived by the school as “respectable”, these pathways mainly concern the academic experience of girls who, not significantly successful or unsuccessful at school, took general courses.

Studies into changes in academic and social inequalities after the second education boom have focused much on the secondary level (particularly the baccalaureate) and the start of university (particularly drop-outs in the first few years), either by combining information on the educational pathways with the effects of gender and social background, or to a lesser extent, comparing the aspirations of parents according to their migratory background and their children's actual education. Studies on educational inequalities in France remain focused on the baccalaureate or on access to higher education.

The new keystone of French education policy and a minimum objective to be achieved for students, including those from working-class

backgrounds (Poullaouec & Hugrée, 2011), the bachelor's degree is still little known in the sociology of French education... unlike the CPGEs (preparatory courses for selective post-graduate schools known as “*grandes écoles*”) (Darmon, 2014). Naturally, the LFS series has provided a better understanding of the historical dynamics of the inequalities in access to higher education degrees, those higher than the bachelor's (Selz & Vallet, 2006), or degrees from the “*grandes écoles*” (Albouy & Wanecq, 2003). But no publication has yet shown the connections, and broken them down according to social background, gender and migratory background, between types of educational career throughout secondary school and success at university.

The objective of this article therefore is to fill out this fragmented knowledge on the routes leading to the bachelor's degree. We will look at the trajectories of baccalaureate holders at three key moments in their educational career: at the time they start university, during their first years at university and once they have obtained their bachelor's degree, using longitudinal data on the higher education of students who started *collège* in 1995 (Box 1). The goal is to understand how social and educational determinants are linked from the start of a student's education to the moment they obtain a bachelor's degree at university. Once the conditions for getting into and succeeding at university have been identified, five typical pathways to obtaining a bachelor's degree emerge.

Entering university

University at the centre of undergraduate higher education

In France, in the 2000s, nearly nine baccalaureate graduates out of ten enrolled in higher education. The year after the baccalaureate, 41% of young people who were continuing their studies in higher education were enrolled on a university undergraduate course, 28% in an STS (*Section de technicien supérieur; lycée* department offering two-year post-baccalaureate advanced technician courses), 12% in an IUT (*Institut universitaire de technologie; an* institute offering two-year post-baccalaureate technology courses) and 11% in a CPGE (*Classe préparatoire aux grandes écoles*). The social and migratory backgrounds of the

students are described using original nomenclatures that combine the occupations, nationalities and countries of birth of both parents. By expanding recent research discussing the effects of household composition (Baudelot & Estabiet, 2005; Amossé & Ponthieux, 2011), this study highlights the effects of highly differentiated resources – particularly within the working classes –, until now little described in the sociology of education. While access to higher education after the baccalaureate remains unequal, access to the various courses is all the more so according to social and migratory origins (Box 2). Working-class students take two main tracks: university, especially when at least one parent is a non-manual worker, and STSs, especially when both parents are manual workers (table 1). The

differences between choice of programme also varies according to migratory background: young people of Portuguese origin are clearly over-represented in the STSs (46%) in comparison with those of French origin and even those of North African origin (27% and 34% respectively). However, they are four times less likely to go to an IUT than young people from the other groups. More young people of North African origin (approximately +10 percentage points) enrol in university programmes, while many would in fact like to take an STS course (Brinbaum & Guégnard, 2012). These results confirm the central role of universities in French higher education for baccalaureate holders, including those from higher-skilled working-class families. They also confirm the very socially selective nature

Table 1
Course followed after the baccalaureate according to social and migratory backgrounds and type of baccalaureate (%)

	University	STS	IUT	CPGE	Social Health	Other	Total
All	41	28	12	11	4	4	100
Social backgrounds							
Both parents are in management, professional or intermediate occupations	43	14	11	21	4	7	100
One parent is in management (the other is not working or is self-employed) or one parent is self-employed (the other is not working or is self-employed).	41	25	10	13	4	7	100
One parent is in management, professional or intermediate occupation, the other is a manual or non-manual worker	42	26	14	9	5	4	100
One parent is self-employed, the other is a non-manual or manual worker	37	35	16	5	4	3	100
Both parents are non-manual workers	40	36	11	4	7	2	100
One parent is a non-manual worker, the other is a manual worker	39	38	11	4	6	2	100
Both parents are manual workers	35	47	10	3	4	1	100
The father is a non-manual or manual worker, the mother is not working	45	39	9	3	3	1	100
The mother is a non-manual or manual worker, the father is not working	44	30	14	3	6	3	100
Neither parent is working	50	36	7	2	0	5	100
Migratory backgrounds							
French origin	39	27	13	12	5	4	100
North African origin	49	34	12	3	1	1	100
Portuguese origin	37	46	3	4	4	6	100
Type of baccalaureate							
General	55	7	13	16	4	5	100
Vocational	13	80	3	0	1	3	100
Technology	19	59	12	1	7	2	100

Reading Note: 41% of baccalaureate holders enrolled in university, 28% in an STS, 12% in an IUT, 11% in a CPGE.

Scope: Baccalaureate holders enrolled in higher education in the year following the baccalaureate.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

Box 1 – The panel of pupils from the first year of *collège* in 1995 to higher education

Carried out by the statistical services of the Ministry of Education (*Direction de l'Évaluation, de la Prospective et de la Performance* – DEPP), the panel followed, for a period of ten years, a representative sample of 17,830 pupils who entered the first year at a state or private *collège* (secondary school for ages 11-14) in metropolitan France in the 1995-1996 academic year. Obtaining a baccalaureate between 2002 and 2006, depending on whether or not they repeated a year in secondary education and on whether or not they took a vocational track, the baccalaureate holders were then followed by the DEPP and Insee in higher education for nine years, up to when they obtained a qualification equivalent to a five-year post-secondary qualification. They were then asked about the courses they had chosen, their choice of programme, the study conditions and the qualifications obtained.

Within this panel, 9,197 baccalaureate holders answered the question concerning their situation the year following the baccalaureate and 8,154 had enrolled in a course.

Here, we keep only the 7,782 who had enrolled in higher education courses immediately after the baccalaureate. We then focus on the paths of 2,051 young people who entered university (excluding healthcare courses), *IUTs* (technological university institutes), *STSs* (higher technical colleges) or *CPGEs* (prep classes to *Grandes Écoles*) on programmes leading to a bachelor's degree. Finally, our study of the educational careers of bachelor's graduates focuses on 2,002 young people including all higher education entrants (*IUT*, *STS*, *CPGE*, etc.), including healthcare disciplines.

Bachelor's graduations are documented on 31 October of year *n* throughout the nine-year post-baccalaureate study based on the answers to the question on the qualification obtained in year *n*. At the end of the follow-up, all the students in the panel who declared (once or more) that they held a bachelor's (or a degree from an *IUP* – vocational university institute, created in 1992, or a *licence professionnelle* – one-year top-up bachelor's – created in 1999), are considered as bachelor's graduates.

Box 2 – Definition of social and migratory backgrounds

The French notion of “working classes”

In French social sciences, the term “*classes populaires*” has gradually replaced the term “*classe ouvrière*” (working class predominately made up of manual labourers) to define groups in a “social position that is dominated” and marked by “forms of cultural separation”, particularly in terms of access to qualifications (Schwartz, 1998). This notion especially includes unskilled jobs beyond industrial workers like unskilled services jobs that are mainly occupied by women. In the vast majority of contemporary research it refers to the wage-earning working classes, in other words manual and non-manual workers (Alonzo & Huguée 2010; Siblot et al., 2016). Certain authors sometimes include farmers or at least some of them (Gollac, 2005), while others advocate excluding “skilled” workers (Amossé & Chardon, 2006). The definition used here is the most common and includes manual and non-manual workers.

Social backgrounds

In quantitative public statistic or sociology works, the definition of working classes is most often based on the occupation of the “household reference person”. In the questionnaire given to families in 1998, the first question helped identify who the child lived with. If the parents did not respond (in 14% of cases), the DEPP identified the pupil's parents or guardians from the information given in 1995 by the school directors. If the child lived with both parents, the father's occupation determined the household's socio-economic category defined by the Ministry. If the child lived with just one parent (most often the mother without a cohabiting partner), this parent's occupation was used. The limitations of such a construction are well known (Amossé & Ponthieux, 2011). It masks, in particular, highly varied situations within a given modality of the variable used to identify the social backgrounds of pupils.

For example, where the socio-economic category of the household reference person is “non-manual worker”, this may correspond to highly varied situations depending on the family configuration. There are two main cases. When the child lives with both parents, the father is often a non-manual worker in the civil service (in 38% of cases), in the police force or the military (22% of cases) or an office worker (25%) and their jobs are skilled and better paid than those of other non-manual workers. Male non-manual workers differ from female non-manual workers. And among the female non-manual workers, there is also a strong distinction. Where the mother is the child's legal guardian, she is also fairly often classed as a civil servant (33%), but more often as an office worker (35%). She also works more often as a service worker (childminder, home help, cleaner, etc.: 18%). The other situations (father the legal guardian of the child, child placed in social services, etc.) are very rare.

Ideally, it would be best to leave aside this notion of household reference person, use the occupational categories of the father and mother, separate out single-parent families, take into account blended families, etc. But the information available in the statistical source, the size of the sample and the need for legibility in the data processing makes this task impossible. A middle road has therefore been taken by focusing on the information provided by the parents' occupations. Here, the pupils' social backgrounds were constructed taking into account, as far as possible, the socio-economic categories of the child's mother and father, in order to describe, as a minimum, certain frequent social status combinations among working-class couples. Whether one parent is raising their child on their own or they are accompanied by a new partner, their occupation is still combined with that of the other parent, using the variables PCSMERE and PCSPERE developed by the DEPP. →

Box 2 (contd.)

To start with, ten categories were identified to describe the social position of the parents (Table A).

In this instance, "not working" means those with no occupation, excluding jobseekers and retirees (these are classed under the socio-economic category of their last job). As this category is the most heterogeneous from a social background point of view, it also includes parents whose occupations were not given, situations in which the child is living without their parents, as well as missing information on the father's occupation when the mother is the child's sole guardian. Self-employed includes farmers, tradespeople, shop owners and owners of businesses with at least ten employees. The purpose of this initial coding was to identify the core of the working classes (categories coded from 5 to 10) and to identify the intermediate situations around the working classes, particularly the boundary between the middle or dominant classes (3) and the self-employed (4). By highlighting the diversity of the working classes, the objective was to reveal certain social conditions for the possibility of obtaining the bachelor's degree rather than to draw boundaries between social classes. To paraphrase Baudelot and Establet, "consideration of the occupation of both partners tends more to define social backgrounds rather than the abrupt contours of the social classes which could hold identical positions in production relations" (2005, p. 43). Naturally, this view does not resolve all the issues. For instance, it cannot take into account the occupation of new partners in the case of blended families (this information is not in the questionnaires), it does not separate out single-parent families due to the lack of sufficient participants making it possible to differentiate between them according to the socio-economic category of the mother (the majority of them come under category 9 in which the mother is a non-manual or manual worker, and the father's occupation is unknown or not declared). Nor does this categorisation make a distinction between the gender of the parents, except in the working classes where a distinction is made between couples in which only the father is working (code 8) and those in which only the mother is working (code 9).

In the regressions, another social background coding that combined the occupations of both parents was necessary. Without straying too far from the objectives of the first coding, more robust effects were obtained by restricting the number of categories to six: the two parents in management, professional or intermediate occupations; one parent in management, professional or an intermediate occupation, the other self-employed; one parent in management, professional or an intermediate occupation, the other a non-manual worker, manual worker or not working; two self-employed parents or one self-employed, the other a non-manual or manual worker or not working; two manual worker parents or one a manual worker and the other not working; two non-manual worker parents or one non-manual worker and the other a manual worker or not working.

Migratory backgrounds

The 1995 panel is the first DEPP panel to collect the place of birth and nationality of the parents, which makes it possible to identify the children of immigrants, born in France to immigrant parents – that is, not of French nationality at birth and born outside France – and to compare them with the children of parents born French or in France. By convention, they are referred to as being of "French origin" in this text.

A migratory background variable was developed at family level using the place of birth and nationality at birth of both parents with the following categories: two parents of French origin, two immigrant parents from Portugal, two immigrant parents from North Africa, two immigrant parents from other origins, mixed couples (one immigrant parent, one parent of French origin). The internal differences in North African countries cannot be taken into account due to the small number of participants. This made it possible to compare young people of Portuguese and North African origin, the two largest groups. Where numbers did not allow otherwise, natives of Spain, Italy and Portugal were grouped under the heading "parents from southern Europe".

Table A
Social background of students entering university

		%
	Relationships between the parents	Share
1	Both parents managers, professionals or in intermediate occupations	26
2	One parent in management (the other not working or self-employed) or one parent self-employed (the other not working or self-employed).	13
3	One parent manager, professional or in an intermediate occupation, the other a manual or non-manual worker	22
4	One parent self-employed, the other a non-manual or manual worker	6
5	Both parents non-manual workers	6
6	One parent a non-manual worker, the other a manual worker	14
7	Both parents manual workers	4
8	The father a non-manual or manual worker, the mother not working	6
9	The mother a non-manual or manual worker, the father not working	2
10	Neither parent working	1
	All	100

Scope: All young people enrolled in a university undergraduate course, surveyed the first year after their baccalaureate (excluding healthcare courses and IUTs).

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

of access to preparatory courses (Givord & Goux, 2007; Albouy & Wanecq, 2003).

Choice of programme in higher education is also differentiated according to student gender (Duru-Bellat, 1990). Twice as many young men enter preparatory courses than young women, who mostly enter university programmes (49% compared with 32% of men). This trend holds true regardless of social background. Most young people of Portuguese origin, both male and female, enrol in an STS. In contrast, most young people of North African origin of both genders go to university.

This table confirms that school streams at secondary education level broadly extends into higher education: the biggest difference can be seen in the vocational and technology baccalaureate holders, who mostly enrol in STSs with a few going to university, and general baccalaureate holders who primarily go to university and to a lesser extent CPGEs or IUTs.

Differentiated entries to higher education which involve social and migratory origins, gender and educational careers

To what extent can these differences in access to the various courses according to social and migratory backgrounds and gender be associated with differences in structures between populations (parents' level of education, family structure, etc.) or with the prior educational careers of young people? To answer this question, several multinomial logistics regression models (or unordered polytomous models) were estimated to explain access to the various higher education courses.¹ Polytomous models were chosen where the variable is qualitative and contains several unordered categories (the various courses). Once they have obtained their baccalaureate, students go on to enrol in different courses. This variable is noted as Y . Each student i belongs to one course j of four possible courses (CPGE, university, IUT, STS). The students are described by a set of k characteristics $x_{i1}, x_{i2}, \dots, x_{ik}$. The first multinomial *logit* model assesses the probability of a student, taking into account their x_{ik} characteristics, being enrolled on a course j , based on a linear combination of x_{ik} . In this model, the *logit* coefficients successively show the logarithm of the probability of being enrolled in a CPGE, at university, or at an IUT in relation to that of being at an STS, based on six categories of the social background variable, with the

reference of one parent being a manual worker and one a non-manual worker.

These models were then estimated by successively taking into account the social backgrounds, migratory backgrounds, other socio-demographic characteristics and lastly the educational backgrounds and qualification of the person being studied. The next model (M1') only takes into consideration the variable for the migratory and geographic backgrounds of the young people and can measure inequalities between the various origins and the population of French origin (the reference situation). Other socio-demographic information is then added to the explanatory variables (model M2): the student's gender, the education level of each parent, the family structure, the mother's activity status and the type of family (four modalities), and the (current or past) presence of any siblings in higher education, which indicates a degree of socialisation and knowledge of the programmes and how they work. Access can vary according to the type of family, and particularly whether there are two parents or a single parent. Lastly, the mother's activity status has an impact on the link between young people's educations and occupations. This is described using three categories: working, not working but has worked, and not working and has never worked.

Prior educational career is introduced in a final model (M3), with both the academic level in the first year of *collège* based on four grades in the national assessments, the type of baccalaureate obtained (general, technology or vocational) and the result of the baccalaureate (indicator of academic level at the end of *lycée*). These variables are key factors for accessing higher education and its courses.

This approach reveals the gross and net effects of social and migratory origins on the differences in enrolment in the various higher education courses between the groups. Access to each of the programmes (CPGE, university, IUT) is explained using the reference enrolment in an STS. These models do not aim to model individual choices, but rather, by comparing, all other things equal, the characteristics of these education sub-populations at the time of entering higher education, they reveal the key differences in access to French higher education programmes.

1. For a presentation of this model and its properties, please refer to Afsa-Essafi (2003).

Access to the different higher education courses would appear highly correlated with the social backgrounds of young people with a hierarchy within the social positions (Table 2). Children whose parents are managers or professionals or in intermediate occupations have a higher probability of entering each of the courses rather than an STS compared with children of manual or non-manual workers. The same applies to the children of one parent who is in management, followed by children of self-employed parents (the odds ratios – OR – decline gradually).

Firstly, access to CPGEs is very unequal, with strong social-based selection: the children of managers are fourteen times more likely to access such courses rather than an STS than children of manual and non-manual workers. Children whose parents are manual workers have the lowest chance of entering a CPGE

rather than an STS in relation to children of non-manual workers (model M1). Access to university is also significantly higher for children of the dominant classes; however, there is no significant difference between children of manual workers and non-manual workers. Access to IUTs concerns the top of the social hierarchy and to a lesser extent the children of self-employed people. Young people whose parents come from southern Europe (model M1') are significantly less likely to enrol in undergraduate university programmes and more likely to enrol in STS courses than those of French origin (OR = 0.55 and 0.12 respectively), while young people of North African origin are no different to the latter (OR = 0.97); however, they are significantly less likely to choose an IUT course (OR = 0.73).

The effects of social background, which has a significant impact on access to the different

Table 2
The determinants of the probability of entering higher education

	M1			M3		
	Entering University rather than an STS	Entering an IUT rather than an STS	Entering a CPGE rather than an STS	Entering University rather than an STS	Entering an IUT rather than an STS	Entering a CPGE rather than an STS
<i>Ref.</i> 2 parents are non-manual workers or one is a non-manual worker and the other a manual worker or not working						
2 parents in management, professional or intermediate occupations	3.01 ***	2.87 ***	14.7 ***	1.13	1.12	1.9 ***
1 parent in management, professional or intermediate occupation, the other self-employed	2.16 ***	1.97 **	9.24 ***	1.45 *	1.26	3.04 ***
1 parent in management, professional or intermediate occupation, the other a non-manual or worker or not working	1.59 ***	1.81 ***	3.37 ***	1.01	1.13	1.31
2 parents self-employed or one self-employed, the other a non-manual or manual worker or not working	0.93	1.27 *	2 ***	0.81	1.08	1.34
2 parents are manual workers, or one is a manual worker, the other not working	0.9	0.8	0.6 **	0.91	0.91	0.8
	M1'					
<i>Ref.</i> French origin						
North African origin	0.97	0.73 **	0.18 ***	2.63 ***	2.49 ***	2.73 **
South European origin	0.55 **	0.13	0.19 **	0.94	0.27 **	0.76
Other origins	1.6 **	0.82	1.07	2.68 ***	1.49	3.1 ***
Mixed	1.29	0.76 **	0.99	1.07	0.68 *	0.85
Others and missing data	1.1 *	0.76	0.64 ***	1.27	1.14	1.38 →

Table 2 (contd.)

	M1			M3		
	Entering University rather than an STS	Entering an IUT rather than an STS	Entering a CPGE rather than an STS	Entering University rather than an STS	Entering an IUT rather than an STS	Entering a CPGE rather than an STS
<i>Ref. Men</i>						
Women				1.6 ***	0.55 ***	0.44 ***
<i>Ref. Father has a vocational qualification</i>						
Father has no qualification or unknown				1.1	0.85	0.68 *
Father has a "BEPC" (school certificate acquired at age 14)				1.3 *	1.11	1.52
Father has a baccalaureate				1.08	0.91	1.06
Father has a higher education qualification				1.76 ***	1.34 *	2.52 ***
<i>Ref. Mother has a vocational qualification</i>						
Mother has no qualification or unknown				0.98	0.82	1.06
Mother has a BEPC				1.12	1.08	1.25
Mother has a baccalaureate				0.97	1.11	1.14
Mother has a higher education qualification				1.39 **	1.17	1.95 ***
Siblings in higher education (<i>Ref. no</i>)				1.15	1.37 ***	1.1
<i>Ref. 2-parent family</i>						
Single-parent family				1.32	1.27	1.3
Blended families				1.56 **	1.14	1.09
Other situations				1.62 **	1.07	2.23 **
<i>Ref. Mother not working but has already worked</i>						
Mother working				1.01	0.96	1.1
Mother not working				1.29 **	1.11	1.4 **
<i>Ref. 3rd quarter in the first year of collège</i>						
1st quarter in the first year of collège				1.2	0.79	0.95
2nd quarter in the first year of collège				1.21 *	1.03	0.82
4rd quarter in the first year of collège				1.45 ***	1.36 ***	1.66 ***
Missing data on the first year of collège				1.7 ***	1.16	1.84 **
<i>Ref. Bac with a pass grade</i>						
Actual grade not given				1.07	0.76 **	0.2 ***
"Fairly good" grade				1.18 **	1.52 ***	5.22 ***
"Good" – "Very Good" grade				1.63 ***	1.5 **	23.55 ***
<i>Ref. Technology baccalaureate</i>						
General baccalaureate				20.44 ***	7.6 ***	70.49 ***
Vocational baccalaureate				0.49 ***	0.18 ***	0.08 **

*=significant at 0.10; **=significant at 0.05; ***=significant at 0.01.

Reading Note: The table provides the odds ratios of the polytomous model. A young person whose parents are both in management, professional or intermediate occupations is 1.9 times more likely to enter a CPGE rather than an STS compared with a young person whose parents are both non-manual workers (or one is a non-manual worker and the other a manual working or not working), with the same socio-demographic characteristics and educational background. Due to lack of space, the table does not show the results obtained with model M2.

Scope: Baccalaureate holders enrolled in higher education in the year following the baccalaureate (excluding those enrolled in other courses or in healthcare programmes).

Sources: MEN-DEPP, panel of pupils who entered the first year of collège in 1995 and were followed up in higher education.

courses, are reduced when gender, parents' level of education, migratory background and family environment are added in model M2. Lastly, when information associated with prior educational backgrounds is added to the model, the effects of social background disappear most of the time, particularly within the various echelons of the working classes. This does not mean that social backgrounds are not involved, but their effect is absorbed earlier on, in the educational career, which are in turn highly correlated with social backgrounds. They remain significant for the upper social classes in accessing CPGEs. Choosing a CPGE, IUT or university programme therefore strongly depends on the type of baccalaureate obtained and educational career throughout secondary education. The negative effects of a migratory background disappear when social and family characteristics are introduced (model M2). Students of North African origin access university programmes and IUTs more often than students of French origin with the same social and family background. When, in addition, the type of baccalaureate and educational careers are controlled for, the effects of North African origin increase further across all types of programme, as significantly more of these students choose these programmes (rather than STS) than students of French origin (model M3).

Access to the various higher education programmes strongly depends on the type of baccalaureate obtained, and academic level at school, measured by the student's level in the first year of *collège* and then by the type of baccalaureate and the grade. General baccalaureate holders are significantly less likely to access each of the higher education programmes than technology baccalaureate holders do, unlike vocational baccalaureate holders. In these models, the effects of gender are very clear with comparable social and family environments and educational careers. Girls who, on average, have better educational careers and more often general baccalaureates are significantly more likely to choose undergraduate university courses over an STS than boys (OR = 1.6, model M3) and less likely to choose the other programmes (CPGE: OR = 0.44; IUT: OR = 0.55).

Undergraduate university courses, therefore, still attract the majority of baccalaureate holders after secondary school. Working-class students are divided between undergraduate university courses and STS courses, in

varying proportions depending on class sections, but particularly depending on the programme followed at *lycée*. This is also the case for students of North African origin who are more likely to obtain a baccalaureate than those of French origin, even if these are less likely to be general baccalaureates (Brinbaum & Kieffer, 2009). All things being equal, the chances of entering university are greater for general baccalaureate holders, for baccalaureate holders whose parents come from North Africa, and for young women. This confirms Brinbaum and Guegnard's research (2013). It should be noted that academic results at the time of entering *collège* continue to have an effect up to this point in their education.

Obtaining a bachelor's degree at university

Whether they obtain it in three or more years, following a linear trajectory or otherwise, whether they then obtain other qualifications or otherwise, only 35% of students enrolled in a higher education course in France the year following their baccalaureate obtain a bachelor's degree, the majority having immediately entered an undergraduate university course, and the others after having started their post-baccalaureate education at an IUT or STS, or on a CPGE.

From the first year of university to the bachelor's degree: the apparent role of social and migratory background, and gender

This study will now focus on those who enter higher education through an undergraduate university course, excluding undergraduate healthcare courses, which rarely lead to the bachelor's degree, and IUT courses. 61% of such students achieve a bachelor's degree, be it in the programme they originally started in, or in another after changing. Social differences in obtaining the bachelor's degree are fairly high in undergraduate university courses (Table 3). Seven out of ten students whose parents are both managers, professionals or in intermediate occupations achieve the bachelor's degree. For students with one parent who is a manual worker or non-manual worker and the other not working, less than one in two achieve the bachelor's. In addition, there are further significant variations within the working classes.

In the very frequent case that one of the parents is a non-manual worker and the other a manual worker, 60% of students who enter an undergraduate course obtain a bachelor's degree. In other words, working-class students who obtain a bachelor's degree often come from families in which the parents are the most skilled of these social groups (Hugrée, 2010).

Only 51% of those enrolled in undergraduate university courses obtained a bachelor's degree among students with at least one immigrant parent, against an average of 61%. The inequalities associated with migratory background partly mask those borne by the working classes, since the majority of students with immigrant backgrounds belong to these social groups in this panel. This difference is strongly connected to the types of baccalaureate obtained. Baccalaureate holders with at least one immigrant parent and belonging to working class households are more likely to obtain technology or vocational baccalaureates, and when they do have a general baccalaureate, it is rarely "*avec mention*", with a grade higher than a pass (Brinbaum & Kieffer, 2009).

While more girls access university programmes, especially when they are from an immigrant background (*idem*), they are also more likely to graduate with a degree; all social backgrounds combined, 58% of boys and 63% of girls graduate with a higher education degree after having entered via an undergraduate course (excluding healthcare

courses). This difference is greatest when one parent is a farmer, a tradesperson, or shop or business owner. This difference disappears when both parents are managers, professionals or in intermediate occupations. But it is also fairly striking in the working classes, particularly when both parents are non-manual workers (or just one of them is and the other is a manual worker or not working).

... and the influence of the baccalaureate and academic performance at school

Obtaining the bachelor's degree depends both on the "social" background and "academic" path of students. This is much more varied among students from the working class than among those from privileged backgrounds. The consequences of this heterogeneity in education among baccalaureate holders should not be underestimated. An initial difference separates general baccalaureate holders from technology and vocational baccalaureate holders.² The majority of the first group obtain the bachelor's degree, while the majority of the

2. The low number of vocational baccalaureate students in the higher education follow-up sample of the panel of pupils entering their first year of college in 1995 ($n=71$ enrolled at university the year following their baccalaureate, and $n=16$ for those having obtained a bachelor's degree) meant that they had to be grouped with the technology baccalaureate holders. The low number of vocational baccalaureate holders at this level of education doubles in the longitudinal follow-up. For vocational baccalaureate holders from the 2000s, it took two years after college to obtain the BEP, then two years of vocational studies at lycée to obtain the baccalaureate; the latter were not affected by the "3-year" vocational baccalaureate reform of 2009.

Table 3
Bachelor's degree according to student social background (%)

Both parents in management, professional or intermediate occupations	70
One parent in management (the other not working or self-employed) or one parent self-employed (the other not working or self-employed)	64
One parent in management, professional or an intermediate occupation, the other a manual or non-manual worker	62
One parent self-employed, the other a non-manual or manual worker	55
Both parents non-manual workers	56
One parent a non-manual worker, the other a manual worker	60
Both parents manual workers	52
The father a non-manual or manual worker, the mother not working	46
The mother a non-manual or manual worker, the father not working	47
Neither parent working	40
All	61

Reading Note: 52% of students whose parents were manual workers obtained a bachelor's degree. This is the case for 70% of the students of parents who were in management, professional or intermediate occupations. In italics, the percent is low due to the low number of participants. Scope: All the young people enrolled in a university undergraduate course the first year after their baccalaureate (excluding healthcare programmes). Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

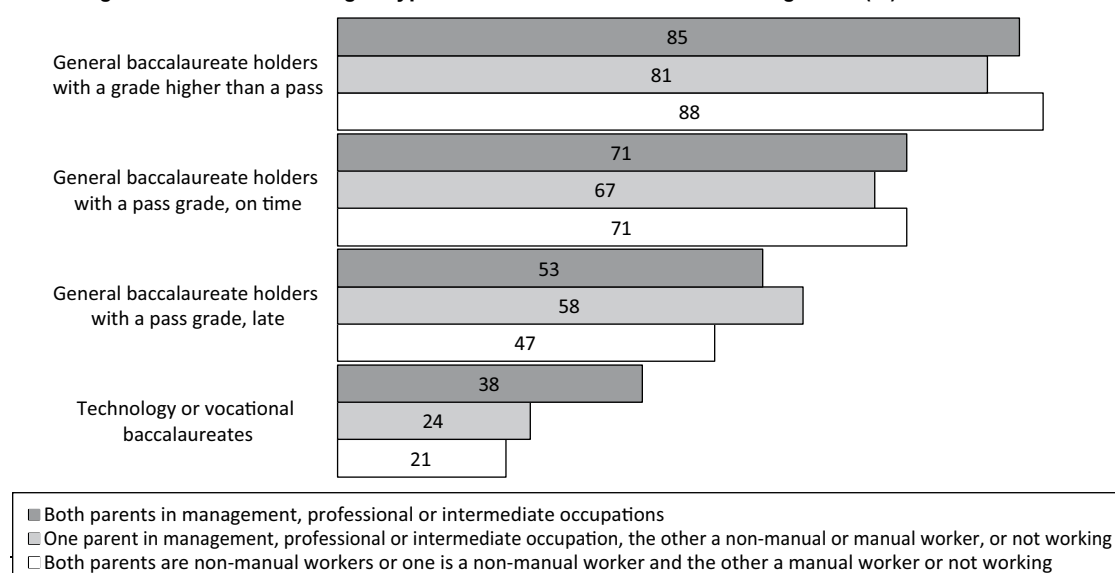
latter do not. But inequalities between general baccalaureate holders also create differences. Those with “une mention”, a grade higher than a pass, in the general baccalaureate will nearly always obtain the bachelor’s degree. Conversely, only half of general baccalaureate holders who repeat a year in secondary school achieve a bachelor’s degree. The different ways to obtain a baccalaureate therefore prepare students very unequally for obtaining a bachelor’s degree at university.

Given the variety of ways of accessing university education, it is worthwhile expanding on these conclusions by looking at the bachelor’s graduation rates according to social background but with equivalent types of baccalaureate. Is a student who had a good academic level in secondary school less likely to achieve the bachelor’s degree when they come from the working classes? No. After obtaining a general baccalaureate with a grade higher than a pass, 88% of students achieve a bachelor’s degree when both parents are non-manual workers (or just one is and the other is a manual worker or not working), and 85% of children with parents who are managers, professionals or in intermediate occupations and with the same academic performance at

lycée (Figure I). With a general baccalaureate obtained without repeating a year but with a pass grade, which is the modal situation in undergraduate courses (excluding healthcare courses), 71% of the first and 71% of the latter graduate with a higher education degree.

Although they do not enter university with the same baccalaureates, it is necessary to go back as far as pupils’ assessments on entering the first year of *collège*. These shed light on the lasting and cumulative consequences of learning issues that have not been resolved in primary school on later educational careers, including undergraduate university courses. For instance, when their results in these French and maths assessments place them in the bottom quarter of *collège* pupils, only 37% of those enrolled in undergraduate university courses obtain a bachelor’s degree. Conversely, 71% of those who ranked among the top quarter obtain the bachelor’s degree. Naturally, students who are struggling the most at the end of primary school very rarely go on to an undergraduate university course. They only account for a very small minority of students enrolled the year following their baccalaureate (5%). Students whose results were in the second (16%) and third (31%) quarters

Figure I
Obtaining a bachelor’s according to type of baccalaureate and social background (%)



Reading Note: 88% of young people enrolled in a university undergraduate course after having obtained a general baccalaureate with a grade higher than a pass obtain a bachelor’s degree when both parents are non-manual workers, or one is a non-manual worker and the other a manual worker or not working. This proportion drops to 85% when both parents are in management, professional or intermediate occupation.

Scope: All young people enrolled in a university undergraduate course in the first survey (excluding healthcare courses). Due to the low number of participants, only three sets of social positions were used here. Also, the percentage of bachelor’s graduates among technology and vocational baccalaureate holders is low once their social backgrounds are identified.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

in the assessments in the first year of *collège* are, however, higher in number. In these last two cases, the proportion of them that obtains a bachelor's degree remains below average. This link between academic performance in primary school and obtaining a bachelor's degree applies to all social backgrounds (Table 4). With comparable academic levels on entering *collège*, children of parents who are managers and professionals or in intermediate occupations are certainly more likely to obtain the bachelor's degree. But this advantage disappears in students who were among the top-achieving pupils at the end of primary school. Of those undergraduates who ranked in the top quarter of pupils having best benefitted from primary education, graduation rates are nearly identical. Conversely, it could be said that the benefit of a good primary education is a much more discriminating resource for children from the working classes than for those from the privileged classes.

In this instance, the “all other things being equal” logic can clarify the effect of each of the variables on obtaining a bachelor's degree for students enrolled in the first year of university (see Appendix 1). It is used in successive binomial logistic regression models showing this proportion, noted as Y , the dependent variable.

Each student i is described by a certain number of characteristics X , from 1 to k . The first model, M4, sets this number at 1: it only takes into account students' social backgrounds to assess the probability of obtaining the

bachelor's degree (Y). The logit coefficient associated with each category of the social background variable expresses the logarithm of the probability that a student, accounting for their social background X_{ij} , obtains a bachelor's or not. The reference used to gauge, by comparing the respective influences of the different categories of explanatory variables, will be that of young men entering undergraduate university courses (excluding healthcare courses) after obtaining a general baccalaureate with a pass grade and without repeating a year, who were in the third quarter of pupils in the assessments in the first year of *collège*, and whose parents were of French origin, did not have baccalaureates and were non-manual workers (or one was a non-manual worker, the other a manual worker or not working).

Model M4 logically confirms the previous descriptions. When both parents are manual workers (or one a manual worker and the other not working), students are only half as likely to obtain a bachelor's degree compared with the reference ($OR = 0.5$). Conversely, students of parents in management, professional or intermediate occupations are 1.2 times more likely to obtain a bachelor's ($OR = 1.2$). As for the other social backgrounds, they do not seem to be linked with significant variations in this model. Model M5 only takes into account migratory backgrounds: it shows that students from immigrant families are less likely to obtain the bachelor's degree when their parents come from North Africa or southern Europe. When social backgrounds and

Table 4
Bachelor's degree according to social background and results in the assessments in the first year of *collège* (%)

	Both parents in management, professional or intermediate occupations	One parent in management, professional or intermediate occupation, the other self-employed	One parent in management, professional or intermediate occupation, the other a non-manual or manual worker or not working	Both parents self-employed or one is self-employed and the other a non-manual or manual worker or not working	Both parents are non-manual workers or one parent is a non-manual worker and the other a manual worker or not working	Both parents are manual workers, or one parent is a manual worker and the other not working	All
First or second quarter	63	57	43	40	42	34	43
Third quarter	68	67	57	63	52	50	58
Fourth quarter	71	63	72	70	72	68	71
All	69	63	62	61	57	49	61

Reading Note: 71% of students from a family in management, professional or intermediate occupations and who were in the highest-performing quarter of pupils entering the first year of *collège* obtained a bachelor's degree. This is the case for 63% of those in the lowest-performing half of pupils. In italics, the percentages are low due to the low number of participants.

Scope: All young people enrolled in a university undergraduate course in the first survey (excluding healthcare programmes) whose grades in the French and maths assessments in the first year of *collège* along with the parents' socio-economic categories are known.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

migratory backgrounds (M6) are simultaneously taken into account, the majority of the effects identified remain. In other words, with comparable social backgrounds, the students of North African families are less likely to obtain the bachelor's.

The next model (M7) gives a more thorough analysis by controlling not just for social and migratory backgrounds, but also the type of baccalaureate obtained by those enrolled in undergraduate university courses and their academic level on entering the first year of *collège*. Critical to studying the process of success at university, the secondary school experience is also more varied among students from working-class and immigrant backgrounds than those from other backgrounds. This is another reason for estimating the chances of obtaining a bachelor's degree, with equivalent social and migratory backgrounds, according to the type of baccalaureate, with a pass or higher, late or on time, and according to the results of the assessments in the first year of *collège*. Adding an indicator combining the type of baccalaureate, the grade achieved and any delays in achieving it greatly increases the model's explanatory power, to the extent that the regression coefficients associated with these categories practically become solely significant. As such, once social and migratory backgrounds have been controlled for, holding a technology or vocational baccalaureate cuts the chances of obtaining a bachelor's by a factor of five, compared with the reference. Conversely, holders of general baccalaureates with a grade higher than a pass see their chances of obtaining a bachelor's increased by a factor of 2.6. Likewise, academic performance on entering *collège* has a significant influence on the estimated probability of obtaining a bachelor's degree: all other things being equal, the students whose results in the assessments in the first year of *collège* placed them in the bottom or second quarters are less likely to obtain the bachelor's degree. These purely academic effects are not significantly altered by social and migratory backgrounds. Taking into account academic levels at the end of primary school and the type of baccalaureate obtained, the differences in achievement according to social and migratory background become much smaller. In particular, with a comparable social and educational background, students of North African origin do not have very different chances of obtaining the bachelor's degree compared with students whose parents

were born in France. Once at undergraduate university level, it is as if the baccalaureate holder's chances of obtaining the bachelor's degree depends purely on academic performance in primary and secondary education.

Lastly, introducing the qualifications of the parents and gender of the student do not result in any major change (M8, not including the assessments in the first year of *collège*, but still taking into account social and migratory backgrounds and type of baccalaureate). When the effect of the parents' cultural heritage is measured by controlling for the type of baccalaureate obtained by the students, there are few significant variations: whether the parents have a baccalaureate or not, the important thing clearly seems to be that their children have a good secondary education background. This does not mean that the academic capital of young people has anything to do with the academic capital of the parents, but rather that this mainly has an effect earlier on, mainly at the start of the child's education.

Five typical pathways to graduates at university

Bachelor's graduates include students with different educational pathways; for instance, those who enter university straight after their baccalaureate (61%), who were the focus of the previous section. But some bachelor's graduates started their higher education with an IUT (15%), an STS (12%) and/or a CPGE (8%).³

When looking into the academic trajectory of all of these graduates, half of them (54%) entered *collège* with a good academic level – above the median in the assessments in the first year of *collège* – then obtained a general baccalaureate on time. The others either obtained their general baccalaureate late (15%) or a technology or vocational baccalaureate (10%). Only 15% of bachelor's graduates entered the first year of *collège* ranking among those with the lowest academic performance. While the academic and social selectiveness of the bachelor's degree is a fact, the variety of ways of obtaining one is also just as real. This variety of backgrounds primarily concerns working-class bachelor's graduates who obtain the degree in different disciplines

3. Those who followed a different course account for 3% of the participants.

and with different academic levels at school to those from the middle and upper classes.

A typology of the pathways of bachelor's graduates

Multiple Correspondence Analysis (MCA) on the variables characterising the secondary and higher education careers, study conditions and social backgrounds of all bachelor's graduates gives a joint representation of how studies at bachelor's level are organised and the social and educational careers leading to them (see Appendices 2 and 3). The decision was taken to combine all of these variables in the bachelor's graduates analysis in order to observe the effects of the "social inequality of the risks of non-achievement for a single initial education value" (Broccolichi & Sinthon, 2011, p. 22)⁴. An Ascending Hierarchical Classification (AHC)⁵ was then carried out on the five leading factors resulting from the MCA (Figures II and III and Appendix 2 for details of the contributions). It reveals five typical backgrounds for bachelor's graduates, with highly differentiated social and educational backgrounds, and which reflect varied student experiences.

The MCA on the bachelor's graduates in the panel clearly shows the way in which their prior educational career, their social backgrounds and their study conditions are connected. Axis 1 opposes those with a technology or vocational baccalaureate or *licence professionnelle* (one-year top-up bachelor's degree), who have a poor academic level on starting the first year of *collège* (first and second quarters in the assessments in the first year of *collège*), and obtained a baccalaureate at least one year late and with regular paid work of more than 15 hours during their university course (to the right of the graph), to those who hold general baccalaureates (to the left). On the left, this same axis shows the bachelor's graduates who entered the first year of *collège* with a very good academic level (top quarter in the assessments in the first year of *collège*) and obtained their baccalaureate on time, and did not generally carry out regular paid work of more than 15 hours during their course.

The second axis opposes excellence to an entire range of academic respectability, central at this level of education (Hugrée, 2010). In this case, the bachelor's graduates who took

a CPGE, obtained a "good" or "very good" in the baccalaureate, and did not carry out paid occasional or regular work during their course, are different to bachelor's graduates in the human and social sciences, economic and social administration (AES) and physical and sports sciences and techniques (STAPS) who obtained a general baccalaureate after repeating a year or retaking the exam and carrying out more or less regular paid work during their course.⁶

Five highly hierarchized pathways to obtaining a bachelor's

The classification that results from the factorial axes shows five types of educational and social backgrounds leading to a bachelor's degree in French universities in the 2000s (Appendix 4).

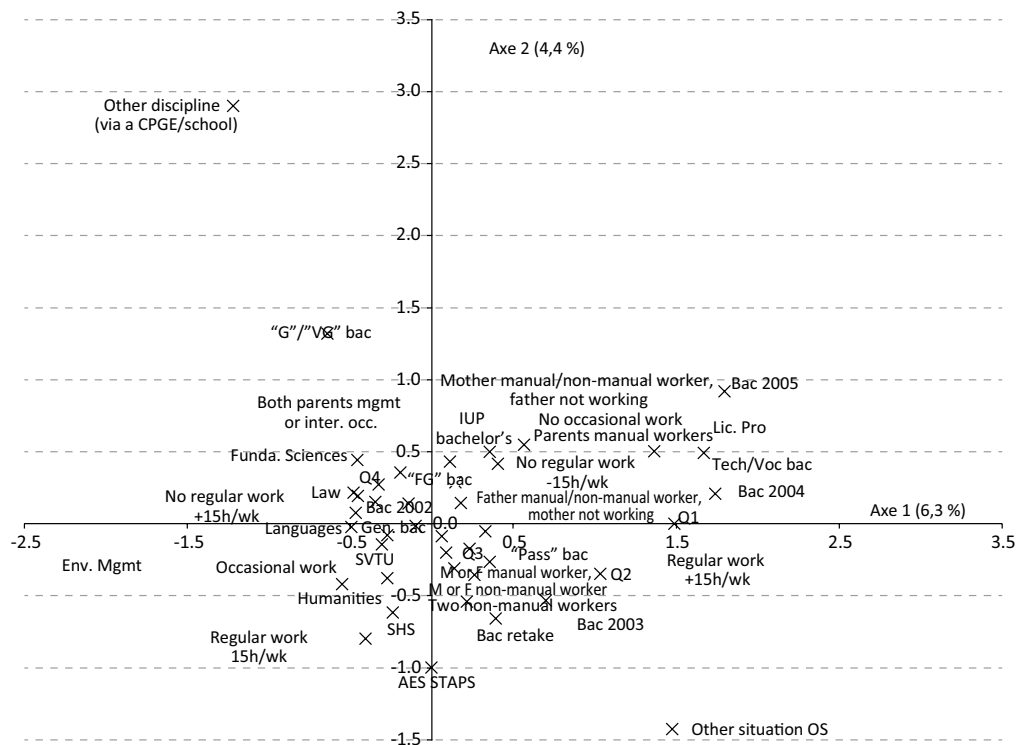
- The first class is the most singular and only encompasses 6% of bachelor's graduates. It concerns the bachelor's graduates with the lowest academic performance in French and maths on entering the first year of *collège* (40% of them were in the first quarter and 27% in the second quarter), who obtained their technology or vocational baccalaureate (45%) in 2004. Students born to immigrant parents are over-represented in this class, the majority are students with French parents. Students who

4. It is possible to compare the futures of the pupils with "the same educational profile according to their choice of course and their social background", particularly in "tangent" cases [at *collège*] who were a year late and had an average grade of 9 out of 20 in maths and French"; a hypothesis that is transposed in this case to bachelor's graduates. The challenge of such reasoning is to avoid reducing access to the bachelor's to academic hierarchy alone. Only the analysis of the academic characteristics of the trajectories of bachelor's graduates gives an ordered unidimensional scale of bachelor's graduates going from the pupils who had the highest academic performance to those with the lowest academic performance at secondary school (Guttman effect). Yet, it is clearly because, at a comparable academic level on entering *collège*, academic trajectories then diverge according to social background that the variables of educational background, choice and social background should be combined in the analysis.

5. An AHC based on Ward's criteria (strong interclass inertia and low intra-class inertia) was used without aggregating Forgy or k-means clustering, in order to explore different levels of partitioning (see Appendices 4, 5 and 6). Robette (2011) was used for the various statistical or empirical arbitrage opportunities associated with the number of classes in the different classification methods.

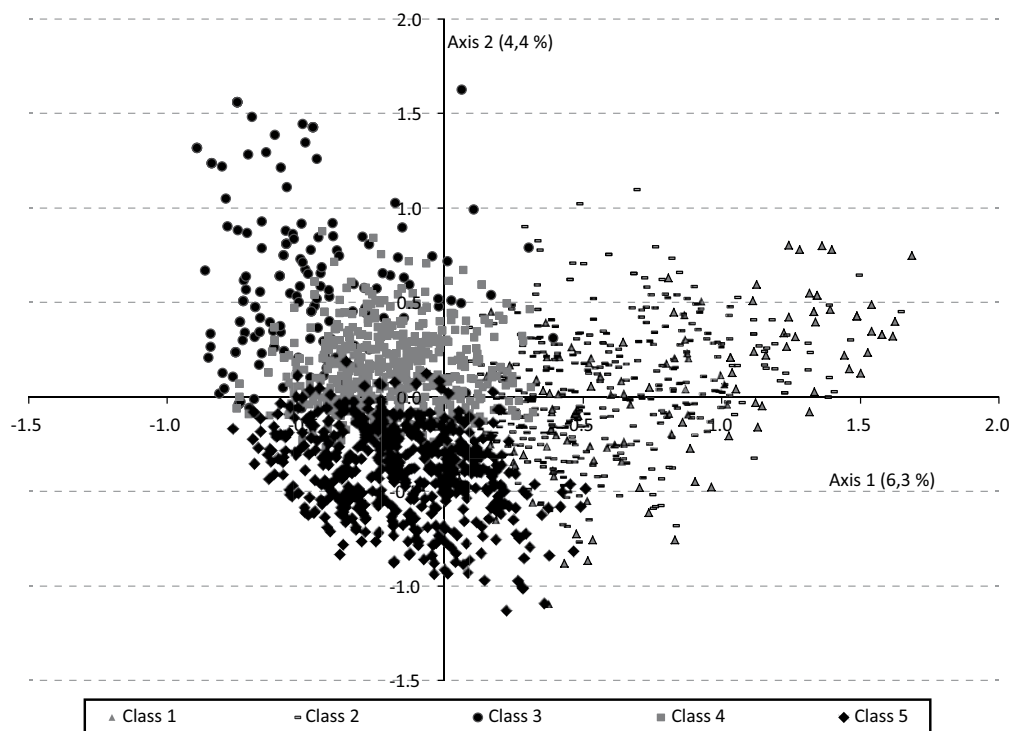
6. The following axes show this partition between educational careers based on university programmes or according to social backgrounds. Axis 3 compares the bachelor's graduates from Instituts Universitaires Professionnalisés with those in fundamental sciences and those from other programmes but who first took a CPGE. Axis 4 compares bachelor's graduates in the humanities and SHS with those in science programmes, from working-class families in which the mother is not working. Class 5 separates out the bachelor's holders who were among the lowest-performing students on entering the first year of *collège* (q1) and whose parents were manual workers, and those who were among the second quarter in the assessments and from the middle classes (see Appendix 2). The decision to use five factorial axes not just because they provide a higher share of information than those theoretically provided by each of the thirty-three axes (of 3%), but also due to empirical considerations, particularly the overlap of certain comparisons identified by these first five axes.

Figure II
Multiple Correspondence Analysis (graph of variables, axis 1 and axis 2)



Scope: All young people who entered higher education, including healthcare courses, who graduated with a bachelor's degree.
Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

Figure III
Multiple Correspondence Analysis (graph of individuals, axes 1 and 2 coded using the results of the Ascending Hierarchical Classification)



Scope: All young people who entered higher education, including healthcare courses, who graduated with a bachelor's degree.
Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

did not carry out regular paid work (- 15 hours/week) are over-represented in this group (54%). Evenly split between holders of *licences professionnelles* (one-year top-up bachelor's) and vocational and technology baccalaureate holders, this class of student resembles those that Beaud described as '*bacheliers par effraction*' (baccalaureate holders by break-in) (Beaud, 2002, p. 18) from the working classes and with difficult or poor secondary education pathways.

- Class 2 (21% of bachelor's graduates) is also primarily made up of those with a *licence professionnelle* (59%). Those with technology and vocational baccalaureates are present in similar proportions as in class 1, but in this case they are students with significantly different educational careers since the majority obtained a baccalaureate in 2003 (53%) and/or by retaking the exam (24%), and ranked among the second (26.5%) and third (42%) quarters in the assessments in the first year of *collège*. This class encompasses children of couples in which one is a non-manual worker and the other a manual worker (+ 5 points), one of the most frequent household compositions in France (Baudelot & Estabiet, 2005), as well as those from much rarer combinations such as one in management or an intermediate occupation and the other a non-manual worker or manual worker. We propose to call them the "second-chance students of the technology and vocational education system". The vast majority of students belonging to this class carried out regular paid work (+ 15 hours/week) before obtaining their bachelor's degree (84%). For the *licences professionnelles*, this can be explained by the work requirements of the course. The other bachelor's graduates in this group are similar to the students for whom work became "lasting to the point of gradually taking the place of academic studies" (Pinto, 2010, p. 63).

- Class 3 (8% of bachelor's graduates) is primarily students (see following point and Appendix 5), who graduate with a bachelor's following an excellent educational career. Males and females holding a baccalaureate with a "good" or "very good" grade (84%) at the end of a general baccalaureate course (96%), obtained on time (95%), predominate. For the vast majority of these, the female students entered *collège* with a good level of academic performance (83% of the members of this group were in the fourth quarter in the assessments at the start of *collège*). It mainly comprises graduates

with bachelor's in fundamental sciences⁷ along with students from the middle classes (28%) and upper classes (43%). Lastly, a major feature of this group is the absence of regular paid work in the first year of the university course (74%). In a context where girls predominate at school, this group of female bachelor's graduates can be seen as a modern-day version of the typical Bourdieu & Passeron's (1964) *héritiers* – male inheritors – now made up of *héritières* – female inheritors – (see Appendix 5).

- Classes 4 and 5 encompass two types of academically respectable backgrounds, which are the most frequent at this level of study, with:

- bachelor's graduates with "respectable" backgrounds (class 4, 33% of bachelor's graduates), particularly identified in works on higher education among the working classes (Hugrée, 2009, 2010);
- bachelor's graduates with "middle-of-the-road" backgrounds (class 5, 31% of bachelor's graduates).

The backgrounds of these two last classes are not to be confused with the academically excellent backgrounds seen in class 3, although a major portion of these bachelor's graduates come from the middle and upper classes. The "respectable pathway" class (class 4) is exclusively made up of general baccalaureate holders (99%) who obtained their baccalaureate on time (95%), and half of whom (50%) earned a "fairly good" grade. The majority of these also entered the first year of *collège* with a good academic level (76% of them were in the top quarter in the maths and French assessments). Many have parents in management, professional or intermediate occupations. Of the few bachelor's graduates from the working classes who have this type of background, the majority are students whose parents are both manual workers. These students are not generally part of the student workforce: 89% have not carried out regular work (-15h/week), 51% have not carried out seasonal work and 46% have not carried out regular work (+15h/week).

Class 5 have "middle-of-the-road" backgrounds, mid-way between success and failure,

7. As well as those included in the category "other programmes". This encompasses bachelor's graduates whose course nomenclature code was not given at the time of their bachelor's degree. Of those responses not provided, the bachelor's graduates known to have first done a CPGE were separated out from those whose bachelor's degree speciality remains unknown.

both in secondary education and in higher education. Those in this class have general baccalaureates (98%) with a pass grade (63%). Some of them obtained their baccalaureate in 2003 (28%) and belonged to the third quarter in the assessments in the first year of *collège* (35%). These trajectories include paid work in the first years of the course: 58% of them state that they worked regularly (-15 h/week) and nearly all of them (84%) worked occasionally during their course. This class primarily contains SHS, AES, STAPS and humanities students as well as a large proportion of students whose parents were non-manual workers.

These results show the significant differentiation in educational careers among bachelor's graduates, between academically excellent backgrounds, "respectable" backgrounds, and lastly the "middle-of-the-road" backgrounds. These last two types of pathways currently account for the majority of routes to obtaining a bachelor's degree at university and do just not concern students from the middle and upper classes, but also those from the working classes, particularly children of couples where both parents are working. They also show that the heterogeneity of the backgrounds of baccalaureate holders from the technology and vocational streams (Palheta, 2012; Cayouette-Remblière & Saint-Pol, 2013), is also visible in the bachelor's degree threshold.

Male and female students with highly differentiated futures

The typology clearly shows the ways in which educational careers, social background and

study conditions combine together and clearly differentiate bachelor's graduates today. There is a clear divide between girls and boys in pathways leading to obtaining a bachelor's degree. Female students account for 63% of the "*héritières* – female inheritors" class, 65% of bachelor's graduates with "respectable educational pathways" and 68% of bachelor's graduates in the "middle-of-the-road" class. Conversely, they are in the minority in the "poor and difficult secondary school" careers and among the "second-chance" students of the technology and vocational education system (48% and 42%). More likely to obtain the bachelor's degree, girls also obtain it under conditions that make it easier for them to then access the highest degrees in the French higher education. Nearly half of the "female inheritors" and bachelor's graduates with "respectable pathways" then go on to obtain a degree at least equivalent to the Master (five years post-baccalaureate) compared with 37% of all bachelor's graduates (Table 5).

* *
*

Thirty years after the generalisation of access to *lycée*, this study draws a picture of an undergraduate university education that remains particularly socially selective. In France, the bachelor's degree now appears to be a new academic threshold which gives a clear advantage to general baccalaureate holders. But the bachelor's degree also reveals differences between the general baccalaureate holders, particularly according to their *collège* and *lycée*

Table 5
Highest degree obtained according to the education pathway (%)

	Bachelor's degree	Four-year post-bac qualification	Master's	Schools and other qualifications	Total
Class 1: Poor or difficult secondary educational pathways	72	10	13	5	100
Class 2: Pathways in which work became lasting to the point of gradually taking the place of academic studies	65	7	23	5	100
Class 3: The " <i>héritières</i> " (female inheritors) pathways	17	17	49	17	100
Class 4: Respectable educational pathways	33	14	47	6	100
Class 5: Middle-of-the-road pathways	40	14	41	5	100
All	45	12	37	6	100

Reading Note: 72% of bachelor's graduates belonging to class 1 "poor or difficult secondary educational pathways" have a bachelor's degree as their highest qualification. This is the case for 44% of all bachelor's graduates. The results in italics concern participant numbers that are too low for analysis.

Scope: All young bachelor's graduates.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

backgrounds. While failures experienced by certain students with working-class or immigrant backgrounds are borne out, not all of their trajectories are limited to this. Obtaining a bachelor's degree is seen more often among girls from the least disadvantaged sections of working-class families (dual-career couples, non-manual or skilled workers, often holding a CAP or a BEP, two-year post-*collège* qualifications). But the different ways of obtaining it also shows the obstacles experienced by many (primarily inequalities in prior learning). This typology therefore shows the most frequent backgrounds within the French university system. It particularly demonstrates the variety of ways in which working-class students approach this new must-have which is the bachelor's. At a time when debates surrounding entry to and

success at university are at their most heated, this analysis identifies one of the main cruxes of the problem: families and young people are increasingly aspiring to a three-year post-baccalaureate qualification, even in the working classes, but there are inequalities in choice and achievement which mainly take root in the first years of education. More than ever before, the objective of democratising higher education is integrally linked with the fight against academic inequalities in primary education. As such, the major inequalities in educational backgrounds and achievement seen among bachelor's students is a major obstacle to success for the vast majority. Experience shows, however, that a good start in elementary learning practically cancels out the disadvantage of students from working classes. □

BIBLIOGRAPHY

Afsa-Essafi, C. (2003). Les modèles logit polytomiques non ordonnés : théorie et applications. Insee, *Document de travail* N° 0301.

Albouy, V. & Wanecq, T. (2003). Les inégalités sociales d'accès aux grandes écoles. *Économie et Statistique*, 361, 27–52.
<https://doi.org/10.3406/estat.2003.7351>

Alonzo, P. & Hugrée, C. (2010). *Sociologie des classes populaires*. Paris : Armand Colin.

Amossé, T. & Chardon, O. (2006). Les travailleurs non qualifiés : une nouvelle classe sociale ? *Économie et statistique*, 393-394, 203–229.
<https://doi.org/10.3406/estat.2006.7148>

Amossé, T. & Ponthieux, S. (2011). Les individus font-ils bon ménage ? *Travail, genre et sociétés*, 2, 19–22.
<https://doi.org/10.3917/tgs.026.0019>

Baudelot, C. & Establet, R. (1992). *Allez les filles ! Une révolution silencieuse*. Paris : Seuil.

Baudelot, C. & Establet, R. (2005). Classes en tous genres. In: M. Maruani (Ed.) *Femmes, genre et sociétés. L'état des savoirs*. pp. 38–47. Paris : La Découverte.

Beaud, S. (2002). *80 % au bac... et après. Les enfants de la démocratisation scolaire*. Paris : La Découverte.

Beaud, S. & Pialoux, M. (2001). Les « bacs pro » à l'université. Récit d'une impasse. *Revue Française de Pédagogie*, 136, 87–95.
<https://doi.org/10.3406/rfp.2001.2828>

Beaupère, N. & Boudesseul, G. (Ed.) (2009). *Sortir sans diplôme de l'Université. Comprendre les parcours d'étudiants « décrocheurs »*. Paris : La Documentation Française.

Blöss, T. & Erlich, V. (2000). Les « nouveaux acteurs » de la sélection universitaire : les bacheliers technologiques en question. *Revue française de sociologie*, 41(4), 747–775.
<https://doi.org/10.2307/3322704>

Bourdieu, P. & Passeron, J.-C. (1964). *Les héritiers. Les étudiants et la culture*. Paris : Minuit. Translated (1979). *The Inheritors, French Students and Their Relation to Culture*. Chicago: University of Chicago Press.

Brinbaum, Y. (2002). *Au cœur du parcours migratoire, les investissements éducatifs des familles immigrées : attentes et désillusions*. Thèse de Doctorat de Sociologie, Université de Paris V, 372 p.

Brinbaum, Y. & Kieffer, A. (2005). D'une génération à l'autre, les aspirations des familles immigrées : ambition et persévérance. *Éducation et formation*, 72, 53–75.
<http://media.education.gouv.fr/file/90/3/1903.pdf>

- Brinbaum, Y. & Kieffer, A. (2009).** Les scolarités des enfants d'immigrés de la sixième au baccalauréat : différenciation et polarisation des parcours. *Population*, 64(3), 561–610.
<https://doi.org/10.3917/popu.903.0561>
English version: Trajectories of Immigrants' Children in Secondary Education in France: Differentiation and Polarization. *Population (EN)*, 64(3), 507–554.
<https://doi.org/10.3917/popu.903.0507>
- Brinbaum, Y. & Guégnard, C. (2012).** Parcours de formation et d'insertion des jeunes issus de l'immigration au prisme de l'orientation. *Formation Emploi*, 118, 61–82.
<http://journals.openedition.org/formationemploi/3603>.
- Brinbaum, Y. & Guégnard, C. (2013).** Choices and Enrollments in French Secondary and Higher Education: Repercussions for Second-Generation Immigrants. *Comparative Education Review*, 57(3), 482–502.
<https://doi.org/10.1086/670729>
- Brinbaum, Y. & Primon, J.-L. (2013).** Parcours scolaires et sentiment d'injustice et de discrimination chez les descendants d'immigrés. *Economie et statistique*, 464–465–466, 215–243.
<https://doi.org/10.3406/estat.2013.10239>
- Broccolichi, S. & Sinthon, R. (2011).** Comment s'articulent les inégalités d'acquisition scolaire et d'orientation ? Relations ignorées et rectifications tardives. *Revue française de pédagogie*, 175, 15–38.
<https://doi.org/10.4000/rfp.3017>
- Cayouette-Remblière, J. (2015).** De l'hétérogénéité des classes populaires (et de ce que l'on peut en faire). *Sociologie*, 4, 377–400.
<http://journals.openedition.org/sociologie/2652>
- Cayouette-Remblière, J. (2014).** Les classes populaires face à l'impératif scolaire. Orienter les choix dans un contexte de scolarisation totale. *Actes de la recherche en sciences sociales*, 205, 58–71.
<https://doi.org/10.3917/arss.205.0058>
- Cayouette-Remblière, J. & Saint-Pol, (de) Th. (2013).** Le sinueux chemin vers le baccalauréat : entre redoublement, réorientation et décrochage scolaire. *Économie et statistique*, 459, 59–88.
<https://doi.org/10.3406/estat.2013.10011>
- Convert, B. (2003).** Des hiérarchies maintenues : espace des disciplines, morphologie de l'offre scolaire et choix d'orientation en France, 1987-2001. *Actes de la recherche en sciences sociales*, 149(4), 61–73.
<https://doi.org/10.3917/arss.149.0061>
- Convert, B. (2010).** Espace de l'enseignement supérieur et stratégies étudiantes. *Actes de la recherche en sciences sociales*, 183, 14–31.
<https://doi.org/10.3917/arss.183.0014>
- Darmon, M. (2013).** *Classes préparatoires. La fabrique d'une jeunesse dominante*. Paris : La Découverte.
- Duru-Bellat, M. & Mingat, A. (1988).** Les disparités de carrières individuelles à l'Université : une dialectique de la sélection et de l'autosélection. *L'Année Sociologique*, 38, 309–340.
<http://www.jstor.org/stable/27889961>
- Duru-Bellat, M. (1990).** *L'école des filles. Quelle formation pour quels rôles sociaux ?* Paris : L'Harmattan.
- Duru-Bellat, M. (2002).** *Les inégalités sociales à l'école. Genèse et mythes*. Paris : PUF.
- Duru-Bellat, M. & Kieffer, A. (2008).** Du baccalauréat à l'enseignement supérieur en France : déplacement et recomposition des inégalités. *Population*, 63(1), 123–157.
<https://doi.org/10.3917/popu.801.0123>
- Gollac, S. (2005).** La fonction publique : une voie de promotion sociale pour les enfants des classes populaires ? Une exploitation de l'enquête « emploi 2001 ». *Sociétés contemporaines*, 58, 41–64.
<https://doi.org/10.3917/soco.058.0041>
- Givord, P. & Goux, D. (2007).** France: Mass and Class Persisting inequalities in Postsecondary Education in France. In: R. Arum, Y. Shavit, & A. Gamoran (Ed.), *Stratification in Higher Education. A comparative study*, pp. 220–239. Stanford: Stanford University Press.
- Hugrée, C. (2009).** Les classes populaires et l'université : la licence... et après ? *Revue française de pédagogie*, 167, 47–58.
<https://doi.org/10.4000/rfp.1318>
- Hugrée, C. (2010).** Le Capes ou rien ? Parcours scolaires, aspirations sociales et insertions professionnelles du « haut » des enfants de la démocratisation scolaire. *Actes de la recherche en sciences sociales*, 183, 72–85.
<https://doi.org/10.3917/arss.183.0072>
- Laurens, J.-P. (1992).** *1 sur 500. La réussite scolaire en milieu populaire*. Toulouse : PUM.
- Lemaire, S. (2012).** Les parcours dans l'enseignement supérieur : devenir après le baccalauréat

des élèves entrés en sixième en 1995. Ministère de l'éducation nationale, *Note d'information* 12.05.

http://cache.media.enseignementsup-recherche.gouv.fr/file/2012/94/5/NI_12_05_def_v2_218945.pdf

Merle, P. (2000). Le concept de démocratisation scolaire : une typologie et sa mise à l'épreuve. *Population*, 55(1), 15–50.

<https://doi.org/10.2307/1534764>

Millet, M. (2003). *Les étudiants et le travail universitaire. Étude sociologique*. Lyon : PUL.

Ministère de l'éducation nationale (2016). *Repères et références statistiques sur les enseignements, la formation et la recherche*.

http://cache.media.education.gouv.fr/file/2016/97/5/depp_rers_2016_614975.pdf

Ministère de l'enseignement supérieur, de la recherche et de l'innovation (2017). L'état de l'enseignement supérieur et de la recherche en France N° 10.

<http://www.enseignementsup-recherche.gouv.fr/cid115635/l-etat-de-l-enseignement-superieur-et-de-la-recherche-en-france-n-10-avril-2017.html>

Œuvrard, F. (1979). Démocratisation ou élimination différée ? Note sur l'évolution du recrutement social de l'enseignement secondaire en France entre 1958 et 1976. *Actes de la recherche en sciences sociales*, 30, 87–97.

<https://doi.org/10.3406/arss.1979.3491>

Palheta, U. (2012). *La domination scolaire. Sociologie de l'enseignement professionnel et de son public*. Paris : PUF.

Pinto, V. (2010). L'emploi étudiant et les inégalités sociales dans l'enseignement supérieur. *Actes de la recherche en sciences sociales*, 183, 58–71.

<https://doi.org/10.3917/arss.183.0058>

Poullaouec, T. (2010). *Le diplôme, arme des faibles. Les familles ouvrières et l'école (1960-2000)*. Paris : La Dispute.

Poullaouec, T. & Hugrée, C. (2011). Qui sont les étudiants des milieux populaires ? In : O. Galland, É. Verley, & R. Vourc'h (Ed.), *Les mondes étudiants. Enquête Condition de vie 2010*, 15–26. Paris : La Documentation française.

Robette, N. (2011). Explorer et décrire les parcours de vie : les typologies de trajectoires. Paris : CEPED. <https://halshs.archives-ouvertes.fr/halshs-01016125/document>

Siblot, Y., Cartier, M., Coutant, I., Masclet, O. & Rénahy, N. (2015). *Sociologie des classes populaires contemporaines*. Paris : Armand Colin.

Schwartz, O. (1998). « La notion de “classes populaires” », habilitation à diriger des recherches non publiée, Université de Versailles-Saint-Quentin-en-Yvelines. Extraits en ligne, voir « Peut-on parler de classes populaires ? » La vie des idées. <http://www.laviedesidees.fr/Peut-on-parler-des-classes.html> [consulté le 15 mars 2018].

Vallet, L.-A. (1996). L'assimilation scolaire des enfants issus de l'immigration et son interprétation : un examen sur données françaises. *Revue française de pédagogie*, 117, 7–27. <https://doi.org/10.3406/rfp.1996.1182>

Vallet, L.-A. & Caille, J.-P. (1996). Les élèves étrangers ou issus de l'immigration dans l'école et le collège français. Une étude d'ensemble. *Les Dossiers d'éducation et formations*, 67.

Vallet, L.-A., Selz, M., (2007). Évolution historique de l'inégalité des chances devant l'école : des méthodes et des résultats revisités. *Éducation et formations*, 74, 65–74.

ESTIMATION OF THE BACHELOR'S GRADUATION RATE

	M4			M5			M6			M7			M8			
	%	Coef.	OR	α	%	Coef.	OR	α	%	Coef.	OR	α	%	Coef.	OR	α
Reference situation in <i>italics</i>																
Social position of parents																
Management - Not working // Self-employed - Self-employed, Management, Not working	45	0.01	1.01	ns					49	-0.01	1.00	ns	57	-0.06	0.94	ns
1 parent in management, professional or an intermediate occupation, the other self-employed	44	-0.04	0.96	ns					48	-0.06	0.94	ns	54	-0.18	0.84	ns
Management, professional or intermediate occupation - Management, professional or intermediate occupation	55	0.41	1.51	***					58	0.34	1.41	***	58	-0.02	0.98	ns
1 parent in management, professional or an intermediate occupation, the other a non-manual worker, manual worker or not working	48	0.11	1.12	ns					51	0.08	1.08	ns	56	-0.11	0.89	ns
2 parents who are non-manual workers, or one a non-manual worker and the other a manual worker or not working	45	—	—	—					49	—	—	—	59	—	—	—
2 parents are manual workers, or one is a manual worker, the other not working	34	-0.45	0.64	***					42	-0.29	0.75	**	54	-0.19	0.83	ns
Migratory origin																
Both parents are French born					52	—	—	—	49	—	—	—	59	—	—	—
Both parents are immigrants from North Africa					30	-0.92	0.40	***	34	-0.65	0.52	***	56	-0.12	0.89	ns
Both parents are immigrants from Southern Europe					36	-0.65	0.52	*	37	-0.50	0.61	ns	46	-0.49	0.61	ns
Both parents are immigrants from other regions					44	-0.33	0.72	ns	45	-0.19	0.83	ns	61	0.08	1.08	ns
One parent is French born, the other an immigrant					45	-0.30	0.74	*	42	-0.29	0.75	*	53	-0.22	0.80	ns
Missing data					39	-0.55	0.58	***	38	-0.49	0.61	***	49	-0.40	0.67	***
Type of bac																
General bac with a grade higher than a pass												***	72	0.62	1.86	***
General bac with a pass grade, on time													59	—	—	—
General bac with a pass grade, late												***	41	-0.70	0.50	***
Technology or vocational bac												***	19	-1.80	0.17	***

↑

	M4			M5			M6			M7			M8			
	%	Coef.	OR	α	%	Coef.	OR	α	%	Coef.	OR	α	%	Coef.	OR	α
Reference situation in <i>italics</i>																
Academic level in assessments in first year of college																
1st quarter									49	-0.40	0.67	*				
2nd quarter									52	-0.26	0.77	**				
3rd quarter									59	—	—	—				
4th quarter									61	0.09	1.10	ns				
Gender																
Men													57	—	—	—
Women													59	0.08	1.08	ns
Parents' level of qualification																
Neither parent has a bac													57	—	—	—
Only the father has a bac													55	-0.07	0.93	ns
Only the mother has a bac													54	-0.12	0.88	ns
Both parents have a bac													61	0.18	1.19	ns
Percentage of equivalent couples	46				34				54				71			

Number of observations: 2051. The results are successive regression logistics estimates carried out on bachelor's graduations.

*=significant at 0.10; **=significant at 0.05; ***=significant at 0.01.

Reading Note: 55% of young people whose parents are in management, professional or intermediate occupations obtain a bachelor's degree. This characteristic has a positive effect on the probability of obtaining a bachelor's degree (positive coefficient). So the odds (obtain/not to obtain a bachelor's degree) are 1.5 more likely for them than for young people whose parents are non-manual workers (or one is a non-manual worker and the other a manual worker or not working).

Scope: Baccalaureate holders enrolled in an undergraduate university course excluding healthcare courses, the year after the baccalaureate.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

**CONTRIBUTIONS OF THE ACTIVE VARIABLES TO THE INERTIA OF EACH OF THE FIRST FIVE AXES
IN THE MULTIPLE CORRESPONDENCE ANALYSIS**

	%				
	Axis 1	Axis 2	Axis 3	Axis 4	Axis 5
Belong to the 25% (q1) lowest-performing students in the assessments in the first year of <i>collège</i> (Fr & Maths)	2.66	0	12.3	2.78	15.82
Belong to the 50% (q2) lowest-performing students in the assessments in the first year of <i>collège</i> (Fr & Maths)	6.16	1.02	3.37	2.53	3.43
Belong to the 50% (q3) highest-performing students in the assessments in the first year of <i>collège</i> (Fr & Maths)	1.79	1.44	0.27	1.50	0.06
Belong to the 25% (q4) highest-performing students in the assessments in the first year of <i>collège</i> (Fr & Maths)	6.10	1.79	1.47	0.04	0.03
General bac	3.08	0.38	0.15	0.36	0
Technology/vocational bac	18.76	2.34	0.92	2.22	0.02
Bac 2002	4.12	1.10	1.35	0.02	1.15
Bac 2003	5.44	4.54	0.20	1.66	8.60
Bac 2004	5.94	0.12	9.73	7.51	7.19
Bac 2005	1.31	0.49	2.13	0.33	0.18
Bac with a "good"/"very good" grade	2.04	12.54	6.52	5.06	3.61
Bac with a "fairly good" grade	0.50	2.48	2.30	0.85	1.38
Bac with a pass grade	0.44	3.11	0.01	1.25	0.68
Bac retake	1.05	4.29	0.03	6.95	2.35
Bachelor's AES STAPS	0	5.82	0.01	0.01	5.30
Bachelor's in other programmes via a CPGE	1.59	13.06	3.47	3.55	5.79
Bachelor's in other programmes	0.01	0.02	1.16	0.00	0.09
Bachelor's in law	1.08	0.28	0.16	0.82	0.15
Bachelor's in management and economics	0.02	0.12	0	0.20	9.48
Bachelor's in languages	1.02	0	0.31	0.15	6.93
Bachelor's in humanities	1.03	0.89	1.74	2.67	1.01
<i>Licence Professionnelle</i>	16.22	3.16	0.61	2.57	0.01
IUP bachelor's	0.04	0.86	10.88	5.09	0
Bachelor's in fundamental sciences	0.78	1.05	2.98	5.27	0.05
SHS bachelor's	0.48	4.62	0.08	3.06	0.01
SVTU bachelor's	0.29	0.09	0.26	5.57	3.02
No regular work +15h/wk	4.32	0.16	12.05	1.57	0.02
Regular work +15h/wk	3.06	0.11	8.53	1.11	0.01
No regular work -15h/wk	0.75	4.20	0.71	1.35	0.03
Regular work -15h/wk	2.07	11.66	1.99	3.76	0.09
No occasional work	2.63	7.40	1.20	1.23	0.02
Occasional work	2.00	5.64	0.92	0.93	0.02
Both parents are in management, professional or intermediate occupations	1.51	1.50	0.04	0.01	0.09
One parent is in management (the other is not working or is self-employed) or one parent is self-employed (the other is not working or is self-employed)	0.06	0	4.32	0.24	12.62
One parent is in management, professional or an intermediate occupation, the other is a manual or non-manual worker	0.04	0.12	1.48	0.74	0.02
One parent is self-employed, the other is a non-manual or manual worker	0.14	0.11	1.56	3.44	1.68
Both parents are non-manual workers	0.12	1.11	0.48	0.12	0.43
One parent is a non-manual worker, the other is a manual worker	0.43	1.13	1.67	0.75	0.72
Both parents are manual workers	0.31	0.46	0.61	0.13	5.51
The father is a non-manual or manual worker, the mother is not working	0.08	0.07	1.16	11.18	0.00
The mother is a non-manual or manual worker, the father is not working	0.23	0.31	0.42	2.78	0.37
Neither parent is working	0.31	0.42	0.46	8.61	2.04

2002 observations

Reading Note: The category "Belongs to the 25% (q1) lowest-performing students in the assessments in the first year of *collège* (French & maths)" is located to the right of the factorial analysis representing axis 1 and axis 2 (coord (1.03; 0.00)). This category contributes 2.66% inertia to axis 1. Scope: baccalaureate holders with a bachelor's degree. Individuals whose high grade in the baccalaureate and results in the assessments in the first year of *collège* along with those whose social background (father and mother) were unknown were excluded from the analysis.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

APPENDIX 3

TYPOLOGY OF CLASSES OF TRAJECTORIES TO OBTAINING A BACHELOR'S DEGREE RESULTING FROM THE ACH

	Class/ Category (% in row)	Category/ Class (% in column)	All bachelor's graduates	p. value	v. test
<u>Class 1 – “Poor / difficult” school career (6.2% of bachelor's graduates, n=125)</u>					
Bac 2004	91.5	60.0	4.1	0.0	20.5
Q1, belong to the 25% lowest-performing students in the assessments in the first year of <i>collège</i> (Fr & Maths)	100.0	40.0	2.5	0.0	17.1
Technology/vocational bac	20.2	45.6	14.1	0.0	8.9
<i>Licence Professionnelle</i>	14.9	43.2	18.1	0.0	6.7
Other situation OS	100.0	4.8	0.3	0.0	5.4
Q2, belong to the 50% (q2) lowest-performing students in the assessments in the first year of <i>collège</i> (Fr & Maths)	14.1	27.2	12.0	0.0	4.8
Bac 2005	29.4	4.0	0.8	0.0	2.9
Bac with a pass grade	7.9	59.2	46.7	0.0	2.9
No occasional work	7.7	53.6	43.3	0.0	2.4
<u>Class 2 – “Second chance” pathways (21% of bachelor's graduates, n = 422)</u>					
<i>Licence Professionnelle</i>	68.9	59.2	18.1	0.0	22.6
Technology/vocational bac	70.6	47.2	14.1	0.0	19.8
Bac 2003	48.5	53.3	23.2	0.0	15.5
Regular work +15h/wk	30.3	84.1	58.5	0.0	12.6
No occasional work	33.0	67.8	43.3	0.0	11.4
No regular work -15h/wk	26.3	91.7	73.5	0.0	10.4
Q2, belong to the 50% lowest-performing students in the assessments in the first year of <i>collège</i> (Fr & maths)	46.5	26.5	12.0	0.0	9.5
Q3, belong to the 50% (q3) highest-performing students in the assessments in the first year of <i>collège</i> (Fr & maths)	30.2	42.4	29.6	0.0	6.4
Bac retake	35.0	23.7	14.3	0.0	5.9
Bac 2005	64.7	2.6	0.8	0.0	3.8
One parent is a non-manual worker, the other a manual worker	29.2	18.0	13.0	0.0	3.3
Bachelor's in management and economics	31.8	6.4	4.2	0.0	2.4
One parent is in management, professional or an intermediate occupation, the other is a manual or non-manual worker	24.7	26.1	22.2	0.0	2.1
The father is a non-manual or manual worker, the mother is not working	36.7	2.6	1.5	0.0	2.0
<u>Class 3 – “Héritières” (8.3% of bachelor's graduates, n = 166)</u>					
Bac with a “good”/“very good” grade	66.5	83.7	10.4	0.0	24.4
Bachelor's in other programmes via a CPGE	100.0	27.1	2.2	0.0	15.2
No regular work +15h/wk	14.7	73.5	41.5	0.0	8.7
Q3, belong to the 50% highest-performing students in the assessments in the first year of <i>collège</i> (Fr & maths)	12.3	83.1	55.9	0.0	7.7
Bac 2002	10.9	94.6	71.9	0.0	7.7
One parent is in management (the other is not working or is self-employed) or one parent is self-employed (the other is not working or is self-employed).	16.7	27.7	13.7	0.0	5.0
General bac	9.2	95.8	85.9	0.0	4.3
Both parents are in management or intermediate occupations	12.0	42.8	29.5	0.0	3.8
Bachelor's in fundamental sciences	15.3	14.5	7.8	0.0	3.0



	Class/ Category (% in row)	Category/ Class (% in column)	All bachelor's graduates	p. value	v. test
<u>Class 4 – “Respectable pathways” (33.2% of bachelor's graduates, n = 666)</u>					
Bac 2002	43.7	94.4	71.9	0.0	17.3
Bac with a “fairly good” grade	58.3	50.2	28.6	0.0	14.8
General bac	38.4	99.1	85.9	0.0	14.0
Q4, belong to the 25% highest-performing students in the assessments in the first year of <i>collège</i> (Fr & maths)	45.5	76.4	55.9	0.0	13.3
No regular work -15h/wk	40.4	89.2	73.5	0.0	11.8
IUP bachelor's	72.6	14.7	6.7	0.0	9.7
Bachelor's in languages	58.3	15.3	8.7	0.0	7.1
Bachelor's in law	53.6	17.7	11.0	0.0	6.6
SVTU bachelor's	60.5	11.7	6.4	0.0	6.5
Bachelor's in fundamental sciences	54.8	12.9	7.8	0.0	5.8
No occasional work	39.7	51.7	43.3	0.0	5.3
Both parents are in management, professional or intermediate occupations	42.0	37.2	29.5	0.0	5.3
Both parents are manual workers	56.4	6.6	3.9	0.0	4.3
No regular work +15h/w	37.0	46.1	41.5	0.0	3.0
<u>Class 5 – “Middle of the road” (31.1% of bachelor's graduates, n = 623)</u>					
Regular work -15h/wk	67.9	57.8	26.5	0.0	20.9
Occasional work	46.3	84.4	56.7	0.0	17.5
General bac	35.5	97.9	85.9	0.0	11.8
SHS bachelor's	58.3	32.7	17.5	0.0	11.6
Bac with a pass grade	42.5	63.7	46.7	0.0	10.3
Bachelor's AES STAPS	66.9	18.1	8.4	0.0	10.0
Bachelor's in humanities	59.0	13.6	7.2	0.0	7.2
One parent is in management (the other is not working or is self-employed) or one parent is self-employed (the other is not working or is self-employed).	42.2	18.6	13.7	0.0	4.2
Q4, belong to the 50% lowest-performing students in the assessments in the first year of <i>collège</i> (Fr & maths)	36.8	35.0	29.6	0.0	3.5
Bac 2003	37.3	27.8	23.2	0.0	3.2
No regular work +15h/w	34.5	45.9	41.5	0.0	2.7
Bachelor's in management and economics	44.7	6.1	4.2	0.0	2.7
Bac retake	37.8	17.3	14.3	0.0	2.6
Both parents are non-manual workers	40.9	7.2	5.5	0.0	2.2

Note: For each class, only significantly over-represented categories are presented.

Interpretation: 91.5% of baccalaureate holders in 2004 are in class 1. Baccalaureate holders in 2004 account for 60% of students in class 1. Holders of a baccalaureate obtained in 2004 account for 4.1% of all bachelor's graduates. This category is significantly (p value 0.0) and positively (v test 20.5) associated with class 1.

Scope: Baccalaureate holders with a bachelor's. Individuals whose grade in the baccalaureate and results in the assessments in the first year of *collège* along with individuals whose social background (father and mother) were unknown were excluded from the analysis.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

APPENDIX 4

INDIVIDUAL AND ACADEMIC CHARACTERISTICS PER CLASS OF TRAJECTORY TO OBTAINING A BACHELOR'S

(% in column)

	Class 1 "poor or difficult secondary backgrounds"	Class 2 "second- chance students"	Class 3 "female inheritors"	Class 4 "respectable educational backgrounds"	Class 5 "middle-of-the-road educational backgrounds"
Women	48	42	63	64	68
Men	52	58	37	36	32
Both parents are management, professional or intermediate occupations	18	22	42	38	26
One parent in management (the other is not working or self-employed) or one parent self-employed (the other not working or is self-employed)	12	14	29	6	18
One parent in management, professional or an intermediate occupation, the other a manual or non-manual worker	20	25	15	20	24
One parent self-employed, the other a non-manual or manual worker	7	6	2	6	6
All employed working classes	43	34	12	30	25
- in which both parents are non-manual workers	5	6	2	4	7
- in which one parent is a non-manual worker, the other a manual worker	11	18	1	12	14
- of which both parents are manual workers	11	2	3	6	1
- in which the father is a non-manual or manual worker, the mother is not working	6	5	5	5	3
- in which the mother is a non-manual or manual worker, the father is not working	2	3	1	2	0
- in which neither parent is working	7	0	0	0	0
Father has a higher education qualification	12	19	46	32	27
Father has a baccalaureate	11	14	11	15	16
Father has a CAP, BEP	32	38	23	29	35
Father has no qualification or qualification unknown	45	29	19	24	23
Mother has a higher education qualification	20	22	46	33	28
Mother has a baccalaureate	12	19	19	20	20
Mother has a CAP, BEP	30	38	17	28	33
Mother has no qualification or qualification unknown	38	22	19	20	20
At least one parent not of French origin	32	25	24	19	21
Both parents are of French origin	68	75	76	81	79
Science bac (Bac S)	21	23	41	49	36
Economic and social studies bac (Bac ES)	16	25	27	29	36
Literature bac (Bac L)	14	4	27	21	27
Technology bac (Bac Technologique)	41	46	5	1	2
Vocational bac (Bac Professionnel) (or equivalent bac)	9	2	1	0	0

Note: The percentages given in italics are based on low participant numbers.

Interpretation: Women account for 48% of students in class 1, entitled "Poor or difficult secondary education backgrounds".

Scope: Baccalaureate holders with a bachelor's. Individuals whose grade in the baccalaureate and results in the assessments in the first year of *collège* along with individuals whose social background (father and mother) were unknown were excluded from the analysis.

Sources: MEN-DEPP, panel of pupils who entered the first year of *collège* in 1995 and were followed up in higher education.

