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Becoming a parent: what is the impact of workforce entry conditions on second-generation Maghrebi immigrants?

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Everywhere in Europe, the age at which people have their first child has risen with each generation, mainly as a result of more time spent in education (Billari and Liefbroer 2010; Toulemon 2010; Ni Bhrolchain and Beaujouan, 2012). The rejection of traditional family values, the rise of individualism, and the emancipation of women have also changed family models (Lesthaeghe, 1983). Moreover, in a context of greater economic uncertainty, stable employment and financial independence have become necessary pre-conditions to becoming a parent, especially for men (Blossfeld et al. 2005; Farber 2007; Adsera 2004; 2011; Sobotka et al., 2011). With the increase in unemployment, unstable jobs and the cost of living, especially housing, young people are taking longer to become self-sufficient (Blossfeld 1995; Yelowitz 2007). In France, the experience of unemployment or unstable employment is conducive to postponing parenthood, for both men and women (Meron and Widmer, 2002; Pailhé and Solaz, 2012; Pailhé and Régnier-Loillier, 2015).

As a result of a long history of immigration, the French population includes a high percentage of second-generation immigrants, roughly 10% in 2008 (INSEE, 2012). These young people, especially those of Maghrebi background, face considerable difficulties in entering the workforce and achieving financial independence (Meurs et al., 2006; Okba M. 2014; Cusset et al., 2015). Coming from low-income families, having experienced difficulties at school (Brinbaum and Kieffer, 2009), living in marginalised urban areas (Pan Ke Shon and Scodellaro, 2011) and facing employment discrimination (Dupray and Moullet, 2004; Duguet et al., 2010; Jacquemet and Edo, 2013), second-generation Maghrebi immigrants take longer to secure stable employment than their native French peers (Steichen, 2012). While these difficulties of workforce entry are well documented, their impact on family formation, particularly on the birth of the first child, has received much less attention, both in France and elsewhere.

Subject to the influence of parental socialisation and the more individualistic socialisation of French society, the children of immigrants from the Maghreb grow up with distinct normative systems (Collet and Santelli, 2012). In the countries of the Maghreb, Muslim tradition promotes simultaneity of leaving the parents' home, marriage and birth of the first child, and the man is expected to provide for the family (Collet and Santelli, 2012). In France, by contrast, the stages of entry into adulthood are increasingly disconnected, and the economic independence of women is determinant (Robette, 2010).

This article analyses how second-generation Maghrebi immigrants' specific experience of entry into the workforce and socialisation affect their entry into parenthood. Do the difficulties they face in securing employment have an impact on the family sphere? Do they postpone entry into parenthood for longer than their native French peers because of difficulties joining the labour market? Or does their specific normative background encourage entry into parenthood despite economic difficulties? How is the timing of the birth of the first child mediated by union formation and residential independence? Are these impacts differentiated by gender?

This article analyses the impact of unemployment on the timing of the birth of the first child through data from the Generation 1998 and Generation 2004 surveys conducted by France's Centre for Studies and Research on Qualifications (CEREQ).

1. Theoretical framework and hypotheses

1.1. The impact of unemployment on fertility

Since the 1970s, economic uncertainty has been a key factor in the postponement of the birth of a first child and in the decline in fertility in Europe (Blossfeld *et al*., 2005; Adsera 2004; 2011; Sobotka *et al*., 2011; Kreyenfeld et al., 2012). By reducing current income and creating uncertainty about future income, unemployment can indeed cause people to postpone the decision to have a child (Becker, 1981). Individuals may decide to wait until they secure a stable job and earn enough income to be able to cover the financial cost of a raising a child. The impact of unemployment may be even greater if individuals believe that having a child will limit their subsequent employment opportunities (Adsera, 2011; Schmitt 2012). Alternatively, a period of unemployment can be perceived as a good time to have a child. Unemployment reduces the opportunity cost of having a child, i.e. the income and career progression that the parent renounces to have a child. Childcare costs are also reduced when one parent is not working.

Sociological approaches also emphasise the contrary effects that unemployment can have on fertility decisions. On the one hand, finding a job can be a necessary condition for becoming a parent, through the social status, as well as the financial resources, it brings. To be in a position to provide for a family can be particularly important for men, for whom work is a large part of their identity (Garner et al. 2006). On the other hand, for those most excluded from the labour market, particularly women, having children can offer an alternative way to acquire a social status, and even represent a strategy to reduce uncertainty about the future, with the family sphere providing them a degree of security that the labour market does not (Friedman et al. 1994).

The impact of those employment and financial uncertainties on fertility varies with gender, educational level and institutional context (Letablier and Salles, 2012). Many studies have shown, for example, that unemployment has a more negative impact on men than on women, especially in the countries with the least gender equality (Kravdal 2002 in Norway; Lundström 2009 in Sweden; Tölke and Diewald 2003, and Özcan, Mayer and Luedicke 2010 in Germany; Mills, Blossfeld and Klijzing 2005 in 14 industrialised countries). Among women, unemployment mainly has a negative impact on the most educated (Schmitt, 2012; Kreyenfeld, 2010). In France, Pailhé and Solaz (2012) and Ciganda (2015) have shown that unemployment causes men to postpone the decision to have a first child, especially persistent unemployment, but has no impact on women, regardless of their educational

level. It is having a non-permanent job that encourages women to delay the birth of their first child. That may be partly attributable to an income effect, with uncertainty about income causing women to shift their priorities and postpone having a child (Pailhé, 2010).

1.2.The fertility of first- and second-generation immigrants

While there is abundant research on the fertility of immigrants (Toulemon and Mazuy 2005, Sobotka 2008; Andersson 2004; Andersson and Scott 2005 2007, Milewski 2007), there are few studies on the fertility of the next generation. Those that exist generally retain two alternative hypotheses to explain the fertility behaviour of second-generation immigrants. According to the socialisation hypothesis, exposure to certain norms and values in childhood has long-term effects, and fertility behaviour is passed down from one generation to the next. Blau et al. (2013) thus find that the fertility behaviour – and labour supply – of immigrants' daughters is partly due to inter-generational transmission of gender norms, mainly through their mothers. Conversely, the adaptation hypothesis emphasises the process of adaptation to the norms and standards of the mainstream society in which the second-generation immigrants were born and socialised.

Empirical studies have validated both hypotheses (Blau et al. 2013). Those studies, most of which compare the fertility behaviour of second-generation immigrants with that of their parents, show a general trend towards convergence of fertility between immigrant generations. This is observed in Germany (Milewski 2007, 2010), Sweden (Scott and Stanfors 2011), the Netherlands (Garssen and Nicholaas 2008) and the United Kingdom (Dubuc 2012). The degree of convergence has been found to vary with ethnic origin, highlighting a segmented assimilation process (Portes and Rumbaut, 1996). Convergence is lowest for second-generation Turkish immigrants (Scott and Stanfors 2011); cultural reasons, particularly a strong attachment to the "Turkish culture of the family", are evoked (Milewski 2010). The degree of convergence also varies between countries, and is thus influenced by the societal context. Second-generation Turkish immigrants thus tend to delay entry into parenthood in countries where fertility is low (Milewski 2011), which reflects an adjustment to the context and the norms of the society in which they live. In France, we observe an adhesion of second-generation immigrants to the mainstream model of the two-child family (Pailhé and Hamel, 2015; Pailhé 2015). There are few studies that have analysed the impact of workforce entry on the fertility of second-generation immigrants. Integration into the labour market has been found to be a condition for entry into parenthood in Sweden, for both the sons and daughters of immigrants, owing to the income and access to welfare benefits it provides (Scott and Stanfors 2011).

1.3.Hypotheses

Drawing on those theoretical and empirical studies, we formulate the following hypotheses.

H1: A negative impact of unemployment on fertility

We expect individuals to delay the birth of their first child when they experience difficulties entering the workforce entry, regardless of their background. We expect persistent unemployment to have a bigger negative impact.

H2: A differentiated impact by gender

Regardless of background, we expect unemployment to have a bigger negative impact on men's fertility than on women's, since men's social identity is primarily derived from their occupational identity. Men have less opportunity to derive their legitimacy from investment in family, unlike women, for whom the status of mother entitles them to specific rights on the labour market (Périvier, 2010).

H3: A differentiated impact by background, further differentiated by gender

If second-generation immigrants follow a more traditional model of social roles, we expect the impact described in Hypothesis 2 to be even more pronounced among men of Maghrebi background. Conversely, for women, we expect less postponement among those from a country in the Maghreb, insofar as the influence of a more traditionalist model of family formation and social roles would intervene.

H4: Differences by educational level

The impact of workforce entry on entry into parenthood is higher for those with higher education, who are concerned to secure a return on their investment in education before starting a family. That impact may be higher for second-generation immigrants, and particularly for men, owing to the influence of the norm of traditional social roles.

2. Methodology

2.1. Data and scope

We use data from the *Generation 1998* and *Generation 2004* surveys conducted by CEREQ, on a comparable scope. The surveys relate respectively to all those who left the French education system in 1998 and 2004. The first survey consists of four rounds, with the latter two conducted in 2005 and 2008, i.e. seven and ten years after the respondents left education. The final round of the *Generation 2004* survey, conducted in 2011, covers the first seven years of working life. In addition to information about educational pathway, jobs held and employment status at each round, the survey contains a monthly calendar of activity – employment, unemployment, not working, training, etc. – in which the birth of children can be recorded and which starts in the first month after the respondent left education. The survey also contains information that can be used to define the background of the respondents, namely the country of birth of the respondent and his/her parents and their nationality (French by birth, French by naturalisation, foreign).

Considering that trends in fertility behaviour and employment would not have changed much in the six years between the two surveys, we aggregated all the data, i.e. the respondents who left education in 2004 observed over seven years, the respondents surveyed in 2005 in the third round of *Generation 1998* but who did not answer the fourth round of the survey and who were therefore also observed over a seven-year period, and the respondents who left education in 1998 who were surveyed in the fourth round of *Generation 1998* for whom we have around ten years of observation. A more pragmatic reason for aggregating the data was the need to have sufficient numbers for our populations of interest.

Given the question at stake, we excluded respondents who became parents before the year in which they left education, as well as those who conceived their first child before the month in which they left education. We also excluded immigrants, i.e. foreign-born individuals, second-generation immigrants of non-Maghrebi background, and the children of mixed French and non-Maghrebi parentage. The sample comprises 10,629 individuals who left education in 2004 observed over seven years, 4,671 individuals who left education in 1998 observed over seven years, and 10,593 individuals who left education in 1998 observed over ten years. The total research population thus consists of 25,893 individuals.

We distinguish between three backgrounds: both parents born in France ("natives"), one parent born in France and the other in the Maghreb ("G2 mixed"), and both parents born in the Maghreb (G2) (Table 1). We know that the children of mixed parentage are more likely to present behaviours that are closer to those of the mainstream population (Meurs *et al.*, 2006).

Table 1: Numbers of the populations investigated

	Natives	**G2 mixed**	**G2**	**Total**
Men	12,017	318	424	12,759
Women	12,308	390	436	13,134

2.2. Modelling

We look at the amount of time that elapses between the end of initial education and conception of the first child. The month of conception was calculated from the month of birth of the first child minus 11 months to allow for the probability of a pre-term birth and the average estimated time of three months that it takes a couple to conceive in the literature. A Kaplan-Meier type non-parametric estimate is first used to describe the differences between time-to-event and occurrence of first conceptions.

To identify the specific effect of background by gender and employment conditions, discrete-time logistic regressions (Allison, 2002) were estimated.[1] To estimate these discrete-time models, the data were organised into person-month files: the observations are repeated for each month during which the person is likely to experience the event after leaving education. The dependent variable takes on a value of 0 if the event does not occur in month t, and a value of 1 in the month in which the individual conceives his/her first child (which in this case is the last month in the person-month file). For the individuals who had not experienced the event before the survey, the dependent variable takes on a value of 0 for every month until the date of the survey (truncation).

The discrete-time probability function of conception is thus formulated as: $P_{it} = Pr[T_i\ t\ |T_i \geq t, X_{it}]$

with a logistic specification, it becomes: $\log P_{it} / (1-P_{it}) = \alpha_t + \beta' X_{it}$

[1] This model was preferred to the Cox semi-parametric model, which did not seem to respect the property of proportionality over time of the impacts of some explanatory variables such as educational level.

We estimate these models by stratifying by gender. Some of the explanatory variables are static, and mostly represent a status at the end of education (see Appendix 1). The other explanatory variables are dynamic, changing as a function of the month in which the probability of conception is estimated. The static variables are educational level (primary or lower secondary / upper secondary / higher) and age on leaving education, which determine individual preferences and are a major determinant of the timing of fertility (Ni Bhrolchain and Beaujouan, 2012). To take account of the social and cultural capital transmitted by the parents, we control the father's social class (father manual/clerical/sales worker or not) and the mother's employment history (mother never worked or not). Lastly, we take into account the last year of education (2004 or 1998) and the amount of time that has elapsed since the end of education (to which we add a quadratic form) so as to integrate the possibility of a non-constant probability of conception over time, all other things being equal. The dynamic variables represent stages of entry into adulthood, namely residential independence (living in the parental home or not in a given month) and living in a couple (co-residence with a sexual partner for at least the past three months in a given month), which are pre-conditions to family formation (Régnier-Loilier and Solaz, 2010).

We take account of employment status in the month of observation (not working / unemployed / back in education / employed). Several alternative indicators are used to take account of difficulties entering the labour market: being unemployed in a given month and the total number of past months spent in part-time employment since leaving education (Model 1), the total number of past months spent unemployed since leaving education (Model 2), and a static dichotomous variable measuring difficulties with workforce entry, defined as time of more than six months taken to obtain a first job (Model 3). Those various indicators enable us to highlight the potential impact of unemployment at a given time in the pathway, when seeking a first job, and persistent instability (measured as the time spent unemployed and the time spent working part-time). Part-time work at the beginning of working life is typical of young people experiencing difficulty accessing the labour market, who have not been able to find full-time employment (Ulrich and Zilberman, 2007).

Since the timing of leaving the parental home and living in a couple can be closely linked to the workforce entry pathway and vary by background, we retain a specification that factors out the indicators of entry into adulthood (Model 4), and a specification that factors out residential status and employment status (Model 5).
In order to test our hypotheses, namely that the impact of workforce entry conditions varies with background, gender and educational level, we estimate additional models containing interactions between variables and estimate average marginal effects.

It is possible that employment status can be endogenous with fertility, since an individual with a preference for family and a low attachment to work might not be working or might be unemployed and not actively seeking employment because he/she is trying to conceive. We partly control for that by having a delayed variable for employment status. The next stage in our work will be to take that potential endogeneity into account, which is difficult to control in duration modelling (Bijwaard, 2009). Potential instruments could be: having repeated years of education; living in a marginalised urban area after leaving education; the regional unemployment rate when the person left education; or more detailed information on local employment conditions (Solignac and Tô, 2013).

3. Results

3.1. Characteristics of the populations and workforce entry

A majority of second-generation Maghrebi immigrants who left education in 1998 and 2004 are from a working-class background: almost half of them have a father who was a manual worker or a clerical or sales worker, and one-quarter have a mother who never worked (Table 2). They also tend more often to live in a marginalised urban area: one-quarter compared with 5% on average. Children of mixed parentage have a distinct profile: their fathers less frequently hold a job at the bottom of the occupational hierarchy than natives.

Second-generation immigrants are less educated than natives. Fewer than one man in five and one woman in four has a higher-education qualification, compared with one in three and almost one in two among natives. A majority of the men (60%) and almost half of the women have a qualification below the baccalaureate. More of them are also at least one year behind in their education: half of the men and 45% of the women have repeated one or more years of school, and are therefore older than natives when they leave school (Figure 1). Conversely, the children of mixed parentage are better educated than natives: almost half of the men and more than half of the women have a higher-education qualification.

Second-generation Maghrebi immigrants experience a longer workforce entry process than natives. The time to find their first job is more than six months for 29% of male and 34% of female second-generation Maghrebis, compared with 18% and 20% respectively of natives (Table 5). Moreover, a larger proportion of second-generation Maghrebi immigrants experience lasting unemployment (of at least ten months) in the seven years after leaving their initial education: more than half of them, which is twice the rate among natives. Those with less than an upper secondary level experience the most difficulty (Figure 2), but higher-than-average unemployment affects second-generation Maghrebi immigrants across all educational levels (Figure 3). Despite their higher educational level, the second generation of mixed parentage take longer to enter the workforce and are more exposed to unemployment than natives, but less than those with two immigrant parents.

Women who left school before or after completing upper secondary education experience more difficulty than their male peers of the same background on the two indicators of time to find their first job and total time spent unemployed over the period (Figures 2 and 3). Conversely, having a higher-education qualification erases the gender gap. In the groups with an immigrant background (mixed parentage or not), young women are actually less exposed than young men to a wait of at least a six months before finding their first job or to a long period of unemployment.

Table 2: Social class, by background (%)

	Total	Natives	G2 Mixed	G2	Signif. Diff.
Father manual or clerical	**41.3**	41.2	38.9	47.8	abc
Mother never worked	**11.7**	11.0	10.1	26.9	abc
Living in a marginalised area	**5.3**	4.3	6.0	26.0	abc

Note: significant difference of proportion at 5% level: a between natives and G2 mixed, b: between natives and G2, c: between G2 mixed and G2.

Table 3: Educational pathway, by background

	Men				**Women**			
	Natives	G2 Mixed	G2	Signif. Diff	Natives	G2 Mixed	G2	Signif. Diff
Educational level (%)								
Primary/lower secondary	37.6	29.8	60.1	a b c	25.2	19.4	47.3	a b c
Upper secondary	25.2	19.7	21.5	a b c	27.0	26.6	27.7	a b c
Higher education	37.2	50.5	18.4	a b c	47.9	54.0	25.1	a b c
% who repeated years	42.4	41.7	50.7	a b c	39.5	39.6	47.1	b c
Average age on leaving education	21.1	21.9	20.7	a c	21.6	22.2	21.1	a c

Note: significant difference of proportion or means at 5% level: a between natives and G2 mixed, b: between natives and G2, c: between G2 mixed and G2.

Figure 1: a refaire

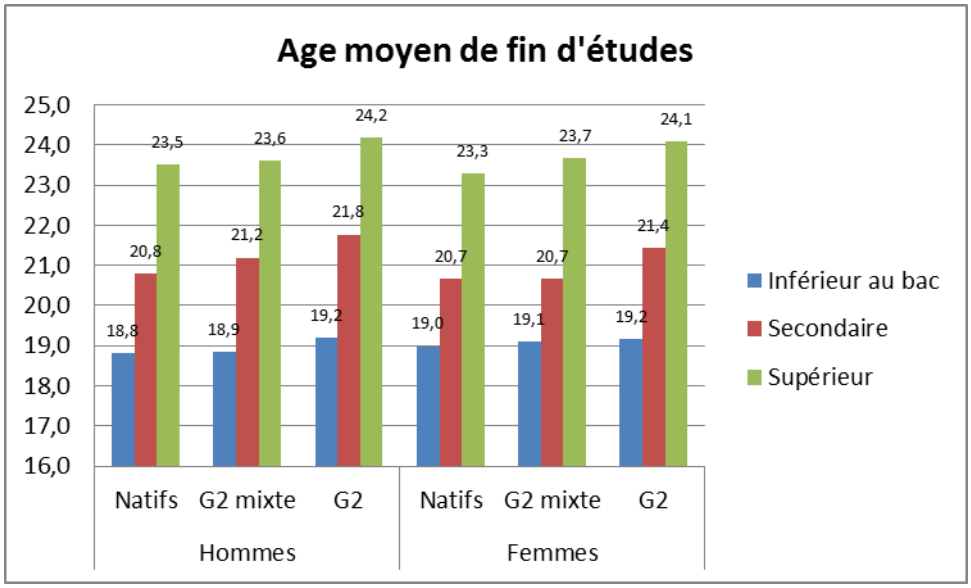

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Table 4: Average number of months and percentage of time spent living in the parental home and in a couple in the seven years after leaving education

	Less than upper secondary				Upper secondary				Higher education			
	Natives	G2 Mixed	G2	Signif Diff	Natives	G2 Mixed	G2	Signif Diff	Natives	G2 Mixed	G2	Signif Diff
Men												
In parental home	52	58	67	a,b,c	41	41	52	b,c	20	19	30	b,c
In a couple	13	10	5	b,c	19	13	14	a,b	32	28	26	b
Women												
In parental home	36	41	53	b,c	29	28	45	b,c	13	13	30	b,c
In a couple	30	26	18	b,c	34	32	23	a,b	44	41	30	b

Note: significant difference of means at 5% level: a between natives and G2 mixed, b: between natives and G2, c: between G2 mixed and G2.

After they leave initial education, second-generation Maghrebi immigrants spend more time living in their parents' home and less time in a couple than natives, regardless of their educational level (Table 4). That is especially the case of the second generation with two immigrant parents. Second-generation Maghrebi men with less than upper-secondary education spend 80% on average of the seven years after they leave education living in their parents' home, compared with around 60% for natives.

Table 5: Difficulties entering the workforce, by background

	Men				Women			
	Natives	G2 Mixed	G2	Signif	Natives	G2 Mixed	G2	Total
More than 6 months to find first job (%)								
Less than upper secondary	27.5	30.4	38.9	a b c	40.5	45.2	44.5	ab
Upper secondary	16.2	11.5	25.9	a b c	24.3	22.6	29.5	abc
Higher education	15.6	18.9	14.4	a b c	14.7	18.9	18.9	ab
Total	20.2	20.9	31.6	a b c	23.8	25.0	34.0	a b c
At least 10 months of unemployment in the seven years after leaving education								
Less than upper secondary	39.1	39.6	66.0	c	48.7	65.4	69.4	a b c
Upper secondary	19.5	25.1	37.9	a b c	29.0	33.2	48.8	a b c
Higher education	16.1	25.1	32.1	a b c	17.0	17.9	36.9	a b c
Total	25.6	29.4	53.7	a b c	28.2	31.2	55.6	a b c

3.2. Entry into parenthood

Six years after leaving education, 45% of women and 23% of men had conceived their first child; nine years after leaving education, 64% of women and 44% of men (Table 6) had. The timing of entry into parenthood is later for female second-generation Maghrebi immigrants. Six years after leaving education, 38% had conceived their first child, compared with 46% of native women. But nine years after leaving education, the same proportion as among native women had conceived a child (63%). The proportion is lower for daughters of mixed parentage. For men, the postponement of entry into parenthood for those with two Maghrebi parents persists ten years after leaving education: one-third had conceived a child, compared with 43% of native men and sons of mixed parentage.

The timing of the birth of the first child depends strongly on labour-market integration. Thus, those whose time to access a first job was more than six months postpone the conception of a child, women more than men (Figure 4). For women who experienced difficulties entering the labour market, the timing of the conception of the first child varies little by background within the first seven years after leaving education (Figure 5). After seven years, women with two Maghrebi parents who experienced difficulties accessing the labour market are more likely to have conceived a child than native women and than daughters of mixed parentage. Among men who entered the labour market late, the timing of the birth of the first child varies significantly by background (the survival functions are significantly different according to the Wilcoxon test). More men of Maghrebi background delay the conception of their first child (Figure 6). Seven years after leaving education, sons of mixed parentage who had difficulties accessing the labour market are more likely than daughters to have had their first child.

Table 6: Conception six and nine years after leaving education, by background (%)

	Men				**Women**			
	Natives	G2 Mixed	G2	Total	Natives	G2 Mixed	G2	Total
Six years after leaving education	23	21	16	23	46	39	38	45
Nine years after leaving education	43	43	33	43	64	56	63	64

Figure 4

Probability of pregnancy by difficulty of workforce entry - Kaplan Meier Survival Estimates

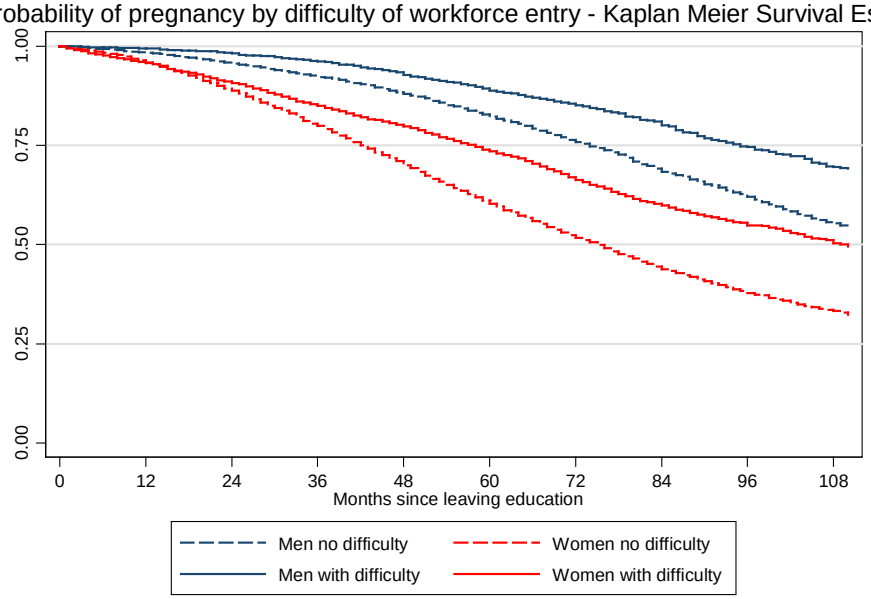


Figure 5

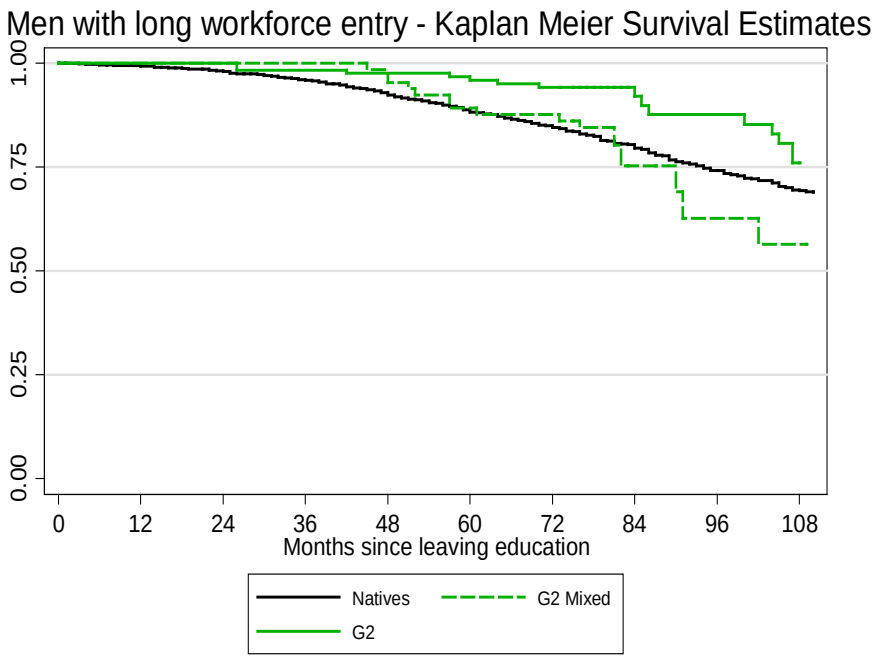
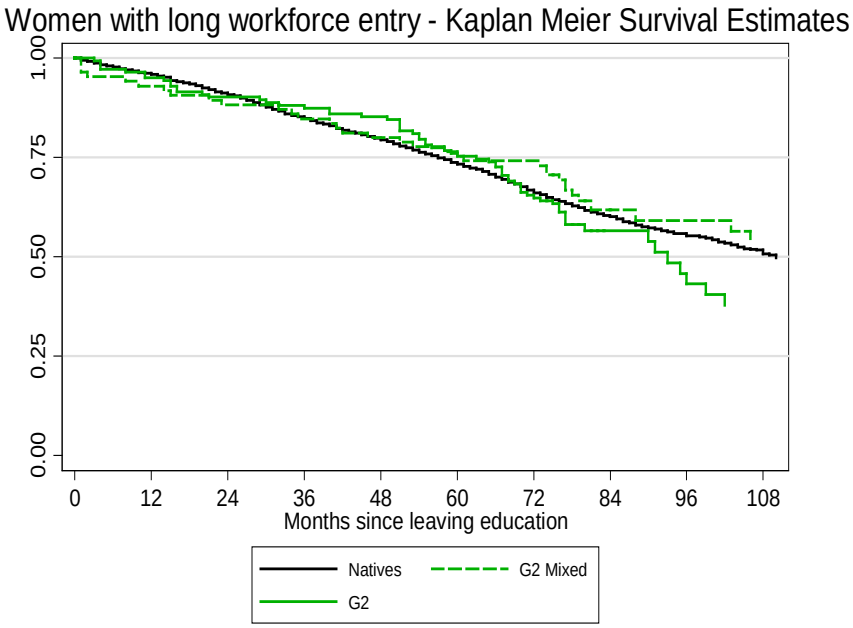


Figure 6



3.3. Multivariate analysis

Models 1 to 3 (Tables 7 and 8) highlight the importance of employment status in the process of entry into parenthood, for men and women. Thus, the experience of unemployment, whether we consider being unemployed in a given month (Model 1), total time spent unemployed until the month observed (Model 2) or the time taken to find a first job (Model 3) all decrease the probability of having a child. The calculation of the average marginal effects on conception of the experience of unemployment in month t, of the total number of months spent unemployed or of difficulties entering the workforce shows that these impacts are not significantly different for men and women (Graphs A1a, A1, A1c in the appendix). For men, not working or being in training or back in education in a given month are equally unfavourable to conception (Tables 7 and 8). For women, being back in education is particularly incompatible with fertility. Working part-time does not have a significant impact for women, whereas total time spent in part-time employment has an adverse impact on having a child for men. These results support our first hypothesis that successful workforce entry that provides a stable, regular, sufficient income is a necessary pre-requisite for family formation. Conversely, our second hypothesis that the impact of unemployment is differentiated by gender is not validated.

All other things being equal, second-generation women with two parents born in the Maghreb conceive their first child sooner (Table 7, Models 1 to 3). The timing of conception is not significantly different between native women and women of mixed parentage. By contrast, men of Maghrebi background, whether through one or both parents, do not have a significantly different probability of conceiving their first child than than natives (Table 8, Models 1 to 3). Residential and conjugal status have a strong influence on the timing of entry into parenthood: living with one's parents delays

conception whereas living in a couple for at least the past three months increases the probability of fertility. However, when the specification no longer controls the timing of leaving the parental home and conjugal cohabitation, there is no significant difference between second-generation and native women, whereas men with two Maghrebi parents enter parenthood later (Models 4 and 5). For both male and female second-generation Maghrebi immigrants, parenthood is closely linked to leaving the parents' home and forming a union, which are themselves dependent on workforce entry. We think it likely that the lack of secure employment delays union formation and consequently family formation, delaying the attainment of the "status of parent". The negative influence of employment insecurity on experiencing a first union, particularly for men, has been observed in France (Solaz, XXX; Pailhé, forthcoming) and in other large industrialised countries (Laplante, 2008 in Canada; XXX). Moving out of their parents' home later delays the birth of a first child for both male and female second-generation Maghrebi immigrants. Once in a union, female second-generation Maghrebi immigrants seem to conceive sooner than native women. Unlike the socialisation hypothesis, and all other things being equal, the fertility behaviour of men with at least one Maghrebi parent is not higher than their native peers. The hypothesis of higher fertility therefore does not seem validated for these second-generation young men. Second-generation Maghrebi women show less adaptation to the French fertility model. They have the same fertility timing at the same educational level and class background as native women, but they become mothers sooner than natives once they are in a union.

Experiencing unemployment in a given month or experiencing difficulties entering the workforce reduces the probability of conception for all women regardless of background and the differences between backgrounds are not significant. Furthermore, the marginal effects of unemployment or total time spent unemployed on the occurrence of conception are not significantly different by background (Graphs A2a and A4a in the appendix). An extended period of unemployment is not significantly linked to the timing of conception for second-generation women (Graph A3a in the appendix). Among men, the marginal effect of unemployment on conception for men with two Maghrebi parents is significantly lower than on natives at a threshold of 10% (Graph A2b in the appendix). The same result among men, only more pronounced, is observed for total time spent unemployed (Graph A3b in the appendix). In other words, unemployment seems to delay entry into fatherhood for second-generation Maghrebi immigrants for longer than for native men, which seems to confirm part of our third hypothesis. Whether we consider unemployment status in month t or the total time spent unemployed, we do not find a significant impact on the fertility of women or men of mixed parentage. In the mixed second generation, the marginal impacts are not significantly different from zero.

The timing of conception is positively correlated with educational level: individuals with higher education become parents later. The differences by educational level are particularly pronounced for women. At the same educational level, age on leaving education has the opposite effect. Age brings maturity and a higher likelihood of already living in a couple, favourable conditions for planning a family. Our fourth hypothesis, that the negative impact of total time spent unemployed on the probability of conception is higher for individuals with higher education, is only confirmed among native men (see Graph A5). The disadvantage also seems to be higher for those with secondary education compared with lower education among those with an immigrant background, but the differences are not significant with those who leave education without any qualification. For men of

mixed parentage, the low point is found at the secondary level, whereas the negative impact on higher-education graduates seems little differentiated from those with primary/lower secondary education or no educational qualification, but again the differences are not significant. Among women, judging by the measurement of marginal effects, a more pronounced negative impact is largely invalidated for women of immigrant background – there are no significant differences between educational levels – whereas the impacts vary considerably for native women but without the confidence intervals that would enable us to infer real differences in impact.

Table 7: Discrete-time logistic regression of probability of first conception for women

	Women Model 1	Model 2	Model 3	Model 4	Model 5
Natives (ref.)					
G2 Mixed	-0.202**	-0.168*	-0.018	-0.015	-0.025
	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)
G2	0.007	0.035	0.382***	0.390***	0.365***
	(0.104)	(0.105)	(0.107)	(0.107)	(0.107)
Primary (ref.)					
Lower secondary	0.111	0.057	-0.180**	-0.196**	-0.173**
	(0.077)	(0.077)	(0.077)	(0.077)	(0.078)
Upper secondary	0.024	-0.010	-0.297***	-0.330***	-0.287***
	(0.072)	(0.072)	(0.073)	(0.072)	(0.074)
Higher education	-0.011	-0.089	-0.458***	-0.490***	-0.445***
	(0.075)	(0.075)	(0.075)	(0.074)	(0.075)
Age on leaving education	0.047***	0.041***	0.040***	0.040***	0.040***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Last year of education 2004	-0.066*	-0.054	-0.033	-0.036	-0.037
	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)
Living in parental home			-0.124	-0.121	-0.143*
			(0.077)	(0.077)	(0.077)
Living in a couple 3 months+			1.741***	1.735***	1.730***
			(0.048)	(0.048)	(0.048)
In employment (ref.)					
Not working		-0.207*	-0.135	-0.117	-0.072
		(0.119)	(0.121)	(0.120)	(0.120)
Back in education		-1.062***	-0.806***	-0.788***	-0.761***
		(0.128)	(0.129)	(0.129)	(0.129)
Unemployed		-0.337***	-0.239***		
		(0.067)	(0.067)		
Total unemployed				-0.011***	
				(0.002)	
Total part-time				0.002	
				(0.001)	
Difficult workforce entry					-0.103**
					(0.043)
Father manual/clerical worker	0.058*	0.052	0.038	0.036	0.038
	(0.033)	(0.033)	(0.033)	(0.033)	(0.033)
Mother never worked	-0.002	-0.010	0.035	0.039	0.037
	(0.048)	(0.048)	(0.049)	(0.049)	(0.049)
Time since leaving education <2 years (ref.)					
2-4 years	0.522***	0.542***	0.078	0.112**	0.089*
	(0.048)	(0.049)	(0.049)	(0.049)	(0.049)
4-6 years	0.805***	0.806***	0.261***	0.317***	0.278***
	(0.048)	(0.048)	(0.048)	(0.049)	(0.049)
6 years+	0.756***	0.740***	0.219***	0.301***	0.238***
	(0.052)	(0.052)	(0.051)	(0.052)	(0.051)
Constant	-6.253***	-6.019***	-6.278***	-6.266***	-6.288***
	(0.150)	(0.151)	(0.170)	(0.170)	(0.170)
N	848,969	848,969	848,969	848,969	848,969

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Standard deviation parentheses

Table 8: Discrete-time logistic regression of probability of first conception for men

	Men Model 1	Model 2	Model 3	Model 4	Model 5
Natives (ref.)					
G2 Mixed	-0.190	-0.187	0.000	0.003	0.002
	(0.122)	(0.122)	(0.122)	(0.122)	(0.122)
G2	-0.418***	-0.341***	0.043	0.061	0.034
	(0.122)	(0.122)	(0.123)	(0.124)	(0.123)
Primary (ref.)					
Lower secondary	0.175**	0.100	-0.076	-0.109	-0.078
	(0.075)	(0.075)	(0.076)	(0.075)	(0.076)
Upper secondary	0.160**	0.082	-0.210***	-0.245***	-0.206***
	(0.074)	(0.074)	(0.075)	(0.074)	(0.075)
Higher education	0.315***	0.217***	-0.232***	-0.265***	-0.225***
	(0.081)	(0.081)	(0.083)	(0.081)	(0.082)
Age on leaving education	0.097***	0.098***	0.064***	0.066***	0.064***
	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
Last year of education 2004	-0.140***	-0.115**	-0.108**	-0.099**	-0.116**
	(0.045)	(0.046)	(0.046)	(0.046)	(0.046)
Living in parental home			-0.242***	-0.237***	-0.254***
			(0.075)	(0.075)	(0.075)
Living in a couple 3 months+			2.102***	2.091***	2.094***
			(0.057)	(0.057)	(0.057)
In employment (ref.)					
Not working		-0.760***	-0.452**	-0.437**	-0.373*
		(0.200)	(0.201)	(0.201)	(0.200)
Back in education		-0.724***	-0.467***	-0.429**	-0.396**
		(0.173)	(0.173)	(0.173)	(0.173)
Unemployed		-0.646***	-0.313***		
		(0.092)	(0.093)		
Total unemployed				-0.012***	
				(0.003)	
Total part-time				-0.005	
				(0.003)	
Difficult workforce entry					-0.199***
					(0.055)
Father manual/clerical worker	0.000	-0.004	0.018	0.020	0.017
	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
Mother never worked	0.004	0.010	0.091	0.091	0.091
	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Time since leaving education <2 years (ref.)					
2-4 years	0.604***	0.586***	0.166**	0.204***	0.177**
	(0.072)	(0.072)	(0.073)	(0.073)	(0.073)
4-6 years	1.146***	1.116***	0.476***	0.536***	0.489***
	(0.065)	(0.066)	(0.068)	(0.068)	(0.067)
6 years+	1.436***	1.396***	0.617***	0.699***	0.634***
	(0.065)	(0.065)	(0.067)	(0.069)	(0.067)
Constant	-8.542***	-8.390***	-7.836***	-7.853***	-7.827***
	(0.168)	(0.170)	(0.188)	(0.187)	(0.188)
N	1,002,721	1,002,721	1,002,721	1,002,721	1,002,721

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Standard deviation in parentheses

Conclusion

This article analyses the impacts of difficulties entering the labour market by background on entry into parenthood in France by using longitudinal data from the Generation 1998 and Generation 2004 surveys conducted by CEREQ. It shows that fertility decisions are postponed when young men and women experience unemployment, whether it is temporary or permanent, and whether it occurs at the beginning of working life or later, thus confirming the hypothesis that the negative impact of unemployment on income prevails over the opportunity effect. That negative impact of unemployment is observed for both men and women. Securing stable employment appears to be as decisive for women before considering motherhood as for men before considering fatherhood. The impact of difficulties entering the workforce and employment stability on the conception of the first child confirms the findings in the literature. The first conception is not more affected by labour-market insecurity for higher-education graduates than for the others, except among native French men.

On average, second-generation Maghrebi immigrants, both men and women, have their first child later after leaving education. For women, this postponement is only confirmed once differences in educational level, class background and conjugal and residential status have been controlled. All other things being equal, the timing of entry into parenthood occurs sooner for second-generation Maghrebi women. All other things being equal, the timing of entry into fatherhood does not differ between second-generation Maghrebi men and natives. The adaptation/assimilation hypothesis appears to dominate among second-generation Maghrebi immigrants.

Difficulties entering the workforce do not affect women differently by background. By contrast, difficult labour-market conditions affect men with two immigrant parents more than native men in terms of family formation.

There is a very close relationship between the timing of leaving the parental home and living in a couple and the timing of the birth of the first child. The timing of these events differ strongly by background, with leaving the parents' home and union formation taking place later for second-generation Maghrebi immigrants, whereas the time between union formation and the birth of the first child is shorter for them. We think it likely that employment status is more determinant for second-generation men than for second-generation women on moving out of the parental home. For women, the conditions of union formation seem to be less affected by their employment status than for men of the same background. That issue merits further research.

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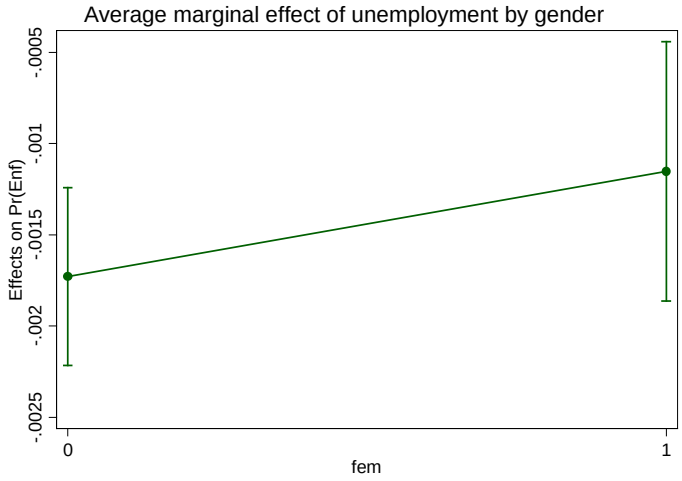
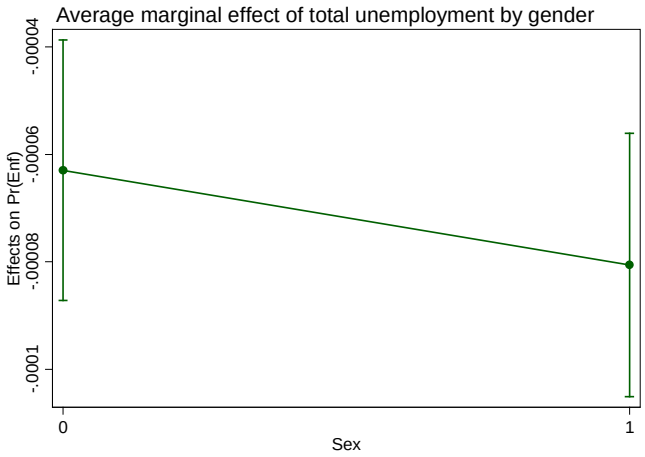
Appendix 1: Description of the sample

	G2 Maghreb		G2 Mixed		Natives	
	N	%	N	%	N	%
Women	417	50.1	371	54.7	11,835	50.2
Primary	214	25.7	54	8.0	2,435	10.3
Lower secondary	169	20.3	88	13.0	4,219	17.9
Upper secondary	216	25.9	150	22.1	5,631	23.9
Higher education	234	28.1	386	56.9	11,288	47.9
Repeated years	440	52.8	279	41.2	9,735	41.3
Father manual/clerical worker	357	42.9	257	37.9	9,503	40.3
Mother never worked	216	25.9	73	10.8	2,762	11.7
Left in 2004	356	42.7	439	64.8	9,548	40.5
Lives in marginalised area	231	27.7	35	5.2	836	3.6
Difficult workforce entry	263	31.6	148	21.8	4,541	19.3
Average age on leaving education	833	21.3	678	22.2	23,573	21.6
Total	833		678		23,573	

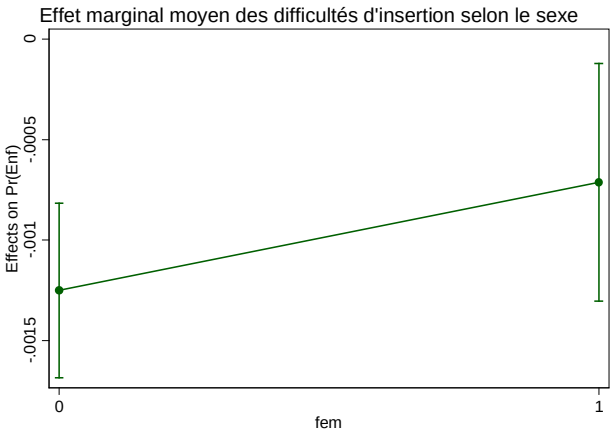
Graph A1a



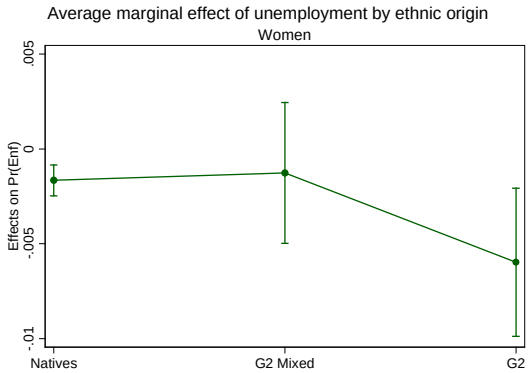
Graph A1b

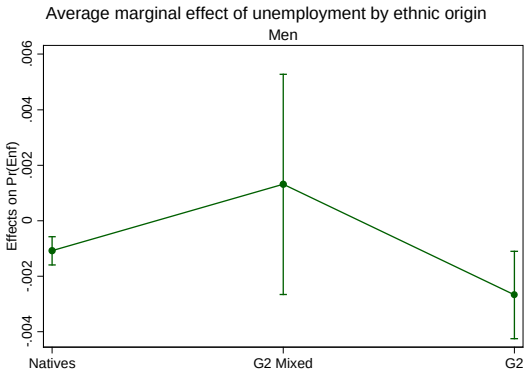


Graph A1c

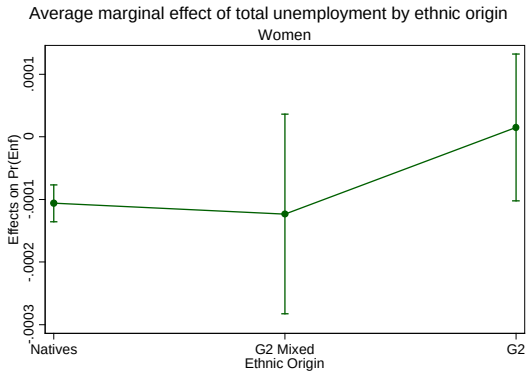


Graphs A2a and 2b

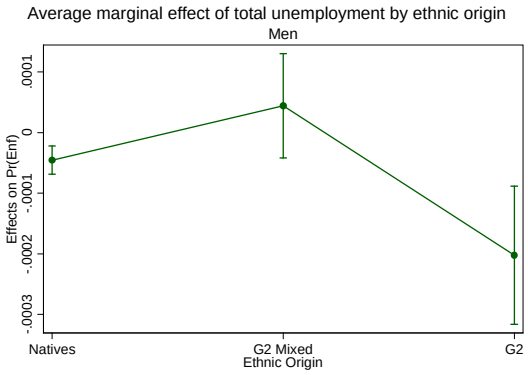




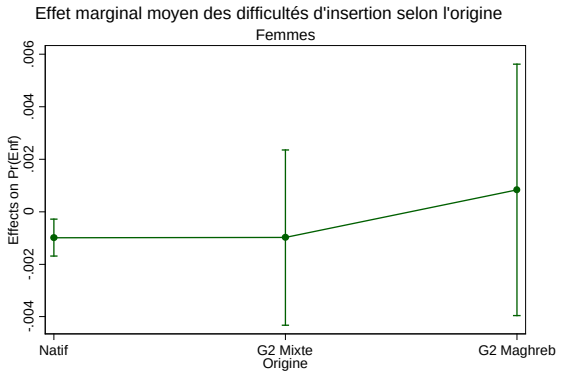
Graph A3a



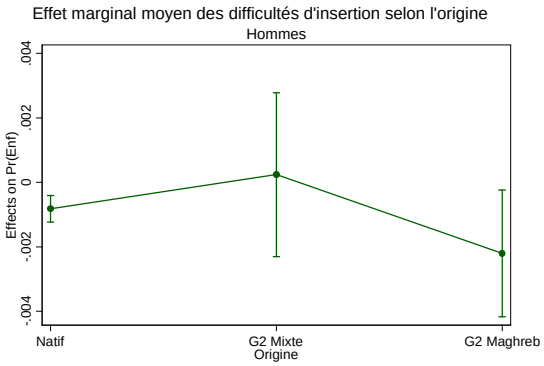
Graph A3b



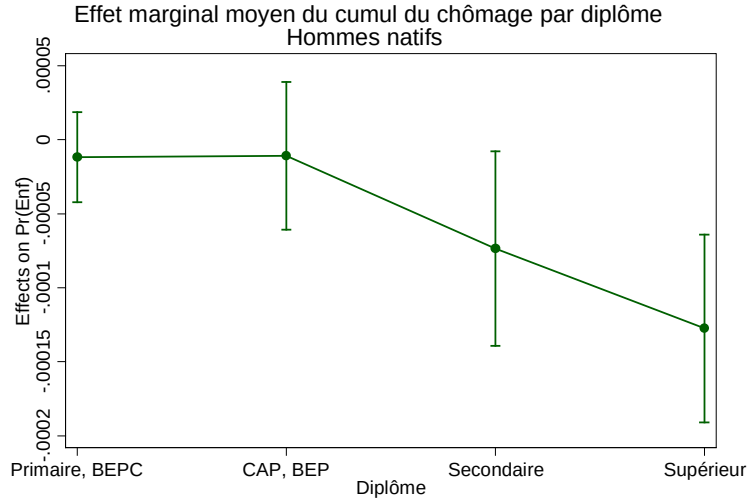
Graph A4a

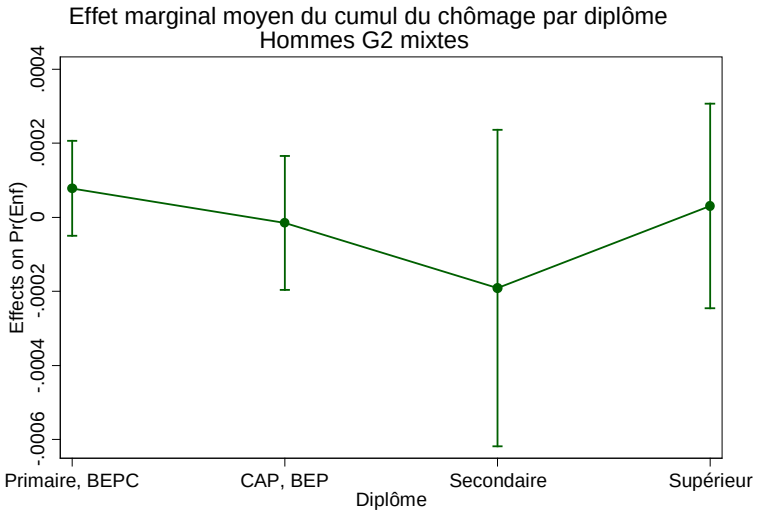


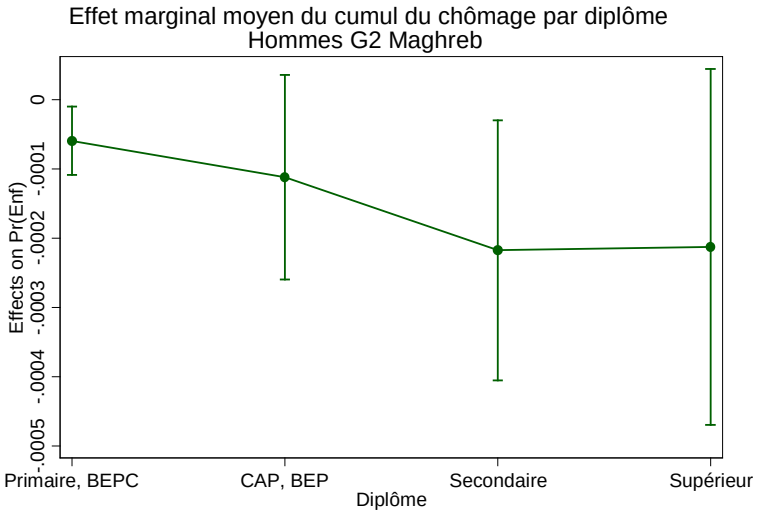
Graph A4b



Graphs A5

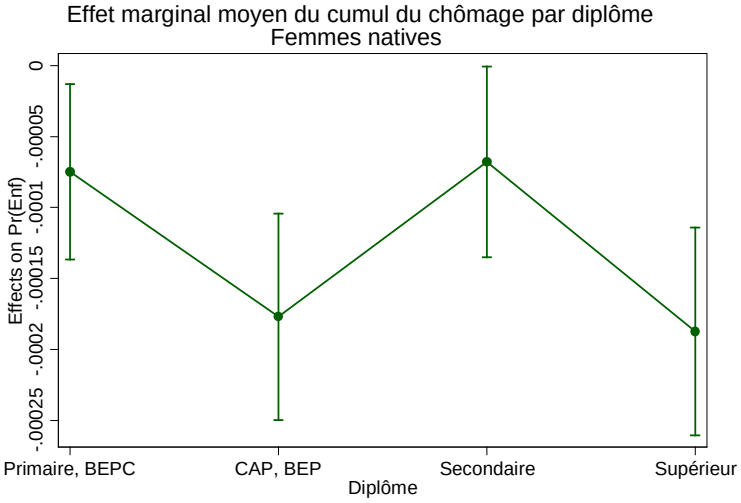


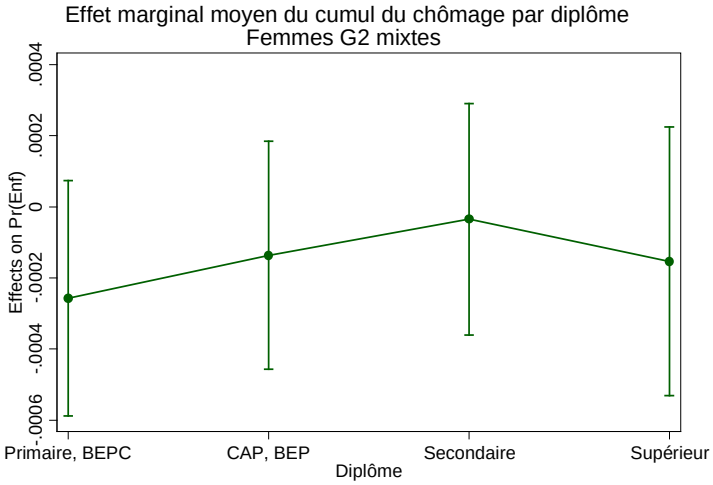


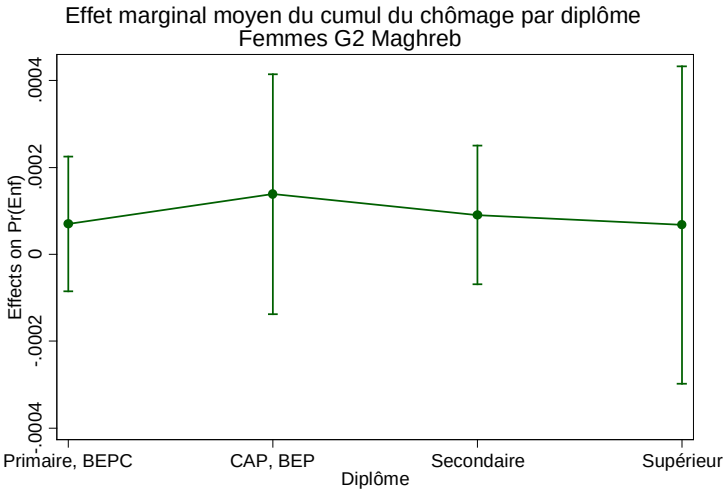


Average marginal effect of total unemployment by educational level

Graphs A6







Average marginal effect of total unemployment by educational level

Native women Women G2 Mixed Women G2 Maghreb

Primary Lower secondary Upper secondary Higher education