



Couple Formation in France: The Changing Importance of Labor Market Early Career Path

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Synopsis: This article shows that couple formation and labor market early career path (as measured by unemployment, insecure employment, and characteristics of the first job) are intrinsically linked. We use data from the 1997 'Jeunes et Carrières' survey to consider the experience of two different generations. We show that, with the arrival of mass unemployment, labor market early career path has become an important factor in couple formation, while the effect of education has diminished for young men in recent cohorts. The rise of the two-earner couple has gone hand-in-hand with greater symmetry between men and women in terms of couple formation: specifically, unemployment now reduces couple formation for both sexes. Some more traditional aspects persist however: (i) Women who are inactive on the labor market form couples earlier than do other women; (ii) Low wages in the first job encourage (discourage) couple formation for women (men); (iii) Higher education favors men's couple formation, but not that of working women; and (iv) Temporary work does not discourage couple formation by women.

Key words: unemployment, marriage, cohabitation, labor force attachment, job insecurity, family formation

JEL classification: J12, J64

Introduction

It seems fairly uncontroversial to argue that the high levels of unemployment experienced in France and many other European countries at the end of the Twentieth Century damaged young people's chances of successful labor market early career path. In this paper we ask whether this greater difficulty in labor market early career path, with its associated income uncertainty, had an additional effect on couple formation by the young.

It is notable that, from the 1970s onwards, there have been profound changes not only in the economic but also the demographic environment. The traditional stages of employment, family and residential development by the young take place later and later, and are spread out over a longer period (Galland 1995, Flipo et al. 1999). The marriage rate reached an all-time high, and age at marriage an all-time low, in the thirty years following the Second World War (Deville 1981). Since 1973 the picture has changed dramatically: the marriage rate has dropped secularly and cohabitation has

become widespread. In the 1990s, half of all first children were born to cohabiting couples, and in 1996 half of all cohabiting couples had children (Toulemon 1996). This rise in the number of couples living together has taken place at the same time as an increase in the number living alone and the number of young adults living with their parents (Beaumel et al. 1999). Recent cohorts of young people are marrying less and marrying later.

Economic theory makes the link between family structure and the rise in women's work in both the labor and marriage markets, using a model of rational agents maximizing their utility. Gronau (1977) and Becker (1991) show that a rise in well-paid work for educated women reduces the attraction of marriage (through lower gains from the division of labor) and increases the opportunity cost of housework. Grossbard-Shechtman (1993) models the interaction between the labor and the marriage markets via the demand for, and the pay for, housework. It therefore seems that marriage has become less important. In addition, men's and women's roles in family and professional life become more similar. As a result, finding an acceptable partner is more difficult: marriages start later and end more often in divorce. Marriage is therefore less of a safeguard, and is replaced to an extent by cohabitation of those with similar incomes (Ekert & Sofer 1996). Women's economic independence is associated with a rise of non-marriage, being replaced by either cohabitation or living alone. The theory predicts that higher-educated women are less likely to form couples. Last, as the value of housework falls relative to women's labor market income, this latter becomes a more important part of the woman's contribution to the couple.

In this framework, unemployment delays couple formation for both men and women (Ekert-Jaffé & Solaz 2001).¹ This delay is smaller for those who have already shown themselves (potentially) capable of labor market success by either having had a job or by having gained an advanced qualification. The impact of unemployment will be weaker for women who plan on becoming housewives, for whom work is only important while searching for a suitable partner. Another reason for bringing forward couple formation for more-educated women, despite unemployment, is their older age.

We test the role of labor market early career path on couple formation. Ekert-Jaffé & Solaz (2001) have shown that unemployment slows down couple formation. We ask two further questions in order to clarify this result.

There are a multitude of different labor force statuses between unemployment and a stable job: fixed-term contracts, training courses, public employment programs, and so on. What is the effect of different levels of labor market insecurity on couple formation, and what is the role of income? We further ask whether there are differences by education or gender in these relationships.

Are unemployment and inactivity distinct labor force statuses with respect to their effect on couple formation?

We pay particular attention to the behavior of different cohorts, and ask whether differences in behavior between older and more recent cohorts can be imputed to the deterioration in labor market opportunities that the latter have experienced.

Couple formation and labor market early career path: hypotheses and predictions

Hypotheses

In American research (Grossbard-Shechtman 1982), couples are synonymous with marriage: cohabitation is either a temporary phenomenon or a sign of a woman's weak position on the marriage market. This is not the case in France, where 90% of new couples are not married (Toulemon 1996). These relationships last, especially for educated women (Ekert & Sofer 1996). We therefore examine couple formation, defined as moving in together, rather than only marriage.

It is normal to consider that entry into the marriage market starts as soon as education finishes: see Roussel et al. (1978), Galand (1995) and Bozon (1990). This is not always true: Table 1, which covers all couples, whether formed before or after the end of education, shows that 7% of women (4% under the age of 21 at the end of education, but 24% amongst the highest-educated), form couples while they are still students. It can be argued that for these individuals the labor market is not important in their decision to form a couple. With this in mind, the effect of unemployment on couple formation is tested separately by level of education in the multivariate analysis.²

Key variables and predictions

Table 1 shows that those with less education are less likely to be married five years after ending education (line 7 of each panel). The last lines of each panel show that the least-educated suffer the most from unemployment, especially in more recent cohorts. The probability of finding a job shortly after ending education rises markedly with the level of education, reaching 70% for the highest-educated of both cohorts. By way of comparison, for those born between 1967 and 1975, only 21% (15%) of men (women) who left school at the minimum age found a job the same year. This figure was around 50% for both sexes of the older generation.

We will distinguish generation and education effects by interacting both variables with unemployment in our analysis. We will therefore see to what extent the delay in couple formation amongst the least-educated is due to:³

- unemployment and labor market early career path
- lower starting salaries
- the interaction between education and unemployment.

Unemployment is more widespread amongst the less-educated: does it also have a greater effect on their couple formation, by reducing their expected future earnings? On the reverse, higher-educated men may be relatively unaffected by unemployment due to their generally good career prospects (over 90% of them have a stable job two years after leaving education or military service).

Table 1. Couple formation and employment by sex and age when leaving education

Women Age when leaving education	Under 16	17–18	19–20	21–23	24 or older	Total	Number of observations
<i>Couple formation</i>							
Before the age of 25 (for those 25 and older)		80%	70%	55%	34%	59%	8646
Before the age of 30 (for those 30 and older)		89%	86%	80%	76%	85%	6701
Before the age of 35 (for those 35 and older)		93%	92%	87%	87%	92%	4538
Before the end of education (education finished)	0.4%	1.4%	6%	17%	34%	7%	9464
Before the end of education (education ongoing)	–	–	2%	11%	34%	7%	1402
10 years after the end of education	81%	83%	86%	84%	87%	84%	6792
5 years after the end of education	52%	59%	68%	69%	75%	61%	8330
<i>In employment the same year that education finished</i>		35%	46%	58%	68%	43%	9464
Aged 26–32 in 1997	15%	27%	38%	54%	68%	37%	2409
Aged 40–46 in 1997	52%	45%	61%	66%	72%	52%	1915
<i>Number</i>	1626	3819	1904	1201	910	9464	9464
Men Age when leaving education	Under 16	17–18	19–20	21–23	24 or older	Total	Number of observations
<i>Couple formation</i>							
Before the age of 25 (for those 25 and older)	57%	57%	49%	40%	28%	51%	7867
Before the age of 30 (for those 30 and older)	79%	80%	78%	73%	70%	78%	6096
Before the age of 35 (for those 35 and older)	87%	89%	85%	85%	87%	88%	4108
Before the end of education (education finished)	0.06%	0.2%	1.9%	6.6%	25%	7%	8774
Before the end of education (education ongoing)	–	–	0%	4%	29%	6.8%	1130
10 years after the end of education	64%	67%	77%	80%	88%	59%	6792
5 years after the end of education	14%	25%	46%	58%	69%	28%	8820
<i>In employment one year after education finished¹</i>	38%	46%	53%	59%	79%	49%	7845
Aged 26–32 in 1997	21%	39%	49%	59%	77%	44%	2421
Aged 40–46 in 1997	52%	48%	60%	56%	78%	53%	1885
<i>Number</i>	1733	3768	1492	967	811	8774	8774

¹Men's career calendar may be shifted back by around a year due to Military Service. We therefore consider the year of leaving education for women and one year after leaving education for men.

Prediction 1: The delaying effect of unemployment on couple formation will be larger for less-educated men than for more-educated men.

For women, we have to ask whether housework is an attractive alternative to labor force participation for the lower-educated.

Prediction 2: The delaying effect of unemployment on couple formation for the less-educated will be greater for men than for women, who may prefer to leave the labor market entirely.

In this perspective, we will consider the role of both unemployment and inactivity.

The story is very different for higher-educated women (see Ekert-Jaffé & Solaz, 2001). As they are by definition older when they finish their education, it is likely that they will be more likely to accept offers on the marriage market. In addition their probability of exiting unemployment is undoubtedly higher.

Prediction 3: The delaying effect of unemployment on couple formation is weaker for higher-educated (and therefore older) women.

Model and data

Any analysis of the effect of labor market early career path on couple formation has to take into account potential reverse causality: does marital status influence unemployment incidence and duration? Empirical evidence is not unambiguous. Cases (1996), using the French survey 'Suivi des chômeurs', finds little effect of marital status on unemployment exit rates: only single mothers and young women living at home have shorter unemployment durations. Bonnal & Fougères (1990) examine the role of marital status, partner's occupation and number of children. They find that only men whose wife does not work and who have at least three children have shorter unemployment durations. Last, Ekert-Jaffé & Solaz (2001) use a bivariate duration model to show that, while couple formation did not affect the speed at which the individual obtained their first job, labor market status did affect couple formation. Thus, it seems that causality is stronger from the labor market to the marriage market than the converse.

We estimate our model on data from the 'Jeunes et Carrières' survey, carried out in 1997 by INSEE. This survey covers just over 20 000 individuals between the ages of 19 and 45, sampled from the third wave of the nationally representative Enquête Emploi (Labor Force Survey) of 1997, which covered 9000 households. The data are retrospective, using calendar methods to construct labor market, marital and residential histories.

The questionnaire first covers labor market early career path: education, training, military service, and first job of over six months' duration. It then asks about current labor force status, including subjective questions about the individual's current job (if appropriate) and future prospects. It also covers family formation and other life events. By construction, the sample (which is described in the Appendix) is split up into two groups: (1) The 'Young', who are under thirty years old, born between 1968 and 1978 or who finished their education less than seven years ago (8373

observations), and (2) The 'Older', who are over thirty years old, born before 1968 (12 397 observations).

There is a core part of the questionnaire, and sections that are specific to the above groups. For reliability and comparability reasons, the calendars used for the two generations are not the same. For example, the career calendar of the young contains more information about the labor force status of young workers, while that for older workers is simpler as it covers a longer period.

We consider couple formation (cohabiting or married) as a function of labor market history since leaving full-time education. We use a semi-parametric Cox duration model to analyse the time to couple formation, with time-varying covariates to reflect the different labor force statuses that the individual has experienced. The Appendix Table presents descriptive statistics on the right-hand side variables that we consider.

Our analysis is carried out in three stages. We first (Table 2) look at the influence of the first job of over six months' duration, its status (secure or not) and associated wages,⁴ and the unemployment period that may have preceded it, for the whole sample. We then consider, in Table 3, the young sample, which was arguably more affected by a weak labor market when leaving education. Lastly, Table 4 presents the results for those born before 1968.

Insecure employment, wages and couple formation

This section considers the influence of first job and any preceding not employed spell on couple formation. We control for the cohort (young or old), age of leaving full-time education (or qualification obtained for the homogenous samples), and social background.

The social background variable shows that coming from a Farming or Working Class background affects couple formation in a way that is consistent with both sociological (Bozon & Héran, 1988) and economic (Grossbard-Shechtman 1993) theories: both delay couple formation for men and women. Controlling for education, a 'Lower Class' background implies a smaller social network and a lower level of cultural capital, which are harmful for chances of success in both the labor and marriage markets.

Women from the older cohort took longer to form couples, controlling for age when leaving education.⁵ This may well reflect differences in the type of couple formed: for the older generations, couple formation meant marriage, and marriage decisions likely take longer than those who live together.⁶ This phenomenon is not observed for men, because of their family calendar:⁷ men from the older cohort enter the marriage market two years after their female peers, after the widespread of cohabitation. If anything, it is the younger generation, the most affected by unemployment, which forms couples later. Of course, the highest-educated of them are only observed over a short interval on the labor market, and some are still in education. Nevertheless, the delay in couple formation affects all young men, irrespective of their labor force status or education. On the contrary, young women do not seem affected by this phenomenon.⁸ Is this delay

Table 2. Cox duration model of the time between leaving education and couple formation

Variables	Women			Men		
	Estimate	Risk ratio	Standard error	Estimate	Risk ratio	Standard error
<i>Age</i>						
Under 26	0.008	1.008	0.042	-0.094*	0.910	0.053
26 to 32	0.013	1.014	0.030	0.042	1.043	0.032
33 to 39	0 (ref.)	1	-	0 (ref.)	1	-
40 to 46	-0.137**	0.872	0.030	0.00012	1.000	0.032
<i>Age when leaving education (AWLE)</i>						
9 to 16	-0.114**	0.892	0.038	-0.081**	0.922	0.034
17 to 18	0 (ref.)	1	-	0 (ref.)	1	-
19 to 20	0.005	1.005	0.037	0.160**	1.174	0.041
21 to 23	-0.041	0.959	0.043	0.225**	1.253	0.051
Over 23	-0.262**	0.769	0.087	0.429**	1.537	0.081
<i>Farming or working class background</i>						
	-0.062**	0.939	0.030	-0.091**	0.913	0.031
<i>Labor force status</i>						
Not employed	-0.448**	0.639	0.051	-1.171**	0.310	0.073
Not employed & AWLE 9-16	0.059	1.062	0.068	-0.073	0.929	0.109
Not employed & AWLE 17-18	0 (ref.)	1	-	0 (ref.)	1	-
Not employed & AWLE 19-20	0.436**	1.548	0.071	0.402**	1.496	0.116
Not employed & AWLE 21-23	0.362**	1.437	0.088	0.962**	2.619	0.109
Not employed & AWLE over 23	0.730**	2.075	0.181	0.913**	2.492	0.192
Insecure employment	-0.205**	0.814	0.028	-0.167**	0.846	0.028
Secure employment	0 (ref.)	1	-	0 (ref.)	1	-
<i>Wages of first job</i>						
Category 1 (lowest)	0.173**	1.189	0.041	-0.153**	0.858	0.042
Category 2	-0.024	0.976	0.040	-0.046	0.954	0.037
Category 3	0 (ref.)	1	-	0 (ref.)	1	-
Category 4 (highest)	-0.069	0.933	0.049	0.035	1.036	0.041
Missing value	-0.068	0.934	0.073	-0.215**	0.807	0.069
-2 Log likelihood	121799			101805		
Number of observations	8770			8462		

* Significant at the ten per cent level (*Jeunes et Carrières 1997*).

** Significant at the five per cent level.

Table 3. Cox duration model of the time between leaving education and couple formation: The 'Young' cohort (under thirty)

Variables	Women			Men		
	Estimate	Risk ratio	Standard error	Estimate	Risk ratio	Standard error
<i>Age</i>						
18 to 22	-0.095	0.909	0.080	-0.376**	0.686	0.123
23 to 25	0 (ref.)	1	-	0 (ref.)	1	-
26 to 30	0.049	0.951	0.057	0.153**	1.166	0.068
<i>Farming or working class background</i>						
	0.049	1.051	0.078	0.084	1.089	0.071
<i>Qualification</i>						
No qualifications	-0.214**	0.807	0.069	-0.144*	0.865	0.081
Bep, cap, bepc	0 (ref.)	1	-	0 (ref.)	1	-
Baccalauréat only	-0.090	0.913	0.073	0.068	1.071	0.095
Baccalauréat + further qualification	-0.018	0.983	0.074	0.223**	1.251	0.101
<i>Labor force status</i>						
Full-time permanent job	0 (ref.)	1	-	0 (ref.)	1	-
Part-time permanent job	-0.010	0.990	0.113	-0.428	0.651	0.292
Fixed-term contract	-0.114	0.892	0.076	-0.188**	0.828	0.080
Self-employed or family help	-0.135	0.874	0.192	-0.563**	0.569	0.197
Unemployed and AWLE under 21	0.197	1.218	0.150	0.141	1.152	0.246
Unemployment before first job	-0.374**	0.688	0.166	-0.929**	0.395	0.291
Unemployment after first job (low wage)	-0.511**	0.600	0.142	-1.209**	0.298	0.259
Unemployment after first job (not low wage)	-0.377**	0.686	0.195	-0.410*	0.663	0.240
Public employment program or training	-0.223*	0.800	0.116	-0.856**	0.424	0.192
Return to education, apprenticeship, unpaid training	-0.346**	0.707	0.106	-1.200**	0.301	0.169
Military service				-0.481**	0.618	0.118
Not in labor force	0.179*	1.196	0.102	-1.151**	0.316	0.358
Other	0.257	1.293	0.225	-0.414	0.661	0.357
-2 Log likelihood	22731			15119		
Number of observations	2483			2443		

* Significant at the ten per cent level (*Jeunes et Carrières 1997*).

** Significant at the five per cent level.

Table 4. Cox duration model of the time between leaving education and couple formation: The “Older” cohort (over thirty)

Variables	Women			Men		
	Estimate	Risk ratio	Standard error	Estimate	Risk ratio	Standard error
<i>Age</i>						
30 to 35	0.052	1.054	0.032	-0.034	0.966	0.034
36 to 39	0 (ref.)	1	-	0 (ref.)	1	-
40 to 45	-0.092**	0.912	0.033	-0.011	0.988	0.035
<i>Qualification²</i>						
No qualifications	-0.186**	0.830	0.037	-0.162**	0.850	0.039
Cep, bep, cap or bepc	-0.038	1.039	0.043	0.055	1.057	0.044
Cap and bepc	0 (ref.)	1	-	0 (ref.)	1	-
Baccalauréat only	0.054	1.056	0.042	0.152**	1.165	0.052
Baccalauréat + further qualification	-0.038	0.962	0.042	0.338**	1.403	0.049
<i>Farming or working class background</i>						
	-0.008	0.992	0.033	-0.055	0.946	0.035
<i>Labor force status</i>						
Job of over 6 months' duration	0 (ref.)	1	-	0 (ref.)	1	-
Unemployed and AWLE under 21	-0.285*	0.752	0.138	0.037	1.038	0.221
Unemployment	0.152	1.164	0.117	-0.532**	0.587	0.193
Insecure employment	-0.123**	0.884	0.050	-0.361**	0.697	0.059
Return to education, apprenticeship, unpaid training	-0.242**	0.784	0.067	-0.744**	0.475	0.104
Not in labor force	0.375**	1.455	0.043	-0.820**	0.440	0.161
Other	-0.175	0.839	0.116	-0.509**	0.601	0.075
-2 Log likelihood	91094			79292		
Number of observations	6212			5764		

* Significant at the ten per cent Level.

** Significant at the five per cent level.

²The qualification variable has an additional category for the over-thirties, as the majority do not have the baccalauréat.

linked with the progression of the general unemployment rate or the age of leaving education? However, a test on the interaction between unemployment and cohort shows that the effect of unemployment on couple formation, at a given level of education, has not changed between the older cohort and the younger cohort (for whom unemployment was far more widespread).

Controlling for other variables allows us to identify the pure effect of unemployment. These are consistent with those predicted by the theory. Concerning the effect of education, the higher-educated men form couples earlier (as measured from the date when education finished). This strong education effect is found even though we control

for labor market status and starting salary in the regressions. This correlation occurs even though some of the highest-educated, who are more likely to form couples while in education, are not included in the estimation sample. For women, the negative coefficient on the highest level of education suggests that, for given labor force status, the highest-educated women take longer to form couples. It is possible, however, that this coefficient is biased downwards, as some of the highest-educated women will have formed couples before entering the labor market (and thus are excluded from the sample). Table 1 indeed shows that the rate of couple formation ten years after the end of education is highest for the highest educated (although the rate of individuals who have never been in a couple is also the greatest for this group).

Perhaps the largest effect of education works through the interaction with unemployment. The latter, on its own, delays couple formation for both men and women, except for those with the highest level of education. This gender symmetry results from the rise in women's labor force participation and the increase in two-earner couples. Women's increased preference for labor force participation implies as a counterpart a more discouraging effect of unemployment.

As the theory predicts, higher levels of education, or any other signal of future labor market success, diminish the effects of unemployment (*Prediction 3*). The impact of education is particularly strong for women. For those educated above the baccalauréat level (*i.e.* over 18 years old when finishing education), the interaction totally compensates for the main effect of unemployment: the latter does not delay couple formation for highly-educated women. For men, the same qualitative result is seen: higher levels of education reduce the negative impact of unemployment, although the total effect is not driven to zero, as it is for women.

Job insecurity may be reflected both by the nature of the job held (fixed-term contract, temporary etc.)⁹ and by the amount that it is paid. Unstable employment is harmful for both sexes and is independent of the level of education: the risk-ratio of forming a couple drops to 80%. Insecurity leads individuals to put off couple formation, while unemployment does not necessarily do so.

Next we look at the wages of the first job.¹⁰ Category 1 represents first-job wages 30% or more underneath the average for the period.¹¹ Low first job wages reduce the probability of young men forming couples (*Prediction 1*). However, for women the effect of low wages is the opposite (*Prediction 2*). This likely partly reflects women's traditional roles in the labor and marriage markets. As a low first-job wage does not bode well for career prospects, some women may prefer to withdraw from the labor force and invest in family life: the opportunity cost of household production in terms of labor force participation is low. It is for this class of women that the trade-off between work and family is the most striking, and especially for those who are over 30 years old at the time of the interview (that is, those born before 1968).¹² This result confirms the importance of labor force attachment and the division of labor in older cohorts.

Low-wage men are less likely to form couples.¹³ Labor market success (stable, well-paid employment) is an enabling factor in couple formation. Both men and women form couples more rapidly when they have stable jobs. However, low wages only

penalize men; low-wage women having more the option of withdrawing from the labor market into family life than is the case with low-wage men.

Labor market early career path and couple formation of the under-thirties

We now consider the effect of wages on couple formation for the younger generation (those born between 1968 and 1978: 30% of the sample). Despite the problem of selection bias,¹⁴ as some of the highest-educated are still in full-time education, it is of interest to consider this younger cohort. For this group we are able to distinguish unemployment from labor force inactivity, and their more detailed labor force history makes it easier to control for different periods of unemployment, training, public employment programs etc. As such, we are able to analyze the impact of different degrees of labor market insecurity.

Table 3 presents the results from a Cox model of the duration between end of education and couple formation. End of education refers to the latest of the dates at which the individual first left education, full-time training or military service. We thus take into account career progression via training that is particularly important for those with lower levels of formal education. Labor force status is time-varying, reflecting employment, unemployment, inactivity and training status each year. Employment is split up into permanent, temporary, and self-employed.¹⁵ Permanent jobs are distinguished by their full- or part-time status.

We control for age in these regressions, and find that, as for the whole sample, age increases the probability of couple formation for men but not for women.

There is no significant difference between permanent jobs according to their full- or part-time status. Most types of insecure employment (training, apprenticeship, fixed-term contract) delay couple formation for men, but less so for women (*Prediction 2*).

We are able to be more precise about the effect of unemployment¹⁶ here, by splitting it up into that following the end of education and that following the first job. Unemployment before the first job has a strong negative effect on couple formation for everyone, and especially men: this unemployment reduces the risk ratio to 69% for women and 40% for men. Other insecure statuses such as paid training are just as damaging as unemployment for men's couple formation, but less so for women.

For unemployment after first job, we distinguish those who had very low wages (less than half of those of other young workers at the date in question) from the rest. Unemployment following a 'normally' paid job is less harmful than unemployment following a low-paid job. This is especially the case for young men (*Prediction 3*). This suggests that unemployment is not a homogeneous experience, and its effect may well depend on the level of unemployment benefits received, at least for men.¹⁷ A first 'normally'-paid job seems to be a sign of potential future labor market success, despite the current joblessness. Unemployment following low-paid work is more harmful than unemployment following education, for both men and women; indeed it is the most harmful of all the labor force statuses that we examine.

It is of interest to note that, for women, it is not non-employment as such which is damaging: labor force inactivity actually increases the risk-ratio by 20%. The

combination of unemployment and poorly-paid work seems to be taken as a signal of perhaps a general lack of competence, whereas inactivity, investment in family life may be valued by some as a traditional attitude towards marriage. In contrast, men's aptitude in the marriage market seems to be above all reflected by labor market success, with unemployment after the first job being particularly damaging.

The most damaging types of insecure employment are not the same for men and women. Fixed-term contracts affect the former but not the latter. In addition, public employment programs and training harm both sexes' chances of couple formation, but especially men's. Not all labor market insecurity is the same. At least in terms of the marriage market, fixed-term contracts are preferable to other insecure statuses. Last, we note that returning to education reduces couple formation for both sexes.

Education is measured in these equations by the qualification achieved.¹⁸ This is an important variable, especially for men, for whom couple formation rises with level of education (*Prediction 3*). Apart from the effect of having no qualifications, education plays little part in couple formation for women. It is, however, generally true that labor market success is far more important than education in these regressions.

Marriage market status for men therefore depends on both education and (especially) labor market success to date. For women, employment as such seems less important. Voluntary inactivity is far from being harmful, as it corresponds to a traditional division of labor in the couple. Inactive women form couples more quickly, and more often marry without cohabiting (although the latter applies to only 10% of those born after 1968). Employment does of course allow women to extend their circle of acquaintances beyond the family-friends nexus, which will increase the probability of forming a couple. Unemployment is therefore harmful for women's chances of couple formation, although we do not know if this is a voluntary decision on the woman's part to wait until she is employed, or due to a lack of offers from men, who prefer a spouse in a stable labor market situation (whether this be active or inactive).

The over-thirties: the role of female inactivity

Here we use the same type of regression as in Section 4 to look at the marriage market behavior of the over-thirties (born between 1952 and 1967). The results are in Table 4.¹⁹

The estimated coefficients on the control variables have the expected signs. Higher-educated men form couples more quickly. The stronger effect here (compared to the under-thirties) probably reflects the generalization of higher education in more recent cohorts, which reduces education's signal value (although we might have expected widespread unemployment in the younger cohort to have increased the value of this signal). There are noticeable differences between the younger and older generations in terms of the effects of the control variables, and notable differences in their effect between men and women. Unemployment is less harmful for the older generation. The effect of unemployment is insignificant for women in the older cohort, although it does have a weak effect on couple formation for less-educated women (those who left education before the age of 21).²⁰ The effect of labor market insecurity is consistent

across cohorts and across sexes. Apprenticeship and on-the-job training delay couple formation. As economic theory predicts (Becker 1973, Mincer 1962), inactive women are at a relative advantage in the marriage market. In the older cohort, inactive women have a risk-ratio of couple formation 50% higher, with 3 out of 10 of these couples being direct marriages (without cohabiting beforehand).

Unemployment is again harmful for men, but less than for those in the younger cohort. It is possible that unemployment was less of a problem for this older cohort, as it was less likely to last for a long time. On the contrary, insecure employment is always damaging for couple formation. Although education has little effect for women, labor market status does. In particular, we note that insecure employment is more damaging for women's chances of forming a couple than is unemployment. The older generation, with its lower unemployment rate, did not perhaps require the immediate presence of two earners, but rather some guarantee of their existence in the long run. In this sense, the unemployed could wait for stable employment without being stigmatized on the marriage market.

Conclusion

We have examined two cohorts, whose members formed couples at two very different periods. The younger cohort, born after 1968, formed couples in the 1990s (with an unemployment rate around 10%), while the older cohort born between 1952 and 1967 formed couples in the 1970s and 1980s (with an unemployment rate around 6%). The arrival of mass unemployment seems to have been accompanied by a reduction in the value of education on the marriage market, being replaced by employment status and career since leaving education. Unemployment was not harmful for the couple formation of higher-educated women in the older cohort, but is for those in the younger cohort. Lack of qualifications and insecure employment are always damaging, although the influence of the former has diminished and that of the latter increased for the younger cohort.

With the spread of two-earner couples, the behavior of men and women on the marriage market has become more similar. Unemployment is now a handicap for women as well, although still less than for men. Very insecure employment (Public employment programs, paid training, apprenticeship) is only slightly less harmful.

This symmetry only goes so far. Job security and wages are crucial for men in determining couple formation. In the younger cohort the lack of stable employment, from a fixed-term contract downwards, is very harmful for men, while fixed-term contracts are indistinguishable from stable employment for women. Women who are inactive on the labor market, of whom there are fewer in the younger cohort, form couples more quickly and the couples are more likely to be married. There is some other evidence that the traditional model of couple formation continues to be important alongside the two-earner model. A higher level of education increases men's chances of forming a couple, but not women's. Also low wages in the first job are harmful for men, but not for women. Even so, the experience of women in the younger cohort is becoming

more like that of men in the sense that a low-paid first job followed by unemployment is worse for couple formation than unemployment which immediately follows the end of education.

The process of labor market early career path and the start of a career after leaving school is important for both men and women in explaining the dynamics of couple formation. Career progression seems to rival education in explanatory power for the younger cohort, although the latter is undoubtedly a key part of understanding the former. Both unemployment, especially following a low-wage job, and insecure employment delay couple formation by young adults.

Appendix table. Variable description

Variables	Type	Under thirty (Table 3)			Over thirty (Table 4)			All (Table 2)		
		Values	Number		Values	Number		Values	Number	
			F	M		F	M		F	M
Age	Discrete static	18 to 22	23%	25%	30 to 35	37%	37%	Under 26	17%	19%
		23 to 25*	35%	34%	36 to 39*	32%	32%	26 to 32*	28%	29%
		26 to 30	42%	41%	40 to 45	31%	31%	33 to 39	33%	30%
								40 to 45	22%	22%
Farming or working class background	Dummy static	Yes	10%	41%	Yes	22%	63%	Yes	18%	56%
		No	90%	59%	No	78%	37%	No	82%	44%
Education (age when leaving education)	Discrete static	No qualifications	21%	21%	No qualifications	21%	20%	From 9 to 16	18%	20%
		Bep, Cap, Bepc*	36%	45%	Cep, Bep, Cap, Bepc	33%	40%	From 17 to 18*	63%	62%
					Cap and Bepc*	14%	14%	From 19 to 20		
		Bacca-lauréat only	21%	17%	Bacca-lauréat only	15%	10%	From 21 to 24	17%	16%
		Bacca-lauréat + further qualification	22%	17%	Bacca-lauréat + further qualification	18%	16%	Over 25	2%	2%
Sample size		2483 Women		6212 Women		8770 Women				
		2443 Men		5764 Men		8462 Men				

* Omitted category.

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Notes

1. The economic theory of the division of labor is not synonymous with women being full-time housewives, either because housework is no longer necessarily a full-time job, or because, in a risky environment, women should be able to compensate for male unemployment. See Ekert-Jaffé & Solaz (2001) for the effect of unemployment on couple formation. Employment (and especially stable employment) will be valued on the marriage market for insurance reasons. The unemployed, who are at a disadvantage, can either wait until their labor market situation has improved before forming a couple, or form a couple immediately (for insurance reasons or because, being unemployed, the offer rate is much reduced). It is shown that most unemployed choose to wait. The only exceptions are women who plan on becoming housewives, the well-educated (who will likely find a job quickly), or those with very low arrival rates of offers on the marriage or labor markets.
2. We also carry out separate regressions for less-educated women and higher-educated women from the ages of 18 and 20 respectively. The qualitative results are unchanged, suggesting that any bias is relatively limited.
3. Only 50–60% of whom form couples in the five years following the end of their education, as opposed to more than 70% of those with higher levels of education.
4. There are very few missing values for the first wage. French workers are supposed to keep all of their pay slips, to prove their pension rights.
5. The same type of results can be found using different data (Ekert-Jaffé & Solaz 2001).
6. 90% of the couples formed in the 1990s cohabit in couples.
7. The difference in age between men and women (the former being two years older) is fairly stable over time (Bozon 1990). The difference in family formation between men and women is exacerbated by the year (or more) of military service for the former.
8. The male-female age gap may therefore be affected (fewer couples with younger men and older women, and fewer couples with a substantial difference in age in favor of the man).
9. We know the type of the first job of more than six months' duration (permanent, temporary, fixed term, training course etc.), its duration, and the reason why this job ended (if appropriate). The *first stable job* is defined as the first permanent job of more than six months' duration, either ongoing at the time of couple formation or at the date of interview, or having ended 'voluntarily', for example through quitting, maternity leave, or return to education. *Unstable jobs* are those of all other types.
10. To compare the first-job wage of different cohorts, we construct a class indicator. This compares the individual's first-job wage to the average wage of young people in private-sector jobs (either of 18–20 year-olds, or of 21–25 year-olds) at the date of this first job. These data come from official wage series (1998 edition).
11. For example, the average annual wage of full-time workers aged 18–20 was 40009 F in 1983 according to DADS (Déclarations annuelles de données sociales) data. If the individual's wage is under 28006 F, i. e. 30% or more below this average, then his or her wage is in category 1. Category 2 refers to salaries between 30% under the mean and the mean; category 3 to salaries between the mean and 30% above the mean; and category 4 to salaries more than 30% above the mean. As such, these variables reflect relative wages.
12. This is apparent in sub-regressions. The estimated coefficient for wages in category 1 is significant for those over the age of thirty (at the 2% level), but is insignificant at the 10% level for those under the age of thirty. To this extent, the traditional model of women's labor and marriage market behaviour has weakened in recent cohorts.
13. This low-wage coefficient for men has the same sign for both the older and the younger generations. The estimated coefficients are more significant for the younger generation (for whom the estimated coefficients on both the category 1 and category 2 variables are significant).
14. Some of the highest-educated young adults are more likely to either not have finished their education at the date of interview or to have formed a couple while still in full-time education. Even so, it is this group which experienced the least unemployment and the most successful labor market early career path (Table 1).

15. The principal activity is defined as that which lasted more than six months during the year. If no activity falls into this category, we consider the longest of secondary activities which lasted more than three months. 20% of women have no principal activity and less than 10% no secondary activity.
16. There are not enough unemployed in the older cohort to split the sample this way.
17. French unemployed only receive benefits after a job of at least three months' duration. They receive the 'revenu minimum d'insertion' (RMI) benefit, without any employment conditions, if they are over 25 years old.
18. The level of qualification achieved is preferred to the age at which the individual left education. In relatively homogeneous cohorts (in terms of age) there is less variation in the latter.
19. The career calendar is not the same for this group, nor are responses unique: two labor force statuses can be reported for the same year. In this case, we give preference to employment, then unemployment, then 'insecurity' (defined in the survey as alternating periods of unemployment and short-duration jobs), then apprenticeship and return to education.
20. The estimated coefficient is significant at the 9% level.

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