Wage Premiums and Penalties Associated with Marriage versus Cohabitation

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Abstract

Empirical evidence showed that married men generally earn more and married women earn less. However, the control group of "not married" differs between studies, over time and between countries, so that the message remains somewhat fuzzy. It is not clear whether the type of union or being in union is responsible for these wage penalties and premium. This article aims to analyse whether the marriage pay more than cohabitation in a country where both unmarried and married partnerships coexist for years, such as France. Thanks to a rich dataset with information on both marital and work history of both partners, we are able to estimate the effect on hourly wage of being married relatively to being in a consensual union. Taking into account selection into marriage and on the labour market and possible differential in marital specialization, our results show that the men's marriage premium is entirely due to positive selection into marriage. While marital specialization process within couple strongly decrease women's hourly wage, there is no evidence of an additional marriage penalty for women. The gender wage gap between married partners or unmarried partners is similar, once controlled for selection into marriage.

JEL Codes: J31, J12

Keywords: Marriage, Cohabitation, Specialization, Marriage Premium, Earnings

Introduction

As unmarried cohabiting couples have become more and more common in many countries in Europe (Perelli *et al.* 2012), cohabiting couples are now quite similar on many aspects to married ones: their unions have become more stable; they may have children; etc. Unmarried parenthood is becoming common with 60% of children born outside marriage in France, mostly in cohabitating unions. The parenting rights are also getting closer. Couples can now freely choose the type of union, married or not, even if they decide to have children.

However, main differences between married and unmarried remains in case of couple dissolution. One illustrative difference is the private transfers between spouses. In the event of divorce, one spouse must pay the other a "spousal alimony"[2], that aims to compensate the spouse who loses out financially when a marriage comes to an end because he or she has been more heavily engaged in unpaid domestic work (and hence at least partially withdrawn from the labor market). In many countries, this type of compensation exists only for married couples in the context of a divorce, but the idea of extending it to unmarried couples is being considered. This debate is taking place not only in France. In Canada, in the case known as "Eric vs. Lola" (2009 to 2013), the non-married woman partner of a billionaire sought compensation upon the breakup of the couple; the case was heavily covered by the media in Quebec, and it was cited in debates on marital rights and on equality between married and unmarried couples in Canada[3] To contribute to this debate, it is thus important to determine (1) whether married or unmarried partner earn equally, and (2) if the economic consequences of the division of labor within couples is the same whether they are married or unmarried. In other words, are the losses that justify compensation or the gains that can be shared out between two partners when they separate the same whatever the status of the couple?

Answering this question entails comparing the division of labor between partners, and in particular men's and women's wages, depending on the type of union they have chosen. Many empirical studies have shown that married men have higher wages than unmarried men; in other words, there is a wage premium associated with marriage. A few empirical studies have focused on married women, and their

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[2] Decided by a judge in France.
[3] The Supreme Court of Canada declared that the Civil Code of Quebec violated the principle of equality but that this violation was admissible because the National Assembly of Quebec recognizes another principle of justice, namely the right for couples to freely choose the legal status of their partnership (Biland & Schütz, 2015, p. 3).

findings are more controversial; they point to the existence of a wage penalty for married women, due in part to specialization of roles within couples.[4]

However, until the beginning of the 2000s, most empirical work was based on a comparison of married and unmarried individuals, the latter being classified as single, whether or not they lived in a couple. Few studies considered individuals living in couples without being married.

Our research is designed to test the hypothesis that wage premiums and penalties associated with living in a couple are more pronounced in marriage than in cohabitation. An answer to this question would help to resolve current controversies over monetary compensation in the event of separation. If the wage penalties and premiums associated with marriage are larger, compensation might be justified for married couples only. If, on the other hand, wage penalties and premiums are similar under marriage and cohabitation, this would support the idea that compensation should be the same for married and unmarried couples.

Our analysis uses data from a retrospective survey called "Families and Employers" (*Familles et Employeurs* in French) conducted in 2004-2005. This information is unique in that the survey asks about both current wages, employment, family environment, and also work histories and marital histories for a large sample of married and unmarried couples (5124 individuals living in couples are interviewed). First, relatively to previous studies, this paper originally focuses only on couples. We avoid in this way the selection issue of being in a relationship: people not in a relationship might have unobserved characteristics that explain simultaneously their wage and probability to marry. However, we correct for possible selection into marriage relatively to cohabitation. Second, we use data on a country in which cohabitation unions and marital unions are very similar and with a weak socio-economic gradient in the choice of marital unions. Third, we are able to see to what extent marriage relatively to cohabitation affects both male and female hourly wages at the individual level, but also the gender gap within couple, thanks to a rich dataset that interviewed both partners on retrospective professional and marital histories.

Once controlled for selection into marriage, we show that marital status does not affect hourly wage. The marriage premium we observed for men without correcting for marriage endogeneity does not hold once taken into account. We reached the same conclusion for the difference in wage rates within the

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[4] The causal impact of marriage on wages (penalties or premiums) is controversial (Jeandidier & Lim, 2015).

couple. We also highlighted that specialization during the life of a couple is a decisive factor to explain the gender wage gap, this specialization having a significant and large impact on women's hourly wages.

The paper is structured as follows. The first section sums up the empirical literature on wage premiums and penalties for individuals living in unmarried as compared to married couples. The second section presents descriptive statistics on the two subgroups: married and unmarried couples. The third section presents and comments on our results.

1. Wage premiums and penalties associated with being in a relationship, by type of union

Most research on the relationship between wages and marital status classifies individuals into three categories: married, divorced, never married. The latter category serves as a reference group; it includes people who have never been married but who are living in a couple.[5] Regarding men, Shoeni (1995) shows that a specification that does not allow for all possible situations is not satisfactory. Specifications that consider five categories—married, divorced, separated, widower, never married—lead to a significant increase in the value of the coefficient associated with the variable "married," compared to specifications with only two categories, that is, married versus unmarried. However, legal status alone, even if it is detailed, does not suffice to characterize different forms of cohabitation.

More recent studies try to distinguish between the effects of marriage and the effects of living in a couple by comparing married individuals, on the one hand, and individuals living in unmarried couples, on the other hand, to individuals who are living alone and have never been married. The central hypothesis is that cohabitation is associated with smaller wage premiums for men and smaller wage penalties for women than marriage. Many supposed attributes of cohabitation are cited to account for this difference: Cohabitation is a less stable form of union; cohabiting couples are less likely to have children; cohabitation entails few legal responsibilities; cohabiting partners demand less of each other and hence their relationships are more egalitarian; they have fewer tax advantages; a cohabiting partner has less protection in the event of separation or the death of the other; cohabiting couples adhere less to social norms; they pool their resources, etc. These factors are thought to lead to a less pronounced division of labor (Winkler, 1997; Baster, 2005; El Lahra & Moreau, 2007). It should be noted that these studies use individuals who have never been married as the reference group, comparing others—those

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[5] Widows and widowers, usually a very small group, are either excluded from the analysis or grouped together with people who are divorced.

who are married, cohabiting, or divorced—to them. Hence, the question of direct, statistically tested,[6] comparison between individuals in married couples and those living in unmarried couples is never explicitly broached, with the single exception of Bardasi and Taylor (2008).

Concerning men, some studies find that the wage premium associated with living in a couple is smaller for men living in unmarried couples than for married men, after allowing for the selection effect[7] and for the usual determinants of the wage function. To explain this difference, Loh (1996) argues that, in the United States, the wage premium associated with cohabitation is probably temporary, since premarital cohabitation has no significant impact on men's wage premium associated with marriage. According to Cohen (2002), the reduction in men's marriage wage premium observed over the last 25 years of the 20th century in the United States is due in part[8] to the increase in the frequency of cohabitation: The marriage premium is larger when cohabiting unmarried men are excluded from the reference group of "men who have never been married." In a study on Denmark, Datta Gupta and Smith (2002) use an estimation with random effects; they also find a smaller wage premium for cohabiting men.[9] Avellar and Smock (2005) use descriptive statistics on the economic consequences of divorce compared to separation of cohabiting couples in the United States; they show that married men's median individual annual income (mainly from wages but also from other sources) is significantly greater than that of cohabiting unmarried men, just before and just after couples separate.[10] Using Danish data, Datta Gupta *et alii* (2007) show that a specification that assimilates cohabiting men to men who have never been married yields no wage premium for marriage after correcting for the selection effect, whereas a more detailed specification (married, cohabiting, divorced/separated, previously cohabiting, never in a couple)

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[6] Studies sometimes compare the values of regression coefficients without testing for the significance of the differences.

[7] The selection effect derives from the fact that wage inequalities between married and unmarried people can result from unobserved characteristics that explain both the probability of being married and the probability of having a high level of human capital (for men) or a low level of human capital (for women) and the corresponding wage levels. The bias created by this effect can be eliminated, notably by applying fixed effects regressions to longitudinal data.

[8] This author argues that another important explanation lies in the increasing frequency of women's paid employment, which tends to mitigate role specialization within couples and hence reduce the male marriage premium.

[9] When a fixed effects regression is used, the coefficient associated with cohabitation becomes statistically insignificant, but the authors prefer to use an estimation with random effects because of the small number of transitions to cohabitation. They also show that there is no marriage wage premium for men who do not have children.

[10] They also show that the median of changes in income just before versus just after separation is higher for cohabiting men than for married men, but these medians are not statistically different when married men and cohabiting men are compared.

results in a statistically significant wage premium for living in an unmarried couple, but this premium is slightly lower than the wage premium for marriage once the length of time spent in a couple is taken into account.[11] Similarly, Mamun (2012) allows for the duration of different types of couples and finds that, in the United States, the cohabitation premium is smaller than the marriage premium and statistically significant only for periods of cohabitation that end in marriage. This author also finds that the duration of cohabitation does not have a significant effect on the size of the premium. However, Mamun notes the possible existence of an endogeneity bias but does not correct for it.[12] Finally, using data from the United States, Killewald and Gough (2013) find that men's wage premium for cohabitation is lower than their wage premium for marriage, particularly for fathers of two or more children.[13]

Using a fixed effects regression, Stratton (2002) finds that, in the United States, cohabitation—that is, the status itself or its duration—is not associated with a statistically significant male wage premium. This is different from marriage, whose duration has a positive and statistically significant effect on men's wages. The author presents a variant in which long-term cohabitation has the same impact as marriage on male wages. The work of Dougherty (2006) implies that cohabitation has less impact than marriage. This author's fixed effects regressions,[14] which specify living in a couple (married or unmarried), yield coefficients that can be non-significant or lower than regressions that only specify the fact of being married. Using analysis based on propensity score matching, Barg and Beblo (2009) show that, in Germany, the apparent male wage premium for cohabitation (which is smaller than the marriage premium) is the result of a selection effect similar to that associated with marriage, even though marriage should generate greater incentives for role specialization within couples. The estimations of Bardasi and Taylor (2008) on British data find no wage premium associated with cohabitation (unlike marriage) when unobserved heterogeneity is taken into account through a model with fixed effects. Using a regression that excludes men that have never been married, they also show that there is no statistically significant wage premium for cohabitation (compared to marriage). This result is

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[11] If the duration of couples (by type of couple) is not taken into account, results depend on the sample. For men who work full time, the wage premium for marriage is higher than for cohabitation. For all employed men, the premium for marriage appears to be equal to the premium for cohabitation.

[12] An endogeneity bias could derive from the fact that the level of the man's wages can influence the duration of cohabitation and whether it ends in marriage or separation.

[13] For men with no children or only one child, the wage premium for cohabitation may be higher or lower than the wage premium for marriage, depending on how employment is specified.

[14] The author tests two types of specification. One considers the type of couple (married / cohabiting). The other considers the length of time elapsed between the year of observation and the transition to marriage or to cohabitation.

corroborated by Pollmann-Shult (2011) for Germany using a specification that does not consider the amount of time women devote to domestic work or to paid employment.[15]

Regarding the impact of marriage or cohabitation on women's wages, Datta Gupta and Smith (2002, using both fixed effects and random effects models, find that neither has a significant impact.[16] Killewald and Gough (2003) find wage premiums for marriage and for cohabitation that are significantly different from zero only for women without children (with larger premiums for marriage); mothers have similar wage penalties whether they are married or cohabiting, with slightly lower penalties for cohabitation. Light (2004) shows that, in the United States, *ceteris paribus*, the transition to marriage or to cohabitation has the same positive impact on women's total income or standard of living when the selection effect is taken into account through a fixed effects regression. Avellar and Smock (2005) show that married women's and unmarried women's median incomes are not significantly different, whether incomes are observed before or after a couple separates. Dougherty (2006) finds no impact of living in a couple (married or unmarried) on women's wages, using an OLS estimation or an estimation with fixed effects; marriage is associated with a wage premium (found to be significant with a fixed effects regression), a result that implies that if a wage premium linked to cohabitation exists, it is weakly significant.

In addition to investigating the effect of the type of couple (married, cohabiting), researchers who study wage premiums and penalties attempt to improve specifications for the division of labor within couples. They take the partner's employment or non-employment into account. Usually, this question is investigated using wage equations for men, based on the hypothesis that a female partner's paid employment should reduce the male's wage rate because roles within the couple are less specialized. In studies that focus on cohabitation as well as marriage, this hypothesis is verified.[17] It should be noted that none of these studies investigate a possible difference depending on the type of couple (married, cohabiting). Researchers also study the effect of the duration of marriage or cohabitation, based on the idea that the impact of specialization should grow over time because losses or gains in human capital

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[15] When these two items of information are considered, the cohabitation premium is significant but lower than the marriage premium (which is also significant).

[16] Depending on the specification used for the presence of children, no wage premium is observed or only one that is significant at the 5% level, a result that implies that the relationship is tenuous.

[17] Bardasi and Taylor (2008) use the number of hours of work. Pollman-Shult (2011) classify individuals as employed part time or full time versus non-employed. Killewald and Gough (2013) classify individuals as employed full time versus employed part time or non-employed. Killewald and Gough (2013) study the same hypothesis for women; their estimation shows a non-significant effect, a result that is not surprising given that the vast majority of men work full time.

due to specialization accrue over time. Applying this approach to the United States, Stratton (2002) and Mamun (2012) reach a similar conclusion: The duration of marriage has a significant positive effect on male wages; the duration of cohabitation has no significant effect. In contrast, for Denmark, Datta Gupta (2007) finds that a couple's duration has a significant negative effect on male wages, whether the couple is married or unmarried.[18]

All in all, the empirical literature on the link between male and female partners' wages, depending on whether they are married or cohabiting without being married, is rather controversial. Marriage and cohabitation are not compared directly, since individuals living in couples are systematically compared to individuals living alone. Furthermore, as far as we know, no studies deal with the situation in France, a country where different types of couples have been common for a long time (with similar benefits for parents).

2. Wages premiums and couples' status: descriptive statistics

To analyze the link between marital status and wages, we use the INED's "Families and Employers" survey carried out in 2004-2005. This information is unique since information about wages, employment, family environment, work histories and marital histories are available for a large sample of married and unmarried couples. We selected a sample containing 2,275 women and 2,375 men who were wage earners and living in couples at the time of the survey.[19] In our sample, 70% of the women and 69% of the men were married. To study the wage gap within couples depending on the type of union, we also build a reduced sample of couples (N= 1602), including the two members of the couple who each filled the retrospective calendar.

As shown in Table 1, men's wages are higher than women's. The difference in wages (Log) between individuals in married and unmarried couples is small, and that difference has the expected sign, that is, the median or average wage rate is slightly higher for married men than for men in unmarried couples. For women, the difference is smaller and does not conform with the hypothesis of a smaller wage penalty for cohabiting women compared to married ones.

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[18] We do not know of any studies that use the duration of cohabitation as a determinant of women's wages.

[19] We included in the women estimation 474 women who were not employed to control for self-selection on the labour market, but excluded 79 women who were self-employed (82% of the women in the overall sample were wage earners), and 78 men (97% of the men in the overall sample were wage earners). The sample used for econometric analysis was cut down to 3749 women among which 2275 are working and 2,375 working men because of missing data for some variables.

Table 1: Hourly wage (Log) of men and women by marital status

	Women		Men	
	Married	Unmarried	Married	Unmarried
Average	**2,143**	**2,130**	**2,366**	**2,217**
1st quartile	1,886	1,886	2,068	1,977
Median	2,102	2,071	2,291	2,145
3rd quartile	2,373	2,312	2,585	2,401
Number of obs.	1604	671	1635	740

Source: Families and Employers Survey 2004-2005 (INED)

We wanted to know if wage rates are affected, not only by couples' status, but also by the length of time spent in a couple with a given status. This is in keeping with the hypothesis that role specialization within couples causes wage differences, with the expectation that specialization is less pronounced outside of marriage. Graph 1 illustrates this approach: It shows that the gap between married and cohabiting men grows the longer the couple lasts, while this is not the case for women. The graph also shows that the gap between men and women widens with the duration of a couple.

Graph 1: Men's and women's hourly wages (Log) by couple duration and status, smoothed by a second degree polynomial
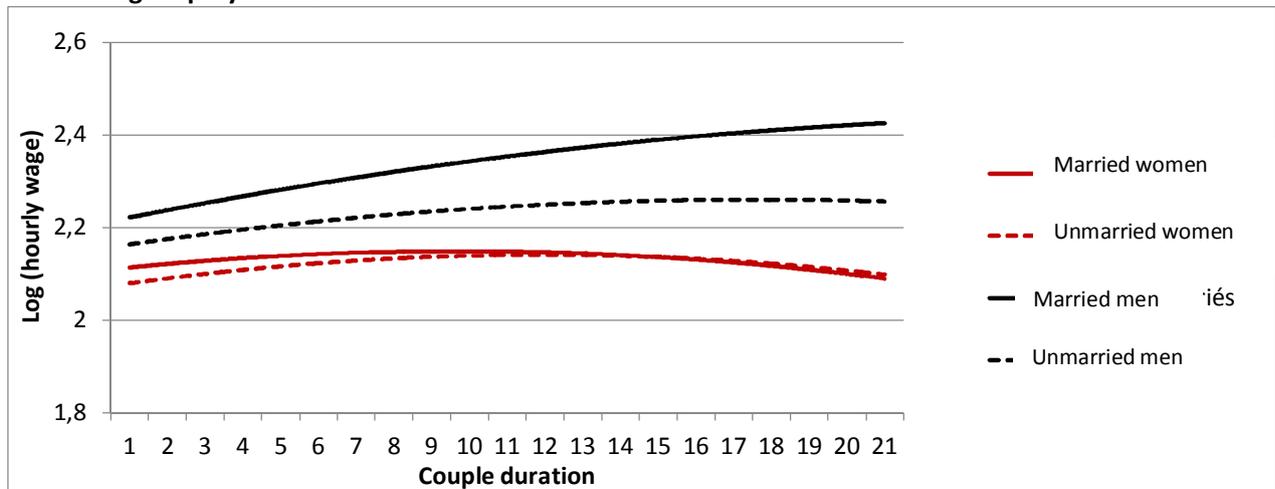
Source: Families and Employers Survey, 2004-2005 (INED)
Note: Because of the small size of the subsamples for each duration of time spent in a couple, we smoothed the curve using a second degree polynomial.

However, these differences between individuals in different types of couples could be due in part to structural differences. Indeed, averages for some characteristics differ between the two subgroups of married and cohabiting individuals (*cf.* Appendix Table A1). The average duration of couples is two times higher for married men and women than for those in unmarried couples. Married couples are twice as likely to have children than unmarried couples. These two differences reflect differences in age between

the two groups, differences that also translate into longer work experience and higher job tenure for married individuals. This applies to both women and men, even though marriage can be considered to generate stronger incentives to withdraw from the labor market to fulfill family responsibilities. Similarly, married couples are slightly less likely than unmarried couples to live in the Paris region. The difference in national origin between married and cohabiting individuals is more marked: Those who are married are more often children of immigrants, a fact that probably stems from cultural differences in attitudes toward marriage.

In contrast, the characteristics of employment show little difference between married and cohabiting women: They have the same levels of education; the same proportion in positions of responsibility; they work in the same sectors, and in companies of the same size. There is one slight difference: Married women are a little more likely to work in the public sector and to have jobs providing services to private households. Differences between married and cohabiting men are a little more pronounced. Married men are more likely than cohabiting men to have a low-level technical diploma (CAP) rather than a "baccalaureat" or a university diploma (a difference that could be due to differences in age and hence generation). Similarly, married men occupy positions of responsibility a little more often than cohabiting men; they also work a little more often in the public sector and less often providing services to private households than cohabiting men. Finally, differences in partners' employment are not very pronounced: 74% of married men and 77% of cohabiting men live with a woman who is not employed; 94% of married women and 92% of cohabiting women live with a man who is employed.

3. Wage premiums and marital status of individuals living in couples: an econometric approach

Going further in our analysis of the links between wage premiums (or penalties) and marital status, we face some methodological problems. First of all, given that having children may result in women's withdrawal from the labor market, there may be a selection bias. For this reason, we have corrected for this bias using the Heckman method (two-step estimation), and we insert an inverse Mills ratio into our regressions. The exclusion variables used are the presence of a child under school age and an indicator of the employment of the respondent's mother, since we suppose that career patterns are transmitted from mothers to daughters. We then proceed in steps to find the determinants of wage rates and their

effects on our variable of interest.[20] We first introduce demographic variables (Specification 1). We then add human capital (Specification 2) and employment variables (specification 3). After that step, we introduce the duration of the couple in addition to its status, with the objective of separating the impact of status from that of the duration of the status. Indeed, studies on the relationship between marriage and wages have tested the hypothesis that the impact of marriage is due to role specialization within married couples and hence it should increase the longer the marriage lasts (Specification 4).[21] Finally, as the literature on wage premiums and penalties associated with marriage explicitly shows, it is essential to take unobserved heterogeneity into account because unobserved characteristics can simultaneously influence wage rates and the decision to marry. To do so, we have used an estimate of marriage with two instrumental variables (IV, Specification 5): the respondent's religious affiliation and the fact of having met the partner at a family reunion. Both of these variables increase the probability of marrying rather than cohabiting. Fisher tests indicate that these instruments are pertinent and sufficiently powerful. (The hypothesis of instrument weakness can be rejected.)

We analyze women's wage rates first (Table 2), and then men's (Table 3). Then, table 4 shows results that shed light on the question of the role of specialization by replacing duration of a couple with an indicator of the partner's absence from the labor market over the course of the couple's existence. This specification has a bearing on the specialization hypothesis: Since the individuals in our sample all live in a couple (unlike other studies, which usually compare single individuals with individuals living in a couple), the effect of specialization depends explicitly on the behavior of partners regarding paid employment.[22] Finally, in the last table (Table 5), we examine differences in wage rates within couples, an aspect of our work that is original with respect to previous studies.

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[20] The results presented concern the Log of the hourly wage rate. We have considered the Log of the monthly wage rate (by adding variables that explain work time), but since these results are almost identical to the first set of results, they are not presented here.

[21] Korenmann and Neumark (1991), Loh (1996), Gray (1997), Krashinsky (2004), Dougherty (2006) and Rodgers III and Stratton (2010) find that duration of marriage has a positive impact on men's wages. Cornwell and Ruppert (1997) and Hersch and Stratton (2000) do not confirm this result, since they find a non-significant impact. However, Krashinsky (2004) and Dougherty (2006) challenge the interpretation based on specialization. Mamun (2012) and Stratton (2002) find that duration of marriage has a positive impact for men, but that duration of cohabitation has a non-significant effect. Datta Gupta *et al.* (2007) find a negative impact of duration of marriage and duration of cohabitation, for men and also for women.

[22] It also depends on choices regarding domestic work, which are not strictly dependent on choices regarding paid employment, but we have no information on domestic work.

3.1 Women's hourly wage

Regarding women's wage rates, our results confirm the role of standard variables (diploma, experience, job tenure, residence, sector, size of firm, etc.) and they indicate that there is no significant selection effect for women's employment, since the inverse of the Mills ratio is not significant. A more surprising result is that the presence of children seems to have no effect on women's hourly wage rates: When people live together in a couple, having one or more children (for a given level of real employment experience) apparently has no effect on women's wage rates.[23] Additional estimations show that this result is due to the fact that the number of hours of paid work is used to calculate the hourly wage rate (hence allowing for possible transitions to a part-time schedule for family reasons) and to the fact that we use real—rather than potential—employment experience, taking into account interruptions, in particular, periods of parental leave or periods of withdrawal from employment for family reasons[24].

Table 2: Estimation of the Log of hourly wage rate for women

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) IV
Married	-0.001	-0.024	-0.029*	-0.025	-0.137
	(0.020)	(0.017)	(0.017)	(0.017)	(0.098)
Inverse of Mills ratio	0.144	0.160	0.108	0.068	0.080
	(0.175)	(0.080)	(0.078)	(0.076)	(0.076)
Couple duration	/	/	/	-0.002	0.004
	/	/	/	(0.005)	(0.007)
Square of couple duration/ 100	/	/	/	0.001	-0.009
	/	/	/	(0.015)	(0.019)
R^2	0.05	0.32	0.39	0.39	0.38
Sample size	2,275	2,275	2,275	2,275	2,275

Source: Families and Employers Survey 2004-2005 (INED). * significant at the 10% level **significant at the 5% level ***significant at the 1% level. Other covariants (cf. Appendix Table A2): Specification 1 (demographic variables): age, number of children, rank of the union, immigrant, residence in the Paris region. Specifications 2 (human capital): + education, experience and square, disability. Specifications 3 to 5 (employment variables): + job tenure, managerial responsibilities, sector, size of firm (number of employees).

This analysis shows that, for women, there is no significant wage penalty for marriage (compared to living in an unmarried couple). Married women's hourly wage rates are equal than those of unmarried women given basic demographic controls (specification 1) and human capital controls (specification 2). A weak penalty is visible in specification 3 (with employment characteristics) but disappear once the duration of couples is controlled for (specification 4). As stated above, the hypothesis being tested is

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[23] Davies and Pierre (2005) obtain a similar result.
[24] These results are in line with those obtained by Meurs, Pailhé and Ponthieux (2010) on French data.

that, the longer a couple lasts, the more role specialization is accentuated, but the couple duration does not play. Note that the real experience (including interruption and part-time periods) has been already taken into account and may capture part of the women's specialization process. Women's wage penalty for marriage (as opposed to cohabitation) due to marital status itself appears to be weak. This non effect of being married holds once corrected for possible endogeneity of marriage - married women may have characteristics that explain both the probability of getting married and the probability of having low hourly wages (instrumental variable Specification 5).

3.2 Men's hourly wage

The results for men are different (Table 3 and A3 in Appendix). Like many studies on marriage wage premiums, we find a positive impact of marriage on men's wages in specifications 1, 2 and 3, pointing to a wage premium for marriage (as compared to cohabitation) of some 7 per cent if endogeneity is not taken into account. However, when we take into account the unobservable characteristics of married men compared to unmarried men living in couples, the coefficient associated with marriage is no longer significant. Hence, men's wage premium for marriage appears to be due to unobserved characteristics (that are also associated with higher wages). This leads to the idea that married men have traits that make them more attractive on the marriage market and on the labor market. Once this phenomenon is allowed for, the wage premium for marriage (compared to cohabitation) is no longer observed. Nonetheless, there might exist a male wage premium associated with living in a (married or unmarried) couple (something that has been demonstrated in the literature); this premium is not examined here since our sample is made up exclusively of individuals living in couples.

Table 3: Estimation of the Log of hourly wage rate for men

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) IV
Married	0.113***	0.075***	0.071***	0.064***	-0.101
	(0.018)	(0.016)	(0.015)	(0.015)	(0.090)
Couple duration	/	/	/	0.003	0.011*
				(0.005)	(0.006)
Square of couple duration/ 100	/	/	/	0.002	-0.015
				(0.016)	(0.018)
R2	0.12	0.36	0.41	0.41	0.39
Sample size	2,375	2,375	2,375	2,375	2,375

*Source: Families and Employers Survey 2004-2005 (INED). * significant at the 10% level **significant at the 5% level ***significant at the 1% level. Other variables (cf. Appendix Table A3): Specification 1 (demographic variables): age, number of children, rank of the union, immigrant, residence in the Paris region. Specifications 2 (human capital):+ education, experience and square, disability. Specifications 3 to 5 (employment variables): + job tenure, managerial responsibilities, sector, size of firm (number of employees)*

Another interesting result is that the coefficient associated with the duration of a couple is significantly positive (at the 10% level) in the last specification. Men's hourly wages appear to increase, in a linear fashion, with the number of years spent in a couple. This might be due to the effect of age and the life cycle. However, given that we control for real experience on the labor market, and that this effect is not significant for women, it appears that the positive impact (about 1% per year) of the duration of a couple should be due to an accentuation with passing years of the specialization of roles within couples that benefits only men.

3.3 The role of specialization

We showed that the couple's duration had an impact only on the wage rate of men. However, the couple duration is only a specialization proxy that needs to be better specified. We then use two indicators: the spouse's current employment status and the retrospective indicator of specialization process, computed as the relative proportion of inactive years since the beginning of the current couple (Table 4).

Table 4: The role of specialization on wages

	Women (6) OLS	Women (7) IV	Men (8) OLS	Men (9) IV
Married	-0.021	-0.094	0.064***	-0.131
	(0.017)	(0.096)	(0.016)	(0.084)
Couple duration	-0.000	0.004	0.004	0.013*
	(0.004)	(0.007)	(0.004)	(0.006)
Square of couple duration / 100	-0.003	-0.010	-0.002	-0.019
	(0.014)	(0.017)	(0.015)	(0.018)
Working partner	-0.046	-0.042	-0.031*	-0.039**
	(0.033)	(0.034)	(0.017)	(0.018)
Respondent specialization (%)	-0.264***	-0.245***	-0.166*	-0.156
	(0.099)	(0.104)	(0.100)	(0.104)
R^2	0.39	0.39	0.42	0.38
N	2,275	2,275	2,375	2,375

*Source: Families and Employers Survey 2004-2005 (INED). *: significant at the 10% level **: significant at the 5% level ***: significant at the 1% level. Other variables (cf. Appendix Table A4).*

Our analyses showed that couple duration and marital status did not affect the wage rates of women living in a couple. But the introduction of the specialization indicator during the couple shows that the couple duration was a very imperfect proxy of specialization. Indeed, the specifications 6 and 7 show significantly that the longer the woman was inactive during partnership (=greater specialization of the couple), the lower the wage rate is (around 2.5% when the women is active 10% of time since the

couple's formation). The fact that the man is currently working does not have a significant impact. The analysis of men also provides interesting results. First, the lack of effect of marital status and the only significant positive effect of the couple's duration remain in the new specifications. But unlike the analysis of women, the women's current activity status plays (because it measures a lesser specialization of the couple), negatively and significantly. It reduces wage hourly rate by 4%. On the other hand, the indicator of male inactivity has no effect (specifications 8 and 9), which is rather expected insofar as this indicator is rather invariant (the vast majority of men work throughout their marital life) and does not reflect a degree of specialization (the latter being mainly due to the spouses' activity behavior).

3.4 The gender wage gap between partners

After this analysis on individual wage by gender, we look at the wage gap between partners, a question not addressed by other studies. This investigation is made possible by our data that give wages for both members of couples (Table 5). This question is important. The justification of monetary compensation upon divorce, a right reserved to married couples as pointed out previously, is based on inequalities in standard of living, of which wages are a key determinant, and/or on a compensation of a higher investment in unpaid domestic work (and hence at least partially withdrawn from the labor market) which influences the wage level.

First of all, this analysis shows symmetrical effects of male and female characteristics on the wage gap, since women's earnings are lower than men's on average. Thus, for example, the higher men's level of education, the higher their hourly wages, and this widens the wage gap between two partners. However, since there is also a positive relationship between women's education and wages, the more educated women are, the smaller the gap between their wages and those of their male partners (a negative effect in this case).

Since the impact of marriage on individual wage differs for the two genders, it is interesting to observe its overall effect on the wage gap between partners. Our analysis shows that marriage has a positive and significant effect when instrumental variables are not used. The gap in partners' hourly wages seems to be larger for married couples than for unmarried couples, a finding we would expect if marriage creates incentives for specialization. The introduction of the duration of couples and the marital specialization[25] index reduces but does not cancel the positive effect of marriage on the wage gap. However, when

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[25] Computation of marital specialization for couples is a bit different than for individual. This indicator is computed as the ratio between the difference between the two partner's inactivity duration and couple's duration.

unobservable characteristics of married couples are taken into account, this effect is no longer significant. Marriage does not seem to enlarge wage inequalities once selection into marriage is taken into account. Unobserved characteristics that are correlated with marriage explain the higher gap found in the OLS estimations. Note that the specialization index remains highly significant and explains a large part of gender wage gap between partners. As years go by, role specialization probably becomes more pronounced, and hence the wage gap between two partners widens. However, there is no additional effect of the marital status.

Table 5: Estimation of the gap between man's hourly wage rate (log) and woman's hourly wage rate (log)

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(10) OLS	(11) IV
Married	0.070**	0.068**	0.067**	0.054**	0.048*	-0.029
	(0.028)	(0.027)	(0.026)	(0.027)	(0.027)	(0.123)
Couple duration				0.015*	0.013	0.017*
				(0.008)	(0.008)	(0.010)
Square of couple duration/100				-0.000	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
Couple specialization					0.410***	0.427***
					(0.118)	(0.128)
Constant	0.036	-0.378**	-0.454***	-0.387**	-0.325*	-0.300
	(0.079)	(0.147)	(0.162)	(0.171)	(0.168)	(0.219)
R2	0.03	0.13	0.21	0.21	0.22	0.22
N	1,601	1,601	1,601	1,601	1,601	1,601

*Source: Families and Employers Survey 2004-2005 (INED). *: $p<0.1$; **: $p<0.05$; ***: $p<0.01$. Other variables (cf. Appendix Table A4). Couple specialization = (woman's time outside employment - man's time outside employment)/couple duration*

Conclusion

Over the past several decades, we have observed the development of diverse forms of unions in France.. Marriage has given way more and more frequently to informal cohabitation or registered partnerships (PACS) and divorce has also become more common, resulting often in new unions that are not necessarily married. Given these developments, it is legitimate to ask if monetary compensation awarded when a couple breaks up ("spousal alimony") should be reserved exclusively to married couples, as it is the case in France so far. Given that such compensation is awarded in the event of inequality in partners' standards of living (which depends partly on differences in human capital), the reservation to married unions might be "justified" or "legitimate" if there are significant differences in wages depending on a couple's status (married, unmarried) or if inequality between partners is more pronounced within married couples.

We show that once controlled for selection into marriage, marital status does not affect men's hourly wage. The marriage premium we observe for men (+ 7%) without correcting for marriage endogeneity does not hold once this selection taken into account. We reach the same conclusion for the difference in wage rates within the couple. The positive effect of marriage, compared to cohabitation, on the gender wage gap within couple vanishes when selection is addressed. We also highlight that specialization (computed as time spent out of the labor force during the life of a couple) is a decisive factor to explain the gender wage gap. Regarding women's hourly wages, we show that this specialization has a significant and large impact but we do not find evidence of an additional marriage penalty for women.

At this stage, these results tend to confirm the idea that monetary compensation should eventually extended to unmarried couples. Whereas there could be legal reason (linked to the marriage contract) to reserve spouse alimony to married partners, there is no economic reason in terms of monetary inequality to maintain this private transfer to married couples. This conclusion is in agreement with certain positions in debates taking place outside France. In particular, in Quebec, a recent very interesting legal report favors making monetary compensation independent of the couples' status.[26]

Finally, male wage rates (but not female wage rates) and the gap between two partners' wage rates are significantly and positively linked to the couple's longevity and to the number of children they have. This finding implies that men experience a specialization effect that augments with the duration of the couple, as well as a responsibility effect. To prolong this study, it would be interesting to find out if the magnitude of these two effects varies according to marital status.

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Appendix

Table A1. Averages for characteristics of population subgroups

	Women				Men			
	Married		**Unmarried**		**Married**		**Unmarried**	
variable	mean	sd	mean	sd	mean	sd	mean	sd
Log of hourly wage	2.143	0.431	2.130	0.370	2.366	0.423	2.217	0.371
Couple duration	16.830	7.557	8.238	6.232	15.198	6.923	7.751	5.901
Age	38.676	6.711	32.897	7.482	39.029	6.438	33.947	7.204
1 child	0.214	0.411	0.306	0.461	0.213	0.410	0.255	0.436
2 children	0.472	0.499	0.232	0.423	0.447	0.497	0.239	0.427
3 and more	0.223	0.417	0.072	0.258	0.246	0.431	0.089	0.285
Second union	0.111	0.314	0.304	0.460	0.132	0.339	0.314	0.464
Non native	0.080	0.272	0.033	0.178	0.091	0.288	0.039	0.194
Paris and suburb	0.170	0.375	0.195	0.397	0.166	0.372	0.199	0.399
University 3rd cycle	0.086	0.281	0.094	0.292	0.096	0.295	0.097	0.297
University 2nd cycle	0.128	0.335	0.152	0.359	0.084	0.277	0.076	0.265
University 1st cycle	0.150	0.357	0.168	0.375	0.098	0.298	0.124	0.330
« Baccalauréat »	0.181	0.385	0.218	0.413	0.141	0.348	0.180	0.384
CAP diploma	0.247	0.431	0.230	0.421	0.382	0.486	0.323	0.468
Brevet diploma	0.066	0.249	0.051	0.219	0.067	0.251	0.081	0.273
Real experience	15.650	7.844	11.093	7.755	18.331	7.427	12.900	7.886
Square of real experience	306.414	256.348	183.097	216.281	391.160	265.840	228.513	233.968
Disabled	0.134	0.341	0.095	0.294	0.128	0.335	0.111	0.314
Tenure	10.084	8.184	6.513	6.729	11.194	8.389	6.960	6.810
Position with supervisory responsibility	0.166	0.372	0.174	0.380	0.387	0.487	0.308	0.462
Civil servant	0.331	0.471	0.288	0.453	0.230	0.421	0.214	0.410
Industrial & Construction sectors	0.158	0.365	0.151	0.358	0.398	0.490	0.395	0.489
Finance, services for companies sectors	0.139	0.346	0.146	0.353	0.200	0.400	0.184	0.388
Real estate, trade, services for household sectors	0.259	0.438	0.314	0.465	0.172	0.377	0.204	0.403
Education & health sectors	0.296	0.456	0.252	0.434	0.086	0.280	0.078	0.269
< 20 employees	0.367	0.482	0.359	0.480	0.278	0.448	0.280	0.449
20-49 employees	0.139	0.346	0.151	0.358	0.134	0.341	0.138	0.345
50-50 employees	0.213	0.409	0.201	0.401	0.237	0.425	0.258	0.438
200-499 employees	0.124	0.330	0.134	0.341	0.142	0.349	0.128	0.335
500-999 employees	0.059	0.235	0.060	0.237	0.081	0.273	0.076	0.265
Partner employed	0.940	0.237	0.924	0.265	0.742	0.438	0.772	0.420
Specialization (% time in inactivity from couple formation)	0.141	0.206	0.052	0.129	0.009	0.051	0.011	0.078
Religion important	0.288	0.453	0.140	0.347	0.220	0.414	0.092	0.289
Meeting during a family event	0.044	0.204	0.015	0.121	0.050	0.217	0.023	0.150
N	**1604**		**671**		**1635**		**740**	

Source: Families and Employers Survey 2004-2005 (INED).

Table A2. Estimation of women's hourly wage rate (Log)

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) IV
Married	-0.001	-0.024	-0.029*	-0.025	-0.137
	(0.020)	(0.017)	(0.017)	(0.017)	(0.098)
Age	0.009***	-0.007*	-0.004	-0.001	-0.002
	(0.001)	(0.004)	(0.003)	(0.004)	(0.004)
1 child	-0.044	-0.010	-0.016	-0.008	0.006
	(0.034)	(0.026)	(0.025)	(0.024)	(0.027)
2 children	-0.066	-0.020	-0.026	-0.017	0.007
	(0.044)	(0.028)	(0.027)	(0.026)	(0.035)
3 children and more	-0.159*	-0.011	-0.028	-0.014	0.010
	(0.085)	(0.034)	(0.033)	(0.033)	(0.041)
Second union	0.041*	0.039*	0.045**	0.037	0.023
	(0.025)	(0.021)	(0.020)	(0.023)	(0.027)
Non native	-0.115	0.065	0.094**	0.097**	0.109**
	(0.083)	(0.046)	(0.044)	(0.044)	(0.047)
Paris and suburb	0.199***	0.085***	0.079***	0.080***	0.075***
	(0.027)	(0.022)	(0.021)	(0.021)	(0.022)
Inverse Mills Ratio	0.144	0.160**	0.108	0.068	0.080
	(0.175)	(0.080)	(0.078)	(0.076)	(0.076)
University, Master		0.788***	0.629***	0.612***	0.627***
		(0.045)	(0.045)	(0.045)	(0.045)
University, 2^d cycle		0.620***	0.467***	0.454***	0.463***
		(0.040)	(0.039)	(0.040)	(0.040)
University, 1st cycle		0.446***	0.345***	0.335***	0.345***
		(0.034)	(0.034)	(0.034)	(0.034)
õBaccalauréatö		0.280***	0.217***	0.210***	0.214***
		(0.032)	(0.031)	(0.031)	(0.031)
CAP diploma		0.129***	0.101***	0.098***	0.098***
		(0.028)	(0.028)	(0.028)	(0.028)
Brevet diploma		0.059*	0.055*	0.054*	0.057*
		(0.034)	(0.032)	(0.032)	(0.033)
Real experience		0.038***	0.028***	0.024***	0.024***
		(0.007)	(0.007)	(0.008)	(0.008)
Square of real experience		-0.000***	-0.000***	-0.000***	-0.000**
		(0.000)	(0.000)	(0.000)	(0.000)
Disabled		-0.054**	-0.057**	-0.057**	-0.051**
		(0.023)	(0.023)	(0.023)	(0.024)
Tenure			0.006***	0.006***	0.006***
			(0.001)	(0.001)	(0.001)
Supervisor			0.136***	0.136***	0.136***
			(0.019)	(0.019)	(0.020)
Civil servant			0.092***	0.092***	0.091***
			(0.024)	(0.024)	(0.024)
Industrial sector			0.043	0.044	0.042
			(0.033)	(0.033)	(0.033)
Finance, firm services sectors			0.109***	0.109***	0.112***
			(0.033)	(0.033)	(0.033)
Real estate, trade, services sectors			-0.037	-0.036	-0.039
			(0.032)	(0.032)	(0.032)
Education, health sectors			0.059***	0.059**	0.059**

			(0.023)	(0.023)	(0.023)
< 20 employees			-0.118***	-0.117***	-0.121***
			(0.028)	(0.028)	(0.028)
20-49 employees			-0.050	-0.049	-0.058*
			(0.031)	(0.031)	(0.033)
50-100 employees			-0.033	-0.032	-0.038
			(0.029)	(0.029)	(0.029)
200-499 employees			-0.078***	-0.078***	-0.082***
			(0.030)	(0.030)	(0.031)
500-999 employees			-0.034	-0.033	-0.035
			(0.035)	(0.035)	(0.036)
Couple duration				-0.002	0.004
				(0.005)	(0.007)
Square of couple duration / 100				0.001	-0.009
				(0.015)	(0.019)
Constant	1.800***	1.645***	1.686***	1.648***	1.675***
	(0.048)	(0.069)	(0.080)	(0.091)	(0.092)
R^2	**0.05**	**0.32**	**0.39**	**0.39**	**0.38**
N	**2,275**	**2,275**	**2,275**	**2,275**	**2,275**

Source: Families and Employers Survey 2004-2005 (INED). * significant at 10% level **significant at 5% level *** significant at 1% level.

Table A3. Estimation of men's hourly wage rate (Log)

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) IV
Married	0.113***	0.075***	0.071***	0.065***	-0.108
	(0.018)	(0.016)	(0.015)	(0.015)	(0.090)
Age	0.010***	0.006	0.006	0.004	0.003
	(0.001)	(0.005)	(0.005)	(0.005)	(0.005)
1 child	0.004	0.032	0.034*	0.029	0.059**
	(0.023)	(0.021)	(0.020)	(0.020)	(0.026)
2 children	0.029	0.070***	0.065***	0.058***	0.096***
	(0.023)	(0.021)	(0.020)	(0.021)	(0.030)
3 children and more	-0.001	0.050**	0.045**	0.035	0.079**
	(0.028)	(0.024)	(0.023)	(0.023)	(0.032)
Second union	0.002	0.012	0.019	0.035*	0.013
	(0.021)	(0.019)	(0.018)	(0.021)	(0.023)
Non native	-0.196***	-0.104***	-0.074**	-0.070**	-0.042
	(0.037)	(0.032)	(0.030)	(0.030)	(0.034)
Paris and suburb	0.279***	0.135***	0.126***	0.126***	0.116***
	(0.025)	(0.020)	(0.020)	(0.020)	(0.021)
Master		0.794***	0.689***	0.689***	0.716***
		(0.039)	(0.040)	(0.040)	(0.042)
University, 2^d cycle		0.487***	0.413***	0.412***	0.438***
		(0.041)	(0.041)	(0.040)	(0.042)
University, 1st cycle		0.388***	0.328***	0.328***	0.343***
		(0.029)	(0.029)	(0.029)	(0.030)
õBaccalauréatö		0.283***	0.236***	0.236***	0.248***
		(0.025)	(0.025)	(0.025)	(0.026)
CAP diploma		0.101***	0.082***	0.082***	0.092***
		(0.019)	(0.018)	(0.018)	(0.020)
Brevet diploma		0.170***	0.139***	0.138***	0.135***
		(0.028)	(0.027)	(0.027)	(0.028)
Real experience		0.023***	0.019***	0.018***	0.019***
		(0.006)	(0.006)	(0.006)	(0.006)
Square of real experience		-0.000***	-0.000***	-0.000***	-0.000***
		(0.000)	(0.000)	(0.000)	(0.000)
Disabled		-0.035*	-0.044**	-0.045**	-0.041**
		(0.019)	(0.018)	(0.018)	(0.019)
Tenure			0.002**	0.002**	0.002**
			(0.001)	(0.001)	(0.001)
Supervisor			0.131***	0.130***	0.134***
			(0.014)	(0.014)	(0.014)
Civil servant			0.060	0.061*	0.058
			(0.037)	(0.037)	(0.037)
Industrial sector			0.070*	0.069*	0.060
			(0.041)	(0.040)	(0.041)
Finance, firm services sectors			0.112***	0.112***	0.109***
			(0.040)	(0.040)	(0.040)
Real estate, trade, services sectors			0.013	0.012	0.003
			(0.045)	(0.045)	(0.045)
Education, health sectors			0.052	0.050	0.045
			(0.036)	(0.036)	(0.036)
< 20 employees			-0.143***	-0.142***	-0.137***
			(0.024)	(0.024)	(0.025)
20-49 employees			-0.078***	-0.079***	-0.080***

			(0.026)	(0.026)	(0.026)
50-100 employees			-0.051**	-0.052**	-0.057**
			(0.022)	(0.022)	(0.023)
200-499 employees			-0.025	-0.026	-0.025
			(0.027)	(0.027)	(0.027)
500-999 employees			-0.037	-0.038	-0.035
			(0.027)	(0.027)	(0.028)
Couple duration				0.003	0.012**
				(0.005)	(0.006)
Square of couple duration / 100				-0.001	-0.020
				(0.015)	(0.017)
Constant	1.822***	1.510***	1.559***	1.584***	1.623***
	(0.043)	(0.102)	(0.117)	(0.117)	(0.114)
R^2	0.13	0.37	0.42	0.42	0.39
N	2,375	2,375	2,375	2,375	2,375

Source: Families and Employers Survey 2004-2005 (INED). * significant at 10% level **significant at 5% level, *** significant at 1% level.

Table A4. Estimation of men and women's hourly wage rate (Log), specialization indicators

	Women		Men	
	(6) OLS	**(7) IV**	**(8) OLS**	**(9) IV**
Married	-0.021	-0.094	0.064***	-0.136
	(0.017)	(0.096)	(0.016)	(0.093)
Age	0.004	0.004	0.005	0.004
	(0.003)	(0.003)	(0.005)	(0.005)
1 child	-0.001	0.009	0.027	0.061**
	(0.022)	(0.026)	(0.020)	(0.027)
2 children	0.008	0.023	0.054**	0.098***
	(0.025)	(0.031)	(0.021)	(0.031)
3 children and more	0.016	0.031	0.028	0.077**
	(0.031)	(0.037)	(0.024)	(0.033)
Second union	0.037	0.028	0.036*	0.012
	(0.023)	(0.026)	(0.021)	(0.023)
Non native	0.091**	0.100**	-0.069**	-0.037
	(0.043)	(0.046)	(0.030)	(0.034)
Paris and suburb	0.075***	0.072***	0.127***	0.115***
	(0.021)	(0.021)	(0.020)	(0.021)
Master	0.576***	0.586***	0.686***	0.718***
	(0.040)	(0.042)	(0.041)	(0.044)
University, 2^d cycle	0.428***	0.433***	0.411***	0.442***
	(0.036)	(0.037)	(0.041)	(0.043)
University, 1st cycle	0.317***	0.324***	0.329***	0.348***
	(0.030)	(0.032)	(0.029)	(0.031)
õBaccalauréatö	0.199***	0.202***	0.237***	0.251***
	(0.029)	(0.030)	(0.025)	(0.027)
CAP diploma	0.100***	0.099***	0.084***	0.097***
	(0.027)	(0.027)	(0.019)	(0.021)
Brevet diploma	0.053	0.055*	0.137***	0.135***
	(0.032)	(0.033)	(0.027)	(0.029)
Real experience	0.018***	0.018***	0.018***	0.019***
	(0.005)	(0.005)	(0.006)	(0.006)
Square of real experience	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Disabled	-0.057**	-0.053**	-0.045**	-0.041**
	(0.023)	(0.024)	(0.018)	(0.020)
Tenure	0.006***	0.006***	0.002**	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)
Supervisor	0.134***	0.134***	0.130***	0.135***
	(0.019)	(0.019)	(0.014)	(0.015)
Civil servant	0.090***	0.089***	0.061*	0.058
	(0.023)	(0.024)	(0.037)	(0.037)
Industrial sector	0.043	0.042	0.068*	0.057
	(0.032)	(0.032)	(0.040)	(0.041)
Finance, firm services sectors	0.110***	0.112***	0.111***	0.107***
	(0.032)	(0.033)	(0.039)	(0.040)
Real estate, trade, services sectors	-0.035	-0.037	0.012	0.001
	(0.032)	(0.032)	(0.045)	(0.045)
Education, health sectors	0.058**	0.058**	0.052	0.047
	(0.023)	(0.023)	(0.036)	(0.036)

< 20 employees	-0.117***	-0.119***	-0.144***	-0.138***
	(0.028)	(0.028)	(0.024)	(0.025)
20-49 employees	-0.047	-0.053	-0.079***	-0.081***
	(0.031)	(0.033)	(0.026)	(0.026)
50-100 employees	-0.030	-0.034	-0.053**	-0.059***
	(0.029)	(0.029)	(0.022)	(0.023)
200-499 employees	-0.076**	-0.079***	-0.025	-0.024
	(0.030)	(0.030)	(0.026)	(0.027)
500-999 employees	-0.028	-0.030	-0.040	-0.037
	(0.035)	(0.035)	(0.027)	(0.028)
Couple duration	-0.000	0.004	0.004	0.014**
	(0.004)	(0.007)	(0.004)	(0.006)
Square of couple duration / 100	-0.003	-0.010	-0.002	-0.024
	(0.014)	(0.017)	(0.015)	(0.017)
Working partner	-0.046	-0.042	-0.031*	-0.037**
	(0.033)	(0.034)	(0.017)	(0.018)
Inverse Mills Ratio	0.112	0.109		
	(0.082)	(0.083)		
Specialization	-0.264***	-0.245**	-0.166*	-0.162
	(0.099)	(0.104)	(0.100)	(0.105)
Constant	1.606***	1.622***	1.598***	1.648***
	(0.090)	(0.091)	(0.119)	(0.117)
R^2	**0.39**	**0.39**	**0.42**	**0.39**
N	**2,275**	**2,275**	**2,375**	**2,375**

Source: Families and Employers Survey 2004-2005 (INED). * significant at 10% level **significant at 5% level, *** significant at 1% level.

Table A5. Regressions on the difference (Log) between men's and women's hourly wage rates within couples

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(10) OLS	(11) IV
Married	0.070**	0.068**	0.067**	0.054**	0.048*	-0.029
	(0.028)	(0.027)	(0.026)	(0.027)	(0.027)	(0.123)
M Age	0.014***	0.011*	0.012**	0.011*	0.014**	0.013*
	(0.004)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
F Age	-0.013***	0.010*	0.007	0.004	-0.002	-0.003
	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)	(0.005)
M Second union	-0.057*	-0.048	-0.039	-0.015	-0.015	-0.022
	(0.033)	(0.032)	(0.031)	(0.033)	(0.033)	(0.033)
F Second union	0.093***	0.075**	0.061*	0.085**	0.084**	0.078**
	(0.035)	(0.034)	(0.033)	(0.035)	(0.035)	(0.039)
M 1 child	0.042	0.044	0.046	0.027	0.030	0.041
	(0.076)	(0.070)	(0.068)	(0.069)	(0.068)	(0.065)
M 2 children	0.094	0.076	0.044	0.021	0.010	0.020
	(0.078)	(0.074)	(0.072)	(0.073)	(0.072)	(0.080)
M 3 children and more	0.090	0.045	0.033	0.017	0.009	0.026
	(0.091)	(0.087)	(0.084)	(0.085)	(0.084)	(0.083)
F 1 child	0.022	0.002	0.022	0.021	0.014	0.015
	(0.075)	(0.071)	(0.069)	(0.069)	(0.069)	(0.065)
F 2 children	-0.011	-0.039	0.010	0.004	-0.012	-0.007
	(0.084)	(0.076)	(0.074)	(0.074)	(0.074)	(0.080)
F 3 children and more	0.076	-0.022	0.020	0.003	-0.017	-0.019
	(0.133)	(0.091)	(0.088)	(0.088)	(0.088)	(0.085)
M Non native	0.083	0.040	0.052	0.054	0.051	0.061
	(0.055)	(0.052)	(0.051)	(0.051)	(0.051)	(0.062)
F Non native	-0.016	-0.075	-0.125**	-0.128**	-0.113**	-0.105
	(0.085)	(0.057)	(0.055)	(0.055)	(0.055)	(0.070)
Paris and suburb	0.064**	0.069**	0.053*	0.053*	0.062**	0.055
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.035)
Inverse Mills Ratio	-0.193	-0.137	-0.091	-0.056	-0.221**	-0.224**
	(0.234)	(0.097)	(0.094)	(0.093)	(0.105)	(0.101)
M University 3rd cycle		0.524***	0.445***	0.438***	0.422***	0.427***
		(0.067)	(0.066)	(0.066)	(0.065)	(0.075)
M University 2nd cycle		0.257***	0.198***	0.188***	0.181***	0.189***
		(0.061)	(0.060)	(0.060)	(0.060)	(0.072)
M University 1st cycle		0.176***	0.132**	0.126**	0.119**	0.122**
		(0.055)	(0.054)	(0.054)	(0.053)	(0.057)
M õBaccalaureatö		0.188***	0.155***	0.149***	0.140***	0.141***
		(0.049)	(0.048)	(0.048)	(0.047)	(0.047)
M CAP diploma		0.050	0.042	0.037	0.030	0.032
		(0.041)	(0.039)	(0.039)	(0.039)	(0.038)
M Brevet diploma		0.122**	0.085	0.076	0.067	0.063
		(0.056)	(0.054)	(0.054)	(0.054)	(0.050)
F University 3rd cycle		-0.553***	-0.412***	-0.392***	-0.356***	-0.344***
		(0.072)	(0.071)	(0.071)	(0.065)	(0.069)
F University 2nd cycle		-0.366***	-0.225***	-0.206***	-0.182***	-0.173***
		(0.060)	(0.061)	(0.061)	(0.057)	(0.062)
F University 1st cycle		-0.249***	-0.168***	-0.154***	-0.135***	-0.127**
		(0.054)	(0.054)	(0.054)	(0.051)	(0.051)
F õBaccalaureatö		-0.157***	-0.110**	-0.100**	-0.086*	-0.081*
		(0.049)	(0.048)	(0.048)	(0.046)	(0.046)
F CAP diploma		-0.037	-0.021	-0.016	-0.019	-0.017
		(0.045)	(0.044)	(0.044)	(0.043)	(0.043)
F Brevet diploma		-0.031	-0.036	-0.032	-0.020	-0.015
		(0.060)	(0.058)	(0.058)	(0.057)	(0.054)
M Real experience		0.025***	0.020**	0.015	0.013	0.014
		(0.009)	(0.009)	(0.010)	(0.009)	(0.010)
M Square of real experience		-0.001***	-0.001***	-0.001**	-0.001**	-0.001**

	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
F Real experience	-0.045***	-0.034***	-0.032***	-0.027***	-0.027***
	(0.011)	(0.011)	(0.011)	(0.009)	(0.009)
F Square of real experience	0.001**	0.001**	0.001**	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
M Disabled	-0.019	-0.039	-0.038	-0.036	-0.034
	(0.035)	(0.034)	(0.034)	(0.034)	(0.031)
F Disabled	0.081**	0.080**	0.079**	0.080**	0.086**
	(0.035)	(0.034)	(0.034)	(0.034)	(0.040)
M Tenure		0.003	0.003	0.003	0.003
		(0.002)	(0.002)	(0.002)	(0.002)
F Tenure		-0.006***	-0.006***	-0.006***	-0.006**
		(0.002)	(0.002)	(0.002)	(0.002)
M Supervisor		0.117***	0.116***	0.115***	0.115***
		(0.023)	(0.023)	(0.023)	(0.023)
F Supervisor		-0.122***	-0.121***	-0.118***	-0.117***
		(0.030)	(0.030)	(0.030)	(0.035)
M Civil servant		0.106**	0.111**	0.111**	0.110**
		(0.045)	(0.045)	(0.045)	(0.050)
F Civil servant		-0.096***	-0.099***	-0.097***	-0.100**
		(0.036)	(0.036)	(0.036)	(0.040)
M Industrial & Construction sectors		0.095*	0.096*	0.094*	0.091
		(0.053)	(0.053)	(0.053)	(0.056)
M Finance, services for companies sectors		0.124**	0.123**	0.123**	0.120**
		(0.053)	(0.053)	(0.053)	(0.055)
M Real estate, trade, services for household sectors		0.055	0.054	0.052	0.045
		(0.056)	(0.056)	(0.055)	(0.065)
M Education & health sector		0.112**	0.109**	0.114**	0.113**
		(0.047)	(0.047)	(0.047)	(0.050)
F Industrial & Construction sectors		-0.077	-0.080	-0.081	-0.083
		(0.050)	(0.050)	(0.049)	(0.052)
F Finance, services for companies sectors		-0.092*	-0.092*	-0.095*	-0.094*
		(0.049)	(0.049)	(0.049)	(0.054)
F Real estate, trade, services for household sectors		0.046	0.040	0.034	0.030
		(0.046)	(0.046)	(0.046)	(0.047)
F Education & health sectors		-0.091**	-0.090**	-0.089**	-0.090***
		(0.035)	(0.035)	(0.035)	(0.034)
M < 20 employees		-0.080**	-0.077**	-0.079**	-0.076*
		(0.038)	(0.038)	(0.038)	(0.040)
M 20-49 employees		-0.033	-0.035	-0.032	-0.034
		(0.043)	(0.043)	(0.043)	(0.045)
M 50-50 employees		-0.058	-0.060	-0.063*	-0.065
		(0.038)	(0.038)	(0.038)	(0.041)
M 200-499 employees		0.008	0.007	0.004	0.004
		(0.041)	(0.041)	(0.041)	(0.044)
M 500-999 employees		-0.026	-0.027	-0.032	-0.032
		(0.048)	(0.048)	(0.048)	(0.048)
F < 20 employees		0.114***	0.115***	0.118***	0.118***
		(0.040)	(0.040)	(0.040)	(0.043)
F 20-49 employees		0.046	0.047	0.049	0.041
		(0.045)	(0.045)	(0.045)	(0.049)
F 50-100 employees		0.003	0.002	0.003	-0.001
		(0.041)	(0.041)	(0.041)	(0.044)
F 200-499 employees		0.080*	0.082*	0.085*	0.083*
		(0.045)	(0.045)	(0.045)	(0.047)
F 500-999 employees		0.018	0.021	0.016	0.016
		(0.053)	(0.053)	(0.053)	(0.045)

Couple duration				0.015*	0.013	0.017*
				(0.008)	(0.008)	(0.010)
Square of couple duration / 100				-0.000	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
Specialization					0.410***	0.427***
					(0.118)	(0.128)
Constant	0.036	-0.378**	-0.454***	-0.387**	-0.325*	-0.300
	(0.079)	(0.147)	(0.162)	(0.171)	(0.168)	(0.219)
R^2	**0.03**	**0.13**	**0.21**	**0.21**	**0.22**	**0.22**
N	**1,601**	**1,601**	**1,601**	**1,601**	**1,601**	**1,601**

Source: Families and Employers Survey 2004-2005 (INED). * significant at 10% level **significant at 5% level, *** significant at 1% level.