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### **POUR CITER CETTE VERSION / TO CITE THIS VERSION**

Marion Goussé et Marion Leturcq, 2018, "More or less unmarried. The impact of legal settings of cohabitation on labor market outcomes". Working Paper - CRREP, n°2018-08, Québec : CRREP.

**Disponible sur / Available at:**

<http://hdl.handle.net/20.500.12204/AWP-x6kVT8lN2zFb8gyT>

2018-08

# **More or Less Unmarried. The Impact of Legal Settings of Cohabitation on Labor Market Outcomes**

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Avril / April 2018

**Centre de recherche sur les risques  
les enjeux économiques et les politiques publiques**

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# Abstract

We show how the legal settings of unmarried cohabitation affect partners' labor market outcomes. In Canada, cohabiting couples are automatically entitled to certain rights after a few years of cohabitation. In some provinces, ex-cohabiting partners can claim for alimony upon separation, in others they can claim for an equal split of all the assets acquired during the relationship. As legal settings of unmarried cohabitation differ across time, provinces and duration of the relationship, it provides a unique framework to analyze how different levels of commitment affect couples' decision regarding labor market supply. Using cross-provinces variation in the legal settings and minimum duration for eligibility, we show that unmarried cohabiting men increase their labor force supply when they become eligible to a more committed cohabitation regime, whereas women decrease theirs. Higher levels of commitment induce larger effects on labor market outcomes.

Keywords: unmarried cohabitation, labor supply, alimony rights, common law marriage, Canada.

JEL classification: J12, J22, K36.

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We thank Carole Bonnet, Laurent Gobillon, Dominique Meurs and Anne Solaz for helpful discussions and valuable comments. We acknowledge the DRIP at INED for funding. Marion Goussée gratefully acknowledges financial support from FRQ-SC. Access to the data was granted by the Social Sciences and Humanities Research Council of Canada (SSHRC).

## 1. INTRODUCTION

Whereas marriage is still the dominant framework to raise a family, the proportion of couples likely to cohabit outside marriage rather than marry has increased in many countries (Bumpass and Lu, 2000; Le Bourdais and Lapierre-Adamcyk, 2004). Cohabiting union is increasingly seen as an acceptable context for childbearing and raising a family (Smock and Manning, 2004; Kerr, Moyser, and Beaujot, 2006; Kiernan, 2004). As cohabiting unions are being more unstable than marriage, a growing part of the population is experiencing a union dissolution, including children (Musick and Micheltore, 2015; Bohnert, 2012). Disrupting unions is associated to worse outcomes for children later in life<sup>1</sup>, and cohabitation has been found to be correlated to a larger drop in income and higher risk of poverty at separation than for previously married couples (Avellar and Smock, 2005; Tach and Eads, 2015; Le Bourdais, Jeon, Clark, and Lapierre-Adamcyk, 2016). For these reasons, the legal rights and responsibilities of cohabiting partners have received a growing interest from policy makers as the lack of benefits and protections of unmarried couples made the weakest partner vulnerable if the relationship ends.

In many jurisdictions, policy makers have enhanced the commitment related to unmarried cohabitation, but the evolution took several directions across countries, states or provinces. While some jurisdictions allow unmarried cohabiting partners to claim for spousal alimony upon separation, others entitle unmarried cohabiting partners the exact same rights as married partners, such as equal split of matrimonial property at separation. The debate is mainly focused on granting benefits and protection to cohabiting couples in order to improve living conditions of women and children at separation, but it often neglects the potential impact of the reforms on individual behavior within couples, in particular their labor market behavior. However, changes in labor market behavior could offset the protection induced by the new cohabitation regime.

In this paper, we estimate the effect of the eligibility to rights granted to unmarried cohabiting partners on their labor market outcomes. A first objective of the paper is to assess how different levels of protections induce different behavioral responses of unmarried

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<sup>1</sup>See Smock and Manning (2004) for a survey on this question.

cohabiting couples: do cohabiting couples react similarly when they are granted the exact same legal protection as married couples and when they are only granted the rights to claim for alimony? As protecting women and children is often advocated as the main reason for reforming the legal status of unmarried cohabiting couples, a second objective of the paper is to evaluate specifically the impact of extending protections inherent in marriage to unmarried cohabiting partners with children.

From this perspective, the Canadian case is particularly interesting. After a certain length of time cohabiting in a marriage-like relationship, cohabiting partners are entitled some legal recognition<sup>2</sup>. In three Canadian provinces, cohabiting couples have exactly the same rights as married couples if they have lived together in a marriage-like relationship for more than two or three years whether they had signed an agreement or not (British-Columbia since 2013, Manitoba since 2002 and Saskatchewan since 1997)<sup>3</sup>. Other provinces progressively entitled cohabiting partners the right to claim for alimony grants after a certain duration of the relationship but they did not make them equal to married partners<sup>4</sup>. The minimum duration required to become eligible is different from one province to another and has evolved over time. Besides, this duration is reduced in some provinces if the cohabiting couple has a child. Using variations in the minimum duration required for eligibility to cohabitation rights, variations in the different levels of protection and variations in the year in which these reforms took place, we estimate the impact of eligibility on labor market outcomes of cohabiting men and women, such as the number of hours worked, the number of worked weeks and inactive weeks, the wages and labor earnings, and the propensity to have discontinuous schedule of jobs or to change the main job. Our estimation is based on

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<sup>2</sup>In the rest of the text, we will refer to unmarried cohabitation as "cohabitation" or "unmarried cohabitation" indifferently. When couples are granting new rights, we will refer to a different regime of cohabitation when both the alimony regime and the egalitarian regime are taken into account, or to "common-law marriage". We will refer to partners as "cohabiting partners" or "common-law partners".

<sup>3</sup>Law acts in British Columbia (Family Law Act, S.B.C. 2011, c. 25, art. 90 and 91), in Saskatchewan (L.S. 1997, c. F-6.3, art. 5) and in Manitoba (C.P.L.M., c. H80, art. 4.).

<sup>4</sup>For instance, the province of Nova-Scotia has denied the rights to ex-cohabitants to claim for a part of the matrimonial house after separation (Walsh v. Bona, N-S, 2000).

data from the Survey on Labor Income Dynamic, a household survey panel representative of the Canadian population over the years 1993-2010.

It is widely acknowledged in the literature that married people are responsive to changing outside factors, such as changes in the legal structure of couples, which can lead to a redistribution of income and bargaining power between the spouses, and can in turn affect labor outcomes (Lundberg and Pollak, 1996; Chiappori, Fortin, and Lacroix, 2002). The literature on collective models predicts that family law reforms which favor low-wage earners within the household (mostly women) in case of separation increase their bargaining power during the relationship, which should increase their household resource's share. Then, assuming that leisure is a normal good, women labor supply should decrease. On the other hand, Stevenson (2007) states that marriage enhances investments made by partners in household-specific capital. Therefore, by making divorce easier, unilateral divorce should deter investments in household-specific capital, such as specialization within the household. The introduction of unilateral divorce in the United States has been found to increase the labor supply of married women, especially when the property regime implies separate property (Gray, 1998; Stevenson, 2007). In contrast, changing marital property regime toward a regime introducing more equal split of assets impacts negatively the labor force supply of women (Kapan, 2008; Brassiolo, 2010; Voena, 2015). Only a few papers have studied the impact of the legal setting of cohabitation on partners' behavior. However, as the commitment induced by unmarried cohabitation is perceived as weaker, it is not clear that unmarried cohabitants would react to changing outside factors the same way married partners do. Rangel (2006) analyzes the effect of the introduction of alimony laws to cohabiting couples in Brazil and finds that it decreases the labor supply of women in cohabitation and increases the school enrollment rate of girls as evidence of increasing bargaining power of women. The closest paper to our work is the paper of Chiappori, Iyigun, Lafortune, and Weiss (2016), studying a subset of the reforms we analyze in this paper.<sup>5</sup> They first state that being granted alimony rights should have a positive impact on

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<sup>5</sup>They use a retrospective database where individuals are surveyed in 2001 and answer questions about their past labor market activities. Their data does not cover several reforms which have been implemented after 2001, especially the reforms which granted cohabiting couples the same rights as married couples. With

cohabiting women's bargaining power only for those who are in an eligible existing union<sup>6</sup> at the moment of the reform. Couples not eligible yet, may bargain according to the new rules to find a new balance before becoming eligible which would lead to a decrease in women bargaining power and consequently to an increase in women labor supply<sup>7</sup>. They provide empirical evidence supporting their theoretical analysis on couples formed before and after reforms in Canada. They show that couples formed before and directly eligible have reactions opposite to those of couples formed after the reforms or not yet eligible at the moment of the reform. In contrast to their analysis, we do not focus on the effect of the reforms, but we focus on the effect of eligibility to the rights granted to cohabiting couples. That is we are interested in the behavior of cohabiting couples at the moment when they become eligible and not at the moment when the reform is passed. This effect, anticipated or not, has to be an increase in the bargaining power of the low-wage earner who is now able to threaten his partner to leave the match and claim for alimony.

Our contribution is two-fold. First, we extend our understanding of the impact of changing the legal entitlements for unmarried cohabitants as we estimate the impact of being eligible to different levels of commitment induced by different legal status of unmarried cohabitants on labor market outcomes for men and women<sup>8</sup>. We differentiate the impact on couples eligible to the law because they benefit from a reduced required duration for having a common child, from the impact on couples whose relationship duration is higher than the standard minimum required. This is the first paper that investigates those different aspects within the same framework, which allows us to compare the impact of eligibility on different groups of couples and how different cohabitation rights affect those groups. We believe our panel data covering the 1993-2010 period, we observe more recent reforms and we observe directly labor market outcomes of individuals at the moment of the survey. However, we do not observe couples' behavior during reforms passed before 1993.

<sup>6</sup>Eligible because their relationship duration has exceeded the minimum required

<sup>7</sup>The intuition is that when bargaining at the moment of the reform, the high-wage partner now anticipates the new rules at separation and that he may have to pay some alimony to his partner. To maintain the relationship, he will claim an immediate higher share of the surplus or he will leave the match.

<sup>8</sup>The data used by Chiappori, Iyigun, Lafortune, and Weiss (2016) does not cover several reforms which have been implemented after 2001, especially the reforms which granted cohabiting couples the same rights as married couples.

our results bring new insights into the reaction of couples' behavior to cohabitation rights reforms. Second, we identify the impact of granting alimony rights to cohabiting couples on recent data (1993-2010), after most of the reforms were passed in different provinces. Our identification mostly relies on cross-provincial variation in the minimal required duration of the relationship to be granted alimony rights. Therefore, we identify the impact of being granted alimony rights for couples formed *after* the reform was passed, which is not the effect of the reform but the effect of becoming eligible to the alimony rights. This effect may have been anticipated by the couple when they formed the match but it takes place at the moment where the couple becomes eligible. As there is no way to commit to a particular intra-household allocation of resource, a change in the environment may trigger a renegotiation of the sharing rule. When the couple becomes eligible, the renegotiation takes separation costs into account which should increase the bargaining power of the secondary earner and decrease his labor supply<sup>9</sup>. Finally, we investigate the impact in a context of high prevalence of cohabitation. Milan (2011) indicates that among couples, the share of common-law partners has increased from 6.3% in 1981 to 19.9% in 2011. As cohabitation becomes more and more prevalent, cohabiting individuals and married individuals become more alike with respect to their socio-economic composition, to the stability of the relationship and to some other behavioral patterns such as fertility, labor market participation or domestic work (Le Bourdais and Lapierre-Adamcyk, 2004; Kerr, Moyser, and Beaujot, 2006; Bohnert, 2012). In that sense, we extend our understanding of unmarried cohabitation by showing that cohabiting couples may also behave in the same way as married couples, which means that they also have become more similar in their unobserved characteristics.

The impact of granting alimony rights to unmarried cohabitant couples is likely to differ across educational groups. On the one hand, women with low education and low earnings are more likely to be dependent on alimony in the event of the relationship dissolution, and are more likely to be favored by court decisions. Consequently, they are more likely to be responsive to changes in the alimony regulation. Rangel (2006) find stronger effects for low educated women. On the other hand, high educated and high earning couples

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<sup>9</sup>Our estimates are then comparable to the ones found by Chiappori, Iyigun, Lafortune, and Weiss (2016) on couples formed before the reform and who are eligible when the reform passes.



are more likely to accumulate assets during the relationship and may be more responsive than low-earning couples to regulation changing property rights at separation. Lafortune and Low (2017) argue that having assets increases the value of marriage in a world where marriage and cohabitation have become relatively similar except for the way assets are split at separation. Chiappori, Iyigun, Lafortune, and Weiss (2016) find that the effect of changes in cohabitation are actually higher among college educated individuals than among others. We separately estimate the effects on men and women on three distinct groups of education. The low educated sub-sample is composed of individuals who completed or not secondary education but did not completed any post-secondary studies, the medium educated sub-sample is composed of individuals who completed post-secondary vocational degree and the high educated sub-sample is composed of individuals who received a university or college degree (bachelor, master or PhD degrees).

Our results show that enhancing the commitment related to cohabitation has significant effects on the labor supply of individuals. We find large differences between men and women in several dimensions. They have opposite behavior, as expected, but they also respond differently to different treatments. Men tend to increase their labor force supply when they become eligible because of the shortened required relationship duration when having a child but not when they are childless. On the contrary women tend to decrease their labor force supply when they become eligible because of the duration of their relationship but not when they become eligible because they have a child. Besides, we find that low- and highly-educated women only slightly decrease their labor force supply when they become eligible to a different cohabitation regime, but medium educated women largely decrease their labor force supply. For men, whereas low-educated men only decrease the number of inactive weeks toward unemployment weeks and increase their earnings, medium and highly educated men also increase the number of active weeks and working hours. Besides, medium- and highly educated men tend to have more stable jobs when they become eligible to a different cohabitation regime. Lastly, we observe different reactions for different regimes of cohabitation: the higher the level of commitment induced by the cohabitation regime, the larger the effects.

The next section presents the Canadian institutional context and the data. We detail the empirical strategy in section 3 and we present the results in section 4. Section 5 concludes.

## 2. CANADIAN INSTITUTIONAL CONTEXT AND DATA

**2.1. Context.** Family laws regarding marriage and cohabitation have changed dramatically since the 70's in Canada. While the share of the population aged 15 and over who were part of couples slightly decreased from 61.1% in 1981 to 57.7% in 2011, Milan (2011) indicates that among couples, the share of common-law partners has increased from 6.3% in 1981 to 19.9% in 2011.

Facing the increasing proportion of couples likely to cohabit outside marriage rather than marry, they have enhanced the commitment related to unmarried cohabitation to protect women and children in case of separation. Everywhere in Canada, the courts were called upon to adjudicate the rights of individuals cohabiting outside of marriage. The provincial and federal governments decided to make policy decisions about the appropriate legal framework for resolving property disputes between partners in non-traditional relationships.

From 1993 onward, a federal law imposed to cohabiting partners to report their both income to pay the federal income tax if they have lived together for more than one year. Cohabiting partners are also eligible to benefit from their partner car insurance and their partner pension plan.

The reform of the federal law has been completed by reforms at the province level, in all provinces except in Quebec. Reforms took place at different points in time and took different directions between provinces (Bala and Bromwich, 2002; Robitaille and Otis, 2003). Many provinces began to recognize established common law relationships for some purposes, including child-support, spousal maintenance, and pension rights. However, an important difference between provinces is the legislation concerning the property rights of partners.

Three provinces have modified the legislation on property rights to include common-law couples. In 1997, the new Saskatchewan Family Property Act stated that couples who have lived together in a marriage-like relationship for two years are treated like married couples in all matters (health insurance, government benefits including retirement, inheritance,

dividing property at separation, spouse alimony, etc.)<sup>10</sup>. Two others Canadian provinces followed the example: Manitoba in 2002 and British Columbia in 2011. Therefore, common-law partners can claim the same rights as if they were married. On the contrary, other provinces have willingly ruled on the freedom of choice for couples to contract or not, making cohabitation and marriage two distinct types of legal relationships<sup>11</sup>.

The property rights of common law spouses routinely come before the courts everywhere in Canada. Although matrimonial property legislation applies only to legally married couples in all provinces except the three mentioned above, the courts have applied the doctrines of resulting and constructive trust to award a share of one common law spouse's property to the other in cases in which it would be *unjust* not to take spousal contribution to acquisition of property into account. The general principles of trust law can prevent injustice in some cases, but it is limited in its scope. Unlike matrimonial property legislation, trust law cannot take into consideration the indirect and often intangible contributions cohabiting spouses make to one another over the course of a long relationship. As a consequence, in provinces which apply the principles of trust laws, partners can claim for alimony rights upon separation, but being granted these rights is more uncertain than in provinces stating that cohabiting couples should be given the same rights as married couples. In 2011, all provinces applied the principles of trust laws for cohabiting partners except Saskatchewan, Manitoba and British Columbia because they consider all couples in a marriage-like relationship as equal to married couples, and Quebec, which does not grant any additional rights to unmarried cohabiting couples further than the ones stated by the federal law.

In this paper, we sort the different existing common-law couples legislation in three different regimes, that we label as "federal regime", "alimony regime" and "egalitarian regime". The "federal regime" corresponds to the regime of cohabiting partners in Quebec and cohabiting partners everywhere in Canada before they reach the number of years of

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<sup>10</sup>We provide examples of definition of spouses in Family Law Acts for the province of Saskatchewan for 1997 and for 1990 in the online appendix.

<sup>11</sup>The provinces of Nova-Scotia and Quebec have denied the rights to ex-cohabitants to claim for a part of the matrimonial house after separation (Walsh v. Bona, N-S, 2000) or spousal support (Eric v. Lola, QC, 2013).

cohabitation required to be considered as common-law partners. Cohabiting couples are considered as common-law partners under the federal regime after one year of cohabitation. The federal regime only gives the minimum legal framework to common-law couples that is joint federal income tax, car insurance and pension plan insurance. The "alimony regime" allows common-law spouses to claim for alimony rights in case of separation. In this regime, there is a lot of uncertainty about what will happen after separation as the ruling is made on a case by case basis. The "egalitarian regime" does not make any differences between married and cohabiting couples whether the cohabiting couple wants it or not.

Cohabiting partners are considered as common-law couples for the alimony regime or the egalitarian regime after they reach a certain number of years of cohabitation. The minimum required duration varies across provinces, between one and three years and can be reduced if the couple has a child together.

To conclude, provincial laws regarding cohabiting partners differ in three different dimensions : the common-law regime in place, the eligibility requirement to be a common-law couple and the year in which the regime started. Table 1 summarizes the different systems in the ten Canadian provinces<sup>12</sup>.

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<sup>12</sup>We exclude the three Canadian territories (Northwest Territories, Nunavut and Yukon) from our analysis as they have very few inhabitants. However, these provinces have very particular law with respect to cohabitation.

TABLE 1. Variations of common-law regimes between provinces

Canadian Provinces	Required relationship duration		C-L regime and reform year
	without children	with children	
Newfoundland and Labrador	2 years	1 year	Alimony Regime (1990)
Prince Edward Island	3 years	0 year	Alimony Regime (1995)
Nova-Scotia	2 years	2 years	Alimony Regime (1989)
New-Brunswick	3 years	1 year	Alimony Regime (1980)
Quebec			Federal regime
Ontario	3 years	0 year	Alimony Regime (1978)
Manitoba	5 years	5 years	Alimony Regime (1983)
	3 years	1 year	Alimony Regime (2001)
	3 years	1 year	Egalitarian Regime (2004)
Saskatchewan	3 years	0 year	Alimony Regime (1990)
	2 years	0 year	Egalitarian Regime (1997)
Alberta	3 years	0 year	Alimony Regime (1999)
British Columbia	2 years	2 years	Alimony Regime (1972)
	2 years	0 year	Egalitarian Regime (2013)

Over the period we observe, 1993-2011, only four provinces reformed the regime of co-habiting partners. Prince Edward Island (1995) and Alberta (1999) adopted the alimony regime and Manitoba (2004) and Saskatchewan (1997) changed from alimony regime to egalitarian regime.

**2.2. Data.** We use data from the Survey on Labor Income Dynamic (SLID) provided by Statistics Canada, a household survey panel representative of the Canadian population. The SLID covers each year a sample of 17000 households of the population of the ten Canadian provinces with the exception of Indian reserves, residents of institutions and military barracks (less than 3 % of the population). Data have been collected each year from 1993 to 2011 from January to March. Each household is followed for a period of 6 years. The survey collects information on the labor market status, income and family

status of all individuals. However, only one respondent is included in the SLID, and this respondent gives information on the personal relationships between all members of the household, his/her own labor market status and income, and the labor market status and income of all other members of the household, if s/he is knowledgeable and s/he agrees to do so. Reported earnings and incomes are compared to administrative data to ensure that the weighted distribution of income (based on wages and salaries) in the data set matches that of the Canadian population. Therefore, for most households, we only observe the labor force supply of one member of the household and the sample of households for which we observe the labor force supply of both members of the households is selected in a direction that is potentially related to our treatment variables. Indeed, respondents in a more stable union may be more aware of their partner's labor market supply. Moreover, we observe the labor market outcomes of both partners for roughly 60% of observations. We decided to split the sample into a sub-sample of men and a sub-sample of women as if they were unrelated sub-samples, in order to keep all observations. Keeping households for which both members are observed would force us to drop a large number of observations. Moreover, we consider men and women as different sub-samples because we made the assumption that they should react differently to eligibility to a different regime of cohabitation.

Our sample is restricted to individuals living in a common-law union at some point in the panel and who are aged 18 to 50. All statistics are weighted using SLID longitudinal weights. We split the sample according to the highest educational level reached by the individual: the low educated sub-sample is composed of individual who completed or not secondary education but did not completed any post-secondary studies, the medium educated sub-sample is composed of individuals who completed post-secondary vocational degree and the high educated sub-sample is composed of individuals who received a university or college degree (bachelor, master or PhD degrees).

We pooled all years of the survey. We ended up with a sample of 4041 men and 4598 women, which correspond to 11090 observations for men and 12476 observations for women i.e. 2.7 observations per individual on average. This is lower than 6 years as individuals disappear from our sub-sample because of attrition, separation and marriage. We observe 2012 low educated men and 2022 low educated women (5241 observations for men and 5223

observations for women, i.e. 2.6 observations per individual), 1451 medium educated men and 1750 medium educated women (4227 observations for men and 4952 observations for women, i.e. roughly 2.8 observations per individual) and 578 highly educated men and 826 highly educated women (1622 observations for men and 2301 observations for women, i.e. 2.8 observations per individual). Therefore, in our weighted subsample of women (resp. men) in a cohabiting unions, 21% are high-skilled (19% for men), 40% are medium skilled (38% for men) and 39% are low skilled (43% for men).

Our sample is a subsample of all observations corresponding to individuals in a relationship, as we select individuals in an unmarried cohabiting relationship for less than 8 years. For both men and women, our sample selects 30% of all observations corresponding to individuals in a relationship (married or not) for less than 8 years (including potentially years of cohabitation before marriage). Our sample of high-educated men and women is more selected than our sample of medium- or low-educated men and women: our sample selects 22% of observations corresponding to high-educated women (23% for high-educated men), whereas it selects 32%-33% of medium-educated or low-educated men and women.

In our sample of observations, cohabitation is more prevalent in Quebec than in the rest of Canadian provinces. Among women's observations, 27% are from Eastern provinces, 58% are from Quebec, 18% from Ontario and 21% from Western provinces<sup>13</sup>. The proportions are similar among men's observations. The higher prevalence of unmarried cohabitation in Quebec is a long-term pattern, already noticed in many demographic studies (Milan, 2011; Le Bourdais and Lapierre-Adamcyk, 2004; Le Bourdais, Lapierre-Adamcyk, and Roy, 2014)

**2.3. Descriptive statistics.** Descriptive statistics of our sample are presented in table 2.

In our sample of observations, women are on average 32-33 years old. Among low and medium educated women, 3 to 4% are migrants, whereas 8% of highly educated women are migrants. Low educated women in an unmarried cohabitation relationship are more likely to have a child than medium and highly educated. For low educated workers, 27% of our observations have one child, 26% have two children and 15% have more than two children.

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<sup>13</sup>Eastern provinces: Newfoundland and Labrador, Prince Edward Island, Nova-Scotia, New-Brunswick; Western provinces: Manitoba, Saskatchewan, Alberta, British Columbia.

These proportions fall to 22%, 21% and 11% for medium educated women and to 21%, 16% and 5% for highly educated women. Men are slightly older than women: for the three education groups, men are 34 to 35 years-old, 4 to 7% of them are migrants. Among men in an unmarried cohabitation relationship, low educated men have more children than high educated men. 22 to 23% of low and medium educated men have one child, 21 to 20% of them have two children, and 10 to 12% have more than two children. On the other hand, 15% of highly educated men have one child, 16% have two children and 7% of them have more than two children. We observe a strong correlation between individuals' educational attainment and the educational attainment of their fathers. Therefore, our measure of education is also a proxy for the social background of the individual.

We study various measures of labor market outcomes. Descriptive statistics are presented in table 3. The annual number of hours worked is larger for high-educated women (1600 hours) than low-educated women (1100 hours). This is due to a lower number of employed weeks and to a larger number of inactive weeks for low-educated women. It means that high-educated women work almost full-time, whereas inactivity is more prevalent among low-educated women. The number of unemployed weeks<sup>14</sup> is similar across education groups. Low-educated women's annual labor earnings (CAD 14k) are almost half of medium educated women's annual labor earnings (CAD 23k) and almost one third of high educated women's labor earnings (CAD 36k)<sup>15</sup>. For all individuals working at least 1 hour, we constructed a variable giving the average wage, dividing the earnings by the number of hours worked<sup>16</sup>. The average wage of high-educated women is CAD 23.3 per hour, which is almost twice as big as the average wage of low-educated women (CAD 12.5). 22% of high educated women are still studying (full-time or part-time) over the year they are observed, whereas only 11% of low educated are. High-educated women are also more mobile: 19% of them have changed their main job over the year, while 13% of low educated women did so<sup>17</sup>.

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<sup>14</sup>Defined as: 52 - (employed weeks + inactive weeks)

<sup>15</sup>Labor earnings are set to zero if the individual does not receive any labor earnings.

<sup>16</sup>This average wage may not be the wage the individual has for his/her main job, as individuals may hold multiple jobs.

<sup>17</sup>This variable is defined as compared to the job the respondent had the year before. Therefore, it is not defined the first year the respondent is observed.



34% of them have a discontinuous schedule of jobs during the year<sup>18</sup>, whereas 48% of low educated women did.

Low educated men work roughly 1800 hours per year, which is lower than medium educated and high educated men, who work 1900 hours per year. The difference comes from a larger number of inactive weeks. The annual labor earnings of men is roughly CAD 30k for low educated men, CAD 40k for medium educated men and CAD 55k for high educated men. As for women, low educated men are less likely to be studying (8%) than medium-educated men (14%) and high-educated men (22%). The probability of having changed the main job over the year tend to be similar across education groups, around 15% to 18%. However, low educated men are more likely to have a discontinuous schedule of jobs during the year as compared to high educated men.

### 3. EMPIRICAL STRATEGY

**3.1. Treatments variables.** We index our variables by the indices  $-itpdc-$  for individual  $i$ , observed in year  $t$ , living in province  $p$ , in a cohabiting relationship for  $d$  years and having a child  $c$  or not. All Canadian provinces, except Quebec, adopted an *alimony regime* of cohabitation at different dates, denoted  $\bar{t}_p$ . Cohabiting couples enter the alimony regime of cohabitation after a period of cohabitation which may be shortened if the partners had a child together. Therefore, there are two different ways to be eligible to a different regime of unmarried cohabitation. We define two variables indicating if the couple is eligible to an alimony regime of cohabitation across years and provinces. We distinguish if the couple is eligible to an alimony regime of cohabitation without children  $D_{tpd}^1$  or if it is eligible to an alimony regime of cohabitation because it has a child  $D_{tpdc}^2$ . We also introduce an interaction term  $D_{tpd}^1 \times D_{tpdc}^2$  which indicates if the couple is in an alimony regime of cohabitation both because partners had a child together and they have been in a cohabiting relationship for a long enough period of time.

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<sup>18</sup>A discontinuous schedule of jobs during the year indicates individuals who worked only a few months within the year, individuals who worked all the year but not weekly full time, or both type of part time. It is defined only for individuals who are not fully inactive during the year.

We denote  $\bar{d}_p$  and  $\bar{d}_p^c$  the period of cohabitation required to enter an alimony regime (resp. without children and with a child), which vary across provinces  $p$ . The variable  $c$  indicates if the couple has a child or not. The treatment variables  $D_{tpd}^1$  and  $D_{tpdc}^2$  are defined as followed:

$$D_{tpd}^1 = \sum_k \mathbb{1}\{k = p\} \times \mathbb{1}\{t > \bar{t}_k \ \& \ d \geq \bar{d}_k\}$$

$$D_{tpdc}^2 = \sum_k \mathbb{1}\{k = p\} \times c \times \mathbb{1}\{t > \bar{t}_k \ \& \ d \geq \bar{d}_k^c\},$$

where  $k$  takes 10 values for the ten Canadian provinces. We define additional variables indicating if the couple is in the more committed regime of cohabitation, i.e. the *egalitarian regime*. The variables  $D_{tpd}^{1,eq}$  and  $D_{tpdc}^{2,eq}$  are defined in a similar way as  $D_{tpd}^1$  and  $D_{tpdc}^2$  for provinces where the cohabitation regime is the egalitarian regime.

$$D_{tpd}^{eq,1} = \sum_k \mathbb{1}\{k = p\} \times \mathbb{1}\{t > \bar{t}_{k,eq} \ \& \ d \geq \bar{d}_k\} \times \mathbb{1}\{reg_{k,t} = Eq\}$$

$$D_{tpdc}^{eq,2} = \sum_k \mathbb{1}\{k = p\} \times c \times \mathbb{1}\{t > \bar{t}_{k,eq} \ \& \ d \geq \bar{d}_k^c\} \times \mathbb{1}\{reg_{k,t} = Eq\}$$

Notice that if in all provinces, the period before being eligible is not shortened when the couple has a child, i.e.  $\bar{d}_p = \bar{d}_p^c, \forall p$ , then  $D_{tpdc}^2 = c \times D_{tpd}^1$  and  $D_{tpd}^1 \times D_{tpdc}^2 = c \times D_{tpdc}^1$ . In other words,  $D_{tpdc}^2$  would measure the impact of differentiated impact of being eligible to the *alimony* regime when the couple has a child as compared to couples without children. We would be measuring an heterogeneous impact for couples with children as compared to couples without children.

**3.2. Identification strategy.** We estimate the impact of being eligible to an alimony or egalitarian regime of cohabiting relationship on a labor market outcome  $y_{itpdc}$  of individual  $i$  living in province  $p$ , in year  $t$ , in a cohabiting relationship for  $d$  years and having a child

$c$  or not. Our identification strategy is based on the estimation of the following model:

$$y_{itpdc} = \alpha_0 + \alpha_1 D_{tpd}^1 + \alpha_2 D_{tpdc}^2 + \alpha_3 D_{tpd}^1 \times D_{tpdc}^2 + \beta_1 D_{tpd}^{eq,1} + \beta_2 D_{tpdc}^{eq,2} + \beta_3 D_{tpd}^{eq,1} \times D_{tpdc}^{eq,2} + \gamma_c + \gamma_{cd} + \gamma_{ct} + \gamma_{cp} + \delta_d + \eta_t + \mu_i + \zeta X_{it} + \varepsilon_{itpdc} \quad (3.1)$$

This specification allows us to control for potential confounding factors using the most flexible specification possible. It controls for individuals fixed effects  $\mu_i$ , year fixed effects  $\eta_t$  and relationship duration fixed effects  $\delta_d$ . We do not include province fixed-effects as we already included individual fixed-effects. It also includes an indicator for having a child  $\gamma_c$  and double interactions fixed effects between  $c$  and  $d$ ,  $c$  and  $t$  and,  $c$  and  $p$ . These double interactions fixed effects take into account changes in behavior across time, duration or province specific to couples having children. For instance, they account for province-specific family policies or any family reform taking place during our period that may also affect labor market outcomes. Lastly, we control for time-varying individual characteristics  $X_{it}$  which include age, age squared, educational level, and a dummy variable indicating if the individual was living in another province on the previous year as it may affect both the cohabitation status and labor market outcomes<sup>19</sup>.

Apart from Alberta and Prince Edward Island, the reform of the cohabitation status of couples was passed in most provinces before the period observed in the data. Therefore, the couples become eligible to the alimony or egalitarian regime not because a reform was passed, but because of the duration of cohabitation of the couple (or because they have a child together). Our regression equation is the translation of a difference in difference estimation strategy. Both Manitoba and Saskatchewan passed the reform of the cohabitation regime adopting an egalitarian regime of cohabitation during the period observed in the data and our regression equation could be the translation of a triple difference estimation strategy to estimate the impact of both the impact of the reform and the impact of the eligibility to the egalitarian regime of cohabitation on labor market outcomes of partners. However, in order to test the impact of eligibility to both regimes simultaneously, we adopted a common framework for the estimation.

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<sup>19</sup>We tested different sets of control variables, in order to control for the number of children. Our results were robust across control sets

The parameter  $\alpha_1$  gives the impact of being eligible to the alimony regime of cohabitation on the labor market outcome for couples eligible to this regime without children. The identification strategy of this parameter works as follows. In order to identify the effect of a change in the cohabitation status, the ideal framework would be to observe the exact same couple, having same characteristics and same number of years of relationship, subject to an alimony regime of cohabitation and also not subject to the alimony regime of cohabitation. This framework is obviously impossible, but we can observe the same couple at different duration in their relationship in our panel data which allows us to control for individual fixed effects. Couples' decision concerning labor market supply may change over the couple's life so it is important to control for the number of years of cohabitation of the couple by introducing fixed effects for each number of years of cohabitation. Then we compare the changes in the labor market outcomes for couples affected by a change in the cohabitation status to couples in a different province which are not affected by a change in the cohabitation status. Therefore, the identifying assumption is that the changes in the labor market outcomes after a certain number of years of cohabitation would have been the same for couples subject to the change in the cohabitation status were they not living in a province which introduces a change in the cohabitation status at that moment in the couple's life. Under this assumption,  $\alpha_1$  measures the causal impact of being eligible to the alimony regime. We also introduce year fixed effects in order to control for shocks common to all couples, such as changes in policies, economic shocks, etc.

The parameter  $\alpha_2$  represents the impact of being eligible to an alimony regime of cohabitation for couples with children. The identification of this impact is similar to the identification of  $\alpha_1$ , but on couples with children. It relies on the comparison of changes in the labor market outcomes of couples with children eligible to the alimony regime of cohabitation to changes in the labor market outcomes of couples with children who are not eligible to the alimony regime because they are living in a different province. The identifying assumption is that changes in labor market outcomes of couples having a child and not subject to the alimony regime of cohabitation indicates what the changes in labor market outcomes of couples having a child and subject to an alimony regime would have been were they not eligible to an alimony regime of cohabitation. This assumption would be violated

if the selection of couples having children before being eligible to the alimony or egalitarian regime of cohabitation is different in provinces that shorten the duration of cohabitation required when the couple has a child and that this selection is related to labor market outcomes. This parameter would measure reverse causality if couples who want to adjust their labor force supply, have a child with the objective of being eligible to a different regime of cohabitation. Although this assumption may not seem realistic, we cannot completely rule it out. Therefore,  $\alpha_2$  measures how couples adapt their behavior to their new legal environment but not necessarily a causal impact.

The introduction of a fixed effect  $\gamma_c$  and interaction fixed effects  $\gamma_{cd}$ ,  $\gamma_{ct}$  and  $\gamma_{cp}$  allows flexibility in the behavior of couples with children as compared to couples without children. The introduction of those interaction fixed effects implies that the parameter  $\alpha_1$  is identified using a difference-in-difference estimation strategy on couples without children and the parameter  $\alpha_2$  is identified using a difference-in-difference estimation strategy on couples with children<sup>20</sup>.

The key point of the identification strategy is that the required number of years in a cohabitant relationship to be subject to an alimony regime of cohabitation differs across provinces. As a consequence, the identifying assumptions rely on the comparison of couples subject to an alimony regime of cohabitation to couples which are not subject to this regime because either the required number of years of relationship is greater in their province or the province in which they live have not adopted the reform of cohabitation regime (Quebec and Alberta and Nova Scotia before the adoption of the law).

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<sup>20</sup>An alternative specification would have been to exclude interaction fixed effects  $\gamma_{cd}$ ,  $\gamma_{ct}$  and  $\gamma_{cp}$ . Yet, this specification allows the identification of  $\alpha_2$  under more stringent identifying assumptions. It implies comparing couples with children to couples without children, so the identifying assumptions is that the change in the labor outcomes or partners without children indicates how labor market outcomes would have changed for partners with children, if they were not subject to the alimony regime of cohabitation. This assumption seems quite unrealistic, this is why our preferred specification includes interaction fixed effects. We tested this alternative specification and the results were consistent with our main results. They are presented in appendix B under the label *Spe 1*, whereas *Spe 2* presents the estimated coefficients of our preferred specification

Some couples are eligible to the alimony regime of cohabitation for two reasons, both because they have a child and because they have been in a relationship for more years than the province's cut-off. However, the impact of being eligible to the *alimony* regime should not necessarily be equal to  $\alpha_1 + \alpha_2$  for those couples. The parameter  $\alpha_3$  allows this double impact to be adjusted for. The identification of  $\alpha_3$  relies on the exact same identifying assumptions as the identification of  $\alpha_1$  but on couples with children.  $\alpha_3$  is separately identified from  $\alpha_2$  if the number of years required to be subject to the alimony regime of cohabitation is different when couples have a child from the number of years required when couples do not have children. The interpretation of  $\alpha_3$  is twofold. As compared to non-eligibility, couples having a child after being already eligible because of duration change their behavior from  $\alpha_1$  to  $\alpha_1 + \alpha_2 + \alpha_3$ . As compared to non-eligibility, couples already eligible because they have a child reaching the minimal duration to be eligible without children change their behavior from  $\alpha_2$  to  $\alpha_1 + \alpha_2 + \alpha_3$ . In both cases,  $\alpha_1 + \alpha_2 + \alpha_3$  does not give the impact of becoming eligible to the alimony regime but it gives the long-term adjustment in the labor outcomes of partners with children.

The impact of the egalitarian regime of cohabitation on labor market outcomes is given by the parameters  $\beta_1$ ,  $\beta_2$  and  $\beta_3$ . Their identification relies on the same assumptions as the identification of  $\alpha_1$ ,  $\alpha_2$  and  $\alpha_3$ , but comparing provinces where the egalitarian regime of cohabitation applies to the other provinces<sup>21</sup>.

The parameters  $\alpha$  and  $\beta$  are used to construct a measure of the impacts we are interested on. Indeed, we want to know the impact of being in a particular regime of cohabitation compared to the federal regime (or no regime at all, i.e. before completed one year of unmarried cohabitation). For the alimony regime, the impact of changing the cohabitation regime because of the duration is given by  $\alpha_1$ , changing the cohabitation regime because

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<sup>21</sup>The egalitarian regime of cohabitation was introduced during our period of observation in two provinces. Therefore, we could have used a triple difference estimation strategy, introducing double interaction fixed effects  $\eta_{tp}$ ,  $\eta_{dp}$  and  $\eta_{td}$  to the equation regression. However, the introduction of the interaction binary variables  $\eta_{dp}$  would capture the impact of the federal regime of cohabitation that we also aim to identify. In an alternative specification, we introduce the interaction binary variables  $\eta_{tp}$  and  $\eta_{td}$ . Although this specification is the closest to a triple difference estimation strategy, this is not our preferred specification because it is a very demanding estimation strategy and the results were very similar to ours.

of having a child is given by  $\alpha_2$  and the long-term adjustment in the labor outcomes of partners is given by  $\alpha_1 + \alpha_2 + \alpha_3$ . In the following of the text, we refer to  $\alpha_1$  as the effect of the alimony regime due to a stable relationship,  $\alpha_2$  as the impact of the alimony regime due to a child in a recent relationship and to  $\alpha_1 + \alpha_2 + \alpha_3$  as the long-term adjustment in the labor outcomes for partners with children.

The egalitarian regime came after the alimony regime, so we consider that individuals in the egalitarian regime are also in the alimony regime. Therefore, the estimation of the parameters  $\alpha_1$ ,  $\alpha_2$  and  $\alpha_3$  do not rely on individuals who quit the alimony regime because of the reform changing the alimony regime into the egalitarian regime. For that reason, the impact of changing the cohabitation regime from the federal regime to the egalitarian regime because of the duration is given by  $\alpha_1 + \beta_1$ , changing the cohabitation regime because of having a child is given by  $\alpha_2 + \beta_2$  and the long-term adjustment in the labor outcomes is given by  $\alpha_1 + \alpha_2 + \alpha_3 + \beta_1 + \beta_2 + \beta_3$ . Our tables of results directly give the sum of the coefficients (as well as the p-value from the test of significance of the sum). Tables of the estimates of raw coefficients can be found in appendix B.

#### 4. RESULTS

The results presenting how cohabiting partners adjust their labor force supply and labor earnings when they are eligible to an alimony regime or a cohabitation regime are presented in table 4 for men, and in table 6 for women. Table 5 for men and 7 for women present additional results on wage, being in study, changing the main job and having a discontinuous schedule of jobs during the year.

**4.1. Men.** We observe that **low-educated men** tend to adjust their labor force outcomes when they become eligible to a different cohabitation regime because they have a child, but not when they become eligible because of the duration of their cohabiting relationship. We find that low-educated men decrease their annual number of inactive weeks by 2.9 right after becoming eligible to the alimony regime because they have a child. This decrease is not compensated by an increase in the number of worked weeks and it is not accompanied by an increase in labor earnings, indicating that it is the number of unemployed weeks which has

increased. On the contrary, when they enter an egalitarian regime of cohabitation because they have a child, low educated men do not change their labor force supply. Yet, they increase their earnings by CAD 6,500. This increase is related to an increase in wages by CAD 4.1 per hour. However, we do not observe any significant change in the labor market supply of low educated men when they become eligible to the alimony or to the egalitarian regime of cohabitation because of the duration of their relationship.

These effects are more important on the long term. For both types of regime of cohabitation, the results indicates that low-educated men tend to decrease the number of inactive weeks on the long run when they have a child (by 3.3 weeks for the alimony regime and by 4.3 for the egalitarian regime). This adjustment in the long-run is associated to an increase in labor earnings (by CAD 5,400 for the alimony regime and by CAD 6,200 for the egalitarian regime), but not to an increase in the number of active weeks, labor market mobility or wages.

Contrary to low educated men, we do not find that **medium educated men** change their labor force supply right after becoming eligible to the alimony and egalitarian regimes of cohabitation. But this apparent stability does not mean that men's labor market outcomes are not affected by a change in their cohabitation regime, especially if the intra-household commitment induced by this change is strong. Becoming eligible to the egalitarian regime of cohabitation may have a stabilizing impact on medium educated men: when they become eligible to this regime because of the duration of their relationship, medium-educated men become less likely to change their main job whereas those who become eligible because they have a child become less likely to have a discontinuous schedule of jobs during the year. On the other hand, we do not find any stabilizing effect on men's labor market outcomes when the intra-household commitment induced by the regime of cohabitation they have become eligible to is weaker, the alimony regime.

However, we observe adjustments for men with children, in the long-run: men tend to increase the annual number of active weeks and the annual number of hours worked in the long run, for both regimes, when men are eligible to a different regime of cohabitation



because of both reasons. The increase is stronger for the egalitarian regime (+693 hours per year) than for the alimony regime (+462 hours per year). This result indicates that medium educated men may adjust their labor market supply to their cohabitation regime, but the adjustment may not take place immediately. In particular, it is interesting to note that when men are eligible to the alimony regime for both reasons, they are 13 pp. less likely to be studying. On the other hand, when men are eligible to the egalitarian regime for both reasons, they are 54 pp. less likely to have a discontinuous schedule of jobs during the year, but this change in their labor force supply is associated to a decrease in their wage.

**Highly educated men** significantly increase the number of annual hours worked when they become eligible to a different regime of cohabitation because they have a child. This increase is associated to lower wages but more stable jobs. More precisely, the size of the impact is similar for both the alimony regime and the egalitarian regime: highly educated men increase their labor force supply by 698-683 hours per year when they become eligible for a more committed regime of cohabitation. However, their annual labor earnings are not affected by their new eligibility status to a different regime of cohabitation. As a consequence, their hourly wage decreases by CAD 13 to 16. These changes are associated to a greater job stability: when they become eligible to the egalitarian regime because they have a child, high-educated men are also less likely to change their main job and less likely to have discontinuous schedule of jobs, indicating that they may not seize new opportunities that would increase their wage. We observe similar changes for men who become eligible to the alimony regime, but they are not statistically significant.

On the long-run, men eligible to the egalitarian regime because they have a child and because of the duration of their relationship increase even more strongly their labor force supply (+1596 hours per year), which is associated to a large decrease in the average wage. These estimates are very large and have to be interpreted with caution as they rely on a very small number of observations. Indeed, we observe in our data a small number of highly educated men living in Manitoba and Saskatchewan, who have been cohabiting less than 8 years, who have a child and who are observed after 1997 for Saskatchewan and 2004 for Manitoba.

**4.2. Women.** Overall, we do not find large impacts of eligibility on **low-educated women's** labor market outcomes. As a matter of fact, we do not find any significant impact of being eligible to the alimony regime or to the egalitarian regime because the couple had a child on low educated women's labor market outcomes. We found a small impact of being eligible to the alimony regime of cohabitation because of the duration of their relationship on their labor market supply: when they become eligible to this regime of cohabitation, they tend to decrease the number of inactive weeks by 4.7. But this change is not associated to an increase in the number of employed weeks, indicating that those women are more likely to increase the number of unemployed weeks. In addition, their labor earnings are negatively affected and decrease by CAD 1536. We find no impact of changing the type of cohabitation regime on the job mobility of low educated women.

Changing the type of cohabitation regime particularly affects the labor market behavior of **medium educated women** who decrease their labor force supply and their earnings. When they enter the alimony regime because of the duration of their relationship, they decrease their number of annual working weeks by 3.8 and increase their number of inactive weeks by 2.9. The impact is stronger for women who enter the egalitarian regime because of the duration of their relationship: our estimates show that they decrease significantly the annual number of hours worked by 372 and their annual number of working weeks by 9.2 and increase their annual number of inactive weeks by 8.4 (at the 15% significance threshold). The decrease in the annual number of worked weeks is associated to a decrease in their earnings by CAD 3,700 in the alimony regime and by 3,900 in the egalitarian (although not significantly different from zero in the latter case). The impact of becoming eligible to the alimony regime and to the egalitarian regime because they had a child goes in the same direction, but it is not significantly different from 0. On the long-run, this decrease in the labor force supply is associated to a decrease in their hourly wage by CAD 5, for both regime. Yet, medium educated women are not more mobile on the job market after a change in their cohabitation regime.

**Highly educated women** do not change their labor market supply when they enter a different regime of cohabitation, whatever the type of regime and whatever the way they became eligible to this regime of cohabitation. However, surprisingly, when they enter the

egalitarian regime because of the duration of their relationship, highly educated women decrease their earnings by CAD 14240. Similarly, becoming eligible to the alimony regime because of the duration of their relationship is associated to a decrease in the hourly wage of highly educated women by CAD 8 for the alimony regime and CAD 10 for the egalitarian regime. As this decrease is not associated to any job mobility, it may be explained by a lower propensity of women to invest in their career when they become eligible to the alimony or the egalitarian regimes because of the duration of their relationship<sup>22</sup>. On the contrary, highly educated women are more mobile when they become eligible to a different cohabitation regime because they had a child, but it takes different directions for the different types of cohabitation regime. Becoming eligible to the egalitarian regime because they had a child is associated to an increase by 59 pp. in the risk of changing their main occupation, which in turn affects positively their hourly wage by CAD 8 for the egalitarian regime (we observe a similar increase for the alimony regime but it is not statistically significant). In addition, becoming eligible to the alimony regime because they had a child is associated to a decrease by 29 pp. of being studying. Long term adjustments for women who are eligible because of both reasons confirm these results: women who became eligible to a different type of cohabitation regime, whatever the type of regime, are less likely to be studying and less likely to have a discontinuous schedule of jobs during the year when they are eligible for both reasons.

## 5. DISCUSSION

In this paper, we investigate to what extent the legal structure surrounding cohabitation shapes the couple's labor market decision. We use variation among Canadian provinces in the minimum required duration of the relationship to be eligible to cohabitation rights, variations of the different regimes and variations in the year in which these reforms took place to consider how becoming eligible to a different regime of cohabitation incites partners to invest on the labor market. We assess the impact of two different types of cohabitation regime, both enhancing intra-household commitment, but to a different extent. The alimony

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<sup>22</sup>Similarly these estimates must be interpreted with caution as they rely on a small number of observations

regime grants partners the right to claim for alimonies upon separation whereas the egalitarian regime gives unmarried cohabiting partners the exact same rights as married partners which means that partners can claim for equal split of assets upon separation. Therefore, the latter induces more intra-household commitment than the former. Partners become eligible to a different type of cohabitation regime when they have been living in a marriage-like relationship for more than a determined number of years, this duration can be shortened if the couple has a child together. We investigate if the behavioral response differs if the couple became eligible because they have a child together. We investigate the behavioral response of men and women separately, as well as differences across educational attainment.

We find large differences between men's and women's behavioral response when they become eligible to a different type of cohabitation regime. Men are more likely to adapt their labor market outcomes when they become eligible because they have a child, but not because they simply reached the minimal number of years required to become eligible. On the contrary, women do not react to their new cohabitation regime when they have a child, but they do react to their new regime when they reach the minimal number of years required to be eligible. These results may reveal that when partners have a child, women's intra-household bargaining power increases whatever their cohabitation regime, but men perceive that women's bargaining power increases even more when having a child induces a change of cohabitation regime. Our identification strategy relies on the comparison of eligible individuals to similar but not eligible individuals because they live in a province that does not grant the same rights to cohabiting partners. The absence of reaction of women when they become eligible because of a child may reveal that all women had already changed their labor force supply after having a child, whatever their regime of cohabitation. Women may perceive that having a child induce enough intra-household commitment and protection *per se* to allow them to reduce their labor market supply. On the other hand, men would not change their labor force supply when they have a child, except if it induces eligibility to a more committed regime of cohabitation. They may perceive that the risk of asset sharing and claiming alimony is more credible as women would be more likely to claim alimonies and asset sharing upon separation when they have a child.

When there is no child, women adjust their labor market outcomes when they become eligible to a more committed regime of cohabitation while men do not. Especially, medium educated women tend to behave as if this commitment was an insurance against the risk of divorce and decrease their labor force supply. This may reveal that women perceive an increase in their bargaining power. The absence of men's reaction indicates that men may not perceive that the new cohabitation regime induce more commitment that would increase women's bargaining power.

We also find differences in behavioral responses of men and women across educational groups. When they become eligible to a different regime of cohabitation because they have a child, low-educated men decrease their annual number of inactive weeks entering into unemployment and increase their earnings, whereas medium and highly-educated men also increase the annual number of worked weeks and worked hours. The eligibility status also has a stabilizing impact: medium- and highly-educated men are less likely to have a discontinuous schedule of jobs. Besides, we find that adjustment of the labor supply of low- and medium-educated men tend to take longer. The differences in the nature and the timing of the adjustment may be due to different career opportunities for low- and medium-educated men that may be more constrained in their choices over their labor supply whereas highly-educated can adjust their labor supply to their new situation almost immediately, for example by working overtime. Another explanation would be that low- and medium-educated men do not receive the same information about their eligibility status to a different regime of cohabitation; they would not be aware that the minimal duration to be eligible to a more committed type of cohabitation regime is shortened when the couple has a child together.

Differences in the reaction of women across educational groups exhibits a different pattern than for men. First, the labor supply of low-educated women and highly-educated women is only slightly affected by a change in their cohabitation regime, but medium-educated women tend to decrease their labor force supply when they become eligible. There are several potential explanations. Low-educated women may be more budget constrained or

may have already retreated from the labor market. They may also live in households with few assets, so that a change in the share of assets they can claim would not change their living standards. On the other hand, highly-educated women are more likely to be more attached to the labor market, because the opportunity cost of reducing their labor supply is higher. Moreover, the alimony regime but also the egalitarian regime may not provide enough protection to allow them to leave the labor market. Indeed, even if partners are entitled to claim for alimony, being actually entitled alimonies upon separation is not automatic and may depend on different factors. However, highly-educated women adjust their labor force outcomes: their wage tends to decrease after being eligible, which can be seen as a decrease in their career prospects. On the contrary, medium-educated women tend to behave as if this commitment was an insurance against the risk of separation.

We notice that long-term effects may differ from short-term effects: the behavioral response of both men and women tend to be larger on the long-run than right after being eligible. These results may reveal that adjustment to the cohabitation regime may take some time, especially if it induces some renegotiation within the household. On the other hand, these differences may be due to a selection of couples who decide to remain in a status of unmarried cohabitation on the long-run when having children. Couples staying in this status may be couples who have adapted the most their behavior to the cohabitation regime. They are couples that perceive that the cohabitation regime is more protected for the weaker spouse and they may not perceive that getting married is necessary. Therefore, we would be observing a selection effect and not an adjustment that would take longer.

**Comparability of our estimates.** It is difficult to compare our results with others found in the literature as there are very few. We only know of two studies which estimate the effect of the introduction of alimony laws for cohabiting couples but we find no study on the introduction of the egalitarian regime. Rangel (2006) finds that the introduction of alimony laws decreases the number of working hours by 3.2% among all women and by 6% among low and mid educated women. He does not estimate the impact on men labor supply. Chiappori, Iyigun, Lafortune, and Weiss (2016) estimate the impact of the alimony

law reforms on couples formed before the reform on the extensive margin. They find that full-time participation of women decreases by 4.7% and full-time participation of men increases by 6%. Besides, they find that college educated women decrease their full-time participation by 18% and that college educated men increase their full-time participation by 15%. Their estimates are a weighted average of our three different effects  $\alpha_1$ ,  $\alpha_2$  and  $\alpha_3$  as they do not distinguish between the different means to become eligible. In our study, we find that when entering the alimony regime, medium educated women without children decrease the number of annual worked weeks by 9% (3.8 weeks) and their earnings by 16% whereas we do not find a significant impact on women eligible because of child. We find that medium educated men increase by 18% the number of worked weeks and by 24% the number of working hours when they become eligible because they have a child but not when they do not have a child.

**Limits.** Our identification strategy suffers potential threats that we discuss now. First of all, our key identifying assumption is the equivalent of the common trend assumption to our settings. It states that if we observe the behavior of two couples during the same period of time and same length of relationship but one becomes eligible to a different cohabitation regime while the other does not, changes in the behavior of the latter informs us on changes in the behavior of the former if the couple had not become eligible to a different cohabitation regime. As the eligibility status varies across provinces, it requires that changes in couples' behavior is comparable across provinces. This assumption would be violated if some provinces introduce a policy that affects all unmarried couples after a certain length of relationship, but not recent couples, whatever the age of partners. We could not find such policies. The prevalence of cohabitation is much higher in Quebec than in other provinces, meaning that our common trend assumption relies heavily on the comparison of couples from English-speaking provinces to couples from Quebec. Unmarried cohabiting partners in Quebec are not entitled any additional rights apart from the rights stated by the federal regime, our assumption relies on couples that are not likely to anticipate a change in their cohabitation regime. This anticipation effect may imply that couples changed their behavior even before they become eligible: Chiappori, Iyigun, Lafortune, and Weiss (2016)

indicates that couples should adopt opposite behavior before they become eligible (women would work more in anticipation of working less after they become eligible). If this is the case, our estimation measures the large effect due to couples adapting their behavior before they become eligible when we compare them to couples from Quebec. It is not clear that couples would adapt their behavior even before they become eligible as they are in a risky environment; they may separate before reaching the minimal required length of relationship. However, we think that our results are still valid in that case and we measure the impact of becoming eligible. This impact could be larger if couples anticipate their eligibility than if they don't.

Another threat to the identification strategy is related to the identification of the impact of becoming eligible because the couple had a child. Our identification strategy is valid under the assumption that the decision to have a child is not related to the fact that the period of cohabitation is shortened for couple with a child in some province. This assumption would be violated if couples decide to have a child with the purpose to shorten the period of cohabitation because they want to adjust their labor force outcomes. Although we cannot explicitly test if this is the case, we think that this kind of behavior may be very uncommon and it should not bias our estimates.



## REFERENCES

- AVELLAR, S., AND P. J. SMOCK (2005): "The economic consequences of the dissolution of cohabiting unions," *Journal of Marriage and Family*, 67(2), 315–327.
- BALA, N., AND R. J. BROMWICH (2002): "Context and Inclusivity in Canada's Evolving Definition of the Family," *International Journal of Law, Policy and the Family*, 16(2), 145–180.
- BOHNERT, N. (2012): "Examining the determinants of union dissolution among married and common-law unions in Canada," *Canadian Studies in Population*, 38(3-4), 75–92.
- BRASSIOLO, P. (2010): "The Effect of Property Division Laws on Divorce and Labor Supply: Evidence from Spain," *Mimeo*.
- BUMPASS, L., AND H.-H. LU (2000): "Trends in cohabitation and implications for children's family contexts in the United States," *Population studies*, 54(1), 29–41.
- CHIAPPORI, P.-A., B. FORTIN, AND G. LACROIX (2002): "Marriage market, divorce legislation, and household labor supply," *Journal of Political Economy*, 110(1), 37–72.
- CHIAPPORI, P.-A., M. IYIGUN, J. LAFORTUNE, AND Y. WEISS (2016): "Changing the Rules Midway: The Impact of Granting Alimony Rights on Existing and Newly-Formed Partnerships," *The Economic Journal*.
- GRAY, J. S. (1998): "Divorce-Law Changes, Household Bargaining, and Married Women's Labor Supply," *American Economic Review*, 88(3), 628–42.
- KAPAN, T. (2008): "Property Division Laws: The Effects on Labor Supply and Household Bargaining," *Ph.D. thesis, Columbia University*.
- KERR, D., M. MOYSER, AND R. BEAUJOT (2006): "Marriage and cohabitation: Demographic and socioeconomic differences in Quebec and Canada," *Canadian Studies in Population*, 33(1), 83–117.
- KIERNAN, K. (2004): "Unmarried cohabitation and parenthood in Britain and Europe," *Law & Policy*, 26(1), 33–55.
- LAFORTUNE, J., AND C. LOW (2017): "Tying the double-knot: The role of assets in marriage commitment," *American Economic Review*, 107(5), 163–67.
- LE BOURDAIS, C., S.-H. JEON, S. CLARK, AND É. LAPIERRE-ADAMCYK (2016): "Impact of conjugal separation on women's income in Canada: Does the type of union matter?,"

- Demographic Research*, 35, 1489–1522.
- LE BOURDAIS, C., AND É. LAPIERRE-ADAMCYK (2004): “Changes in conjugal life in Canada: Is cohabitation progressively replacing marriage?,” *Journal of Marriage and Family*, 66(4), 929–942.
- LE BOURDAIS, C., É. LAPIERRE-ADAMCYK, AND A. ROY (2014): “Instabilité des unions libres: Une analyse comparative des facteurs démographiques,” *Recherches sociographiques*, 55(1), 53–78.
- LUNDBERG, S., AND R. A. POLLAK (1996): “Bargaining and distribution in marriage,” *The journal of economic perspectives*, 10(4), 139–158.
- MILAN, A. (2011): *Marital Status: Overview, 2011*chap. Report on the Demographic Situation in Canada. Statistics Canada.
- MUSICK, K., AND K. MICHELMORE (2015): “Change in the stability of marital and cohabiting unions following the birth of a child,” *Demography*, 52(5), 1463–1485.
- RANGEL, M. A. (2006): “Alimony rights and intrahousehold allocation of resources: evidence from Brazil,” *The Economic Journal*, 116(513), 627–658.
- ROBITAILLE, D., AND G. OTIS (2003): “La spécificité patrimoniale de l’union de fait: le libre choix et ses” dommages collatéraux”, *Les Cahiers de droit*, 44(1), 3–51.
- SMOCK, P. J., AND W. D. MANNING (2004): “Living together unmarried in the United States: Demographic perspectives and implications for family policy,” *Law & Policy*, 26(1), 87–117.
- STEVENSON, B. (2007): “The impact of divorce laws on marriage-specific capital,” *Journal of Labor Economics*, 25(1), 75–94.
- TACH, L. M., AND A. EADS (2015): “Trends in the economic consequences of marital and cohabitation dissolution in the United States,” *Demography*, 52(2), 401–432.
- VOENA, A. (2015): “Yours, Mine, and Ours: Do Divorce Laws Affect the Intertemporal Behavior of Married Couples?,” *The American Economic Review*, 105(8), 2295–2332.

TABLE 2. Descriptive statistics

	Women			Men		
	Low	Med	High	Low	Med	High
Age	32.4 (8.8)	32.3 (8.0)	32.8 (7.1)	33.7 (8.3)	33.7 (7.4)	34.8 (7.81)
Immigration status	0.04 (0.20)	0.03 (0.17)	0.08 (0.27)	0.04 (0.20)	0.07 (0.25)	0.05 (0.22)
Father's education = primary or no diploma	0.31 (0.46)	0.21 (0.41)	0.13 (0.33)	0.32 (0.47)	0.19 (0.40)	0.13 (0.33)
Father's education = uncompleted secondary	0.26 (0.44)	0.25 (0.43)	0.16 (0.37)	0.23 (0.42)	0.23 (0.42)	0.15 (0.36)
Father's education = completed secondary	0.27 (0.44)	0.30 (0.46)	0.28 (0.45)	0.31 (0.46)	0.33 (0.47)	0.33 (0.47)
Father's education = post-sec. vocational diploma	0.12 (0.32)	0.18 (0.39)	0.23 (0.42)	0.09 (0.29)	0.17 (0.38)	0.24 (0.42)
Father's education = higher education	0.03 (0.18)	0.05 (0.22)	0.20 (0.40)	0.05 (0.23)	0.07 (0.26)	0.16 (0.37)
Change province	<0.01 (0.07)	0.01 (0.07)	<0.01 (0.07)	<0.01 (0.05)	0.01 (0.08)	0.01 (0.08)
Has 1 child	0.27 (0.44)	0.22 (0.42)	0.21 (0.41)	0.22 (0.41)	0.23 (0.42)	0.15 (0.36)
Has 2 children	0.26 (0.44)	0.22 (0.41)	0.16 (0.37)	0.21 (0.41)	0.20 (0.40)	0.16 (0.37)
Has more than 2 children	0.15 (0.36)	0.11 (0.32)	0.05 (0.23)	0.12 (0.32)	0.11 (0.31)	0.07 (0.26)
N	5223	4952	2301	5241	4227	1622

Standard deviations in parenthesis. Low educated = primary or secondary education, completed or not ; Medium educated = post secondary vocational diploma ; High educated = higher education diploma

TABLE 3. Descriptive statistics on labor market outcomes of men and women in a unmarried cohabiting union

	Women						Men					
	Low	[N=]	Medium	[N=]	High [	[N=]	Low	[N=]	Medium	[N=]	High [	[N=]
Hours worked	1113	[5223]	1445	[4952]	1592	[2301]	1785	[5241]	1895	[4227]	1904	[1622]
	(880)		(798)		(690)		(860)		(712)		(685)	
Working weeks	33.9	[5223]	42.8	[4952]	46.5	[2301]	43.3	[5241]	46.6	[4227]	48.1	[1622]
	(22.5)		(17.4)		(13.5)		(16.5)		(13.0)		(11.2)	
Inactive weeks	14.2	[5223]	6.7	[4952]	3.7	[2301]	4.5	[5241]	2.8	[4227]	2.3	[1622]
	(21.4)		(15.5)		(11.5)		(12.8)		(9.9)		(8.9)	
Labor earnings (CAD, ×1,000)	13.7	[5223]	22.5	[4952]	36.2	[2301]	30.2	[5241]	39.3	[4227]	55.2	[1622]
	(15.7)		(24.2)		(30.3)		(27.2)		(26.3)		(58.2)	
Study	0.11	[5223]	0.17	[4952]	0.22	[2301]	0.08	[5241]	0.14	[4227]	0.22	[1622]
	(0.31)		( 0.37)		(0.41)		(0.27)		(0.34)		(0.42)	
Wage	12.5	[3899]	16.0	[4505]	23.3	[2190]	17.3	[4795]	21.7	[4053]	28.1	[1572]
	(11.1)		(13.9)		(17.8)		(13.3)		(16.8)		(20.3)	
Job change	0.13	[4361]	0.15	[4023]	0.19	[1859]	0.15	[4153]	0.17	[3390]	0.18	[1296]
	(0.34)		(0.36)		(0.39)		(0.36)		(0.37)		(0.39)	
Part time	0.48	[3837]	0.36	[4435]	0.34	[2160]	0.30	[4699]	0.25	[3978]	0.21	[1550]
	(0.50)		(0.48)		(0.47)		(0.46)		(0.44)		(0.41)	

Standard deviations in parenthesis. Low educated = primary or secondary education, completed or not ; Medium educated = post secondary vocational diploma ; High educated = higher education diploma. Hours gives the number of hours worked over the year, working weeks gives the number of worked weeks during the year, and inactive weeks the number of weeks of inactivity during the year. Earnings are labor earnings exclusively. Study indicates being studying full time or part time during the year. Wage is computed as earnings/working hours for those who worked at least 1 hour over the year. Job change indicates if the individual changed his/her main job over the year, it is not defined the first year the respondent is observed. Part time indicates if the individual worked only part of the year and/or part time on a weekly basis, for individuals who are not fully inactive during the year.

TABLE 4. Impact of the cohabitation regime on the labor market outcomes of men, by educational attainment

Variable	Working Hours	Worked weeks	Inactive weeks	Earnings ( $\times$ CAD 1,000)
<b>Low Education</b> (N=5241)				
$D^1$	-6.3 [0.94]	-0.5 [0.80]	-1.2 [0.31]	-2.4 [0.22]
$D^2$	-66.7 [0.69]	-1.0 [0.62]	-2.9 [0.08]	2.7 [0.42]
$D^1 + D^2 + D^3$	-40.0 [0.83]	-0.3 [0.89]	-3.3 [0.07]	5.4 [0.10]
$D^1 + D^{eq,1}$	-54.1 [0.86]	-7.6 [0.28]	4.2 [0.50]	-3.8 [0.35]
$D^2 + D^{eq,2}$	-104.5 [0.62]	-2.5 [0.55]	0.6 [0.89]	6.5 [0.07]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	72.1 [0.73]	0.8 [0.76]	-4.3 [0.11]	6.2 [0.07]
<b>Medium Education</b> (N=4227)				
$D^1$	45.7 [0.61]	-1.2 [0.51]	1.5 [0.30]	-1.3 [0.52]
$D^2$	251.5 [0.43]	2.9 [0.54]	-2.8 [0.56]	3.8 [0.21]
$D^1 + D^2 + D^3$	462.2 [0.11]	8.2 [0.06]	-6.2 [0.14]	5.4 [0.13]
$D^1 + D^{eq,1}$	70.2 [0.68]	0.18 [0.96]	3.4 [0.14]	4.3 [0.24]
$D^2 + D^{eq,2}$	192.7 [0.26]	1.5 [0.56]	-9.4 [0.12]	7.1 [0.17]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	692.8 [0.04]	14.5 [0.004]	-6.0 [0.17]	3.1 [0.52]
<b>High Education</b> (N=1622)				
$D^1$	-164.9 [0.18]	-2.4 [0.48]	2.2 [0.43]	-1.9 [0.75]
$D^2$	698.5 [<0.001]	2.9 [0.28]	-0.3 [0.91]	-4.6 [0.76]
$D^1 + D^2 + D^3$	336.3 [0.25]	-3.8 [0.47]	3.0 [0.40]	-8.2 [0.62]
$D^1 + D^{eq,1}$	279.2 [0.38]	-2.7 [0.38]	2.1 [0.39]	10.7 [0.16]
$D^2 + D^{eq,2}$	683.0 [0.004]	-0.7 [0.89]	-4.0 [0.14]	-9.2 [0.43]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	1595.6 [<0.001]	22.0 [<0.001]	-21.4 [<0.001]	-9.6 [0.60]

P-value of test of equality to zero in brackets. Low educated = primary or secondary education, completed or not ; Medium educated = post secondary vocational diploma ; High educated = higher education diploma. Hours gives the number of hours worked over the year, working weeks gives the number of worked weeks during the year, and inactive weeks the number of weeks of inactivity during the year. Earnings are labor earnings exclusively.

TABLE 5. Impact of the cohabitation regime on the labor market mobility of men, by educational attainment

Variable	Study	Wage	Job change	Part time
<b>Low Education</b>				
$D^1$	-0.01 [0.83]	-0.7 [0.58]	-0.05 [0.55]	<0.01 [0.98]
$D^2$	0.05 [0.21]	0.7 [0.75]	0.06 [0.33]	-0.01 [0.83]
$D^1 + D^2 + D^3$	0.06 [0.18]	1.9 [0.37]	-0.02 [0.80]	0.01 [0.84]
$D^1 + D^{eq,1}$	-0.15 [0.33]	-2.1 [0.36]	0.05 [0.77]	0.02 [0.89]
$D^2 + D^{eq,2}$	0.02 [0.79]	4.1 [0.06]	-0.02 [0.83]	-0.06 [0.53]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	0.07 [0.24]	2.6 [0.24]	-0.07 [0.45]	0.04 [0.61]
N	5241	4795	4153	4699
<b>Medium Education</b>				
$D^1$	-0.03 [0.59]	-3.3 [0.08]	0.01 [0.81]	0.01 [0.81]
$D^2$	-0.04 [0.51]	1.9 [0.28]	-0.08 [0.42]	-0.01 [0.93]
$D^1 + D^2 + D^3$	-0.13 [0.09]	0.4 [0.84]	0.07 [0.47]	-0.11 [0.27]
$D^1 + D^{eq,1}$	-0.03 [0.80]	-1.0 [0.76]	-0.33 [0.07]	-0.31 [0.16]
$D^2 + D^{eq,2}$	-0.16 [0.16]	-0.6 [0.81]	-0.09 [0.63]	-0.29 [0.05]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	-0.08 [0.43]	-5.2 [0.09]	-0.03 [0.88]	-0.54 [0.006]
N	4227	4053	3390	3978
<b>High Education</b>				
$D^1$	0.11 [0.12]	2.2 [0.40]	-0.07 [0.59]	-0.05 [0.68]
$D^2$	0.154 [0.18]	-12.7 [0.04]	-0.26 [0.32]	-0.28 [0.24]
$D^1 + D^2 + D^3$	0.15 [0.42]	-9.5 [0.19]	-0.19 [0.49]	0.02 [0.94]
$D^1 + D^{eq,1}$	0.12 [0.19]	4.9 [0.20]	-0.26 [0.21]	-0.08 [0.63]
$D^2 + D^{eq,2}$	0.02 [0.91]	-16.0 [0.001]	-0.55 [<0.001]	-0.65 [<0.001]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	-0.12 [0.65]	-19.5 [0.05]	-0.18 [0.56]	-0.03 [0.93]
N	1622	1572	1296	1550

P-value of test of equality to zero in brackets. Low educated = primary or secondary education, completed or not ; Medium educated = post secondary vocational diploma ; High educated = higher education diploma. Study indicates being studying full time or part time during the year. Wage is computed as earnings/working hours for those who worked at least 1 hour over the year. Job change indicates if the individual changed his/her main job over the year, it is not defined the first year the respondent is observed. Part time indicates if the individual worked only part of the year and/or part time on a weekly basis, for individuals who are not fully inactive during the year.

TABLE 6. Impact of the cohabitation regime on the labor market outcomes of women, by educational attainment

Variable	Working Hours	Worked weeks	Inactive weeks	Earnings ( $\times$ CAD 1,000)
<b>Low Education</b> (N=5223)				
$D^1$	-13.9 [0.86]	1.7 [0.32]	-4.7 [0.02]	-1.5 [0.06]
$D^2$	70.6 [0.46]	-0.6 [0.79]	0.5 [0.88]	0.2 [0.90]
$D^1 + D^2 + D^3$	14.0 [0.90]	-1.1 [0.69]	1.4 [0.66]	-1.3 [0.32]
$D^1 + D^{eq,1}$	337.1 [0.32]	1.9 [0.76]	-2.1 [0.71]	-3.5 [0.27]
$D^2 + D^{eq,2}$	43.5 [0.82]	-4.0 [0.27]	2.3 [0.54]	-0.1 [0.93]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	4.9 [0.98]	-2.9 [0.45]	1.8 [0.65]	-0.3 [0.84]
<b>Medium Education</b> (N=4952)				
$D^1$	-73.3 [0.27]	-3.8 [0.02]	2.9 [0.05]	-3.7 [0.07]
$D^2$	-17.6 [0.89]	-2.2 [0.43]	4.1 [0.15]	-0.9 [0.58]
$D^1 + D^2 + D^3$	90.2 [0.48]	3.6 [0.21]	-3.2 [0.27]	-2.4 [0.18]
$D^1 + D^{eq,1}$	-371.8 [0.07]	-9.2 [0.14]	8.4 [0.14]	-3.9 [0.24]
$D^2 + D^{eq,2}$	-165.2 [0.39]	-6.1 [0.21]	6.4 [0.14]	1.3 [0.51]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	-6.1 [0.98]	-3.6 [0.51]	3.7 [0.49]	-2.1 [0.54]
<b>High Education</b> (N=2301)				
$D^1$	109.3 [0.35]	1.0 [0.72]	-0.5 [0.83]	-1.6 [0.59]
$D^2$	77.3 [0.73]	3.4 [0.50]	-1.1 [0.69]	-2.3 [0.58]
$D^1 + D^2 + D^3$	131.8 [0.50]	6.4 [0.15]	-2.8 [0.28]	2.8 [0.47]
$D^1 + D^{eq,1}$	-158.8 [0.43]	-2.3 [0.42]	2.2 [0.36]	-14.2 [<0.001]
$D^2 + D^{eq,2}$	-343.4 [0.28]	4.9 [0.56]	5.7 [0.23]	2.6 [0.62]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	407.6 [0.19]	6.2 [0.54]	0.5 [0.92]	3.3 [0.56]

P-value of test of equality to zero in brackets. Low educated = primary or secondary education, completed or not ; Medium educated = post secondary vocational diploma ; High educated = higher education diploma. Hours gives the number of hours worked over the year, working weeks gives the number of worked weeks during the year, and inactive weeks the number of weeks of inactivity during the year. Earnings are labor earnings exclusively.

TABLE 7. Impact of the cohabitation regime on the labor market mobility of women, by educational attainment

Variable	Study	Wage	Job change	Part time
<b>Low Education</b>				
$D^1$	<0.01 [0.95]	1.7 [0.15]	0.03 [0.67]	0.05 [0.37]
$D^2$	-0.07 [0.25]	-1.1 [0.56]	0.05 [0.58]	0.02 [0.78]
$D^1 + D^2 + D^3$	-0.002 [0.97]	2.0 [0.24]	0.01 [0.90]	-0.02 [0.84]
$D^1 + D^{eq,1}$	-0.18 [0.47]	-7.4 [0.23]	0.18 [0.12]	-0.23 [0.27]
$D^2 + D^{eq,2}$	-0.05 [0.37]	0.6 [0.76]	-0.24 [0.18]	-0.12 [0.36]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	0.01 [0.82]	0.9 [0.62]	-0.08 [0.54]	-0.09 [0.53]
N	5223	3899	4361	3837
<b>Medium Education</b>				
$D^1$	0.04 [0.31]	-1.9 [0.14]	0.08 [0.15]	0.04 [0.44]
$D^2$	0.05 [0.54]	-2.4 [0.19]	0.03 [0.77]	-0.08 [0.36]
$D^1 + D^2 + D^3$	-0.03 [0.73]	-5.0 [0.01]	0.11 [0.31]	-0.13 [0.16]
$D^1 + D^{eq,1}$	-0.07 [0.62]	-0.4 [0.84]	-0.22 [0.32]	0.08 [0.47]
$D^2 + D^{eq,2}$	0.17 [0.09]	-0.10 [0.96]	-0.01 [0.90]	-0.05 [0.73]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	-0.03 [0.76]	-5.6 [0.04]	0.02 [0.87]	-0.18 [0.13]
N	4952	4505	4023	4435
<b>High Education</b>				
$D^1$	0.01 [0.88]	-7.9 [0.04]	0.05 [0.63]	-0.007 [0.94]
$D^2$	-0.29 [0.04]	7.0 [0.21]	0.06 [0.74]	-0.18 [0.16]
$D^1 + D^2 + D^3$	-0.29 [0.01]	1.1 [0.81]	0.23 [0.22]	-0.27 [0.03]
$D^1 + D^{eq,1}$	-0.03 [0.83]	-10.5 [0.10]	-0.27 [0.21]	0.40 [0.13]
$D^2 + D^{eq,2}$	0.18 [0.65]	8.3 [0.08]	0.59 [0.04]	0.19 [0.34]
$D^1 + D^2 + D^3 + D^{eq,1} + D^{eq,2} + D^{eq,3}$	-0.33 [0.08]	4.7 [0.34]	0.25 [0.32]	-0.27 [0.15]
N	2301	2190	1859	2160

P-value of test of equality to zero in brackets. Low educated = primary or secondary education, completed or not ; Medium educated = post secondary vocational diploma ; High educated = higher education diploma. Study indicates being studying full time or part time during the year. Wage is computed as earnings/working hours for those who worked at least 1 hour over the year. Job change indicates if the individual changed his/her main job over the year, it is not defined the first year the respondent is observed. Part time indicates if the individual worked only part of the year and/or part time on a weekly basis, for individuals who are not fully inactive during the year.



## 6. ONLINE APPENDIX

## A. EXAMPLE OF CHANGE IN THE DEFINITION OF PARTNERS

FIGURE A1. Definition of Spouse in the Family Property Act. Chapter F-6-3. (Saskatchewan, 1997)

“**spouse**” means either of two persons who:

- (a) at the time an application is made pursuant to this Act, is legally married to the other or is married to the other by a marriage that is voidable and has not been voided by a judgment of nullity;
- (b) has, in good faith, gone through a form of statutory marriage with the other that is void, where they are cohabiting or have cohabited within the two years preceding the making of an application pursuant to this Act; or
- (c) is cohabiting or has cohabited with the other person as spouses continuously for a period of not less than two years;

and includes:

- (d) a surviving spouse who continues or commences an application pursuant to section 30 and who was the spouse, within the meaning of clause (a), (b) or (c), of the deceased spouse on the day of the spouse’s death; and
- (e) where the applicant is a spouse within the meaning of clause (b), the other party to the void marriage; (« *conjoint* »)

FIGURE A2. Definition of Spouse in the Family Maintenance Act. Chapter F-6-3. (Saskatchewan, 1990)

(l) “**spouse**” means a wife or husband and includes:

- (i) a party to a marriage that is voidable and has not been voided by a judgment of nullity or dissolution of marriage;
- (ii) for the purpose of proceedings to enforce or vary an order, a party to a marriage with respect to which an order for divorce, dissolution of marriage or decree of nullity has been made; or
- (iii) either of a man and woman who are not married to each other and have cohabited as husband and wife:
  - (A) continuously for a period of not less than three years; or
  - (B) in a relationship of some permanence, if they are the birth or adoptive parents of a child.

1990-91, c.F-6.1, s.2; 1993, c.5, s.3; 1994, c.27, s.24; 1997, c.3, s.3.

## B. TABLES OF COEFFICIENTS

TABLE A1. Men

Variable	Working Hours		Worked weeks		Inactive weeks		Earnings	
	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2
<b>Low Education (N=5241)</b>								
$D^1$	-94.734 (79.997)	-6.341 (89.413)	-1.477 (1.540)	-0.469 (1.808)	-0.503 (1.066)	-1.185 (1.173)	-2255.025 (1782.811)	-2433.792 (1985.851)
$D^2$	-144.555 (105.308)	-66.749 (168.953)	-4.156 (1.858)	-1.027 (2.075)	0.517 (1.446)	-2.942 (1.676)	-963.647 (3457.039)	2656.244 (3325.222)
$D^1 \times D^2$	223.629 (91.732)	33.063 (118.816)	3.336 (1.509)	1.198 (2.148)	-1.262 (1.316)	0.803 (1.759)	4105.300 (2583.323)	5205.828 (3110.567)
$D^{eq,1}$	32.990 (281.883)	-47.840 (295.047)	-4.585 (6.147)	-7.123 (6.686)	4.225 (5.685)	5.423 (6.146)	2463.029 (2576.261)	-1362.358 (3411.544)
$D^{eq,2}$	-117.263 (166.580)	-37.756 (177.018)	-2.901 (4.121)	-1.523 (4.225)	4.153 (4.227)	3.550 (4.337)	2491.256 (2567.558)	3845.118 (2464.476)
$D^{eq,1} \times D^{eq,2}$	129.313 (331.976)	197.754 (346.288)	7.554 (7.595)	9.774 (8.038)	-8.650 (7.473)	-9.980 (7.860)	-5140.475 (3561.991)	-1752.890 (4216.436)
<b>Medium Education (N=4227)</b>								
$D^1$	43.851 (85.440)	45.714 (90.733)	-1.120 (1.714)	-1.176 (1.784)	0.669 (1.381)	1.477 (1.414)	-1858.358 (2041.449)	-1256.199 (1962.028)
$D^2$	90.268 (198.957)	251.555 (316.505)	1.593 (3.475)	2.939 (4.837)	0.952 (3.016)	-2.751 (4.688)	-824.291 (2195.898)	3839.762 (3062.891)
$D^1 \times D^2$	130.922 (181.072)	165.027 (181.676)	6.082 (3.617)	6.460 (3.599)	-4.136 (2.609)	-4.954 (2.673)	4187.985 (2820.636)	2844.251 (2990.474)
$D^{eq,1}$	123.219 (123.321)	24.459 (146.291)	1.625 (2.659)	1.352 (3.139)	0.545 (1.825)	1.919 (1.857)	3845.593 (2918.418)	5560.764 (3179.687)
$D^{eq,2}$	14.969 (130.556)	-58.894 (192.545)	-0.152 (2.319)	-1.395 (2.924)	-8.602 (4.861)	-6.613 (6.482)	5022.990 (3565.264)	3262.065 (4458.362)
$D^{eq,1} \times D^{eq,2}$	10.029 (190.107)	264.965 (278.124)	5.119 (3.611)	6.297 (4.551)	8.598 (5.414)	4.889 (6.898)	-9379.595 (5036.412)	-1.11e+04 (5715.731)
<b>High Education (N=1622)</b>								
$D^1$	-156.957 (112.309)	-164.955 (123.962)	-2.766 (2.878)	-2.353 (3.359)	2.685 (2.508)	2.190 (2.804)	295.648 (5445.139)	-1900.673 (6056.793)
$D^2$	265.473 (179.309)	698.537 (190.028)	0.547 (3.176)	2.929 (2.736)	-0.156 (2.303)	-0.257 (2.405)	1929.382 (9243.433)	-4589.854 (15241.039)
$D^1 \times D^2$	-165.034 (242.015)	-197.280 (268.652)	-2.309 (4.907)	-4.328 (5.852)	0.345 (3.157)	1.082 (3.744)	-4823.815 (9205.882)	-1739.964 (10463.285)
$D^{eq,1}$	437.940 (319.430)	444.203 (318.558)	-0.897 (2.072)	-0.315 (2.102)	-0.029 (1.735)	-0.061 (1.792)	11331.306 (5076.258)	12649.596 (4551.676)
$D^{eq,2}$	103.864 (152.806)	-15.531 (254.380)	-0.295 (3.146)	-3.650 (5.833)	-3.869 (2.006)	-3.748 (2.364)	-2613.402 (7568.760)	-4586.394 (11292.818)
$D^{eq,1} \times D^{eq,2}$	216.447 (423.686)	830.638 (398.784)	16.963 (7.622)	29.782 (5.351)	-8.179 (5.855)	-20.625 (3.355)	-5469.315 (9451.603)	-9448.949 (12944.192)

TABLE A2. Women

Variable	Working Hours		Worked weeks		Inactive weeks		Earnings	
	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2
<b>Low Education (N=5223)</b>								
$D^1$	-10.757 (68.869)	-13.958 (81.643)	1.645 (1.550)	1.691 (1.714)	-3.997 (1.819)	-4.701 (2.025)	-1550.894 (832.843)	-1536.556 (830.658)
$D^2$	184.406 (93.891)	70.575 (96.449)	3.498 (2.437)	-0.655 (2.479)	-0.952 (2.645)	0.462 (3.017)	-0.575 (1322.238)	151.083 (1114.791)
$D^1 \times D^2$	-61.213 (97.687)	-42.634 (119.868)	-2.287 (2.388)	-2.117 (2.723)	3.667 (2.887)	5.631 (3.357)	-439.030 (1080.189)	129.577 (1143.481)
$D^{eq,1}$	210.352 (265.027)	351.028 (326.868)	-0.386 (4.957)	0.182 (5.942)	2.763 (5.139)	2.594 (5.287)	632.366 (2378.239)	-1981.385 (3017.070)
$D^{eq,2}$	38.979 (159.217)	-27.067 (173.718)	-2.152 (3.140)	-3.369 (3.243)	2.345 (2.860)	1.864 (3.230)	-584.967 (1871.933)	-289.177 (1501.137)
$D^{eq,1} \times D^{eq,2}$	-139.367 (289.615)	-332.997 (355.502)	2.324 (5.452)	1.309 (6.594)	-4.543 (5.688)	-4.036 (5.965)	355.490 (2625.212)	3205.285 (3470.680)
<b>Medium Education (N=4952)</b>								
$D^1$	-101.029 (67.958)	-73.265 (67.043)	-3.642 (1.574)	-3.816 (1.583)	2.479 (1.481)	2.950 (1.501)	-3934.538 (2108.608)	-3717.672 (2048.820)
$D^2$	-40.304 (110.052)	-17.577 (124.475)	-1.428 (2.384)	-2.243 (2.851)	0.904 (2.342)	4.077 (2.857)	-334.649 (2289.009)	-887.337 (1586.845)
$D^1 \times D^2$	225.958 (109.414)	181.088 (122.698)	9.069 (2.380)	9.704 (2.619)	-8.589 (2.377)	-10.254 (2.739)	2652.451 (2617.148)	2160.070 (2620.586)
$D^{eq,1}$	-275.567 (185.950)	-298.526 (206.614)	-4.843 (5.930)	-5.406 (6.494)	5.162 (5.427)	5.439 (5.787)	983.077 (3118.092)	-219.930 (3319.433)
$D^{eq,2}$	-202.374 (176.673)	-147.585 (202.945)	-6.501 (4.629)	-3.881 (4.627)	5.617 (4.344)	2.275 (4.141)	-964.113 (2124.282)	2213.343 (2205.579)
$D^{eq,1} \times D^{eq,2}$	351.910 (261.176)	349.723 (280.511)	3.813 (7.479)	2.024 (7.975)	-3.183 (6.846)	-0.738 (7.141)	-1009.770 (4109.214)	-1696.183 (4136.371)
<b>High Education (N=2301)</b>								
$D^1$	150.033 (118.829)	109.345 (116.143)	1.053 (2.717)	0.977 (2.686)	-0.648 (2.311)	-0.511 (2.334)	-784.828 (2749.555)	-1639.980 (3080.739)
$D^2$	-183.162 (196.046)	77.308 (221.356)	-0.869 (3.412)	3.360 (4.960)	1.035 (2.138)	-1.082 (2.670)	-5495.998 (3789.831)	-2278.537 (4061.905)
$D^1 \times D^2$	-48.935 (181.948)	-54.799 (185.817)	2.712 (3.937)	2.071 (4.105)	-1.305 (2.431)	-1.182 (2.907)	6383.894 (4178.341)	6756.052 (4587.557)
$D^{eq,1}$	-311.117 (185.984)	-268.159 (177.757)	-2.068 (1.806)	-3.240 (2.030)	0.792 (1.602)	2.726 (1.752)	-1.21e+04 (2522.532)	-1.26e+04 (2892.683)
$D^{eq,2}$	-314.735 (330.794)	-420.706 (335.415)	1.488 (6.468)	1.505 (8.578)	6.266 (4.072)	6.833 (4.336)	3858.008 (4880.255)	4872.007 (5315.006)
$D^{eq,1} \times D^{eq,2}$	1009.956 (341.681)	964.574 (297.540)	3.836 (4.318)	1.485 (4.449)	-6.048 (4.034)	-6.329 (3.329)	9241.504 (5214.704)	8195.488 (5071.891)

TABLE A3. Men

Variable	Study		Wage		Job change		Part Time	
	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2
<b>Low Education</b>								
$D^1$	-0.006 (0.037)	-0.008 (0.036)	0.152 (1.313)	-0.734 (1.316)	-0.082 (0.082)	-0.053 (0.089)	0.052 (0.073)	0.002 (0.075)
$D^2$	0.060 (0.034)	0.051 (0.041)	-0.681 (1.877)	0.661 (2.037)	-0.094 (0.101)	0.060 (0.061)	-0.046 (0.074)	-0.014 (0.065)
$D^1 \times D^2$	-0.014 (0.036)	0.014 (0.036)	0.003 (1.865)	2.027 (2.264)	0.002 (0.091)	-0.024 (0.104)	-0.066 (0.083)	0.026 (0.098)
$D^{eq,1}$	-0.151 (0.154)	-0.139 (0.148)	0.488 (1.437)	-1.394 (1.989)	0.067 (0.163)	0.108 (0.185)	-0.013 (0.097)	0.016 (0.119)
$D^{eq,2}$	-0.064 (0.083)	-0.030 (0.084)	2.639 (1.577)	3.443 (1.492)	-0.050 (0.128)	-0.085 (0.119)	-0.010 (0.080)	-0.047 (0.084)
$D^{eq,1} \times D^{eq,2}$	0.212 (0.163)	0.179 (0.162)	-3.390 (2.094)	-1.353 (2.469)	-0.091 (0.196)	-0.074 (0.210)	0.067 (0.128)	0.057 (0.147)
N	5241	5241	4795	4795	4153	4153	4699	4699
<b>Medium Education</b>								
$D^1$	-0.047 (0.062)	-0.033 (0.062)	-3.530 (1.843)	-3.264 (1.883)	0.025 (0.052)	0.014 (0.058)	0.004 (0.050)	0.013 (0.055)
$D^2$	0.007 (0.043)	-0.043 (0.065)	1.154 (1.479)	1.939 (1.809)	-0.097 (0.065)	-0.079 (0.097)	-0.051 (0.089)	-0.008 (0.092)
$D^1 \times D^2$	-0.059 (0.069)	-0.059 (0.076)	2.600 (2.623)	1.735 (2.889)	0.090 (0.088)	0.138 (0.094)	-0.086 (0.104)	-0.110 (0.109)
$D^{eq,1}$	-0.121 (0.148)	0.006 (0.103)	0.207 (1.441)	2.260 (2.540)	-0.201 (0.183)	-0.344 (0.175)	-0.283 (0.192)	-0.325 (0.216)
$D^{eq,2}$	-0.115 (0.100)	-0.116 (0.098)	-1.935 (2.139)	-2.571 (2.795)	0.038 (0.159)	-0.009 (0.185)	-0.214 (0.169)	-0.279 (0.148)
$D^{eq,1} \times D^{eq,2}$	0.421 (0.239)	0.165 (0.142)	-1.709 (2.822)	-5.261 (4.669)	-0.057 (0.344)	0.245 (0.328)	0.058 (0.285)	0.172 (0.294)
N	4227	4227	4053	4053	3390	3390	3978	3978
<b>High Education</b>								
$D^1$	0.057 (0.061)	0.107 (0.068)	2.990 (2.254)	2.230 (2.653)	-0.133 (0.104)	-0.069 (0.126)	-0.075 (0.097)	-0.047 (0.114)
$D^2$	0.126 (0.111)	0.154 (0.115)	-2.446 (4.126)	-12.722 (6.256)	-0.362 (0.189)	-0.255 (0.259)	-0.389 (0.220)	-0.282 (0.242)
$D^1 \times D^2$	-0.028 (0.103)	-0.107 (0.146)	-0.970 (3.680)	1.032 (4.685)	0.297 (0.125)	0.132 (0.157)	0.416 (0.172)	0.348 (0.204)
$D^{eq,1}$	0.042 (0.071)	0.019 (0.074)	2.189 (2.849)	2.644 (2.760)	-0.211 (0.139)	-0.192 (0.147)	-0.058 (0.148)	-0.037 (0.150)
$D^{eq,2}$	-0.119 (0.098)	-0.136 (0.113)	-5.598 (3.291)	-3.250 (4.346)	-0.345 (0.137)	-0.296 (0.142)	-0.274 (0.123)	-0.372 (0.142)
$D^{eq,1} \times D^{eq,2}$	-0.053 (0.139)	-0.160 (0.156)	-4.462 (4.914)	-9.457 (7.446)	0.917 (0.219)	0.498 (0.232)	0.023 (0.354)	0.361 (0.277)
N	1622	1622	1572	1572	1296	1296	1550	1550

TABLE A4. Women

Variable	Study		Wage		Job change		Part Time	
	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2	Spe1	Spe2
<b>Low Education</b>								
$D^1$	0.024 (0.054)	0.004 (0.057)	0.861 (0.912)	1.688 (1.168)	-0.035 (0.072)	0.030 (0.071)	0.026 (0.054)	0.053 (0.058)
$D^2$	-0.059 (0.041)	-0.066 (0.057)	-0.929 (1.853)	-1.104 (1.902)	0.131 (0.066)	0.046 (0.083)	-0.035 (0.083)	0.024 (0.083)
$D^1 \times D^2$	0.048 (0.056)	0.060 (0.068)	2.836 (3.077)	1.424 (3.061)	0.008 (0.074)	-0.066 (0.077)	-0.010 (0.072)	-0.096 (0.083)
$D^{eq,1}$	-0.189 (0.237)	-0.180 (0.235)	-9.194 (6.309)	-9.119 (5.951)	0.082 (0.055)	0.155 (0.096)	-0.262 (0.181)	-0.288 (0.209)
$D^{eq,2}$	0.037 (0.033)	0.018 (0.041)	0.820 (1.945)	1.714 (2.042)	-0.272 (0.161)	-0.283 (0.161)	-0.127 (0.112)	-0.143 (0.115)
$D^{eq,1} \times D^{eq,2}$	0.183 (0.238)	0.179 (0.237)	7.201 (6.659)	6.328 (6.510)	0.101 (0.151)	0.042 (0.168)	0.328 (0.198)	0.361 (0.227)
N	5223	5223	3899	3899	4361	4361	3837	3837
<b>Medium Education</b>								
$D^1$	0.029 (0.039)	0.039 (0.039)	-1.923 (1.334)	-1.966 (1.343)	0.081 (0.051)	0.079 (0.055)	0.049 (0.050)	0.041 (0.053)
$D^2$	0.050 (0.050)	0.047 (0.076)	-0.485 (1.439)	-2.399 (1.818)	-0.073 (0.078)	0.029 (0.100)	-0.022 (0.086)	-0.081 (0.089)
$D^1 \times D^2$	-0.077 (0.050)	-0.115 (0.057)	-0.037 (1.743)	-0.637 (1.825)	0.010 (0.067)	-0.001 (0.078)	-0.051 (0.080)	-0.092 (0.088)
$D^{eq,1}$	-0.120 (0.121)	-0.110 (0.138)	1.187 (1.371)	1.553 (1.892)	-0.271 (0.205)	-0.300 (0.226)	-0.035 (0.111)	0.042 (0.110)
$D^{eq,2}$	0.132 (0.089)	0.121 (0.093)	1.015 (1.988)	2.295 (2.704)	0.036 (0.083)	-0.038 (0.087)	0.150 (0.202)	0.032 (0.147)
$D^{eq,1} \times D^{eq,2}$	-0.021 (0.151)	-0.016 (0.164)	-2.936 (3.011)	-4.468 (3.495)	0.210 (0.225)	0.250 (0.243)	-0.109 (0.232)	-0.122 (0.201)
N	4952	4952	4505	4505	4023	4023	4435	4435
<b>High Education</b>								
$D^1$	-0.023 (0.088)	0.013 (0.087)	-7.660 (3.777)	-7.882 (3.912)	0.024 (0.120)	0.050 (0.105)	-0.069 (0.095)	-0.007 (0.096)
$D^2$	-0.066 (0.115)	-0.291 (0.140)	0.710 (5.075)	6.991 (5.627)	0.013 (0.112)	0.060 (0.182)	-0.014 (0.100)	-0.185 (0.133)
$D^1 \times D^2$	0.043 (0.161)	-0.014 (0.163)	2.123 (7.725)	2.040 (8.434)	0.179 (0.156)	0.123 (0.163)	0.024 (0.110)	-0.081 (0.134)
$D^{eq,1}$	-0.078 (0.119)	-0.040 (0.121)	-0.865 (5.398)	-2.645 (5.209)	-0.293 (0.197)	-0.318 (0.202)	0.434 (0.254)	0.412 (0.260)
$D^{eq,2}$	0.432 (0.418)	0.468 (0.395)	1.127 (6.679)	1.267 (6.764)	0.661 (0.258)	0.534 (0.327)	0.262 (0.154)	0.374 (0.179)
$D^{eq,1} \times D^{eq,2}$	-0.429 (0.421)	-0.466 (0.389)	4.522 (9.462)	4.977 (8.865)	-0.299 (0.356)	-0.196 (0.391)	-0.703 (0.317)	-0.782 (0.323)
N	2301	2301	2190	2190	1859	1859	2160	2160