

THE EFFECTS OF INSTITUTIONAL GAPS BETWEEN COHABITATION AND MARRIAGE: ONLINE APPENDIX

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OA Institutional Framework

I provide additional details on the differential institutional settings faced by married and cohabiting couples. I organize the discussion in four categories: rights and obligations against each other, rights and obligations related to children, rights against the state, and rights against third parties. Most of the discussion is based on [Bowman \(2004\)](#), [Bowman \(2010\)](#) and [Waggoner \(2016\)](#).

RIGHTS AND OBLIGATIONS AGAINST EACH OTHER: As mentioned in Section 2, while married couples are covered by state divorce laws, cohabiting couples are not.¹ Therefore, these couples can end their partnerships without the state interference, and each partner is in principle legally entitled to keep their own assets. Moreover, there is variation across states in whether contracts between cohabiting partners are recognized.² Other remedies

¹State divorce laws determine who can start the divorce process, on which grounds, and how property is divided upon separation. Regarding who can start the divorce, states are divided between those with mutual consent divorce and those with unilateral divorce laws, in which one partner can start the divorce process with no consent from the other spouse. With respect to grounds for divorce, most states recognize no-fault divorce, and spouses do not need to prove fault to start the divorce process. Regarding property division, most states are either common property states, where property is divided evenly between the spouses, or equitable distribution states, in which courts can allocate resources upon separation in an equitable way (but not necessarily evenly).

²States can be divided in three groups: a) states in which contracts between cohabitants are not recognized (Illinois, Georgia, Louisiana); c) States that recognize meretricious relationships for motives

upon separation—such as alimony payments—are usually not available or not granted in court to unmarried partners.

Cohabiting couples are also treated differently than legal spouses under inheritance laws. If one partner dies with no will in place, there is large variation across states in how their assets will be divided, but in all cases, a legal spouse has the right to inherit his/her late partner. Unmarried partners do not have the same right, independently of the length of the relationship and of whether there are common children. State specific instate laws rule property division in these cases.³

RIGHTS AND OBLIGATIONS RELATED TO CHILDREN: Under the Uniform Parentage Act (UPA 1973), children cannot be discriminated or deemed as illegitimate based on the marital status of their parents.⁴ However, there are still differences between married and unmarried parents on how their parental rights and obligations are established and enforced, as mentioned in Section 2. I expand on these key differences below:

- **Presumption of Paternity and Paternity Establishment:** when a child is born to a married woman her husband is presumed to be the father of the child. However, when a child is born to an unmarried woman, there is no such presumptions, and additional steps have to be taken to establish legal paternity and to claim parental rights. During the 1990s, the Federal State requested states to implement hospital-based policies to simplify the paternity establishment process by allowing paternity to be established in the hospital at birth, aiming to increase paternity establishment rates. Under these policies, to establish paternity both parents have to be present in the hospital and sign the Affidavit Acknowledging Paternity form. Paternity establishment makes the father financially responsible and gives him rights to make legal decisions related to the child, but does not grant him custody or visitation rights

of property division at separation or death (Washington) c) States that recognize contracts: most other states recognize contracts between unmarried couples. However, in most cases these contracts are tacit and difficult to enforce in court. Evidence suggest that written contracts are quite uncommon (Bowman, 2010) and that the disadvantaged partner at separation is usually the one with less bargaining power during the relationship, and therefore, the less likely to obtain contractual protection (Waggoner, 2016). Finally, many cohabiting couples are low-educated and less sophisticated when it comes to the law, and so less likely to sign a contract.

³Exceptions are Washington State, and states that recognize domestic partnerships, provided that the partnerships are registered.

⁴For example, in *Levy v. Louisiana* (1968), the U.S. Supreme Court ruled that state laws that denied illegitimate children rights based on their illegitimacy were unconstitutional under the Equal Protection Clause. In *Trimble v. Gordon* (1977), the Supreme Court invalidated a state law that denied an illegitimate child the right to inherit from her father unless stipulated in the father's will.

(but in most cases is a pre-condition to claim them). Paternity establishment also grants children inheritance rights, the right to sue for parental wrongful death, and to receive worker's compensation or survivor's benefits.

- **Child Support:** parents have the obligation to financially support their children until they turn 18 (or later in specific circumstances, such as disability), independently of their current or former marital status. However, while child support is established as part of the divorce order, there is no such instance for unmarried parents. Child support offices help custodial parents (in general, mothers) to obtain a child support order, and paternity establishment is a prerequisite for this. Once the child support order is established, the same state guidelines apply to all parents.
- **Custody rights:** most states in the U.S. moved to a presumption of joint custody of children upon divorce, as considered in the best interest of the child ([Brinig and Buckley, 1998](#); [Cuadra, 2010](#)). However, in many states unmarried fathers are not treated equally than married fathers, and presumptions of sole maternal custody are in place or are favored by courts ([Cuadra, 2010](#)). Even when unmarried fathers are treated equally than married fathers, paternity establishment is usually a prerequisite for custody. Moreover, since there is no formal process to end the cohabiting relationship, unmarried parents do not leave the union with custody orders in place as is the case for divorcees, for whom custody orders are part of the divorce settlement ([Huntington, 2015](#)).

RIGHTS AGAINST THE STATE: Married and unmarried couples are treated differently by the Federal Government. Unmarried partners do not have the same rights under the Federal Law than married individuals, even if they have a state recognized domestic partnership. While I do not discuss the differences exhaustively, I mention the most relevant ones below:

- **Tax treatment:** While spouses can file federal taxes jointly ('married filing jointly'), cohabiting individuals are treated as single tax units, which can impose a tax penalty or premium to the cohabiting couples.⁵ The Earned Income Tax Credit (EITC) is also affected by the marital status of partners.
- **Welfare Programs:** the marital status of couples might affect how the income of a partner is counted towards eligibility on welfare programs. In particular, in the case

⁵The more equal the incomes of the partners, the larger the marriage penalty. On the other hand, for specialized couples in which one of the spouses is the main income earner, the marriage bonus is larger.

of the Temporary Assistance for Needy Families (TANF) program, there are state specific rules that determine how the income of unmarried partners is counted, which depend on the relationship between the male partner and some or all the children of the household (Moffitt, Reville, Winkler, and McClure Burstain, 2008). In the case of Supplemental Nutrition Assistance Program (SNAP), the rules do not clarify how the marital status affects eligibility for Food Stamps, but only the size of the household matters. However, evidence suggests that many recipients are not aware of this, and this affects in practice the likelihood of receiving welfare based on marital status.⁶

- **Other Federal Programs and Taxes:** married and unmarried couples are treated differently for estate tax and gift purposes. For married spouses, asset transfers are tax free, while for unmarried partners assets transfers are taxable, and subject to annual and lifetime exclusion limits. A surviving spouse has the right to defer estate taxation until she gives property away or she dies, while a surviving cohabiting partner does not have the same right. Unmarried partners do not have rights over Survivor Social Security benefits of a late partner, while former married individuals do, even if they divorced (as long as they were married for more than 10 years).⁷ Also, under the Employee Retirement Income Security Act of 1974 (ERISA), a surviving spouse is the default beneficiary of a retirement plan 401(k), while an unmarried partner is not (except she has been designated as such). Finally, regarding health insurance, unmarried partners cannot delay enrollment to Medicare Part B, even if they are covered by health insurance of their partners, while married spouses can. Married partners become responsible for health debts of their spouses, and might need to deplete their assets to pay for long term care, before the spouse becomes eligible to get nursing care from Medicaid. On the other hand, the assets of unmarried partners are protected in these cases, except they are jointly owned, which provides insurance to unmarried partners at older ages.

RIGHTS AGAINST THIRD PARTIES: Married and unmarried couples also differ in their rights against third parties. For example, tort claims are available for married partners but not for unmarried partners, for reasons such as wrongful death, lost of consortium or

⁶Data from the American Community Survey of 2015 suggest that 28 percent of people surveyed report to know someone that chose not to get marry to avoid losing benefits.

⁷Divorcees lose these benefits if they remarry before the age of 60. Remarriage also affects veteran's survivor pensions.

emotional distress (Bowman, 2004; Bowman, 2010).⁸ Unmarried partners usually do not have rights in relation to health-related issues of their partners, and visitation in hospital and the power to make health related decisions about a partner is limited to legally married spouses.⁹ Domestic partnerships laws extend these rights to registered cohabiting partners. Otherwise, the rights of unmarried partners have to be ruled by courts.¹⁰

OB Data for Empirical Analysis

In describe here the three main sources of data I use in this paper.

NATIONAL LONGITUDINAL SURVEY OF YOUTH 1997 (NLSY-97). This survey follows a nationally representative cohort of 8,984 men and women born in the U.S. between 1980 and 1984, who were living in the U.S. by the time of the first wave of the survey. I use data from the first 18 waves of the survey, implemented between 1997 and 2017. Starting in 2011, the survey became bi-annual, and data was not collected in 2012, 2014 and 2016. The NLSY-97 public-use data does not allow me to observe the state of residency of each individual, which is important in several instances. For this reason, I applied to the restricted-use geocoded NLSY-97 data, which provides me with the state identifiers of each individual.

Marital and birth histories: I use information on the marital status of individual, as recorded in each survey round. When this information is missing, or to fill the gaps in years in which the survey was not implemented, I exploit the richness of the marital histories. These histories record the monthly marital status and partner's ID of each individual, even in years in which the survey was not implemented. When the interview was implemented

⁸States in which domestic partnerships laws have been passed (New Jersey, California, Maine, Washington and the District of Columbia) give domestic partners the same rights than to married couples with respect to tort claims. In some cases, these benefits are also extended to all heterosexual couples, even if not reached by the domestic partnership laws (i.e.: couples in which both members are younger than 62). In limited cases, an unmarried partner can sue a third party: for example, New Mexico recognizes the right of unmarried partners to sue for loss of consortium, even if there is no domestic partnership law.

⁹When partners are not legally married and there are no written contracts, direct family members (such as parents and siblings) have those rights, independently of the length of the relationship between unmarried partners.

¹⁰Some states/cities have passed regulations to recognize unmarried partners as health insurance beneficiaries, or worker's compensation survivor benefits. In all cases, domestic partnership laws extend these rights to registered partners, and some firms extended these benefits to unmarried partners without a mandate. In many cases, health insurance provision to heterosexual unmarried couples responded to the demands of same sex couples.

but the marital status data is missing, I fill the information with the month corresponding to the month in which the survey was implemented. If the interview was implemented in the following year (for example, data corresponds to year 2010 but the interview was implemented in January 2011) or for years in which the survey was not implemented, I use information corresponding to the month of November of the corresponding survey year.

I drop information from men and women from which I cannot determine the marital status on a certain year. I also drop information for individuals who I observe married or cohabiting but to whom I cannot assign a partner ID, or that I observe in a relationship with a partner of the same-sex.

I use data on birth histories to fill information on the arrival of a child to the household in years in which the survey was not implemented, or the information on child's arrival is missing. I combine information on the year of child arrival and the marital status of the individual to determine the marital status of women at childbirth.

Education variables: I use information on education attainment of individuals in each year to determine the maximum level of education attained by age 27. I classify individuals in 4 groups: school dropouts, high school degree, some college and college and plus. This education variable is time-invariant.

Labor Market Variables: I use information on reported weekly worked hours to determine the employment status of the individual. When this information is missing in the survey (or for years in which the survey was not implemented), I use information corresponding to the 45th of the annual employment histories (second week of November), that records weekly employment information.

I classify individuals as employed if they report positive weekly hours and positive wages. I classify individuals as employed full-time if they report more than 37.5 weekly hours, and as employed part-time if they are employed but less than 37.5 hours per week. I construct the years of experience by accumulating the years in which individuals were employed, based on different criteria. The main definition I use, considers full-time employment as 1 year of experience, and part-time employment as 0.5 years.

I transform nominal wages into real wages of 2015 USD using the OCED CPI deflator.¹¹

FRAGILE FAMILIES AND CHILD WELLBEING STUDY (FFCW): This survey follows a cohort of 4,898 children born in large U.S. cities between 1998 and 2000, and their parents.

¹¹Obtained from <https://data.oecd.org/price/inflation-cpi.htm>

The first wave of data was collected at childbirth (in the hospital), and the following waves were implemented at ages 1, 3, 5, 9 and 15.

The data oversamples children born to unmarried parents—both cohabiting or not living together at childbirth. Key for my analysis, in each wave I can observe the marital status of the biological parents, and whether they live in the same household. I can also observe whether the parents started a relationship with a new partner after divorce or separation.

I restrict the sample to singleton births, in which the mother was between 20 and 40 years at the time of child arrival. I restrict my sample to children born to White, Black or Hispanic mothers.

I applied to the restricted-use data of the FFCW, which allows me to observe the city of birth of each focal child, and hence, their state.

Marital Status: For most of my analysis, I classify households based on the marital status of the parents of the focal child at childbirth. I classify parents as married if they were married at childbirth or marry within an year of the birth of the child. I classify them as cohabiting if they are cohabiting at childbirth or start cohabiting within an year of the birth of the child. I classify parents as single-parents if they are not married or cohabiting at childbirth, based on the previous criteria. I drop from the sample those observations for which I cannot identify the marital status of parents at birth.

Parental Education: I classify parents in 4 education categories in each survey round: less than high school degree, high school degree, some college, and college plus. When required, I group the first two and the last two together to classify individuals into two bins.

Labor Market Outcomes: In each wave, I determine maternal labor force participation based on answers to the question: ‘In the last week, did you do any regular work for pay?’. For the second wave (age 1) I also use information on whether the mother went back to work after childbirth. When relevant, I classify women as working full time if they report more than 37 weekly hours of work, as part-time if they work between 5 and 37 hours, and as not working if they work less than 5 hours per week. I winsorize hours at the top, at 60 hours per week.

Child Outcomes: The data contain rich information on children outcomes, including health, behavioral and cognitive variables. The outcome variables I use in Section 3.2 are described in Table A.7. The variables used for the estimation of the human capital

production function are described in Appendix C.1.

PANEL STUDY OF INCOME DYNAMICS (PSID): This data started in 1968 following a representative sample of 5,000 families and their descendants. The survey was implemented in each year between 1968 and 1997. After that year, the survey became bi-annual. In most of my analysis, however, I only consider information until 1997. Importantly, the survey allows me to identify the state of residence of each household. This is key to my analysis, as it allows me to assign to each household the corresponding institutions of their state of residency, as I explain in Section 3.3.

Marital Status: I classify each head of household (and their partners) into three marital status: ‘marriage’, ‘cohabitation’ or ‘no partner present’. While the survey started in 1968, cohabitation can be identified starting in 1977. The marital status is constructed based on a different criteria for the period 1977-1982, and 1983 onward. For the first period (1977-1982), the marital status is constructed by combining the *observed* marital status of individuals (based on which a cohabiting partner is treated as married) with the *legal* marital status (reported by the individuals). Starting in 1983, the survey starts recording the couple status of the household head, which differentiates between cohabitation and legal marriage. This definition distinguishes between a partner that is a ‘first year cohabitant’ and a partner that is a ‘permanent cohabitant’ (non first year). For the purposes of my analysis, I consider both status as ‘cohabitation’. Even if the two criteria are not entirely consistent, I use both to classify individuals under each marital status.

Education variables: I classify individuals in four education groups: less than high school, high school degree, some college, and college and more. I obtain the maximum education attainment, by considering the maximum education level among all years the individual appears in the sample.

OC Estimation

OC.1 Sample Selection and Assignment of Household Types

In this section, I explain in detail the construction of the sample use for the estimation of my model, how I assign women to different marital status, and how I determine their relevant partner at the time of the marriage market. I focus on the random sample of

female respondents from the NLSY-97, which consists of 3,289 individuals and a total of 68,633 observations.¹²

I further restrict my sample to female respondents that are more than 20 years old, have at most two children by the last wave of the NLSY-97, and for whom I can assign the marital status at the time of the first birth. I drop from my sample observations corresponding to individuals who had their first child before the age of 20. Also, I focus on women on opposite-sex partnerships.¹³ I also drop observations for women whose marital status is marriage or cohabitation but for whom I cannot identify the identity of their partners.

ASSIGNMENT OF FEMALE RESPONDENTS TO MARITAL STATUS AT THE TIME OF THE MARRIAGE MARKET: Since in my model there is only a one-shot marriage market at the beginning of the individual's life cycle, I replicate this in the data and assign individuals to a *unique* marital status: 'marriage', 'cohabitation' and 'singlehood'. Since the focus of my paper is to understand the choice of having children under different marital status, the assignment of individuals to a unique marital status is driven by the marital status at the time they had the first child.¹⁴ This implies to assume that women completed their fertility choices by the time of the last survey, in which they are between 33 and 37 years old.¹⁵ I explain my choices in detail below.¹⁶

1. For women who are childless by the time of the last wave (2017), I look at their marital

¹²In principle, I could also use the sample of male respondents and their female partners. However, since the information about respondents and partners is not symmetrical, I decided to focus only on female respondents. The male cohort is slightly different than the female cohort in terms of marital status at first birth, with men in the NLSY-97 being more likely to have their first child under cohabitation and less likely to have them as single parents, compared to women.

¹³I restrict my attention to women who were never in a same-sex partnership, regardless of the type of relationship or the order of that relationship. However, for women who I never observe in a relationship, I cannot determine their sexual orientation from the data, and I consider them as part of the marriage market. This could slightly overestimate the share of single women in the marriage market for heterosexual partners.

¹⁴In order to increase the sample size, I also keep in my sample those women who had two children by the time of the last wave. Still, I focus on the marital status when the first child was born when assigning them to different marital status.

¹⁵While this may be more realistic for women who are 37 years old, it may be an issue for younger women. However, if I restrict my attention to the older cohort (born between 1980/81) the share of childless women falls only from 31% to 28% between ages 34 and 37, ruling out concerns about the share of women I am classifying incorrectly given my assumption of complete fertility.

¹⁶After 2011, the NLSY-97 survey became bi-annual. Information was not collected in 2012, 2014 and 2016. I circumvent this issue exploiting the richness of the marital histories, which contain monthly information on the marital status and the identity of the partner in every year. I complete the marital status for years in which data is missing using information corresponding to November of each year. Fertility histories also allow me to observe births in years the survey was not implemented.

status over the life cycle. I assign them to ‘marriage’ if they were ever married, to ‘cohabitation’ if they were never married but they ever had a cohabiting partner, and to ‘singlehood’ if I never observe them having a partner.

2. For women who had only one child by the time of the last wave I assign them to the marital status under which they had this child, independently of whether they had other partners before.¹⁷ If they did not have a partner at the time of the first birth, I assign them to ‘singlehood’. However, if after having a child as single mothers they started to cohabit with the father of the child, I assign them to ‘cohabitation’. If they got married to the father of the child (without cohabiting before), I assign them to ‘marriage’.¹⁸
3. For women who had up to two children by the time of the last wave:
 - (a) I assign them to ‘marriage’ or ‘cohabitation’ if the first child was born under marriage or cohabitation, respectively, independently of the marital status under which the second child was born.¹⁹
 - (b) If the first child was born when the woman was single, I follow the same criteria as above, and assign them to ‘cohabitation’ or ‘marriage’ if they later cohabit or marry the father of the first child. I assign them to ‘singlehood’ if they did not married/cohabit with the father of the first child, independently of the marital status under which they had the second child (or whether they later married/cohabit with the father of the second child).

ASSIGNMENT OF FEMALE RESPONDENTS TO RELEVANT PARTNER: I now explain how I assign to each women her relevant marriage market partner, in line with the unique marital status at the time of the marriage market, as explained above.

1. If a woman was assigned to ‘singlehood’, she will have no partner assigned.

¹⁷For example, if an individual cohabited with partner 1 from ages 20 to 22, then separated, and got married to partner 2 at age 25, and had a a child with partner 2 at age 26, then, I would assign this person to marriage with partner 2.

¹⁸I adopt this criteria since in the data a share of women who have the first child as single-moms end up marrying or cohabiting with the child’s father, while my model does not allow these transitions.

¹⁹As a robustness, for women who had two children with different partners, I look at the length of the relationship with each partner. I drop from my sample individuals for whom the tenure of the relationship with the father of the second child is longer than with the father of the first child. This accounts for 5% of the cases, and only 2% when I condition on not being single at the birth of the first child.

2. If a woman was assigned to ‘marriage’, I assigned to her the father of her first child as relevant partner (if she has a child by the last wave), and her first spouse if she is childless by the last wave. I proceed in the same way for women assigned to ‘cohabitation.’²⁰

Finally, I assign to each male partner their relevant characteristics. I restrict my attention to couples in which the age difference between partners is less than 7 years.²¹ I drop observations for which I cannot determine women’s or partner’s education attainment.

I end up with a sample of 1,837 women of which 48% are assigned to ‘marriage’, 24% to ‘cohabitation’ and 28% to ‘singlehood’ at the time of the marriage market.²²

My sample of men consist of the partners of these women, and the single male from the NLSY-97.²³ I assign men to ‘singlehood’ using the same criteria that I followed for women. However, I make the male sample to have the same size as the female sample. To do so, I take all the partners of the female respondent, and I add the same number of single men than of single women, preserving the education distribution of the sample of men that would be assigned to ‘singlehood’ in the unrestricted sample.²⁴

I consider two education groups, which in turn determine the level of education of each partner and the type of household they form. Individuals are assigned to the low education

²⁰As a robustness, for those women who are childless by the last wave, I construct the tenure of the first two marriages. I consider as the relevant spouse the one with whom the woman was married longer. I proceed in the same way in the case of cohabitation. The correlation between both approaches is 0.97 for women. Still, since my data is truncated (by the last wave), it could be that the second marriage would eventually become longer in tenure than the first marriage. Unfortunately, my data does not allow me to explore this further.

²¹I impose this restriction to focus on a single ‘cohort’, under the assumption that they all participate in the same marriage market. I do not restrict the age difference further to avoid losing more observations. This restriction mainly implies dropping women whose partners are older than them.

²²The share of women assigned to each group is robust to: a) restricting the sample to women who are at least 22, b) restricting the sample to women born in 1980 or 1981, who are 36 or 37 years by the time of the final wave and are more likely to have completed their fertility choices, c) dropping from the sample those women born after 1982 who did not have a child by the last wave (since I cannot tell whether they completed their fertility choices or not), d) not imposing restrictions about difference in partner’s age. Restricting the sample to women who had only one child by the last wave decreases the share of women who are assigned to ‘marriage’, while increases the share of women who are assigned to ‘singlehood’, with no large changes in the share of women assigned to ‘cohabitation’.

²³If I construct the sample of male independently from the sample of women considering only the male respondents of the NLSY-97 and following the same approach outlined above for women, marriage would be relatively lower (41%), while cohabitation and singlehood would be higher (26% and 33% respectively).

²⁴I take this approach to have a common denominator to compute the matching frequencies based on the sample of men and on the sample of women.

bin if they have less than 14 years of education, and to the high education bin if they have 14 years of education or more.²⁵ In my sample, 45% of women belong to the lower education bin, and 55% to the higher education bin. In turn, 47% of men belong to the lower bin and 53% to the higher education bin.²⁶ The correlation in education of individuals in couples is 40%. If we look at married and cohabiting couples separately, the correlation is higher for married couples (40% vs. 32%). This pattern is robust to restrict the sample to those couples with children.²⁷

OC.2 Moments

Table O.1 defines the 33 moments I target in the internal estimation of the model. Below, I explain in detail the construction of these moments in the data and in the model. All data moments are constructed using the NLSY-97 estimation sample and the unique marital status assignment, explained in Appendix OC.1.

²⁵This implies that individuals that completed at least two years of college or have a technical degree from 2 year program will be considered as part of the high education bin. I only consider two education groups instead of three for two reasons: first, considering three groups would decrease the share of observations for each household type, since it would imply to increase from 12 types of households to 24. Second, it would increase from 8 to 18 the number of Pareto Weights I have to estimate, which will increase the computational burden of the problem.

²⁶The male sample consisting of the male respondents of the NLSY-97 women is on average more educated than the sample of NLSY-97 men that I would obtain if I follow the same criteria I followed for women. In particular, if I only focus on the sample of the female partners—excluding the single men—the education distribution is 37% low-educated and 63% high-educated, respectively.

²⁷These patterns are also robust to considering 15 years of education as the cutoff between the low and the high education bin.

Table O.1: Moments

Moment Description	Definition
Female Labor Force Participation (M1-M4)	$\mathbb{E} [P_f > 0 age_t^k, Partner_t = 1, s^f]$
Full Time Work Conditional on Participation (M5-M6)	$\mathbb{E} [P_f = 1 P_f > 0, age_t^k = 1, Partner_t = 0, s^f]$
Overall Divorce Rate for Couples with Children by $t = 4$ (M7)	$Pr(D_{t=4} k_{t=4} = 1, g = M)$
Overall Transition Rate from Cohabitation to Marriage by $t = 4$ (M8)	$Pr(M_{t < 4} g = C)$
Overall Separation Rate for Couples with Children by $t = 4$ (M9)	$Pr(S_{t=4} k_{t=4} = 1, g = C)$
Correlation between Partner's Education (M10)	$corr(s_m, s_f)$
Matching Frequencies by Couple Type (M11-M26)	$\frac{\#CoupleType}{\#F}, \frac{\#CoupleType}{\#M}$
Share of Single Men and Women by Type (M27-M30)	$\frac{\#SingleF(s_f)}{\#F}, \frac{\#SingleM(s_m)}{\#M}$
Aggregate Share of Women by Marital Status (M31-M33)	$\frac{\#MarriedF}{\#F}, \frac{\#CohabitingF}{\#F}, \frac{\#SingleF}{\#F}$

1. FEMALE LABOR SUPPLY (M1-M6): I construct moments on labor supply for women, conditional on their education and the presence of a small child in the household (corresponding to children aged between 0 and 3 years old in the data, and to the period of child's arrival in the model). M1 and M2 use the sample of low and high educated women, respectively, with no small children, independently of whether they are childless or have older children, and regardless of the presence of a partner in the household. For M3 and M4, I use the sample of low and high educated women with small children in the household, and with partner present, regardless of whether they are married or cohabiting. M1-M4 compute the share of women who work in the labor market, but without distinguishing between those who work part time and full time. M5 and M6 focus on the sample of low and high educated women who have small children in the household but have no partner, irrespective of whether they are single-moms, divorced or separated. In this case, I condition on labor force participation, and compute the share of women who work full time.

In the data, I pool observations from different survey waves. For each observation I consider that a woman lives with a partner if she was assigned either to marriage or

cohabitation at the marriage market and she did not separate or divorce at the time I observe her in the data.²⁸ I consider them as not living with a partner if they were either assigned to singlehood in the marriage market, or if they divorced or separated by the time I observe them in the data.

For consistency, when constructing these moments in the model I restrict my attention to the first 4 periods of the life-cycle, since I only observe women in the data until at most age 37. I consider a woman to have a partner if they were married or cohabiting at the time of the marriage market, and until they divorce or separate. Since I condition on female education to construct these moments, but a woman's behavior might depend on the type of contract and the type of partner, my model moments are a weighted average of the labor force participation of women in different type of households. I use as weights the choice probabilities at the time of the marriage, which determine the share of couples of each type in equilibrium. For divorced or separated women, I still use as weight the choice probabilities associated to their former household's type.

2. DIVORCE RATE FOR COUPLES WITH CHILDREN BY $t = 4$ (M7): I construct the data moment by considering whether women got divorced by the last wave they appear in the survey, independently of when the divorce occurred. I restrict my attention to the older cohorts (who are between 36 and 37 years old at the time of the last survey), for consistency with the timing of the model. I also condition on whether they ever had a child, independently of the age of the child at the time of the last wave or at the time of the divorce.

Analogously, I construct this moment in the model as the probability of divorce by the fourth period of the life-cycle, for women who got married in the marriage market, and that ever had a child.

I exclude from the computation both of the data and the model moments those women assigned to cohabitation in the marriage market that later transitioned to marriage.

3. TRANSITION FROM COHABITATION TO MARRIAGE BY $t = 4$ (M8): I construct this moment as the probability of transitioning from cohabitation to marriage during the

²⁸Since in my model the marriage market occurs at the beginning of the life cycle, while in the data individuals marry at different time periods, I consider them as living with a partner from the first period they appear in the data until they divorce/separate, independently of whether they *actually* got married or started cohabiting already. Data moments are virtually the same when I restrict my attention only to the periods in which the partner is actually present in the household.

first four periods of the life-cycle (in the model) or before the last period I observe women in the data. I restrict my attention to couples who had children under cohabitation, both in the data and in the model.²⁹ When constructing this moment, I do not take into account if the women divorced after transitioning to marriage.

4. SEPARATION RATE FOR COUPLES WITH CHILDREN BY $t = 4$ (M9): I construct the data and model moment analogously to M7, but considering the sample of women assigned to cohabitation in the marriage market.

I only consider as separated (in the numerator) women who separated *directly* from cohabitation, but not those who transitioned to marriage and divorced afterwards (those women are still in the denominator).

5. CORRELATION BETWEEN PARTNER'S EDUCATION (M10): I construct this moment both in the data and the model as the correlation between the education bin of the male and female partner, considering all married and cohabiting couples at the time of the marriage market.

6. MATCHING FREQUENCIES FOR MARRIED AND COHABITING COUPLES (M11-M26).: In the data, I construct these moments as the share of women in each couple type (8 type of couples, by education and marital contract), using the total number of women as the denominator.³⁰ In the model, I construct M11-M18 as the share of women of each education type times their conditional choice probabilities (analogous to those defined for men in Equation (18) in Appendix B.2) of choosing a certain contract-partner combination.³¹ Analogously, I use the male education's distribution and the male conditional choice probabilities (defined by Equation (18)) to construct M19-M26. Note that outside the equilibrium, M11-M18 and M19-M26 will not coincide in the model (even when the data moments are the same in both cases).

²⁹I do this because in the model only couples with children can transition from marriage to cohabitation. This is consistent with the women's assignment into marital status in the data, described in Appendix OC.1.

³⁰Since I construct the sample to have the same number of men and women, as I explained in Appendix OC.1, the data matching frequencies constructed using the total number of men and the total number of women coincide, so I only construct a set of data moments M11-M18, and repeat them to construct M19-M26).

³¹For example, the data moment M11 is the share of low educated women married to a low educated man. I construct this moment in the model as the share of low educated women multiplied by the conditional choice probability that a low educated women would choose to marry a low educated partner.

7. SHARE OF SINGLE WOMEN AND SINGLE MEN BY EDUCATION TYPE (M27-M30):
I construct these moments as the share of single women and men, by each education type, analogously to how I constructed the the couples' matching frequencies. One difference is that, while the data moments M11-M18 and M19-M26 are the same, the share of single men and women of different education levels do not necessarily coincide, as the education distributions are different for men and for women.
8. AGGREGATE SHARE OF WOMEN BY MARITAL STATUS (M31-M33): I construct these moments aggregating as the share of women in the data and in the model that are married, cohabiting, or singles from the marriage market perspective, irrespective of their own education and the education of their partners. In the model, I still use the choice probabilities to determine the share of women who would choose every marital status.

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