Are those cohabiting more like married or more like single individuals? An Analysis across Europe

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(Extended Abstract)

Introduction.

Long-term cohabitation is more widespread in Europe than in the US, particularly in Nordic countries (see Table 1). Whether there are gender differences in the marriage and union income premium and in labor market attachment of cohabitants with respect to married individuals is the subject of this research.

In most previous research on earnings from work, marital status is identified by a dichotomous variable, currently married versus not currently married. Married men earn more than single men, while married women earn less than single women. Whether the differences arise from selection (those with more potential earnings are more likely to marry) or from more specialization (within a marriage men specialize in labor market skills) has been long debated in an extensive literature. In this analysis, however, there is a tricotomous marital status variable. Are those cohabiting more like married or more like single individuals? An extensive literature notes the larger instability of unions versus marriages. The expectation of a shorter commitment may deter specialization and reduce gender differences among unions as opposed to marriages.

Data:

This study uses the 1994-2001 waves of the European Community Household Panel (ECHP) Survey to conduct an analysis of individual earnings from work of individuals across civil status. The ECHP is a dataset produced by Eurostat that presents comparable micro-level (person/households) data on income, living conditions, demographics and work, for households across the old 15 European Union member states.

To study difference in earnings and income across household arrangements I undertake two types of analysis:

1. Differences on work earnings across marital status among working population (no selection control).

2. Differences in individual income, household income and adult equivalent income both in levels (OLS) and in changes (fixed-effects) for marital status transitions for the whole population

Preliminary Results on Earnings

After controlling for relevant demographics and country effects, preliminary results show that individuals living with a spouse, whether married or cohabitating, have higher earnings than single workers (Table 2). Married men earn 3 to 4% more than those in consensual unions and around 32% more than single men. The fact that married men earn relatively more than those with other civil status –the "marriage premium"- has already drawn extensive attention in the literature (Korenman and Neumark 1991, 1992, Loh 1996). Stratton (2002) and Adsera and Chiswick (2007) also find that marriage is associated with higher wages than cohabitation. Controlling for the number of children in the household, married women earn around 7% more than single women but around 15 to 16% less than those in consensual unions. Waldfogel (1997) & (1998) provide a good review of the literature analyzes the "family gap" in earnings between men and women and argues that family factors, more than differences in human capital across gender are behind the gender earnings gap. The differences found between marriage and cohabitation for both men and women are consistent with the expectation that within cohabiting unions there is less specialization and division of labor than in marriages (Willis and Michael 1994), although intrahousehold specialization among married couples may be dwindling (Light 2004).

The number of children in the household is associated with lower women's earnings of around 14% per child. Thus, while married women without children earn more than singles, married mothers with one child earn 7% less than single women without children. This result is consistent with the decline in wages associated to motherhood found in Neumark and Korenman (1994), Waldfogel (1998) and Lundberg and Rose (2000), among others. For men, the coefficient on the number of children is significant and positive, but negligible in size (around 1% per child) (as in Loh, 1996). If the number of children is excluded from the specification, married women on average earn about 3% less than single women. Besides the bias from the omitted variable, this change in the relative ranking across marital status may also be related to the fact that the measure of potential experience employed here is further away from actual experience for married women than for others, particularly if they have interrupted (temporarily) their careers to bear children. Lundberg and Rose

(2000); Jacobsen and Levin (1995) and Anderson, Binder and Krause (2003) offer recent analysis of the effect of intermittent careers on women's earnings.

The paper will complete the analysis of earnings differentials with a study of whether those differences appear also in a country-by country case (Tables 3 & 4). Preliminary findings show that in general cohabitant women tend to earn more than married across all European countries but in some countries the difference is very small. It is interesting to see how in German-speaking countries, such as Austria an Germany, married women earn less than single women. This seems to be consistent with the observation in these countries that women once they have children are expected to stay at home. I will conduct further analysis of these differences in the paper.

Tables 3 & 4 present results both of differences in Earnings with and without controlling for hours worked. The absolute gap in work earnings between married and cohabiting men does not vary much when the hours worked are included in the analysis. The gap between married and cohabiting women shrinks substantially when hours are included in some countries while it does not vary that much in others. It probably indicates that more married than cohabiting women are in part-time (see for example the Netherlands). For example, in Sweden, once hours worked are included differences are minor but when hours are not included, cohabiting women earn relatively more. I will analyze this differences further. (to be completed)

Preliminary Results on Income

In addition to looking at work earnings, I want to study differences in total individual income for the entire population. I conduct a first analysis on levels of income. Second, I exploit the panel dimension of the data to study within-person variation from changes in marital status and see if these changes differ by gender.

Similar to Light (2004), I use data on total household income to study the effect from changes form stable unions into marriage within the same household.

All estimates include education, foreign birth, years since migration, polynomials of age, children, 15 country dummies and year dummies.

Finally, similar to Light (2004), I use data on total household income and adult equivalent household income to study the effect from changes form stable unions into marriage within the same household. (see preliminary results in Tables 5 to 8).

Additional Analysis: Differences in participation

Besides completing the analysis of the marriage and union premium I will analyze differential market attachment across gender for individual in unions and in marriages. Married women (with children) have shown to have weaker labor attachment than single women whether the reverse hold for men. I will conduct a similar analysis with the cohabitants. (To be completed)

Summary of preliminary main findings

Married men earn 3 to 4% more than those in consensual unions and around 32% more than single men. (confirms extensive research on "marriage premium). Controlling for the number of children in the household, married women earn around 7% more than single women but around 15 to 16% less than those in consensual unions.

The gap between married and cohabiting women shrinks substantially when hours are included in some countries whereas that for men hardly changes. This is clearly related to the differential labor attachment between cohabiting and married women.

Married couples seem to specialize more than cohabitants. Women's own income decreases with marriage whereas the total adult equivalent household income increases.

Labor division seems to be weaker among European cohabitants than what Light (2004) finds for the US. The own income of cohabitants increases in the transition.

It will be interesting to explore further whether these findings are linked to differences across countries among who chooses to cohabit versus marry. (to be completed-study differences in the selection into cohabitation)

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Table 1. Percentage of adults in stable cohabiting unions

Country	Men	Women
Germany	8.00	7.86
Denmark	17.34	16.76
Netherlands	8.78	9.00
Belgium	8.57	7.81
Luxembourg	7.53	7.10
France	10.16	9.59
U.K.	10.02	9.12
Ireland	1.77	1.78
Italy	1.38	1.42
Greece	1.10	0.83
Spain	1.94	1.73
Portugal	2.32	2.21
Austria	6.50	6.16
Finland	12.34	12.33
Sweden	21.23	21.03
Total	6.64	6.36

Note: Individuals with positive work earnings.
Source: ECHP- Waves 1-7.

Table 2. OLS Regression analysis of earnings by gender.

	Men	Women
Less Secondary Education	-0.241**	-0.339**
	(0.006)	(0.008)
Tertiary Education	0.412**	0.583**
	(0.007)	(0.008)
Yrs. Experience	0.101**	0.107**
	(0.001)	(0.001)
Yrs. Experience Squared	-0.002**	-0.002**
	(0.00002)	(0.00002)
Foreign Birth	-0.424**	-0.427**
	(0.040)	(0.053)
Years since Migration	0.031**	0.030**
	(0.003)	(0.005)
Sq. YSM	-0.00045**	-0.00037**
	(0.00007)	(0.00009)
N. Children	0.010**	-0.143**
	(0.003)	(0.004)
Married	0.321**	0.075**
	(0.008)	(0.009)
Cohabiting	0.280**	0.233**
	(0.009)	(0.010)
N.Obs	316,182	231,457
Adj.R-Sq.	0.28	0.20

Note: Dependent variable: natural logarithm of work earnings. Robust standard errors clustered by individual are below coefficients. Complete estimates also include country dummy variables. + significant at 10%; * significant at 5%; ** significant at 1%
Source: ECHP- Waves 1-7.

Table 3.Difference in log Work Earnings with respect to single Men by country and marital status in 15 European union countries, 1993-2001.

	Married	Cohabitant	Married	Cohabitant	N. Obs
	Hours worked not included		With hours worked		
Germany	0.281**	0.216**	0.229**	0.183**	37791
Denmark	0.313**	0.288**	0.244**	0.201**	12488
Netherlands	0.455**	0.475**	0.337**	0.353**	21054
Belgium	0.464**	0.411**	0.339**	0.307**	12151
Luxembourg	0.281**	0.080*	0.265**	0.060+	9476
France	0.597**	0.454**	0.521**	0.398**	26459
UK	0.395**	0.218**	0.328**	0.167**	28835
Ireland	0.467**	0.396**	0.443**	0.353**	17200
Italy	0.233**	0.240**	0.190**	0.175**	33587
Greece	0.180**	0.154**	0.144**	0.123*	22101
Spain	0.351**	0.271**	0.292**	0.225**	28765
Portugal	0.239**	0.129*	0.220**	0.125*	24534
Austria	0.227**	0.075+	0.228**	0.080+	13062
Finland	0.452**	0.512**	0.285**	0.349**	14222
Sweden	0.087**	0.167**	0.014	0.070**	14457

Source: ECHP data. Controls for education, foreign-birth, years since migration (and its square), potential experience (and its square), year of interview, number of children and hours worked per week. Robust t statistics in parentheses. Standard errors clustered by id.
+ significant at 10%; * significant at 5%; ** significant at 1%

Table 4. Difference in log Work Earnings with respect to single Women by country and marital status

	Married	Cohabitant	Married	Cohabitant	N. Obs
	Hours worked not included		With hours worked		
Germany	-0.124**	0.153**	-0.005	0.148**	29631
Denmark	0.206**	0.318**	0.165**	0.253**	11257
Netherlands	0.056	0.348**	0.196**	0.259**	17176
Belgium	0.364**	0.432**	0.297**	0.330**	10107
Luxembourg	-0.156**	0.132**	0.038	0.152**	5181
France	0.212**	0.299**	0.189**	0.265**	22008
UK	0.175**	0.248**	0.199**	0.182**	27378
Ireland	0.168**	0.386**	0.151**	0.302**	10682
Italy	0.014	0.137*	0.044+	0.125*	19365
Greece	-0.007	0.035	0.009	0.024	10765
Spain	0.021	0.122*	0.056*	0.153**	15638
Portugal	0.107**	0.011	0.112**	0.054	16246
Austria	-0.158**	0.086*	-0.105**	0.090*	9009
Finland	0.293**	0.454**	0.173**	0.310**	13419
Sweden	0.102**	0.152**	0.038+	0.039+	13596

Source: ECHP data. Controls for education, foreign-birth, years since migration (and its square), potential experience (and its square), year of interview, number of children and hours worked per week. Robust t statistics in parentheses. Standard errors clustered by id.
+ significant at 10%; * significant at 5%; ** significant at 1%

Table 5.Estimated effect of Marital Status Change in Log of Own Individual Income

	OLS-Levels	Differences
Women		
Single to married	-0.274**	-0.035**
Single to cohabit	-0.001	0.071**
Cohabit to married	-0.273**	-0.106**
Men		
Single to married	0.312**	0.051**
Single to cohabit	0.212**	0.073**
Cohabit to married	0.100**	-0.022*

Table 6. Estimated effect of Marital Status Change in Log of Household Income

	OLS-Levels	Differences
Women		
Single to married	0.159**	0.346**
Single to cohabit	0.066**	0.260**
Cohabit to married	0.093**	0.086**
Men		
Single to married	0.043**	0.180**
Single to cohabit	-0.011	0.138**
Cohabit to married	0.054**	0.042**

Table 7. Estimated effect of Marital Status Change in Log of Household Income per Adult Equivalent

	OLS-Levels	Differences
Women		
Single to married	0.131**	0.459**
Single to cohabit	0.102**	0.385**
Cohabit to married	0.029	0.074
Men		
Single to married	0.048**	0.291**
Single to cohabit	0.034**	0.246**
Cohabit to married	0.014	0.045

Table 8 Predicted Percentage Changes in Income and Adult Equivalent.

	Single to Married		Single to Cohabit		Cohabit to Married	
	Women	Men	Women	Men	Women	Men
Total Household Income	+58	+34	+47	+28	+7.6	+4.6
Total AE Household Income	+41	+20	+30	+15	+9	+4.3
Own Income	-3.5	+5	+7	+7.5	-11	-2

Source: These figures are based on results presented in Tables 6 & 7.