# A Fatal Leap?

# **Gendered Income Dominance and Partner Instability**

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## Abstract

Do partnerships become more unstable when the female partner is economically dominant? We revisit this old debate analyzing Danish panel data, 1980-2010 which allows us to trace change as Denmark shifted towards increasingly gender egalitarian norms. We focus especially on different divorce risks by education level. Our analyses show a very strong positive divorce risk (an odds ratio of 4.1) when the female gains dominant status for couples formed in 1980. This effect is almost halved for the 1990 cohort and becomes even smaller (odds ratio of 1.6) for partnerships formed in the 2000s, suggesting that the acceptance of gender egalitarianism has become broadly entrenched. We additionally test a diffusion model of gender egalitarianism by estimating year-by-year divorce probabilities and find a steady, basically linear, decline across the three decades.

# Introduction

The impact of women's role change on family life has been a major research theme for decades now. And, yet, quite a number of questions remain unresolved. In this study we focus on the age-old issue of how wives' income influences divorce risks. The issue has been addressed somewhat differently all depending on whether the focus is simply on the role of female earnings as such, or on wives' earnings being the dominant source of household income. The former perspective often frames its questions in terms of an 'independence effect' – will women's attainment of greater economic autonomy enhance couple instability? (Ross and Sawhill, 1975). The latter perspective in contrast, asks whether partnerships suffer when the wife outperforms the husband – the core assumption being that this may violate prevailing gender norms.

But why should female income weaken the bonds of marriage? One argument derives from Becker's theory which, in brief, posits that the benefits of marriage derive primarily from specialization and trade. Specialization permits spouses to maximize joint welfare via complementary productivities in, respectively, market and home production. Consequently, the returns to marriage will decline once women's market productivity begins to approximate males'. Or put differently, the partners' opportunity-

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cost calculus will alter fundamentally (Becker, 1981; Becker et.al., 1977; Popenoe, 1988).  $^{2}$ 

A second, more sociological, approach focuses on the violation of conventional gender identities that women's economic independence may potentially provoke. If the male breadwinner role remains normatively entrenched, a lack of fit between expectations and reality may fuel marital tension and conflict (Amato et.al, 2004). This should especially be the case if the female assumes the dominant economic position within the couple. But as the 'doing gender' thesis argues, this dimension of normative deviance may not necessarily destabilize partnerships if, through other means, gender identities can be salvaged. Economically dominant wives may, for example, compensate by emphasizing their traditional female identity at home (Brines, 1994; Brines and Joyner, 1999; Bittman et.al., 2003). But doing so may very well imply a 'double-shift' scenario which, when blatantly inequitable -- the trade dimension of the contract is unfair – should ignite frustration and weaken the relationship.

A violation of expected gender identities can produce a 'doing gender' response among men as well as women. If the wife is perceived to threaten the male's masculinity he may react negatively or experience a decline in well-being. If the wife perceives the male's masculinity as inadequate she may leave him in favor of a stronger male partner.

The extent to which gender role deviance provokes heightened divorce risks, regardless of doing-gender practices, must depend on context. Ergo, the degree to which female economic independence sparks marital rift should diminish the more that gender egalitarian norms have taken hold, both within the couple's direct normative environment and in society at large.

But there are also important reasons why women's economic power may not necessarily produce unstable partnerships. For one, as Becker (1981) also noted, a double income implies attractive consumption gains. And this may cancel out the independence effect (Oppenheimer, 1997). For another, when women control income, the bargaining nexus is altered in her favor. As a large literature on time allocation demonstrates, men's contribution to domestic chores increases significantly when the spouse is employed (Bianchi et.al., 2006; Bittman et.al., 2003). And finally we should not forget that role convergence among partners may produce relationship gains (enhanced similarity of interests, superior communication) that should help strengthen the marriage (Goldscheider and Waite, 1991).

As this summary review suggests, the link between wives' economic status and couple dynamics is fraught with ambiguity.

#### What does research conclude?

In most countries the incidence of female employment and divorce rose in close synchrony. This would indicate that, indeed, women's growing independence fuels marital instability (Cherlin, 1992). But a correlation says little about causal effects. Both trends may be co-determined by some other push factor. This seems indeed to be the

<sup>&</sup>lt;sup>2</sup> In Becker's framework the causal impact is ambiguous since wives' earnings may also produce a positive consumption effect.

case. In recent years the divorce rate has tapered off and is even falling in some nations. And coincidentally, this is especially the case in countries with comparatively very high female employment levels. Equally significant, the social gradient of divorce is being reversed: rising among the less educated; falling among the higher educated (Harkonen and Dronkers, 2006). As we know, female employment and high earnings are clearly much more widespread at the top of the social pyramid. This all suggests a non-linear trend. It appears that divorce risks stabilize and even decline as female employment (and gender equality) achieves normative status (Esping-Andersen and Billari, 2013).

Most studies adopt a rather similar measurement approach and identify independence in terms of the wife's relative contribution to total household income. This is usually combined with a measure of her absolute income level -- it is difficult to speak of economic independence if the level borders on poverty. And the large majority of studies are based on US panel data. Most of the earlier US studies drew upon the PSID or the NLSY panels. Those which opted for the NSFH data profited from its inclusion of information on relationship satisfaction, and this is in large part why their findings tend to diverge from others.

A number of studies, such as Cherlin (1979) and Ross and Sawhill (1975) found a significant independence effect on divorce in the US.<sup>3</sup> Similar conclusions emerge in a British study (Chan and Halpin, 2003) and in a British-German-US comparison (Cooke and Gash, 2010). The NSFH-based studies tend to reveal a more complex logic that may be driven by endogeneity. Sayer and Bianchi (2000) conclude that the independence effect holds only when the marriage is shaky to begin with -- suggesting that the wife's higher income may be driven by her *need* to achieve some degree of economic autonomy given that she perceives the relationship to be shaky. In a parallel study, Schoen et.al. (2006) examine how wives' full-time employment (rather than income) influences marital satisfaction (rather than divorce). They, like Sayer and Bianchi, find no adverse effects of shifts in labor supply; a jump in wives' labor supply is far more likely to occur in unhappy marriages. Similarly, Sayer et.al. (2011) find that wives' employment has no adverse effects on marriages if the partners are satisfied with their relationship to begin with.

The link between relationship satisfaction, female earnings, and divorce may also be mediated by the presence of children. Using the British Millennium panel study, Kanji and Schoen (2013) find no increase in divorce risks when mothers are the main earners. But they also discovered that such mothers have a strong propensity to revert to housewifery later, suggesting that the explanation may lie in their traditional gender identities and not in the presence of gender egalitarian values.

As Sayer and Bianchi (2000) and Esping-Andersen and Billari (2013) emphasize, the independence effect on marital instability should weaken or disappear altogether once gender egalitarianism becomes the norm. A number of studies show that paternal participation in childcare significantly reduces divorce risks in the Netherlands (Kalmijn, 1999) and in Britain (Sigle.Rushton, 2010). And Bellani and Esping-Andersen (2013) find a stabilizing effect in Germany when dual earner couples adopt a symmetric division of household tasks. And, yet, their study concludes that traditional male breadwinner arrangements continue to offer the strongest guarantee against

<sup>&</sup>lt;sup>3</sup> But Greenstein (1995), also analyzing the NLSY data, does not find any independence effect on divorce.

divorce. Cooke's (2006) comparison suggests that gender egalitarianism has no positive effect in Germany but in the US, yes.<sup>4</sup>

What this brief overview suggests is that context is all-important. At the most microscopic level what seems to matter is the quality of the partnership. At the macro-level, history and country-specific characteristics may play a major role: history matters because norms and values adapt, slowly perhaps, to changing realities; societies differ substantially in how they define what constitutes proper gender roles. German society frowns on mothers who do not stay home with their young children; In Scandinavia, as in the US, it is expected that the mother will resume her career. It was, in fact, exactly these differences that inspired Cooke's (2006) study. There is of course a third, and sociologically highly relevant, type of context, namely the signals which emanate from the couple's social reference group, be it via neighborhood, religion, social class identification, or otherwise. To our knowledge, the latter effect has never been seriously addressed.

## Linear or Threshold Effects?

The large majority of studies assume a monotonic linear effect: do divorce risks rise in tandem with an increase in the female's relative earnings contribution? There are reasons why we should question this assumption. Most basically, it is hard to fathom why couple instability would intensify if her share rises from, say, 25 to 35 percent. Rogers' (2004) study discovered, in fact, a logic that reflects a quadratic function: divorce risks climax when the wife's income share reaches parity with the husband's; when she moves beyond this point, the risk actually declines.<sup>5</sup>

In a recent NBER paper, Bertrand et.al. (2013) take the non-linearity issue one step further. Although their study is blissfully ignorant of the large sociological literature on the topic, their point of departure is essentially sociological. The idea is that conventional gender norms define an income-share threshold beyond which the wife should not venture. They define this barrier as equal to 50 percent, and mapping the distribution of relative income across four decades (for the US) they show a continuous (albeit slightly diminishing) steep drop from the 45% to the 55% point. This, they suggest, demonstrates that prevailing norms dictate that wives should not assume the main breadwinner role. As evidence of this aversion their analyses show that wives with a greater income potential than the husbands are very likely to reduce their labor supply so as not to cross the 50%-barrier.

Following up on this idea, we utilize LIS- data for a number of countries in order to map out distributions over time and across nations. Whereas the Bertrand study excludes cases where she contributes, respectively, zero and 100% we include both.<sup>6</sup>

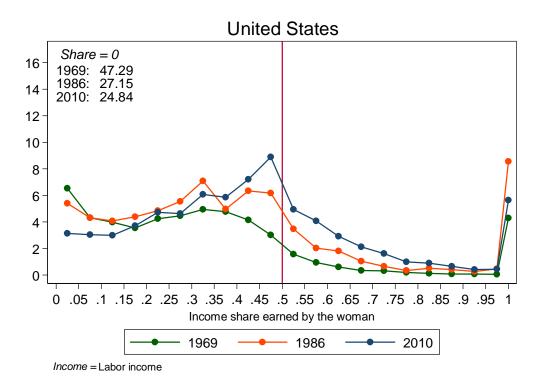
<sup>&</sup>lt;sup>4</sup> The discrepancy between Cooke's and Bellani-Esping-Andersen's German results may lie in the time frame analyzed. Both studies are based on the GSOEP, but the latter study has the advantage of more recent years.

<sup>&</sup>lt;sup>5</sup> A rather similar pattern was identified in Nock's (2001) study which found that dissatisfaction in couples who contributed equally to income was linked to the prevalence of educational discrepancies in such partnerships, i.e. the wife typically had higher education levels than the spouse.

<sup>&</sup>lt;sup>6</sup> Our data include both married and cohabiting couples.

Otherwise, for the US our data parallel those presented in the Bertrand study. Figure 1 does show the steep drop at the 50% line. In fact, it appears steeper in the most recent years than in earlier periods (Bertrand's data only go up to 2000). But note also the persistence of housewifery: almost half of all unions in 1969 and still a quarter of all in 2010.



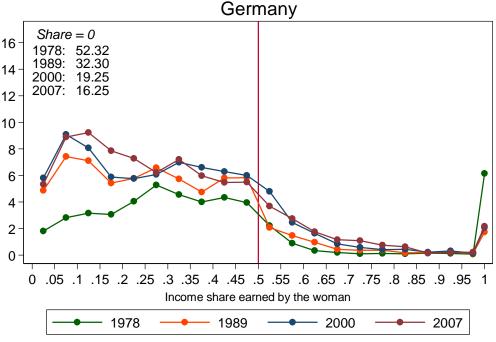


Source: LIS data files

Now, let us examine how the distributions appear in two other nations (Figure 2 and 3). We select, firstly, Germany where women's economic status is far more traditional, heavily biased towards a part-time dedication, and where mothers typically interrupt for several years following births. Secondly, we select Denmark which boasts one of the World's highest female employment rates. In addition, the vast majority of Danish women opt for a full-time, lifelong dedication. Moreover, the analyses to follow will be based on Danish panel data.

Surprisingly, in much more traditional Germany we do not find any steep drop between the 45-55% range. This is of course a reflection of the part-timer bias among German women: they cluster in the 15-30% range and not, as in the US, in the 35-45% range. This suggests that the Bertrand approach may not be universally applicable.

Figure 2. Wives' Relative Income Contribution: Germany

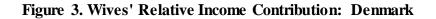


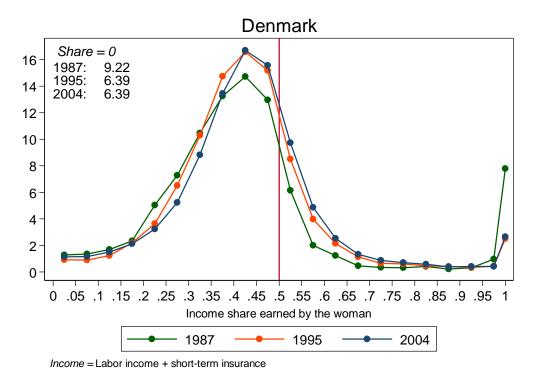
Income = Labor income + short-term insurance

Turning to the Danish case, we confront yet another qualitatively different distribution, one which borders on perfect normality -- albeit with the mode centered at the 40% point. This means that the probability of the wife contributing, say, 30 percent is almost exactly the same as contributing 60%. Note also that the share of zero-earning wives is truly marginal here (and close to being symmetric with respect to wives contributing 100%).

For all the three decades we find in Denmark an exceptionally steep drop pre-post the 50% line. Does this imply that couples' aversion to female economic dominance is far stronger in a world-leader of gender egalitarianism? Examining the 2004 curves against those for 1987 would, however, suggest that any such aversion effect has abated to a degree (the 45-55 point drop was much steeper in 1987).

But the very fact that the Danish distribution is basically normal would suggest other factors may be operating. One candidate would be the gender wage gap (which in Denmark lies around 16-19 percent); another is the high degree of gender segregation in the labor market: men are concentrated in private sector jobs and women in welfare state jobs (which pay less but offer far greater flexibility). The combination of the twain may very well account for why the modal point lies at the 40% point.





#### Income Dominance and Divorce in Denmark

In our study we focus on history as our source of contextual variation. The choice of a Danish study is motivated by two circumstances. Firstly, contemporary Denmark arguably displays a degree of gender equalization that is unrivaled by few other societies. Secondly, the integrated Danish registry-based panel data allow us to follow couples from the beginnings of the female revolution (the data go back to 1980) to its maturation today.

To cite some key evidence, Danish female employment around 1980 was, like in Germany or Britain today, heavily part-time. In other words, in this era 'independence' was rather circumscribed and the typical woman could better be described as having one leg in the labor market and the other in the conventional female role. It was only by the mid-late 1990s that the large majority of women opted for life-long full-timer status. In the 2000s, part-time in Denmark became essentially a brief bridging solution, easing the passage from maternity leave back to the normal work routine. We can also see the period-shift in terms of overall employment rates. The overall female employment rate was about 63 percent in 1980; by the 2000s, the activity rate of *mothers* reached 81 percent (Esping-Andersen, 2009). And thirdly, it was not until the 1990s and 2000s that Danish couples began to seriously adopt gender egalitarianism in home production. Today, the average Danish male contributes on average 43 percent to all domestic work; a full 31 percent contribute more than 50 percent (Bonke and Esping-Andersen, 2008; Esping-Andersen et.al., 2013). The shift is also reflected in social values. The percent

Danish males who say that 'an equal sharing of household duties' is *not* important more than halved between 1981 and 2008 (data from the European Values Surveys).

## **Data and Methods**

Besides being an ideal test case, an analysis of Danish couples can profit from uniquely high-quality longitudinal data provided via the integrated public registry data base. These data allow us to go back to 1980, granting us a three-decade window with which to trace historical shifts. There are two drawbacks of these data. One is the lack of any information regarding subjective evaluations of relationship quality -- a fundamental variable in this field of research. The second is that we cannot identify whether partners' parents experienced a divorce – a strong predictor of partnership instability But otherwise we have full information on all the key variables relevant for divorce models: age at partnering, presence and number of children (by age), education, and, of course, income and employment status for each of the partners. The great advantage is not just the extraordinary long panel but also the absence of sample attrition: basically the only 'respondents' we lose are those who died or emigrated.

Working with registry data gives us an additional advantage, namely huge N's. We shall compare across three historical partnership cohorts: those partnered in 1980-81 (N=11.424); in 1990 (N=12.465), and those in 2000 (N=11.876) – i.e. we examine all couples formed in the years of interest. See Appendix Table 1 for summary statistics.

Our approach is simple and straightforward. As a first step, we estimate (with Cox regressions for event-history models) cohort/period-specific divorce risks for couples formed in 1980, 1990 and 2000, respectively. We include both cohabiting and married couples. To exclude `non-serious' cohabitation cases (a couple 'shacking up') we impose a two-year minimum of partnership duration.

The cohort-period breakdown is motivated by the distinct changes both in Danish women's labor force attachment and in overall value shifts. If there are to be any significant adverse effects of female income dominance, this should be in the 1980s' when female identities still remained rather traditional. We define the 1990s' as a transition phase and expect that the maturation of gender egalitarian values-cum-the dominance of the full-timer norm of female employment by the 2000's should neutralize any adverse effects of female income dominance. We estimate divorce hazards for boundary-crossing when the female partner supersedes the 60th percentage share (rather than the 50<sup>th</sup> as did Bertrand et.al.) of combined income for at least two years. The two-year criterion also helps eliminate 'random' income fluctuations. In other words, ours is a restrictive definition of female income dominance – far more than the one adopted by Betrand et.al (2013).

Our event history approach focuses on the impact of transitions from 'dependency' to dominant status. Again, we estimate separate models for the three cohorts and follow couples over a 15 year time span (except for the youngest cohort for which we only have 11 years). Since the duration function in standard divorce models is non-linear (divorce hazards typically peak, firstly, after 3-4 years and, secondly, after 7-8 years in the partnership), we splice the duration function accordingly. We pay particular attention to three types of transition:

1. The distance that the female partnered travelled, income-wise. One would expect that the 'shock-effect' would be substantially greater if the female's attainment of income dominance originated in a state of income dependency: moving from a 30% to a 60% share should be more dramatic than moving from 45to 55 percent.

2. The female's labor supply is likely to be a main driver of key income transitions, in particular the move from part-time to full-time status. Since a part-time commitment is widely interpreted as keeping one foot inside the conventional female identity, such transitions may provoke tensions in the relationship -- to the extent that the relationship is premised on gender traditional norms to begin with.

3. The transition to female income dominance may be spurred by a deterioration of the male's earnings power from t-1 to t, rather than any significant increase in the female's earnings power. This is most likely to occur in two scenarios: he suffers from unemployment (a classical catalyst of union instability in the divorce literature), or his job-status experiences wage erosion (especially likely among the unskilled).

There are two important sources of estimation bias in this kind of approach. The first is related to selection effects. The probability that the female partner attains income dominance may be driven by unobservables (intelligence, luck, charm, drive, or whatever). To address selection bias we adopt time-to-event estimation.

The second source of bias lies in potential endogeneity. This is most likely to arise if the female partner's transition to income dominance was anticipated by either or both partners from the very beginning. The challenge here, in other words, is to identify whether her achieving income dominance was spurred exogenously or endogenously. If it was anticipated, we should expect no real adverse effects (heightened divorce risks); if not, we should expect large de-stabilizing effects.

Our preliminary analyses suggest that heightened divorce risks are not driven by the female moving from part-time to full-.time status, nor by any erosion in the male partner's earnings (not shown in Table 2). The primary driver lies in whether the female experiences a positive career improvement, say via promotion. We also find that the 'long-distance' effect is substantial. The divorce risk basically doubles if she came from far behind; the divorce risk is cut in half if she was close, income-wise, in her origin state. And we discover that moving past the 55-percent point is the single most decisive barrier in the Danish case, at least for the 1980s.<sup>7</sup>

#### Analyses

We begin with a straightforward analysis of how transitions to female income dominance influence couple stability across the three cohorts. In Table 2 we present results for the main transitions of interest. <sup>8</sup>

<sup>&</sup>lt;sup>7</sup> We experimented with different thresholds (50% and 55%), but the 60% choice clearly provides the best fit. Recall that the transition requires that she earns above the 60% point for at least two years.

<sup>&</sup>lt;sup>8</sup> For the full model that includes duration functions see Appendix Table 2.

Couple cohort	1981	1981	1990	1990	2000	2000
	Odds	St.error	Odds	St.error	Odds	St
	ratio		ratio		ratio	error
'wife' crosses						
55% line	4.1	0.12	2.4	0.13	1.6	0.20
Long-distance trasition:						
'wife' is <45% two	1.6	0.09	1.2	0.43	1.2	0.49
years						
before and crosses 55%						
line						
Ν	11424		12465		11876	

 Table 2. Event history analysis of couple dissolutions (odds ratios)

Source: Danish integrated registry database, 1980-2011

As far as the main co-variates are concerned, our results are very much in line with those in most divorce studies (see Appendix Table 2). Firstly, we observe heightened divorce probabilities around the  $6^{\text{th}}-7^{\text{th}}$  year (see Appendix Table 2). Secondly, married couples are more stable than cohabitors (even after having excluded short lived cohabitation spells); having small children reduces divorce risks substantially; and the experience of (male) unemployment intensifies the risk of divorce. We additionally see that the higher educated – especially when homogamous -- reap a stability dividend, as do those with higher household income. In contrast, two low educated partners face stronger divorce risks.

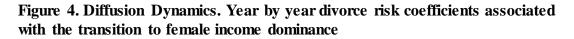
Turning now to our key concern (Table 2), we find that the transition to female incomedominance has a very strong effect for the 1980s cohort (an odds ratio of 4.1). This effect declines sharply in the 1990s cohort, and even more so in the youngest (an odds ratio of 1.6). All told, the negative influence of her becoming economically dominant has been reduced by a factor of three over the three decades. Note, however, that contrary to our expectations the effect remains statistically significant also for the youngest (2000) cohort (with such large Ns virtually all correlations become significant). These results suggest that couple relations are increasingly being guided by gender egalitarian normative precepts, but also that traditional male dominance norms do continue to exert some influence to a certain extent. The latter is additionally evident when we recall that male unemployment is a significant trigger of divorce.

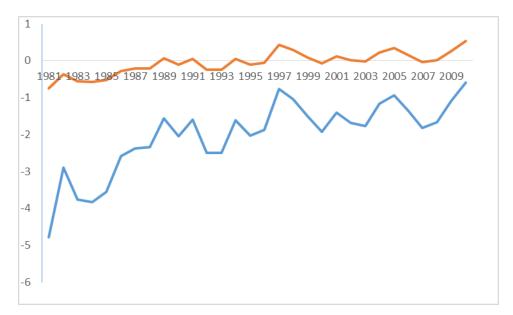
We hypothesized additionally that the distance-travelled effect would have an added and significant influence on partnership stability. The 'shock-effect' is likely to be greater. We test this by including a variable that measures attainment of income dominance starting from an income share below 45%. As can be see in Table 2, the divorce risks associated with the long-distance transition have similarly declined across the three cohorts (from an odds-ratio of 1.6 (1980 cohort) to 1.17 for the last cohort. All told, Danish society appears to have experienced a clear shift in favor of ever stronger gender egalitarian norms of partnership. Put differently, the three decades under consideration exhibit a normative diffusion process.

### Testing the diffusion of gender egalitarian norms

A straightforward diffusion model assumes the shape of a logarithmic (S-curve) function. We use this as our benchmark. In Figure 4 we plot year-by-year divorce risk coefficients associated with female income dominance (estimated similarly to those in Table 2) over the entire three decades. The blue line represents odds ratios; the orange, the log-odds coefficients. <sup>9</sup> Note that the values presented in Figure 4 are inverted (1-odds ratio) values so as to better identify any possible S-type curve.

While there is clearly no S-curve present, the trend is quite revealing. We see a distinct accelerating trend over the first decade, 1981-91, which subsequently begins to flatten. This is exactly what one would expect if diffusion dynamics have already surpassed the median point, i.e. at the point where half of the relevant population has been 'contaminated'. <sup>10</sup> On a rather speculative basis we might therefore infer that the diffusion of gender egalitarian norms in Denmark has reached a relatively mature stage.





As we saw in Table 2, higher educated couples enjoy a significant stability dividend (especially when they are educationally homogamous). Indeed, one would expect that the diffusion of gender egalitarian norms will begin within the more educated

<sup>&</sup>lt;sup>9</sup> Note that these estimations exclude the 'distance travelled\*she assumes dominance interaction. We shall subsequently conduct separate estimates for high and low educated couples.

<sup>&</sup>lt;sup>10</sup> Assuming the logarithmic function, the diffusion dynamics should begin to slow down. From the median point onwards.

professional strata and then subsequently spread to the less educated. If so, we should discover that the divorce risk associated with female income dominance will decline much more dramatically among the less educated – at least once the latter have been 'contaminated'. In other words, the difference in divorce risk between the two should narrow over time. In the following analysis we focus on couples where the wife isrespectively, low educated (defined as ISCID 1-3) and tertiary-level educated (ISCID 5+). We test the covergence-via-diffusion hypothesis in Table 3.

	1981	1990	2000
High educated:			
She crosses 55% line	2.2***	1.4***	1.1***
Low educated:			
She crosses 55% line	6.2***	3.4***	2.1***
Low-high ratio	2.8	2.4	1.9
High educated:			
She crosses 55%, starting at <45%	1,2***	1.1*	1.1 (n.s.)
Low educated:			
She crosses 55%, starting at <45%	2.0***	1.4***	1.3*
Low-high ratio	1.7	1.3	1.2

Table 3. Female income domina	nce and divorce with	n high and low educated
partnerships. Odds-ratios for the	ree marriage cohorts	_

Notes: the estimations include all covariates presented in Table 2. Ns for high educated couples are 6445 (1981 cohort), 6876 (1990 cohort) and 7102 (2000 cohort); For low educated couples: 4979 (1981 cohort), 5589 (1990 cohort) and 4474 (2000 cohort). Significance: \*\*\* = 0.001; \*\* = 0.01; \* = 0.05

The results provide support for a convergence-via-diffusion scenario. The high divorce risks associated with female income dominance in the 1981 cohort were clearly driven by the lower educated (where the effect is almost 3 times as strong). A parallel story emerges when we examine the long-distance movers – here the low educated are almost twice as likely to divorce.

Over the three decades there is clear convergence. The low-high education ratio for divorce risks declines from 2.8 to 1.9 among couples where she crosses the 55% line; in the more dramatic case where income dominance occurs due to the wife's long-distance move, the low-high education ratio drops from 1.7 in the 1981 cohort to 1.2 in the latest. Here we notice also that the long-distance effect loses statistical significance among the high educated. All this would suggest that gender egalitarian norms were pretty much dominant within the high education population already in the 1980s and 1990s. The dynamics of change in Denmark in these decades are primarily driven by a 'catch-up' effect among the lower educated. And from what we can gather, the catch-up has been remarkably rapid.

#### References

Aassve, A., Billari, F., Pessin, L. 2012 'Trust and fertility dynamics'. *Dondena Working Paper*, 56

Aassve, A., Mencarini, L and Sironi, M 2013 'Institutional transition, happiness and fertility'. Dondena Unpublished paper.

Amato, P, Booth, A, Johnson, D. and Rogers, S 2007 Alone Together. How Marriage in America is Changing. Cambridge, Mass: Harvard University Press.

Arpino, B. Esping-Andersen, G and Pessin, L. 2013

Bellani, D and Esping-Andersen, G 2013 'Divorce in multiple equilibria. An application to Germany'. Paper presented at the 9<sup>th</sup> annual meeting of the European Network Divorce Conference, Milano October 27-29

Becker, G. 1981. A Treatise on the Family. Cambridge, Mass: Harvard University Press

Becker, G., Landes, E. and Michael, R. 1977 'An economic analysis of marital instability'. *Journal of Political Economy*, 85: 1141-87

Bertrand, M, Pan, J. and Kamenica, E 2013 'Gender identity and relative income within households'. *NBER* working paper, no. 19023.

Bianchi, S, Robinson, J. and Milkie, M 2006 Changing Rhythms of American Life. New York: Russell Sage

Bittman, M, England, P, Sayer, L, Folbre, N. and Matheson, G 2003 'When does gender trump money? *American Journal of Sociology*, 109: 186-214

Bonke, J and Esping-Andersen, G. 2009 'Productivities, preferences, and parental care'. *European Sociological Review*,

Brines, J. 1994 'Economic dependency, gender, and the division of labor at home'. *American Journal of Sociology*, 100: 652-88

Brines, J and Joyrner, K. 1999 'The ties that bind: principles of cohesion in cohabitation and marriage'. *American Sociological Review*, 64:333-55

Cherlin, A 1979 "Worklife and marital dissulition' Pp. 151-66 in G. Levinger and O. Moles, eds. *Divorce and Seperation*. New York: Basic Books.

Cherlin, A 1992 Marriage, Divorce and Remarriage. Cambridge, Mass: Harvard University Press.

Cooke, L.P. 2006. "Doing Gender in Context: Household Bargaining and Risk of Divorce in Germany and the United States". *American Journal of Sociology*. Vol. 112, No. 2 (September 2006), pp. 442-472.

Esping-Andersen, G 2009 The Incomplete Revolution. Cambridge: Polity Press

Esping-Andersen, G and Billari, F. 2013 'Re-theorizing family demographics'. Mimeo, Pompeu Fabra University

Esping-Andersen, G, Boertien, D, Bonke, J. and Garcia, 2013 ' 'Couple specialization in multiple equilibria'. *European Sociological Review*, 33

Goldscheider, F and Waite, L. 1991 New Families, No Families: The Transofrmation of the American Home. Berkeley, Ca: University of California Press

Goldstein, J, Sobotka, T and Jasilioniene, A, 2009 The end of lowest-low fertility? *Population and Development Review*, 35: 663-699

Greenstein, T 1995 'Gender ideology, marital disruption, and the employment of married women'. *Journal of Marriage and Family*, 57: 31-42

- Harkonen, J and Dronkers, J 2006 Stability and change in the educational gradient of divorce. *European Sociological Review*, 22: 501-518
- Kalmijn, M 1999 'Father involvement in childbearing and the perceived stability of marriage'. *Journal of Marriage and Family*, 61: 409-21

Kalwij, A 2010 The impact of family policy expenditure on fertility in Western Europe. *Demography*, 47

- McDonald, Peter. 2000. "Gender Equity in Theories of Fertility Transition." *Population and Development Review* 26(3):427-39.
- Mencarini, L and Sironi, M 2012 Happiness, housework and gender inequality in Europe. *European Sociological Review*, 28: 203-219
- Neyer, Gerda, Trude Lappegård, and Daniele Vignoli. 2011. "Gender Equality and Fertility: Which Equality Matters?" in *Stockholm Research Reports in Demography* 2011:9. Stockholm: Department of Sociology, Stockholm University.
- Nock, S 2001 'The marriages of equally dependent spouses'. *Journal of Family Issues*, 22: 755-75
- Oppenheimer, V. K. 1997 'Women's employment and the gain to marriage'. *Annual Review of Sociology*, 23: 431-53

- Ozcan, B and Breen, R 2012 Marital instability and female labor supply. *Annual Review* of Sociology, 38: 463-481
- Popenoe, D 1993 'American Family Decline, 1960-1990'. Journal of Marriage and Family, 55: 527-542
- Rogers, S. 2004 'Dollars, dependency and divorce. Four perspectives on the role of wives' income'. *Journal of Marriage and Family*, 66: 59-74
- Ross, H. and Sawhill, I. 1975 *Time of Transition. The Growth of Families Headed by Women.* Washington DC: Urban Institute
- Sayer, L and Bianchi, S 2000 'Women's economic independence and the probability of divorce'. *Journal of Family Issues*, 21: 906-43
- Sayer, L, England, P, Allison, P and Kangas, N 2011 'She left, he left. How employment and satisfaction affect men's and women's decision to leave marriages'. *American Journal of Sociology*, 116:
- Schoen, R, Rogers, S and Amato, P 2006 'Wives' employment and spouses' marital happiness'. *Journal of Family Issues*, 27: 506-28
- Sevilla-Sanz, Almudena. 2010. "Household division of labor and cross-country differences in household formation rates." *Journal of Population Economics* 23(1):225-49.
- Sigle-Rushton, W. 2010 'Men's unpaid work and divorce. Reasessing specialization and trade in British families'. *Feminist Economics*, 16: 1-26
- Sleebos, J 2003 Low fertility rates in the OECD contries. OECD Social, Employment and Migration Working Paper, 15

**Appendix Table 1. Descriptive Statistics** 

Table 2. Results for	event history analy	rsis of dissolution of	f couples				
	198	31	199	90	2000		
variable	odds ratio	Std. error	odds ratio	Std. error	odds ratio	Std. error	
Age of male							
when entering							
couple	0,959	-0,1416	0.976	-0.2278	0.961	-0.2426	
Married	0,844	-0,0228	0.868	-0.0512	0.906	-0.0950	
Woman part-time	0,618	-0,2426	0.763	-0.5957	0.829	-2.0580	
Woman bread	,	,					
winner at outset							
of partnership	1,510	0,0770	1.492	0.2480	1.245	0.5741	
Children less							
than two years	0,508	-0,0641	0.574	-0.0851	0.621	-0.1258	
Children bet ween							
three and six	0,618	-0,0062	0.579	-0.0072	0.621	-0.0080	
Yrs of education,							
Male	0,986	-1,1487	0.982	-1.5559	0.987	-1.1817	
Yrs of education	-,	_/					
female	0,956	-0,2908	0.960	-0.2895	0.960	-0.4378	
Homogami –	0,000	0)2000	0.500	0.2000	0.000	011070	
High	0,914	-0,0421	0.882	-0.4277	0.885	-0.3719	
Homogami - low	1,274	0,4229	1.252	0.4258	1.285	0.6078	
Homogami - yes	0,868	-0,1222	0.922	-0.0467	0.951	-0.7496	
$2^{nd}$ income	0,808	-0,1222	0.922	-0.0467	0.951	-0.7496	
quintile	0,664	-0,0971	0.582	-0.0859	0.828	-0.3745	
3 <sup>rd</sup> income							
quintile	0,662	-0,0998	0.571	-0.0520	0.750	-0.1505	
4 <sup>th</sup> income							
quintile	0,584	-0,0841	0.537	-0.0758	0.662	-0.0998	
Unemployed,							
male	1,206	0,2592	1.759	0.1811	1.868	0.2104	
Unemployed,							
female	1,024	1,9484	1.059	1.4264	0.979	-2.4574	
female cross 55							
% of total							
earnings	4,14	0,1201	2.392	0.1281	1.570	0.1970	
Womans							
earnings less than							
45 % of males							
earnnings two							
years before	0,784	-0,2846	0.882	-0.2788	0.988	-2.0175	
Inteaction							
bet ween w							
crossing and and							
w earnings less							
than 45 % before	1,564	0,0896	1.240	0.4264	1.169	0.4920	
1 <sup>st</sup> year duration							
dummy	0,537	-0,1057	0.373	-0.0042	0.520	-0.2128	
2 <sup>nd</sup> year duration							
dummy	0,548	-0,1845	0.636	-0.2496	0.562	-0.1570	
3 <sup>rd</sup> year duration							
dummy	0,561	-0,2285	0.455	-0.1100	0.555	-0.2601	
4 <sup>th</sup> year duration							
dummy	0,839	-0,6948	0.916	-2.9804	0.549	-0.2541	
5 <sup>th</sup> year duration	,	,					
dummy	0,978	-6,5027	0.807	-0.6617	0.774	-0.7763	
6 <sup>th</sup> year duration	0,010	5,0027	0.007	0.0017	01	0	
dummy	1,560	0,5102	1.306	1.2638	0.656	-0.4174	
7 <sup>th</sup> year duration	1,000	5,5102	1.500	1.2000	0.000	0.11/4	
dummy	1,782	0,6850	2.106	0.6484	1.925	1.298	
8 <sup>th</sup> year duration	1,702	5,0050	2.100	0.0404	1.525	1.230	
dummy	1,219	0,8991	1.740	0.6110	1.726	0.9141	
9 <sup>th</sup> year duration	1,219	0,0331	1.740	0.0110	1.720	0.9141	
9 year duration dummy	1 055	2 7700	1 - 10	0 5743	1 240	0.0004	
10 <sup>th</sup> year duration	1,055	2,7780	1.510	0.5742	1.240	0.6984	
	1.035	0 4 2 0 4	0.055	1 4 6 4 4	4 647	0.0700	
dummy	1,925	0,4294	0.855	-1.4611	1.517	0.6786	
11 <sup>th</sup> year duration	4 55 4	0.0670	1.000	0.5760	-	-	
dummy	1,554	0,9678	1.669	0.5762			

12 <sup>th</sup> year duration					-	-
dummy	0,660	-0,7212	0.759	-0.5007		
13 <sup>th</sup> year duration					-	-
dummy	1,244	2,6070	0.656	-0.7121		
14 <sup>th</sup> year duration					-	-
dummy	1,306	0,7122	0.644	-0.4877		
15 <sup>th</sup> year duration					-	-
dummy	1,012	12,2798	0.580	-0.1790		
Number of	11.424		12.465		11.876	
couples						