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## Do Alimony Regulations Matter inside Marriage? Evidence from the 2008 Reform of the German Maintenance Law

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# Do Alimony Regulations Matter inside Marriage? Evidence from the 2008 Reform of the German Maintenance Law

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## Abstract

This study investigates how West German spouses have responded by adjusting their time allocation to the alimony reform introduced in 2008. This reform imposed financial self-responsibility after a finalized divorce. It weakened the relative bargaining position of the spouse with a claim for maintenance in the case of a potential divorce prior to the law change. Therefore, the present study helps to verify bargaining models by considering the 2008 policy change as a shift of spousal bargaining power. Estimating difference-in-differences models I find that, indeed, wives who face a potential low alimony loss might have increased their working hours as a result of the 2008 reform. To my knowledge, the present investigation is the first analysis of the behavioral response of individuals in longer marriages to the 2008 reform. Its approach to identifying those who have been (dis)advantaged by this reform is a new one, proposing a method that reflects the realities of alimony arrangements in Germany.

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*JEL classification:* D13, J12, J13, J22, K36

*Key words:* Alimony, family, bargaining, institutional change, labor supply, time allocation

## 1. Introduction

Few laws are as important for a large part of the population as those governing marriage, divorce, and its financial aftermath. In 1976, the first *Act on the Reform of Marital and Family Law* was passed in West Germany which still constitutes the foundation of German maintenance law in the present day (Borth 2011, p. 1). Since then, few modifications in the regulation of post-dissolution rights and responsibilities, including alimony, have been made. Although lawmakers tried to reduce alimony obligations in 1986<sup>1</sup>, 2008 marks a crucial turning point with regard to the regulation of alimony for divorcees (Peschel-Gutzeit 2008, pp. 10 et seq.). Without question, the 2008 reform is inescapably relevant to anyone contemplating or going through a divorce. However, the present study is focused on measuring its causal effect on a group of people not directly targeted by the 2008 reform, i.e., not on divorcing or divorced, but on individuals in “intact” marriages.

A quantitative evaluation of the *2008 Reform of the German Maintenance Law* is indispensable since it helps to expose its unintentional side effects. The analysis of this reform may serve two related goals: First, in understanding whether alimony regulations are a channel through which policymakers may affect married individuals - thus, verifying bargaining models, in which a change in the institutional setting proxies an exogenous redistribution of power between

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<sup>1</sup> On February 20, 1986, the *Law Amending Maintenance of Legal, Procedural, and other Rules* was passed. It came into force on April 1, 1986. The reason for this change was the Federal Constitutional Court's position that maintenance would be an unreasonable restriction of the debtor's freedom in economic matters in cases where the party demanding maintenance had significantly severed marital ties (Martiny and Schwab 2002, p. 22).

spouses in “intact” marriages (Rangel 2006, p. 627). Second, the findings might suggest improvements vis-à-vis future changes in laws regarding maintenance in Germany, i.e., by supporting the lawmakers’ learning process (Moran et al. 2008, pp. 367 et seq.). In particular, it might provide an understanding that laws *do* incentivize individuals not directly targeted by the law to change their behavior. As a consequence, maintenance laws to date might have disregarded financial implications.<sup>2</sup>

The introduction of the reform was motivated by changing social conditions and values, such as the rising divorce rate, the increasing number of children born out of wedlock, and the increasing number of “second families”. Moreover, as was argued by the German Federal Government, an adjustment of the maintenance law was also required due to the increasing number of dual-earner couples, both with and without children, and of mothers who were re-entering the workforce (German Bundestag 2006c, p. 12). Some family law experts see in this explanation just the usual reasoning for reducing any consequences of a marriage (Breithaupt 2006, p. 11; Diwell 2006, pp. 1 et seq.). However, after reading Section 4.4, which introduces alimony calculations, it will become clear what would indeed be a logical reason for such a policy measure: A governmental response following years of an unusual high proportion of couples where the partners have the same intra-marital income shares or where the income gap is minimal. Such a trend would make old alimony regulations obsolete after some time.

The objectives of the law were threefold: Strengthening the best interests of the child, simplifying existing legislation and, more importantly for this study, reinforcing the principle of personal responsibility after divorce (German Bundestag 2007a, p. 1). The liability of divorced spouses to support themselves is strengthened by a new version of the principle of self-responsibility, the design of the gainful activity as an obligation, and the creation of a new, all grounds for maintenance claims covering, possibility of restricting alimony in terms of both amount and duration of such support (German Bundestag 2007b, pp. 3189 et seqq.). Additionally, the employment-resumption requirements after the finalization of divorce have been tightened (German Bundestag 2006c, p. 2; German Bundestag 2007a, pp. 1, 9). Unfortunately, the potential impacts of the reform on married individuals, or on their children, were completely ignored by lawmakers despite concerns being expressed by family law experts at a public hearing in 2006 (German Bundestag 2006a) and the existing empirical evidence regarding the redistribution of bargaining power and its consequences on family members as a result of similar policy measures (see Section 2.2). This study aims to fill this gap by empirically investigating the causal relationship between the restriction and reduction of post-marital alimony introduced in 2008 and spousal time-spending behavior. Specifically, I address the following questions: First, do married individuals adjust their time allocation in response to a legal change in maintenance claims, i.e., to marriage’s insurance value loss? Second, if they do, is the response big enough to be considered important? I use the 2008 reform as a natural or quasi-experiment to identify the behavioral response of married individuals to imposed self-sufficiency after a finalized divorce.

Alimony law defines the ongoing claims of one spouse on the future earnings of the other and therefore determines one of the distributional rules of divorce (Mnookin and Kornhauser 1979, p. 959). The basis for the heterogeneous treatment intensity is the amount that was at stake in terms of periodic alimony payments: It matters whether, as a result of the alimony reform, the monthly alimony payment is reduced by €8 or €800 to €0 per month in the event of a potential divorce. That is why I use alimony distribution in the last pre-treatment period, 2007, to divide wives who lose such regular payments into different groups. Wives below the 25th percentile of the alimony distribution belong to the control group. The remaining wives are considered to be treated in my analysis and are subdivided into three groups: A low-intensity treatment group receiving alimony payments in the case of divorce between the 25th percentile and the 50th percentile, a medium-intensity treatment group with alimony between the median and the 75th percentile, and a high-intensity treatment group with alimony above the 75th percentile of the alimony distribution. I therefore identify the effect of the legal reform as the difference between the change in time use of wives with significant alimony loss, but different in size, and the change in time use of wives with negligible alimony loss. The same logic applies to husbands who were the potential debtors in the case of divorce before the reform: The law’s impact most likely varies significantly depending on the pre-treatment amount payable to their wives. It is of significance whether you are no longer liable to pay, for example, €8 or €800 per month in the event of a marriage dissolution. This is a

<sup>2</sup> The cost estimate in the draft law refers only the budgets of the federal German states and divorced individuals subject to maintenance arrangements, particularly those who are obliged to pay maintenance. It is vaguely conceded that in individual cases a strengthening of post-marital self-responsibility and extended possibilities to reduce maintenance entitlements might entail financial relief for divorcees (German Bundestag 2006c, p. 2).

novelty approach since I do not simply assume that all wives are disadvantaged and all husbands are better off based on the fact that men usually earn more than women. For every individual, I determine the alimony that he or she would pay or receive in the case of a separation. This is more realistic since data on court decisions shows that alimony is also granted to husbands. In West Germany (including Berlin) in 2006, for example, husbands received maintenance from their former wives in 21.51% of cases, while wives received alimony from former husbands in 78.49% of cases (Federal Office of Statistics 2008a, p. 26).<sup>3</sup>

By estimating difference-in-differences models, I find evidence that the total working hours of low-intensity treatment wives might indeed have increased due to the *2008 Reform of the German Maintenance Law*. The response is significant and between two and three hours per week. Limitation to 30-54 year old wives confirms this finding. However, when I split my sample using 45 as a cutoff age, the response seems to be stronger for younger wives. The use of a second control group - husbands with alimony payments below the 25th percentile in 2007 - also yields a positive but much bigger response and is disputable due to the violation of the parallel-trend assumption. There is no behavioral response of married men to the 2008 reform.

This study is organized as follows. Section 2 briefly introduces household models and presents related literature on this topic. Hypotheses are stated in Section 3. Section 4 explains the institutional environment and alimony regulations in Germany. Section 5 describes the data used in empirical estimations. The econometric specification is introduced in Section 6. Results are presented in Section 7, additional robustness checks in 8. Section 9 discusses internal and external validity. Section 10 revisits the stated hypotheses and finally concludes.

## 2. Background

### 2.1. Conceptual framework

Two individuals who have entered a marriage are engaged in a decision-making process. They negotiate to find agreement on their choice of goods and on their time allocation, and on the distribution of the gains from their marriage (Manser and Brown, 1980, p. 35). In Becker's (1981) unitary model of the household, the distribution of alimony entitlements is irrelevant to determining outcomes in the family.<sup>4</sup> Households' preferences are those of the family head (Apps and Rees 2007, p. 3), an intra-household consent is assumed (Ott 1995, p. 80). However, the literature in the field of family economics seems to have arrived at a consensus that the unitary model relies on an overly simplistic understanding of interactions and relationships within a family. Thus, a marriage should not be considered as a single decision-making unit. The intra-household balance of power matters to determine the final allocation of resources in the household (Brassiolo 2013, p. 1; Grossbard 2011, p. 42). Both, cooperative bargaining models as well as dynamic models that allow for renegotiation, are usually used to explain negotiations among household members with disparate preferences (Rangel 2006, p. 630).

Therefore, suitable for answering my research questions are models that can be used to examine marital decisions in a bargaining framework. As stated by Nash, a "common device in negotiation is the threat" (Nash 1953, p. 130). "[E]xtrahousehold environmental parameters (EEPs) serve as pure shifters of the threat points," suggests McElroy (McElroy 1990, p. 559) and as examples of EEPs she refers to "parameters that characterize the legal structure within which marriage and divorce occur" (McElroy 1990, p. 567). The *2008 Reform of the German Maintenance Law* serves as a perfect EEP and thereby affects the threat point of married couples within the framework of such models.<sup>5</sup>

<sup>3</sup> Family Courts statistics increasingly show spousal support in favor of men (Willenbacher 2010, p. 371). Of cases concerning alimony payments decided by the decree of dissolution in West Germany (including Berlin) in 2006 in about 22%, and in 2007 in about 16% of cases alimony was paid to former husbands. In Eastern states the percentages are higher than in Germany as a whole: 23% in 2004, 31% in 2005, 23% in 2006, and (without Saxony) 30% in 2007 (Federal Office of Statistics 2008a, p. 26; Federal Office of Statistics 2008b, p. 26; Willenbacher 2010, p. 371).

<sup>4</sup> Becker (1993) later rejects criticism offered by McElroy and Horney 1981, Boserup 1987 and many others stating that he neglects "power" in marriages. He argues that he does consider bargaining over whether to divorce and that he simply emphasizes the fact that intra-marriage bargain happens in the shadow of competition in the marriage markets (Becker 1993, pp. 13 et seq.).

<sup>5</sup> The so-called divorce-threat cooperative Nash-bargaining models proposed by Brown and Manser (1978), Manser and Brown (1979, 1980) and by McElroy and Horney (1981) suggest similarly that institutional variables or EEPs might influence the relative bargaining positions of spouses (Manser and Brown 1980, p. 42; McElroy and Horney 1981, pp. 336, 346; Manser and Brown 1979; Brown and Manser 1978). These models are based on the assumption that spouses are able to make irrevocable "commitments to implement an agreed set of actions" (Apps and Rees 2007, p. 28). Further, these binding contracts are assumed to be complete and based on symmetrical information. Thus, these cooperative Nash bargaining models have some limitations and weaknesses. First, the assumption of binding contracts is difficult to justify. Although there may be

Specifically, it exclusively influences the economic status of spouses after a marriage dissolution without affecting the preferences or couple's budget constraint directly. In the context of these models, new restrictions and limitations on alimony payments between divorced individuals lower the standard of living that an economically weaker spouse can expect following a divorce. This prospect makes it more difficult for him/her to leave his/her spouse in a bad marital situation, weakening the credibility of the threat of divorce (Phipps and Burton 1995, p. 152; Lundberg and Pollak 1996, p. 149). As a result, policies putting the financially stronger spouse in a relative better position shift resources within marriage to the main earner in the family (Lundberg and Pollak 1996, p. 149).

In models with the possibility of renegotiation as the response to the improved bargaining position of the first earner in relation to the second, the latter will try to increase his/her threat point since it would result in an increase of his/her utility. Thus, the spousal time spending behavior can be expected to change as a result of the 2008 reform due to an intra-marital shift of bargaining power.

Note, the 2008 alimony reform is to some extent comparable to the introduction of no-fault divorce laws, because it decreases marriage's insurance value. In response to this, the optimal - from an individual point of view - degree of specialization in home production decreases (Parkman 2004, p. 772). Married second earners respond by increasing their investment in labor-market specific human capital (Stevenson 2007, p. 76). Various authors model human capital acquisition as experience on the labor market (see, e.g., Olivetti 2006, p. 557, Attanasio et al. 2008, p. 1518). Alternatively, human capital investments can be thought of as direct investments in education. Under the new alimony regime, spouses can be expected to place less emphasis on home production and more on involvement in the workplace as a form of protection in the case of divorce.

## 2.2. *Related literature*

Empirical papers which examine the issue of bargaining within marriage primary cover three decision spheres: Fertility, work division and income spending behavior (Beblo and Boll 2014, p. 121). Here, I firstly introduce a number of important studies that explore the influence of EEPs on time allocation or labor force participation (LFP) within a household. Secondly, I look at a strand of literature concerning investments in children.

### 2.2.1. *Time use and labor force participation*

Phipps and Burton (1995) conduct empirical tests of EEPs on the LFP of married women. They exploit the variation in social/institutional factors across seven European countries. Their empirical results indicate that the outcome is significantly influenced by national institutions. Specifically, higher social transfers for singles or higher levels of child support for single parents seem to reduce levels of LFP among married women, *ceteris paribus* (Phipps and Burton 1995, pp. 167 et seq.).

Research on the influence of no-fault divorce laws on spouses' labor supply outcomes has produced inconsistent results. Gray (1998), for example, exploits the regional variation in the adoption of unilateral divorce laws, which grant one spouse the right to seek divorce without the consent of the other, during the 1970s in the USA. He additionally considers underlying marital property laws in each state. Divorce laws that reassign marital property rights "can be interpreted as an unexpected and exogenous shift in the unearned income of each spouse" (Gray 1998, p. 628). He finds that wives who were favored by this reassignment increased their labor supply and reduced their time spent for home production, and vice versa. No changes in their leisure consumption were found (Gray 1998, p. 638). Unlike Gray (1998), Stevenson (2008) finds that the implementation of unilateral divorce laws in the USA leads to an increase in LFP by married women irrespective of the preexisting property division laws<sup>6</sup> (Stevenson 2008, p. 853). Moreover, unilateral divorce seems to have the largest effect on women married for between 5 and 15 years and effectively no impact on those in long-term marriages (Stevenson (2008)). Voena's (2011) findings suggest that unilateral divorce decreased women's LFP and increased men's working hours in those states where assets are divided

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formal laws, customs, traditions or social norms (Ott 1992, pp. 120-125), it is very arguable whether these are sufficient to provide an enforcement mechanism for contracts (Apps and Rees 2009, p. 76). A number of papers present environments where cooperation or commitment does not work (Kemnitz and Thum 2013, pp. 2 et seq.). Second, the assumption of completeness of information seems to be an issue. Further, the two players have the same level of information which seems to be also a far-fetched assumption. Another general question is whether children (if present) are actively involved in decision-making process (see, e.g., Lundberg et al. 2007).

<sup>6</sup> Stevenson (2008) points out that Gray's (1998) inability to find an effect without controlling for different marital property regimes can be explained by omitted variable bias and heterogeneity in the treatment of females based on marriage duration (Stevenson 2008, p. 872).

equally (community property states; Voena (2011)). Genadek et al. (2007) find that married mothers are more likely than non-mothers to increase their LFP in reaction to no-fault divorce laws. Moreover, women with young children seem to respond more strongly than women with older children (Genadek et al. 2007, p. 269).

A different group of studies explores the extension of alimony rights to cohabitations as an exogenous source of variation influencing the distribution of power within the household. Rangel (2006) investigates the 1994 regulation change in Brazil. Applying a difference-in-differences approach, the author shows that women with increased power reduce the frequency of housekeeping activities and the labor supply relative to their married counterparts after the law change (Rangel 2006, pp. 639, 650). Lafortune (2010), Chiappori et al. (2011) and Lafortune et al. (2012) find that granting alimony entitlements to cohabitations in Canada affected women, under the assumption that their bargaining power was increased: The likelihood that women in cohabiting couples work full-time decreases and the likelihood of them stopping work altogether increases (Lafortune 2010, pp. 20, 24). Results for men are mixed: They show no reaction to the law change (Lafortune 2010, Lafortune et al. 2012) or indeed the opposite pattern (Chiappori et al. 2011, p. 30).

Kapan (2008) analyzes the legislative change imposed by the 2000 House of Lords decision which led to a more equitable asset division in England and Wales between divorced individuals. This change entitled the economically weaker spouse to a higher share of family wealth in case of divorce. Using Scotland as a control group, the difference-in-difference estimations reveal that married women, assuming they were favored by the 2000 decision, reduced their labor supply after the legislative change (Kapan 2008, pp. 1 et seq.). Another study on property division regulations in Spain finds that the labor supply of wives reacts to changes in such laws (Brassiolo 2013, p. 24).

Most closely related to my study is the recent paper of Bredtmann and Vonnahme (2017). The authors also aim to study the behavioral response of married individuals to the new alimony regime introduced in 2008. However, they consider individuals who had first married between 2005-2007 as treated. Whereas I exclude individuals in short marriages.<sup>7</sup> Overall, Bredtmann and Vonnahme (2017) do not find labor supply responses of women and men. They argue that “[t]hese effects can be interpreted as a lower bound to the overall effects” (Bredtmann and Vonnahme 2017, p. 3).

The findings presented here represent a substantial body of evidence showing how extramarital opportunities for spouses affect intra-household decisions on their division of time. The presented paper builds on this strand of literature by testing the influence of the revised 2008 law on the time-spending behavior of married individuals and thus their relative bargaining positions within the marriage. However, unlike the previous studies, I do not rely on the assumption that the law favors or disadvantages women in general, an assumption which is based on the fact that men are more likely to earn higher incomes (e.g., Bredtmann and Vonnahme 2017, Lafortune et al. 2012, Rangel 2006). I calculate for every individual the actual amount of maintenance for the last pre-treatment period that is at stake as a result of the considered legislative change. This approach reflects the realities of alimony arrangements in Germany. For example, of cases concerning alimony payments decided by decree of dissolution in West Germany (including Berlin) in 2007, in about 16% of cases alimony was paid from former wives to former husbands (Federal Office of Statistics 2008b, p. 28).

### 2.2.2. *Impact on children*

Given that an increase in female bargaining power might reduce the labor supply of women, and vice versa, time spent on childcare might also change as a result of the relative power shift. If the 2008 reform weakens the relative bargaining position of the mother, this may result in lower levels of child supervision and investment in children.

<sup>7</sup> There are some crucial differences to my work. First, at the time the *Act for the Reform of the Maintenance Law* came into force couples in the included sample were married for less than 3 years. Overall, women in the treatment group are married for 3.18 years on average (Bredtmann and Vonnahme 2017, pp. 23, 30). However, a maintenance claim is refused in the case of short marriages for reason of gross inequity, except a former spouse cares for a child (see §1579 (1) Civil Code, old and new versions). This restriction existed already before 2008. Therefore, I exclude individuals who have been married for less than 3 years because I consider them not to be affected by the new law. Second, the authors do not calculate the alimony for every individual, but assume that women are alimony receivers and men alimony payers. In order to be affected by the 2008 reform, a short-married women has to assume that she would have been an alimony dependant in the case of divorce in her fourth year of marriage under the old alimony regime. This assumption implies that a spouse can predict future incomes of both spouses and therefore future maintenance payments in the event of a future divorce. Further, unlike in my study Bredtmann and Vonnahme (2017) include East and West Germans in the same analysis and estimate OLS models controlling i.a. for federal state and year fixed effects interactions. They consider a 5-day week and a different time frame.

Research has found that resources directly available to the mother are more likely to benefit children (Thomas 1994, Lundberg et al. 1997, Duflo 2003, Rotz 2012). Lowering or eliminating post-marital maintenance can also lead to parents providing a lower level of resources to their children for two reasons. First, the incentives to invest in the marriage-specific capital<sup>8</sup> might decrease. Second, spouses' savings behavior in anticipation of a potential divorce might change at the expense of their children (González and Özcan 2013). In Rangel's (2006) analysis, a shift toward stronger bargaining position for mothers benefited first-born daughters' schooling in Brazil (Rangel 2006, p. 646, 650). This result is stronger in regard to the daughters of women who themselves have a level of education which is lower than elementary school. On the other hand, no effect is found for daughters of more highly educated women (Rangel 2006, pp. 645 et seq.).

Gruber (2004) examines the long-term effects on children of making divorce easier through the implementation of unilateral divorce laws in the USA in the 1970s. There are two possible channels through which the change in divorce regime could affect children: Through the increasing divorce rates of parents and, secondly, through affecting family bargaining (Gruber 2004, p. 809). He finds that being exposed to the new divorce regulations at youth leads, i.a., to reduced educational attainments and family incomes for men and women, and lower attachment to the labor market and earnings for women (Gruber 2004, pp. 815, 817). However, Gruber (2004) cannot test for the mechanisms through which the unilateral divorce regime leads to outcomes at adulthood (Gruber 2004, p. 820). Nevertheless, the results appear too large to be explained solely by increased exposure to parental divorce while young. That is why he argues that these laws had an impact on the upbringing of young people in "intact" marriages (Gruber 2004, p. 830). Exploiting the different timing of unilateral divorce legalization across EU-15 countries, González and Viitanen (2008) confirm negative effects of the new law on the labor supply and earnings for women who were exposed to the regime of unilateral divorce as children (González and Viitanen 2008, p. 18).

Reinhold et al. (2013) also investigate the impact of growing up under a unilateral divorce law on children's later life outcomes. They use the different timing of divorce regime reforms across 11 European countries to explore human capital investments in children. The authors find adverse effects of this exposure such as an increased probability of being overweight in adulthood (Reinhold et al. 2013, p. 1046). These results seem to be driven by the impact of divorce laws on family bargaining in "intact" marriages, and less by the effect on the probability of parental divorce (Reinhold et al. 2013, p. 1054). Authors conclude that new divorce laws led to a reduction of investments in children, e.g., because less time is spent with a child as both spouses have to work more in order to maintain their extra-marital options. The institution of marriage has partly lost its function as an insurance (Reinhold et al. 2013, p. 1055).

As Reinhold et al. (2013) point out, "alimony laws that were recently reformed in Germany [...] would give additional incentives to women to invest in their careers with potentially similar effects on children's outcomes than the shift to unilateral divorce regime" (Reinhold et al. 2013, p. 1038).

In her statement on the draft bill which resulted in the 2008 reform, family law expert Diwell (2006) warns similarly about the effects on mothers: That as a result of the alimony reform, mothers would return to full-time employment and rely on the full usage of external childcare immediately following the end of paid maternity leave, except where the fathers would agree to participate in childcare and housework on a fifty-fifty basis (Diwell 2006, p. 5). Therefore, it seems to be important to assess the impact of the 2008 reform on hours spent on childcare as well.

### 3. Hypotheses

Based on the theoretical considerations and empirical evidence presented in Section 2, I form two hypotheses concerning wives. In general, all second-earner wives that I include in my analyses suffer a financial loss in the case of divorce due to the 2008 reform. However, heterogeneous treatment effects on the outcomes by treatment intensity can be expected. Women who would lose higher alimony payments in the event of a potential divorce might respond in a stronger or different way under the new maintenance regime, while women in rather more financially equal marriages with potentially lower alimony loss might be less influenced by the law change. In principle, I expect to see a shift in the direction of activities which result in a better bargaining position of the wife in relation to the husband.

<sup>8</sup> Stevenson (2007), for example, finds evidence for an impact of unilateral divorce laws on marriage-specific capital such as a spouse's education, children, and household specialization (Stevenson 2007, p. 75). Thus, showing how laws can alter partners' incentives to invest in their marriage.

Hypothesis 1: Wives disadvantaged by the 2008 reform may choose to invest more in their careers, leading to better labor market outcomes. Thus, in order to improve their outside option, wives increase their working hours or participation in the labor market as a reaction to the new legal situation.

In reality, for women with no attachment to the labor market at all, re-entering the workforce might be very difficult and take some time. So, depending on employment history, age and other factors, this strategy is not a realistic option for every wife. And, as suggested by Stevenson (2008), the financially dependent spouses in long-term marriages may be older and, because of this, face poorer opportunities in the job market. There are also fewer remaining years from which they can benefit from entering or re-entering the labor market (Stevenson 2008, p. 868). In theory, wives could also increase their education level. This strategy of increased investments in her market-specific human capital would also result in a better relative bargaining position for the wife. However, one needs to keep in mind that there are restrictions and (in)direct costs for formal or advanced training or investments in education in general. It seems unlikely that wives who already have an educational qualification would increase the number of hours spent in education or enter a formal/further training program as a reaction to the law change, but this aspect is also examined.

Hypothesis 2: Wives work longer hours doing housework.

This response to the 2008 reform seems to be plausible since wives' bargaining power decreased. In particular, wives with no possibility of pursuing a career could find themselves in this situation.

To hypothesize behavior of husbands is more challenging because empirical studies find hardly any response of males to EEPs. Nevertheless, I form two hypotheses considering the 2008 reform. Keep in mind that the 2008 maintenance reform decreases the costs of exiting a marriage for husbands who were liable to pay support in the case of divorce before 2008.

Hypothesis 3a: Husbands increase their working hours since in the case of a finalized divorce they benefit more from their effort and engagement on the labor market. Enforced self-sufficiency after divorce eliminates the incentive to keep track of the income gap between you and your spouse and reduces negative consequences on the primary earner.

Hypothesis 3b: Legislative change favoring male primary earners in the family leads to their labor-supply reduction due to gained bargaining power.

Hypothesis 4: Both spouses can be expected to reduce the number of hours invested in childcare as pointed out in Section 2.2.2.

Such a finding would undermine one of the reform's main goals: Strengthening the best interests of the child, since children in "intact" marriages would experience lower levels of parental supervision.

#### **4. Institutional environment**

In this section, I provide first some background on the introduction of the 2008 reform and then on the alimony regulations that are the subject of this paper. After presenting alimony arrangements and their legislative foundations, I explain how alimony payments are actually determined. The understanding of this calculation is fundamental since it explains the varying impact of the 2008 reform on the individuals.

Before the finalization of divorce, partners must live apart for one year in the case of mutual consent to divorce (§1566 (1) Civil Code).<sup>9</sup> During this year of separation, the marital standard of living must be guaranteed to the dependent spouse (Wörz 2011, pp. 10 et seq.). Reforms introduced in the following subsections target the provisions governing alimony after the divorce is finalized and not the alimony during the separation period.

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<sup>9</sup> If one spouse is not willing to accept divorce, partners must live separated for at least three years (§1566 (2) Civil Code; Wörz 2011, p. 10).



#### 4.1. The 2008 Reform of the German Maintenance Law

##### *The introduction of the new legislation*

Since I study a national policy effect and apply the difference-in-differences method, I need to discuss two important aspects. First, the public should be well-informed about the reform. This is a pre-condition for an effective policy. Second, the introduction of the new law should be unexpected or unforeseeable, coming as a “shock” to the affected couples.

It took lawmakers over one year and eight months to arrive at a final agreement concerning the law and its constitutive parts, starting on March 8, 2006, when some members of the German Bundestag presented a request to the Federal Government (German Bundestag 2006b). On June 15, 2006, a draft of the legislation about changes in the alimony regulations was submitted by the German Government. It immediately came under attack by some parts of the ruling party. Conservative members of the CDU and CSU opposed the bill from the beginning because of its “liberal” character. These attacks and the following coalition disputes were covered by the media.

“We opposed these ideas for alimony regulation because we were concerned that post-marital solidarity and thus marriage itself would sustain damage.”

Norbert Geis, member of German parliament (CSU) (Schulz 2007, accessed on 05.26.2017)

In February 2007, the grand coalition made progress on this issue, but failed to meet the planned commencement date of April 2007. Some parts of the draft bill were deemed not to conform with the constitution and thus the bill was in need of amendment (German Bundestag 2007a, p. 8). This was news in the media in May 2007.<sup>10</sup> From the public’s point of view, at that moment it was not yet clear what it could expect from the upcoming regulation, i.e., what the final version would be, and when it could be expected. Germany’s grand coalition continued to quarrel over content-related questions. Finally, in November 2007, the Committee on Legal Affairs issued a recommendation for the decision, which is debated in the Bundestag for the last time (German Bundestag 2007c, p. III). This means changes in alimony are decided. Between November 2007 and February 2008, the new reform received broad media coverage, in contrast to previous news treatment it was primary content-related.<sup>11</sup> The cover slogan of FOCUS’ January 2008 issue “Zero Euro for the ex-wife? Lawyers are talking about a revolution” is just one of many examples. The leading journal at that time, SPIEGEL, publishes a special issue on women in February, including articles on the new alimony regime. Top-ranked political talk shows “Anne Will” and “Menschen bei Maischberger” try to identify the winners and the losers as a result of the reform.

As shown in Appendix Figure C.1, web search interest for alimony regulations peaks in November, 2007, closely followed by search in January, 2008. This reflects an active interest in the 2008 reform. Hamburg is the leading federal state in terms of web search interest for the very specific term “new alimony regulations” in 2007/2008. In comparison to Hamburg, people in other Western states seem to be interested in this topic as well, with the exception of Saarland. Taken as a whole, Eastern states do not show any active interest in comparison to Hamburg, with the exception of Saxony (see Appendix Figure C.2).<sup>12</sup>

In summary, the public was sufficiently informed through various media channels about the key aspects of the maintenance reform (see, for example, Appendix Figure C.3 and Table B.1). This reform became public knowledge between November 2007 and February 2008. On account of the delays in the legislative process, I argue that it was not possible to precisely forecast the date of adoption of the new law. Objection laws were on average adopted after 201

<sup>10</sup> Weekly journals such as SPIEGEL or FOCUS published articles on the subject: “Alimony: More money for singles?” (FOCUS, 05.21.2007), “Constitutional Court: Verdict concerning alimony surprises the coalition” (SPIEGEL ONLINE, 05.23.2007), “Federal Constitutional Court: Judges overturn the maintenance law - the reform is at stake” (SPIEGEL ONLINE, 05.23.2007), “Government: The coalition stops the reform of the maintenance law” (SPIEGEL ONLINE, 05.24.2007), “Karlsruhe’s judgment: The coalition stops the reform of the maintenance law” (FOCUS, 05.24.2007), and “Maintenance law: The coalition is in a dispute over the reform” (SPIEGEL ONLINE, 05.26.2007).

<sup>11</sup> Media reports explained that there will be no payments at all, in the best case that the alimony is severely limited: “Maintenance law: Temporary compensation” (FOCUS, 11.14.2007), “Alimony law: limited maintenance” (FOCUS, 11.15.2007), “Divorce law: Limits for greedy divorcees” (12.13.2007), “No money for the former wife” (DER SPIEGEL, 01.14.2008), “Society: The former wife gets nothing” (FOCUS, 01.28.2008), “Germany: The “responsible” one gets no money” (FOCUS, 01.28.2008), “Society: The former wife gets nothing” (FOCUS, 02.16.2008), etc. However, I cannot assess what message has reached the public and how the individual citizen has understood the 2008 reform.

<sup>12</sup> Unfortunately, web search interest is not separately shown for West and East Berlin. East-West differences in Google Trend’s search volume index can probably be explained in part by divorce numbers: In western states, 110.4 couples per 10,000 existing marriages were divorced in 2007, and 106.4 in 2008. In contrast, in eastern states, 85.4 per 10,000 existing marriages were divorced in 2007, and 83.7 in 2008 (Krack-Robert 2010, p. 1195).

days in the previous two parliamentary terms (Burkhart and Manow 2006). Here, the time between the introduction of the legislative bill and the promulgation of the law was 561 days. Essentially, it is unlikely that matters related to post-marital alimony could be predicted before November 2007. In the end, parts of the draft bill needed revision for reasons of constitutionality. The necessary modifications became generally known to the public in November 2007.

#### *The key aspects of the 2008 reform*

The *Act for the Reform of the Maintenance Law* was passed by the German Bundestag on December 21, 2007, and came into force 11 days later on January 1, 2008. One of the lawmakers' objectives was the strengthening of each spouse's personal responsibility to earn her/his own living after the finalization of divorce (§1569 Civil Code; Federal Constitutional Court 2011; Borth 2011, p. 3). Before 2008, divorced partners were expected to be self-sufficient. However, the principle of self-sufficiency, with many exceptions, had practical relevance only for childfree marriages of a relatively short duration (Borth 2011, pp. 19 et seq., 25; German Bundestag 2006c, p. 14; Wörz 2011, pp. 11 et seq.). Or, as stated by an expert in family law, from debtor's perspective the existing restriction regulations were basically not applied since 1986 (Peschel-Gutzeit 2008, p. V). Alimony was routinely awarded, including cases where the alimony-demanding spouse was working but had lower income than the other. (Trzcinski 2000, p. 32). The principle of the long-lasting post-divorce solidarity was a legal doctrine and broadly interpreted, although it is, to a certain degree, a contradiction of the principle of self-responsibility. Additionally, the notion of a "marriage-created need" was prevalent in the legal literature at that time (Martiny and Schwab 2002, p. 23).

The newly created §1578b of the Civil Code provides a tool to reduce postmarital maintenance, and/or to set a time limitation on it, covering *any* ground for alimony claims.<sup>13</sup> This measure is accompanied by stricter work requirements (Wörz 2011, p. 11). Until 2008, the divorced spouse was only expected to enter gainful employment that was appropriate for her/him (§1574 (1) Civil Code, old version). Since 2008, the divorced spouse is *under an obligation* to enter gainful employment that is appropriate for her/him (§1574 (1) Civil Code, new version). The definition of an appropriate gainful employment includes now a new criterion - a former employment - which makes it extremely difficult to argue that a (good) marital standard of living makes a spouse's professional activity inappropriate (see §1574 (2) Civil Code). That is, a former occupation which is now below somebody's educational level can no longer be dismissed as inappropriate (Borth 2011, pp. 134, 139 et seq.).

In the case of maintenance to care for a child, until 2008 a divorced spouse could demand maintenance from the other as long as she/he could not be expected to work due to being the primary carer of a child of the spouse from whom maintenance is being sought (§1570 Civil Code, old version; see Appendix Table B.2 for more details). Now, the duration of the claim to maintenance can only be extended beyond three years following the birth of the child as long as, and to the extent that, this is equitable (§1570 (1) Civil Code, new version). An extension is de facto an absolute exception (Willenbacher 2010, p. 372; Schwab 2006, p. 4; Breithaupt 2012, pp. 269 et seq.). Furthermore, the ranking of several dependents in the event that the person liable for maintenance is financially incapable to pay maintenance to all is changed in §1609 Civil Code: While the spouse had the same priority as minor children until 2008, divorced and subsequent spouses are now of lower priority (Schwab 2006, p. 13).

In summary, the risks of human capital devaluation due to unemployment or part-time employment are redistributed at the expense of those who decided to take this risk, unless you care for a child aged 0-3 years (Willenbacher 2010, p. 373; Schwab 2006, p. 2).

"A crucial issue is that this reform disadvantages those spouses who undertook family and household duties and who reduced or interrupted their earning capacity, in agreement with the other spouse, in order to do so; and who should now be sent back to the labor market as quickly as possible. [...]"

Dieter Schwab, family law expert, at the public hearing held by the Legal Committee of the German Parliament on the draft bill concerning reform of the maintenance law (German Bundestag 2006a, p. 25)

Similar to the effect of unilateral divorce laws, marriage has lost a part of its insurance value since spouses are now under a obligation to secure their own income after divorce and post-marital solidarity is basically eliminated (Schwab 2006, p. 3). Note, all marriages are subject to the new regulation. Transitional arrangements are non-existent (Borth 2011, pp. 589 et seq.; Schwab 2006, p. 3).

<sup>13</sup> The relevant provisions in the Civil Code are §1570 - §1573, §1575 and §1576 (see §1578b Civil Code and Appendix Figure C.4; Borth 2011, pp. 27, 222).

#### 4.2. The 2013 Reform of the German Maintenance Law

The 2008 reform of the maintenance law was from the beginning criticized because of its massively disadvantageous treatment of the necessitous spouse. Moreover, spouses in marriages which were established long before 2008 had no possibility to adapt to the new legal situation that occurred in 2008 (German Bundestag 2012, p. 5).<sup>14</sup>

The German Bundestag partly reversed the 2008 alimony reform by passing an act concerning maintenance regulations<sup>15</sup> on February 20, 2013, which came into force on March 1, 2013. The legislature reformed §1578b of the Civil Code in order to resolve the problem of unjustified limitation of alimony payments for marriages of long duration. As stated in the draft bill, the impression had been created that alimony payments were "automatically" limited by the courts in the case of the absence of disadvantages as a result of the marriage without due consideration of other aspects in individual cases, especially marriage duration (German Bundestag 2012, p. 5). The need of an amendment first and foremost reveals the reading of the new legislation by courts which was *a rigid interpretation of the principle of self-responsibility*. Although the lawmakers initially intended to protect long-term marriages from regulations introduced in 2008 (Willenbacher 2010, p. 373; Schwab 2006, p. 2), the courts have not interpreted the case-law as such. Consequently, I do not generally consider long-term marriages as unaffected by the 2008 reform.

Concisely, the 2013 reform was aimed at resolving the issue surrounding long-term marriages. At a definite time "intact" marriages will end up in this stage, i.e., as a long marriage. Thus, included individuals in my analyses are greatly influenced by this change in the law. Note, the term "long marriage" is not specified in the Civil Code, introducing further uncertainty from spouses' perspective.<sup>16</sup>

#### 4.3. Other institutional changes

On November 2, 2000, the law governing child support was passed by the German Bundestag. The new law came into force on January 1, 2001 (German Bundestag 2000b). It affected parents in some income groups who were liable to pay support to their children. Now, if the allowable income of those parents exceeds a certain threshold (135% of minimum standards), then half of the child benefit is deducted from child support payments.<sup>17</sup> Before 2001, the full deduction, i.e., half of child benefit, was (partly) refused to parents paying child support whose income was lower, or more specifically, below minimum standards, i.e., below 100%. One could argue, that some support-paying parents are disadvantaged by the 2001 law on child support (Böttner 2001, p. 170). In the case of divorce in a family with children, this policy measure matters in the post-marital alimony calculations. That is why I include only the years since 2001.

#### 4.4. Amount of alimony payments

To achieve consistent interpretation of the maintenance law the Appellate Courts issue so-called Düsseldorf Tables and corresponding guidelines. These publicly available documents provide information regarding the rules and calculations used to determine the amount of alimony granted by the courts (Martiny and Schwab 2002, p. 21).

The basis for calculating alimony payments is the allowable income of the two spouses in the previous 12 months. For self-employed individuals, the allowable income for the last three years is necessary in order to calculate the average monthly income. I exclude self-employed individuals because of a number of special regulations stated in the Düsseldorf Guidelines.<sup>18</sup> Allowable income is defined as a monetary income or earnings such as gross annual

<sup>14</sup> The question arises as to why the lawmakers did not anticipate these problems in the first place and why no transitional arrangements were established.

<sup>15</sup> The full name of the above-mentioned act is the *Act on the Implementation of the Hague Convention of 23 November 2007 on the International Recovery of Maintenance Claims of Children and Other Family Members as well as to Amend Provisions in the Field of International Procedural Law and Maintenance of the Substantive Law of Maintenance*.

<sup>16</sup> It is difficult to find the lowest boundary. There is no consistent specification in the legal literature, where there are references to periods such as more than 20 years (Borth 2013), 15 years (Federal Supreme Court, 06.01.1983, file number: IVb ZR 389/81), 10-15 years of marriage (Federal Supreme Court, 01.16.1985, file number: IVb ZR 61/83). Despite the adjustment in §1578b of the Civil Code, some law experts state that 15 to 20 years of marriage alone are not enough to give rise to alimony obligations (Kemper 2013).

<sup>17</sup> See Appendix Table B.3 as an example for different percentages of minimum standards and Table B.4 for minimum standards between 2001-2008.

<sup>18</sup> See Higher Regional Court Düsseldorf 1999b, Higher Regional Court Düsseldorf 2003b, Higher Regional Court Düsseldorf 2005b, Higher Regional Court Düsseldorf 2007b, Higher Regional Court Düsseldorf 2008, Higher Regional Court Düsseldorf 2010, Higher Regional Court Düsseldorf 2012, or Wörz 2011, p. 11 for more details.

income or unemployment benefits which are corrected by subtracting taxes, occupational expenditures, etc.<sup>19,20</sup> The level of occupational expenditures is set at 5% of net income, but is limited by the Düsseldorf Tables. From the day of separation until the beginning of the following year spouses are taxed jointly. On January 1 of the following calendar year, a separate assessment takes place and the alimony payments are recalculated (Wittmann n.d.). The alimony calculation after the finalization of divorce is based on net income under individual taxation (Sperling 2015; see Appendix Figure C.5).

The so-called difference method is applied to determine the alimony amount. If the liable partner is employed, the dependent partner gets 3/7 of the difference between the allowable labor income and 1/2 of other earnings. If the dependent partner has no income, she/he receives 3/7 of the liable partner's allowable labor income and, again, the half of other earnings.<sup>21</sup> If the debtor is unemployed, the distribution ratio is always 50:50.

The monthly indicative rates for couples with children entitled to maintenance is subject to the so-called difference method as well, except for additional deduction of child support. In the case of separation or divorce, there are two kinds of maintenance regarding (minor) children: One parent provides maintenance in the form of food, provision of housing, etc. (§1606 (3) Civil Code), the other parent compensates in the form of monthly payments (§1612 (1) Civil Code). Nevertheless, some authors argue that the receipt of child-support payments represents a significant amount of household post-divorce income (Phipps and Burton 1995, p. 163; Kalmijn and Alessie 2008; Bonnet et al. 2015, p. 2). As a consequence, ignoring child support payments could lead to an overstatement of the standard of living of the paying parent and, correspondingly, to an understatement of the income of the parent with whom the child resides (Bonnet et al. 2015, p. 2). Here, I start from the premise that child support is indeed spent on its obvious purpose - to maintain a child. Besides its legally defined spending target, I argue that child support paid is, in general, merely adequate to cover all costs for a child. In 2001, for example, at least 70% of alimony-paying parents belonged to the first six income groups defined in the Düsseldorf Table (Böttner 2001, p. 168). This implies that at least 70% of parents paid a maximum of €176 for a child aged 0-5 years, €228 for a child aged 6-11 years or €283 for a child aged 12-17 years (Higher Regional Court Düsseldorf 1999a). At the same time, the minimum subsistence level for a minor was € 288 per month (German Bundestag 2000a, p. 5). Moreover, in 2003, single parents' share of gross income<sup>22</sup> coming from non-public transfers (including child support) was about 7% (Federal Office of Statistics 2006, p. 30). In 2008, single parents received on average €276 in the form of support from other private households (including child support), representing about 14% of their issuable income and about 16% of households' private spending like food, housing, etc. (Federal Office of Statistics 2010, pp. 134, 136). Under those circumstances, it seems reasonable to assume in a hypothetical case of divorce that the money received for child maintenance would actually be spent on the child and would not represent a significant share of household post-divorce income.

Further, I assume that, in the case of separation or divorce, the economically weaker spouse would receive the right to live with the child in one household. This assumption is based on the idea that the opportunity costs of child-rearing are higher for the economically stronger partner, who is in a better position to contribute to the cost of child-rearing in the form of child-support payments. Another reasonable assumption is that the child would stay with the main child carer prior to separation (under the consideration of the right to determine place of residence in child custody and protection cases). It is safe to assume that the child-rearing spouse is typically a second-earner in the family. Apps and Rees (2009) show that married females work, on average, around 39% of the hours of married males when minor children are present in the household. Husbands spend, on average, around 33% of the hours of wives on childcare (Apps and Rees 2009, p. 11). The third possibility to deal with the problem of unknown agreements between former

<sup>19</sup> Other relevant incomes are: one-off payments such as gratuities, overtime compensation, releases and expenses, rental earnings, income from capital, and tax rebates. Relevant employee benefits are: unemployment and sickness benefits, ALG II and other social security payments (only to the liable spouse), accommodation allowances, BaföG payments, accident benefits and annuities. Payments from nursing care insurance, monthly disability payments for the blind, special reductions for seriously disabled persons and caregiving after reduction of actual additional expenditures are income. Payments or benefits provided by the employer are income only if these benefits result in reduced expenditures. Dwelling value is income if the value of the house or flat is higher than its financial burden. Remuneration or salary for housekeeping is income.

<sup>20</sup> Income or earnings are also corrected to account for social security contributions and/or moderate expenses of a provident nature, personal debts, childcare expenses.

<sup>21</sup> If the dependent partner is employed without the obligation to secure income, §1577 (2) of the Civil Code applies (Soyka 2004). This case has no importance for my study since I include "intact" marriages, i.e., individuals with a given employment status.

<sup>22</sup> Gross income includes gross labor income, income from assets, income from non-public and public transfers, and rental revenues. Non-public transfers include i.a. company pension, transfers from private insurance companies, and support from private households (Federal Office of Statistics 2006, p. 20).

spouses with regard to their children's place of residence or unknown adjudications by the legal system is to assume that children would stay with their mother. In 2006, for example, about 88% of divorced or married but separated single parents were women (Krieger and Weinmann 2008, p. 30).

It is important to note that the Düsseldorf Tables regulate the minimum personal need of a person liable for maintenance (Higher Regional Court Düsseldorf 1999a; Higher Regional Court Düsseldorf 2005a). Being financially able to pay alimony is a precondition for the obligation to maintain (see §1603 (1) Civil Code).

In so-called cases of shortfall, meaning if the individual liable for maintenance is financially incapable to pay maintenance to all dependants, the redistribution amount available is shared between children and spouse according to the Düsseldorf Tables (before 2008, see Section 4.1). Let's assume the adjusted allowable income of a person,  $P_1$ , liable for maintenance in July 2003 is €1,300. Person  $P_1$  owes maintenance to two children ( $C_1$  7 years old and  $C_2$  5 years old), and to her/his ex-spouse  $P_2$ , who does not work.  $P_1$  and  $P_2$  live in West Germany. Furthermore, at that particular time the personal need of  $P_1$  adds up to €840, resulting in a sum available for distribution of €460. Dependency benefits are €326 for  $C_1$ , €269 for  $C_2$ , and €730 for  $P_2$ , overall €1,325. In such a case, child  $C_1$  would receive  $\frac{326 \cdot 460}{1,325} \approx €113$ , child  $C_2$   $\frac{269 \cdot 460}{1,325} \approx €93$ , and former spouse  $P_2$   $\frac{730 \cdot 460}{1,325} \approx €253$  from  $P_1$ . As explained in Section 4.1, the amount of payments in so-called cases of shortfall changed in 2008 i.a. because of a shift in priority ranking in favor of children.<sup>23</sup>

Married individuals can easily find out the alimony payments in the case of separation or divorce at any time. Plenty of alimony calculators are available online. Additionally, the Düsseldorf Tables, which have applied in West Germany since 1962, are available online.<sup>24</sup> The web search interest in the Düsseldorf Tables underlines its relevance in all German federal states (see Appendix Figure C.6).

## 5. Data description

### *Data source and restrictions*

I use the German Socio-Economic Panel study *SOEP* (1984-2013) - a representative longitudinal study providing information on all household members.<sup>25</sup> I restrict the sample in several ways: Since I do not study marriage markets, I take couple matching as exogenously given. Thus, I include individuals who married before the alimony reform took place, even though the new alimony regime may affect sorting into marriage as well. Further, I restrict the time frame to between January 1, 2001, and March 1, 2013 (see Sections 4.2 and 4.3 for an explanation).

Since a maintenance claim is refused in the case of short marriages for reason of gross inequity (§1579 (1) Civil Code, old and new versions), I exclude couples who have been married for less than three years. Note, that the terms "long marriage" or "marriage of short duration" are not explicitly given in the Civil Code. However, a look at the literature, previous court decisions or the Internet reveals a quite clear understanding of a short marriage: less than three years as a general rule (Borth 2011, p. 271; Federal Supreme Court decision 01.27.1999, XII ZR 89/97; Higher Regional Court Celle decision 08.26.2005, 21 UF 27/05; Higher Regional Court Cologne decision 06.29.2007, 4 WF 105/07 OLGR Köln 2007, 649; Damm and Marquard 2015, accessed on 12.11.2015). This does not mean that courts cannot decide differently in an individual case and choose a higher threshold.

For the sake of convenience, I include only German citizens. In cases of binational couples or foreign spouses, first, one needs to clarify which national courts have jurisdiction, especially for couples with multiple residencies. Second, one needs to prove that German law is applicable (Hohloch 2001, p. 51). Third, changes in the legal framework which have harmonized alimony regulations have also been agreed at a European level (see Schmidt-Bandelow 2012, p. 14 for more information). I would have to take these changes into account.

I exclude couples where the payment or receipt of child support or other private transfers outside the household is reported. Advance child maintenance payments and caregiver alimony are taken into account in the same way. Here, only first marriages or widowed individuals who remarried are included. Additionally, couples are excluded if one of the spouses reports separation from the other at some time. Thus, I look only at "intact" marriages, where both

<sup>23</sup> Note, that in cases of shortfall child benefit is not included in the calculation.

<sup>24</sup> After the reunification, the courts in East Germany used so-called Berlin Tables until January 1, 2008 (Vossenkämper 2007).

<sup>25</sup> For more information see Wagner et al. 2007.

partners are members of the same household over the time in question. Finally, I do not include households that have other income earners besides the wife and husband, the focus being on spousal bargaining power.

For each married individual in the dataset, I determine whether she/he would receive or pay any alimony after separation, i.e., at the day of survey participation. In order to do so, I need to calculate the amount of alimony, excluding individuals who are self-employed (as described in Section 4.4). Finally, I exclude pensioners or those who are married to a pensioner. The event of retirement itself can alter the outcomes considered here.

### *Dependent variables*

The outcome variables of interest are related to an individual's time-spending behavior as measured by the question "What is a typical weekday like for you? How many hours per normal workday do you spend on the following activities?" and the same question for Saturday and Sunday. Possible answers (in number of hours) can be given for following areas: Work, apprenticeship (including travel time to and from work); errands (shopping, trips to government agencies etc.); housework (washing/cooking/cleaning); childcare; care and support of persons in need of care; education or further training (also school/university); repairs on and around the home, car repairs, garden work or lawn care; hobbies and other leisure-time activities. Incomplete answers are excluded.

It is important to include both a weekday and a weekend report because a father's involvement with his children might be primarily on the weekend. There is evidence for a negative relationship between a father's wages and work hours with the time they spend with a child on weekdays, which does not exist on weekends (Yeung et al. 2001, p. 136; Craig and Mullan 2012). Further, Hook and Wolfe (2012) show a substantial weekday/weekend divide for German fathers in interactive care and time alone with their 0-14 year old children (Hook and Wolfe 2012, p. 441). Thus, the time constraint of full-time employment on individuals should be greatest on weekdays and less on weekends, since the majority of Germans have a 5-day working week. Some time-flexible duties like running errands or cleaning could be deferred to the weekend (Kimmel and Connelly 2007, p. 651).

Another report on German families confirms a different parental time spending behavior depending on the day of the week: Fathers spend more time taking care of a child on a day of a weekend/holiday in comparison to a regular weekday, mothers show the opposite tendency. Thereby, the gap in time spent on child care is clearly smaller on weekends/holidays between mothers and fathers (Bundeszentrale für politische Bildung 2016, p. 367). Thus, a significant variation in tasks by day of the week can be expected, that is why an analysis based on a 7-day week gives a more complete picture of a task-specific division of time. Also, although the majority of Germans have a 5-day working week, there is an upward trend for more flexible working hours as shown by Hanglberger (2011) between 1995 and 2009. People in part-time employment and individuals in minor employment were disproportionately affected by an increasing frequency of Saturday and Sunday work (Hanglberger 2011, p. 12). Thus women, and especially mothers, are disproportionately affected by increasing work on weekends (Rübenach and Keller 2011, p. 333).

### *Marriage duration*

From the biographical questionnaire I know when an individual married for the first, second or third time and what happened to this marriage, whether it still exists, was divorced or whether the spouse has died. Additionally, for individuals married over the years (1984-2013) we can observe whether they still live together in the same household and whether they are still married. Based on this information, I calculate marriage duration for "intact" marriages. In some cases, I rely on a partner's marital information only, when a respondent does not give the information on family status. I make sure that these cases pass a plausibility check. For example, these individuals should live in the same household, should not report to be divorced, and one of the two partners reports being married and not separated. In order to increase the sample size, I also keep couples who do not report the year of marriage. I include these in the analysis when their marriage exists in the panel for more than three years.

### *Operationalization of alimony payments before 2008*

In this study, I estimate the alimony in a purely hypothetical case of separation as a proxy for alimony in the case of divorce (see Appendix Figure C.7). As a result of this approach I am able to classify couples into control and different treatment groups. Since I use reported incomes under joint taxation to estimate the amount of alimony, I probably slightly overestimate alimony payments after divorce (see Section 4.4). But then, would someone considering divorce perform a recalculation of their and their spouses's net income under individual taxation before determining potential

alimony they would pay or receive in the case of divorce? Or would they simply take their current net income and that of their spouses and key in this information in an online alimony calculator?<sup>26</sup>

Although the *SOEP* contains a wide range of information about personal financial situations, some information relating to, for example, childcare expenses or gratuities, is missing. Other information such as ownership of a house/apartment, debt from private loans or information on financial assets is not available on an annual basis. That is why I ignore this information in my calculation of alimony.

I reduce a given net income by occupational expenditures, which are estimated at 5% of net income. Additionally, I take into account their maximum and minimum values regulated by the Düsseldorf Tables (see Section 4.4). The created dataset is an unbalanced panel, that is why I impute the missing values in alimony for the last pre-treatment period, 2007, using a single exponential smoothing. A closer inspection of the data on alimony payments between 2001 and 2007 does not exhibit a linear or higher-order trend, but rather a variation in the mean. Nevertheless, I predicted the missing values using the linear trend and compared the two forecasting methods using performance measures such as median absolute deviation from the median (MAD), mean deviation (MDEV), mean square (MSE), and medium absolute percentage error (MAPE). Exponential smoothing performed better in MAD and MDEV and has a clear advantage for alimony calculation in 2007 for individuals with a few observations at the beginning of the pre-treatment period.

As described in Section 4.4, a parent may be required to pay maintenance support, as a percentage of the applicable minimum maintenance, to a minor child with whom she/he does not live in a single household. §1612a of Civil Code regulates the minimum maintenance of minor children by classifying children into three age brackets: 0-5, 6-11 and 12-17. Furthermore, unmarried children of full age are equivalent to the minor unmarried children, until these reach the age of 21, as long as they live in the parental household and are in general education (§1603 (2) sentence 2). For other children of full age, more severe requirements apply (Unterhalt.net 2016, accessed on 02.01.2016). Here, I assume that children aged 21 and over are financially self-sufficient and are not entitled to maintenance.

Since the Düsseldorf Tables include the applicable minimum maintenance and are used by the judges, I borrow their child-maintenance classification according to child's age, number of children, and income of the liable parent, in order to determine the amount payable to children.<sup>27</sup>

I need to take child support into account because it influences the alimony amount received/paid from/to the ex-spouse if a couple has children who live in their parents' home and are younger than 21 years old. As described in Section 4.4, I assume that the alimony paying spouse is also paying child support.

I identify 792 wives in the time period between 2001 and 2013 for whom I can determine a positive alimony amount for the last pre-treatment period and who report their activities in hours at least once before the treatment and at least once after.<sup>28</sup> 794 husbands are identified as potential debtors in 2007.

## 6. Identification Strategy

What thought experiment would (dis)prove my hypotheses? In an ideal setting, one would compare the outcomes of individuals *randomly* assigned to different treatment states. Thus, one would like to find treatment and control groups who can be assumed to be similar in every way except for the treatment itself. Obviously, in this study individuals are self-selected into one of these groups, not actively, but based on previous individual or family decisions and preferences. Thus, treatment and control groups differ in many aspects in the absence of randomization. Consider, for example, a couple with a pronounced intra-household labor division - a single earner marriage, in which the wife decided to stay at home and support her husband's career development. Such housewives differ systematically from career-driven women, who are likely to be affected marginally by cuts in alimony, in terms of unobservable personality traits, choice of partner, preferences regarding time allocation and other life decisions.

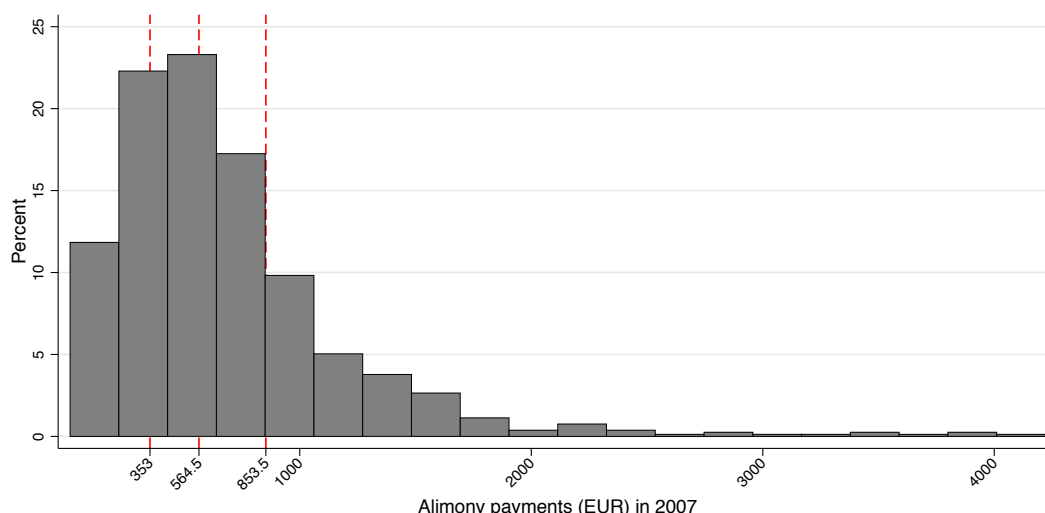
<sup>26</sup> Even if you use the Düsseldorf Tables instead, it does not change the fact that you would probably use current net incomes instead of net incomes applying tax class I for your alimony calculation.

<sup>27</sup> Appendix Tables B.3 and B.4 show the Düsseldorf Table valid for the year 2002 and minimum standards from 2001 to 2008. The Düsseldorf Table is updated regularly (German Bundestag 2006c, pp. 14, 27).

<sup>28</sup> About 88% of wives in my sample would have received a positive amount of alimony in the case of separation in 2007, about 8% paid, and about 4% either way. These percentages differ from the official statistic concerning alimony payments. Of cases decided by decree of dissolution in West Germany (including Berlin) in 2007, in  $\approx 84\%$  of cases alimony was paid to former wives and in  $\approx 16\%$  of cases to former husbands (Federal Office of Statistics 2008b, p. 26).

Fortunately, here, in the absence of randomization, the source of variation resembles an experimental design: The law change creates a natural division of spouses into treatment and control groups, based on the amount of pre-treatment alimony in 2007 (see Figure 1). The time at which the law change occurred adds another difference, distinguishing the groups before and after the commencement. Thus, the empirical strategy used here exploits the exogenous shock to different groups of married couples that occurred on January 1, 2008, to identify its causal effects using a difference-in-differences approach (DiD). A convincing benefit of the DiD method is the fact that the results are robust to any possible confounder as long as it does not violate the common trend assumption (Gertler et al. 2011, p. 95; Lechner 2010, p. 179). This assumption posits that the average change in the reference group represents the counterfactual change in the treatment group if there was no treatment (Angrist and Pischke 2015). By construction this indispensable presupposition is untestable, meaning one cannot directly test the identifying assumption as we do not observe counterfactual worlds. Nevertheless, the parallelism of pre-treatment trends may give confidence. If the outcomes moved in tandem before 2008, we may believe that outcomes would have continued to move parallel in the post-reform era (Gertler et al. 2011, pp. 100 et seq.). Another assumption of DiD is the additive structure of effects, i.e., a linear model where the time or group specific effects enter additively (see Equation 1). Furthermore, the group affiliation of an individual is assumed to remain unchanged over time.

Alimony payments for the last pre-treatment period 2007 in the case of separation are the basis for the classification of marriages into different treatment groups and the control group. Note, that the percentiles slightly differ between the male and female alimony distribution of West Germans. The 25th percentile in the male distribution is €349, in the female distribution €353; median is €562.50 and €564.50, respectively; the third quartile is €852 and €853.50, respectively. The reference group includes spouses with maintenance payments below the 25th percentile. Treated



Notes: Red dashed lines represent the percentiles; 792 wives are included. Data: SOEPlong v30

Figure 1: Distribution of alimony payments West German wives would receive in case of separation in last pre-treatment year

spouses are divided into three groups based on the remaining quartiles. Married individuals with an alimony between the 25th percentile and the median belong to the low-intensity group (dummy  $Treat_{low}$ ). Those with spousal support between the 50th and 75th percentile are classified as a group with medium-intensity treatment (dummy  $Treat_{med}$ ). Couples with a substantial amount of alimony are labeled as  $Treat_{high}$ .<sup>29</sup>

<sup>29</sup> In order to ensure that all individuals with the same alimony value are assigned to the same group, the above-named rule is applied. Note, that the even number of wives in 2007 and the fact that the 198th and 199th observations for alimony are equal results in imbalanced group sizes in 2007, i.e., 197 wives in the control group, 199 wives in the low-intensity treatment group. There are 198 wives in the medium- or high-intensity group. The same applies to husbands: There is an even number of husbands, 794, and two husbands who would pay €852 in case of divorce in 2017. The



Running fixed-effects (FE) regressions, I cluster all standard errors at individual level to account for the presence of correlation within individuals over time (Bertrand et al. 2004, Angrist and Pischke 2015). The resulting specification

$$Y_{it} = \beta_1 Post \cdot Treat_{low,i} + \beta_2 Post \cdot Treat_{med,i} + \beta_3 Post \cdot Treat_{high,i} + \beta_4 \cdot X_{it} + \delta_t + \epsilon_i + u_{it} \quad (1)$$

is estimated.  $Post \cdot Treat_{low,i}$ ,  $Post \cdot Treat_{med,i}$ , or  $Post \cdot Treat_{high,i}$  indicate whether individual  $i$  was responding after the law change and whether the individual belongs to a treated group. The coefficients  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  are the average low-, medium-, and high-intensity treatment effects on the outcome variable  $Y$ . The  $\epsilon_i$  captures time-invariant factors that vary across individuals (Greene 2012, p. 400). It is permitted for the  $\epsilon_i$  to be correlated with the regressors (Cameron and Trivedi 2009, p. 231). All observable or unobservable time-invariant factors at individual level in FE models are ruled out. Thus, such factors are eliminated as a source of omitted variable bias. Note, the main effect of the individual's group membership remains unchanged over time and is therefore omitted in a FE model. The  $u_{it}$  are idiosyncratic disturbances that represent unobserved factors that change over time and affect the outcome (Wooldridge 2002, p. 251). Regressors are assumed to be uncorrelated with the  $u_{it}$  (Greene 2012, p. 400). In all presented FE models I control for year effects  $\delta_t$ , i.e., the influence of aggregate trends is captured.

$X_{it}$  is a vector with time-variant characteristics of the spouse  $i$ . Including it means allowing for a "trend" resulting from changes in  $X_{it}$ , i.e., I adjust for changes in  $X_{it}$ . Thus, the identifying assumption is common trend conditional on these observable characteristics (Lechner 2010, p. 179). Generally, variables measured *after* the treatment should not be included in the model. Only if these variables can be reasonably assumed to be unchanged by the reform, controlling for them is appropriate (Gelman and Hill 2006, pp. 188, 229). Most importantly, the key identifying assumption must hold either conditionally on some observables or unconditionally (Lechner 2010, p. 214).

So, what variables can be assumed to be unchanged by the treatment and should thus be included in the model? The individual's age as a second order polynomial or age group (< 30, 30-34, 35-39, ... , 60-64 years old) and number of minors in each age group (0-1, 2-4, 5-7, 8-10, 11-12, 13-15 and 16-18 years old) should be included. Highest educational attainment might be a bad control, since investment in education is a possible response to the 2008 reform. The same applies for years of work experience, i.e., full-time and part-time employment in years as a second order polynomial. Controlling for husbands' or wives' characteristics like income or education might be problematic for the same reason. Nevertheless, I include a number of presumably bad controls to see if their addition has any effect on estimates.

Equation (1) is estimated separately for alimony paying husbands and receiving wives in the event of a potential separation just before treatment. This model specification investigates whether the reform endangering after-marriage maintenance was associated with changes in time-spending behavior.

#### Granger-type causality test

Here, in a model with multiple treatment groups and multiple periods, it is more difficult to provide a simple visual inspection for the evolution of group specific trends in the pre-treatment periods. But, since the sample includes many years, it is possible to test for causality in the spirit of Granger (Angrist and Pischke 2009, p. 237). Granger (1969) has proposed a working definition of causality based upon the concept that "cause precedes effect". The Granger idea is to test "the direction of causality between two related variables and [to decide] whether or not feedback is occurring" (Granger 1969, p. 424).

If the 2008 reform causes  $Y_{it}$  but not vice versa, then future treatments  $IA_{t+1}$ ,  $IA_{t+2}$ ,  $IA_{t+3}$  and  $IA_{t+4}$  should not matter in an equation like

$$Y_{it} = \lambda_i + \delta_t + \sum_{\eta=1}^3 \gamma_{-\eta} \cdot IA_{t-\eta,i} + \sum_{\eta=1}^4 \gamma_{+\eta} \cdot IA_{t+\eta,i} + \beta \cdot X_{it} + v_{it} \quad (2)$$

where  $Y$  is the outcome for spouse  $i$  and time  $t$ ,  $\lambda$  and  $\delta$  are individual and year fixed effects.  $IA_{t,i}$  are interactions of year dummies and treatment indicator. The sums on the right-hand side allow for four "leads" ( $\gamma_{+1}$ ,  $\gamma_{+2}$ ,  $\gamma_{+3}$ , and

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75th percentile in male alimony distribution is at €852. Thus, I have 198 husbands in the control group, 199 in the low-intensity group, but 197 in the medium- and 200 in the high-intensity group.

$\gamma_{+4}$ ) and three "lags" ( $\gamma_{-1}$ ,  $\gamma_{-2}$  and  $\gamma_{-3}$ ). The last pre-treatment period 2007 is used as the baseline year, meaning all other interactions are expressed relative to the omitted period. If the anticipatory effects ( $\gamma_{+1}$ ,  $\gamma_{+2}$ ,  $\gamma_{+3}$ , and  $\gamma_{+4}$ ) are different from zero, future treatment would predict current outcomes, suggesting that causality also runs from the outcome to the treatment. For example, the mere announcement of lower future maintenance or of alimony-claims correction might have an impact on the labor supply of the affected groups of wives. The pattern of post-treatment effects ( $\gamma_{-1}$ ,  $\gamma_{-2}$  and  $\gamma_{-3}$ ) shows whether the treatment effect fades out over time, stays constant, or even increases (Angrist and Pischke 2009, p. 237).

In general, if Granger causality holds, this alone is not sufficient for causal inference (Angrist and Pischke 2009, p. 237). But, it suggests that treatment might be causing the outcome. If there appears to be a treatment effect before treatment, that is evidence of divergent trends.

#### *A pre-treatment dip*

DiD also fails to uncover the causal effect in a situation where prior to the treatment the average outcome in the future treatment group drops or deteriorates (Abadie 2005, p. 1; Caliendo and Hujer 2006, p. 208). For example, assume that wives were affected by the 2008 reform when their working hours were particularly low. That is, there was a dip in working hours prior to the treatment but one would expect working hours to recover anyway even without the reform. That means the dip is transitory (Ashenfelter 1978, p. 51; Cahuc and Zylberberg 2004, p. 674; Caliendo and Hujer 2006, p. 208). In other words, individuals in the treatment group are systematically different from controls in the period prior to the treatment. A pre-treatment dip can often be detected graphically.

## **7. Results**

### *7.1. Descriptive results*

#### *Descriptive statistics for wives*

Based on 3,514 woman-year observations, my sample is on average 45 years old, married for about 18 years, and has an intermediate vocational education. For descriptive statistics for the all treatment and control groups, refer to Table B.5 of the Appendix.

Balancing tests at pre-treatment time  $Post = 0$  reveal significant but not unexpected differences between each treatment group and the reference group (see Appendix Tables B.6 and B.7). On average, wives in the control group working in full-time employment for a significant higher number of years, and in part-time for a lower number of years. Taken as a whole, wives in the control group worked significantly more man-years. Their husbands, on the contrary, have less experience in full-time employment in comparison to the husbands of the treated wives. Further, wives in every treatment group have significant lower income than wives in the reference group on average. Their husbands, on the other hand, have higher incomes in comparison to husbands in the control group on average. This implies that wives' contribution to the household income is bigger and the spread in spousal incomes is smaller in the reference group. That is a logical consequence of the alimony calculations (presented in Section 4.4) and classification of spouses into different groups (presented in Section 6).

Furthermore, the husbands of the reference wives are more engaged in housework in comparison to husbands married to low-, medium- or high-treatment wives, on average. Wives in the control group, although not living in perfectly egalitarian households, do seem to live in more egalitarian households compared to the other groups.

Evidently, the high-intensity treatment group differs in many aspects from the comparison group, whereas low- or medium-intensity treatment wives are similar in age, migration background, marriage duration, husbands' age, and husband's migration background to the reference group, on average. Low-intensity treatment wives and their husbands are, on average, less educated than the reference wives and their husbands. However, the share of marriages with wives who are equally or higher educated than their husbands is in both groups similar (see Appendix Table B.6).

#### *Descriptive statistics for husbands*

My sample of husbands is on average 47 years old, married for about 18 years, and has an intermediate vocational education (3,630 man-year observations). For descriptive statistics, refer to Tables B.8 and B.9 of the Appendix. Balancing tests at pre-treatment period  $Post = 0$  mirror the findings for wives presented above. Husbands in the high-intensity group work, on average, more hours and invest more hours in education in comparison to the reference group,

whereas men in low- and medium-intensity groups spend similar hours on these activities, on average. Furthermore, the high-intensity treatment group is, on average, older and married for a longer time than the control group. Men in the reference group devote more hours to domestic work in comparison to husbands in other groups, on average. They spend also more hours running errands than husbands in the medium- or high-intensity treatment group, on average. Differences in average childcare hours, caregiving hours, or average hours spend on hobbies are not statistically significant.

## 7.2. Results from a difference-in-differences framework

### Impact on wives' labor supply

The results for females' labor supply are presented first, with reference to Hypothesis 1. The primary outcome variable here is the number of usual hours worked per day, including zero. Since working hours is a non-negative random variable that equals zero for some part of the sample, the overall difference in average hours can be divided into two parts: the difference in the probability of working any hours at all (participation effect or extensive margin), and the difference in hours conditional on participation (conditional-on-positive effect or intensive margin). Nevertheless, I only present results for non-conditional, thus, total working hours and for the labor force participation. The difference in hours conditional on participation has no causal interpretation (Angrist and Pischke 2009; Brattiolo 2013, p. 16, Eissa 1995, p. 17). As demonstrated by Angrist and Pischke (2009), the treatment itself changes the composition of the group with positive working hours introducing a form of selection bias (see Angrist and Pischke 2009, pp. 99-102 for conditional-on-positive effects).

Table 1: Fixed effects models

Sample restriction	Dependent variable: wives' working hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	4.863		4.884		4.844		4.739	
<i>Post-Treat<sub>low</sub></i>	0.386*	0.321	0.492***	0.357**	0.492***	0.330**	0.438**	0.320**
	(0.229)	(0.214)	(0.185)	(0.176)	(0.169)	(0.161)	(0.171)	(0.160)
<i>Post-Treat<sub>med</sub></i>	0.223	0.238	0.324*	0.246	0.336*	0.179	0.226	0.047
	(0.239)	(0.219)	(0.192)	(0.177)	(0.184)	(0.169)	(0.185)	(0.166)
<i>Post-Treat<sub>high</sub></i>	0.228	0.244	0.217	0.187	0.103	0.004	-0.053	-0.151
	(0.222)	(0.207)	(0.189)	(0.175)	(0.184)	(0.170)	(0.186)	(0.170)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,084	1,084	2,326	2,326	3,057	3,057	3,514	3,514
Obs in <i>Control</i>	276	276	609	609	796	796	913	913
Obs in <i>Treat<sub>low</sub></i>	276	276	577	577	754	754	877	877
Obs in <i>Treat<sub>med</sub></i>	254	254	574	574	762	762	884	884
Obs in <i>Treat<sub>high</sub></i>	278	278	566	566	745	745	840	840
Wives	542	542	733	733	779	779	792	792
Av. obs. per wife	2.0	2.0	3.2	3.2	3.9	3.9	4.4	4.4
Adj. R <sup>2</sup>	0.0083	0.1228	0.0117	0.1237	0.0168	0.1479	0.0148	0.1711

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. The mean in *Control* refers to the average working hours at baseline. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

In Columns (1), (3), (5), and (7) of Table 1, I provide the basic difference-in-differences estimates from models where no additional covariates are included except for year fixed effects. The coefficients on the interaction terms correspond to the average treatment effects  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  of Equation 1 (without  $X_{it}$ ). There might be a positive effect of the 2008 reform on the working time of wives with low-intensity treatment ranging from 0.386 to 0.492 hours. Controlling for

additional covariates, i.e., age as a second order polynomial and the number of minor children in the household, in Columns (2), (4), (6), and (8), reduces these estimates. More importantly, varying the time frame produces similar results ranging from 0.320 to 0.357. The interpretation of these coefficients is straightforward: Relying on the estimate from Column (1), for example, a loss of monthly alimony of between €353 and €564.50 instead of a loss of less money in case of a potential divorce leads to a 23-minute increase of wives' daily working time. Projected onto a 7-day week, that is an increase of about 2.7 hours. Taking the rather conservative estimate from Column (8) leads to an increase of 2.24 hours weekly (conditional on individual characteristics).

The additional inclusion of indicators for age groups changes the effect size only slightly (see Panel B of Appendix Table B.10). Interestingly, the same applies for husband's allowable income (without deductions) (see Columns 9(a)-12(d) of Appendix Table B.10). Adding-on another potentially endogenous control variable, work experience, and dropping husband's income leads to slightly increased estimates in comparison to those in Columns (2), (4), and (8) of Table 1 (see Columns 13(a)-16(d) of Appendix Table B.10).

The change in working hours stems mainly from work on the weekend (see Appendix Figure C.9). An inspection of daily working hours during a 5-day work week does not show any significant changes.

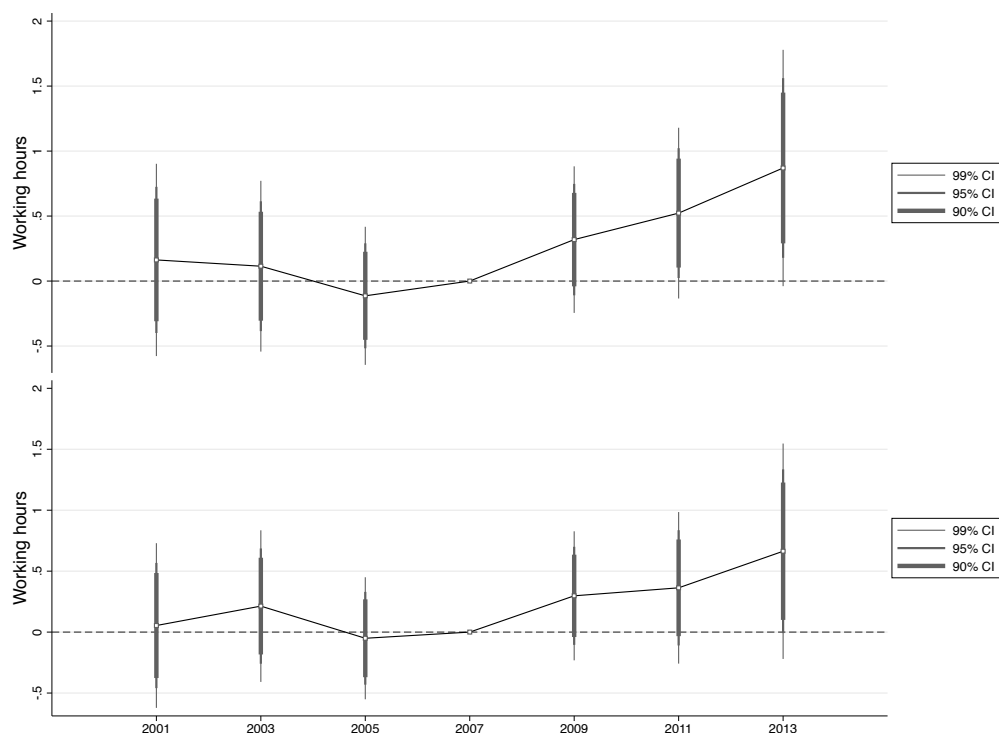
In general, deviations from a common trend between the treatment and control groups in the pre-treatment years would make the validity of the DiD approach questionable. The largest threat to identification would be if wives in the low-intensity treatment group become more eager to expand their labor hours and if it was this eagerness which led to the 2008 reform of alimony. Higher labor force participation of mothers and an increased number of dual-earner couples were, i.a., given as main reasons for the law change. To assess the validity of the key identifying assumption, I conduct placebo treatment tests in the pre-treatment periods, introducing a pseudo law change in 2004. More precisely, I use 2001/2003 as pre-placebo-treatment period and 2005/2007 as post-placebo-treatment period and analyze whether treatment and control groups follow the same trends during that period. According to my placebo treatment estimates reported in Appendix Table B.11, such reverse causality is not plausible for the low-intensity treatment group. My pseudo treatment estimates for this group of wives turn out to be statistically insignificant, negative and small (between -0.104 and -0.176). This means we do not observe any placebo treatment effects, i.e., wives in the control group and wives in the low-intensity treatment group might follow the same time trends in the years preceding alimony cuts in 2008. The medium- and high-intensity groups, however, follow a divergent pre-treatment trend in comparison to the reference group. Thus, the violation of common trend assumption leads to biased estimation of the average medium- and high-intensity treatment effects.

I also conduct a Granger-type causality test, presented in Equation 2, as a test of the DiD identification strategy. A graphical depiction of results in Appendix Table B.12 is presented in Figure 2. Since 2007 is the baseline year, the difference between treatment and control groups is normalized to zero in 2007. There is no indication of a systematic divergence in the trend before the actual treatment sets in for the low-intensity treatment group: The point estimates are close to zero in 2001 and 2005, and 0.213 in 2003 when additionally controlling for age as a second order polynomial and the number of minors in the household. Without additional control variables, except for year fixed effects, the estimates are 0.163 for 2001, 0.114 for 2003, and -0.114 for 2005. This lends further support for the validity of the key assumption, i.e., that the difference in differences is not significantly different between the two groups in the pre-treatment period. In the first year after the adoption, working hours increase by about 0.3 working hours, after which this increment increases slightly for 2011 and increases again for 2013.<sup>30</sup>

We observe a strong divergence in the pre-treatment trends for the medium and high-intensity treatment groups (see Appendix Table B.12). As we see in Appendix Figure C.8, mean working hours for the control group increase faster over the time than the mean working hours for the medium-intensity treatment group prior to the 2008 reform. Thus, using the trend for the control group as a counterfactual for the trend for this treatment group of wives leads to an underestimation of the reform's impact. That is even more pronounced for the high-intensity treatment group.

There is no indication for a pre-treatment dip in the low-intensity treatment group of wives: Appendix Figure C.8 demonstrates that the data is not plagued by a situation of a pre-treatment dip in which there was a shock just before the implementation of the 2008 reform and the change reported in working hours is simply mean reversion.

<sup>30</sup> Note that the 2013 effects depicted in Figure 2 do not correspond to the estimates from my DiD model presented in Columns (7) and (8) of Table 1. It would correspond to a different DiD model including only 2007 as the baseline year and 2013 as the post-treatment year. Here, in my analysis I have a working sample of 3,514 observations. I present 2007 and 2009 as a starting point (see Columns (1) and (2) of Table 1) and increase the sample size by including more years before and after the reform. In the time period between 2001 and 2013, I include all observations. This sample is used for the Granger-type causality test and mean plotting.



Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from FE models presented in Appendix Table B.12. In the bottom image I control additionally for wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives living in West Germany. Data: SOEPlong v30

Figure 2: The estimated impact of alimony restriction on low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008

I also want to know to what extent the average change in working hours might come from changes in the extensive margin. Although I analyze the binary choice of whether or not to participate in the labor force, I run linear probability models. The estimates presented in Table 2 give the impression that indeed part of the response might come through changes in the extensive margin.<sup>31</sup> But, a statistically significant effect at the 0.05 level could only be obtained after extending the sample to 2003 and 2013. Although results for pseudo treatment in 2004 give no reason to be concerned (see Appendix Table B.13) there is indication for a systematic divergence in the pre-treatment trend for the low-intensity treatment group and the reference group (see Appendix Table B.14): The Granger-type causality test shows that point estimates are -0.067 for 2001, -0.022 for 2003, and -0.067 for 2005 when including additional control variables. Taken as a whole, the labor supply response to the 2008 reform seems not to be explained in the extensive margin for the low-intensity treatment group. The high-intensity and the comparison groups have divergent pre-treatment trends in LFP. It seems that the medium-intensity treatment group might follow the same trend as the comparison group in the pre-treatment era in regard to labor force participation. There is no adjustment in participation attributable to the 2008 alimony reform.

#### *Impact on wives' investment in education*

The low- and high-intensity treatment groups seem not to change their investment in education as a reaction to the 2008 reform (see Appendix Tables B.15 and B.16). They might follow a similar pre-treatment path like the com-

<sup>31</sup> The probability of being active in the labor market might increase by about 5 percentage points in the low-intensity treatment group as a consequence of deteriorated outside option and thus a weakened bargaining position within the marriage.

Table 2: Fixed effects models

Sample restriction	Dependent variable: wives' participation (0 = zero working hours; 1 = otherwise)							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	0.884		0.875		0.871		0.855	
<i>Post-Treat<sub>low</sub></i>	0.058 (0.041)	0.049 (0.038)	0.075** (0.031)	0.055* (0.030)	0.080*** (0.030)	0.056** (0.027)	0.080** (0.031)	0.063** (0.028)
<i>Post-Treat<sub>med</sub></i>	0.014 (0.046)	0.025 (0.042)	0.052 (0.036)	0.038 (0.032)	0.063 (0.034)	0.034 (0.031)	0.058 * (0.035)	0.026 (0.031)
<i>Post-Treat<sub>high</sub></i>	0.036 (0.043)	0.045 (0.039)	0.055 (0.035)	0.050 (0.033)	0.045 (0.033)	0.034 (0.031)	0.027 (0.034)	0.020 (0.032)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,084	1,084	2,326	2,326	3,057	3,057	3,514	3,514
Obs in <i>Control</i>	276	276	609	609	796	796	913	913
Obs in <i>Treat<sub>low</sub></i>	276	276	577	577	754	754	877	877
Obs in <i>Treat<sub>med</sub></i>	254	254	574	574	762	762	884	884
Obs in <i>Treat<sub>high</sub></i>	278	278	566	566	745	745	840	840
Wives	542	542	733	733	779	779	792	792
Av. obs. per wife	2.0	2.0	3.2	3.2	3.9	3.9	4.4	4.4
<i>Adj. R</i> <sup>2</sup>	0.0002	0.1576	0.0118	0.1512	0.0169	0.1545	0.0218	0.1679

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minors in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

parison group (see Appendix Tables B.17-B.20). On the contrary, results for the medium-intensity treatment group reveal a lacking comparability to the control group. Although, when I move a placebo treatment to 2004, I observe no significant estimates and the Granger inspired causality test shows no divergent trend for the medium-intensity treatment group in pre-treatment, there is an issue of a pre-treatment dip compromising the results (see Appendix Figure C.12).<sup>32</sup> The mean hours spent on education by the medium-intensity treatment wives drops in 2007 just prior to the treatment. This introduces uncertainty into the analysis as it implies that some part of the observed increase following the reform might simply be a return to a permanent path of invested hours in education. As a consequence, it is not possible to disentangle the effect of the 2008 reform from the effect of this “transitory phenomenon” that caused a pre-treatment dip in education hours (Ashenfelter 1978, p. 51; Cahuc and Zylberberg 2004, p.674). Thus, the DiD estimator has no causal interpretation. Whether the group of wives with pre-reform entitlements to alimony below the 25th percentile is a good comparison must be justified in each application. Here, it seems the chosen control group is not appropriate for comparison with the medium-intensity treatment group as hours generating functions of the medium-intensity treatment and comparison groups seem to differ significantly in the year just prior to reform (Ashenfelter 1978, p. 51).

<sup>32</sup> The results for the changes in probability of being in education (i.e. changes in dummy “0” zero hours and “1” > 0 hours in education) are shown in Appendix Table B.16. Appendix Figure C.13 showing means over the years, reveals a pre-treatment dip problem for the medium-intensity treatment group as well. Also, the coefficients of the interaction of medium-intensity treatment group dummy and year dummies from the Granger-type causality test range from 0.025 to 0.043 in pre-treatment years, challenging the parallel trend assumption. Although, pseudo-law change in 2004 produces no significant results (see Appendix Table B.18). In summary, DiD results for the medium-intensity treatment group are biased and, therefore, disputable.

### Impact on wives' hours spent on housework

Estimation results for the high-intensity treatment group show an increase in hours spent on housework, but only after including the years beyond 2007 and 2009 (Columns (3) to (8) of Table 3). This sample extension leads to a positive effect of about 0.2 hours a day. However, the fact that the point estimate for  $Post\cdot Treat_{high}$  is very different in Column (2) from those in Columns (4), (6), and (8) undermines my confidence in the response found for the high-intensity treatment group. Change should be concentrated around the reform in 2008. Moving away from 2008 allows other factors to creep in. Also, controlling for work experience leads to statistically insignificant results (see Columns 13(a)-16(d) of Appendix Table B.21).<sup>33</sup>

DiD results of pseudo treatment show no significant outcomes (see Appendix Table B.22). Appendix Figure C.14 plots the mean housework hours for 2001-2013. This graph seems to provide visual evidence for the high-treatment and control groups with a common underlying trend. However, the Granger-type causality test allows me to test for pre-treatment differential trends. The estimates show no effects for 2001 and 2003, the point estimate for 2005 is -0.152, or -0.162 without additional control variables. Also, the low- and medium-intensity groups might follow the same pre-treatment trend as the control group (see Appendix Table B.23). To sum up, there is no adjustment in hours spent on housework which is attributable to the 2008 reform.

Table 3: Fixed effects models

Sample restriction	Dependent variable: wives' housework in hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	2.351		2.378		2.389		2.433	
$Post\cdot Treat_{low}$	-0.078 (0.117)	-0.042 (0.114)	-0.031 (0.092)	0.014 (0.092)	-0.030 (0.085)	0.014 (0.085)	-0.021 (0.087)	0.015 (0.087)
$Post\cdot Treat_{med}$	0.015 (0.129)	0.005 (0.127)	-0.026 (0.097)	0.006 (0.097)	0.025 (0.093)	0.061 (0.093)	0.020 (0.090)	0.062 (0.089)
$Post\cdot Treat_{high}$	0.030 (0.126)	0.027 (0.128)	0.176* (0.105)	0.203** (0.102)	0.145 (0.101)	0.192* (0.099)	0.143 (0.101)	0.181* (0.098)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,084	1,084	2,326	2,326	3,057	3,057	3,514	3,514
Obs in <i>Control</i>	276	276	609	609	796	796	913	913
Obs in $Treat_{low}$	276	276	577	577	754	754	877	877
Obs in $Treat_{med}$	254	254	574	574	762	762	884	884
Obs in $Treat_{high}$	278	278	566	566	745	745	840	840
Wives	542	542	733	733	779	779	792	792
Av. obs. per wife	2.0	2.0	3.2	3.2	3.9	3.9	4.4	4.4
Adj. $R^2$	0.0047	0.0197	0.0111	0.0310	0.0177	0.0385	0.0220	0.0484

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I included wife's age as a second order polynomial and the number of minors in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at  $Post = 0$ . The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

### Impact on husbands' labor supply

First I use thresholds from the female alimony distribution to classify husbands into different groups. Classification using quartiles from the male alimony distribution leads, in the end, to the same conclusions. There is no adjustment in working hours considering a 7-day week nor in working hours during a normal working week as a reaction to the

<sup>33</sup> Whereas controlling additionally for husband's allowable income, and not for wife's work experience, does not change the results significantly (see Panel B Columns 9(a)-12(d) of Appendix Table B.21).

2008 reform in the low- or medium-intensity treatment groups (see Table 4). Controlling additionally for age groups and husband's and wife's work experience leads to statistically insignificant result for the high-intensity group (see Column (3) of Appendix Table B.24).<sup>34,35</sup>

The medium-treatment group follows a clearly divergent pre-treatment path and is, hence, not comparable to the reference group of husbands (see Appendix Tables B.26 and B.27). The estimates from the Granger causality test, where I control just for year fixed effects, are -0.286 for  $D_{2001} \cdot Treat_{low}$ , 0.197 for  $D_{2003} \cdot Treat_{low}$  and close to zero for  $D_{2005} \cdot Treat_{low}$  (test for joint significance:  $F = 1.06$ ,  $p = 0.3639$ ). They are -0.130 for  $D_{2001} \cdot Treat_{high}$ , 0.297 for 2003, and 0.114 for 2007 ( $F = 1.05$ ,  $p = 0.3684$ ; see Column (1) of Appendix Table B.26).

Table 4: Fixed effects models

Sample restriction	Dependent variable: husbands' working hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	6.937		6.909		6.814		6.870	
<i>Post-Treat<sub>low</sub></i>	0.143 (0.232)	0.126 (0.230)	0.187 (0.191)	0.142 (0.190)	0.055 (0.186)	-0.013 (0.186)	0.152 (0.184)	0.099 (0.184)
<i>Post-Treat<sub>med</sub></i>	0.096 (0.229)	0.113 (0.229)	0.192 (0.170)	0.218 (0.171)	0.061 (0.171)	0.091 (0.172)	0.156 (0.169)	0.182 (0.169)
<i>Post-Treat<sub>high</sub></i>	0.438** (0.212)	0.588*** (0.225)	0.088 (0.182)	0.188 (0.180)	-0.033 (0.183)	0.094 (0.179)	0.036 (0.178)	0.165 (0.173)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,140	1,140	2,384	2,384	3,148	3,148	3,630	3,630
Obs in <i>Control</i>	292	292	611	611	813	813	940	940
Obs in <i>Treat<sub>low</sub></i>	286	286	589	589	781	781	910	910
Obs in <i>Treat<sub>med</sub></i>	274	274	599	599	784	784	908	908
Obs in <i>Treat<sub>high</sub></i>	288	288	585	585	770	770	872	872
Husbands	570	570	747	747	786	786	794	794
Av. obs. per husband	2.0	2.0	3.2	3.2	4.0	4.0	4.6	4.6
Adj. $R^2$	0.0446	0.0638	0.0227	0.0395	0.0161	0.0355	0.0183	0.0368

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6) and (8), I included husband's age as a second order polynomial and the number of minors in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at  $Post = 0$ . Female alimony distribution is used to classify husbands into different groups (see Figure 1 on page 15). The sample consists of husbands living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

#### Impact on spouses' hours taking care of child(ren)

DiD estimators provide unbiased treatment effect estimates when, in the absence of treatment, the average hours for the treated and control groups would have moved parallel over time (Abadie 2005, p. 1). A depiction of the mean hours spent on childcare by wives does not bring clarity in this matter (Appendix Figure C.16). The precedence test inspired by Granger (1969) reveals divergent pre-treatment trends for all treatment groups of women when additionally controlling for age as a second order polynomial and the number of minor children in different age groups: Statistically significant interaction terms range between 0.491 and 0.623 for the low-intensity treatment group. The point estimate

<sup>34</sup> Also, the significance of the interaction term for *Post-Treat<sub>high</sub>* at 0.05 level in Column (2) of Appendix Table B.25 is lost when I additionally control for the husband's work experience and age groups in models with a classification based on the husbands' alimony distribution.

<sup>35</sup> Unlike for the low-intensity treatment group of wives, change in working hours we see in Columns (1) and (2) of Table 4 stems mainly from working hours on a usual workday for the high-intensity group in 2009. A closer look at working hours during a 5-day week reveals no change due to the reform in 2008 (see Appendix Figure C.17).



for 2005 is 0.608 and statistically significant at 0.05 level for the high-treatment group (see Column (2) of Appendix Table B.28). Therefore, I cannot over-interpret the DiD results from Appendix Table B.29 for these two groups. For the medium-intensity treatment group we observe an interaction term close to zero in 2005, -0.446 in 2001 and -0.248 in 2003. However, without controlling for additional variables except for year fixed effects, the estimates for interaction terms are -0.075 for 2001, 0.111 for 2003, and 0.110 for 2005 (see Appendix Figure C.15). As with labor force participation there is no indication of divergent pre-treatment trends for the control and medium-intensity treatment groups when controlling for year fixed effects alone. The difference is in the pattern of post-treatment effects: Here, we observe a statistically significant coefficient for 2009 at the 0.05 level whereas for LFP there is no apparent effect in 2009.<sup>36</sup> The coefficients from the basic DiD model for childcare in hours are -0.315 for the 2007/2009 sample, -0.729 when including 2005-2011, and -0.890 for the 2003-2013 sample. In conclusion, because of the pre-treatment dip problem in education hours and in the probability of being in education, one could argue there is probably a backlog demand for education in 2009 which leads to a decrease in childcare hours in 2009 and, in the end, to an increase of LFP in 2011. Thus, the DiD estimators have no causal interpretation. Control and medium-intensity treatment group are not comparable in their time allocation. There is no change in husbands' childcare hours attributable to the 2008 alimony reform (see Appendix Table B.30). The low-intensity group of husbands seems to follow a divergent trend in pre-treatment (see Appendix Table B.31).

## 8. Additional robustness checks

### 8.1. Alternative control groups

The validity of the DiD method strongly depends on the control group. So far I compare treated wives to a plausible control group: Wives living in West Germany with an insignificant alimony loss in case of divorce. I experimented with using husbands as an alternative control group for low-, medium-, and high-intensity treatment wives. Specifically, as a robustness check, I perform a DiD analysis, using husbands who would have to pay below €353 monthly in case of divorce, i.e. below the 25th percentile, in the last pre-treatment period (see Figure 1 for female alimony distribution). DiD regressions for working hours using this alternative control group yield results which are not similar to the ones from Table 1, but which have plausible algebraic signs (see Appendix Table B.32). But, the pre-treatment trends are rather different for treatment and control groups anyway (see Appendix Figures C.18, C.19, and C.20). Thus, this pre-treatment trend difference does not allow me to draw conclusions which are too rigorous from this exercise.

Looking at estimations from the Granger-causality test, we also observe different pre-treatment trends between each treatment group and the alternative control group for participation on the labor market, the probability of being in education, and housework in hours (see, e.g., Appendix Figure C.21). In regard to childcare, I see the same problem for low- and high-intensity treatment groups: The point estimates for 2001, 2003, and 2005 are far removed from zero in the Granger-causality test (see Appendix Figures C.24-C.26). Therefore, I do not over-interpret the DiD results from this exercise. For the childcare in hours of the medium-intensity treatment group, a Granger-causality test produces the following results: 0.308 for 2001, 0.156 for 2003, and 0.075 for 2005, when additionally controlling for age as a second order polynomial and the number of minor children in different age groups (see Appendix Figure C.25). The coefficients in the DiD model range from -0.536 to -0.936 (see Appendix Table B.33). In comparison to previous models, where I use wives as a reference group, these estimates are much larger. There the coefficients range between -0.369 and -0.566 (see Panel B Columns 5(a)-8(d) of Appendix Table B.29).

Other potential control groups, like individuals who would have neither received nor paid any alimony in 2007 or East Germans, follow a divergent pre-treatment trend.

<sup>36</sup> There is no indication of the systematic divergence in trends for participation before the actual treatment sets in; indeed, the point estimates are close to zero. More precisely, about 0.009 for 2001, 0.005 for 2003, and 0.001 for 2005. Shortly after the reform there is no effect, i.e. interaction term is about 0.008 for 2009. For 2011 we observe a rise, the point estimate is 0.114 and statistically significant at the 0.05 level. The interaction term is 0.109 for the last year included (see Appendix Figure C.10).

## 8.2. Age restriction

I consider a sample of spouses between 30 and 54 years of age in order to better measure individuals' division of time decisions as a result of intra-marital bargaining. Thus, I try to rule out the distorting impact of education-related decisions earlier in life and also part-time retirement decisions of older spouses (see Trampusch et al. 2010 on early retirement arrangements in Germany). For descriptive statistics and results from the balancing tests, refer to Appendix Tables B.34 and B.35. Despite this age restriction high-intensity treatment group remains older, on average, in comparison the reference group before treatment.

This age limitation produces reassuringly similar results for working hours of the low-intensity treatment wives presented in Table 1: After controlling for individual's age as a second order polynomial and the number of minors by age classes, estimates range between 0.324 and 0.381. Basic DiD estimates are somewhat higher and are between 0.428 and 0.507 (see Appendix Table B.36). Tests for Granger-causality do not reveal a divergent pattern in the pre-treatment period for the low-intensity treatment and control groups (see Appendix Figure C.27). In fact, even without controlling for additional individual control variables, coefficients for interaction terms  $D_{year} \cdot Treat_{low}$  in the pre-treatment period are close to zero: 0.042 for 2001, 0.065 for 2003, and 0.124 for 2005 (see Appendix Table B.37). The analysis of the pseudo-law change in 2004 produces the following estimations for  $Post_{placebo} \cdot Treat_{low}$ : -0.040 (2003/2005) and -0.101 (2001-2007) in models when controlling for year fixed effects, and -0.125 and -0.153 when additionally controlling for wife's age and the number of children in the household (see Appendix Table B.38). This strengthens the impression that the common trend assumption might hold, especially in basic DiD models. Results for labor force participation in the low-treatment group suggest that the response to the 2008 reform did not come from the extensive margin (see Columns (2), (4), (6), and (8) of Appendix Table B.39).

I further explore the robustness of the results for working hours in the low-intensity treatment group in various ways: By controlling for the wife's work experience, age group, husband's allowable income, husband's work experience, husband's childcare hours and/or divorce number (see, e.g., Appendix Tables B.40 and B.41). The latter is used to assess the risk of divorce depending on marriage duration.<sup>37</sup> When I include this number, besides age as a second order polynomial and the number of children in different age groups, the estimates are slightly higher in comparison to the initial estimates for the 30-54 year olds. When controlling for age group instead of divorce number, these are slightly lower. Further, the statistical significance of the initial estimates is not lost by including various, presumably problematic, confounders.

Again, pre-treatment trends for the medium-intensity treatment and comparison groups seem not to be divergent in LFP (see Appendix Tables B.42 and B.43). We no longer observe a dip in relation to the education dummy in 2007 (see Appendix Figure C.35). However, there is still a pre-treatment dip problem for hours in education (see Appendix Figure C.34). This implies that the limitation to 30-54 years old wives is not helpful in ensuring comparability between the medium-intensity treatment and the control groups.

With regard to hours spent on housework, the results seem to be more pronounced for the high-treatment wives than without this age restriction, ranging between 0.227 and 0.303. However, similar to Columns (1) and (2) of Table 3, the point estimate for the 2007/2009 sample is close to zero (see Columns (1) and (2) in Appendix Table B.44). I.e., a change in housework hours cannot be attributed to the 2008 reform of maintenance.<sup>38</sup> Again, results obtained for childcare hours of treated wives in Appendix Table B.45 are biased.<sup>39</sup>

Next, I split my initial sample into two groups using 45 as a cutoff age. For the low-intensity treatment wives older than 45 years of age we observe now a small and statistically insignificant response to the new alimony regime. For younger wives the average low-intensity effect is higher and ranges between 0.590-0.614 when including additional control variables (see Appendix Table B.46).<sup>40,41</sup> The Granger causality test suggests that these results are more

<sup>37</sup> The marriage duration dependent divorce number is calculated in the following way:  $\frac{\text{No. of divorces in calendar year } y}{\text{No. of marriages in calendar year } y} \cdot 1,000$  for different years of marriage duration (Federal Office of Statistics 2015, pp. 5, 36).

<sup>38</sup> Although not presented here, results from the placebo treatment do not reveal divergent pre-treatment trends. Coefficients from the Granger test are 0.092 for 2001, -0.000 for 2003, and -0.180 for 2005 when including additional controls. When controlling for nothing except year dummies, we observe 0.057 for 2001, 0.002 for 2003, and -0.209 for 2005. F-tests show that the leading coefficients are jointly equal to zero.

<sup>39</sup> Although not presented here, results from the pseudo law change show significant estimations for the low- and medium-intensity treatment groups. Coefficients from the Granger test are also significant in the pre-treatment era for all treatment groups.

<sup>40</sup> The estimate for  $Post \cdot Treat_{low}$  is 0.441 in the 2007-2009 sample. The observation number in  $Treat_{low}$  is, however, 142.

<sup>41</sup> Restricting the sample to 30-45 years old wives does not significantly change these results.

reliable in comparison to basic DiD estimates (see Appendix Figure C.36). This finding indicates that younger wives might be more responsive to legal changes. This is line with Stevenson's (2008) study on divorce law changes and women's labor supply (Stevenson 2008). One explanation for this finding are better labor market opportunities for younger women. Another reason could be the perceived probability to be affected by divorce and its consequences. Younger wives tend to be married for shorter period of time. The official statistics show a decreasing divorce number following 5-6 years of marriage. Thus, wives older than 45 years of age might face a lower risk of divorce and therefore consider the 2008 reform irrelevant.<sup>42</sup> The medium- and high-intensity treatment groups follow a divergent pre-treatment trend in comparison to the control group in both age groups.

### 8.3. Personal and marital assets

Personal and/or marital assets might buffer the effects of alimony reformation. Unlike alimony, the division of marital property does not represent future economic claims on the other, but a lump-sum settlement. Thus, for several reasons, it is probably a weighty factor in the assessment of the consequences of a divorce. First, such a once-off transfer of property/money would be directly available for spending or investment. Second, the risk of non-collection is basically non-existent and, third, inflation is not a consideration.<sup>43</sup> It is likely that couples with a higher household income accumulate greater wealth over the years resulting in higher assets at the point of divorce.<sup>44</sup> A balancing test at pre-treatment reveals a significantly higher average household labor income in the four-digit range for the high-intensity treatment group of wives in comparison to the control group. The medium-intensity group has a similar household income on average, while the low-intensity group of wives has a lower average income by a three digit number (see Appendix Tables B.6 and B.7). Thus, the blurring effect of assets might be especially important for the high-intensity treatment group.

SOEP contains information about personal tangible assets (jewelry, gold, coin collections and other valuable collections), financial assets (financial investments, i.e., savings deposits, (savings) bonds, investment fund certificates), ownership of house/apartment and of other property every five years starting in 2002. The 2008 reform might have an impact on savings or the accumulation of assets. That is why I rely only on the information given in pre-treatment years, i.e. 2002 and 2007. For descriptive statistics on assets, refer to Appendix Tables B.47 and B.48.

In sum, I want to further extend my analysis by considering the role of the assets, thinking that wives without any property may be more affected by the new alimony regulations. Or, wives who possess a property may worry less about the financial consequences of the 2008 reform in case of divorce. In fact, they may not worry about it at all. To investigate this, I run FE models involving the main effects, two-way interactions, three-way interactions of the treatment status, the pre/post-treatment dummy, and the dummy for house/apartment/property ownership.<sup>45</sup> The dummy for assets  $D_{prop}$  equals one when a wife reports to hold house/apartment/property, and zero otherwise. I do not take into account whether the wife is free of loans or of debt repayments, and what share of the property she owns. If property is burdened with debts, its importance as a "protection" in the case of divorce might increase over time, because the amount of debt will be reduced and its debt-free value will increase. If the three-way interaction turns out to be negative this implies that the size of  $Post \cdot Treat_j$  (with  $j = low, med, high$ ) interaction is smaller for the group of wives who hold property versus the group without such possessions. Thus, proving an indication for assets' buffering effect on alimony regulations introduced in 2008.

We do not observe statistically significant three-way interaction terms at the 0.10 level for the treatment groups of wives in basic models where I control for just year fixed effects (see Columns 1(a)-4(d) of Appendix Table B.49). The

<sup>42</sup> In 2007, for example, the divorce number in Western states including Berlin is 61.4 for individuals married for 0-4 years, 131.0 for 5-9, 82.3 for 10-14, 62.6 for 15-19, 52.2 for 20-25, and 41.8 for 26-40 years of marriage. The highest divorce number between 2001-2007 is reached at 5 or 6 years of marriage (Gude 2009, p. 1099). In the younger sample at  $Post = 0$  wives in the low-intensity treatment group are married for about 11 years on average. Wives older than 45 years of age in this treatment group are married for about 25 years on average.

<sup>43</sup> Another outlook on joint property could be that it reduced the personally perceived probability of divorce with the result that the perceived risk to be affected by the new alimony regulations is very low. Although I do not find literature that confirms this conjecture, about 74% of German wives agree fully that many relationships could be happier and longer lasting if partners could agree on a joint "project" (Wippermann et al. 2014, p. 37). It is not clarified of what kind of project is implied, but joint children or property seem like conceivable options.

<sup>44</sup> To properly measure such assets, one needs information regarding the personal possessions, debts etc. before marriage and accrued gain, i.e. properties, ownership, savings, expenditures, debts, etc., for every year during the marriage. Pre-marital assets are especially crucial since they are not divided when a couple divorces.

<sup>45</sup> The two-way interactions of the treatment status and the dummy for pre-treatment house/apartment/property ownership, and the main effects for these indicators are, of course, omitted in a FE model.

algebraic signs of all three-way interaction terms are, as expected, negative: -0.619 for  $Treat_{high}$ , -0.225 for  $Treat_{med}$ , and -0.253 for  $Treat_{low}$ , in the 2001-2013 sample. This finding suggests that the buffering effect of assets might be particularly significant for the high-intensity treatment group. This may partly explain why we observe a negative average high-intensity treatment effect in the initial analyses presented in Table 1.<sup>46</sup>

I dissect the three-way interactions by considering the  $Post \cdot Treat_j$  with  $j = low, med, high$  at each of the two levels of house/apartment/property ownership dummy.<sup>47</sup> For the low-intensity group of wives in basic models  $Post \cdot Treat_{low}$  is statistically significant for having house/apartment/property (e.g.,  $F = 5.23$ ,  $p = 0.0225$  for 2005-2011;  $F = 4.72$ ,  $p = 0.0301$  for 2003-2013) and also when having no ownership ( $F = 2.96$ ,  $p = 0.0856$  including 2005-2011;  $F = 4.32$ ,  $p = 0.0380$  for 2003-2013).

Next, I replace the dummy for house/apartment/property ownership with a dummy,  $D_{Solprop}$ , that equals one when an individual holds the sole ownership of a house/apartment and/or the sole ownership of another property which is not being held for the individual's own use, and zero otherwise. Property in sole ownership might be very important in the sense that in the case of divorce, that individual retains the sole-ownership of said property and, thus, it might represent a valuable asset which could function as a form of "insurance". However, this property does not necessarily come without a (remaining) financial burden and might go hand in hand with personal debt. Sole ownership could also mean that a couple distributes their assets according to the principle of separation of property in the marriage. That could imply that they do not rely on each other financially. Or that these assets were accumulated before marriage or were given as a personal gift or inheritance at some time and were kept in the individual's own holding.

The estimate for  $D_{Solprop} \cdot Post \cdot Treat_{low}$  is -0.385 in the 2001-2013 sample when controlling for year fixed effects only. However, although limitation to 30-54 years old wives leads to a smaller number of observations in  $D_{Solprop} = 1$ , the estimate for the three-way interaction for the low-intensity treatment group is very small, suggesting the effect of sole ownership might be not important after all.<sup>48</sup> Further, there is no indication that ownership of apartment/house-/property significantly reduces the estimations for the average low-intensity treatment effect when applying this age restriction (see Table 5).

Overall, results presented in this subsection suggest that possession of property might, indeed, buffer the effect of the 2008 alimony reform for the medium- and high-intensity groups.<sup>49</sup> That might be one of the reasons why we do not observe a strong treatment effect for these two groups in the first place.

#### 8.4. Seasonal fluctuations and macro conditions

The individuals included in my analysis are subject to seasonal fluctuations on the labor market and other economic trends. Although not presented here, controlling additionally for seasonal dummies (quarterly or monthly) does not significantly change the results.<sup>50</sup>

It is crucial for my analysis that any changes in macro conditions influence all groups in the same way (Jurajda 2016, p. 20). Parallel pre-treatment trends in working hours or/and LFP might give the impression that different groups handle or are influenced by economic crises in the similar way. However, different crises might have different implications. In regard to the labor market situation, the time period considered here covers the so-called dotcom crisis (2001-2003), the recovery period (2004-2008), and the time after the financial crisis of 2009 (Mai 2010, p. 11). The breakdown of the so-called new economy led to a reduction of the labor force, especially in full-time employment. In 2003, there were 717,000 less people in the German labor force when compared to 2000 (Mai and Schwahn 2017, pp. 11 et seq.). The so-called Hartz labor-market reforms took place between 2003 and 2005 with the objective of increasing the flexibility of the labor market (Klinger et al. 2013, p. 2). Since 2006, a steadily increase in the labor force can be observed. The 2009 crisis curbed this development, but did not interfere in a significant way. The total

<sup>46</sup> Note, the observation number of the medium-intensity treatment group in  $D_{prop} = 0$  is 278. The observation number of the high-intensity treatment group without any property is 128.

<sup>47</sup> Test results for the partial interaction effects are not displayed in the Appendix. The tests are performed using the contrast command.

<sup>48</sup> There are  $Post = 0/Post = 1$  157/91 observations in  $Treat_{low}$  overall who hold sole ownership, 164/91 in  $Treat_{med}$ , and 207/115 in  $Treat_{high}$ . The estimate for  $D_{Solprop} \cdot Post \cdot Treat_{low}$  is -0.084 in the 2001-2013 sample when controlling for year fixed effects and -0.062 when additionally including individual control variables.

<sup>49</sup> The possession of financial assets or personal tangible assets does not have the same relevance. That is probably because the value of property is usually much higher than that of savings or tangible assets. Note, results for ownership of financial assets and personal tangible assets are not included in the Appendix.

<sup>50</sup> Note, there are no observations in November or December in my sample.

Table 5: Fixed effects models, ownership of house/apartment/other property, 30-54 years old wives

Sample restriction	Dependent variable: wives' working hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	4.661	5.124	4.569	5.163	4.653	5.120	4.654	5.033
<i>Post-Treat<sub>low</sub></i>	0.431 (0.382)	0.461 (0.290)	0.502 (0.340)	0.501** (0.227)	0.588* (0.321)	0.475** (0.223)	0.555* (0.322)	0.502** (0.224)
<i>Post-Treat<sub>med</sub></i>	0.940* (0.495)	0.102 (0.318)	0.739* (0.413)	0.165 (0.258)	0.623 (0.387)	0.252 (0.265)	0.423 (0.374)	0.182 (0.260)
<i>Post-Treat<sub>high</sub></i>	0.544 (0.407)	0.472 (0.308)	0.663* (0.341)	0.310 (0.272)	0.419 (0.373)	0.210 (0.263)	0.520 (0.405)	0.027 (0.264)
Ownership	no	yes	no	yes	no	yes	no	yes
Obs	266	598	576	1,176	733	1,529	842	1,740
Obs in <i>Control</i>	86	150	181	295	220	375	250	429
Obs in <i>Treat<sub>low</sub></i>	98	132	195	267	246	347	279	395
<i>Post = 0/Post = 1</i>	49/49	66/66	99/96	138/129	137/109	198/149	169/110	245/150
Obs in <i>Treat<sub>med</sub></i>	56	154	138	306	184	400	218	458
<i>Post = 0/Post = 1</i>	28/28	77/77	68/70	160/146	100/84	232/168	130/88	289/169
Obs in <i>Treat<sub>high</sub></i>	26	162	62	308	83	407	95	458
<i>Post = 0/Post = 1</i>	13/13	81/81	33/29	160/148	48/35	232/175	59/36	282/176
Wives	133	299	185	368	193	392	199	395
Av. obs. per wife	2.0	2.0	3.1	3.2	3.8	3.9	4.2	4.4
Adj. R <sup>2</sup>	0.0212	0.0282	0.0127	0.0254	0.0188	0.0305	0.0207	0.0285

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. Dependent variable covers work and apprenticeship (including travel time to and from work); 7-day week. No ownership of property: wife has no house/apartment/property in pre-treatment. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. Year fixed effects are always controlled for. Means are reported at *Post* = 0.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

number of employed persons increased slightly in 2009 (+0.1% compared to 2008) and 2010 (+0.3% compared to 2009). In sum, the crisis' implications on the labor market were moderate (Mai and Schwahn 2017, pp. 11, 13). On a temporary basis, some businesses reacted to the 2009 crisis by adjusting employees' working time i.a. by cutting working-time accounts or by introducing short-time work (Mai and Schwahn 2017, p. 17). These measures, however, affected at most 5.2% of all employees (peak in May, 2009; regulations for short-time work exists since 1957; Federal Employment Agency 2014, p. 3). Industries which were particularly impacted were the metal industry, machine construction, automobile industry, manufacture of computer, electronic and optical products, and rubber industry (Mai 2010, p. 244, Federal Employment Agency 2014, p. 4). Spill-over effects on other, i.e. non-export, industries were limited (Brenke et al. 2013, p. 287). In December 2009, 7.4% of all employees in the production industry were effected by short-time arrangements, 1.5% in the construction industry, and 0.9% in the services sector. At the same time, i.e. in 2009, the number of employees increased in the services sector, construction industry, agriculture and forestry, compensating in part for job losses in the production industry (production industry excluding construction industry; Mai 2010, p. 244). Also in the first recession period, i.e. between 2001 and 2003, workforces in the services sector were built. But, short-time was less common. In 2002, for example, 210,000 people on average worked short-time, that is about 1/5 in comparison to 2009 (Gartner and Klinger 2010, pp. 730 et seq.). The volume of work and gross domestic product recovered in 2010 (Mai and Schwahn 2017, p. 5, 16), while the number of short-timers due to the cyclical downturn returned to a completely normal level in 2012 (Federal Employment Agency 2014, p. 3). By the beginning of 2011, production volume had returned to its pre-crisis levels (Brenke et al. 2013, p. 288). In summary, it seems that employers used different strategies to react to the 2009 crisis than were used in the previous recession period (Gartner and Klinger 2010, p. 732).

As an additional exercise, I exclude individuals who reported working short-time for at least one month because of the

2009 crisis.<sup>51</sup> This inspection is one-sided, since I focus on the implications of the second recession period and not on the first, although the breakdown of the so-called new economy had more negative consequences on the German labor market. The results for the low-intensity treatment wives are slightly higher in regard to working hours to those presented in Table 1. When including additional individual control variables estimates range now between 0.337 and 0.374. For 30-54 year old wives estimates are also similar to the initial results and range between 0.339 and 0.401.<sup>52,53</sup> Now, there is no statistically significant result at the 0.05 level in the probability of being in education for 30-54 year old medium-intensity group anymore. However, the problem of a pre-treatment dip remains with regard to hours spent in education in this group, i.e. it is still not comparable to the reference group (see Appendix Figure C.38).

Next, I additionally exclude wives whose husbands work in an environment that reacts sensibly to changes in the economic cycle by introducing short-time work. Estimates for the 30-54 year old low-intensity group now range between 0.351 and 0.427 (see Columns 5(a)-8(d) of Appendix Table B.52). Now, it seems that LFP might increase by about 7 percentage points for this group of women (see Columns 5(a)-8(d) of Appendix Table B.53). A pre-treatment dip problem is still existent for the medium-intensity treatment group.

Besides the introduction of short-work in 2009, businesses reacted by reducing the overtime and working hours of their core workers. That is why in the next step I also exclude individuals who between 2001 and 2013 worked in an industry that was moderately to severely affected by the 2009 crisis.<sup>54</sup> As a consequence, 126 30-54 year old wives ( $\approx 20.59\%$ ) are eliminated from the initial analysis sample. Results for the low-intensity treatment group are now slightly higher: Basic DiD estimates differ in the second or third decimal place (see Columns 1(a)-4(d) of Appendix Table B.54), in models with individual control variables estimates are higher by about 0.060-0.078. They range between 0.387 and 0.422 (see Columns 5(a)-8(d) of Appendix Table B.54). There is no indication of a change in the LFP as a result of the 2008 reform. The low-intensity treatment group and the reference group might follow the same pre-treatment trend in regard to working hours and participation on the labor market (see, e.g., Appendix Table B.55). Although not presented in their entirety here, including additional, presumably bad, controls such as household net labor income, husband's allowable income, husband's working hours and/or husband's childcare hours does not significantly change the magnitude of the results in these models.<sup>55,56</sup>

Overall, it seems that my previous conclusions are not driven by the fact that I included wives who worked or work in a field that was influenced by the second recession period including those who experienced short-time work arrangements driven by the same recessionary conditions. However, intra-marital spill-over effects are possible. Therefore, I exclude couples when either of the partners has experience working in a field that was moderately to severely affected

<sup>51</sup> There is not necessarily an overlap with the time when they give information on their time allocation. A short-timer is a employee (paying social insurance) whose temporary working time reduction is higher than 10% in comparison to the usual operating working hours at the company and who is entitled to short-time allowance. The minimum requirement for a firm to apply is that at least one in three of its employees is affected by a greater than 10% reduction in working time (Federal Employment Agency 2014, p. 13). Cause for short-time allowance can be a general business recession or slow-down, corporate restructuring, seasonal fluctuations in the construction industry (Federal Employment Agency 2009, p. 4). Here, short-time work is driven by recessionary conditions.

<sup>52</sup> Without this sample restriction, results for 30-54 year old wives range between 0.324 and 0.387 (see Appendix Table B.36).

<sup>53</sup> In basic DiD models coefficients for  $Post \cdot Treat_{low}$  range between 0.441 and 0.526 (see Columns 1(a)-4(d) of Appendix Table ??). Without this sample restriction estimations range between 0.428 and 0.507. There is no indication for a systematic diverge in the trends before the actual treatment sets in (see Appendix Table B.51).

<sup>54</sup> I exclude individuals who worked in the manufacturing of (1.) wood products (except for furniture), (2.) pulp, paper and paper products, (3.) chemicals and chemical products, (4.) rubber and plastic products, (5.) other non-metallic mineral products, (6.) publishing, printing, and reproduction of recorded media, (7.) basic metals, (8.) metal products (except for machinery and equipment), (9.) machinery and equipment NEC, (10.) office machinery, (11.) electrical machinery and apparatus NEC, (12.) radio, television, and communication equipment, (13.) medical, precision and optical instruments, (14.) motor vehicles, trailers and semi-trailers, (15.) other transport equipment, (16.) furniture; manufacturing NEC (17.) textiles, (18.) tobacco products, (19.) wearing apparel, (20.) tanning, dressing of leather products, (21.) food products and beverages, and (22) manufacturing and industry - NEC (Heckmann et al. 2009, pp. 2 et seq.).

<sup>55</sup> E.g., in models with year fixed effects, wife's age as a second order polynomial, indicators for wife's age group, number of children in different age groups, and husband's working hours, the estimate for average low-intensity effect is 0.320 (robust std. err. 0.231) in the 2007-2009 sample, 0.442 (0.213) in the 2005-2011 sample, 0.410 (0.204) in the 2003-2013 sample, and 0.443 (0.206) in the 2001-2013 sample (compare to Columns 9(a)-12(d) of Appendix Table B.54). When adding to these models both spouses' work experience as a second order polynomial the estimates are 0.386 (0.234) in the 2007-2009 sample, 0.498 (0.217) in the 2005-2011 sample, 0.397 (0.207) in the 2003-2013 sample, and 0.366 (0.205) in the 2001-2013 sample (compare to Columns 17(a)-20(d) of Appendix Table B.54). These are 0.398 (0.234) in the 2007-2009 sample, 0.491 (0.216) in the 2005-2011 sample, 0.389 (0.206) in the 2003-2013 sample, and 0.360 (0.204) in the 2001-2013 sample when additionally controlling in these models for husband's childcare hours.

<sup>56</sup> This also holds when I exclude additionally wives whose husbands have experience with short-time work and control for husbands' working hours and other presumably endogenous controls.

by the 2009 crisis (see Appendix Table B.56).<sup>57</sup> This strongly affects the sample size, for example, only 120 observations exist at  $Post = 1$  in  $Treat_{low}$  overall. In total, 303 30-54 year old wives,  $\approx 49.51\%$ , remain in the sample. In basic DiD models, estimates range between 0.385 and 0.562. The estimate for the 2001-2013 sample is 0.490. Initial results for 30-54 year old wives in the low-intensity group are between 0.428 and 0.507, and 0.482 for the 2001-2013 sample. A Granger-causality test for a model with just year fixed effects produces -0.193 for  $D_{2001} \cdot Treat_{low}$ , 0.372 for 2003, and -0.035 for 2005 (test for joint significance  $F = 0.69$ ,  $p = 0.5598$ ), suggesting that the low-intensity treatment group and the reference group might follow the same pre-treatment path. In models with additional control variables, however, they obviously follow a divergent trend at pre-treatment (see Columns (2)-(4) of Appendix Tables B.57). Thus, results from basic DiD models seem to be more reliable.

Table 6: Fixed effects models, 30-54 years old wives, 2001-2013

Sample restriction	Dependent variable: wives' working hours per day									
			Without short-timers:				Without workers in affected industries:			
			wife	wife or/and husband			wife	wife or/and husband		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Mean in <i>Control</i>	4.897		4.875		4.962		4.682		4.874	
<i>Post</i> · <i>Treat</i> <sub>low</sub>	0.482** (0.185)	0.344** (0.172)	0.499*** (0.189)	0.366** (0.175)	0.517** (0.200)	0.354* (0.185)	0.486** (0.212)	0.422** (0.195)	0.490* (0.284)	0.356 (0.261)
<i>Post</i> · <i>Treat</i> <sub>med</sub>	0.282 (0.210)	0.094 (0.188)	0.266 (0.213)	0.076 (0.192)	0.222 (0.218)	0.005 (0.194)	0.369 (0.236)	0.219 (0.209)	0.445 (0.316)	0.126 (0.272)
<i>Post</i> · <i>Treat</i> <sub>high</sub>	0.139 (0.218)	-0.017 (0.196)	0.129 (0.221)	-0.023 (0.199)	0.130 (0.229)	-0.042 (0.204)	0.115 (0.244)	0.039 (0.218)	0.121 (0.323)	0.034 (0.279)
Ind. control var.	no	yes	no	yes	no	yes	no	yes	no	yes
Obs	2,636	2,636	2,572	2,572	2,412	2,412	2,079	2,079	1,279	1,279
Obs in <i>Control</i>	684	684	672	672	618	618	502	502	312	312
Obs in <i>Treat</i> <sub>low</sub>	694	694	679	679	617	617	535	535	309	309
Obs in <i>Treat</i> <sub>med</sub>	694	694	666	666	633	633	555	555	337	337
Obs in <i>Treat</i> <sub>high</sub>	564	564	555	555	544	544	487	487	321	321
Wives	612	612	597	597	562	562	486	486	303	303
Av. obs. per wife	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2
<i>Adj. R</i> <sup>2</sup>	0.0271	0.1929	0.0267	0.1900	0.0266	0.2019	0.0242	0.1951	0.0096	0.2277

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. As controls in Columns (2), (4), (6), (8), and (10), I included wife's age as a second order polynomial and the number of minors in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at  $Post = 0$ . The sample consists of wives living in West Germany. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Taken as a whole, the estimates in this subsection do not suggest that my previous results are driven by the 2009 crisis (see, e.g., Table 6 for 30-54 year old wives, including the 2001-2013-sample). Despite the loss of sample size, and hence power, the results are similar in sign and magnitude to initial estimates for the low-intensity group of wives.<sup>58</sup>

<sup>57</sup> When excluding couples when either of the spouses has experience working in an affected field short-time workers are automatically excluded.

<sup>58</sup> In contrast, results found for high-intensity-treatment husbands can be probably explained by the 2009 crisis. The estimates are very different in magnitude for  $Post \cdot Treat_{high}$  from the initial results when excluding couples who were affected by this recession period. Classifying husbands according to the quartiles from the male alimony distribution leads to the same conclusion.

## 9. Internal and external validity

### *Internal validity*

Can the inference be drawn that the differences in the outcome variables are indeed caused by the considered law change?<sup>59</sup> Did events other than the 2008 reform occur which provide alternative explanations for the results? First, I did not find any other important national reforms that were correlated in terms of the timing of the 2008 law change. On 30 July, 2008, the Federal Court of Justice for the first time took into consideration a maintenance obligation to a present spouse when calculating the former, divorced spouse's alimony (the so-called division-by-three method). In a resolution published on 25 January, 2011, the Federal Constitutional Court found this method to be unconstitutional (Federal Constitutional Court 2011, accessed on 10.13.2012). These events are not importance to my analysis, since I exclude individuals who divorced before.

In September 2009, the law of equal distribution of surplus was amended without changing the basic concept of the equalization of accrued gain during the marriage. In the context of this study, the 2009 amendment would only matter for couples in which one of the spouses was encumbered with debt at the beginning of the marriage and one of the spouses would claim prematurely a share of gains acquired during the marriage (ASP Rechtsanwälte Krefeld n.d., accessed on 13.06.2017). Since I include only "intact" marriages, I do not think this reform is particularly relevant. Also, at the beginning of 2010, only 40% of married individuals have heard of, and are believed to understand the exact meaning of, the terms "equalisation of accrued gains" or "original assets" (Wippermann et al. 2014, p. 42). There is also no special web search interest in this minor law modification around this time which can be determined (see Appendix Figure C.41). Thus, it seems appropriate to ascribe no importance to it.

Phipps and Burton (1995) demonstrated that e.g. social transfers to single parents may influence the LFP of married women, *ceteris paribus* (Phipps and Burton 1995). When we look at the state's expenditures on social protection of families and children per capita over time we do not observe substantial changes at the time of treatment (see Appendix Figure C.43). Parental wealth may also function as a social safety net too. It might weaken spouses's concerns about their own welfare due to the 2008 reform and act as a social protection in the case of divorce. Also, an inheritance or even the prospect of receiving an inheritance some day, like personal or marital assets, might buffer the effect of alimony reformation.

Although pre- and post-nuptial agreements could have dampened the impact of the 2008 reform, I believe that such legal agreements were of minor significance. In general, matrimonial property, pension provisions, and maintenance are three separate issues that can be component parts of a marriage contract (Martens 2008, p. 3). Since 2001, German courts can intervene in a corrective manner in certain circumstances: In an unequal negotiation situation and in a one-sided imposition of contractual burdens (Martens 2008, p. 5). Naturally, matrimonial contracts are not allowed to violate public order (Martens 2008, p. 1). In regard to post-marital maintenance, partners do have the right to stipulate their own terms in line with the German Civil Code (Martens 2008, p. 9). Even two years after the 2008 reform, 93% of married couples still had no marriage contracts (Wippermann et al. 2014, p. 13). In contrast, 37% of women and 23% of men who planned to marry within the next two years were thinking about prenuptials (Wippermann et al. 2014, p. 32).

The low percentage of married couples who have prenuptial agreements could also reflect a lack of knowledge of the divorce regulations. On the other hand, individuals who are married or who intend to marry may consider these laws personally irrelevant until they begin to have marital difficulties. Backer and Emery (1993), e.g., demonstrate that although individuals who applied for a marriage license might have relatively accurate perceptions of the likelihood of divorce and its effects in the population at large, they nevertheless express unrealistic expectations concerning their own marriages. Even law students who completed a course in family law consider themselves to be unrepresentative of the married population and feel that divorce and its consequences will not apply to them personally in the future when married. According to the authors, this discrepancy can be seen as an example of a representativeness bias (Backer and Emery 1993, pp. 445 et seq.). It is unclear whether the same problem applies to marriages in my sample since they are married for a long time, on average, and have probably already faced some sort of marital conflict. Nevertheless, that is an issue that I cannot simply rule out because I do not have information on individuals' time-variant perceptions of the probability of their own divorce and, thus, of laws governing divorce. In regard to married

<sup>59</sup> See Jurajda 2007, pp. 17 et seqq. for a full list of threats to internal and external validity in quasi-experiments. Also, Ryan et al. (2015) propose a checklist of requirements for the DiD approach which must be met in order to be able to make valid inferences (Ryan et al. 2015, pp. 1226-1230).



individuals' knowledge of divorce statutes, Wippermann et al. (2014) fail to depict the state of knowledge of alimony regulations due to methodological difficulties (Wippermann et al. 2014, p. 33).

Another important question is whether there are underlying processes producing changes in time allocation as a function of time itself such as ageing (Jurajda 2007, p. 18). I control for age as a second order polynomial in my estimations, additionally I include indicators for age groups and the number of minor children in different age groups (see, e.g., Appendix Tables B.10-B.29). In the end, I restrict the sample to 30-54 year old individuals. Closely related to this is the question of whether it is appropriate to compare the low-intensity treatment with the reference group, thus, two groups of wives whose pre-treatment average hours spent for housework and childcare are not parallel. I would argue that this is because, outside of the workplace, the two groups of women can allocate their time in a completely different way. In my models I control for the number of children in different age groups and as an additional robustness check I include husband's childcare hours, although it is presumably a bad control variable (see, e.g., Appendix Table B.41).

Attrition and nonresponse can be a problem if they are correlated with treatment (Ryan et al. 2015, pp. 1229 et seq.). These issues can lead to selection bias (Hausman and Wise 1979, p. 456). Here, the sample comprises individuals that respond within the considered time period at least once before 2008 and at least once after (see Appendix Table B.58 for post-treatment response difference). The number of observations over time for each group of wives is presented in Appendix Figure C.42.

Overall, this study seems to show a good degree of internal validity resulting in rather strong evidence of causality, although the inheritance of parental assets or representative bias, e.g., remain valid concerns.

#### *External validity*

In general, the relevance of the empirical results is an open question (Angrist 2004, p. C52). Can estimates in this study provide useful information about the likely effects of similar policy measures in the future? Generally, the DiD approach estimates the average treatment effect on the treated (Ryan et al. 2015, p. 1216; Callaway and Li 2015, p. 6). Here, I do not find an effect on labor supply for all groups with different treatment intensity, but do find an effect for a particular group of wives that was treated. Obviously, the results found here cannot simply be extrapolated to a larger German population of married individuals.<sup>60</sup> However, do they apply to the subgroup of the population that is treated, i.e. to all treated wives? All groups which I tried as a potential control group follow a divergent pre-treatment path to the medium- or high-intensity treatment groups concerning labor supply. Thus, I cannot draw too rigorous conclusions for these women at this point. The presented results in Section 7 are biased, underestimating the 2008 reform's influence on working hours.

Here, we have learnt something about a very specific context. The effects of such a change in the law could be very different in another institutional or geographic setting. Especially in countries with different maintenance obligations or marital property arrangements, alimony reducing or eliminating laws might have stronger or weaker effects on intra-family bargaining. The underlying legal framework constitutes a setting that interacts with such policy measures. Moreover, considering a different time span may provide evidence of a different response on the part of spouses in West Germany. For example, until 1977 husbands could simply prohibit their wives from going to work. Also, until 1962 married women needed their husband's permission to open a bank account. Not until 1969 were married women accepted as legally competent. Since 1976, divorce law in Germany is based on the principle of broken marriage and no longer on the concept of fault (Martiny and Schwab 2002, pp. 2 et seq.). The sociopolitical or historical context embeds, e.g., gender relations and defines the bounds of possible responses (Cooke 2006, p. 442).

## **10. Conclusions and discussion**

Alimony regulations like marital property, pension provisions, and child-support issues are all problems of money. However, the specific function of alimony is to satisfy the need of a spouse after a finalized divorce (Martiny and Schwab 2002, p. 24). Individuals who are included in my study married during an era of strong post-marital solidarity.

<sup>60</sup> It is also important to keep in mind who is not included in this analysis in general: E.g., individuals living in East Germany, married individuals with pre-treatment incomes equal to that of their spouses (although this combination is rare) and low-income households - those married couples where the breadwinner has an allowable income below the personal need level (see Section 4.4). Short marriages are also excluded (see Section 5).

Change came suddenly in 2008 putting the law on maintenance on a new footing, i.e., enforcing the principle of personal responsibility after divorce, thus, demanding post-marital self-sufficiency. From the perspective of spouses who were second earners at that time, this change in the law had an adverse effect on their bargaining situation. In contrast, it had a positive impact on the bargaining position of the first earner.

In this study, I look at the response of disadvantaged wives in “intact” marriages allowing for different treatment intensity. The core question is whether they take action to improve their relative bargaining power and if they do, to what extent. It seems that wives in the low-intensity treatment group might indeed have significantly increased their total working hours as a reaction to the 2008 reform, thus confirming Hypothesis 1 (see Section 3 on page 6). As expected, the number of hours invested in education did not change due to new alimony regime, which is plausible since in the majority of marriages the wives seem to be educated to a level which is at least equal to that of their husbands, if not higher - particularly in the control and low-intensity treatment groups (see balancing tests in Appendix Tables B.6). Note, this conclusion is drawn from the low- and high-intensity groups of wives. In regard to housework, i.e., Hypothesis 2, I do not find a response attributable to the 2008 alimony reform. Thus, treated wives do not seem to change the number of hours spent on housework due to legal changes in 2008.

Husbands in the low- and medium-intensity treatment groups do not respond to the reform by changing their labor supply rebutting Hypotheses 3a and 3b. Husbands also do not cut back the number of hours they spent on childcare because of their improved relative bargaining position, rejecting Hypothesis 4. Note, the low-intensity treatment group of husbands follows a divergent path in pre-treatment in comparison to the control group. I fail to verify this proposition for wives.

To the best of my knowledge, this study is the first attempt to identify the impact of the *2008 Reform of the German Maintenance Law* on the behavior of individuals in longer marriages. Although my investigation has some shortcomings, it also has several advantages. First, I do not rely on the premise that a group of individuals is generally dis(advantaged) by a policy change based on gender. Court records on alimony entitlements demonstrate that it would be negligent to assume that since husbands can also be in the position of receiving alimony. Second, I do not ignore the fact that treatment is heterogeneous. Thus, I take into account different treatment intensity based on alimony amounts in the last pre-treatment year. Third, my analysis includes a full 7-day week and, thus, provides a more complete picture of time activities. Fourth, since I run fixed-effects models, unobservable and observable time-invariant individual characteristics are omitted as a source of bias.

My findings in regard to labor supply are in line with the bargaining models, i.e., with non-unitary household models, and strand of literature presented in Section 2 in support of the notion that an intra-household balance of power does exist. Also, the size of the response in working hours for the low-intensity treatment group of wives is comparable to the findings in a couple of other studies in which “intact” households are considered: Brassiolo (2013) finds a reduction in wives’ labor supply of between 0.6 and 2.5 hours per week in response to their improved intra-marital bargaining position in Spain (Brassiolo 2013, p. 26). Kapan (2008) shows that British wives reduced their work hours by around 2-3 hours per week due to a law change that benefited them (Kapan 2008, p. 29). Both papers study rule changes in the division of marital property in the case of divorce.<sup>61</sup>

Findings presented in this chapter suggest that maintenance laws targeting marriages after dissolution may, indeed, affect some individuals in “intact” marriages in a significant way. That is why policymakers are advised to think about all potential incentives for different groups of individuals irrespective of whether they are a part of a “target group” or not. The fiscal effects on public finances and an estimation of other costs are, for example, natural components of draft laws, however the addition of a section that discusses the potential behavioral modifications that can be expected would stand for considerable progress. Whether an increase of the labor supply of a certain group of wives is not just a 2008 reform’s unintended side effect, but also an undesirable is a different question and is not a part of my analysis. From a policy perspective, it might also be important not just to provide information about new legal regulations concerning marriage and divorce to the public, but to quantify representative bias (if it exists) and present strategies aimed at how it could be reduced.<sup>62</sup> Unrealistic optimism in regard to personal divorce risk, including the financial consequences of divorce, might affect choices made before or during the marriage. Such decisions include whether

<sup>61</sup> Studies that look into the extension of alimony rights to cohabiting couples do not report changes in working hours (Rangel 2006, Lafortune et al. 2012).

<sup>62</sup> The term “representative bias” was introduced in Subsection 9. Individuals consider themselves to be unrepresentative of the married population and feel that divorce and its consequences will not apply to them (Backer and Emery 1993, pp. 445 et. seq.)

or not to be a stay-at-home parent or have a career, whether to have children and if so, how many, and so on. How should society and lawmakers respond if people do indeed disregard crucial information that concerns them because of idealistic expectations? Of course, levying a heavy tax on Hollywood romantic comedies is not a serious solution, but some kind of required consent to family law applicable at marriage, or at least a notice/information pack, might be worthy of consideration. Although marriage contracts are not popular, individuals may benefit from examining the statutory laws governing divorce before entering into a marriage. It is worth considering the pros and cons of mandatory prenuptial agreements or standard contracts that simply cover the legal regulations that apply at the time the marriage is concluded. Entering such a contract might indeed increase the awareness of the parties regarding legal changes and may help them develop a more realistic appreciation of the risks.

Future research should look at the extent to which couples in anticipation of marriage change their investments in marriage-specific human capital in relation to market human capital as a result of the 2008 reform. As stated by family law expert Breithaupt at the public hearing in 2006:

“For the existing marriages this [planned reform] is really bad. But apart from that, this is my opinion: If women know that they should only enter a marriage highly qualified or not at all and instead invest in themselves and not in a man, then this planned law is not bad at all. In my opinion this [reform] has a deterrent effect [...]” (German Bundestag 2006a, p. 65).

As suggested previously, research should continue to explore whether mothers disadvantaged by the new alimony law spend less time on parenting. Do they rely more on external childcare services? Do they send their children to childcare facilities at a younger age? How do investments in children change as a result of the 2008 reform?

Marriage markets are another interesting field of study, as are fertility decisions. Other outcomes could be a rise in the incidence of marital dissolution and of marriages. On one hand, low barriers to divorce can result in higher divorce rates. On the other hand, the 2008 reform may even increase the incidence of marriage, by reducing the financial consequences of exiting that marriage. That is, individuals who abstain from entering a marriage in a regime where there are substantial post-marital maintenance claims may be more willing to enter into marriage when they have the “security” of exiting said marriage without dramatic financial consequences. In 2010, about 63% of German men stated that their reason for not marrying is the financial risk associated with marriage breakdown (Wippermann et al. 2014, p. 15). The 2008 reform may thereby clear this hurdle to enter marriage, especially for men. In theory, similar to redistributive income taxation, the 2008 maintenance reform might even have an easing effect on the degree of homogamy in German society (see the theoretical model developed by Konrad and Lommerud 2008). Ignoring the possibility of concluding a marriage contract, a high-income earner might now be less hesitant to marry an individual with low income even though they would be a good match in terms of emotions and their preferences (Konrad and Lommerud 2008, p. iii).

Especially interesting are the reverse incentives of the joint taxation system and of the 2008 alimony reform on married individuals. Joint assessment of married couples for tax purposes encourages intra-household specialization. Since 2008, however, the alimony regulations “punish” individuals specialized in household production. As Wrede (2003) demonstrates in his model, there is a surplus resulting from the income splitting method and labor specialization that is subjected for bargaining. Maintenance laws directly influence intra-household transfers and, thus, utility, even when both spouses start to work fully after a child-rearing time period. Specifically, the higher the husband’s relative net income and the lower the post-marriage alimony payments, the higher the husband’s relative income share (Wrede 2003, pp. 205 et seqq.). Therefore, there are possible effects on intra-marriage consumption resulting from the 2008 alimony reform.

Aside from my findings, I also support the recommendation made by Justice Minister Zypries at that time to women, which I would expand to all second earners, to make their own binding arrangements concerning alimony (RP Online 2008, accessed on 01.09.2016). Such contracts can be adjusted at any given time to reflect changed life situations, for example the arrival of a child. This aspect is particularly important since it appears to be difficult for couples to put a balanced intra-marital allocation of childcare and housework responsibilities into practice during the transition to parenthood (Apps and Rees 2009, p. 11).

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## Appendix

### A. Laws

#### **§1569 of the Civil Code**

§1569 of the Civil Code (old version) *Final Regulation*: A divorced spouse may demand maintenance of the other, if she/he is not in a position to provide her/his own maintenance, under the following provisions.

According to reformed §1569 of the Civil Code (new version) *Principle of personal responsibility*: After divorce, each spouse is responsible for providing his/her own maintenance. If she/he is not in a position to do this, she/he has a claim for maintenance against the other spouse only under the following provisions.

The following provisions in the Civil Code are: §1570 *Maintenance to care for a child*, §1571 *Maintenance by reason of old age*, §1572 *Maintenance for illness or infirmity*, §1573 *Maintenance for unemployment and topping-up maintenance*, §1575 *Training, further training or retraining* and §1576 *Maintenance for reasons of equity*.

#### **§1570 of the Civil Code**

§1570 of the Civil Code (old version) *Maintenance to care for a child*: A divorced spouse may demand maintenance from the other, as long as she/he cannot be expected to work because of the care for or upbringing of a child of the spouses.

§1570 of the Civil Code (new version) *Maintenance to care for a child*:

- (1) A divorced spouse may demand maintenance from the other, for the care for or upbringing of a child of the spouses, or at least three years after the birth. The duration of the claim to maintenance is extended as long as and to the extent that is equitable. Here, the concerns of the child and the existing possibilities of childcare are to be taken into account.
- (2) The duration of the maintenance claim is further extended if, taking into account the arrangement of childcare and gainful employment in the marriage and the duration of the marriage, this is equitable.

#### **§1574 of the Civil Code**

§1574 of the Civil Code (old version) *Appropriate gainful employment*:

- (1) The divorced spouse is expected only to enter gainful employment that is appropriate for her/him.
- (2) Gainful employment is appropriate if it suits the training, the skills, the age and the state of health of the divorced spouse as well as the standard of living in the marriage; in considering the standard of living in the marriage, the duration of marriage and the duration of the care for or upbringing of a child of the spouses are to be taken into account.
- (3) To the extent that it is necessary in order to take up appropriate gainful employment, the divorced spouse is under a duty to undertake training, further training or retraining, if successful completion of the training is to be expected.

§1574 of the Civil Code (new version) *Appropriate gainful employment*:

- (1) The divorced spouse is under a duty to enter gainful employment that is appropriate for her/him.
- (2) Gainful employment is appropriate if it suits the training, the skills, a former employment, the age and the state of health of the divorced spouse, to the extent that such work would not be inequitable with regard to the standard of living in the marriage. In considering the standard of living in the marriage, particular account is to be taken of the duration of the marriage and the duration of the care for or upbringing of a child of the spouses.
- (3) To the extent that it is necessary in order to take up appropriate gainful employment, the divorced spouse is under a duty to undertake training, further training or retraining, if successful completion of the training is to be expected.

#### **§1578b of the Civil Code**

§1578b of the Civil Code (valid until March 1, 2013) *Reduction and time limitation of maintenance on grounds of inequity*:

- (1) The maintenance claim of the divorced spouse is to be reduced to cover the reasonable necessities of life where an assessment of the maintenance claim oriented to the marital standard of living would be inequitable even if the concerns of a child of the spouse entrusted to the person entitled in order to be cared for or brought up were observed. Here, particular account is to be taken of how far, as a result of the marriage, disadvantages have occurred with regard to the possibility of taking care of one's own maintenance. Disadvantages may result above all from the duration of the care or upbringing of a child of the spouses, from the organization of household management and gainful employment during the marriage, as well as the duration of the marriage.
- (2) The maintenance claim of the divorced spouse is to be limited in time where a maintenance claim without time limitation would be inequitable even if the concerns of a child of the spouses entrusted to the person entitled in order to be cared for or brought up were observed. Subsection (1) sentences 2 and 3 applies with the necessary modifications.
- (3) The reduction and time limitation of the maintenance claim may be combined.



### **§1579 of the Civil Code**

§1579 Civil Code (old version) *Restriction or loss of obligation*: A maintenance claim is to be refused, reduced or restricted in time to the extent that it would be grossly inequitable for the person obliged to be claimed on, even if the concerns of a child of the spouses entrusted to the person entitled in order to be cared for or brought up were observed, because

1. the marriage was of short duration; here, account must be taken of the time in which the person entitled may demand maintenance for the care for or upbringing of a child of the spouses under §1570.

See §1609 Civil Code (old version) for a complete list.

§1579 Civil Code (new version) *Restriction or refusal of maintenance for gross inequity*: A maintenance claim is to be refused, reduced or restricted in time to the extent that it would be grossly inequitable for the person obliged to be claimed on, even if the concerns of a child of the spouses entrusted to the person entitled in order to be cared for or brought up were observed, because

1. the marriage was of short duration; here, account must be taken of the time in which the person entitled may demand maintenance for the care or upbringing of a child of the spouses under §1570.

2. (newly created) the person entitled lives in a stable long-term relationship[.]

See §1609 Civil Code (new version) for a complete list.

### **§1603 (1) of the Civil Code**

According to §1603 Civil Code *Ability to pay*: (1) A person who, taking into account his other duties, is unable, without endangering his reasonable maintenance, to pay maintenance has no obligation to maintain.

### **§1609 of the Civil Code**

§1609 Civil Code (old version) *Ranking of several dependents*:

(1) If there is more than one person entitled to maintenance and if the person liable for maintenance is unable to pay maintenance to all, then children in the sense of §1603 (2) come before other children, among children of ascendants the more closely related take precedence over the more distantly related.

(2) The spouse has the same status as children in the sense of §1603 (2); she/he takes precedence over other children and relatives. If the marriage is divorced or declared invalid, then the spouse entitled to maintenance takes precedence over children in the sense of sentence 1 and over other relatives of the liable spouse.

See §1609 Civil Code (old version) for a complete ranking list.

§1609 Civil Code (new version) *Priority of more than one person entitled to maintenance*: If there is more than one person entitled to maintenance and if the person liable for maintenance is unable to pay maintenance to all, the following order of priority applies:

1. minor unmarried children and children in the meaning of §1603 (2) sentence 2,

2. parents who are entitled to maintenance for the care of a child, or would be so entitled in the case of a divorce, and spouses and divorced spouses in the case of a long marriage; if it is determined that the marriage was long, account must also be taken of disadvantages in the meaning of §1578b (1) sentences 2 and 3,

3. spouses and divorced spouses who do not fall under no. 2.

See §1609 Civil Code (new version) for a complete ranking list.

## B. Tables

Table B.1: Television programs

Broadcasting time	Station	Television program
03.18.2007 9:45 p.m.	DAS ERSTE	<b>SABINE CHRISTIANSEN*</b> : Scheidungsrecht: gehört, geschieden, geschröpft?
04.18.2007 8:15 p.m.	WDR	<b>HART ABER FAIR</b> : Das Reizthema: Mama gegen Papa, Geld statt Liebe - wenn die Ehe im Krieg endet
03.29.2007 8:45 a.m.	PHOENIX	<b>SITZUNG DES DEUTSCHEN BUNDESTAGES</b> , Tagesordnung u.a.: Unterhaltsrecht
04.19.2007 10:00 a.m.	WDR	<b>HART ABER FAIR</b> : Das Reizthema: Mama gegen Papa, Geld statt Liebe - wenn die Ehe im Krieg endet
04.21.2007 6:20 a.m.	EINSEXTA	<b>HART ABER FAIR</b> : Das Reizthema: Mama gegen Papa, Geld statt Liebe - wenn die Ehe im Krieg endet
04.21.2007 8:15 p.m.	EINSEXTA	<b>HART ABER FAIR</b> : Das Reizthema: Mama gegen Papa, Geld statt Liebe - wenn die Ehe im Krieg endet
05.23.2007 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : Bundesverfassungsgericht fällt Grundsatzentscheidung zum Unterhalt
05.24.2007 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : Die Unterhaltsrechtsreform muss nachgebessert werden
05.25.2007 8:45 a.m.	PHOENIX	<b>SITZUNG DES DEUTSCHEN BUNDESTAGES</b> , Tagesordnung u.a.: Unterhaltsrecht
10.01.2007 7:25 p.m.	ZDF	<b>WISO</b> : WISO-Tipp: Scheidung - Den Rosenkrieg vermeiden
10.01.2007 10:15 p.m.	ZDFinfo	<b>WISO</b> : WISO-Tipp: Scheidung - Den Rosenkrieg vermeiden
11.04.2007 9:45 p.m.	DAS ERSTE	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.05.2007 3:35 a.m.	DAS ERSTE	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.05.2007 5:50 a.m.	NDR	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.05.2007 9:35 a.m.	MDR	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.05.2007 10:00 a.m.	PHOENIX	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.05.2007 9:02 p.m.	EINSEXTA	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.05.2007 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : Reform des Unterhaltsrechts
11.06.2007 12:00 a.m.	RBB	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.06.2007 3:05 a.m.	EINSEXTA	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.06.2007 7:00 a.m.	EINSEXTA	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.06.2007 8:55 a.m.	HR	<b>ANNE WILL</b> : Vater, Mutter, Geld - die schöne neue Scheidungswelt
11.07.2007 11:30 p.m.	N24	<b>LINKS-RECHTS</b> : Was hält die Vorsitzende der Grünen vom neuen Unterhaltsrecht der Großen Koalition?
11.09.2007 9:05 a.m.	ZDF	<b>VOLLE KANNE</b> : Ach so!: Unterhaltsrecht
11.10.2007 9:05 a.m.	BAYERN 2	<b>ORANGE</b> Samstagmagazin: Alleinerziehende Väter und zahlende Mütter
11.13.2007 5:35 p.m.	BR FERNSEHEN	<b>ABENDSCHAU</b> : Unterhaltsrecht - was ändert sich für geschiedene Ehefrauen und Ehemänner?
11.19.2007 6:00 p.m.	BR FERNSEHEN	<b>ABENDSCHAU</b> : Unterhaltsrecht - was ändert sich für geschiedene Ehefrauen und Ehemänner?
11.19.2007 7:25 p.m.	ZDF	<b>WISO</b> : WISO-Tipp: Scheidung - Den Rosenkrieg vermeiden
11.19.2007 10:15 p.m.	ZDF INFO	<b>WISO</b> : WISO-Tipp: Scheidung - Den Rosenkrieg vermeiden
01.03.2008 9:45 p.m.	DAS ERSTE	<b>PANORAMA</b> : Gut gemeint, schlecht gemacht - neues Unterhaltsrecht schadet Kindern
01.03.2008 11:30 p.m.	EINSEXTA	<b>PANORAMA</b> : Gut gemeint, schlecht gemacht - neues Unterhaltsrecht schadet Kindern
01.09.2008 9:05 a.m.	ZDF	<b>VOLLE KANNE</b> : Top-Thema: Neues Unterhaltsrecht
01.21.2008 7:25 p.m.	ZDF	<b>WISO</b> : WISO-Tipp: Neues Unterhaltsrecht
01.21.2008 10:15 p.m.	ZDF INFO	<b>WISO</b> : WISO-Tipp: Neues Unterhaltsrecht
02.-.2008	ZDF/ARD	<b>ZDF/ARD MORGENMAGAZIN</b> : Das neue Unterhaltsrecht
02.12.2008 10:45 p.m.	DAS ERSTE	<b>MENSCHEN BEI MAISCHBERGER</b> : Der neue Scheidungskrieg: Sind die Frauen die Dummen?
02.13.2008 9:35 a.m.	MDR	<b>MENSCHEN BEI MAISCHBERGER</b> : Der neue Scheidungskrieg: Sind die Frauen die Dummen?
02.13.2008 8:50 a.m.	SWR	<b>ARD-BUFFET</b> : Zuschauer-Fragen zum Thema: "Scheidung und Unterhalt" Expertin: Dr. Ingrid Groß
02.13.2008 12:15 p.m.	DAS ERSTE	<b>ARD-BUFFET</b> : Zuschauer-Fragen zum Thema: "Scheidung und Unterhalt" Expertin: Dr. Ingrid Groß
02.13.2008 4:05 p.m.	RBB	<b>ARD-BUFFET</b> : Zuschauer-Fragen zum Thema: "Scheidung und Unterhalt" Expertin: Dr. Ingrid Groß
02.13.2008 4:45 p.m.	EINSPLUS	<b>ARD-BUFFET</b> : Zuschauer-Fragen zum Thema: "Scheidung und Unterhalt" Expertin: Dr. Ingrid Groß
02.16.2008 11:25 p.m.	3SAT	<b>MENSCHEN BEI MAISCHBERGER</b> : Der neue Scheidungskrieg: Sind die Frauen die Dummen?
03.15.2008 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : Koalition beschließt Änderungen im Unterhaltsrecht
03.-.2008	ZDF	<b>ZDF DREHSCHLEIBE</b> : Das neue Unterhaltsrecht
04.10.2008 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : Grundsatz-Urteil des BVerfG
04.11.2008 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : BGH-Urteil
04.12.2008 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : BGH zur Unterhaltspflicht
05.07.2008 7:30 p.m.	ZDF DOKUKANAL	<b>37 GRAD</b> : "Bankrott durch Scheidung!"
05.07.2008 8:00 p.m.	ZDF DOKUKANAL	<b>37 GRAD PLUS</b> : Doro Wiebe diskutiert mit Experten über die finanzielle Seite der Scheidung und Möglichkeiten, einen erbitterten Rosenkrieg zu vermeiden
07.17.2008 4:29 p.m.	ARD	<b>TAGESSCHAU*</b> Meldung: Hintergrund: Unterhaltsrecht
07.18.2008 9:05 a.m.	ZDF	<b>VOLLE KANNE</b> : Ach so!: Unterhaltsrecht
10.24.2008 8:00 p.m.	ARD	<b>TAGESSCHAU*</b> : Unterhaltsrecht von Alleinerziehenden gestärkt

Notes: \* broadcasting schedules by third programs unknown; Political talk-shows: "Anne Will" is the leading show in 2007 (4.11 m), "Sabine Christiansen" comes second (3.90 m), "Hart aber fair" is ranked third (3.29 m), "Menschen bei Maischberger" is in fifth place (1.47 m). Public information broadcasts: Panorama (3.24 m in 2007), WISO (2.75 m), 37 Grad (2.29 m). Television news: Tagesschau im Ersten (5.34 m in 2007), Tagesschau including 5 third programs, 3sat and Phoenix (8.96 m). Source: Zubayr and Gerhard 2008, pp. 113 et seqq., <http://www.fernsehserien.de/>, <http://www.presseportal.de>, <https://www.tagesschau.de>, search term: Unterhalt; own compilation

Table B.2: Institutional environment before and after the 2008 alimony reform

Before 2008	After 2008
<b>Legal doctrine</b>	
Long-lasting post-marital solidarity and the notion of a “marriage-created need”	Minimum post-marital solidarity
<b>Restriction</b>	
Restriction of (1)-(4) of §1573 Civil Code (Maintenance for unemployment and topping-up maintenance) is possible	Reduction and/or time limitation of maintenance, covering <i>any</i> ground for alimony claims (§1578b Civil Code)
<b>Work requirements</b>	
The divorced spouse was <i>only</i> expected to enter gainful employment that was appropriate for her/him	The divorced spouse is <i>under an obligation</i> to enter gainful employment that is appropriate for her/him
<b>Definition of an appropriate gainful employment</b>	
	New criterion: a former employment
<b>Maintenance to care for a child</b>	
No obligation to secure income due to being the primary carer of a ... 0-8 years old child; part-time employment: 8/9-11 years old child; full-time: 12-16 years old child; Two children: no obligation to secure income until the youngest child is 14 years old; part-time employment: 15-16 years old child; full-time: youngest child is 18 years old (Schulz and Hauß 2008, p. 473)	0-3 years old child; exceptions if the best interests of the child so require
<b>Ranking of several dependent entitled to maintenance</b>	
The spouse had the same priority as minor children	Divorced and subsequent spouses are now of lower priority

Source: own compilation

Table B.3: Extract from Düsseldorf Table (retrieved 01.01.2002)

	Net income of liable person	Age groups (in years)				Percentage
		0 – 5	6 – 11	12 – 17	≥ 18	
1.	< 1,300	188	228	269	311	100
2.	1,300 – 1,500	202	244	288	333	107
3.	1,500 – 1,700	215	260	307	355	114
4.	1,700 – 1,900	228	276	326	377	121
5.	1,900 – 2,100	241	292	345	399	128
6.	2,100 – 2,300	254	308	364	420	135
7.	2,300 – 2,500	267	324	382	442	142
8.	2,500 – 2,800	282	342	404	467	150
9.	2,800 – 3,200	301	365	431	498	160
10.	3,200 – 3,600	320	388	458	529	170
11.	3,600 – 4,000	339	411	485	560	180
12.	4,000 – 4,400	358	434	512	591	190
13.	4,400 – 4,800	376	456	538	622	200
	≥ 4,800	according to the circumstances of the case				

Notes: Two children entitled to maintenance and a former spouse. Child benefit is not taken into account. All values of net income are given in €. Source: Higher Regional Court Düsseldorf 2002, p. 6

Table B.4: Minimum standards (or standard rates) of Düsseldorf Table

Time period	Age groups (in years)			
	0-5	6-11	12-17	≥ 18
01.01.2001 – 07.01.2001	355	431	510	589
07.01.2001 – 01.01.2002	366	444	525	606
01.01.2002 – 07.01.2003	188	228	269	311
07.01.2003 – 07.01.2005	199	241	284	327
07.01.2005 – 07.01.2007	204	247	291	335
07.01.2007 – 01.01.2008	202	245	288	389

Notes: Two children entitled to maintenance and a former spouse. Child benefit is not taken into account. All given values are in €, except for 2001. Source: Higher Regional Court Düsseldorf 1999a, Higher Regional Court Düsseldorf 2002, p. 6, Higher Regional Court Düsseldorf 2003a, p. 1, Higher Regional Court Düsseldorf 2005a, Higher Regional Court Düsseldorf 2007a

Table B.5: Descriptive statistics for the treatment and control groups before and after 2008

	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Control group</i>				
Working hours	4.739	2.599	4.669	2.609
Participation (dummy)	0.855	0.353	0.862	0.345
Education in hrs	0.117	0.394	0.085	0.348
Education (dummy)	0.135	0.342	0.109	0.311
Housework in hrs	2.433	1.230	2.230	1.149
Childcare in hrs	2.181	3.287	1.592	2.876
Caregiving in hrs	0.075	0.560	0.063	0.329
Running errands in hrs	1.013	0.481	0.996	0.491
Hobbies in hrs	2.126	1.490	2.140	1.404
Year	2004.294	2.200	2010.331	1.430
Age	41.860	7.875	47.698	7.783
No. of children, age 0 – 1	0.035	0.184	0.023	0.170
No. of children, age 2 – 4	0.138	0.379	0.053	0.237
No. of children, age 5 – 7	0.150	0.376	0.085	0.300
No. of children, age 8 – 10	0.164	0.411	0.138	0.378
No. of children, age 11 – 12	0.119	0.329	0.100	0.310
No. of children, age 13 – 15	0.208	0.459	0.170	0.421
No. of children, age 16 – 18	0.171	0.413	0.191	0.456
N		572		341
Wives		197		197
<i>Low-intensity treatment group</i>				
Working hours	2.929	2.240	3.488	2.199
Participation (dummy)	0.743	0.438	0.849	0.359
Education in hrs	0.075	0.372	0.032	0.154
Education (dummy)	0.072	0.259	0.047	0.213
Housework in hrs	2.909	1.254	2.627	1.150
Childcare in hrs	3.579	3.938	2.147	3.231
Caregiving in hrs	0.065	0.390	0.109	0.491
Running errands in hrs	1.090	0.484	1.042	0.488
Hobbies in hrs	2.105	1.646	2.106	1.526
Year	2004.263	2.236	2010.264	1.382
Age	41.030	7.499	46.763	7.364
No. of children, age 0 – 1	0.035	0.184	0.021	0.143
No. of children, age 2 – 4	0.143	0.385	0.050	0.245
No. of children, age 5 – 7	0.196	0.429	0.101	0.311
No. of children, age 8 – 10	0.270	0.503	0.166	0.418
No. of children, age 11 – 12	0.183	0.415	0.142	0.375
No. of children, age 13 – 15	0.278	0.514	0.214	0.432
No. of children, age 16 – 18	0.230	0.479	0.329	0.530
N		540		337
Wives		199		199

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	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Medium-intensity treatment group</i>				
Working hours	2.504	2.390	2.732	2.278
Participation (dummy)	0.642	0.480	0.706	0.456
Education in hrs	0.056	0.274	0.084	0.300
Education (dummy)	0.079	0.270	0.100	0.300
Housework in hrs	3.017	1.347	2.789	1.241
Childcare in hrs	3.495	3.979	2.130	3.246
Caregiving in hrs	0.054	0.262	0.150	0.548
Running errands in hrs	1.091	0.516	1.071	0.514
Hobbies in hrs	2.070	1.620	2.065	1.625
Year	2004.210	2.202	2010.241	1.331
Age	42.222	7.222	47.871	6.988
No. of children, age 0 – 1	0.053	0.241	0.015	0.121
No. of children, age 2 – 4	0.158	0.403	0.041	0.199
No. of children, age 5 – 7	0.222	0.478	0.106	0.344
No. of children, age 8 – 10	0.232	0.464	0.156	0.394
No. of children, age 11 – 12	0.145	0.358	0.147	0.379
No. of children, age 13 – 15	0.208	0.445	0.268	0.511
No. of children, age 16 – 18	0.195	0.445	0.206	0.453
N		544		340
Wives		198		198
<i>High-intensity treatment group</i>				
Working hours	2.207	2.619	2.365	2.461
Participation (dummy)	0.517	0.500	0.589	0.493
Education in hrs	0.108	0.363	0.117	0.533
Education (dummy)	0.128	0.334	0.127	0.333
Housework in hrs	3.127	1.486	3.007	1.410
Childcare in hrs	2.816	3.632	1.643	2.791
Caregiving in hrs	0.146	0.588	0.180	0.580
Running errands in hrs	1.174	0.561	1.139	0.548
Hobbies in hrs	2.299	1.724	2.284	1.756
Year	2004.411	2.195	2010.245	1.383
Age	45.375	7.072	50.943	6.619
No. of children, age 0 – 1	0.039	0.204	0.006	0.078
No. of children, age 2 – 4	0.134	0.363	0.042	0.243
No. of children, age 5 – 7	0.143	0.373	0.094	0.302
No. of children, age 8 – 10	0.171	0.426	0.109	0.312
No. of children, age 11 – 12	0.134	0.357	0.097	0.296
No. of children, age 13 – 15	0.202	0.453	0.169	0.414
No. of children, age 16 – 18	0.196	0.431	0.227	0.486
N		509		331
Wives		198		198

Notes: Included time frame: 2001-2013; 792 wives, 3,514 observations; Data: SOEPlong v30

Table B.6: Balancing tests at pre-treatment (2007) for the treatment and control groups

Variable	Mean				Difference between Control and ...		
	Control	Treat <sub>low</sub>	Treat <sub>med</sub>	Treat <sub>high</sub>	Treat <sub>low</sub>	Treat <sub>med</sub>	Treat <sub>high</sub>
Age	43.638	43.420	44.803	48.511	0.217	-1.165	-4.873***
Migration background (1st generation)	0.123	0.116	0.110	0.036	0.007	0.013	0.087***
Husbands' age	45.652	45.855	47.039	50.691	-0.203	-1.387	-5.038***
Husbands' migration background	0.116	0.094	0.071	0.022	0.022	0.045	0.094***
Share of wives of equal/older age	0.326	0.304	0.260	0.266	0.022	0.066	0.060
Both spouses with migration background	0.109	0.087	0.071	0.007	0.022	0.038	0.102***
Marriage duration (exact and estimated)	17.872	18.282	18.089	22.162	-0.410	-0.217	-4.290***
Education (CASMIN)	5.167	4.613	5.134	5.681	0.554**	0.033	-0.514*
Husbands' education (CASMIN)	4.819	4.256	5.516	7.087	0.563**	-0.697**	-2.268***
Share of wives equal or higher educated than their husbands	0.797	0.745	0.683	0.478	0.053	0.115**	0.319***
No. of children, age 0 – 1	0.029	0.022	0.008	0.014	0.007	0.021	0.015
No. of children, age 2 – 4	0.109	0.123	0.110	0.094	-0.014	-0.002	0.015
No. of children, age 5 – 7	0.130	0.138	0.142	0.129	-0.007	-0.011	0.001
No. of children, age 8 – 10	0.188	0.246	0.252	0.094	-0.058	-0.064	0.095**
No. of children, age 11 – 12	0.138	0.130	0.213	0.1001	0.007	-0.075	0.037
No. of children, age 13 – 15	0.225	0.362	0.213	0.194	-0.138**	0.012	0.030
No. of children, age 16 – 18	0.181	0.304	0.244	0.144	-0.123**	-0.063	0.037
No. of pre-school children	0.217	0.239	0.205	0.187	-0.022	0.013	0.030
No. of children, age 0 – 18	0.957	1.225	1.102	0.727	-0.268**	-0.146	0.230*
No. of children, age 0 – 20	1.116	1.413	1.268	0.842	-0.297**	-0.152	0.274**
Experience: full-time employment (in yrs)	12.207	7.582	8.331	8.278	4.625***	3.876***	3.929***
Experience: part-time employment (in yrs)	5.857	8.182	7.539	7.622	-2.325***	-1.682**	-1.764**
Experience: full-time and part-time (in yrs)	18.064	15.764	15.870	15.899	2.300**	2.194**	2.164**
Husbands' experience: full-time employment (in yrs)	22.759	24.535	24.742	26.247	-1.776*	-1.983*	-3.489***
Husbands' experience: part-time employment (in yrs)	0.416	0.229	0.326	0.424	0.187	0.090	-0.009
Husbands' experience: full- and part-time employment (in yrs)	23.175	24.764	25.068	26.672	-1.589*	-1.893*	-3.497***
Share of wives having more or equal experience in full-time employment than their husbands	0.159	0.022	0.024	0.043	0.138***	0.136***	0.116***

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Variable	Mean				Difference between Control and ...		
	Control	Treat <sub>low</sub>	Treat <sub>med</sub>	Treat <sub>high</sub>	Treat <sub>low</sub>	Treat <sub>med</sub>	Treat <sub>high</sub>
Allowable income (in €)	1,126.66	529.82	511.47	422.98	596.83***	615.19***	703.68***
Employed (0 = no; 1 = yes)	0.893	0.793	0.733	0.525	0.101**	0.160***	0.368***
Husbands' allowable income (in €)	1,937.66	2,068.60	2,653.52	4,137.08	-130.95*	-715.86***	-2,199.42***
Husbands employed (0 = no; 1 = yes)	0.978	1.000	1.000	0.993	-0.022*	-0.022*	-0.015
Household labor income (in €)	3,274.23	2,855.89	3,455.43	4,851.53	418.34***	-181.20	-1,577.30***
7-day week (per day):							
Working hours	4.863	2.976	2.603	2.068	1.887***	2.260***	2.796***
Education in hrs	0.104	0.053	0.030	0.108	0.051	0.073**	-0.004
Housework in hrs	2.351	2.790	2.827	3.043	-0.439***	-0.476***	-0.692***
Childcare in hrs	2.054	3.003	3.057	2.088	-0.949**	-1.004**	-0.035
Caregiving in hrs	0.021	0.080	0.096	0.172	-0.059	-0.075**	-0.151***
Running errands in hrs	0.999	1.109	1.040	1.166	-0.110**	-0.042	-0.168***
Hobbies in hrs	2.258	2.117	2.106	2.408	0.141	0.152	-0.150
Husbands: working hours	7.025	7.224	7.214	7.561	-0.199	-0.189	0.536***
Husbands: education in hrs	0.103	0.061	0.058	0.212	0.042	0.045	-0.109**
Husbands: housework in hrs	0.800	0.502	0.558	0.469	0.298***	0.242***	0.332***
Husbands: childcare in hrs	0.924	1.063	0.883	0.684	-0.138	0.041	0.241
Husbands: caregiving in hrs	0.009	0.025	0.049	0.020	-0.015	-0.039*	-0.011
Husbands: running errands in hrs	0.610	0.585	0.501	0.506	0.025	0.109*	0.104*
Husbands: hobbies in hrs	2.089	2.090	1.970	2.198	-0.001	0.119	-0.109
Share of wives spent equal/less hrs on housework than their husbands	0.081	0.023	0.025	0.030	0.058**	0.056**	0.051*
Share of wives spent equal/less hrs on childcare than their husbands	0.654	0.508	0.450	0.585	0.147**	0.204***	0.069

Notes: Balancing tests at  $Post = 0$  (pre-treatment year 2007). 542 West German wives are included, except for household labor income (535), employment (525), allowable income (without deductions; 525), education (540), husband's employment (528), husbands' education (539), husbands' allowable income (528), and husbands' time spending in hours (523 wives). The CASMIN educational classification distinguishes between inadequately completed education (1), general and vocational certification at the compulsory level (2, 3), intermediate level of education (4, 5), general and vocational certification at the maturity level (6, 7), and tertiary education (8, 9).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.7: Balancing tests at pre-treatment (2005/2007) for the treatment and control groups

Variable	Control	<i>Treat<sub>low</sub></i>	Mean		Difference between Control and ...		
			<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>	<i>Treat<sub>low</sub></i>	<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>
Age	43.246	42.669	43.993	47.059	0.577	-0.747	-3.813***
Migration background (first generation)	0.137	0.106	0.099	0.049	0.031	0.038	0.088***
Husbands' age	45.190	44.980	46.225	49.401	0.211	-1.035*	-4.211***
Husbands' migration background	0.131	0.089	0.061	0.021	0.042*	0.069***	0.110***
Age difference (0 = wife is younger; 1 = equal/older)	0.321	0.317	0.270	0.265	0.003	0.051	0.056
Both with migration background	0.118	0.082	0.058	0.007	0.036	0.060***	0.111***
Marriage duration (exact and estimated)	17.022	16.990	16.693	20.275	0.032	0.329	-3.253***
Education (CASMIN)	5.100	4.627	5.034	5.719	0.473***	0.066	-0.620***
Husbands' education (CASMIN)	4.878	4.302	5.397	7.084	0.576***	-0.518***	-2.206***
Educational qualifications (0 = wife is less educated; 1 = wife equal or higher educated than husband)	0.781	0.742	0.676	0.477	0.039	0.105***	0.304***
No. of children, age 0 – 1	0.025	0.038	0.027	0.028	-0.013	-0.002	-0.003
No. of children, age 2 – 4	0.125	0.123	0.126	0.101	0.002	-0.002	0.024
No. of children, age 5 – 7	0.134	0.160	0.167	0.125	-0.026	-0.033	0.009
No. of children, age 8 – 10	0.171	0.208	0.249	0.136	-0.037	-0.078**	0.035
No. of children, age 11 – 12	0.115	0.181	0.160	0.129	-0.066**	-0.045	-0.014
No. of children, age 13 – 15	0.184	0.348	0.215	0.206	-0.164***	-0.031	-0.022
No. of children, age 16 – 18	0.178	0.270	0.201	0.164	-0.092**	-0.024	0.014
No. of pre-school children	0.243	0.253	0.246	0.213	-0.010	-0.003	0.030
No. of children, age 0 – 18	0.891	1.239	1.085	0.847	-0.345***	-0.194**	0.044
No. of children, age 0 – 20	1.019	1.399	1.229	0.990	-0.381***	-0.210**	0.029
Experience: full-time employment (in yrs)	12.256	7.785	8.434	8.215	4.471***	3.821***	4.040***
Experience: part-time employment (in yrs)	5.445	7.747	6.918	6.857	-2.303***	-1.474***	-1.413**
Experience: full-time and part-time (in yrs)	17.700	15.532	15.352	15.072	2.168***	2.348***	2.627***
Husbands' experience: full-time employment (in yrs)	22.486	23.730	23.980	24.981	-1.244*	-1.494**	-2.495***
Husbands' experience: part-time employment (in yrs)	0.329	0.232	0.431	0.437	0.097	-0.102	-0.108
Husbands' experience: full- and part-time employment (in yrs)	22.815	23.962	24.411	25.418	-1.147*	-1.596**	-2.603***
Experience in full-time employment (0 = husband has more yrs of experience; 1 = otherwise)	0.171	0.024	0.034	0.056	0.147***	0.137***	0.116***

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Variable	Control	<i>Treat<sub>low</sub></i>	Mean		Difference between Control and ...		
			<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>	<i>Treat<sub>low</sub></i>	<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>
Allowable income (in €)	1,130.34	544.66	462.46	420.76	585.67***	667.88***	709.58***
Employed (0 = no; 1 = yes)	0.889	0.771	0.686	0.521	0.118***	0.202***	0.367***
Husbands' allowable income (in €)	1,935.63	2,068.05	2,504.34	4,087.37	-132.42***	-568.71***	-2,151.73***
Husbands employed (0 = no; 1 = yes)	0.971	0.993	0.996	0.996	-0.022**	-0.025**	-0.025**
Household labor income (in €)	3,266.04	2,894.16	3,261.66	4,802.51	371.88***	4.38	-1,536.47***
7-day week (per day):							
Working hours	4.884	3.023	2.530	2.161	1.860***	2.353***	2.723***
Education in hrs	0.114	0.059	0.057	0.114	0.055**	0.058**	0.000
Housework in hrs	2.378	2.778	3.005	3.042	-0.399***	-0.627***	-0.664***
Childcare in hrs	1.977	3.170	3.244	2.432	-1.193***	-1.266***	-0.455*
Caregiving in hrs	0.109	0.080	0.068	0.156	0.029	0.041	-0.047
Running errands in hrs	0.991	1.112	1.061	1.188	-0.121***	-0.070*	-0.197***
Hobbies in hrs	2.182	2.099	2.084	2.322	0.083	0.098	-0.140
Husbands: working hours	6.933	7.146	7.163	7.566	-0.213	-0.229*	-0.633***
Husbands: education in hrs	0.112	0.078	0.082	0.204	0.034	0.030	-0.092***
Husbands: housework in hrs	0.764	0.534	0.542	0.475	0.230***	0.222***	0.289***
Husbands: childcare in hrs	0.837	1.185	0.930	0.795	-0.348***	-0.093	0.041
Husbands: caregiving in hrs	0.010	0.022	0.042	0.015	-0.012	-0.032***	-0.005
Husbands: running errands in hrs	0.666	0.591	0.526	0.491	0.075*	0.140***	0.175***
Husbands: hobbies in hrs	2.041	2.097	1.960	2.124	-0.056	0.081	-0.083
Housework (0 = wife spent more hrs; 1 = otherwise)	0.081	0.025	0.022	0.029	0.055***	0.059***	0.052***
Childcare (0 = wife spent more hrs; 1 = otherwise)	0.648	0.471	0.451	0.525	0.177***	0.197***	0.123***

Notes: Balancing tests at *Post* = 0 (pre-treatment 2005/07); West German wives. 1,194 person-year observations are included, except for household income (1,173 obs), employment (1,148 obs); allowable income (without deductions; 1,148 obs), education (obs = 1,191 obs), husbands' employment (1,157 obs), husbands' education (1,186 obs), husbands' allowable income (1,157 obs), husbands' time spending in hours (1,141 obs). The CASMIN educational classification distinguishes between inadequately completed education (1), general and vocational certification at the compulsory level (2, 3), intermediate level of education (4, 5), general and vocational certification at the maturity level (6, 7), and tertiary education (8, 9).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.8: Descriptive statistics for the treatment and control groups of husbands before and after 2008

	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Control group</i>				
Working hours	6.870	1.870	6.362	2.270
Participation (dummy)	0.963	0.189	0.919	0.273
Education in hrs	0.143	0.439	0.133	0.464
Education (dummy)	0.170	0.376	0.165	0.372
Housework in hrs	0.748	0.717	0.811	0.703
Childcare in hrs	0.917	1.363	0.681	1.248
Caregiving in hrs	0.008	0.070	0.020	0.147
Running errands in hrs	0.143	0.439	0.663	0.493
Hobbies in hrs	2.087	1.539	2.159	1.450
Year	2004.234	2.221	2010.316	1.437
Age	43.553	7.776	49.586	7.806
No. of children, age 0-1	0.034	0.180	0.020	0.160
No. of children, age 2-4	0.146	0.394	0.052	0.235
No. of children, age 5-7	0.151	0.390	0.087	0.302
No. of children, age 8-10	0.180	0.426	0.142	0.389
No. of children, age 11-12	0.124	0.340	0.104	0.316
No. of children, age 13-15	0.218	0.471	0.162	0.407
No. of children, age 16-18	0.178	0.417	0.186	0.445
N		595		345
Husbands		199		199
<i>Low-intensity treatment group</i>				
Working hours	7.122	1.466	6.868	1.886
Participation (dummy)	0.988	0.110	0.958	0.200
Education in hrs	0.115	0.521	0.082	0.295
Education (dummy)	0.139	0.346	0.122	0.328
Housework in hrs	0.507	0.569	0.630	0.657
Childcare in hrs	1.336	1.661	0.841	1.304
Caregiving in hrs	0.026	0.185	0.041	0.227
Running errands in hrs	0.587	0.485	0.604	0.522
Hobbies in hrs	2.031	1.523	2.122	1.622
Year	2004.228	2.225	2010.218	1.357
Age	42.934	7.182	48.803	6.995
No. of children, age 0-1	0.040	0.196	0.021	0.143
No. of children, age 2-4	0.158	0.402	0.048	0.240
No. of children, age 5-7	0.214	0.451	0.099	0.308
No. of children, age 8-10	0.289	0.515	0.167	0.412
No. of children, age 11-12	0.186	0.420	0.152	0.384
No. of children, age 13-15	0.266	0.498	0.227	0.447
No. of children, age 16-18	0.214	0.455	0.322	0.522
N		575		335
Husbands		200		200

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	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Medium-intensity treatment group</i>				
Working hours	7.155	1.201	6.902	1.747
Participation (dummy)	0.996	0.059	0.965	0.184
Education in hrs	0.138	0.387	0.077	0.271
Education (dummy)	0.198	0.399	0.117	0.321
Housework in hrs	0.562	0.581	0.634	0.671
Childcare in hrs	1.129	1.389	0.829	1.344
Caregiving in hrs	0.027	0.174	0.069	0.305
Running errands in hrs	0.554	0.489	0.574	0.479
Hobbies in hrs	1.945	1.380	1.809	1.396
Year	2004.214	2.226	2010.213	1.324
Age	44.365	7.196	50.233	7.049
No. of children, age 0-1	0.050	0.225	0.017	0.131
No. of children, age 2-4	0.165	0.412	0.041	0.198
No. of children, age 5-7	0.255	0.504	0.111	0.341
No. of children, age 8-10	0.248	0.479	0.157	0.388
No. of children, age 11-12	0.159	0.371	0.146	0.370
No. of children, age 13-15	0.221	0.460	0.271	0.501
No. of children, age 16-18	0.196	0.448	0.207	0.460
N		565		343
Husbands		197		197
<i>High-intensity treatment group</i>				
Working hours	7.532	1.243	7.192	1.989
Participation (dummy)	0.996	0.061	0.951	0.216
Education in hrs	0.250	0.487	0.138	0.365
Education (dummy)	0.330	0.471	0.196	0.397
Housework in hrs	0.483	0.536	0.529	0.549
Childcare in hrs	0.930	1.282	0.682	1.220
Caregiving in hrs	0.019	0.139	0.028	0.153
Running errands in hrs	0.499	0.431	0.481	0.415
Hobbies in hrs	2.044	1.543	2.107	1.605
Year	2004.369	2.179	2010.205	1.367
Age	47.503	7.446	53.070	6.883
No. of children, age 0-1	0.039	0.202	0.006	0.078
No. of children, age 2-4	0.139	0.367	0.055	0.277
No. of children, age 5-7	0.150	0.387	0.095	0.304
No. of children, age 8-10	0.180	0.438	0.113	0.317
No. of children, age 11-12	0.139	0.362	0.104	0.316
No. of children, age 13-15	0.202	0.445	0.177	0.428
No. of children, age 16-18	0.209	0.446	0.217	0.475
N		545		327
Husbands		198		198

Notes: Included time frame: 2001-2013; 794 husbands, 3,630 observations. Quartiles from wives' alimony distribution are used to classify husbands into different groups (see Figure 1 on page 15).

Data: SOEPlong v30

Table B.9: Descriptive statistics for the treatment and control groups of husbands before and after 2008

	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Control group</i>				
Working hours	6.866	1.869	6.351	2.264
Participation (dummy)	0.963	0.189	0.919	0.274
Education in hrs	0.143	0.439	0.133	0.465
Education (dummy)	0.170	0.376	0.166	0.372
Housework in hrs	0.749	0.717	0.813	0.703
Childcare in hrs	0.915	1.363	0.674	1.244
Caregiving in hrs	0.008	0.070	0.020	0.147
Running errands in hrs	0.663	0.504	0.665	0.493
Hobbies in hrs	2.091	1.538	2.158	1.452
Year	2004.232	2.223	2010.320	1.438
Age	43.542	7.778	49.573	7.814
No. of children, age 0-1	0.034	0.181	0.020	0.161
No. of children, age 2-4	0.146	0.394	0.052	0.236
No. of children, age 5-7	0.152	0.390	0.087	0.302
No. of children, age 8-10	0.178	0.425	0.142	0.389
No. of children, age 11-12	0.123	0.339	0.105	0.316
No. of children, age 13-15	0.217	0.470	0.160	0.405
No. of children, age 16-18	0.178	0.417	0.180	0.435
N		594		344
Husbands		198		198
<i>Low-intensity treatment group</i>				
Working hours	7.119	1.472	6.867	1.899
Participation (dummy)	0.988	0.110	0.958	0.201
Education in hrs	0.116	0.524	0.083	0.296
Education (dummy)	0.141	0.348	0.123	0.330
Housework in hrs	0.509	0.571	0.632	0.659
Childcare in hrs	1.339	1.665	0.843	1.308
Caregiving in hrs	0.027	0.186	0.041	0.228
Running errands in hrs	0.587	0.485	0.608	0.523
Hobbies in hrs	2.022	1.528	2.115	1.625
Year	2004.227	2.225	2010.217	1.360
Age	43.018	7.117	48.876	6.941
No. of children, age 0-1	0.039	0.193	0.021	0.144
No. of children, age 2-4	0.156	0.400	0.045	0.235
No. of children, age 5-7	0.213	0.450	0.096	0.306
No. of children, age 8-10	0.292	0.517	0.169	0.413
No. of children, age 11-12	0.190	0.423	0.151	0.383
No. of children, age 13-15	0.269	0.500	0.229	0.449
No. of children, age 16-18	0.214	0.455	0.331	0.532
N		569		332
Husbands		199		199

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	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Medium-intensity treatment group</i>				
Working hours	7.167	1.203	6.923	1.748
Participation (dummy)	0.996	0.059	0.965	0.184
Education in hrs	0.134	0.385	0.077	0.271
Education (dummy)	0.191	0.394	0.117	0.321
Housework in hrs	0.562	0.581	0.635	0.671
Childcare in hrs	1.125	1.392	0.831	1.345
Caregiving in hrs	0.027	0.174	0.069	0.305
Running errands in hrs	0.554	0.490	0.571	0.480
Hobbies in hrs	1.959	1.383	1.810	1.399
Year	2004.221	2.222	2010.213	1.324
Age	44.322	7.280	50.210	7.112
No. of children, age 0-1	0.051	0.229	0.017	0.131
No. of children, age 2-4	0.165	0.412	0.044	0.205
No. of children, age 5-7	0.255	0.504	0.114	0.344
No. of children, age 8-10	0.242	0.476	0.152	0.383
No. of children, age 11-12	0.158	0.369	0.146	0.370
No. of children, age 13-15	0.221	0.460	0.271	0.501
No. of children, age 16-18	0.198	0.449	0.201	0.456
N		565		343
Husbands		197		197
<i>High-intensity treatment group</i>				
Working hours	7.523	1.241	7.178	1.982
Participation (dummy)	0.996	0.060	0.952	0.215
Education in hrs	0.250	0.486	0.137	0.363
Education (dummy)	0.333	0.472	0.193	0.396
Housework in hrs	0.481	0.534	0.526	0.548
Childcare in hrs	0.937	1.279	0.685	1.218
Caregiving in hrs	0.019	0.138	0.028	0.153
Running errands in hrs	0.499	0.430	0.480	0.414
Hobbies in hrs	2.035	1.537	2.114	1.597
Year	2004.362	2.182	2010.202	1.363
Age	47.415	7.466	52.985	6.907
No. of children, age 0-1	0.038	0.201	0.006	0.078
No. of children, age 2-4	0.141	0.369	0.054	0.275
No. of children, age 5-7	0.152	0.389	0.094	0.302
No. of children, age 8-10	0.185	0.441	0.118	0.323
No. of children, age 11-12	0.139	0.362	0.106	0.318
No. of children, age 13-15	0.201	0.444	0.178	0.428
No. of children, age 16-18	0.207	0.444	0.221	0.476
N		552		331
Husbands		200		200

Notes: Included time frame: 2001-2013; 794 husbands, 3,630 observations. Quartiles from husbands' alimony distribution are used to classify husbands into different groups.

Data: SOEPlong v30

Table B.10: Fixed effects models, wives' working hours per day

Sample restriction	Dependent variable: wives' working hours																			
	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
<b>Panel A</b>																				
<i>Post-Treat<sub>low</sub></i>	0.389* (0.230)	<b>0.479**</b> (0.186)	<b>0.478***</b> (0.170)	<b>0.428**</b> (0.172)	0.321 (0.214)	<b>0.357**</b> (0.176)	<b>0.330**</b> (0.161)	<b>0.320**</b> (0.160)	0.331 (0.216)	<b>0.381**</b> (0.179)	<b>0.378**</b> (0.165)	<b>0.358**</b> (0.166)	0.419* (0.235)	<b>0.386**</b> (0.178)	<b>0.323**</b> (0.159)	<b>0.325**</b> (0.160)	0.413* (0.240)	<b>0.418**</b> (0.180)	<b>0.371**</b> (0.163)	<b>0.378**</b> (0.165)
<i>Post-Treat<sub>med</sub></i>	0.228 (0.238)	0.335* (0.192)	0.337* (0.184)	0.225 (0.184)	0.238 (0.219)	0.246 (0.177)	0.179 (0.169)	0.047 (0.166)	0.234 (0.231)	0.286 (0.186)	0.233 (0.171)	0.084 (0.170)	0.334 (0.237)	0.294* (0.176)	0.190 (0.166)	0.068 (0.166)	0.315 (0.252)	0.353* (0.187)	0.246 (0.169)	0.117 (0.170)
<i>Post-Treat<sub>high</sub></i>	0.247 (0.223)	0.276 (0.188)	0.141 (0.182)	-0.028 (0.193)	0.244 (0.207)	0.187 (0.175)	0.004 (0.170)	-0.151 (0.170)	0.289 (0.212)	0.214 (0.177)	0.044 (0.172)	-0.122 (0.173)	0.370 (0.237)	0.267 (0.176)	0.059 (0.168)	-0.080 (0.169)	0.393 (0.246)	0.312* (0.179)	0.092 (0.171)	-0.045 (0.171)
Minors in the hh	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Husband's income	no	no	no	no	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
<b>Panel B</b>																				
<i>Post-Treat<sub>low</sub></i>	0.336 (0.227)	<b>0.448**</b> (0.185)	<b>0.447***</b> (0.170)	<b>0.401**</b> (0.171)	0.288 (0.210)	0.345* (0.175)	<b>0.333**</b> (0.161)	<b>0.323**</b> (0.161)	0.294 (0.213)	<b>0.373**</b> (0.179)	<b>0.380**</b> (0.165)	<b>0.361**</b> (0.166)	0.391* (0.230)	<b>0.373**</b> (0.177)	<b>0.325**</b> (0.160)	<b>0.328**</b> (0.160)	0.380 (0.234)	<b>0.408**</b> (0.181)	<b>0.371**</b> (0.164)	<b>0.377**</b> (0.166)
<i>Post-Treat<sub>med</sub></i>	0.199 (0.234)	0.295 (0.190)	0.292 (0.182)	0.177 (0.184)	0.210 (0.219)	0.232 (0.177)	0.181 (0.167)	0.053 (0.166)	0.202 (0.231)	0.268 (0.186)	0.228 (0.170)	0.085 (0.170)	0.334 (0.238)	0.282 (0.178)	0.193 (0.166)	0.076 (0.165)	0.282 (0.252)	0.336* (0.188)	0.239 (0.170)	0.116 (0.171)
<i>Post-Treat<sub>high</sub></i>	0.244 (0.226)	0.239 (0.189)	0.109 (0.184)	-0.051 (0.186)	0.231 (0.212)	0.168 (0.177)	0.005 (0.171)	-0.145 (0.172)	0.281 (0.215)	0.195 (0.179)	0.042 (0.174)	-0.117 (0.174)	0.351 (0.241)	0.248 (0.179)	0.059 (0.171)	-0.070 (0.171)	0.378 (0.247)	0.292 (0.182)	0.088 (0.173)	-0.040 (0.173)
Age groups	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Minors in the hh	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Husband's income	no	no	no	no	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Obs	1,084	2,326	3,057	3,514	1,084	2,326	3,057	3,514	1,028	2,219	2,896	3,308	1,084	2,326	3,057	3,514	1,028	2,219	2,896	3,308
Obs in <i>Control</i>	276	609	796	913	276	609	796	913	270	588	759	870	276	609	796	913	270	588	759	870
Obs in <i>Treat<sub>low</sub></i>	276	577	754	877	276	577	754	877	258	556	717	828	276	577	754	877	258	556	717	828
Obs in <i>Treat<sub>med</sub></i>	254	574	762	884	254	574	762	884	234	526	703	809	254	574	762	884	234	526	703	809
Obs in <i>Treat<sub>high</sub></i>	278	566	745	840	278	566	745	840	266	549	717	801	278	566	762	840	266	549	717	801
Wives	542	733	779	792	542	733	779	792	514	706	753	765	542	733	779	792	514	706	753	765
Av. obs. per wife	2.0	3.2	3.9	4.4	2.0	3.2	3.9	4.4	2.0	3.1	3.8	4.3	2.0	3.2	3.9	4.4	2.0	3.1	3.8	4.3

Notes: Dependent variable covers work and apprenticeship (including travel time to and from work), 7-day week; Control variables in all models: year fixed effects and age as a second order polynomial. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. The number of minor children in different age groups (0-1, ..., 16-18 years old) who live in the same household is another control. Husband's income is a net value, allowable income without deductions. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) and 2009/09/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Robust standard errors in parentheses, clustered at individual level; Data: SOEPlong v30

Table B.11: Fixed effects models for placebo treatment

Sample restriction	Dependent variable: wives' working hours per day			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	-0.104 (0.212)	-0.176 (0.218)	-0.156 (0.194)	-0.147 (0.186)
$Post_{placebo} \cdot Treat_{med}$	-0.386* (0.218)	-0.488** (0.201)	-0.401* (0.220)	-0.565*** (0.197)
$Post_{placebo} \cdot Treat_{high}$	-0.339 (0.225)	-0.446** (0.211)	-0.764*** (0.214)	-0.818*** (0.189)
Individual control variables	no	yes	no	yes
Obs	854	854	1,852	1,852
Obs in <i>Control</i>	240	240	508	508
Obs in $Treat_{low}$	202	202	460	460
Obs in $Treat_{med}$	222	222	457	457
Obs in $Treat_{high}$	190	190	427	427
Wives	427	427	560	560
Average obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0055	0.1605	0.0117	0.1855

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.12: Granger-type test for causality, wives' working hours per day

Dependent variable:	wives' working hours			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.163 (0.286)	0.054 (0.262)	0.054 (0.263)	0.066 (0.265)
$D_{2001} \cdot Treat_{med}$	0.557* (0.313)	0.733* * * (0.278)	0.718** (0.278)	0.732* * * (0.280)
$D_{2001} \cdot Treat_{high}$	1.189* * * (0.322)	1.152* * * (0.278)	1.164* * * (0.279)	1.117* * * (0.288)
$D_{2003} \cdot Treat_{low}$	0.114 (0.254)	0.213 (0.241)	0.204 (0.241)	0.187 (0.240)
$D_{2003} \cdot Treat_{med}$	0.356 (0.285)	0.559** (0.251)	0.541** (0.250)	0.521** (0.250)
$D_{2003} \cdot Treat_{high}$	0.743* * * (0.251)	0.797* * * (0.229)	0.800* * * (0.229)	0.751* * * (0.235)
$D_{2005} \cdot Treat_{low}$	-0.114 (0.206)	-0.051 (0.194)	-0.067 (0.194)	-0.063 (0.194)
$D_{2005} \cdot Treat_{med}$	0.091 (0.220)	0.128 (0.190)	0.112 (0.190)	0.102 (0.190)
$D_{2005} \cdot Treat_{high}$	0.334* (0.197)	0.285 (0.188)	0.291 (0.189)	0.267 (0.190)
$D_{2009} \cdot Treat_{low}$	0.319 (0.218)	0.298 (0.205)	0.293 (0.205)	0.278 (0.207)
$D_{2009} \cdot Treat_{med}$	0.157 (0.230)	0.126 (0.211)	0.128 (0.212)	0.112 (0.213)
$D_{2009} \cdot Treat_{high}$	0.232 (0.208)	0.179 (0.194)	0.199 (0.197)	0.194 (0.197)
$D_{2011} \cdot Treat_{low}$	0.523** (0.254)	0.363 (0.241)	0.367 (0.242)	0.344 (0.242)
$D_{2011} \cdot Treat_{med}$	0.664** (0.259)	0.550** (0.240)	0.533** (0.241)	0.518** (0.239)
$D_{2011} \cdot Treat_{high}$	0.547** (0.248)	0.417* (0.231)	0.413* (0.233)	0.411* (0.231)
$D_{2013} \cdot Treat_{low}$	0.870** (0.352)	0.664* (0.342)	0.665* (0.344)	0.576* (0.337)
$D_{2013} \cdot Treat_{med}$	0.879** (0.382)	0.632* (0.345)	0.610* (0.346)	0.544 (0.338)
$D_{2013} \cdot Treat_{high}$	0.746** (0.355)	0.420 (0.327)	0.428 (0.329)	0.391 (0.324)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,514	3,514	3,514	3,514
Wives	792	792	792	792
Avg. obs per wife	4.4	4.4	4.4	4.4
<i>low</i> : $H_0$ : leads = 0	$F_{3,791} = 0.50$ $p\text{-val} = 0.6834$	$F_{3,791} = 0.52$ $p\text{-val} = 0.6664$	$F_{3,791} = 0.52$ $p\text{-val} = 0.6688$	$F_{3,791} = 0.46$ $p\text{-val} = 0.7087$
<i>med</i> : $H_0$ : leads = 0	$F_{3,791} = 1.24$ $p\text{-val} = 0.2938$	$F_{3,791} = 3.12$ $p\text{-val} = 0.0253$	$F_{3,791} = 3.03$ $p\text{-val} = 0.0287$	$F_{3,791} = 3.00$ $p\text{-val} = 0.0300$
<i>high</i> : $H_0$ : leads = 0	$F_{3,791} = 5.05$ $p\text{-val} = 0.0018$	$F_{3,791} = 6.90$ $p\text{-val} = 0.0001$	$F_{3,791} = 6.99$ $p\text{-val} = 0.0001$	$F_{3,791} = 5.82$ $p\text{-val} = 0.0006$
$Adj. R^2$	0.0222	0.1800	0.1801	0.1863

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30



Table B.13: Fixed effects models for placebo treatment

Sample restriction	Dependent variable: wives' participation (0 = zero working hours; 1 = otherwise)			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	-0.014 (0.045)	-0.029 (0.046)	0.002 (0.039)	0.006 (0.037)
$Post_{placebo} \cdot Treat_{med}$	-0.015 (0.043)	-0.031 (0.039)	-0.013 (0.041)	-0.040 (0.037)
$Post_{placebo} \cdot Treat_{high}$	-0.044 (0.035)	-0.045 (0.032)	-0.093*** (0.035)	-0.089*** (0.032)
Individual control variables	no	yes	no	yes
Obs	854	854	1,852	1,852
Obs in <i>Control</i>	240	240	508	508
Obs in $Treat_{low}$	202	202	460	460
Obs in $Treat_{med}$	222	222	457	457
Obs in $Treat_{high}$	190	190	427	427
Wives	427	427	560	560
Average obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0004	0.0926	0.0135	0.1576

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.14: Granger-type test for causality, wives' LFP

Dependent variable:	wives' participation (0 = zero working hours; 1 = otherwise)			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	-0.054 (0.054)	-0.067 (0.048)	-0.068 (0.048)	-0.052 (0.049)
$D_{2001} \cdot Treat_{med}$	0.009 (0.060)	0.042 (0.053)	0.041 (0.053)	0.054 (0.053)
$D_{2001} \cdot Treat_{high}$	0.131** (0.056)	0.110** (0.051)	0.113** (0.051)	0.127** (0.053)
$D_{2003} \cdot Treat_{low}$	-0.039 (0.050)	-0.022 (0.045)	-0.023 (0.045)	-0.012 (0.045)
$D_{2003} \cdot Treat_{med}$	0.005 (0.052)	0.048 (0.045)	0.047 (0.045)	0.055 (0.045)
$D_{2003} \cdot Treat_{high}$	0.084** (0.042)	0.085** (0.039)	0.087** (0.039)	0.096** (0.041)
$D_{2005} \cdot Treat_{low}$	-0.079** (0.040)	-0.067* (0.037)	-0.067* (0.037)	-0.062* (0.037)
$D_{2005} \cdot Treat_{med}$	0.001 (0.042)	0.011 (0.037)	0.010 (0.037)	0.011 (0.036)
$D_{2005} \cdot Treat_{high}$	0.024 (0.034)	0.017 (0.031)	0.019 (0.031)	0.024 (0.032)
$D_{2009} \cdot Treat_{low}$	0.041 (0.039)	0.044 (0.036)	0.045 (0.036)	0.041 (0.036)
$D_{2009} \cdot Treat_{med}$	0.008 (0.044)	0.006 (0.040)	0.008 (0.040)	-0.000 (0.040)
$D_{2009} \cdot Treat_{high}$	0.040 (0.040)	0.036 (0.037)	0.041 (0.038)	0.036 (0.038)
$D_{2011} \cdot Treat_{low}$	0.030 (0.042)	0.007 (0.039)	0.007 (0.040)	0.002 (0.040)
$D_{2011} \cdot Treat_{med}$	0.114** (0.046)	0.098** (0.043)	0.098** (0.043)	0.088** (0.043)
$D_{2011} \cdot Treat_{high}$	0.106** (0.044)	0.091** (0.041)	0.093** (0.042)	0.087** (0.041)
$D_{2013} \cdot Treat_{low}$	0.056 (0.057)	0.020 (0.053)	0.018 (0.053)	0.007 (0.054)
$D_{2013} \cdot Treat_{med}$	0.109 (0.086)	0.059 (0.080)	0.057 (0.080)	0.048 (0.079)
$D_{2013} \cdot Treat_{high}$	0.123 (0.077)	0.082 (0.072)	0.083 (0.072)	0.066 (0.073)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,514	3,514	3,514	3,514
Wives	792	792	792	792
Avg. obs per wife	4.4	4.4	4.4	4.4
<i>low</i> : $H_0$ : leads = 0	$F_{3,791} = 1.40$ $p\text{-val} = 0.2400$	$F_{3,791} = 1.46$ $p\text{-val} = 0.2237$	$F_{3,791} = 1.47$ $p\text{-val} = 0.2221$	$F_{3,791} = 1.21$ $p\text{-val} = 0.3037$
<i>med</i> : $H_0$ : leads = 0	$F_{3,791} = 0.01$ $p\text{-val} = 0.9991$	$F_{3,791} = 0.45$ $p\text{-val} = 0.7171$	$F_{3,791} = 0.45$ $p\text{-val} = 0.7192$	$F_{3,791} = 0.64$ $p\text{-val} = 0.5926$
<i>high</i> : $H_0$ : leads = 0	$F_{3,791} = 2.29$ $p\text{-val} = 0.0766$	$F_{3,791} = 2.38$ $p\text{-val} = 0.0680$	$F_{3,791} = 2.46$ $p\text{-val} = 0.0615$	$F_{3,791} = 2.72$ $p\text{-val} = 0.0438$
<i>Adj. R</i> <sup>2</sup>	0.0270	0.1729	0.1725	0.1889

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.15: Fixed effects models, wives' hours in education

Sample restriction	Dependent variable: wives' hours in education per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	0.104		0.114		0.116		0.117	
<i>Post-Treat<sub>low</sub></i>	-0.014 (0.049)	-0.017 (0.053)	0.000 (0.031)	-0.013 (0.033)	-0.004 (0.032)	-0.016 (0.033)	-0.007 (0.033)	-0.018 (0.034)
<i>Post-Treat<sub>med</sub></i>	0.091* (0.049)	0.098** (0.046)	0.063* (0.035)	0.057 (0.036)	0.069** (0.033)	0.060* (0.034)	0.072** (0.034)	0.063* (0.035)
<i>Post-Treat<sub>high</sub></i>	0.030 (0.054)	0.040 (0.051)	0.038 (0.043)	0.033 (0.045)	0.042 (0.044)	0.038 (0.044)	0.045 (0.043)	0.047 (0.043)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,084	1,084	2,326	2,326	3,057	3,057	3,514	3,514
Obs in <i>Control</i>	276	276	609	609	796	796	913	913
Obs in <i>Treat<sub>low</sub></i>	276	276	577	577	754	754	877	877
Obs in <i>Treat<sub>med</sub></i>	254	254	574	574	762	762	884	884
Obs in <i>Treat<sub>high</sub></i>	278	278	566	566	745	745	840	840
Wives	542	542	733	733	779	779	792	792
Av. obs. per wife	2.0	2.0	3.2	3.2	3.9	3.9	4.4	4.4
<i>Adj. R</i> <sup>2</sup>	0.0099	0.0172	0.0017	0.0113	0.0030	0.0116	0.0034	0.0121

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I included wife's age as a second order polynomial and the number of minors in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. The sample consists of wives living in West Germany. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.16: Fixed effects models, wives' probability of being in education

Sample restriction	Dependent variable: wives' probability of being in education (0 = zero hours; 1 = otherwise)							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	0.123		0.140		0.140		0.135	
<i>Post-Treat<sub>low</sub></i>	0.029 (0.036)	0.027 (0.037)	0.016 (0.028)	0.005 (0.028)	0.014 (0.025)	0.004 (0.025)	0.005 (0.023)	-0.003 (0.112)
<i>Post-Treat<sub>med</sub></i>	0.070* (0.039)	0.072* (0.039)	0.059** (0.029)	0.055* (0.028)	0.060** (0.026)	0.053** (0.026)	0.053** (0.025)	0.045* (0.025)
<i>Post-Treat<sub>high</sub></i>	0.029 (0.040)	0.036 (0.041)	0.014 (0.033)	0.010 (0.033)	0.023 (0.030)	0.021 (0.030)	0.025 (0.029)	0.023 (0.028)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,084	1,084	2,326	2,326	3,057	3,057	3,514	3,514
Obs in <i>Control</i>	276	276	609	609	796	796	913	913
Obs in <i>Treat<sub>low</sub></i>	276	276	577	577	754	754	877	877
Obs in <i>Treat<sub>med</sub></i>	254	254	574	574	762	762	884	884
Obs in <i>Treat<sub>high</sub></i>	278	278	566	566	745	745	840	840
Wives	542	542	733	733	779	779	792	792
Av. obs. per wife	2.0	2.0	3.2	3.2	3.9	3.9	4.4	4.4
<i>Adj. R</i> <sup>2</sup>	0.0052	0.0187	0.0021	0.0157	0.0041	0.0139	0.0035	0.0172

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. The sample consists of wives living in West Germany. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.17: Fixed effects models for placebo treatment

Sample restriction	Dependent variable: wives' daily hours in education			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	-0.001 (0.060)	-0.015 (0.062)	0.021 (0.053)	0.013 (0.053)
$Post_{placebo} \cdot Treat_{med}$	0.059 (0.046)	0.050 (0.046)	0.040 (0.041)	0.036 (0.041)
$Post_{placebo} \cdot Treat_{high}$	0.001 (0.047)	-0.010 (0.048)	0.035 (0.044)	0.042 (0.049)
Individual control variables	no	yes	no	yes
Obs	854	854	1,852	1,852
Obs in <i>Control</i>	240	240	508	508
Obs in $Treat_{low}$	202	202	460	460
Obs in $Treat_{med}$	222	222	457	457
Obs in $Treat_{high}$	190	190	427	427
Wives	427	427	560	560
Average obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0083	0.0063	0.0012	0.0015

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.18: Fixed effects models for placebo treatment

Sample restriction	Dependent variable: wives' probability of being in education			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	0.010 (0.044)	0.000 (0.044)	0.003 (0.032)	-0.000 (0.033)
$Post_{placebo} \cdot Treat_{med}$	0.014 (0.038)	0.008 (0.038)	-0.013 (0.029)	-0.019 (0.029)
$Post_{placebo} \cdot Treat_{high}$	0.039 (0.049)	0.038 (0.050)	0.025 (0.035)	0.027 (0.036)
Individual control variables	no	yes	no	yes
Obs	854	854	1,852	1,852
Obs in <i>Control</i>	240	240	508	508
Obs in $Treat_{low}$	202	202	460	460
Obs in $Treat_{med}$	222	222	457	457
Obs in $Treat_{high}$	190	190	427	427
Wives	427	427	560	560
Av. obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0096	0.0085	0.0025	0.0072

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.19: Granger-type test for causality, wives' education in hours per day

Dependent variable:	wives' education in hours			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	-0.028 (0.080)	-0.016 (0.082)	-0.016 (0.082)	-0.005 (0.082)
$D_{2001} \cdot Treat_{med}$	-0.011 (0.063)	-0.001 (0.062)	0.001 (0.062)	0.007 (0.060)
$D_{2001} \cdot Treat_{high}$	-0.030 (0.067)	-0.044 (0.069)	-0.045 (0.070)	-0.048 (0.071)
$D_{2003} \cdot Treat_{low}$	-0.022 (0.058)	-0.010 (0.058)	-0.008 (0.058)	-0.000 (0.059)
$D_{2003} \cdot Treat_{med}$	-0.003 (0.039)	0.005 (0.039)	0.008 (0.040)	0.012 (0.040)
$D_{2003} \cdot Treat_{high}$	-0.018 (0.047)	-0.024 (0.047)	-0.026 (0.048)	-0.026 (0.048)
$D_{2005} \cdot Treat_{low}$	-0.058 (0.045)	-0.050 (0.046)	-0.048 (0.046)	-0.043 (0.046)
$D_{2005} \cdot Treat_{med}$	0.042 (0.048)	0.045 (0.048)	0.049 (0.049)	0.051 (0.049)
$D_{2005} \cdot Treat_{high}$	-0.001 (0.050)	-0.007 (0.049)	-0.008 (0.050)	-0.008 (0.050)
$D_{2009} \cdot Treat_{low}$	-0.030 (0.046)	-0.028 (0.046)	-0.028 (0.046)	-0.032 (0.047)
$D_{2009} \cdot Treat_{med}$	0.094** (0.046)	0.096** (0.046)	0.095** (0.046)	0.093** (0.046)
$D_{2009} \cdot Treat_{high}$	0.018 (0.50)	0.020 (0.049)	0.016 (0.049)	0.017 (0.049)
$D_{2011} \cdot Treat_{low}$	-0.026 (0.037)	-0.035 (0.038)	-0.037 (0.038)	-0.044 (0.039)
$D_{2011} \cdot Treat_{med}$	0.065** (0.032)	0.058* (0.032)	0.058* (0.032)	0.052 (0.033)
$D_{2011} \cdot Treat_{high}$	0.064 (0.078)	0.061 (0.079)	0.058 (0.079)	0.058 (0.078)
$D_{2013} \cdot Treat_{low}$	-0.061 (0.055)	-0.075 (0.053)	-0.077 (0.053)	-0.082 (0.052)
$D_{2013} \cdot Treat_{med}$	0.081* (0.047)	0.059 (0.047)	0.059 (0.048)	0.059 (0.046)
$D_{2013} \cdot Treat_{high}$	0.014 (0.052)	-0.003 (0.050)	-0.006 (0.051)	0.002 (0.051)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,514	3,514	3,514	3,514
Wives	792	792	792	792
Avg. obs per wife	4.4	4.4	4.4	4.4
<i>low</i> : $H_0$ : leads = 0	$F_{3,791} = 0.56$ $p\text{-val} = 0.6446$	$F_{3,791} = 0.43$ $p\text{-val} = 0.7336$	$F_{3,791} = 0.39$ $p\text{-val} = 0.7589$	$F_{3,791} = 0.36$ $p\text{-val} = 0.7806$
<i>med</i> : $H_0$ : leads = 0	$F_{3,791} = 0.36$ $p\text{-val} = 0.7809$	$F_{3,791} = 0.34$ $p\text{-val} = 0.7995$	$F_{3,791} = 0.36$ $p\text{-val} = 0.7806$	$F_{3,791} = 0.38$ $p\text{-val} = 0.7669$
<i>high</i> : $H_0$ : leads = 0	$F_{3,791} = 0.10$ $p\text{-val} = 0.9590$	$F_{3,791} = 0.17$ $p\text{-val} = 0.9197$	$F_{3,791} = 0.18$ $p\text{-val} = 0.9112$	$F_{3,791} = 0.19$ $p\text{-val} = 0.9024$
$Adj. R^2$	0.0014	0.0103	0.0098	0.0110

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.20: Granger-type test for causality, wives' probability of being in education

Dependent variable:	wives' probability of being in education			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.003 (0.044)	0.007 (0.045)	0.008 (0.045)	0.014 (0.046)
$D_{2001} \cdot Treat_{med}$	0.035 (0.044)	0.043 (0.044)	0.046 (0.044)	0.050 (0.045)
$D_{2001} \cdot Treat_{high}$	-0.019 (0.046)	-0.025 (0.046)	-0.022 (0.046)	-0.019 (0.049)
$D_{2003} \cdot Treat_{low}$	-0.010 (0.041)	-0.001 (0.042)	0.001 (0.042)	0.005 (0.042)
$D_{2003} \cdot Treat_{med}$	0.019 (0.040)	0.026 (0.040)	0.029 (0.040)	0.032 (0.041)
$D_{2003} \cdot Treat_{high}$	-0.010 (0.043)	-0.012 (0.043)	-0.010 (0.043)	-0.008 (0.045)
$D_{2005} \cdot Treat_{low}$	-0.024 (0.036)	-0.017 (0.036)	-0.015 (0.037)	-0.012 (0.037)
$D_{2005} \cdot Treat_{med}$	0.024 (0.038)	0.025 (0.038)	0.028 (0.038)	0.029 (0.039)
$D_{2005} \cdot Treat_{high}$	0.031 (0.040)	0.026 (0.040)	0.028 (0.040)	0.030 (0.041)
$D_{2009} \cdot Treat_{low}$	0.015 (0.034)	0.016 (0.034)	0.018 (0.034)	0.016 (0.034)
$D_{2009} \cdot Treat_{med}$	0.082** (0.036)	0.081** (0.036)	0.082** (0.036)	0.081** (0.035)
$D_{2009} \cdot Treat_{high}$	0.032 (0.037)	0.032 (0.037)	0.033 (0.037)	0.033 (0.036)
$D_{2011} \cdot Treat_{low}$	-0.012 (0.036)	-0.019 (0.036)	-0.018 (0.036)	-0.022 (0.037)
$D_{2011} \cdot Treat_{med}$	0.057 (0.037)	0.050 (0.036)	0.050 (0.037)	0.046 (0.037)
$D_{2011} \cdot Treat_{high}$	0.026 (0.041)	0.021 (0.041)	0.020 (0.041)	0.018 (0.042)
$D_{2013} \cdot Treat_{low}$	-0.052 (0.046)	-0.062 (0.045)	-0.062 (0.045)	-0.064 (0.044)
$D_{2013} \cdot Treat_{med}$	0.076 (0.058)	0.060 (0.060)	0.058 (0.060)	0.057 (0.060)
$D_{2013} \cdot Treat_{high}$	0.015 (0.065)	-0.001 (0.064)	-0.001 (0.064)	-0.001 (0.063)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,514	3,514	3,514	3,514
Wives	792	792	792	792
Avg. obs per wife	4.4	4.4	4.4	4.4
<i>low</i> : $H_0$ : leads = 0	$F_{3,791} = 0.19$ $p\text{-val} = 0.9024$	$F_{3,791} = 0.12$ $p\text{-val} = 0.9462$	$F_{3,791} = 0.10$ $p\text{-val} = 0.9574$	$F_{3,791} = 0.13$ $p\text{-val} = 0.9445$
<i>med</i> : $H_0$ : leads = 0	$F_{3,791} = 0.23$ $p\text{-val} = 0.8754$	$F_{3,791} = 0.34$ $p\text{-val} = 0.7939$	$F_{3,791} = 0.39$ $p\text{-val} = 0.7620$	$F_{3,791} = 0.44$ $p\text{-val} = 0.7269$
<i>high</i> : $H_0$ : leads = 0	$F_{3,791} = 0.44$ $p\text{-val} = 0.7238$	$F_{3,791} = 0.42$ $p\text{-val} = 0.7363$	$F_{3,791} = 0.42$ $p\text{-val} = 0.7356$	$F_{3,791} = 0.40$ $p\text{-val} = 0.7539$
$Adj. R^2$	0.0016	0.0156	0.0147	0.0141

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.21: Fixed effects models, wives' daily hours spent on housework

	Dependent variable: wives' hours spent on housework																			
Sample restriction	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
	Panel A																			
<i>Post-Treat</i> <sub>low</sub>	-0.078 (0.117)	-0.033 (0.093)	-0.039 (0.085)	-0.029 (0.087)	-0.042 (0.114)	0.014 (0.092)	0.014 (0.085)	0.015 (0.087)	0.005 (0.119)	0.025 (0.095)	0.002 (0.088)	0.007 (0.089)	-0.019 (0.120)	-0.032 (0.099)	-0.001 (0.090)	0.022 (0.089)	0.033 (0.125)	-0.010 (0.102)	-0.004 (0.094)	0.012 (0.092)
<i>Post-Treat</i> <sub>med</sub>	0.015 (0.129)	-0.024 (0.098)	0.026 (0.094)	0.019 (0.090)	0.005 (0.127)	0.006 (0.097)	0.061 (0.093)	0.062 (0.089)	-0.014 (0.128)	0.023 (0.100)	0.053 (0.096)	0.036 (0.092)	0.013 (0.135)	-0.054 (0.112)	0.038 (0.103)	0.057 (0.096)	0.013 (0.138)	-0.026 (0.118)	0.044 (0.107)	0.033 (0.100)
<i>Post-Treat</i> <sub>high</sub>	0.034 (0.129)	0.187* (0.104)	0.169* (0.101)	0.162 (0.100)	0.027 (0.128)	0.203** (0.102)	0.192* (0.099)	0.181* (0.098)	0.034 (0.130)	0.221** (0.102)	0.174* (0.101)	0.161 (0.099)	0.031 (0.145)	0.130 (0.112)	0.158 (0.109)	0.152 (0.107)	0.059 (0.149)	0.161 (0.113)	0.160 (0.112)	0.138 (0.109)
Minors in the hh	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Husband's income	no	no	no	no	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
	Panel B																			
<i>Post-Treat</i> <sub>low</sub>	-0.051 (0.120)	-0.022 (0.093)	-0.030 (0.086)	-0.017 (0.087)	-0.014 (0.117)	0.022 (0.092)	0.014 (0.085)	0.018 (0.086)	0.033 (0.120)	0.031 (0.095)	0.004 (0.088)	0.012 (0.089)	0.020 (0.122)	-0.022 (0.098)	-0.000 (0.089)	0.022 (0.088)	0.064 (0.126)	-0.002 (0.100)	-0.002 (0.093)	0.016 (0.092)
<i>Post-Treat</i> <sub>med</sub>	0.045 (0.131)	-0.006 (0.100)	0.038 (0.096)	0.031 (0.091)	0.033 (0.129)	0.010 (0.098)	0.055 (0.095)	0.055 (0.089)	0.025 (0.131)	0.032 (0.101)	0.052 (0.098)	0.035 (0.093)	0.051 (0.137)	-0.049 (0.112)	0.032 (0.103)	0.041 (0.096)	0.045 (0.141)	-0.017 (0.117)	0.040 (0.107)	0.025 (0.110)
<i>Post-Treat</i> <sub>high</sub>	0.060 (0.131)	0.208* (0.106)	0.181* (0.102)	0.173* (0.101)	0.054 (0.129)	0.211** (0.103)	0.191* (0.100)	0.180* (0.098)	0.061 (0.132)	0.230** (0.104)	0.175* (0.102)	0.164* (0.099)	0.067 (0.144)	0.136 (0.112)	0.152 (0.110)	0.136 (0.107)	0.079 (0.148)	0.169 (0.113)	0.155 (0.113)	0.129 (0.110)
Age groups	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Minors in the hh	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Husband's income	no	no	no	no	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Obs	1,084	2,326	3,057	3,514	1,084	2,326	3,057	3,514	1,028	2,219	2,896	3,308	1,084	2,326	3,057	3,514	1,028	2,219	2,896	3,308
Obs in <i>Control</i>	276	609	796	913	276	609	796	913	270	588	759	870	276	609	796	913	270	588	759	870
Obs in <i>Treat</i> <sub>low</sub>	276	577	754	877	276	577	754	877	258	556	717	828	276	577	754	877	258	556	717	828
Obs in <i>Treat</i> <sub>med</sub>	254	574	762	884	254	574	762	884	234	526	703	809	254	574	762	884	234	526	703	809
Obs in <i>Treat</i> <sub>high</sub>	278	566	745	840	278	566	745	840	266	549	717	801	278	566	745	840	266	549	717	801
Wives	542	733	779	792	542	733	779	792	514	706	753	765	542	733	779	792	514	706	753	765
Av. obs. per wife	2.0	3.2	3.9	4.4	2.0	3.2	3.9	4.4	2.0	3.1	3.8	4.3	2.0	3.2	3.9	4.4	2.0	3.1	3.8	4.3

Notes: Dependent variable covers washing, cooking, and cleaning, 7-day week; Control variables in all models: year fixed effects and age as a second order polynomial. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps:  $\geq 30$ , 30-34, ..., 60-64 years old. The number of minor children in different age groups (0-1, ..., 16-18 years old) who live in the same household is another control. Husband's income is a net value, allowable income without deductions. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment), specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) 2001/03/05/07 (pre-treatment) and 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Robust standard errors in parentheses, clustered at individual level; Data: SOEPlong v30

Table B.22: Fixed effects models for placebo treatment

Sample restriction	Dependent variable: wives' housework in hours			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	0.018 (0.143)	-0.004 (0.148)	-0.080 (0.113)	-0.065 (0.113)
$Post_{placebo} \cdot Treat_{med}$	0.192 (0.146)	0.181 (0.147)	0.073 (0.115)	0.109 (0.112)
$Post_{placebo} \cdot Treat_{high}$	-0.057 (0.136)	-0.037 (0.139)	-0.044 (0.107)	-0.039 (0.104)
Individual control variables	no	yes	no	yes
Obs	854	854	1,852	1,852
Obs in <i>Control</i>	240	240	508	508
Obs in $Treat_{low}$	202	202	460	460
Obs in $Treat_{med}$	222	222	457	457
Obs in $Treat_{high}$	190	190	427	427
Wives	427	427	560	560
Av. obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0029	0.0169	0.0081	0.0342

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. The sample consists of wives living in West Germany.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30



Table B.23: Granger-type test for causality, wives' daily housework hours

Dependent variable:	wives' housework in hrs			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.037 (0.164)	0.048 (0.165)	0.045 (0.163)	0.045 (0.163)
$D_{2001} \cdot Treat_{med}$	0.016 (0.160)	-0.016 (0.158)	-0.003 (0.158)	0.014 (0.159)
$D_{2001} \cdot Treat_{high}$	-0.039 (0.170)	-0.051 (0.164)	-0.033 (0.164)	0.028 (0.173)
$D_{2003} \cdot Treat_{low}$	0.050 (0.130)	0.019 (0.127)	0.030 (0.128)	0.032 (0.129)
$D_{2003} \cdot Treat_{med}$	-0.110 (0.132)	-0.148 (0.129)	-0.124 (0.129)	-0.108 (0.128)
$D_{2003} \cdot Treat_{high}$	-0.009 (0.118)	-0.041 (0.115)	-0.016 (0.115)	0.022 (0.120)
$D_{2005} \cdot Treat_{low}$	-0.078 (0.134)	-0.086 (0.132)	-0.080 (0.132)	-0.081 (0.132)
$D_{2005} \cdot Treat_{med}$	-0.026 (0.140)	-0.030 (0.137)	-0.026 (0.137)	-0.020 (0.137)
$D_{2005} \cdot Treat_{high}$	-0.162 (0.134)	-0.152 (0.132)	-0.135 (0.133)	-0.116 (0.132)
$D_{2009} \cdot Treat_{low}$	-0.069 (0.114)	-0.053 (0.114)	-0.046 (0.114)	-0.043 (0.115)
$D_{2009} \cdot Treat_{med}$	0.003 (0.121)	0.022 (0.121)	0.026 (0.121)	0.018 (0.122)
$D_{2009} \cdot Treat_{high}$	0.099 (0.120)	0.117 (0.121)	0.130 (0.122)	0.114 (0.123)
$D_{2011} \cdot Treat_{low}$	-0.028 (0.141)	0.009 (0.140)	0.019 (0.140)	0.021 (0.142)
$D_{2011} \cdot Treat_{med}$	-0.085 (0.125)	-0.057 (0.125)	-0.050 (0.125)	-0.059 (0.131)
$D_{2011} \cdot Treat_{high}$	0.122 (0.157)	0.153 (0.157)	0.169 (0.157)	0.139 (0.161)
$D_{2013} \cdot Treat_{low}$	0.198 (0.192)	0.246 (0.196)	0.240 (0.195)	0.238 (0.198)
$D_{2013} \cdot Treat_{med}$	0.222 (0.247)	0.273 (0.249)	0.260 (0.251)	0.243 (0.255)
$D_{2013} \cdot Treat_{high}$	-0.065 (0.229)	0.023 (0.233)	0.025 (0.231)	-0.031 (0.242)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,514	3,514	3,514	3,514
Wives	792	792	792	792
Avg. obs per wife	4.4	4.4	4.4	4.4
<i>low</i> : $H_0$ : leads = 0	$F_{3,791} = 0.32$ $p\text{-val} = 0.8075$	$F_{3,791} = 0.29$ $p\text{-val} = 0.8325$	$F_{3,791} = 0.28$ $p\text{-val} = 0.8421$	$F_{3,791} = 0.29$ $p\text{-val} = 0.8344$
<i>med</i> : $H_0$ : leads = 0	$F_{3,791} = 0.37$ $p\text{-val} = 0.7775$	$F_{3,791} = 0.58$ $p\text{-val} = 0.6313$	$F_{3,791} = 0.43$ $p\text{-val} = 0.7328$	$F_{3,791} = 0.37$ $p\text{-val} = 0.7742$
<i>high</i> : $H_0$ : leads = 0	$F_{3,791} = 0.58$ $p\text{-val} = 0.6273$	$F_{3,791} = 0.45$ $p\text{-val} = 0.7181$	$F_{3,791} = 0.38$ $p\text{-val} = 0.7685$	$F_{3,791} = 0.40$ $p\text{-val} = 0.7538$
<i>Adj. R</i> <sup>2</sup>	0.0215	0.0479	0.0514	0.0533

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.24: Fixed effects models, husbands' daily working hours

Sample restriction	Dependent variable: husbands' working hours per day					
	2007 vs. 2009			2005-2011		
	(1)	(2)	(3)	(4)	(5)	(6)
Mean in <i>Control</i>	6.937			6.909		
<i>Post-Treat<sub>low</sub></i>	0.128 (0.226)	-0.033 (0.209)	-0.019 (0.218)	0.137 (0.190)	-0.006 (0.175)	0.020 (0.184)
<i>Post-Treat<sub>med</sub></i>	0.119 (0.228)	-0.025 (0.209)	-0.038 (0.230)	0.212 (0.171)	0.059 (0.159)	0.099 (0.174)
<i>Post-Treat<sub>high</sub></i>	0.604*** (0.217)	0.400** (0.199)	0.363 (0.234)	0.190 (0.178)	0.035 (0.166)	0.089 (0.182)
Ind. control var.	yes	yes	yes	yes	yes	yes
Age group	yes	yes	yes	yes	yes	yes
Work experience	no	yes	yes	no	yes	yes
Wife's work experience	no	no	yes	no	no	yes
Obs	1,140	1,140	1,140	2,384	2,384	2,384
Obs in <i>Control</i>	292	292	292	611	611	611
Obs in <i>Treat<sub>low</sub></i>	286	286	286	589	589	589
Obs in <i>Treat<sub>med</sub></i>	274	274	274	599	599	599
Obs in <i>Treat<sub>high</sub></i>	288	288	288	585	585	585
Husbands	570	570	570	747	747	747
Av. obs. per husband	2.0	2.0	2.0	3.2	3.2	3.2
<i>Adj. R<sup>2</sup></i>	0.0658	0.1602	0.1598	0.0407	0.1008	0.0998

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. Individual control variables include husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Indicators are included for the following age groups: < 30, 30-34, ..., 60-64. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Means are reported at *Post* = 0. Quartiles from wives' alimony distribution are used to classify husbands into different groups (see Figure 1).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.25: Fixed effects models, husbands' daily working hours

Sample restriction	Dependent variable: husbands' working hours per day							
	2007 vs. 2009		2005/07-09/11		2003-13		2001-13	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	6.937		6.901		6.809		6.866	
<b>Panel A</b>								
<i>Post-Treat<sub>low</sub></i>	0.153 (0.234)	0.135 (0.231)	0.198 (0.192)	0.156 (0.191)	0.059 (0.188)	-0.008 (0.187)	0.154 (0.185)	0.103 (0.185)
<i>Post-Treat<sub>med</sub></i>	0.091 (0.229)	0.105 (0.229)	0.198 (0.170)	0.221 (0.171)	0.072 (0.172)	0.101 (0.172)	0.168 (0.169)	0.193 (0.169)
<i>Post-Treat<sub>high</sub></i>	0.431** (0.212)	0.579** (0.224)	0.089 (0.182)	0.187 (0.180)	-0.035 (0.182)	0.089 (0.178)	0.035 (0.177)	0.161 (0.173)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
<i>Adj. R</i> <sup>2</sup>	0.0444	0.0635	0.0228	0.0396	0.0161	0.0355	0.0184	0.0369
<b>Panel B</b>								
<i>Post-Treat<sub>low</sub></i>	0.137 (0.228)	-0.021 (0.210)	0.151 (0.191)	0.215 (0.171)	-0.006 (0.187)	-0.116 (0.174)	0.100 (0.185)	-0.027 (0.174)
<i>Post-Treat<sub>med</sub></i>	0.113 (0.228)	-0.030 (0.210)	0.215 (0.171)	0.060 (0.159)	0.106 (0.172)	-0.021 (0.160)	0.198 (0.169)	0.035 (0.159)
<i>Post-Treat<sub>high</sub></i>	0.593*** (0.216)	0.387* (0.197)	0.188 (0.178)	0.032 (0.165)	0.103 (0.178)	0.002 (0.170)	0.181 (0.172)	0.010 (0.167)
Ind. control var.	yes	yes	yes	yes	yes	yes	yes	yes
Age group	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	yes	no	yes	no	yes	no	yes
<i>Adj. R</i> <sup>2</sup>	0.0654	0.1596	0.0407	0.1008	0.0366	0.0739	0.0391	0.0821
Obs	1,140	1,140	2,384	2,384	3,148	3,148	3,630	3,630
Obs in <i>Control</i>	292	292	609	609	811	811	938	938
Obs in <i>Treat<sub>low</sub></i>	282	282	583	583	773	773	901	901
Obs in <i>Treat<sub>med</sub></i>	274	274	600	600	785	785	908	908
Obs in <i>Treat<sub>high</sub></i>	292	292	592	592	779	779	883	883
Husbands	570	570	747	747	786	786	794	794
Av. obs. per husband	2.0	2.0	3.2	3.2	4.0	4.0	4.6	4.6

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. Individual control variables include husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Means are reported at *Post* = 0. Quartiles from husbands' alimony distribution are used to classify husbands into different groups.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.26: Granger-type test for causality, husbands' daily working hours

Dependent variable:	husbands' working hours per day			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	-0.286 (0.241)	-0.294 (0.240)	-0.297 (0.239)	-0.109 (0.237)
$D_{2001} \cdot Treat_{med}$	-0.284 (0.235)	-0.322 (0.234)	-0.338 (0.232)	-0.107 (0.230)
$D_{2001} \cdot Treat_{high}$	-0.130 (0.236)	-0.277 (0.234)	-0.281 (0.231)	-0.032 (0.228)
$D_{2003} \cdot Treat_{low}$	0.197 (0.235)	0.225 (0.231)	0.219 (0.231)	0.339 (0.239)
$D_{2003} \cdot Treat_{med}$	0.327 (0.220)	0.304 (0.214)	0.296 (0.217)	0.429* (0.223)
$D_{2003} \cdot Treat_{high}$	0.297 (0.226)	0.179 (0.221)	0.180 (0.221)	0.302 (0.228)
$D_{2005} \cdot Treat_{low}$	-0.050 (0.196)	-0.027 (0.195)	-0.027 (0.197)	0.036 (0.198)
$D_{2005} \cdot Treat_{med}$	-0.069 (0.182)	-0.083 (0.183)	-0.097 (0.184)	-0.011 (0.185)
$D_{2005} \cdot Treat_{high}$	0.114 (0.174)	0.052 (0.174)	0.049 (0.175)	0.147 (0.175)
$D_{2009} \cdot Treat_{low}$	0.255 (0.222)	0.246 (0.220)	0.240 (0.219)	0.170 (0.211)
$D_{2009} \cdot Treat_{med}$	0.093 (0.222)	0.120 (0.220)	0.115 (0.220)	0.046 (0.210)
$D_{2009} \cdot Treat_{high}$	0.522** (0.208)	0.582* * * (0.207)	0.600* * * (0.207)	0.510** (0.197)
$D_{2011} \cdot Treat_{low}$	0.089 (0.230)	0.034 (0.228)	0.024 (0.231)	0.002 (0.221)
$D_{2011} \cdot Treat_{med}$	0.304 (0.199)	0.322 (0.199)	0.319 (0.201)	0.275 (0.196)
$D_{2011} \cdot Treat_{high}$	-0.283 (0.270)	-0.206 (0.262)	-0.180 (0.263)	-0.234 (0.258)
$D_{2013} \cdot Treat_{low}$	-0.317 (0.405)	-0.473 (0.414)	-0.467 (0.412)	-0.423 (0.418)
$D_{2013} \cdot Treat_{med}$	-0.071 (0.368)	-0.171 (0.366)	-0.174 (0.363)	-0.268 (0.371)
$D_{2013} \cdot Treat_{high}$	-0.541 (0.454)	-0.530 (0.447)	-0.511 (0.440)	-0.636 (0.451)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,630	3,630	3,630	3,630
Husbands	794	794	794	794
Avg. obs per husband	4.6	4.6	4.6	4.6
<i>low</i> : $H_0$ : leads = 0	$F_{3,793} = 1.06$ $p\text{-val} = 0.3639$	$F_{3,793} = 1.22$ $p\text{-val} = 0.3001$	$F_{3,793} = 1.23$ $p\text{-val} = 0.2989$	$F_{3,793} = 1.05$ $p\text{-val} = 0.3687$
<i>med</i> : $H_0$ : leads = 0	$F_{3,793} = 2.09$ $p\text{-val} = 0.0999$	$F_{3,793} = 2.22$ $p\text{-val} = 0.0840$	$F_{3,793} = 2.32$ $p\text{-val} = 0.0737$	$F_{3,793} = 2.01$ $p\text{-val} = 0.1105$
<i>high</i> : $H_0$ : leads = 0	$F_{3,793} = 1.05$ $p\text{-val} = 0.3684$	$F_{3,793} = 1.11$ $p\text{-val} = 0.3438$	$F_{3,793} = 1.13$ $p\text{-val} = 0.3347$	$F_{3,793} = 0.81$ $p\text{-val} = 0.4871$
$Adj. R^2$	0.0260	0.0448	0.0469	0.0895

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Quartiles from wives' alimony distribution are used to classify husbands into different groups (see Figure 1).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.27: Granger-type test for causality, husbands' daily working hours

Dependent variable:	husbands' working hours per day			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	-0.268 (0.241)	-0.281 (0.241)	-0.286 (0.239)	-0.101 (0.238)
$D_{2001} \cdot Treat_{med}$	-0.304 (0.236)	-0.339 (0.234)	-0.353 (0.233)	-0.121 (0.231)
$D_{2001} \cdot Treat_{high}$	-0.132 (0.234)	-0.274 (0.232)	-0.279 (0.229)	-0.029 (0.227)
$D_{2003} \cdot Treat_{low}$	0.215 (0.236)	0.241 (0.232)	0.231 (0.232)	0.352 (0.240)
$D_{2003} \cdot Treat_{med}$	0.299 (0.221)	0.278 (0.215)	0.272 (0.217)	0.404* (0.223)
$D_{2003} \cdot Treat_{high}$	0.303 (0.225)	0.188 (0.220)	0.189 (0.220)	0.312 (0.227)
$D_{2005} \cdot Treat_{low}$	-0.053 (0.197)	-0.032 (0.197)	-0.034 (0.198)	0.033 (0.199)
$D_{2005} \cdot Treat_{med}$	-0.083 (0.182)	-0.095 (0.183)	-0.108 (0.185)	-0.024 (0.185)
$D_{2005} \cdot Treat_{high}$	0.112 (0.174)	0.052 (0.174)	0.048 (0.175)	0.147 (0.175)
$D_{2009} \cdot Treat_{low}$	0.271 (0.223)	0.262 (0.221)	0.255 (0.220)	0.186 (0.212)
$D_{2009} \cdot Treat_{med}$	0.091 (0.222)	0.118 (0.220)	0.115 (0.220)	0.045 (0.211)
$D_{2009} \cdot Treat_{high}$	0.519** (0.207)	0.578* * * (0.207)	0.595* * * (0.206)	0.503** (0.197)
$D_{2011} \cdot Treat_{low}$	0.090 (0.231)	0.037 (0.300)	0.026 (0.232)	0.005 (0.222)
$D_{2011} \cdot Treat_{med}$	0.304 (0.200)	0.321 (0.199)	0.320 (0.202)	0.274 (0.196)
$D_{2011} \cdot Treat_{high}$	-0.278 (0.267)	-0.205 (0.260)	-0.180 (0.260)	-0.234 (0.255)
$D_{2013} \cdot Treat_{low}$	-0.308 (0.406)	-0.466 (0.414)	-0.460 (0.412)	-0.417 (0.418)
$D_{2013} \cdot Treat_{med}$	-0.081 (0.368)	-0.180 (0.366)	-0.181 (0.363)	-0.276 (0.371)
$D_{2013} \cdot Treat_{high}$	-0.540 (0.454)	-0.529 (0.447)	-0.510 (0.440)	-0.635 (0.450)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,630	3,630	3,630	3,630
Husbands	794	794	794	794
Avg. obs per husband	4.6	4.6	4.6	4.6
<i>low</i> : $H_0$ : leads = 0	$F_{3,793} = 1.06$ $p\text{-val} = 0.3639$	$F_{3,793} = 1.24$ $p\text{-val} = 0.2958$	$F_{3,793} = 1.24$ $p\text{-val} = 0.2955$	$F_{3,793} = 1.10$ $p\text{-val} = 0.3500$
<i>med</i> : $H_0$ : leads = 0	$F_{3,793} = 2.03$ $p\text{-val} = 0.1089$	$F_{3,793} = 2.14$ $p\text{-val} = 0.0932$	$F_{3,793} = 2.25$ $p\text{-val} = 0.0811$	$F_{3,793} = 1.88$ $p\text{-val} = 0.1310$
<i>high</i> : $H_0$ : leads = 0	$F_{3,793} = 1.09$ $p\text{-val} = 0.3517$	$F_{3,793} = 1.14$ $p\text{-val} = 0.3323$	$F_{3,793} = 1.16$ $p\text{-val} = 0.3233$	$F_{3,793} = 0.85$ $p\text{-val} = 0.4659$
$Adj. R^2$	0.0260	0.0448	0.0469	0.0894

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Quartiles from husbands' alimony distribution are used to classify husbands into different groups.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.28: Granger-type test for causality, wives' childcare in hours per day

Dependent variable:	wives' childcare in hrs			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.610 (0.439)	0.623* (0.337)	0.631* (0.336)	0.473 (0.342)
$D_{2001} \cdot Treat_{med}$	-0.075 (0.423)	-0.446 (0.326)	-0.451 (0.327)	-0.613* (0.335)
$D_{2001} \cdot Treat_{high}$	-0.106 (0.478)	0.069 (0.322)	0.066 (0.321)	-0.244 (0.347)
$D_{2003} \cdot Treat_{low}$	0.776** (0.347)	0.491* (0.291)	0.488* (0.292)	0.348 (0.294)
$D_{2003} \cdot Treat_{med}$	0.111 (0.388)	-0.248 (0.300)	-0.266 (0.300)	-0.414 (0.302)
$D_{2003} \cdot Treat_{high}$	0.249 (0.374)	0.194 (0.278)	0.192 (0.277)	-0.027 (0.287)
$D_{2005} \cdot Treat_{low}$	0.660* * * (0.248)	0.526** (0.228)	0.525** (0.229)	0.465** (0.232)
$D_{2005} \cdot Treat_{med}$	0.110 (0.322)	0.035 (0.270)	0.018 (0.271)	-0.042 (0.273)
$D_{2005} \cdot Treat_{high}$	0.436 (0.286)	0.608** (0.255)	0.600** (0.255)	0.488* (0.259)
$D_{2009} \cdot Treat_{low}$	-0.439* (0.251)	-0.332 (0.219)	-0.326 (0.220)	-0.290 (0.220)
$D_{2009} \cdot Treat_{med}$	-0.596** (0.250)	-0.536** (0.216)	-0.532** (0.219)	-0.469** (0.221)
$D_{2009} \cdot Treat_{high}$	-0.250 (0.249)	-0.178 (0.207)	-0.168 (0.207)	-0.093 (0.209)
$D_{2011} \cdot Treat_{low}$	-0.570* (0.316)	-0.187 (0.267)	-0.165 (0.268)	-0.098 (0.272)
$D_{2011} \cdot Treat_{med}$	-0.962* * * (0.297)	-0.707* * * (0.245)	-0.696* * * (0.247)	-0.571** (0.254)
$D_{2011} \cdot Treat_{high}$	-0.508 (0.321)	-0.266 (0.259)	-0.248 (0.259)	-0.112 (0.267)
$D_{2013} \cdot Treat_{low}$	-1.173** (0.481)	-0.621 (0.414)	-0.587 (0.415)	-0.563 (0.418)
$D_{2013} \cdot Treat_{med}$	-1.316** (0.593)	-0.699 (0.494)	-0.670 (0.497)	-0.625 (0.502)
$D_{2013} \cdot Treat_{high}$	-1.504** (0.629)	-0.696 (0.455)	-0.670 (0.452)	-0.488 (0.471)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,514	3,514	3,514	3,514
Wives	792	792	792	792
Avg. obs per wife	4.4	4.4	4.4	4.4
$low: H_0 : \text{leads} = 0$	$F_{3,791} = 2.81$ $p\text{-val} = 0.0388$	$F_{3,791} = 2.16$ $p\text{-val} = 0.0910$	$F_{3,791} = 2.17$ $p\text{-val} = 0.0906$	$F_{3,791} = 1.46$ $p\text{-val} = 0.2238$
$med: H_0 : \text{leads} = 0$	$F_{3,791} = 0.11$ $p\text{-val} = 0.9556$	$F_{3,791} = 0.95$ $p\text{-val} = 0.4146$	$F_{3,791} = 0.94$ $p\text{-val} = 0.4189$	$F_{3,791} = 1.58$ $p\text{-val} = 0.1927$
$high: H_0 : \text{leads} = 0$	$F_{3,791} = 0.99$ $p\text{-val} = 0.3962$	$F_{3,791} = 1.99$ $p\text{-val} = 0.1136$	$F_{3,791} = 1.94$ $p\text{-val} = 0.1222$	$F_{3,791} = 1.93$ $p\text{-val} = 0.1228$
$Adj. R^2$	0.1322	0.4339	0.4341	0.4387

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.29: Fixed effects models, wives' daily hours spent on childcare

	Dependent variable: wives' hours spent on childcare																			
Sample restriction	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
Panel A																				
<i>Post-Treat<sub>low</sub></i>	-0.346 (0.254)	-0.879*** (0.241)	-1.040*** (0.243)	-1.023*** (0.256)	-0.210 (0.223)	-0.556*** (0.199)	-0.635*** (0.191)	-0.683*** (0.198)	-0.156 (0.233)	-0.559*** (0.203)	-0.642*** (0.196)	-0.673*** (0.205)	-0.092 (0.239)	-0.488** (0.205)	-0.524*** (0.197)	-0.568*** (0.204)	-0.041 (0.251)	-0.493** (0.210)	-0.524** (0.203)	-0.557*** (0.210)
<i>Post-Treat<sub>med</sub></i>	-0.335 (0.244)	-0.743*** (0.239)	-0.892*** (0.257)	-0.864*** (0.266)	-0.369* (0.222)	-0.566*** (0.191)	-0.555*** (0.204)	-0.489** (0.207)	-0.391* (0.234)	-0.629*** (0.199)	-0.607*** (0.211)	-0.473** (0.213)	-0.219 (0.243)	-0.476** (0.200)	-0.425** (0.210)	-0.339 (0.216)	-0.234 (0.259)	-0.537** (0.209)	-0.463** (0.219)	-0.314 (0.225)
<i>Post-Treat<sub>high</sub></i>	-0.078 (0.274)	-0.669*** (0.243)	-0.779*** (0.249)	-0.710*** (0.257)	-0.068 (0.225)	-0.523*** (0.192)	-0.514*** (0.184)	-0.492*** (0.184)	-0.056 (0.241)	-0.526*** (0.195)	-0.520*** (0.190)	-0.478** (0.188)	0.144 (0.272)	-0.410* (0.204)	-0.352* (0.200)	-0.275 (0.203)	0.156 (0.292)	-0.416** (0.209)	-0.351* (0.207)	-0.251 (0.209)
Minors in the hh	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Husband's income	no	no	no	no	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Panel B																				
<i>Post-Treat<sub>low</sub></i>	-0.292 (0.265)	-0.804*** (0.237)	-0.922*** (0.235)	-0.905*** (0.245)	-0.182 (0.228)	-0.550*** (0.200)	-0.628*** (0.191)	-0.670*** (0.197)	-0.127 (0.243)	-0.552*** (0.204)	-0.639*** (0.196)	-0.663*** (0.204)	-0.054 (0.247)	-0.479** (0.206)	-0.518*** (0.197)	-0.552*** (0.203)	-0.003 (0.266)	-0.483** (0.211)	-0.520** (0.204)	-0.543** (0.210)
<i>Post-Treat<sub>med</sub></i>	-0.292 (0.252)	-0.630*** (0.233)	-0.736*** (0.253)	-0.692*** (0.264)	-0.349 (0.229)	-0.536*** (0.190)	-0.542*** (0.203)	-0.472** (0.208)	-0.358 (0.243)	-0.603*** (0.198)	-0.599*** (0.211)	-0.459** (0.215)	-0.186 (0.257)	-0.437** (0.200)	-0.414** (0.210)	-0.317 (0.217)	-0.182 (0.276)	-0.503** (0.210)	-0.453* (0.220)	-0.295 (0.227)
<i>Post-Treat<sub>high</sub></i>	-0.075 (0.275)	-0.585** (0.237)	-0.667*** (0.242)	-0.609** (0.247)	-0.055 (0.228)	-0.493*** (0.189)	-0.500*** (0.184)	-0.475** (0.183)	-0.042 (0.243)	-0.500** (0.193)	-0.512*** (0.189)	-0.465** (0.187)	0.175 (0.281)	-0.364* (0.203)	-0.338* (0.200)	-0.251 (0.203)	0.194 (0.299)	-0.375* (0.207)	-0.340 (0.207)	-0.231 (0.210)
Age groups	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Minors in the hh	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Husband's income	no	no	no	no	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Obs	1,084	2,326	3,057	3,514	1,084	2,326	3,057	3,514	1,028	2,219	2,896	3,308	1,084	2,326	3,057	3,514	1,028	2,219	2,896	3,308
Obs in <i>Control</i>	276	609	796	913	276	609	796	913	270	588	759	870	276	609	796	913	270	588	759	870
Obs in <i>Treat<sub>low</sub></i>	276	577	754	877	276	577	754	877	258	556	717	828	276	577	754	877	258	556	717	828
Obs in <i>Treat<sub>med</sub></i>	254	574	762	884	254	574	762	884	234	526	703	809	254	574	762	884	234	526	703	809
Obs in <i>Treat<sub>high</sub></i>	278	566	745	840	278	566	745	840	266	549	717	801	278	566	745	840	266	549	717	801
Wives	542	733	779	792	542	733	779	792	514	706	753	765	542	733	779	792	514	706	753	765
Av. obs. per wife	2.0	3.2	3.9	4.4	2.0	3.2	3.9	4.4	2.0	3.1	3.8	4.3	2.0	3.2	3.9	4.4	2.0	3.1	3.8	4.3

Notes: Control variables in all models: year fixed effects and age as a second order polynomial. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. The number of minor children in different age groups (0-1, ..., 16-18 years old) who live in the same household is another control. Husband's income is a net value, allowable income without deductions. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment), specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) 2001/03/05/07 (pre-treatment) and 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Robust standard errors in parentheses, clustered at individual level; Data: SOEPlong v30

Table B.30: Fixed effects models, husbands' daily childcare hours

Sample restriction	Dependent variable: husbands' childcare hours per day							
	2007 vs. 2009		2005/07-09/11		2003-13		2001-13	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	0.979		0.864		0.858		0.917	
<b>Panel A</b>								
<i>Post-Treat<sub>low</sub></i>	-0.110 (0.118)	-0.078 (0.116)	-0.300*** (0.107)	-0.213** (0.097)	-0.327*** (0.105)	-0.187** (0.092)	-0.299*** (0.108)	-0.161* (0.091)
<i>Post-Treat<sub>med</sub></i>	0.054 (0.108)	0.056 (0.104)	-0.052 (0.096)	-0.013 (0.084)	-0.076 (0.096)	0.039 (0.078)	-0.058 (0.104)	0.050 (0.083)
<i>Post-Treat<sub>high</sub></i>	0.107 (0.107)	0.081 (0.106)	-0.026 (0.099)	-0.007 (0.089)	-0.078 (0.101)	0.004 (0.082)	-0.053 (0.103)	0.013 (0.081)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
<i>Adj. R</i> <sup>2</sup>	0.0152	0.0682	0.0407	0.1493	0.0492	0.2170	0.0548	0.2432
<b>Panel B</b>								
<i>Post-Treat<sub>low</sub></i>	-0.070 (0.118)	-0.065 (0.121)	-0.203** (0.097)	-0.198** (0.096)	-0.183** (0.091)	-0.169* (0.091)	-0.156* (0.091)	-0.142 (0.089)
<i>Post-Treat<sub>med</sub></i>	0.059 (0.103)	0.061 (0.106)	-0.005 (0.084)	0.008 (0.085)	0.051 (0.079)	0.061 (0.079)	0.058 (0.083)	0.066 (0.082)
<i>Post-Treat<sub>high</sub></i>	0.089 (0.107)	0.086 (0.106)	-0.002 (0.088)	0.031 (0.087)	0.003 (0.081)	0.003 (0.081)	0.006 (0.080)	0.007 (0.080)
Ind. control var.	yes	yes	yes	yes	yes	yes	yes	yes
Age groups	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	yes	no	yes	no	yes	no	yes
<i>Adj. R</i> <sup>2</sup>	0.0680	0.0650	0.1511	0.1539	0.2183	0.2186	0.2449	0.2459
Obs	1,140	1,140	2,384	2,384	3,148	3,148	3,630	3,630
Obs in <i>Control</i>	292	292	611	611	813	813	940	940
Obs in <i>Treat<sub>low</sub></i>	286	286	589	589	781	781	910	910
Obs in <i>Treat<sub>med</sub></i>	274	274	599	599	784	784	908	908
Obs in <i>Treat<sub>high</sub></i>	288	288	585	585	770	770	872	872
Husbands	570	570	747	747	786	786	794	794
Av. obs. per husband	2.0	2.0	3.2	3.2	4.0	4.0	4.6	4.6

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. Individual control variables include husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Means are reported at *Post* = 0. Quartiles from wives' alimony distribution are used to classify husbands into different groups (see Figure 1).



Table B.31: Granger-type test for causality, husbands' daily childcare hours

Dependent variable:	husbands' childcare hours per day			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.092 (0.194)	0.044 (0.173)	0.058 (0.173)	0.043 (0.169)
$D_{2001} \cdot Treat_{med}$	0.107 (0.190)	0.031 (0.168)	0.047 (0.169)	0.041 (0.167)
$D_{2001} \cdot Treat_{high}$	-0.043 (0.203)	-0.008 (0.174)	-0.001 (0.175)	-0.002 (0.173)
$D_{2003} \cdot Treat_{low}$	0.163 (0.140)	0.037 (0.126)	0.036 (0.126)	0.023 (0.127)
$D_{2003} \cdot Treat_{med}$	0.168 (0.149)	0.000 (0.127)	-0.003 (0.131)	-0.007 (0.132)
$D_{2003} \cdot Treat_{high}$	0.072 (0.154)	-0.000 (0.127)	-0.001 (0.130)	-0.003 (0.130)
$D_{2005} \cdot Treat_{low}$	0.333** (0.145)	0.284** (0.142)	0.284** (0.142)	0.273* (0.142)
$D_{2005} \cdot Treat_{med}$	0.143 (0.121)	0.109 (0.117)	0.115 (0.116)	0.113 (0.115)
$D_{2005} \cdot Treat_{high}$	0.146 (0.127)	0.158 (0.126)	0.159 (0.125)	0.153 (0.124)
$D_{2009} \cdot Treat_{low}$	-0.169 (0.115)	-0.123 (0.112)	-0.111 (0.112)	-0.105 (0.112)
$D_{2009} \cdot Treat_{med}$	0.048 (0.108)	0.067 (0.103)	0.078 (0.103)	0.079 (0.103)
$D_{2009} \cdot Treat_{high}$	0.019 (0.108)	0.054 (0.102)	0.053 (0.103)	0.054 (0.104)
$D_{2011} \cdot Treat_{low}$	-0.061 (0.134)	0.032 (0.118)	0.036 (0.118)	0.040 (0.118)
$D_{2011} \cdot Treat_{med}$	0.056 (0.115)	0.101 (0.100)	0.112 (0.101)	0.123 (0.101)
$D_{2011} \cdot Treat_{high}$	0.075 (0.132)	0.108 (0.111)	0.099 (0.111)	0.095 (0.112)
$D_{2013} \cdot Treat_{low}$	-0.410 (0.273)	-0.171 (0.247)	-0.168 (0.246)	-0.162 (0.246)
$D_{2013} \cdot Treat_{med}$	0.010 (0.215)	0.157 (0.180)	0.180 (0.179)	0.179 (0.180)
$D_{2013} \cdot Treat_{high}$	-0.379 (0.253)	-0.140 (0.212)	-0.151 (0.210)	-0.167 (0.211)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	3,630	3,630	3,630	3,630
Husbands	794	794	794	794
Avg. obs per husband	4.6	4.6	4.6	4.6
<i>low</i> : $H_0$ : leads = 0	$F_{3,793} = 1.82$ $p\text{-val} = 0.1416$	$F_{3,793} = 1.54$ $p\text{-val} = 0.2020$	$F_{3,793} = 1.56$ $p\text{-val} = 0.1987$	$F_{3,793} = 1.50$ $p\text{-val} = 0.2125$
<i>med</i> : $H_0$ : leads = 0	$F_{3,793} = 0.63$ $p\text{-val} = 0.5938$	$F_{3,793} = 0.35$ $p\text{-val} = 0.7928$	$F_{3,793} = 0.41$ $p\text{-val} = 0.7481$	$F_{3,793} = 0.41$ $p\text{-val} = 0.7484$
<i>high</i> : $H_0$ : leads = 0	$F_{3,793} = 0.54$ $p\text{-val} = 0.6566$	$F_{3,793} = 0.67$ $p\text{-val} = 0.5691$	$F_{3,793} = 0.71$ $p\text{-val} = 0.5488$	$F_{3,793} = 0.66$ $p\text{-val} = 0.5753$
$Adj. R^2$	0.0549	0.2426	0.2443	0.2452

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Year dummies are always included. Quartiles from wives' alimony distribution are used to classify husbands into different groups (see Figure 1 on page 15).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.32: Fixed effects models with husbands as an alternative control group

Sample restriction	Dependent variable: working hours per day							
	2007 vs. 2009		2005/07-09/11		2003-13		2001-13	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control<sub>alt</sub></i>	6.937		6.909		6.814		6.870	
<i>Post-Treat<sub>low</sub></i>	0.849*** (0.236)	0.786*** (0.231)	0.877*** (0.187)	0.739*** (0.188)	0.867*** (0.180)	0.691*** (0.179)	0.993*** (0.179)	0.853*** (0.181)
<i>Post-Treat<sub>med</sub></i>	0.686*** (0.246)	0.688*** (0.243)	0.707*** (0.194)	0.636*** (0.190)	0.710*** (0.193)	0.577*** (0.189)	0.781*** (0.192)	0.631*** (0.189)
<i>Post-Treat<sub>high</sub></i>	0.691*** (0.230)	0.765*** (0.236)	0.602*** (0.192)	0.601*** (0.189)	0.478** (0.194)	0.430** (0.190)	0.496** (0.194)	0.443** (0.191)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,100	1,100	2,328	2,328	3,074	3,074	3,541	3,541
Obs in <i>Control<sub>alt</sub></i>	292	292	611	611	813	813	940	940
Obs in <i>Treat<sub>low</sub></i>	276	276	577	577	754	754	877	877
Obs in <i>Treat<sub>med</sub></i>	254	254	574	574	762	762	884	884
Obs in <i>Treat<sub>high</sub></i>	278	278	566	566	745	745	840	840
Individuals	550	550	733	733	782	782	794	794
Av. obs. per ind.	2.0	2.0	3.2	3.2	3.9	3.9	4.5	4.5
<i>Adj. R</i> <sup>2</sup>	0.0271	0.0685	0.0215	0.0699	0.0223	0.0832	0.0214	0.1029

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. The sample consists of individuals living in West Germany. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.33: Fixed effects models with husbands as an alternative control group

Sample restriction	Dependent variable: childcare in hours per day							
	2007 vs. 2009		2005/07-09/11		2003-13		2001-13	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control<sub>alt</sub></i>	0.979		0.864		0.858		0.917	
<i>Post-Treat<sub>low</sub></i>	-0.526** (0.203)	-0.419** (0.188)	-1.033*** (0.175)	-0.735*** (0.159)	-1.370*** (0.175)	-0.936*** (0.152)	-1.460*** (0.191)	-1.097*** (0.162)
<i>Post-Treat<sub>med</sub></i>	-0.491** (0.196)	-0.535*** (0.194)	-0.868*** (0.176)	-0.737*** (0.153)	-1.191*** (0.197)	-0.874*** (0.169)	-1.278*** (0.208)	-0.936*** (0.173)
<i>Post-Treat<sub>high</sub></i>	-0.172 (0.203)	-0.237 (0.200)	-0.738*** (0.183)	-0.704*** (0.161)	-0.996*** (0.188)	-0.827 (0.154)	-1.058*** (0.197)	-0.912*** (0.155)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	1,100	1,100	2,328	2,328	3,074	3,074	3,541	3,541
Obs in <i>Control<sub>alt</sub></i>	292	292	611	611	813	813	940	940
Obs in <i>Treat<sub>low</sub></i>	276	276	577	577	754	754	877	877
Obs in <i>Treat<sub>med</sub></i>	254	254	574	574	762	762	884	884
Obs in <i>Treat<sub>high</sub></i>	278	278	566	566	745	745	840	840
Individuals	550	550	733	733	782	782	794	794
Av. obs. per ind.	2.0	2.0	3.2	3.2	3.9	3.9	4.5	4.5
<i>Adj. R</i> <sup>2</sup>	0.0514	0.2096	0.1076	0.2845	0.1389	0.3710	0.1388	0.3979

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. The sample consists of individuals living in West Germany. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.34: Descriptive statistics for the 30-54 years old treatment and control groups before and after 2008

	<b>Before 2008</b>		<b>After 2008</b>	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Control group</i>				
Working hours	4.896	2.560	4.701	2.600
Participation (dummy)	0.867	0.339	0.866	0.341
Education in hrs	0.093	0.317	0.078	0.367
Education (dummy)	0.105	0.306	0.091	0.288
Housework in hrs	2.377	1.222	2.223	1.210
Childcare in hrs	2.451	3.346	1.822	2.992
Caregiving in hrs	0.036	0.297	0.040	0.225
Running errands in hrs	1.001	0.486	0.987	0.504
Hobbies in hrs	2.133	1.496	2.116	1.374
Year	2004.428	2.210	2010.181	1.362
Age	40.916	5.804	45.496	5.801
No. of children, age 0-1	0.028	0.165	0.031	0.196
No. of children, age 2-4	0.144	0.389	0.047	0.230
No. of children, age 5-7	0.181	0.409	0.091	0.314
No. of children, age 8-10	0.207	0.449	0.169	0.416
No. of children, age 11-12	0.149	0.363	0.134	0.353
No. of children, age 13-15	0.253	0.496	0.228	0.474
No. of children, age 16-18	0.181	0.420	0.248	0.508
N		430		254
Wives		154		154
<i>Low-intensity treatment group</i>				
Working hours	2.916	2.189	3.482	2.195
Participation (dummy)	0.751	0.433	0.849	0.358
Education in hrs	0.077	0.337	0.028	0.144
Education (dummy)	0.076	0.265	0.044	0.206
Housework in hrs	2.924	1.263	2.700	1.170
Childcare in hrs	3.899	3.864	2.294	3.243
Caregiving in hrs	0.054	0.354	0.093	0.477
Running errands in hrs	1.111	0.465	1.065	0.492
Hobbies in hrs	2.097	1.687	2.065	1.520
Year	2004.403	2.211	2010.243	1.374
Age	40.431	5.243	45.239	5.451
No. of children, age 0-1	0.033	0.179	0.018	0.135
No. of children, age 2-4	0.118	0.352	0.055	0.259
No. of children, age 5-7	0.206	0.439	0.103	0.304
No. of children, age 8-10	0.336	0.543	0.162	0.398
No. of children, age 11-12	0.232	0.455	0.169	0.404
No. of children, age 13-15	0.344	0.554	0.257	0.463
No. of children, age 16-18	0.265	0.512	0.404	0.562
N		422		272
Wives		163		163

Continued on next page

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	Before 2008		After 2008	
	Mean	Std. Dev.	Mean	Std. Dev.
<i>Medium-intensity treatment group</i>				
Working hours	2.458	2.308	2.759	2.244
Participation (dummy)	0.653	0.476	0.720	0.450
Education in hrs	0.047	0.205	0.097	0.327
Education (dummy)	0.077	0.266	0.106	0.309
Housework in hrs	2.979	1.317	2.778	1.207
Childcare in hrs	3.976	4.043	2.575	3.376
Caregiving in hrs	0.057	0.273	0.132	0.526
Running errands in hrs	1.071	0.509	1.082	0.502
Hobbies in hrs	2.075	1.634	2.055	1.612
Year	2004.228	2.206	2010.182	1.339
Age	40.653	5.417	45.670	5.206
No. of children, age 0-1	0.063	0.261	0.015	0.122
No. of children, age 2-4	0.186	0.435	0.045	0.209
No. of children, age 5-7	0.270	0.517	0.129	0.378
No. of children, age 8-10	0.267	0.493	0.193	0.432
No. of children, age 11-12	0.165	0.378	0.182	0.415
No. of children, age 13-15	0.223	0.459	0.326	0.551
No. of children, age 16-18	0.223	0.465	0.246	0.489
N		430		264
Wives		160		160
<i>High-intensity treatment group</i>				
Working hours	2.259	2.565	2.480	2.333
Participation (dummy)	0.539	0.499	0.650	0.478
Education in hrs	0.116	0.394	0.142	0.632
Education (dummy)	0.133	0.340	0.143	0.351
Housework in hrs	3.037	1.413	3.021	1.502
Childcare in hrs	3.807	3.830	2.317	3.168
Caregiving in hrs	0.086	0.470	0.112	0.524
Running errands in hrs	1.121	0.563	1.113	0.558
Hobbies in hrs	2.269	1.689	2.309	1.765
Year	2004.441	2.182	2010.226	1.398
Age	42.170	5.421	47.396	4.894
No. of children, age 0-1	0.055	0.240	0.009	0.096
No. of children, age 2-4	0.190	0.421	0.065	0.297
No. of children, age 5-7	0.205	0.432	0.138	0.359
No. of children, age 8-10	0.248	0.495	0.166	0.373
No. of children, age 11-12	0.182	0.408	0.143	0.351
No. of children, age 13-15	0.251	0.490	0.249	0.484
No. of children, age 16-18	0.202	0.436	0.336	0.563
N		347		217
Wives		135		135

Notes: Included time frame: 2001-2013; 612 wives, 2,636 observations

Table B.35: Balancing tests at pre-treatment (2005/2007) for the 30-54 years old treatment and control groups

Variable	Control	<i>Treat<sub>low</sub></i>	Mean		Difference between <i>Control</i> and ...		
			<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>	<i>Treat<sub>low</sub></i>	<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>
Age	41.929	41.651	42.207	43.694	0.278	-0.278	-1.765***
Migration background (first generation)	0.114	0.108	0.073	0.031	0.006	0.041	0.084***
Husbands' age	44.004	44.095	44.763	46.347	-0.091	-0.759	-2.343***
Husbands' migration background	0.102	0.087	0.056	0.005	0.015	0.046*	0.097***
Age difference (0=wife is younger; 1=equal/older)	0.319	0.307	0.259	0.286	0.012	0.060	0.033
Both with migration background	0.098	0.079	0.052	0.000	0.020	0.047**	0.098***
Marriage duration (exact and estimated)	15.457	15.473	15.276	16.352	-0.016	0.181	-0.895
Education (CASMIN)	4.980	4.679	5.172	6.026	0.301*	-0.192	-1.045*
Husbands' education (CASMIN)	4.814	4.378	5.609	7.273	0.436**	-0.794***	-2.459***
Educational qualifications (0=wife is less educated; 1=wife more or equal educated than husband)	0.764	0.726	0.659	0.495	0.038	0.104**	0.269***
No. of children, age 0-1	0.020	0.029	0.030	0.041	-0.009	-0.010	-0.021
No. of children, age 2-4	0.130	0.112	0.151	0.143	0.018	-0.021	-0.013
No. of children, age 5-7	0.161	0.158	0.211	0.179	0.004	-0.050	-0.017
No. of children, age 8-10	0.217	0.249	0.302	0.194	-0.032	-0.085 *	0.023
No. of children, age 11-12	0.146	0.220	0.190	0.184	-0.074 **	-0.044	-0.038
No. of children, age 13-15	0.228	0.423	0.228	0.291	-0.195***	-0.000	-0.062
No. of children, age 16-18	0.193	0.320	0.228	0.173	-0.1267***	-0.036	0.019
No. of pre-school children	0.260	0.228	0.297	0.306	0.032	-0.038	-0.046
No. of children, age 0-18	1.047	1.407	1.267	1.163	-0.359 ***	-0.220**	-0.116
No. of children, age 0-20	1.181	1.573	1.427	1.291	-0.392***	-0.246**	-0.110
Experience: full-time employment (in yrs)	11.854	7.621	7.603	8.099	4.232***	4.250***	3.754***
Experience: part-time employment (in yrs)	5.263	6.977	6.701	5.594	-1.713***	-1.438**	-0.330
Experience: full-time and part-time (in yrs)	17.117	14.598	14.305	13.693	2.519***	2.812***	3.423***
Husbands' experience: full-time employment (in yrs)	21.297	22.898	22.424	21.921	-1.601**	-1.127	-0.624
Husbands' experience: part-time employment (in yrs)	0.338	0.236	0.454	0.446	0.102	-0.116	-0.108
Husbands' experience: full- and part-time employment (in yrs)	21.635	23.134	22.878	22.367	-1.499**	-1.243*	-0.732
Experience in full-time employment (0=husband has more yrs of experience; 1=otherwise)	0.181	0.012	0.043	0.071	0.169***	0.138***	0.110***

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Variable	Mean				Difference between Control and ...		
	Control	Treat <sub>low</sub>	Treat <sub>med</sub>	Treat <sub>high</sub>	Treat <sub>low</sub>	Treat <sub>med</sub>	Treat <sub>high</sub>
Allowable income (in €)	1108.68	544.68	452.88	442.04	564.00***	655.81***	666.65***
Employed (0=no;1=yes)	0.884	0.788	0.713	0.549	0.096***	0.171***	0.335***
Husbands' allowable income (in €)	1938.11	2109.06	2542.13	4230.47	-170.95***	-604.01***	-2292.36***
Husbands employed (0=no;1=yes)	0.980	0.991	1.000	0.995	-0.012	-0.020**	-0.015
Household labor income (in €)	3,231.49	2,932.09	3,297.76	4,987.03	299.40***	-66.27	-1,755.54***
7-day week (per day):							
Working hours	4.934	3.049	2.504	2.235	1.884***	2.429***	2.699***
Education in hrs	0.100	0.061	0.038	0.118	0.039	0.063***	-0.018
Housework in hrs	2.362	2.798	2.966	2.949	-0.436***	-0.603***	-0.587***
Childcare in hrs	2.243	3.443	3.817	3.240	-1.200***	-1.574***	-0.997***
Caregiving in hrs	0.044	0.077	0.068	0.103	-0.033	-0.024	-0.058
Running errands in hrs	0.985	1.121	1.036	1.152	-0.136***	-0.051	-0.166***
Hobbies in hrs	2.215	2.105	2.074	2.314	0.110	0.141	-0.099
Husbands: working hours	7.035	7.188	7.159	7.595	-0.153	-0.124	-0.560***
Husbands: education in hrs	0.106	0.078	0.095	0.176	0.028	0.011	-0.071**
Husbands: housework in hrs	0.772	0.544	0.562	0.513	0.228***	0.210***	0.258***
Husbands: childcare in hrs	0.966	1.291	1.071	1.074	-0.324**	-0.105	-0.107
Husbands: caregiving in hrs	0.001	0.026	0.048	0.019	-0.025**	-0.047***	-0.018*
Husbands: running errands in hrs	0.630	0.583	0.509	0.492	0.047	0.121***	0.138***
Husbands: hobbies in hrs	2.066	2.068	1.977	2.184	-0.002	0.090	-0.118
Housework (0=wife spent more hrs;1=otherwise)	0.110	0.091	0.078	0.051	0.019	0.033	0.059**
Childcare (0=wife spent more hrs;1=otherwise)	0.614	0.444	0.418	0.423	0.170***	0.196***	0.191***

Notes: Balancing tests at  $Post = 0$  (pre-treatment 2005/07); West German wives. 923 person-year observations are included, except for household income (905 obs), employment (887 obs), allowable income (without deductions; 887 obs), education (920 obs), husbands' employment (892 obs), husbands' education (918 obs), husbands' allowable income (without deductions; 892 obs), husbands' time spending in hours (882 obs). The CASMIN educational classification distinguishes between inadequately completed education (1), general and vocational certification at the compulsory level (2, 3), intermediate level of education (4, 5), general and vocational certification at the maturity level (6, 7), and tertiary education (8, 9). Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.36: Fixed effects models, 30-54 years old wives, daily working hours

Sample restriction	Dependent variable: wives' working hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	4.955		4.934		4.950		4.897	
Mean in <i>Treat<sub>low</sub></i>	2.949		3.049		2.985		2.916	
Mean in <i>Treat<sub>med</sub></i>	2.586		2.504		2.471		2.458	
Mean in <i>Treat<sub>high</sub></i>	2.134		2.235		2.298		2.259	
<i>Post-Treat<sub>low</sub></i>	0.428* (0.234)	0.324 (0.210)	0.500** (0.193)	0.381** (0.180)	0.507*** (0.185)	0.346** (0.174)	0.482** (0.185)	0.344** (0.172)
<i>Post-Treat<sub>med</sub></i>	0.356 (0.263)	0.314 (0.238)	0.383* (0.217)	0.269 (0.201)	0.387* (0.214)	0.210 (0.196)	0.282 (0.210)	0.094 (0.188)
<i>Post-Treat<sub>high</sub></i>	0.553** (0.252)	0.444* (0.227)	0.417* (0.223)	0.323 (0.202)	0.272 (0.215)	0.117 (0.196)	0.139 (0.218)	-0.017 (0.196)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	864	864	1,776	1,776	2,306	2,306	2,636	2,636
Obs in <i>Control</i>	236	236	476	476	600	600	684	684
Obs in <i>Treat<sub>low</sub></i>	230	230	471	471	606	606	694	694
Obs in <i>Treat<sub>med</sub></i>	210	210	452	452	599	599	694	694
Obs in <i>Treat<sub>high</sub></i>	188	188	377	377	501	501	564	564
Wives	432	432	564	564	601	601	612	612
Av. obs. per wife	2.0	2.0	3.1	3.1	3.8	3.8	4.3	4.3
<i>Adj. R</i> <sup>2</sup>	0.0222	0.1682	0.0209	0.1445	0.0292	0.1624	0.0271	0.1929

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.37: Granger-type test for causality, 30-54 years old wives

Dependent variable:	wives' working hours			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.042 (0.303)	0.002 (0.269)	0.014 (0.269)	0.064 (0.270)
$D_{2001} \cdot Treat_{med}$	0.561* (0.335)	0.688** (0.293)	0.694** (0.293)	0.737** (0.295)
$D_{2001} \cdot Treat_{high}$	1.193*** (0.395)	1.079*** (0.319)	1.084*** (0.319)	1.069*** (0.325)
$D_{2003} \cdot Treat_{low}$	0.065 (0.294)	0.208 (0.282)	0.227 (0.283)	0.254 (0.284)
$D_{2003} \cdot Treat_{med}$	0.358 (0.333)	0.550* (0.291)	0.559* (0.291)	0.569* (0.292)
$D_{2003} \cdot Treat_{high}$	0.927*** (0.313)	0.916*** (0.273)	0.918*** (0.274)	0.916*** (0.281)
$D_{2005} \cdot Treat_{low}$	0.124 (0.224)	0.115 (0.209)	0.131 (0.210)	0.140 (0.212)
$D_{2005} \cdot Treat_{med}$	0.212 (0.252)	0.267 (0.212)	0.276 (0.213)	0.277 (0.215)
$D_{2005} \cdot Treat_{high}$	0.518** (0.231)	0.404* (0.224)	0.403* (0.224)	0.391* (0.227)
$D_{2009} \cdot Treat_{low}$	0.484** (0.224)	0.428** (0.208)	0.445** (0.208)	0.422** (0.209)
$D_{2009} \cdot Treat_{med}$	0.333 (0.251)	0.269 (0.226)	0.272 (0.227)	0.253 (0.228)
$D_{2009} \cdot Treat_{high}$	0.531** (0.235)	0.401* (0.215)	0.409* (0.217)	0.401* (0.217)
$D_{2011} \cdot Treat_{low}$	0.581** (0.286)	0.391 (0.268)	0.415 (0.270)	0.354 (0.269)
$D_{2011} \cdot Treat_{med}$	0.698** (0.307)	0.557** (0.283)	0.557* (0.284)	0.540* (0.285)
$D_{2011} \cdot Treat_{high}$	0.772** (0.308)	0.516* (0.288)	0.507* (0.289)	0.507* (0.289)
$D_{2013} \cdot Treat_{low}$	0.661 (0.427)	0.512 (0.406)	0.528 (0.405)	0.439 (0.395)
$D_{2013} \cdot Treat_{med}$	0.851* (0.474)	0.601 (0.421)	0.608 (0.420)	0.572 (0.409)
$D_{2013} \cdot Treat_{high}$	1.162*** (0.446)	0.677 (0.417)	0.696 (0.413)	0.678* (0.406)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	2,636	2,636	2,636	2,636
Wives	612	612	612	612
Avg. obs per wife	4.3	4.3	4.3	4.3
$low: H_0 : \text{leads} = 0$	$F_{3,611} = 0.11$ $p\text{-val} = 0.9531$	$F_{3,611} = 0.27$ $p\text{-val} = 0.8471$	$F_{3,611} = 0.31$ $p\text{-val} = 0.8194$	$F_{3,611} = 0.32$ $p\text{-val} = 0.8136$
$med: H_0 : \text{leads} = 0$	$F_{3,611} = 0.94$ $p\text{-val} = 0.4201$	$F_{3,611} = 2.04$ $p\text{-val} = 0.1078$	$F_{3,611} = 2.06$ $p\text{-val} = 0.1039$	$F_{3,611} = 2.25$ $p\text{-val} = 0.0818$
$high: H_0 : \text{leads} = 0$	$F_{3,611} = 4.00$ $p\text{-val} = 0.0078$	$F_{3,611} = 5.09$ $p\text{-val} = 0.0017$	$F_{3,611} = 5.12$ $p\text{-val} = 0.0017$	$F_{3,611} = 4.75$ $p\text{-val} = 0.0028$
$Adj. R^2$	0.0340	0.1995	0.1989	0.2106

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: 30 – 34, ..., 50 – 54 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30



Table B.38: Fixed effects models for placebo treatment, 30-54 years old wives, daily working hours

Sample restriction	Dependent variable: wives' working hours per day			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	-0.040 (0.209)	-0.125 (0.217)	-0.101 (0.201)	-0.153 (0.195)
$Post_{placebo} \cdot Treat_{med}$	-0.300 (0.212)	-0.359 * (0.193)	-0.280 (0.221)	-0.395* (0.201)
$Post_{placebo} \cdot Treat_{high}$	-0.370 (0.238)	-0.395 * (0.218)	-0.755*** (0.238)	-0.739*** (0.200)
Individual control variables	no	yes	no	yes
Obs	768	768	1,606	1,606
Obs in <i>Control</i>	208	208	428	428
Obs in <i>Treat<sub>low</sub></i>	180	180	399	399
Obs in <i>Treat<sub>med</sub></i>	206	206	415	415
Obs in <i>Treat<sub>high</sub></i>	174	174	364	364
Wives	384	384	492	492
Average obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0072	0.1539	0.0142	0.1750

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.39: Fixed effects models, 30-54 years old wives, LFP

Sample restriction	Dependent variable: wives' participation							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	0.898		0.878		0.876		0.867	
Mean in <i>Treat<sub>low</sub></i>	0.791		0.784		0.765		0.751	
Mean in <i>Treat<sub>med</sub></i>	0.724		0.681		0.668		0.653	
Mean in <i>Treat<sub>high</sub></i>	0.564		0.551		0.552		0.539	
$Post \cdot Treat_{low}$	0.069 (0.044)	0.048 (0.040)	0.070** (0.033)	0.060* (0.031)	0.077** (0.032)	0.058* (0.030)	0.077** (0.034)	0.060* (0.031)
$Post \cdot Treat_{med}$	0.034 (0.052)	0.031 (0.047)	0.054 (0.041)	0.029 (0.037)	0.064 (0.040)	0.025 (0.036)	0.060 (0.041)	0.020 (0.036)
$Post \cdot Treat_{high}$	0.098* (0.051)	0.079* (0.046)	0.098** (0.043)	0.076* (0.039)	0.085** (0.039)	0.056 (0.037)	0.076* (0.040)	0.048 (0.038)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	864	864	1,776	1,776	2,306	2,306	2,636	2,636
Obs in <i>Control</i>	236	236	476	476	600	600	684	684
Obs in <i>Treat<sub>low</sub></i>	230	230	471	471	606	606	694	694
Obs in <i>Treat<sub>med</sub></i>	210	210	452	452	599	599	694	694
Obs in <i>Treat<sub>high</sub></i>	188	188	377	377	501	501	564	564
Wives	432	432	564	564	601	601	612	612
Av. obs. per wife	2.0	2.0	3.1	3.1	3.8	3.8	4.3	4.3
$Adj. R^2$	0.0060	0.1804	0.0228	0.1749	0.0343	0.1687	0.0385	0.1824

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at  $Post = 0$ . Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.40: Fixed effects models, 30-54 years old wives, including 2005/2007 (pre-treatment years) and 2009/2011 (post-treatment years)

Dependent variable: wives' working hours													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<i>Post · Treat<sub>low</sub></i>	0.420** (0.184)	0.428** (0.184)	0.399** (0.182)	0.375** (0.181)	0.471** (0.189)	0.452** (0.180)	0.414** (0.185)	0.444** (0.186)	0.424** (0.186)	0.386** (0.183)	0.498* * * (0.186)	0.433** (0.187)	0.486* * * (0.186)
<i>Post · Treat<sub>med</sub></i>	0.352* (0.208)	0.314 (0.213)	0.264 (0.203)	0.259 (0.203)	0.416* (0.223)	0.371* (0.206)	0.346 (0.211)	0.306 (0.217)	0.306 (0.214)	0.249 (0.205)	0.430* (0.222)	0.291 (0.217)	0.414* (0.224)
<i>Post · Treat<sub>high</sub></i>	0.435** (0.206)	0.358* (0.207)	0.318 (0.205)	0.307 (0.205)	0.485** (0.213)	0.441** (0.205)	0.420** (0.211)	0.346 (0.210)	0.347* (0.210)	0.294 (0.207)	0.483** (0.212)	0.328 (0.213)	0.463** (0.215)
Work experience	yes	no	no	no	yes	yes	yes	no	no	no	yes	no	yes
Husband's income	no	yes	no	no	yes	no	no	yes	yes	no	yes	yes	yes
Divorce number	no	no	yes	no	no	yes	no	yes	no	yes	yes	yes	yes
Age group	no	no	no	yes	no	no	yes	no	yes	yes	no	yes	yes
Obs	1,776	1,687	1,699	1,776	1,687	1,699	1,776	1,611	1,687	1,699	1,611	1,611	1,611
Wives	564	541	537	564	541	537	564	514	541	537	514	514	514
Avg. obs per wife	3.1	3.1	3.2	3.1	3.1	3.2	3.1	3.1	3.1	3.2	3.1	3.1	3.1
<i>Adj. R</i> <sup>2</sup>	0.1506	0.1410	0.1486	0.1445	0.1478	0.1592	0.1504	0.1449	0.1409	0.1493	0.1560	0.1455	0.1563

Notes: Dependent variable covers work and apprenticeship (including travel time to and from work), 7-day week. The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. Models include only 2005/2007 (pre-treatment) and 2009/2011 (post-treatment). Control variables in all models: year fixed effects, age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Marriage duration specific divorce number refers to marriages in West Germany:  $\frac{\text{No. of divorces in calendar year } y}{\text{No. of marriages in calendar year } y}$ . 1,000 (Federal Office of Statistics 2015, pp. 5, 36). It is used to assess the risk of divorce depending on marriage duration. Here, I control for it in a sample with exact, i.e. not estimated, marriage duration.

Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Husband's income is a net value, allowable income without deductions.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.41: Fixed effects models, 30-54 years old wives, including years 2005/2007 (pre-treatment years) and 2009/2011 (post-treatment years)

Dependent variable: wives' working hours												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>Post · Treat<sub>low</sub></i>	0.415** (0.188)	0.385** (0.191)	0.458** (0.191)	0.453** (0.193)	0.410** (0.189)	0.384** (0.192)	0.412** (0.198)	0.484** (0.200)	0.412** (0.199)	0.454** (0.192)	0.450** (0.194)	0.482** (0.201)
<i>Post · Treat<sub>med</sub></i>	0.293 (0.202)	0.328 (0.210)	0.381* (0.208)	0.430* (0.220)	0.285 (0.203)	0.321 (0.212)	0.348* (0.211)	0.454** (0.221)	0.341 (0.212)	0.377* (0.212)	0.424* (0.224)	0.448** (0.224)
<i>Post · Treat<sub>high</sub></i>	0.292 (0.204)	0.332* (0.199)	0.424** (0.211)	0.466** (0.210)	0.277 (0.206)	0.321 (0.203)	0.305 (0.202)	0.454** (0.212)	0.294 (0.206)	0.410* (0.215)	0.455** (0.211)	0.443** (0.217)
Work experience	no	no	yes	yes	no	no	no	yes	no	yes	yes	yes
Husband's work experience	yes	no	yes	no	yes	no	yes	yes	yes	yes	no	yes
Husband's childcare in hrs	no	yes	no	yes	no	yes	yes	yes	yes	no	yes	yes
Age group	no	no	no	no	yes	yes	no	no	yes	yes	yes	yes
Obs	1,776	1,666	1,776	1,666	1,776	1,666	1,666	1,666	1,666	1,776	1,666	1,666
Wives	564	545	564	545	564	545	545	545	545	564	545	545
Avg. obs per wife	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
<i>Adj. R</i> <sup>2</sup>	0.1479	0.1399	0.1534	0.1438	0.1482	0.1390	0.1417	0.1453	0.1410	0.1534	0.1427	0.1445

Notes: Dependent variable covers work and apprenticeship (including travel time to and from work), 7-day week. The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. Models include only 2005/2007 (pre-treatment) and 2009/2011 (post-treatment). Control variables in all models: year fixed effects, age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.42: Fixed effects models for placebo treatment, 30-54 years old wives

Sample restriction	Dependent variable: wives' participation			
	2003 vs. 2005		2001-2007	
	(1)	(2)	(3)	(4)
$Post_{placebo} \cdot Treat_{low}$	0.016 (0.044)	-0.010 (0.044)	0.012 (0.039)	0.002 (0.037)
$Post_{placebo} \cdot Treat_{med}$	0.010 (0.040)	-0.006 (0.036)	0.009 (0.041)	-0.018 (0.037)
$Post_{placebo} \cdot Treat_{high}$	-0.040 (0.033)	-0.041 (0.031)	-0.083** (0.037)	-0.077** (0.032)
Individual control variables	no	yes	no	yes
Obs	768	768	1,606	1,606
Obs in <i>Control</i>	208	208	428	428
Obs in $Treat_{low}$	180	180	399	399
Obs in $Treat_{med}$	206	206	415	415
Obs in $Treat_{high}$	174	174	364	364
Wives	384	384	492	492
Average obs. per wife	2.0	2.0	3.3	3.3
$Adj. R^2$	0.0075	0.1000	0.0183	0.1532

Notes: The table shows placebo difference-in-differences estimates; robust standard errors in parentheses, clustered at individual level. 2001 and 2003 constitute the pre-treatment years, while the years after 2005 are the post-treatment years. As controls in Columns (2) and (4), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.43: Granger-type test for causality, 30-54 years old wives

Dependent variable:	wives' participation			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	-0.050 (0.061)	-0.053 (0.054)	-0.051 (0.054)	-0.019 (0.056)
$D_{2001} \cdot Treat_{med}$	-0.000 (0.067)	0.030 (0.060)	0.030 (0.060)	0.063 (0.061)
$D_{2001} \cdot Treat_{high}$	0.095 (0.066)	0.082 (0.058)	0.081 (0.058)	0.124** (0.061)
$D_{2003} \cdot Treat_{low}$	-0.037 (0.058)	-0.014 (0.054)	-0.011 (0.054)	0.011 (0.054)
$D_{2003} \cdot Treat_{med}$	0.023 (0.061)	0.071 (0.053)	0.072 (0.053)	0.089* (0.053)
$D_{2003} \cdot Treat_{high}$	0.111** (0.050)	0.115** (0.048)	0.116** (0.048)	0.144* * * (0.049)
$D_{2005} \cdot Treat_{low}$	-0.016 (0.043)	-0.019 (0.039)	-0.016 (0.040)	-0.008 (0.040)
$D_{2005} \cdot Treat_{med}$	0.026 (0.048)	0.039 (0.042)	0.039 (0.042)	0.043 (0.042)
$D_{2005} \cdot Treat_{high}$	0.067* (0.040)	0.054 (0.038)	0.053 (0.038)	0.067* (0.038)
$D_{2009} \cdot Treat_{low}$	0.063 (0.041)	0.059 (0.038)	0.063 (0.038)	0.053 (0.039)
$D_{2009} \cdot Treat_{med}$	0.031 (0.049)	0.021 (0.045)	0.023 (0.045)	0.010 (0.045)
$D_{2009} \cdot Treat_{high}$	0.096** (0.047)	0.075* (0.043)	0.077* (0.044)	0.066 (0.044)
$D_{2011} \cdot Treat_{low}$	0.055 (0.044)	0.031 (0.041)	0.037 (0.042)	0.016 (0.043)
$D_{2011} \cdot Treat_{med}$	0.115** (0.054)	0.089* (0.050)	0.092* (0.050)	0.076 (0.050)
$D_{2011} \cdot Treat_{high}$	0.176* * * (0.054)	0.130** (0.051)	0.132** (0.052)	0.113** (0.051)
$D_{2013} \cdot Treat_{low}$	0.033 (0.068)	0.013 (0.062)	0.017 (0.062)	-0.004 (0.063)
$D_{2013} \cdot Treat_{med}$	0.128 (0.101)	0.074 (0.094)	0.079 (0.094)	0.059 (0.093)
$D_{2013} \cdot Treat_{high}$	0.198** (0.096)	0.133 (0.091)	0.137 (0.092)	0.108 (0.092)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	2,636	2,636	2,636	2,636
Wives	612	612	612	612
Avg. obs per wife	4.3	4.3	4.3	4.3
<i>low</i> : $H_0$ : leads = 0	$F_{3,611} = 0.24$ $p\text{-val} = 0.8694$	$F_{3,611} = 0.36$ $p\text{-val} = 0.7793$	$F_{3,611} = 0.35$ $p\text{-val} = 0.7861$	$F_{3,611} = 0.13$ $p\text{-val} = 0.9400$
<i>med</i> : $H_0$ : leads = 0	$F_{3,611} = 0.15$ $p\text{-val} = 0.9305$	$F_{3,611} = 0.65$ $p\text{-val} = 0.5832$	$F_{3,611} = 0.67$ $p\text{-val} = 0.5679$	$F_{3,611} = 0.94$ $p\text{-val} = 0.4185$
<i>high</i> : $H_0$ : leads = 0	$F_{3,611} = 1.86$ $p\text{-val} = 0.1348$	$F_{3,611} = 2.02$ $p\text{-val} = 0.1104$	$F_{3,611} = 2.03$ $p\text{-val} = 0.1089$	$F_{3,611} = 3.17$ $p\text{-val} = 0.0240$
$Adj. R^2$	0.0405	0.1842	0.1837	0.2089

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for the following steps: 30-34, ..., 50-54 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.44: Fixed effects models, 30-54 years old wives, daily housework hours

Sample restriction	Dependent variable: wives' housework in hrs per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	2.314		2.362		2.347		2.377	
Mean in <i>Treat<sub>low</sub></i>	2.848		2.798		2.870		2.924	
Mean in <i>Treat<sub>med</sub></i>	2.807		2.966		2.932		2.979	
Mean in <i>Treat<sub>high</sub></i>	2.945		2.949		2.969		3.037	
<i>Post-Treat<sub>low</sub></i>	-0.067 (0.129)	0.014 (0.127)	0.031 (0.102)	0.087 (0.100)	-0.000 (0.095)	0.066 (0.093)	-0.011 (0.099)	0.049 (0.097)
<i>Post-Treat<sub>med</sub></i>	0.029 (0.141)	0.025 (0.138)	0.026 (0.105)	0.049 (0.104)	0.072 (0.102)	0.097 (0.101)	0.038 (0.098)	0.068 (0.097)
<i>Post-Treat<sub>high</sub></i>	0.097 (0.141)	0.084 (0.137)	0.303** (0.125)	0.308** (0.119)	0.250** (0.117)	0.277** (0.112)	0.227* (0.117)	0.249** (0.112)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	864	864	1,776	1,776	2,306	2,306	2,636	2,636
Obs in <i>Control</i>	236	236	476	476	600	600	684	684
Obs in <i>Treat<sub>low</sub></i>	230	230	471	471	606	606	694	694
Obs in <i>Treat<sub>med</sub></i>	210	210	452	452	599	599	694	694
Obs in <i>Treat<sub>high</sub></i>	188	188	377	377	501	501	564	564
Wives	432	432	564	564	601	601	612	612
Av. obs. per wife	2.0	2.0	3.1	3.1	3.8	3.8	4.3	4.3
<i>Adj. R</i> <sup>2</sup>	0.0019	0.0305	0.0116	0.0357	0.0141	0.0401	0.0209	0.0507

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.45: Fixed effects models, 30-54 years old wives, daily childcare hours

Sample restriction	Dependent variable: wives' childcare hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean in <i>Control</i>	2.172		2.243		2.266		2.451	
Mean in <i>Treat<sub>low</sub></i>	3.363		3.443		3.674		3.899	
Mean in <i>Treat<sub>med</sub></i>	3.457		3.817		3.975		3.976	
Mean in <i>Treat<sub>high</sub></i>	2.834		3.240		3.602		3.807	
<i>Post-Treat<sub>low</sub></i>	-0.468 (0.292)	-0.278 (0.260)	-1.014*** (0.278)	-0.716*** (0.238)	-1.178*** (0.282)	-0.781*** (0.230)	-1.137*** (0.295)	-0.780*** (0.235)
<i>Post-Treat<sub>med</sub></i>	-0.401 (0.287)	-0.398 (0.255)	-0.820*** (0.280)	-0.653*** (0.236)	-0.888*** (0.305)	-0.595** (0.249)	-0.779** (0.308)	-0.471* (0.245)
<i>Post-Treat<sub>high</sub></i>	-0.083 (0.331)	-0.014 (0.279)	-0.719** (0.317)	-0.583** (0.249)	-0.846*** (0.325)	-0.582** (0.242)	-0.790** (0.329)	-0.556** (0.239)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	864	864	1,776	1,776	2,306	2,306	2,636	2,636
Obs in <i>Control</i>	236	236	476	476	600	600	684	684
Obs in <i>Treat<sub>low</sub></i>	230	230	471	471	606	606	694	694
Obs in <i>Treat<sub>med</sub></i>	210	210	452	452	599	599	694	694
Obs in <i>Treat<sub>high</sub></i>	188	188	377	377	501	501	564	564
Wives	432	432	564	564	601	601	612	612
Av. obs. per wife	2.0	2.0	3.1	3.1	3.8	3.8	4.3	4.3
<i>Adj. R</i> <sup>2</sup>	0.0564	0.2832	0.1303	0.3010	0.1766	0.3997	0.1930	0.4314

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.46: Fixed effects models, daily working hours

Sample restriction	Dependent variable: wives' working hours per day							
	2007 vs. 2009		2005-2011		2003-2013		2001-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Panel A: wives younger than 45 years of age</b>								
Mean in <i>Control</i>	4.279		4.214		4.227		4.111	
<i>Post-Treat<sub>low</sub></i>	0.534 (0.350)	0.441 (0.300)	0.789*** (0.288)	0.614** (0.254)	0.828*** (0.274)	0.609** (0.240)	0.751*** (0.277)	0.590** (0.241)
<i>Post-Treat<sub>med</sub></i>	0.345 (0.386)	0.411 (0.344)	0.416 (0.333)	0.338 (0.305)	0.486 (0.315)	0.266 (0.288)	0.325 (0.320)	0.053 (0.287)
<i>Post-Treat<sub>high</sub></i>	0.727* (0.436)	0.545 (0.374)	0.747** (0.357)	0.548* (0.323)	0.461 (0.340)	0.273 (0.312)	0.083 (0.349)	-0.034 (0.310)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	458	458	900	900	1,153	1,153	1,331	1,331
Obs in <i>Control</i>	134	134	258	258	325	325	367	367
Obs in <i>Treat<sub>low</sub></i>	142	142	273	273	348	348	408	408
<i>Post</i> = 0/ <i>Post</i> = 1	71/71	71/71	145/128	145/128	205/143	205/143	261/147	261/147
Obs in <i>Treat<sub>med</sub></i>	106	106	224	224	299	299	351	351
<i>Post</i> = 0/ <i>Post</i> = 1	53/53	53/53	119/105	119/105	174/125	174/125	221/130	221/130
Obs in <i>Treat<sub>high</sub></i>	76	76	145	145	181	181	205	205
<i>Post</i> = 0/ <i>Post</i> = 1	38/38	38/38	76/69	76/69	107/74	107/74	131/74	131/74
Wives	229	229	293	293	310	310	317	317
Av. obs. per wife	2.0	2.0	3.1	3.1	3.7	3.7	4.2	4.2
<i>Adj. R</i> <sup>2</sup>	0.0145	0.2063	0.0344	0.2129	0.0334	0.2487	0.0219	0.2729
<b>Panel B: wives older than 45 years of age</b>								
Mean in <i>Control</i>	5.480		5.480		5.403		5.305	
<i>Post-Treat<sub>low</sub></i>	0.288 (0.325)	0.256 (0.335)	0.144 (0.277)	0.100 (0.281)	0.160 (0.251)	0.126 (0.252)	0.095 (0.265)	0.073 (0.263)
<i>Post-Treat<sub>med</sub></i>	0.084 (0.331)	-0.024 (0.326)	0.200 (0.253)	0.100 (0.246)	0.190 (0.237)	0.102 (0.227)	0.121 (0.238)	0.041 (0.224)
<i>Post-Treat<sub>high</sub></i>	-0.016 (0.276)	0.060 (0.282)	-0.038 (0.254)	-0.077 (0.251)	-0.078 (0.258)	-0.130 (0.252)	-0.155 (0.260)	-0.196 (0.252)
Ind. control var.	no	yes	no	yes	no	yes	no	yes
Obs	530	530	1,183	1,183	1,479	1,479	1,577	1,577
Obs in <i>Control</i>	122	122	285	285	363	363	388	388
Obs in <i>Treat<sub>low</sub></i>	110	110	244	244	299	299	319	319
<i>Post</i> = 0/ <i>Post</i> = 1	55/55	55/55	108/136	108/136	138/161	138/161	158/161	158/161
Obs in <i>Treat<sub>med</sub></i>	116	116	287	287	349	349	370	370
<i>Post</i> = 0/ <i>Post</i> = 1	58/58	58/58	127/160	127/160	165/184	165/184	186/184	186/184
Obs in <i>Treat<sub>high</sub></i>	182	182	367	367	468	468	500	500
<i>Post</i> = 0/ <i>Post</i> = 1	91/91	91/91	173/194	173/194	231/237	231/237	262/238	262/238
Wives	265	265	402	402	428	428	429	429
Av. obs. per wife	2.0	2.0	2.9	2.9	3.5	3.5	3.7	3.7
<i>Adj. R</i> <sup>2</sup>	0.0009	0.0418	0.0005	0.0271	0.0004	0.0281	0.0011	0.0273

Notes: The table shows DiD estimates; robust standard errors in parentheses, clustered at individual level. 2001 to 2007 constitute the pre-treatment years, while the years after 2009 are the post-treatment years. As controls in Columns (2), (4), (6), and (8), I include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household; year fixed effects are always controlled for. Means are reported at *Post* = 0. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.47: Descriptive statistics, assets, West German wives

	Mean	Std. Dev.	Min	Max
<i>Control group</i>				
Ownership of house/apartment	0.6126	0.4874	0	1
Obs	906			
Wives	194			
Ownership of house/apartment/property	0.6336	0.4821	0	1
Obs	906			
Wives	194			
Debt-free ownership of house/apartment/property	0.1751	0.3803	0	1
Obs	845			
Wives	180			
Sole ownership of house/apartment/property	0.3452	0.4757	0	1
Obs	898			
Wives	192			
Financial assets	0.6368	0.4812	0	1
Obs	906			
Wives	194			
<i>Low-intensity treatment group</i>				
Ownership of house/apartment	0.5681	0.4956	0	1
Obs	852			
Wives	190			
Ownership of house/apartment/property	0.5681	0.4956	0	1
Obs	852			
Wives	190			
Debt-free ownership of house/apartment/property	0.2184	0.4134	0	1
Obs	815			
Wives	182			
Sole ownership of house/apartment/property	0.3615	0.4807	0	1
Obs	841			
Wives	187			
Financial assets	0.5129	0.5001	0	1
Obs	850			
Wives	189			
<i>Medium-intensity treatment group</i>				
Ownership of house/apartment	0.6531	0.4763	0	1
Obs	859			
Wives	190			
Ownership of house/apartment/property	0.6764	0.4681	0	1
Obs	859			
Wives	190			
Debt-free ownership of house/apartment/property	0.2732	0.4459	0	1
Obs	831			
Wives	183			
Sole ownership of house/apartment/property	0.3853	0.4869	0	1
Obs	841			
Wives	185			
Financial assets	0.6019	0.4897	0	1
Obs	859			
Wives	190			
<i>High-intensity treatment group</i>				
Ownership of house/apartment	0.8270	0.3785	0	1
Obs	815			
Wives	191			
Ownership of house/apartment/property	0.8429	0.3641	0	1
Obs	815			
Wives	191			
Debt-free ownership of house/apartment/property	0.3727	0.4839	0	1
Obs	786			
Wives	183			
Sole ownership of house/apartment/property	0.5918	0.4918	0	1
Obs	806			
Wives	189			
Financial assets	0.7866	0.4100	0	1
Obs	820			
Wives	192			

Notes: Given numbers are based on information provided in 2002 or/and 2007. Data: SOEPlong v30



Table B.48: Descriptive statistics, assets, 30-54 years old West German wives

	Mean	Std. Dev.	Min	Max
<i>Control group</i>				
Ownership of house/apartment	0.6141	0.4871	0	1
Obs	679			
Wives	152			
Ownership of house/apartment/property	0.6318	0.4827	0	1
Obs	679			
Wives	152			
Debt-free ownership of house/apartment/property	0.1669	0.3732	0	1
Obs	623			
Wives	139			
Sole ownership of house/apartment/property	0.3607	0.4805	0	1
Obs	671			
Wives	150			
Financial assets	0.6539	0.4761	0	1
Obs	679			
Wives	152			
<i>Low-intensity treatment group</i>				
Ownership of house/apartment	0.5861	0.4929	0	1
Obs	674			
Wives	156			
Ownership of house/apartment/property	0.5861	0.4929	0	1
Obs	674			
Wives	156			
Debt-free ownership of house/apartment/property	0.1742	0.3796	0	1
Obs	643			
Wives	149			
Sole ownership of house/apartment/property	0.3707	0.4834	0	1
Obs	669			
Wives	154			
Financial assets	0.5119	0.5002	0	1
Obs	672			
Wives	155			
<i>Medium-intensity treatment group</i>				
Ownership of house/apartment	0.6494	0.4775	0	1
Obs	676			
Wives	154			
Ownership of house/apartment/property	0.6775	0.4678	0	1
Obs	676			
Wives	154			
Debt-free ownership of house/apartment/property	0.2593	0.4386	0	1
Obs	648			
Wives	147			
Sole ownership of house/apartment/property	0.3875	0.4875	0	1
Obs	658			
Wives	149			
Financial assets	0.6050	0.4892	0	1
Obs	676			
Wives	154			
<i>High-intensity treatment group</i>				
Ownership of house/apartment	0.8137	0.3897	0	1
Obs	553			
Wives	132			
Ownership of house/apartment/property	0.8282	0.3775	0	1
Obs	553			
Wives	132			
Debt-free ownership of house/apartment/property	0.2976	0.4576	0	1
Obs	531			
Wives	126			
Sole ownership of house/apartment/property	0.5919	0.4919	0	1
Obs	544			
Wives	130			
Financial assets	0.7992	0.4009	0	1
Obs	553			
Wives	132			

Notes: Given numbers are based on information provided in 2002 or/and 2007. Data: SOEPlong v30

Table B.49: Fixed effects models including three-way interactions and lower order effects, ownership of property

Dependent variable: wives' working hours per day																				
Sample restriction	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
$D_{prop} \cdot Post \cdot Treat_{low}$	-0.089 (0.494)	-0.132 (0.398)	-0.219 (0.363)	-0.253 (0.365)	-0.576 (0.502)	-0.468 (0.383)	-0.422 (0.346)	-0.332 (0.347)	-0.598 (0.499)	-0.484 (0.385)	-0.439 (0.347)	-0.349 (0.349)	-0.574 (0.494)	-0.514 (0.384)	-0.501 (0.345)	-0.400 (0.346)	-0.535 (0.497)	-0.529 (0.392)	-0.534 (0.350)	-0.420 (0.350)
$D_{prop} \cdot Post \cdot Treat_{med}$	-0.710 (0.528)	-0.515 (0.426)	-0.415 (0.400)	-0.225 (0.406)	-0.976* (0.525)	-0.643 (0.400)	-0.450 (0.369)	-0.243 (0.373)	-0.960* (0.523)	-0.674* (0.400)	-0.475 (0.366)	-0.265 (0.372)	-1.011* (0.522)	-0.769* (0.403)	-0.579 (0.368)	-0.371 (0.373)	-0.903* (0.528)	-0.779* (0.402)	-0.597 (0.369)	-0.377 (0.375)
$D_{prop} \cdot Post \cdot Treat_{high}$	-0.229 (0.475)	-0.576 (0.392)	-0.564 (0.391)	-0.619 (0.421)	-0.700 (0.431)	-0.773** (0.355)	-0.609* (0.343)	-0.611* (0.369)	-0.679 (0.440)	-0.805** (0.358)	-0.641* (0.342)	-0.649* (0.368)	-0.645 (0.441)	-0.780** (0.355)	-0.605* (0.344)	-0.582 (0.364)	-0.584 (0.467)	-0.831** (0.364)	-0.630* (0.348)	-0.576 (0.365)
$Post \cdot Treat_{low}$	0.459 (0.422)	0.592* (0.344)	0.639** (0.307)	0.623** (0.307)	0.682 (0.434)	0.657* (0.337)	0.605** (0.300)	0.549* (0.302)	0.663 (0.425)	0.655* (0.339)	0.618** (0.301)	0.562* (0.303)	0.746* (0.442)	0.697** (0.343)	0.638** (0.304)	0.590* (0.309)	0.735 (0.449)	0.730** (0.354)	0.673** (0.312)	0.601* (0.315)
$Post \cdot Treat_{med}$	0.708 (0.446)	0.636* (0.331)	0.595* (0.321)	0.360 (0.340)	0.895** (0.454)	0.642* (0.343)	0.467 (0.310)	0.200 (0.319)	0.857* (0.449)	0.650* (0.344)	0.486 (0.308)	0.220 (0.318)	0.991** (0.463)	0.752** (0.347)	0.551* (0.312)	0.301 (0.324)	0.912* (0.473)	0.776** (0.348)	0.577* (0.314)	0.307 (0.328)
$Post \cdot Treat_{high}$	0.363 (0.399)	0.633** (0.322)	0.524 (0.325)	0.420 (0.358)	0.746** (0.374)	0.742** (0.293)	0.454 (0.278)	0.325 (0.310)	0.721* (0.378)	0.754** (0.297)	0.483* (0.278)	0.363 (0.311)	0.824** (0.394)	0.796*** (0.292)	0.481* (0.280)	0.361 (0.307)	0.746* (0.427)	0.818*** (0.303)	0.500* (0.284)	0.361 (0.308)
Ind. control variables	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Age group	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Husband's work exp.	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes
Obs	1,084	2,287	2,989	3,432	1,084	2,287	2,989	3,432	1,084	2,287	2,989	3,432	1,084	2,287	2,989	3,432	1,084	2,287	2,989	3,432
Obs in $Control$	276	607	789	906	276	607	789	906	276	607	789	906	276	607	789	906	276	607	789	906
Obs in $Treat_{low}$	276	566	736	852	276	566	736	852	276	566	736	852	276	566	736	852	276	566	736	852
$D_{prop} = 0 / D_{prop} = 1$	120/156	245/321	315/421	368/484	120/156	245/321	315/421	368/484	120/156	245/321	315/421	368/484	120/156	245/321	315/421	368/484	120/156	245/321	315/421	368/484
Obs in $Treat_{med}$	254	561	741	859	254	561	741	859	254	561	741	859	254	561	741	859	254	561	741	859
$D_{prop} = 0 / D_{prop} = 1$	74/180	174/387	233/508	278/581	74/180	174/387	233/508	278/581	74/180	174/387	233/508	278/581	74/180	174/387	233/508	278/581	74/180	174/387	233/508	278/581
Obs in $Treat_{high}$	278	553	723	815	278	553	723	815	278	553	723	815	278	553	723	815	278	553	723	815
$D_{prop} = 0 / D_{prop} = 1$	34/244	85/468	111/612	128/687	34/244	85/468	111/612	128/687	34/244	85/468	111/612	128/687	34/244	85/468	111/612	128/687	34/244	85/468	111/612	128/687
Wives	542	715	754	765	542	715	754	765	542	715	754	765	542	715	754	765	542	715	754	765
Av. obs. per wife	2.0	3.2	4.0	4.5	2.0	3.2	4.0	4.5	2.0	3.2	4.0	4.5	2.0	3.2	4.0	4.5	2.0	3.2	4.0	4.5
$Adj. R^2$	0.0094	0.0124	0.0162	0.0152	0.1273	0.1272	0.1502	0.1729	0.1313	0.1283	0.1501	0.1728	0.1378	0.1355	0.1585	0.1807	0.1435	0.1366	0.1582	0.1803

Notes: Dependent variable covers work and apprenticeship (including travel time to and from work); 7-day week. Robust standard errors are displayed in parentheses, clustered at individual level.  $D_{prop}$  is zero when wife has no house/apartment/property in pre-treatment; 1 otherwise. Main effect of  $Post$  and the interaction term of  $Post \cdot D_{prop}$  are not displayed. Control variables in all models: year fixed effects. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Indicators for age groups are constructed for the following steps: < 30, 30-34, ..., 60-64 years old. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.50: Fixed effects models, 30-54 years old wives without those who have experienced short-time work, daily working hours

Sample restriction	Dependent variable: wives' working hours per day																			
	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
<i>Post-Treat<sub>low</sub></i>	0.441* (0.238)	0.523*** (0.197)	0.526*** (0.188)	0.499*** (0.189)	0.339 (0.214)	0.401** (0.184)	0.366** (0.177)	0.366** (0.175)	0.319 (0.214)	0.396** (0.185)	0.376** (0.178)	0.377** (0.176)	0.365 (0.232)	0.437** (0.188)	0.363** (0.180)	0.358** (0.175)	0.402* (0.231)	0.473** (0.195)	0.365** (0.184)	0.339* (0.179)
<i>Post-Treat<sub>med</sub></i>	0.327 (0.266)	0.356 (0.221)	0.359* (0.217)	0.266 (0.213)	0.273 (0.242)	0.241 (0.205)	0.184 (0.200)	0.076 (0.192)	0.256 (0.245)	0.234 (0.207)	0.188 (0.202)	0.076 (0.193)	0.300 (0.271)	0.322 (0.217)	0.214 (0.209)	0.097 (0.198)	0.292 (0.274)	0.351 (0.217)	0.221 (0.211)	0.086 (0.200)
<i>Post-Treat<sub>high</sub></i>	0.550** (0.255)	0.410* (0.227)	0.261 (0.218)	0.129 (0.221)	0.446* (0.230)	0.317 (0.205)	0.109 (0.199)	-0.023 (0.199)	0.427* (0.233)	0.304 (0.208)	0.113 (0.201)	-0.020 (0.201)	0.478* (0.263)	0.416* (0.213)	0.167 (0.205)	0.046 (0.203)	0.407 (0.268)	0.404* (0.217)	0.151 (0.211)	0.014 (0.207)
Ind. control var.	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Age group	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Husband's work exp.	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes
Obs	844	1,729	2,248	2,572	844	1,729	2,248	2,572	844	1,729	2,248	2,572	844	1,729	2,248	2,572	844	1,729	2,248	2,572
Obs in <i>Control</i>	232	466	589	672	232	466	589	672	232	466	589	672	232	466	589	672	232	466	589	672
Obs in <i>Treat<sub>low</sub></i>	226	459	592	679	226	459	592	679	226	459	592	679	226	459	592	679	226	459	592	679
Obs in <i>Treat<sub>med</sub></i>	200	433	574	666	200	433	574	666	200	433	574	666	200	433	574	666	200	433	574	666
Obs in <i>Treat<sub>high</sub></i>	186	371	493	555	186	371	493	555	186	371	493	555	186	371	493	555	186	371	493	555
Wives	422	549	586	597	422	549	586	597	422	549	586	597	422	549	586	597	422	549	586	597
Av. obs. per wife	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3
<i>Adj. R</i> <sup>2</sup>	0.0209	0.0200	0.0280	0.0267	0.1580	0.1403	0.1584	0.1900	0.1594	0.1399	0.1576	0.1894	0.1617	0.1460	0.1673	0.2022	0.1760	0.1491	0.1674	0.2025

Notes: Robust standard errors are displayed in parentheses, clustered at individual level. Control variables in all models: year fixed effects. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.51: Granger-type test for causality, 30-54 years old wives without those who have experienced short-time work

Dependent variable:	wives' working hours			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.047 (0.307)	-0.002 (0.273)	0.010 (0.273)	0.061 (0.275)
$D_{2001} \cdot Treat_{med}$	0.507 (0.342)	0.635** (0.300)	0.641** (0.300)	0.683** (0.303)
$D_{2001} \cdot Treat_{high}$	1.196*** (0.402)	1.084*** (0.325)	1.087*** (0.324)	1.068*** (0.331)
$D_{2003} \cdot Treat_{low}$	0.059 (0.297)	0.203 (0.285)	0.222 (0.286)	0.252 (0.288)
$D_{2003} \cdot Treat_{med}$	0.349 (0.339)	0.530* (0.297)	0.539* (0.297)	0.554* (0.299)
$D_{2003} \cdot Treat_{high}$	0.941*** (0.318)	0.929*** (0.276)	0.930*** (0.277)	0.929*** (0.285)
$D_{2005} \cdot Treat_{low}$	0.109 (0.228)	0.101 (0.213)	0.117 (0.214)	0.124 (0.216)
$D_{2005} \cdot Treat_{med}$	0.219 (0.259)	0.267 (0.219)	0.275 (0.220)	0.280 (0.221)
$D_{2005} \cdot Treat_{high}$	0.527** (0.235)	0.412* (0.228)	0.410* (0.227)	0.398* (0.231)
$D_{2009} \cdot Treat_{low}$	0.498** (0.228)	0.443** (0.211)	0.461** (0.211)	0.441** (0.212)
$D_{2009} \cdot Treat_{med}$	0.313 (0.254)	0.240 (0.230)	0.244 (0.232)	0.226 (0.233)
$D_{2009} \cdot Treat_{high}$	0.517** (0.238)	0.390* (0.218)	0.398* (0.219)	0.391* (0.220)
$D_{2011} \cdot Treat_{low}$	0.601** (0.293)	0.414 (0.274)	0.438 (0.275)	0.381 (0.275)
$D_{2011} \cdot Treat_{med}$	0.679** (0.316)	0.538* (0.292)	0.542* (0.293)	0.531* (0.294)
$D_{2011} \cdot Treat_{high}$	0.782** (0.314)	0.530* (0.293)	0.523* (0.294)	0.528* (0.294)
$D_{2013} \cdot Treat_{low}$	0.654 (0.436)	0.520 (0.414)	0.535 (0.412)	0.444 (0.400)
$D_{2013} \cdot Treat_{med}$	0.781 (0.503)	0.534 (0.452)	0.537 (0.451)	0.515 (0.440)
$D_{2013} \cdot Treat_{high}$	1.156 (0.454)	0.688 (0.424)	0.706* (0.420)	0.685* (0.411)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	2,572	2,572	2,572	2,572
Wives	597	597	597	597
Avg. obs per wife	4.3	4.3	4.3	4.3
<i>low</i> : $H_0$ : leads = 0	$F_{3,596} = 0.08$ $p\text{-val} = 0.9702$	$F_{3,596} = 0.25$ $p\text{-val} = 0.8632$	$F_{3,596} = 0.28$ $p\text{-val} = 0.8378$	$F_{3,596} = 0.30$ $p\text{-val} = 0.8287$
<i>med</i> : $H_0$ : leads = 0	$F_{3,596} = 0.74$ $p\text{-val} = 0.5263$	$F_{3,596} = 1.68$ $p\text{-val} = 0.1694$	$F_{3,596} = 1.71$ $p\text{-val} = 0.1631$	$F_{3,596} = 1.86$ $p\text{-val} = 0.1360$
<i>high</i> : $H_0$ : leads = 0	$F_{3,596} = 3.95$ $p\text{-val} = 0.0083$	$F_{3,596} = 5.03$ $p\text{-val} = 0.0019$	$F_{3,596} = 5.04$ $p\text{-val} = 0.0019$	$F_{3,596} = 4.64$ $p\text{-val} = 0.0032$
$Adj. R^2$	0.0332	0.1962	0.1956	0.2079

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Year dummies are always included. Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.52: Fixed effects models, 30-54 years old wives, without couples who have experienced short-time work, wives' daily working hours

Sample restriction	Dependent variable: wives' working hours per day																			
	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
<i>Post-Treat<sub>low</sub></i>	0.504** (0.250)	0.563*** (0.210)	0.530*** (0.199)	0.517** (0.200)	0.391* (0.224)	0.427** (0.194)	0.351* (0.187)	0.354* (0.186)	0.375* (0.225)	0.419** (0.195)	0.357* (0.187)	0.363* (0.186)	0.457* (0.242)	0.469** (0.200)	0.337* (0.190)	0.340* (0.186)	0.503** (0.241)	0.524** (0.207)	0.342* (0.195)	0.323* (0.191)
<i>Post-Treat<sub>med</sub></i>	0.278 (0.272)	0.317 (0.224)	0.294 (0.221)	0.222 (0.218)	0.242 (0.243)	0.190 (0.205)	0.106 (0.202)	0.005 (0.194)	0.236 (0.246)	0.175 (0.205)	0.098 (0.202)	-0.006 (0.194)	0.341 (0.274)	0.283 (0.218)	0.123 (0.211)	0.024 (0.201)	0.344 (0.279)	0.332 (0.220)	0.138 (0.213)	0.020 (0.203)
<i>Post-Treat<sub>high</sub></i>	0.515* (0.262)	0.410* (0.237)	0.247 (0.226)	0.130 (0.229)	0.413* (0.233)	0.305 (0.212)	0.086 (0.204)	-0.042 (0.204)	0.408* (0.236)	0.287 (0.214)	0.083 (0.206)	-0.044 (0.206)	0.542** (0.270)	0.423* (0.224)	0.149 (0.215)	0.044 (0.213)	0.486* (0.274)	0.435* (0.229)	0.151 (0.221)	0.023 (0.218)
Ind. control var.	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Age group	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Husband's work exp.	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes
Obs	800	1,619	2,109	2,412	800	1,619	2,109	2,412	800	1,619	2,109	2,412	800	1,619	2,109	2,412	800	1,619	2,109	2,412
Obs in <i>Control</i>	218	430	543	618	218	430	543	618	218	430	543	618	218	430	543	618	218	430	543	618
Obs in <i>Treat<sub>low</sub></i>	208	416	539	617	208	416	539	617	208	416	539	617	208	416	539	617	208	416	539	617
Obs in <i>Treat<sub>med</sub></i>	190	409	544	633	190	409	544	633	190	409	544	633	190	409	544	633	190	409	544	633
Obs in <i>Treat<sub>high</sub></i>	184	364	483	544	184	364	483	544	184	364	483	544	184	364	483	544	184	364	483	544
Wives	400	516	552	562	400	516	552	562	400	516	552	562	400	516	552	562	400	516	552	562
Av. obs. per wife	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3
<i>Adj. R</i> <sup>2</sup>	0.0239	0.0208	0.0291	0.0266	0.1802	0.1535	0.1713	0.2019	0.1805	0.1534	0.1707	0.2019	0.1830	0.1603	0.1826	0.2161	0.1959	0.1634	0.1831	0.2163

Notes: Robust standard errors are displayed in parentheses, clustered at individual level. Control variables in all models: year fixed effects. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) and 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.53: Fixed effects models, 30-54 years old, without couples who have experienced short-time work

Sample restriction	Dependent variable: wives' participation																			
	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
<i>Post-Treat<sub>low</sub></i>	0.094** (0.046)	0.078** (0.035)	0.087** (0.034)	0.083** (0.036)	0.076* (0.042)	0.067** (0.033)	0.067** (0.032)	0.065** (0.033)	0.081* (0.043)	0.069** (0.033)	0.069** (0.032)	0.069** (0.033)	0.077 (0.047)	0.054 (0.036)	0.042 (0.033)	0.040 (0.035)	0.076 (0.047)	0.060* (0.036)	0.044 (0.034)	0.042 (0.035)
<i>Post-Treat<sub>med</sub></i>	0.026 (0.054)	0.039 (0.043)	0.047 (0.041)	0.047 (0.042)	0.024 (0.050)	0.013 (0.039)	0.008 (0.038)	0.005 (0.038)	0.026 (0.049)	0.013 (0.039)	0.008 (0.038)	0.006 (0.038)	0.028 (0.055)	0.005 (0.042)	-0.018 (0.040)	-0.022 (0.041)	0.024 (0.056)	0.010 (0.042)	-0.014 (0.041)	-0.019 (0.041)
<i>Post-Treat<sub>high</sub></i>	0.102* (0.054)	0.101** (0.045)	0.087** (0.041)	0.080* (0.042)	0.087* (0.048)	0.080* (0.041)	0.059 (0.039)	0.050 (0.040)	0.089* (0.048)	0.080* (0.042)	0.060 (0.039)	0.051 (0.041)	0.089* (0.053)	0.066 (0.043)	0.026 (0.040)	0.020 (0.043)	0.083 (0.054)	0.069 (0.043)	0.030 (0.042)	0.022 (0.043)
Ind. control var.	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Age group	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Husband's work exp.	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes
Obs	800	1,619	2,109	2,412	800	1,619	2,109	2,412	800	1,619	2,109	2,412	800	1,619	2,109	2,412	800	1,619	2,109	2,412
Obs in <i>Control</i>	218	430	543	618	218	430	543	618	218	430	543	618	218	430	543	618	218	430	543	618
Obs in <i>Treat<sub>low</sub></i>	208	416	539	617	208	416	539	617	208	416	539	617	208	416	539	617	208	416	539	617
Obs in <i>Treat<sub>med</sub></i>	190	409	544	633	190	409	544	633	190	409	544	633	190	409	544	633	190	409	544	633
Obs in <i>Treat<sub>high</sub></i>	184	364	483	544	184	364	483	544	184	364	483	544	184	364	483	544	184	364	483	544
Wives	400	516	552	562	400	516	552	562	400	516	552	562	400	516	552	562	400	516	552	562
Av. obs. per wife	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3
<i>Adj. R</i> <sup>2</sup>	0.0107	0.0222	0.0341	0.0368	0.1694	0.1770	0.1727	0.1817	0.1688	0.1768	0.1715	0.1816	0.1806	0.1999	0.2020	0.2105	0.1833	0.2007	0.2012	0.2094

Notes: Robust standard errors are displayed in parentheses, clustered at individual level. Control variables in all models: year fixed effects. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) and 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.54: Fixed effects models, 30-54 years old wives without those who work in industries affected by the 2009 crisis

Sample restriction	Dependent variable: wives' working hours per day																			
	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
<i>Post-Treat<sub>low</sub></i>	0.461* (0.244)	0.548** (0.216)	0.532** (0.209)	0.486** (0.212)	0.387* (0.221)	0.441** (0.199)	0.419** (0.193)	0.422** (0.195)	0.359 (0.220)	0.438** (0.200)	0.424** (0.193)	0.429** (0.195)	0.397* (0.228)	0.477** (0.198)	0.417** (0.190)	0.394** (0.188)	0.414* (0.226)	0.493** (0.206)	0.405** (0.196)	0.359* (0.193)
<i>Post-Treat<sub>med</sub></i>	0.342 (0.296)	0.514** (0.245)	0.517** (0.237)	0.369 (0.236)	0.323 (0.267)	0.390* (0.223)	0.352 (0.214)	0.219 (0.209)	0.337 (0.266)	0.402* (0.226)	0.359 (0.218)	0.221 (0.212)	0.361 (0.284)	0.482** (0.232)	0.386* (0.221)	0.227 (0.211)	0.337 (0.287)	0.491** (0.233)	0.377* (0.222)	0.200 (0.213)
<i>Post-Treat<sub>high</sub></i>	0.541** (0.255)	0.453* (0.237)	0.306 (0.239)	0.115 (0.244)	0.500** (0.232)	0.399* (0.216)	0.211 (0.216)	0.039 (0.218)	0.506** (0.233)	0.403* (0.220)	0.216 (0.219)	0.042 (0.220)	0.567** (0.249)	0.519** (0.220)	0.278 (0.218)	0.098 (0.217)	0.508** (0.251)	0.504** (0.224)	0.255 (0.225)	0.070 (0.223)
Ind. control var.	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Age groups	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Husbands' work exp.	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes
Obs	690	1,407	1,818	2,079	690	1,407	1,818	2,079	690	1,407	1,818	2,079	690	1,407	1,818	2,079	690	1,407	1,818	2,079
Obs in <i>Control</i>	172	344	438	502	172	344	438	502	172	344	438	502	172	344	438	502	172	344	438	502
Obs in <i>Treat<sub>low</sub></i>	186	374	469	535	186	374	469	535	186	374	469	535	186	374	469	535	186	374	469	535
Obs in <i>Treat<sub>med</sub></i>	170	364	479	555	170	364	479	555	170	364	479	555	170	364	479	555	170	364	479	555
Obs in <i>Treat<sub>high</sub></i>	162	325	432	487	162	325	432	487	162	325	432	487	162	325	432	487	162	325	432	487
Wives	345	449	476	486	345	449	476	486	345	449	476	486	345	449	476	486	345	449	476	486
Av. obs. per wife	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3	2.0	3.1	3.8	4.3
<i>Adj. R</i> <sup>2</sup>	0.0170	0.0152	0.0259	0.0242	0.1422	0.1377	0.1668	0.1951	0.1459	0.1368	0.1653	0.1941	0.1502	0.1407	0.1754	0.2094	0.1548	0.1417	0.1749	0.2101

Notes: Robust standard errors are displayed in parentheses, clustered at individual level. Control variables in all models: year fixed effects. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Robust standard errors in parenthesis, clustered at individual level; Data: SOEPlong v30

Table B.55: Granger-type test for causality, 30-54 years old wives without those who work in industries affected by the 2009 crisis

Dependent variable:	wives' working hours			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	0.227 (0.350)	0.055 (0.312)	0.060 (0.311)	0.130 (0.305)
$D_{2001} \cdot Treat_{med}$	0.635 (0.403)	0.659* (0.351)	0.662* (0.352)	0.704** (0.347)
$D_{2001} \cdot Treat_{high}$	1.443* * * (0.447)	1.273* * * (0.363)	1.265* * * (0.362)	1.237* * * (0.364)
$D_{2003} \cdot Treat_{low}$	0.219 (0.335)	0.253 (0.308)	0.266 (0.310)	0.302 (0.307)
$D_{2003} \cdot Treat_{med}$	0.298 (0.389)	0.430 (0.332)	0.436 (0.333)	0.462 (0.332)
$D_{2003} \cdot Treat_{high}$	0.978* * * (0.357)	0.877* * * (0.307)	0.877* * * (0.307)	0.883* * * (0.315)
$D_{2005} \cdot Treat_{low}$	0.160 (0.244)	0.135 (0.223)	0.145 (0.224)	0.163 (0.225)
$D_{2005} \cdot Treat_{med}$	0.078 (0.281)	0.158 (0.235)	0.169 (0.237)	0.179 (0.237)
$D_{2005} \cdot Treat_{high}$	0.591** (0.259)	0.448* (0.247)	0.447* (0.248)	0.436* (0.252)
$D_{2009} \cdot Treat_{low}$	0.521** (0.237)	0.481** (0.217)	0.493** (0.216)	0.465** (0.216)
$D_{2009} \cdot Treat_{med}$	0.336 (0.285)	0.276 (0.257)	0.281 (0.258)	0.254 (0.259)
$D_{2009} \cdot Treat_{high}$	0.546** (0.242)	0.421* (0.226)	0.425* (0.227)	0.408* (0.227)
$D_{2011} \cdot Treat_{low}$	0.663* (0.338)	0.491 (0.305)	0.502 (0.306)	0.449 (0.306)
$D_{2011} \cdot Treat_{med}$	0.817** (0.366)	0.704** (0.330)	0.713** (0.333)	0.713** (0.333)
$D_{2011} \cdot Treat_{high}$	0.894** (0.361)	0.711** (0.330)	0.705** (0.333)	0.714** (0.333)
$D_{2013} \cdot Treat_{low}$	1.027** (0.474)	0.976** (0.446)	0.984** (0.445)	0.937** (0.420)
$D_{2013} \cdot Treat_{med}$	0.907 (0.601)	0.659 (0.542)	0.666 (0.544)	0.625 (0.530)
$D_{2013} \cdot Treat_{high}$	1.240** (0.524)	0.892* (0.491)	0.900* (0.490)	0.877* (0.484)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	2,079	2,079	2,079	2,079
Wives	486	486	486	486
Avg. obs per wife	4.3	4.3	4.3	4.3
$low: H_0 : \text{leads} = 0$	$F_{3,485} = 0.21$ $p\text{-val} = 0.8896$	$F_{3,485} = 0.28$ $p\text{-val} = 0.8431$	$F_{3,485} = 0.30$ $p\text{-val} = 0.8236$	$F_{3,485} = 0.35$ $p\text{-val} = 0.7878$
$med: H_0 : \text{leads} = 0$	$F_{3,485} = 0.95$ $p\text{-val} = 0.4155$	$F_{3,485} = 1.28$ $p\text{-val} = 0.2795$	$F_{3,485} = 1.28$ $p\text{-val} = 0.2809$	$F_{3,485} = 1.48$ $p\text{-val} = 0.2193$
$high: H_0 : \text{leads} = 0$	$F_{3,485} = 4.07$ $p\text{-val} = 0.0072$	$F_{3,485} = 4.71$ $p\text{-val} = 0.0030$	$F_{3,485} = 4.67$ $p\text{-val} = 0.0032$	$F_{3,485} = 4.39$ $p\text{-val} = 0.0046$
$Adj. R^2$	0.0333	0.2036	0.2024	0.2171

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Year dummies are always included.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30



Table B.56: Fixed effects models, 30-54 years old wives, without couples who were affected by the 2009 crisis

Dependent variable: wives' working hours per day																				
Sample restriction	1(a)	2(b)	3(c)	4(d)	5(a)	6(b)	7(c)	8(d)	9(a)	10(b)	11(c)	12(d)	13(a)	14(b)	15(c)	16(d)	17(a)	18(b)	19(c)	20(d)
<i>Post-Treat<sub>low</sub></i>	0.385 (0.336)	0.562* (0.296)	0.477* (0.283)	0.490* (0.284)	0.354 (0.315)	0.481* (0.278)	0.348 (0.263)	0.356 (0.261)	0.317 (0.316)	0.483* (0.278)	0.346 (0.264)	0.357 (0.261)	0.389 (0.328)	0.483* (0.268)	0.295 (0.254)	0.258 (0.251)	0.436 (0.325)	0.506* (0.277)	0.267 (0.261)	0.204 (0.256)
<i>Post-Treat<sub>med</sub></i>	0.190 (0.410)	0.581* (0.327)	0.522 (0.316)	0.445 (0.316)	0.255 (0.379)	0.361 (0.295)	0.211 (0.279)	0.126 (0.272)	0.277 (0.377)	0.367 (0.299)	0.213 (0.285)	0.130 (0.275)	0.374 (0.387)	0.422 (0.298)	0.177 (0.299)	0.038 (0.277)	0.372 (0.394)	0.428 (0.298)	0.165 (0.287)	0.012 (0.279)
<i>Post-Treat<sub>high</sub></i>	0.486 (0.344)	0.466 (0.323)	0.309 (0.326)	0.121 (0.323)	0.554* (0.315)	0.379 (0.293)	0.194 (0.287)	0.034 (0.279)	0.574* (0.321)	0.380 (0.296)	0.194 (0.290)	0.036 (0.279)	0.795** (0.345)	0.488* (0.290)	0.208 (0.285)	0.010 (0.276)	0.745** (0.344)	0.482 (0.295)	0.199 (0.294)	-0.015 (0.285)
Ind. control var.	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Age group	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Work experience	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Husband's work exp.	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	yes	yes
Obs	424	872	1,119	1,279	424	872	1,119	1,279	424	872	1,119	1,279	424	872	1,119	1,279	424	872	1,119	1,279
Obs in <i>Control</i>	106	216	272	312	106	216	272	312	106	216	272	312	106	216	272	312	106	216	272	312
Obs in <i>Treat<sub>low</sub></i>	106	219	270	309	106	219	270	309	106	219	270	309	106	219	270	309	106	219	270	309
<i>Post = 0/Post = 1</i>	53/53	114/105	153/117	189/120	53/53	114/105	153/117	189/120	53/53	114/105	153/117	189/120	53/53	114/105	153/117	189/120	53/53	114/105	153/117	189/120
Obs in <i>Treat<sub>med</sub></i>	100	223	291	337	100	223	291	337	100	223	291	337	100	223	291	337	100	223	291	337
<i>Post = 0/Post = 1</i>	50/50	115/108	166/125	210/127	50/50	115/108	166/125	210/127	50/50	115/108	166/125	210/127	50/50	115/108	166/125	210/127	50/50	115/108	166/125	210/127
Obs in <i>Treat<sub>high</sub></i>	112	214	286	321	112	214	286	321	112	214	286	321	112	214	286	321	112	214	286	321
<i>Post = 0/Post = 1</i>	56/56	114/100	167/119	200/121	56/56	114/100	167/119	200/121	56/56	114/100	167/119	200/121	56/56	114/100	167/119	200/121	56/56	114/100	167/119	200/121
Wives	212	279	297	303	212	279	297	303	212	279	297	303	212	279	297	303	212	279	297	303
Av. obs. per wife	2.0	3.1	3.8	4.2	2.0	3.1	3.8	4.2	2.0	3.1	3.8	4.2	2.0	3.1	3.8	4.2	2.0	3.1	3.8	4.2
<i>Adj. R<sup>2</sup></i>	0.0132	0.0123	0.0112	0.0096	0.1192	0.1528	0.1917	0.2277	0.1211	0.1493	0.1889	0.2270	0.1282	0.1518	0.1933	0.2382	0.1330	0.1497	0.1918	0.2384

Notes: Robust standard errors are displayed in parentheses, clustered at individual level. Control variables in all models: year fixed effects. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Specification (a) includes 2007 (pre-treatment) and 2009 (post-treatment), specification (b) includes 2005/07 (pre-treatment) and 2009/11 (post-treatment) and specification (c) 2003/05/07 (pre-treatment) and 2009/11/13 (post-treatment), and specification (d) includes 2001/03/05/07 (pre-treatment) 2009/11/13 (post-treatment).

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.57: Granger-type test for causality, 30-54 years old wives, without couples who were affected by the 2009 crisis

Dependent variable:	wives' working hours per day			
	(1)	(2)	(3)	(4)
$D_{2001} \cdot Treat_{low}$	-0.193 (0.449)	-0.132 (0.410)	-0.129 (0.407)	0.075 (0.405)
$D_{2001} \cdot Treat_{med}$	0.147 (0.548)	0.316 (0.466)	0.314 (0.465)	0.534 (0.466)
$D_{2001} \cdot Treat_{high}$	1.455** (0.592)	1.295*** (0.455)	1.273*** (0.448)	1.381*** (0.454)
$D_{2003} \cdot Treat_{low}$	0.372 (0.443)	0.476 (0.403)	0.479 (0.406)	0.608 (0.401)
$D_{2003} \cdot Treat_{med}$	0.328 (0.537)	0.510 (0.443)	0.492 (0.446)	0.666 (0.445)
$D_{2003} \cdot Treat_{high}$	1.167** (0.477)	0.896** (0.387)	0.894** (0.388)	1.011** (0.395)
$D_{2005} \cdot Treat_{low}$	0.094 (0.342)	0.118 (0.314)	0.134 (0.318)	0.186 (0.320)
$D_{2005} \cdot Treat_{med}$	-0.035 (0.373)	0.216 (0.302)	0.232 (0.306)	0.290 (0.307)
$D_{2005} \cdot Treat_{high}$	0.650** (0.326)	0.525* (0.309)	0.530* (0.311)	0.571* (0.316)
$D_{2009} \cdot Treat_{low}$	0.406 (0.314)	0.416 (0.300)	0.419 (0.299)	0.369 (0.301)
$D_{2009} \cdot Treat_{med}$	0.215 (0.389)	0.220 (0.357)	0.220 (0.359)	0.153 (0.363)
$D_{2009} \cdot Treat_{high}$	0.497 (0.320)	0.463 (0.309)	0.458 (0.310)	0.410 (0.310)
$D_{2011} \cdot Treat_{low}$	0.717 (0.449)	0.576 (0.417)	0.583 (0.417)	0.490 (0.414)
$D_{2011} \cdot Treat_{med}$	0.906* (0.500)	0.637 (0.446)	0.638 (0.449)	0.570 (0.448)
$D_{2011} \cdot Treat_{high}$	0.967** (0.473)	0.706 (0.435)	0.704 (0.435)	0.614 (0.433)
$D_{2013} \cdot Treat_{low}$	0.760 (0.687)	0.316 (0.585)	0.309 (0.585)	0.201 (0.556)
$D_{2013} \cdot Treat_{med}$	0.544 (0.912)	-0.365 (0.752)	-0.362 (0.756)	-0.455 (0.747)
$D_{2013} \cdot Treat_{high}$	1.606** (0.813)	0.647 (0.719)	0.646 (0.716)	0.501 (0.701)
Ind. control variables	no	yes	yes	yes
Age group	no	no	yes	yes
Work experience	no	no	no	yes
Obs	1,279	1,279	1,279	1,279
Wives	303	303	303	303
Avg. obs per wife	4.2	4.2	4.2	4.2
<i>low</i> : $H_0$ : leads = 0	$F_{3,302} = 0.69$ $p\text{-val} = 0.5598$	$F_{3,302} = 0.84$ $p\text{-val} = 0.4712$	$F_{3,302} = 0.84$ $p\text{-val} = 0.4707$	$F_{3,302} = 0.93$ $p\text{-val} = 0.4242$
<i>med</i> : $H_0$ : leads = 0	$F_{3,302} = 0.24$ $p\text{-val} = 0.8685$	$F_{3,302} = 0.44$ $p\text{-val} = 0.7228$	$F_{3,302} = 0.41$ $p\text{-val} = 0.7441$	$F_{3,302} = 0.79$ $p\text{-val} = 0.4982$
<i>high</i> : $H_0$ : leads = 0	$F_{3,302} = 2.79$ $p\text{-val} = 0.0408$	$F_{3,302} = 3.17$ $p\text{-val} = 0.0245$	$F_{3,302} = 3.14$ $p\text{-val} = 0.0257$	$F_{3,302} = 3.60$ $p\text{-val} = 0.0140$
<i>Adj. R</i> <sup>2</sup>	0.0214	0.2344	0.2332	0.2444

Notes: Fixed effects models; robust standard errors in parentheses, clustered at individual level. Year 2007 marks the baseline year. Individual control variables include wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old) in the household. Work experience includes years of full-time work as a second order polynomial and years of part-time work as a second order polynomial. Indicators for age groups are constructed for 5-year steps: 30-34, ..., 50-54 years old. Year dummies are always included.

Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

Table B.58: Proportion of wives giving information about their time use

<i>Control</i>	<i>Treat<sub>low</sub></i>	<i>Treat<sub>med</sub></i>	<i>Treat<sub>high</sub></i>
Of the wives who answered at least once before 2008 ... % responded in 2009			
82.74 (163 wives)	82.91 (165 wives)	82.83 (164 wives)	83.33 (165 wives)
Of the wives who answered at least once before 2008 ... % responded in 2011			
65.48 (129 wives)	65.83 (131 wives)	71.21 (141 wives)	63.64 (126 wives)
Of the wives who answered at least once before 2008 ... % responded in 2013			
24.87 (49 wives)	20.60 (41 wives)	17.68 (35 wives)	20.20 (40 wives)
Difference in % between <i>Control</i> and ...			
2009:	-0.17	-0.09	-0.59
2011:	-0.35	-5.73	1.85
2013:	4.27	7.20*	4.67

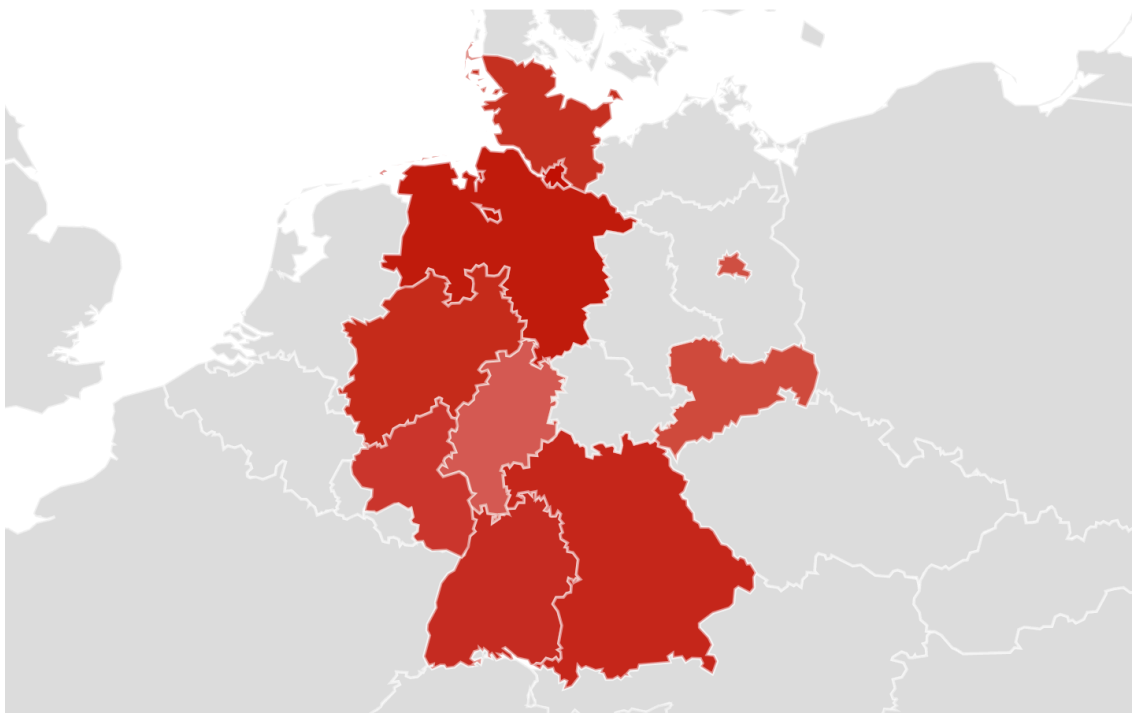
Notes: Significance levels: \* 10%; \*\* 5%; \*\*\* 1%; Data: SOEPlong v30

## C. Figures



Source: [google.de/trends](https://www.google.de/trends), accessed on 04.26.2016

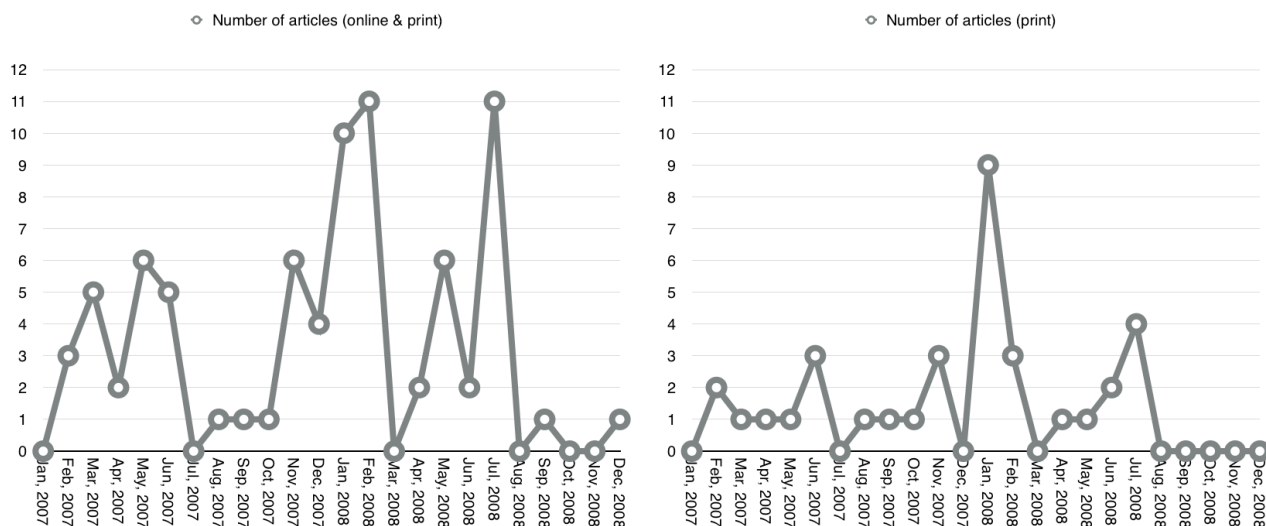
Figure C.1: Web search interest for “Unterhaltsrecht” and “neues Unterhaltsrecht”



Notes: The term “neues unterhaltsrecht” means new alimony regulations. Ranking in regional web search interest: Hamburg 100%, Bremen 97%, Lower Saxony 93%, Bavaria 88%, North Rhine-Westphalia 86%, Baden-Wuerttemberg 84%, Schleswig-Holstein 83%, Rhineland-Palatinate 78%, Saxony 67%, Berlin 66% and Hestia 58%. Note, 0-100 values are relative measures: all of the interest data for the keyword is included and dividing by the highest point of interest for that date range. Zero represents a region that scores less than 1% of the popularity in comparison to the highest value. Number of divorces per 10,000 existing marriages in 2007/2008: Hamburg (133.7/136.8), Berlin (131.1/132.1), Bremen (123.6/129.8), Hestia (144.4/115.5), Schleswig-Holstein (118.8/120.1), Saarland (115.5/114.2), Rhineland-Palatinate (109.8/110.4), Lower Saxony (108.5/113.2), North Rhine-Westphalia (106.1/114.5), Brandenburg (88.6/88.2), Bavaria (101.2/103.4), Mecklenburg-Western Pomerania (80.3/86.6), Baden-Wuerttemberg (90.8/93.9), Saxony-Anhalt (88.4/91.3), Thuringia (83.3/84.6), and Saxony (79.7/80.4) (Krack-Roberg 2010, p. 1195).

Source: [google.de/trends](https://www.google.de/trends), accessed on 04.26.2016

Figure C.2: Regional web search interest for “neues unterhaltsrecht” in years 2007 and 2008

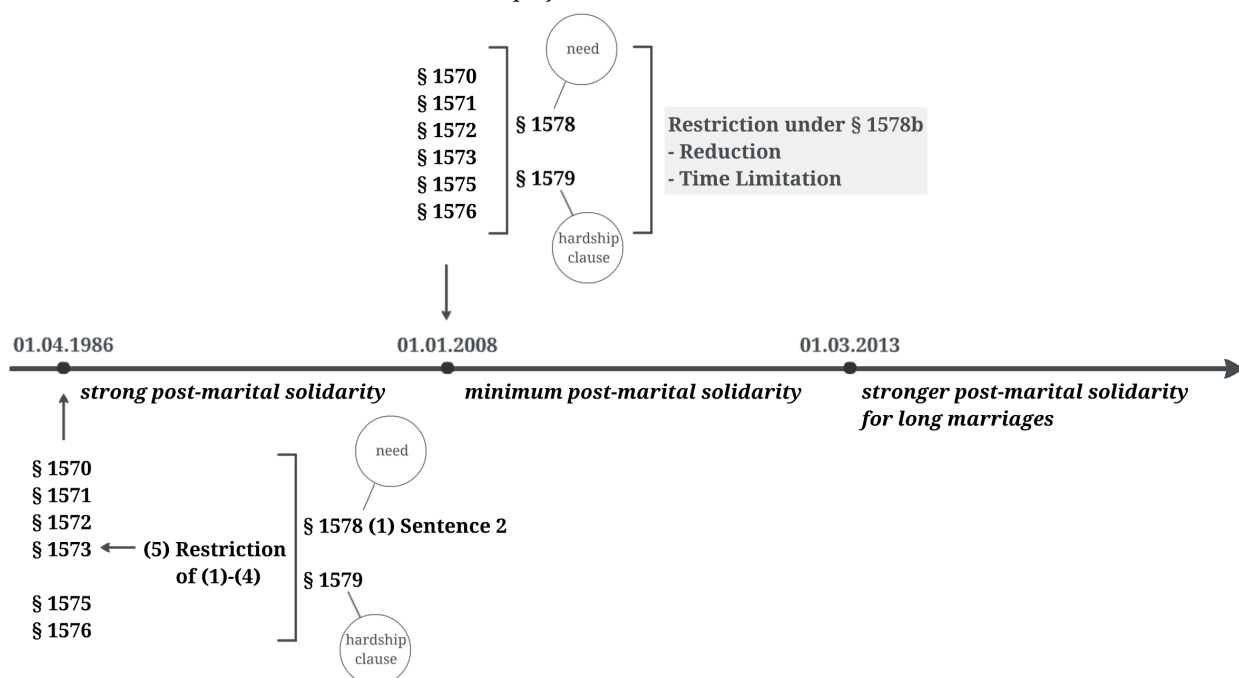


Notes: Included weekly journals directed to the general public are “Der Spiegel”, “FOCUS” and “FOCUS MONEY”. “Der Spiegel” is the leading periodical in 2007 and 2008 with an average 1,059,605 of distributed circulation per quarter (IVW n.d.c., accessed on 28.04.2016); “FOCUS” and “FOCUS MONEY” with an average of 903,948 (IVW n.d.a., IVW n.d.b., accessed on 28.04.2016).  
Source: Search in “FOCUS” includes “FOCUS Online” (<http://www.focus.de>) and “FOCUS MONEY Online” (<http://www.focus.de/finanzen/>); “SPIEGEL ONLINE” (<http://www.spiegel.de>); search term: (Ehe UND Unterhalt) ODER Unterhaltsrecht ODER Ehegattenunterhalt ODER “nachehelicher Unterhalt” ODER (Unterhalt UND Zypries) ODER (Scheidung UND Unterhalt); own compilation

Figure C.3: Number of articles related to the reform of alimony law in top ranked journals

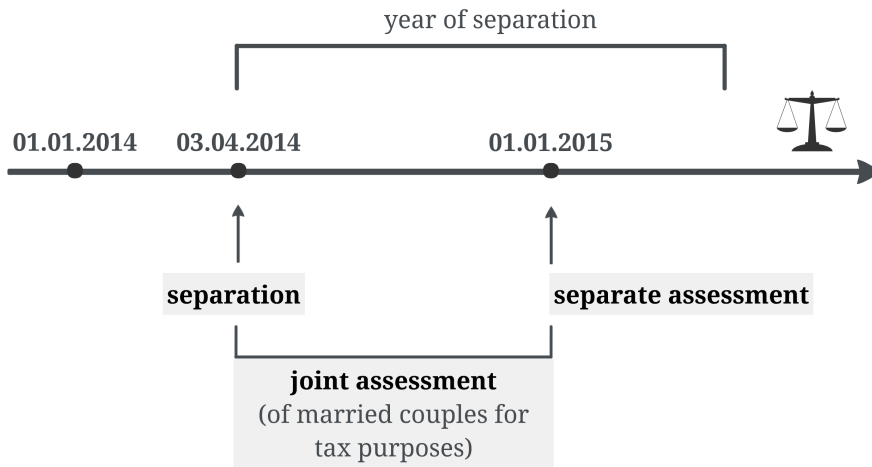


- § 1570 Maintenance to care for a child
- § 1571 Maintenance by reason of old age
- § 1572 Maintenance for illness or infirmity
- § 1573 Maintenance for unemployment and topping-up maintenance
- § 1575 Training, further training or retraining
- § 1576 Maintenance for reasons of equity



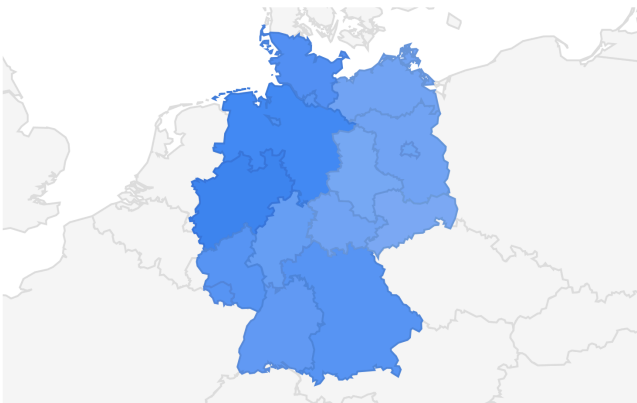
Source: modified figure, see Borth 2011, p. 222

Figure C.4: Post-marital alimony regulations before and after the 2008 alimony reform



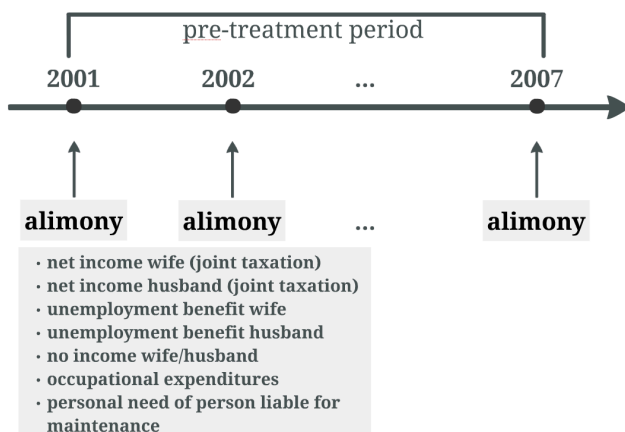
Notes: Joint taxation (tax classes III/IV or IV/IV), individual taxation (tax class I)  
Source: own illustration

Figure C.5: Example of taxation of labor income



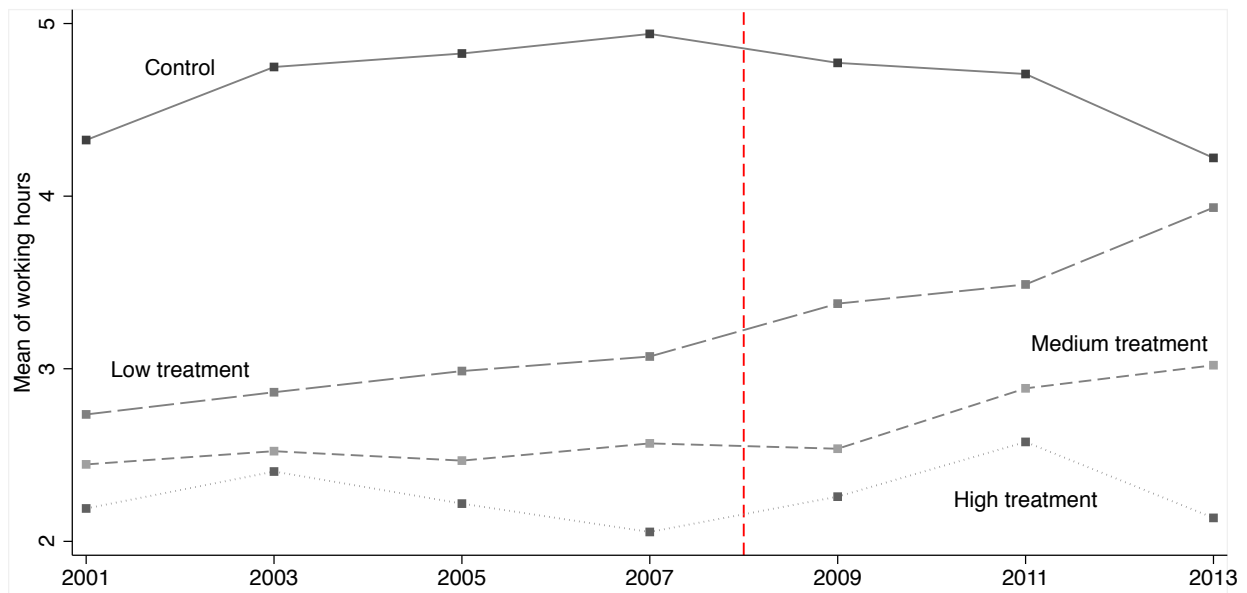
Notes: search word "Düsseldorfer Tabelle"  
Source: Google 2015, accessed on 09.23.2015

Figure C.6: Regional web search interest for Düsseldorf table



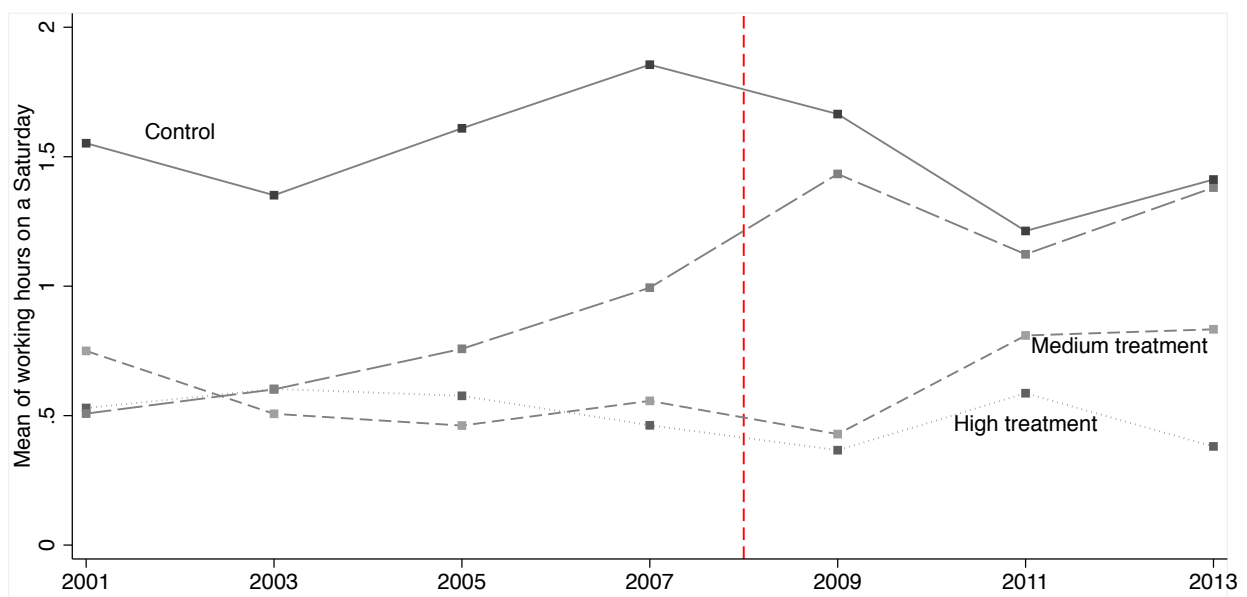
Notes: In general, the basis for calculating alimony payments is the allowable income of the two spouses in the previous 12 months. Allowable income is defined as a monetary income or earnings such as gross annual income or unemployment benefits which are corrected by subtracting taxes, occupational expenditures, etc. Being financially able to pay alimony is a precondition for the obligation to maintain. That is why the Düsseldorf Tables regulate the minimum personal need of a person liable for maintenance. This illustration depicts the information I used to determine the allowable incomes of a married couple without children. I impute the missing values in alimony for 2007 using a single exponential smoothing.  
Source: own illustration

Figure C.7: Determination of the allowable incomes



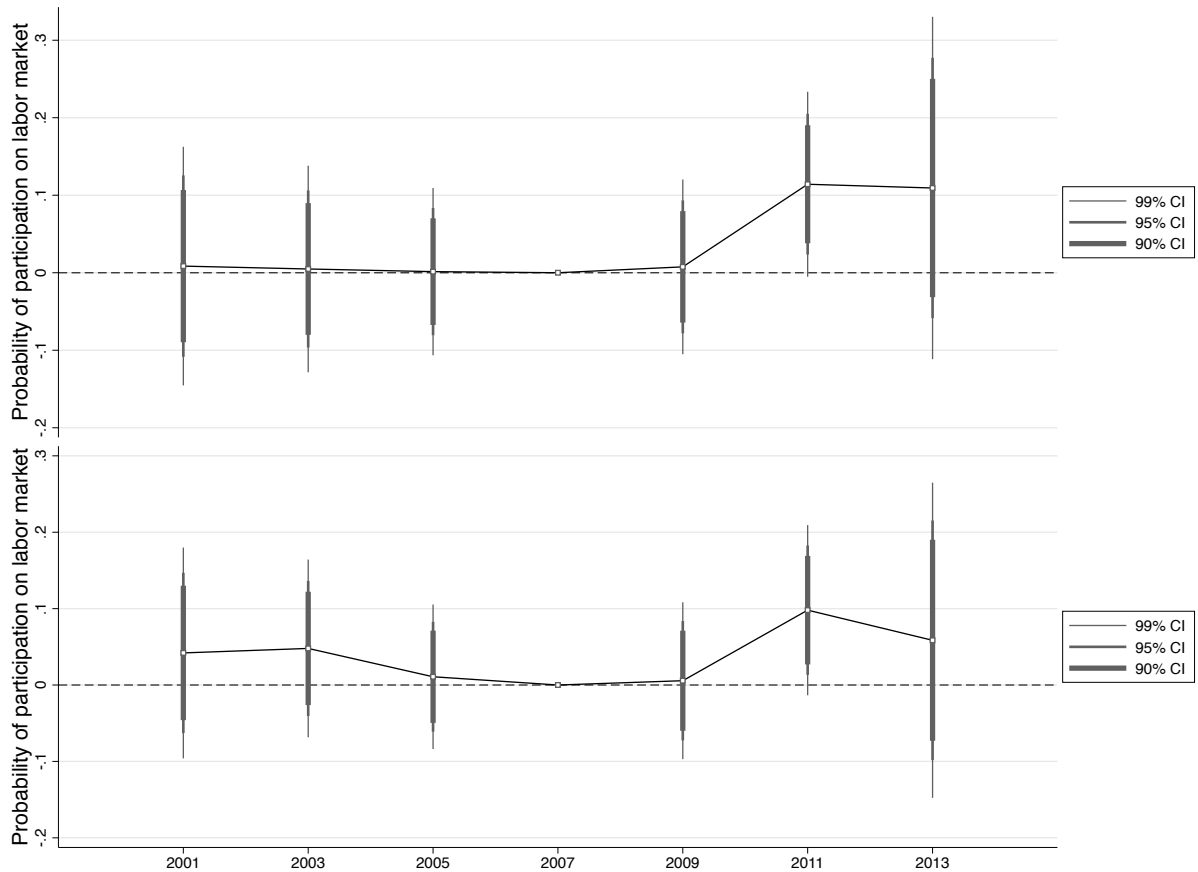
Notes: The figure shows mean values for working hours for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.8: Mean values of working hours over the years 2001-2013



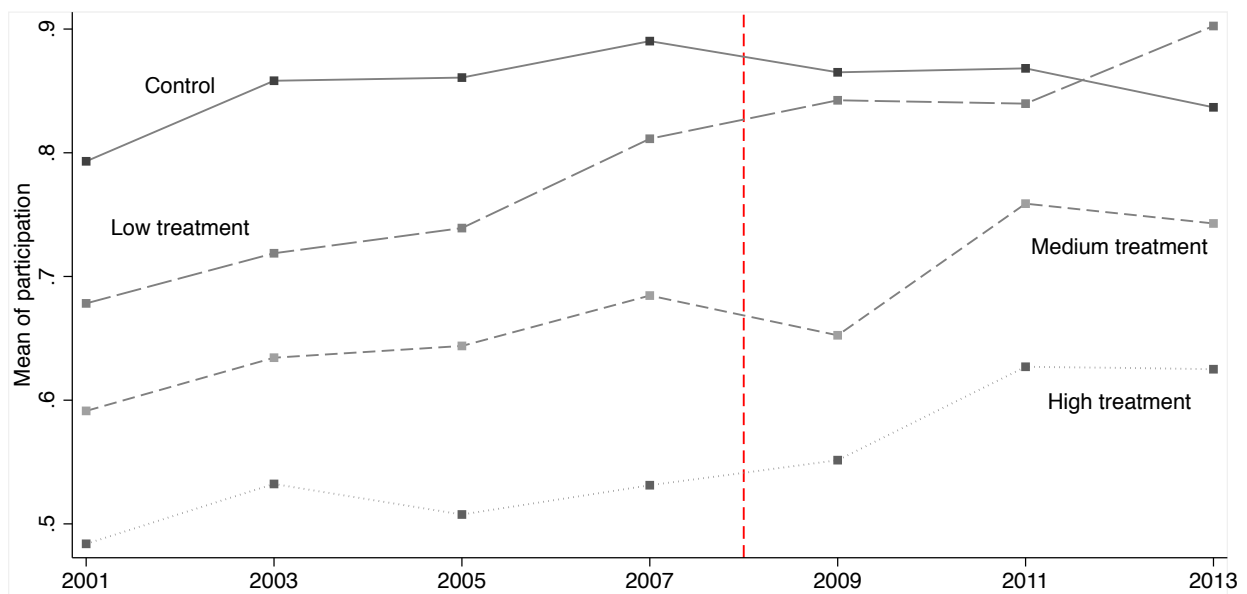
Notes: The figure shows mean values for working hours for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.9: Mean values of working hours on a Saturday over the years 2001-2013



Notes: The figure shows coefficients of the interaction of the medium-intensity treatment group dummy and year dummies from FE models presented in Columns (1) and (2) of Appendix Table B.14 on page 57. In the bottom image I control additionally for wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives living in West Germany.  
Data: SOEPlong v30

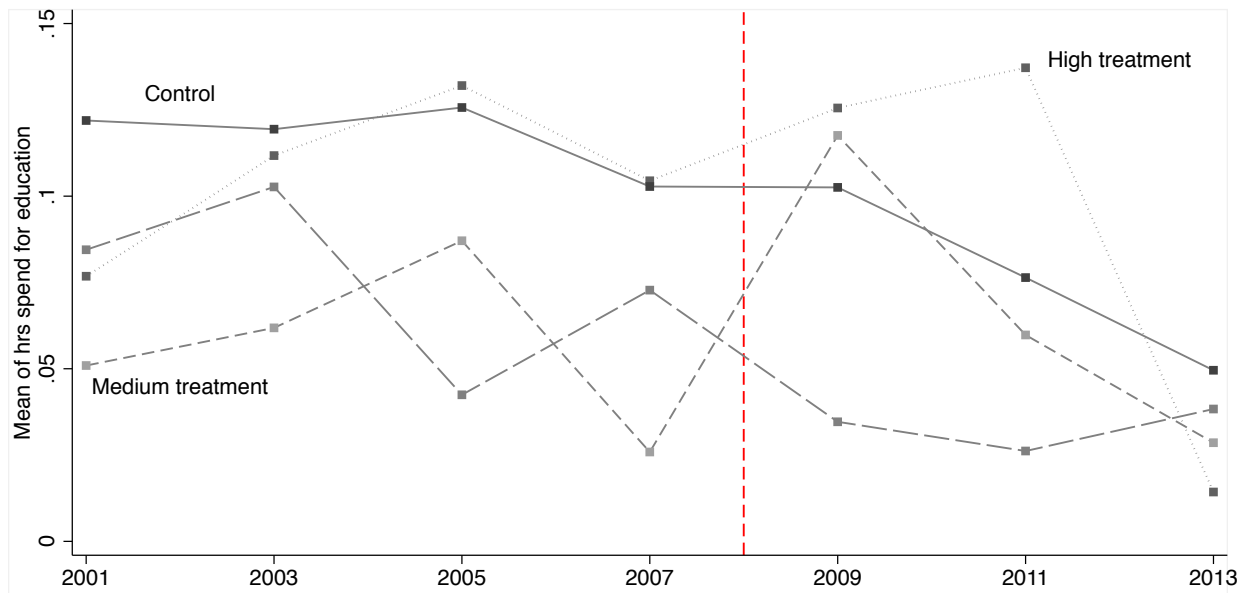
Figure C.10: The estimated impact of alimony restriction on the medium-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008



Notes: The figure shows mean values for participation dummy for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

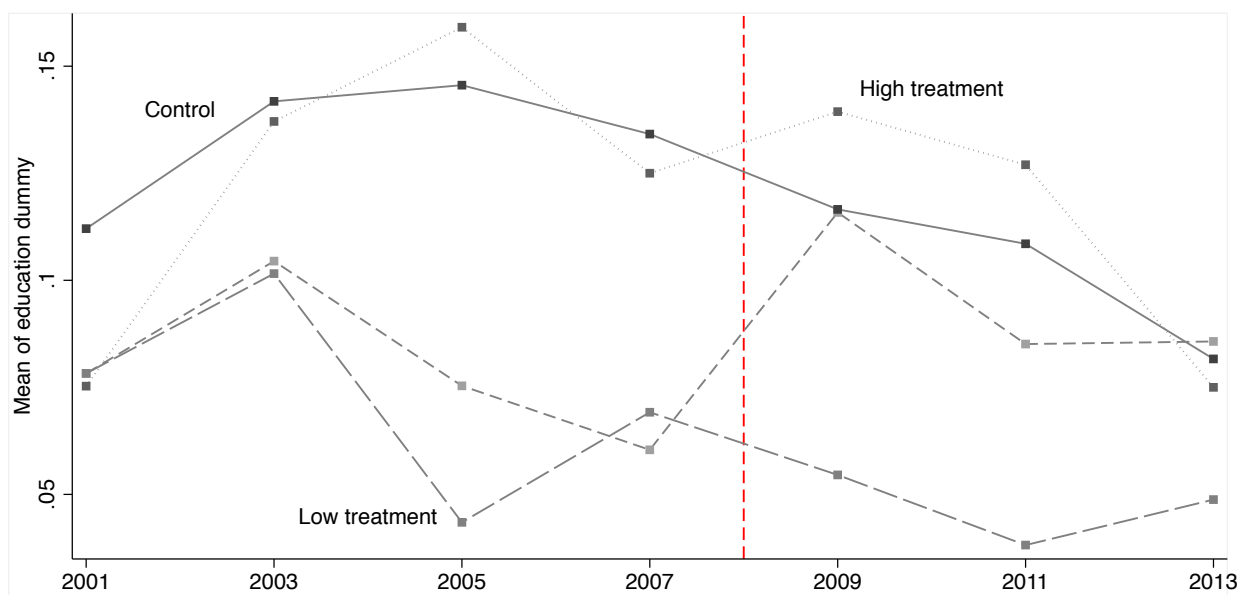
Figure C.11: Mean values of the participation dummy over the years 2001-2013





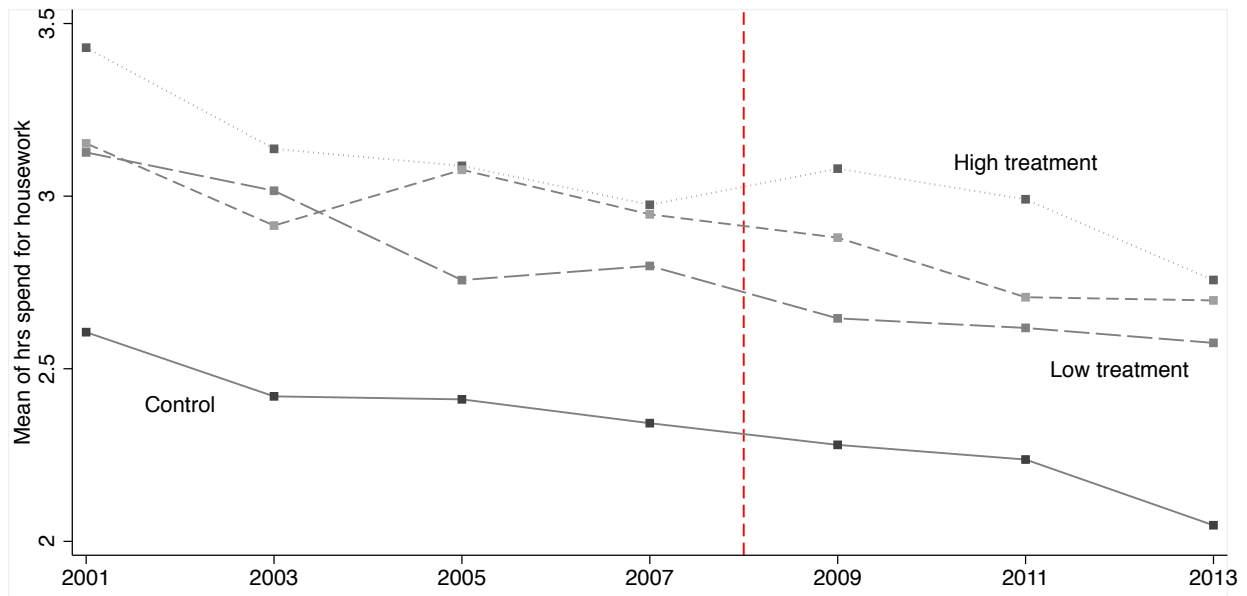
Notes: The figure shows mean values for education in hrs for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.12: Mean values of hours spent on education over the years 2001-2013



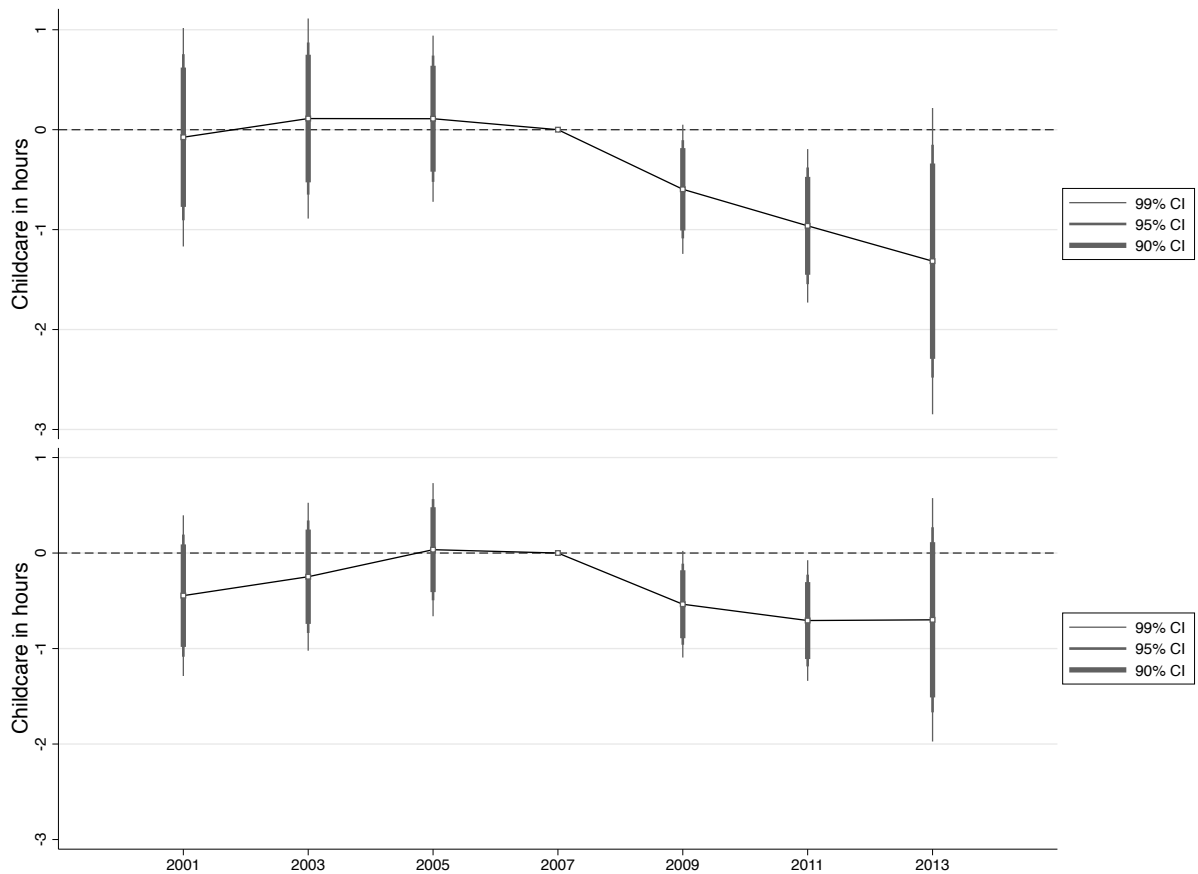
Notes: The figure shows mean values for education dummy for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.13: Mean values of the education dummy over the years 2001-2013



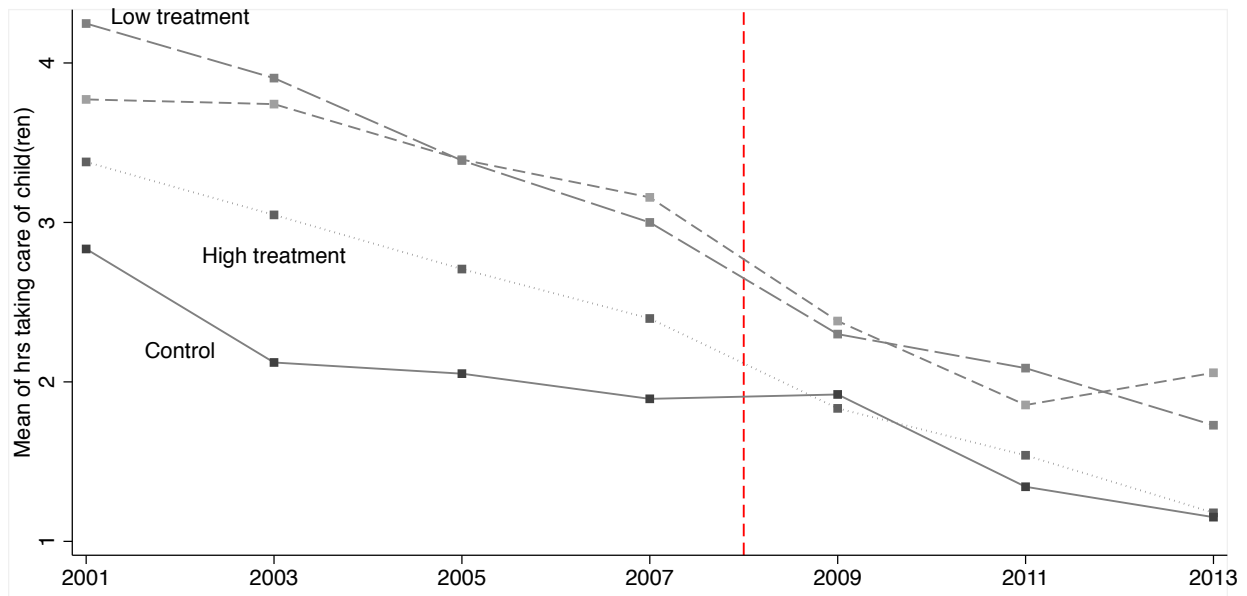
Notes: The figure shows mean values for hours spent on housework for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.14: Mean values of housework hours over the years 2001-2013



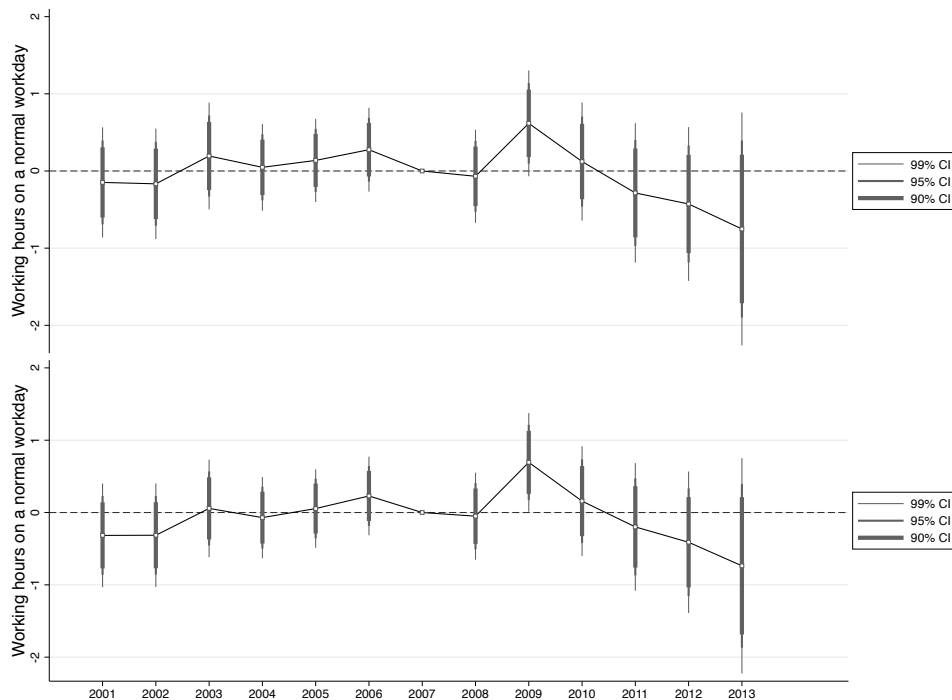
Notes: The figure shows coefficients of the interaction of the medium-intensity treatment group dummy and year dummies from a FE model presented in Columns (1) and (2) of Appendix Table B.28 on page 69. In the bottom image I control additionally for wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives living in West Germany.  
Data: SOEPlong v30

Figure C.15: The estimated impact of alimony restriction on the medium-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008



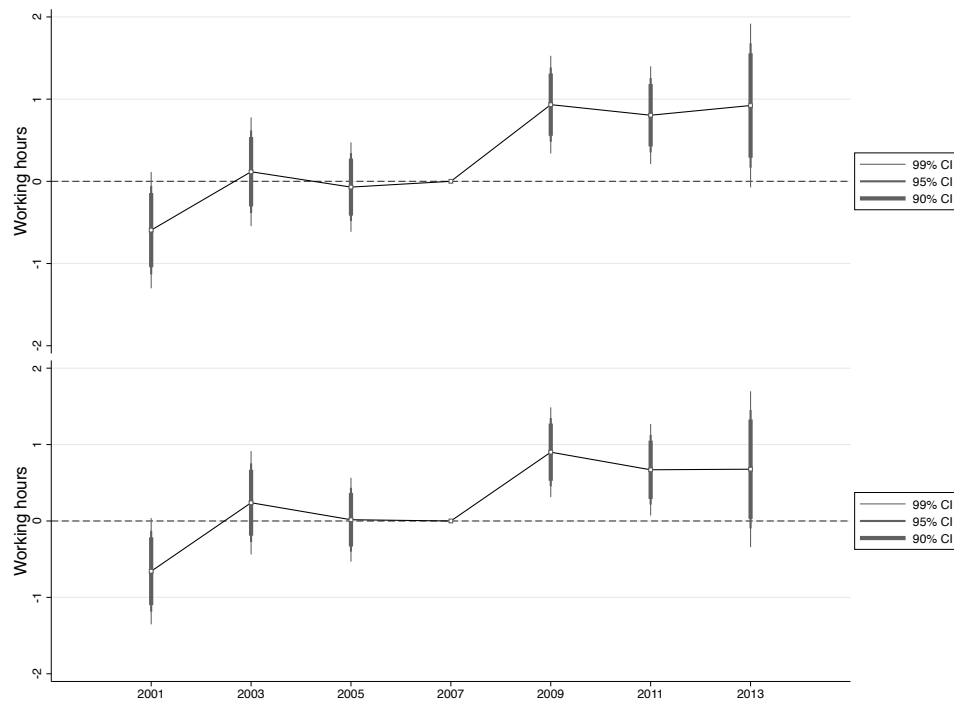
Notes: The figure shows mean values for hours spent on housework for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.16: Mean values of wives' hours taking care of child(ren) over the years 2001-2013



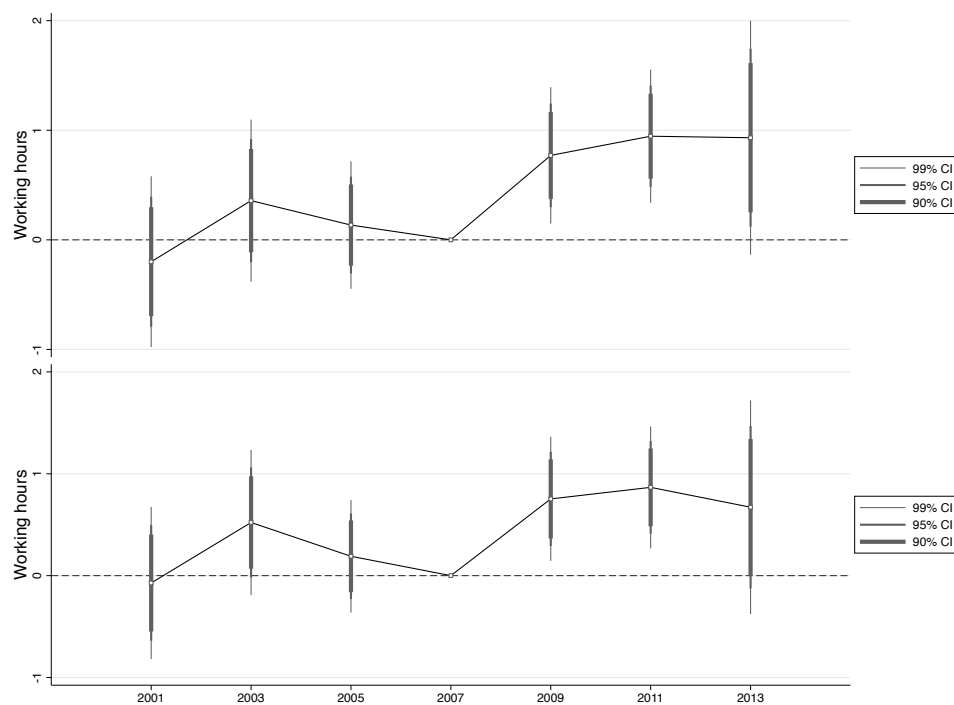
Notes: The figure shows coefficients of the interaction of the high-intensity treatment group dummy and year dummies from FE models, where I control for year fixed effects. In the bottom image I additionally control for husband's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of husbands living in West Germany.  
Data: SOEPlong v30

Figure C.17: The estimated impact of alimony restriction on the high-intensity treatment husbands for the years prior to and subsequent to the adoption of the law in 2008



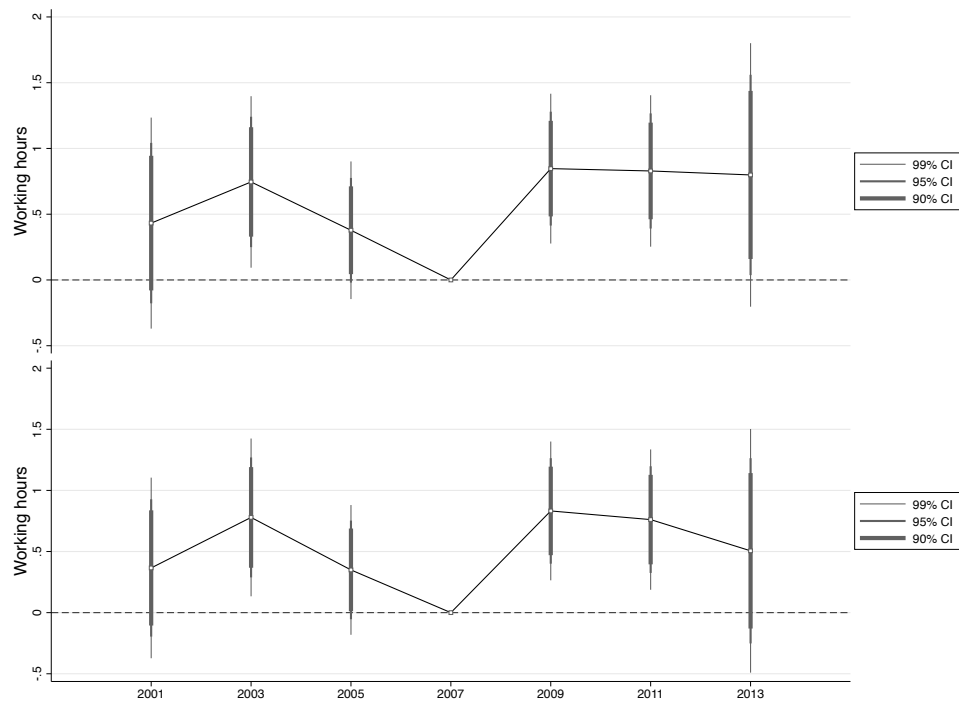
Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.18: The estimated impact of alimony restriction on the low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



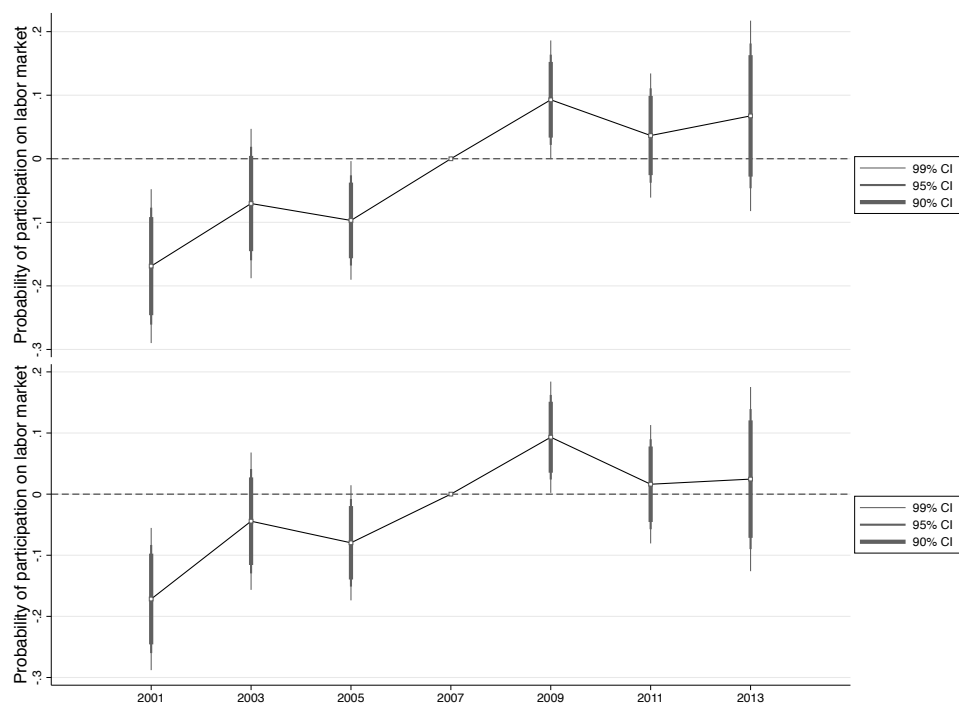
Notes: The figure shows coefficients of the interaction of the medium-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.19: The estimated impact of alimony restriction on the medium-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



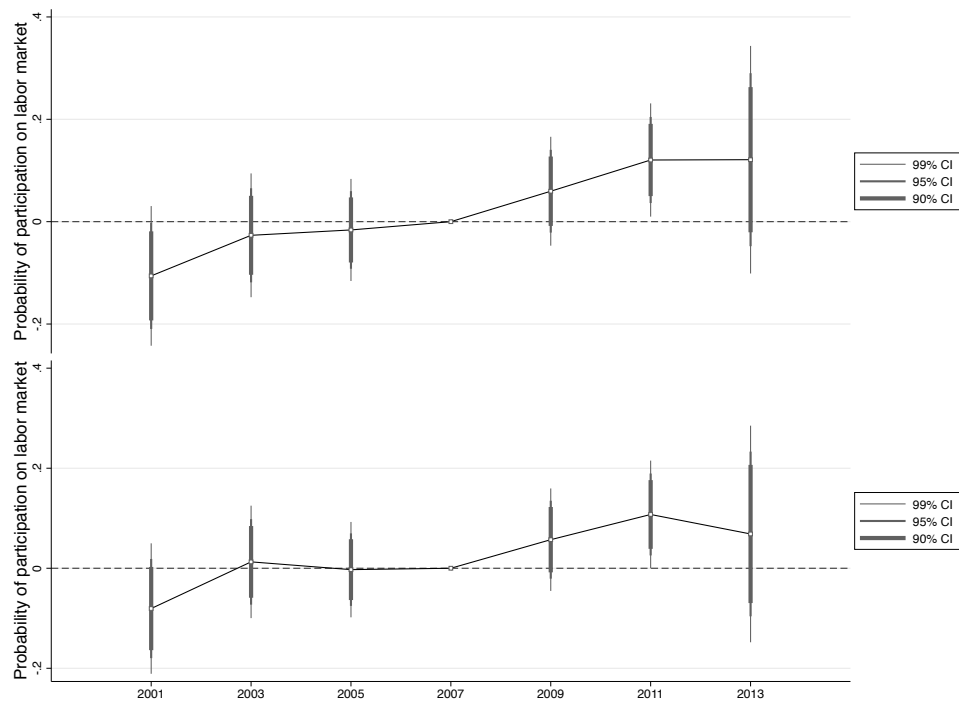
Notes: The figure shows coefficients of the interaction of the high-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.20: The estimated impact of alimony restriction on the high-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



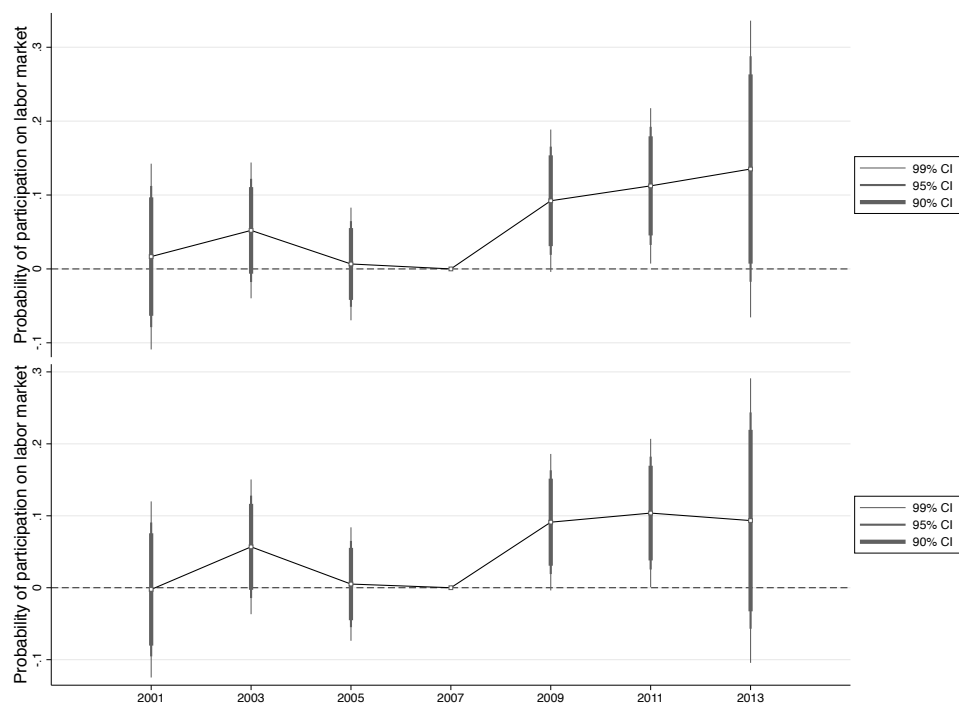
Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.21: The estimated impact of alimony restriction on the low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



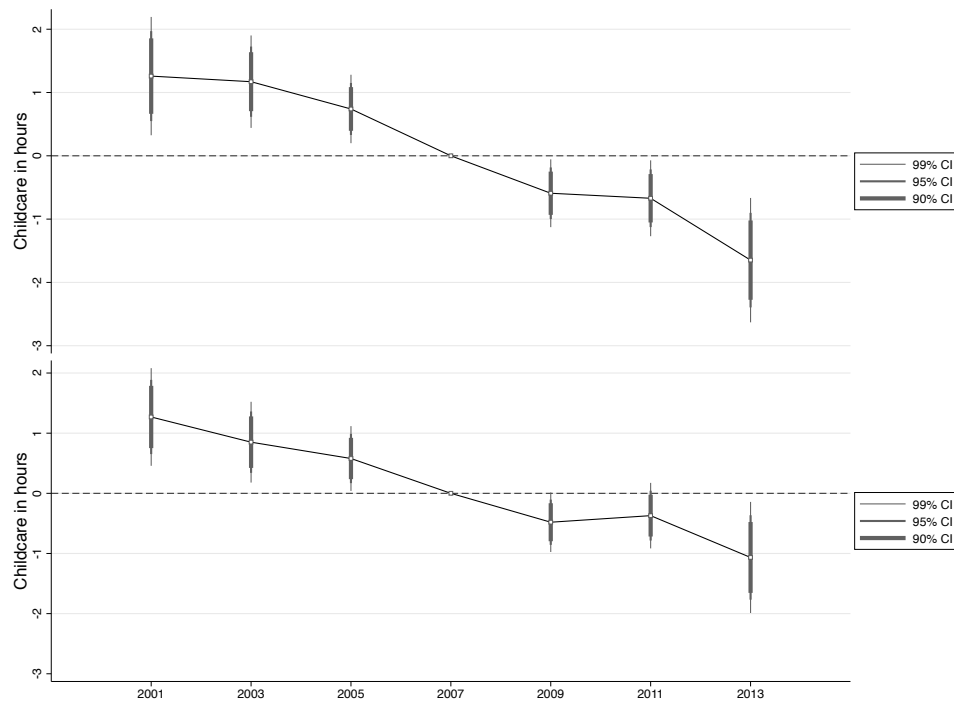
Notes: The figure shows coefficients of the interaction of the medium-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.22: The estimated impact of alimony restriction on the medium-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



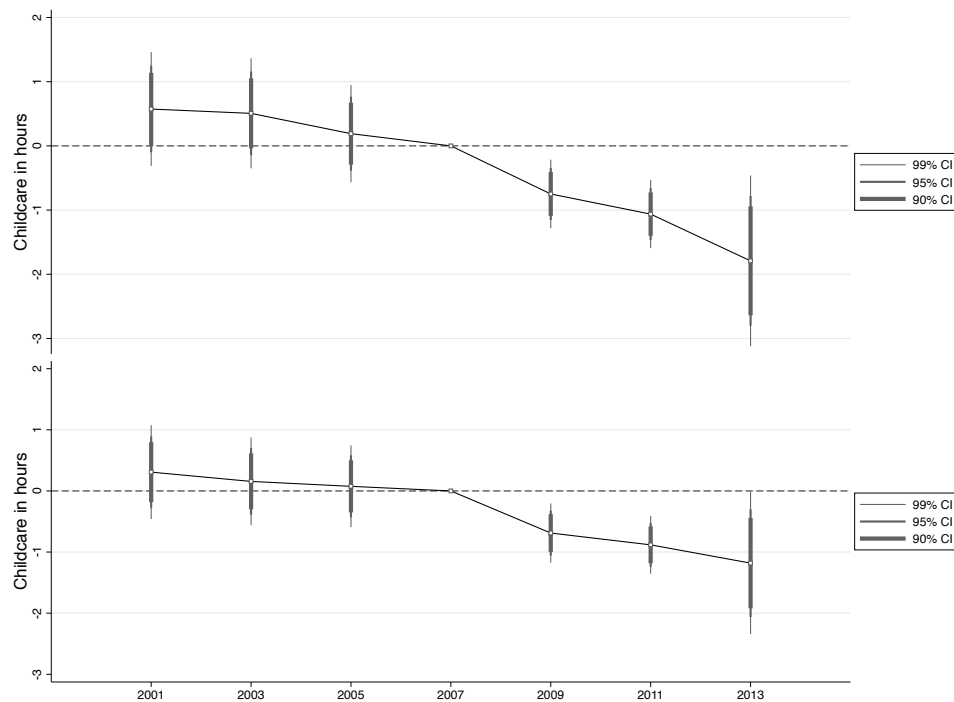
Notes: The figure shows coefficients of the interaction of high-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.23: The estimated impact of alimony restriction on the high-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



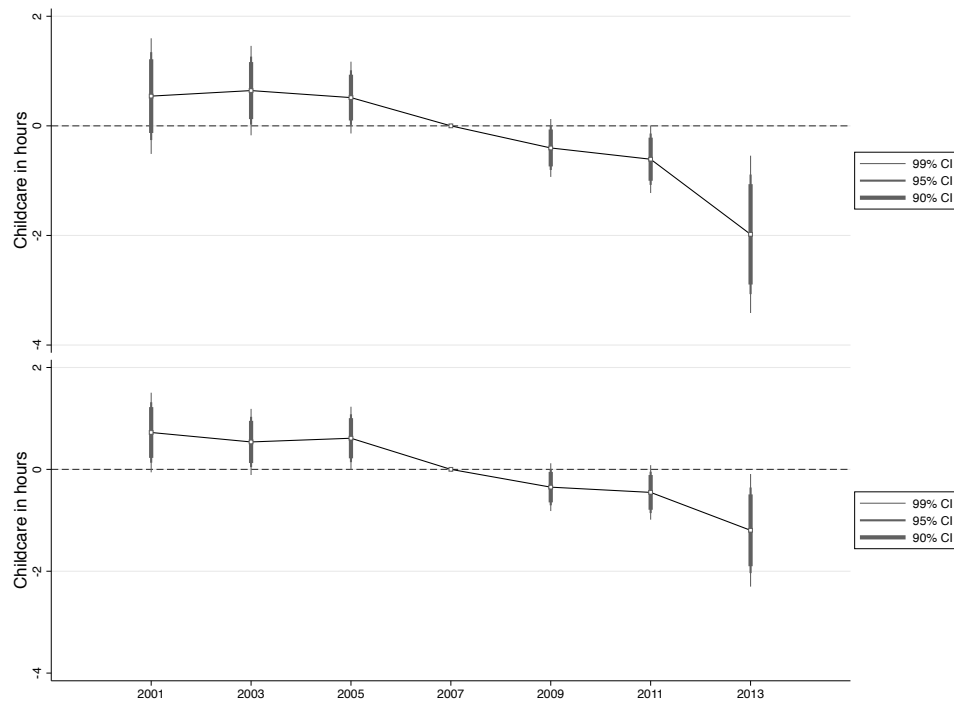
Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.24: The estimated impact of alimony restriction on the low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



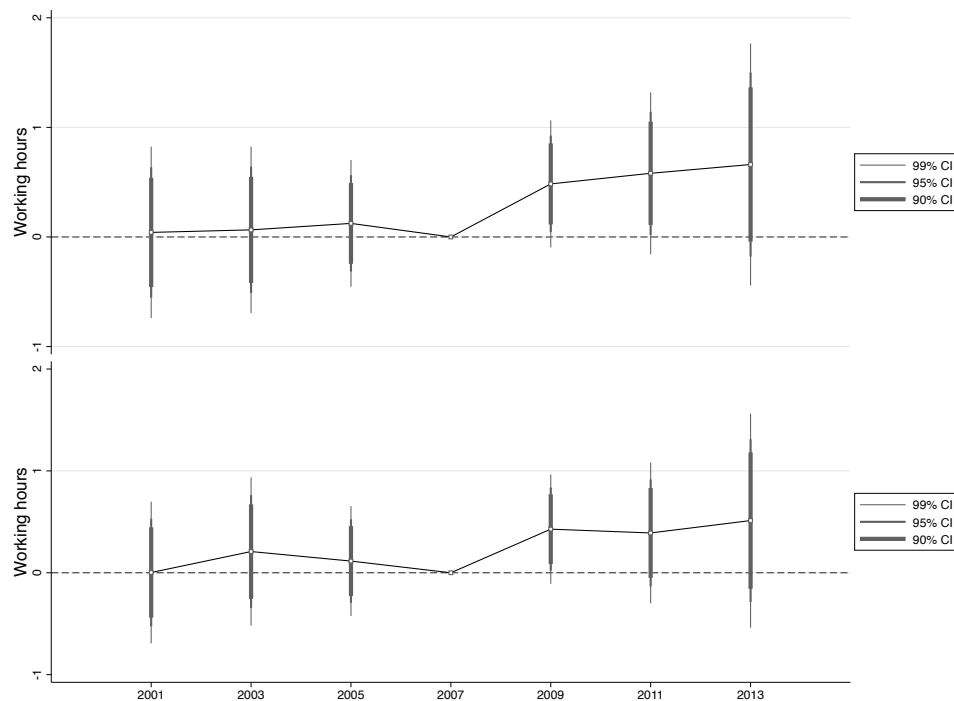
Notes: The figure shows coefficients of the interaction of the medium-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.25: The estimated impact of alimony restriction on the medium-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group



Notes: The figure shows coefficients of the interaction of the high-intensity treatment group dummy and year dummies from FE models where I use husbands as an alternative control group. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives and husbands living in West Germany. Data: SOEPlong v30

Figure C.26: The estimated impact of alimony restriction on the high-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008 using husbands as an alternative control group

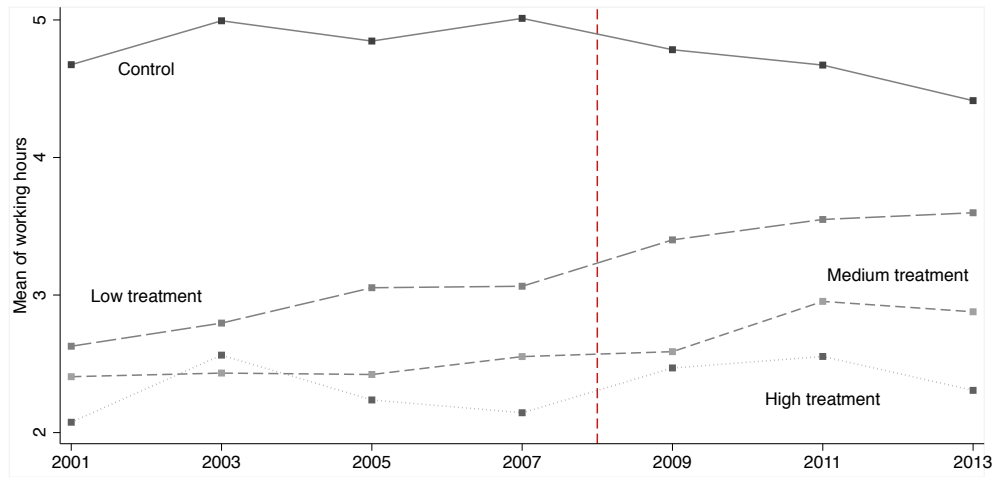


Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from models in Columns (1) and (2) of Appendix Table B.37 on page 79 including only 30-54 year wives. In the bottom image I control additionally for wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives living in West Germany.

Data: SOEPlong v30

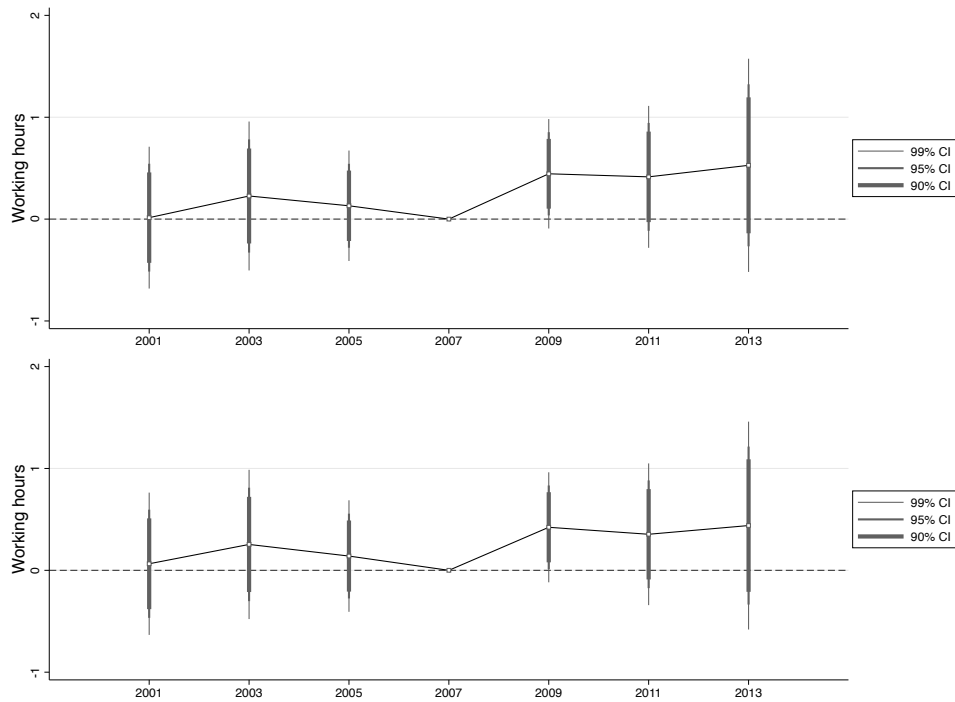
Figure C.27: The estimated impact of alimony restriction on 30-54 year old low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008





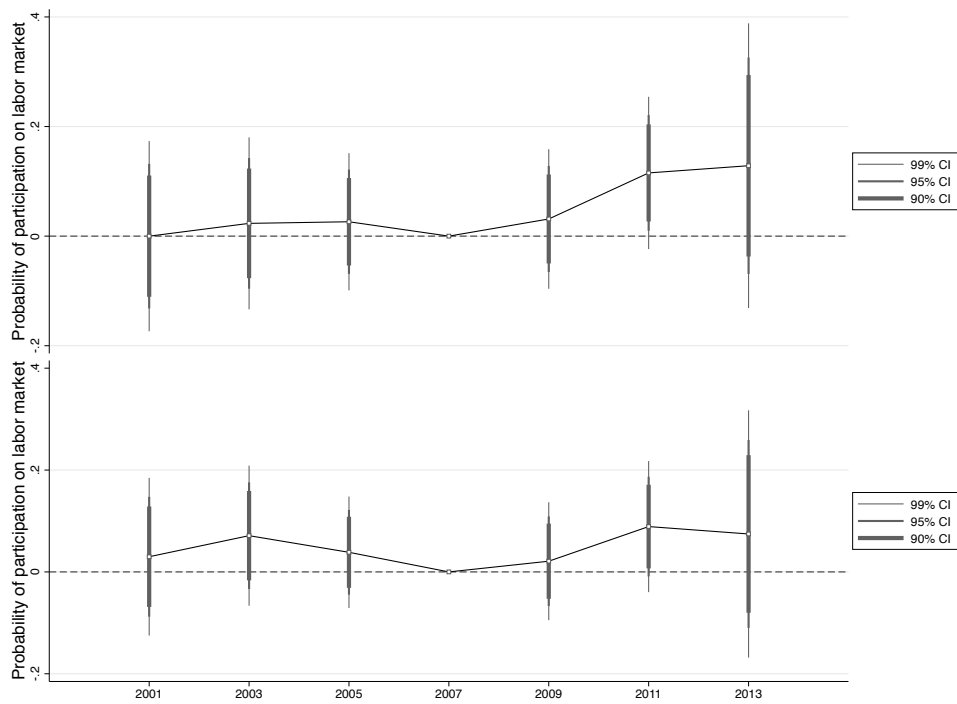
Notes: The figure shows mean values for working hours for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.28: Mean values of working hours over the years 2001-2013, 30-54 years old wives



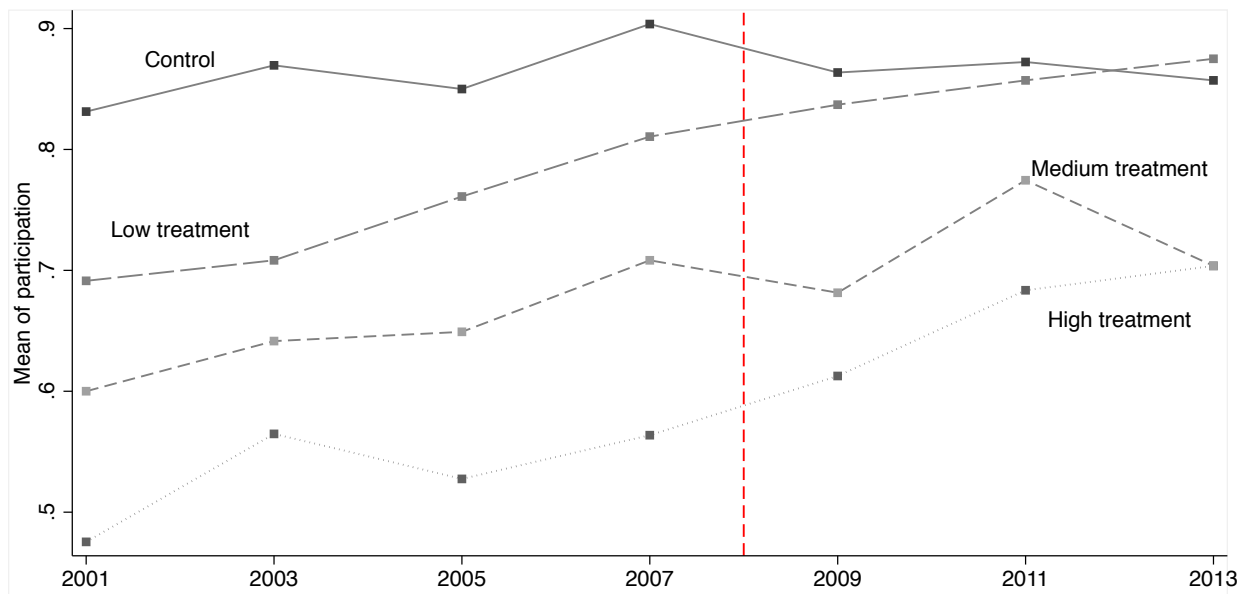
Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from models presented in Appendix Table B.37 including only 30-54 years old wives. I control for individual's age as a second order polynomial, the number of minor children in each age group (0-1, ..., 16-18 years old), indicators for age group (30-34, ..., 50-54 years old), and additionally, in the image below, for work experience. 2007 is the baseline year. The sample consists of wives living in West Germany. Data: SOEPlong v30

Figure C.29: The estimated impact of alimony restriction on 30-54 years old low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008



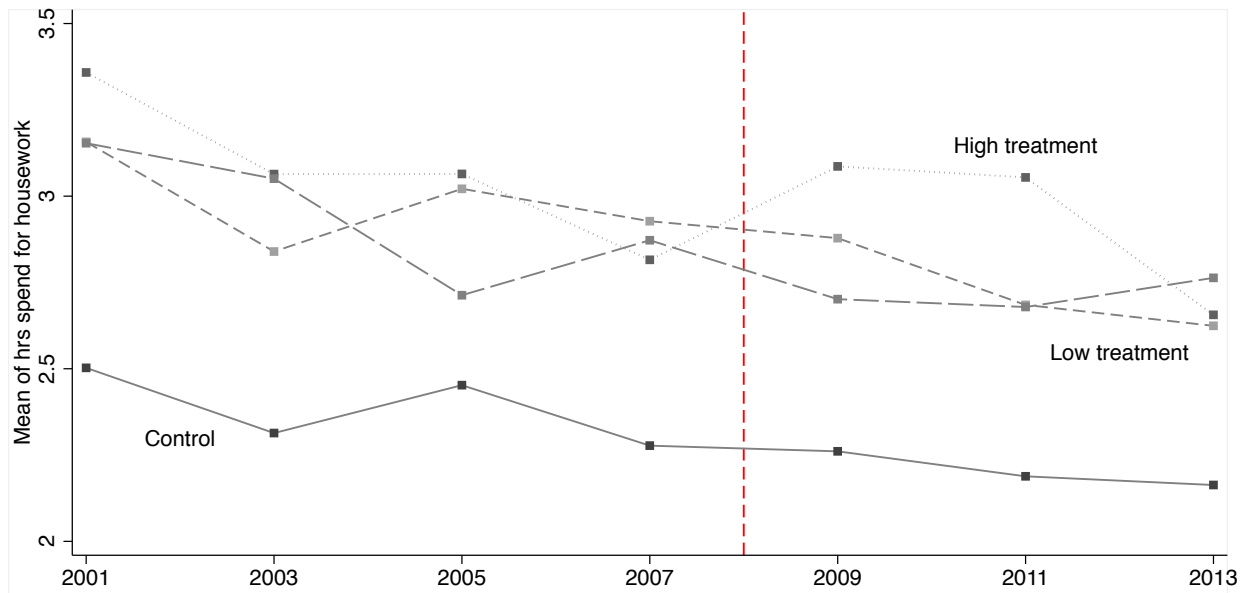
Notes: The figure shows coefficients of the interaction of the medium-intensity treatment group dummy and year dummies from models in Appendix Table B.43 including only 30-54 years old wives. In the bottom image I control additionally for individual's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. The sample consists of wives living in West Germany. Data: SOEPlong v30

Figure C.30: The estimated impact of alimony restriction on 30-54 years old medium-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008



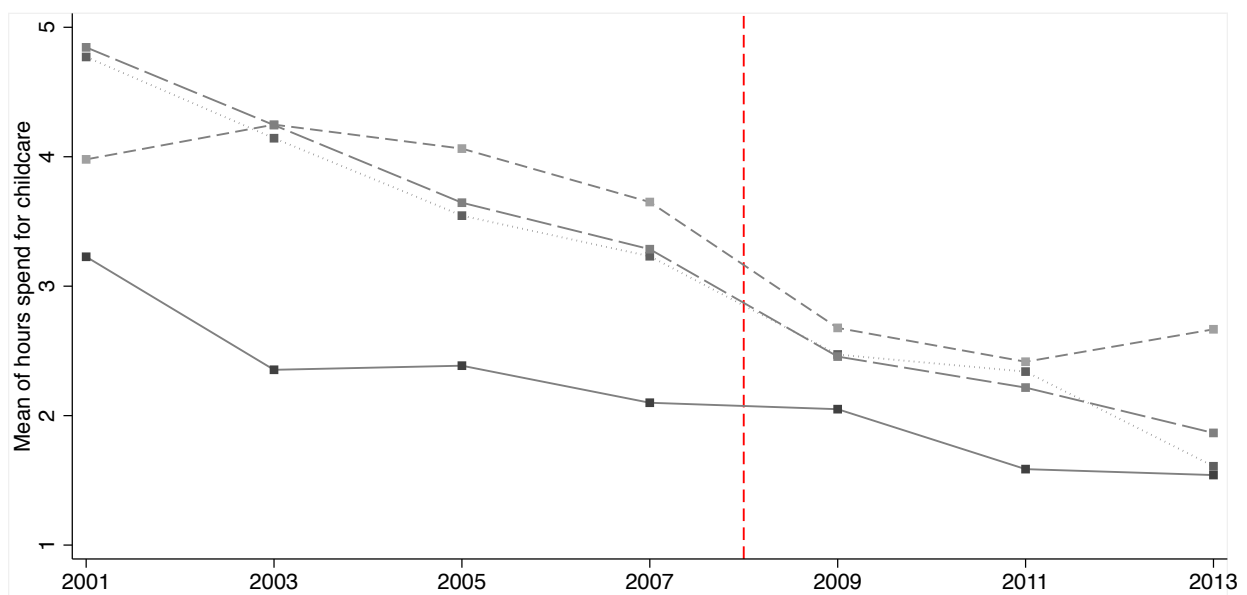
Notes: The figure shows mean values for participation for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs. Data: SOEPlong v30

Figure C.31: Mean values of participation over the years 2001-2013, 30-54 years old wives



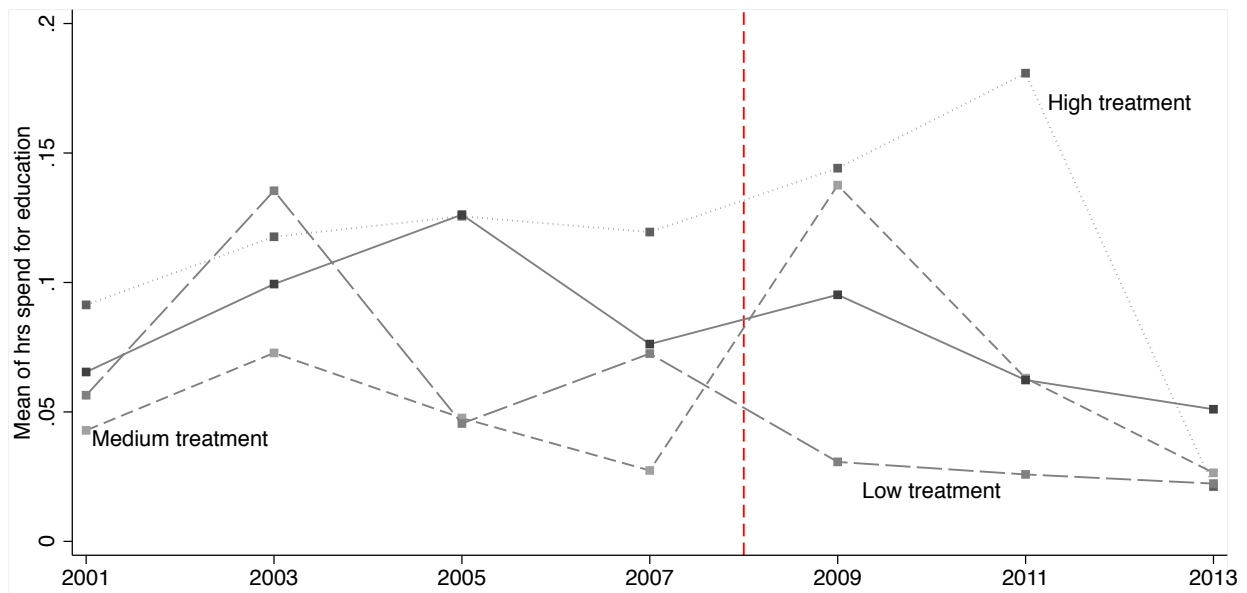
Notes: The figure shows mean values for housework in hrs for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.32: Mean values of housework hours over the years 2001-2013, 30-54 years old wives



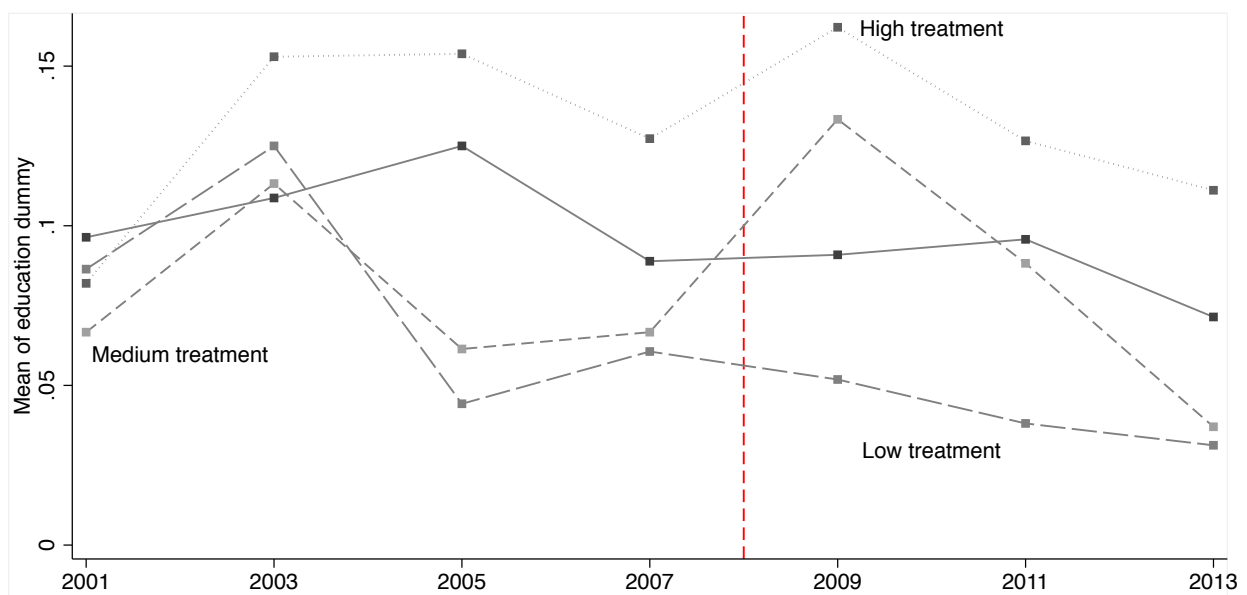
Notes: The figure shows mean values for childcare in hrs for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.33: Mean values of childcare hours over the years 2001-2013, 30-54 years old wives



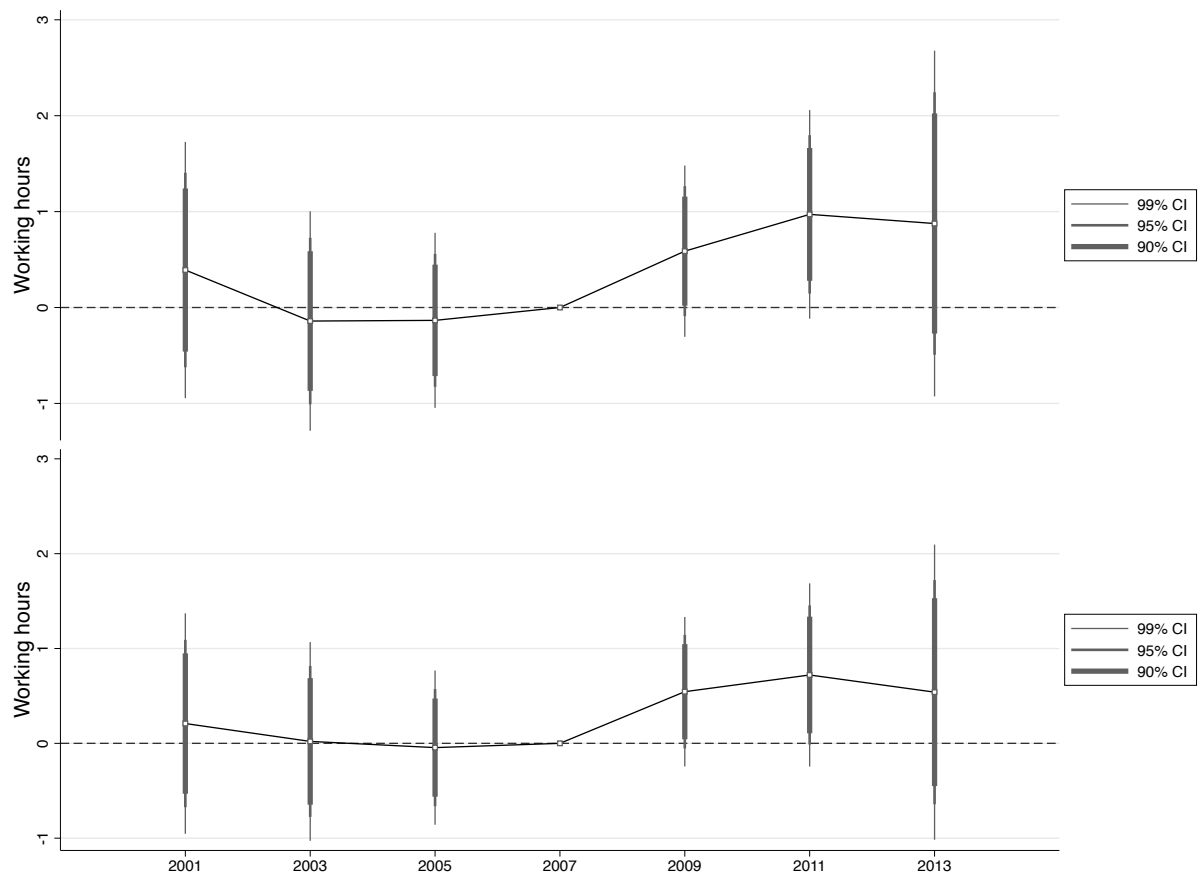
Notes: The figure shows mean values for education in hours for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.34: Mean values of hours in education over the years 2001-2013, 30-54 years old wives



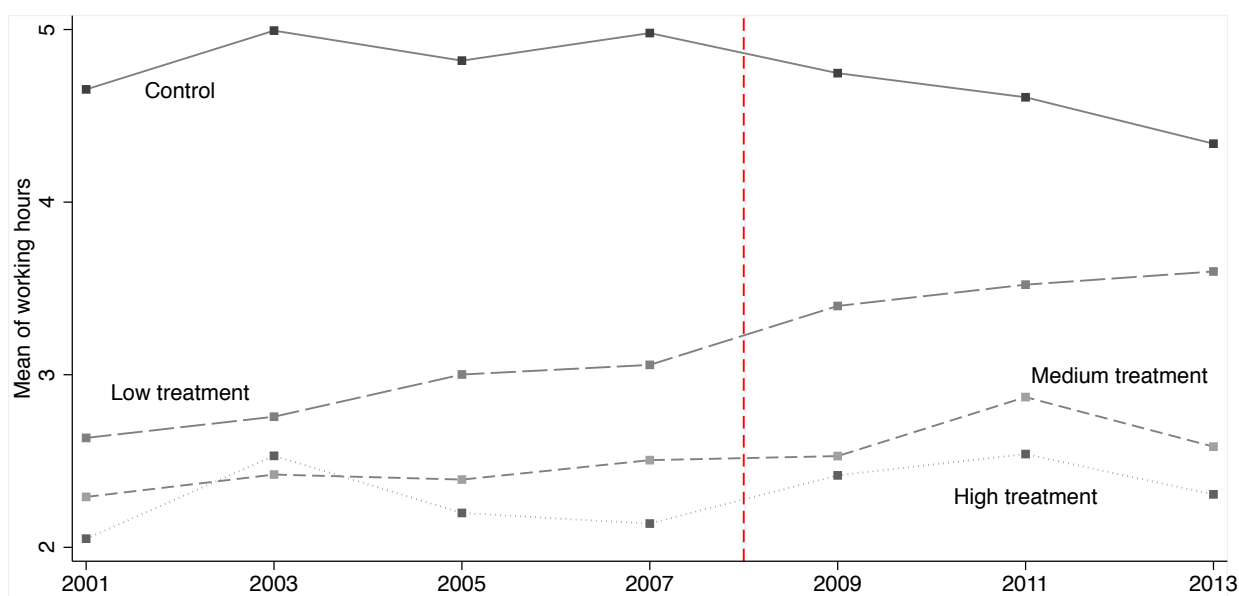
Notes: The figure shows mean values for education dummy for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.35: Mean values of education dummy over the years 2001-2013, 30-54 years old wives



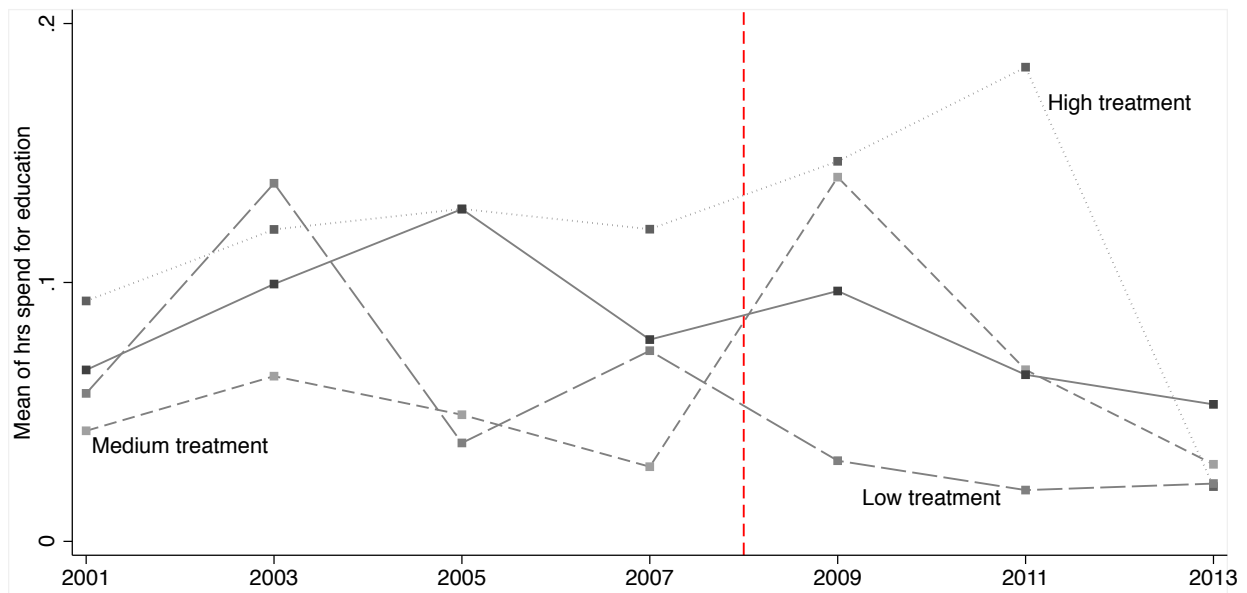
Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies including 317 wives who are younger than 45 years of age. In the bottom image I control additionally for wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. Data: SOEPlong v30

Figure C.36: The estimated impact of alimony restriction on low-intensity treatment wives who are younger than 45 years of age for the years prior to and subsequent to the adoption of the law in 2008



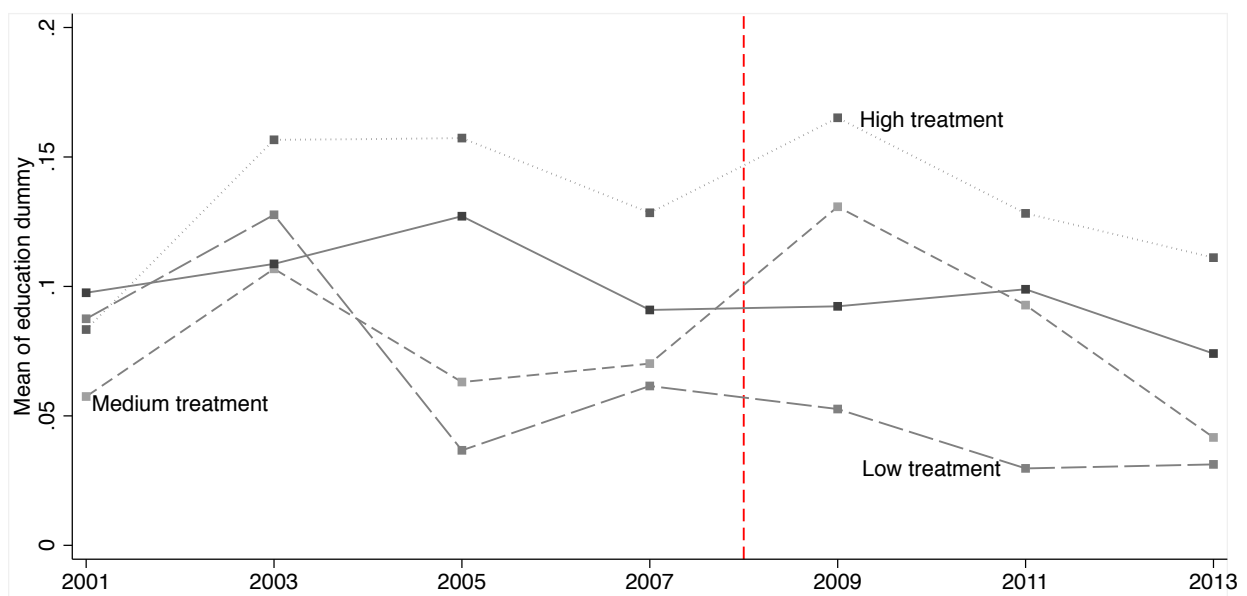
Notes: The figure shows mean values for working hours for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs. Data: SOEPlong v30

Figure C.37: Mean values of working hours over the years 2001-2013, 30-54 years old wives, without wives who have experienced short-time work



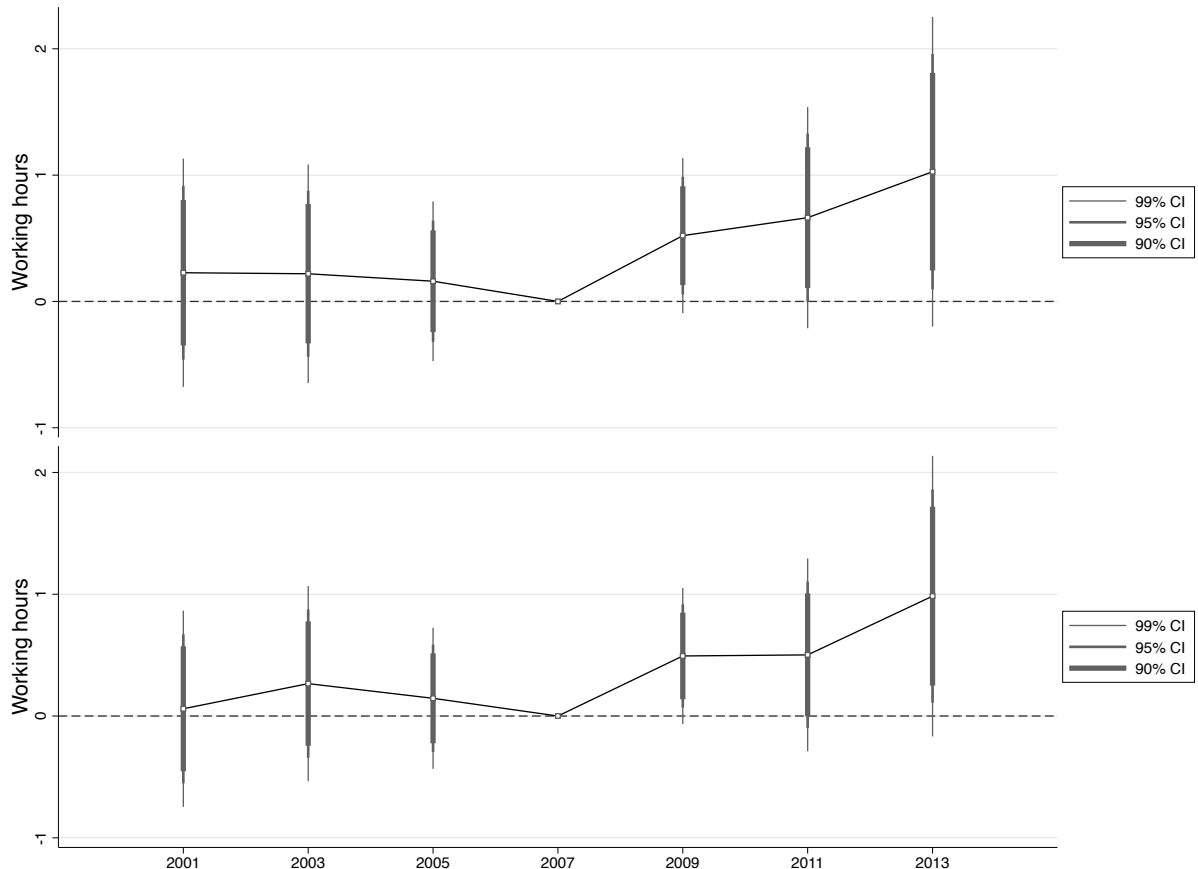
Notes: The figure shows mean values for education in hours for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.38: Mean values of hours in education over the years 2001-2013, 30-54 years old wives, without wives who have experienced short-time work



Notes: The figure shows mean values for education dummy for the control and treatment groups. The sample consists of 612 30-54 years old wives living in West Germany, 2,636 obs.  
Data: SOEPlong v30

Figure C.39: Mean values of education dummy over the years 2001-2013, 30-54 years old wives, without wives who have experienced short-time work



Notes: The figure shows coefficients of the interaction of the low-intensity treatment group dummy and year dummies from models in Columns (1) and (2) of Appendix Table B.57 on page 97 including only 30-54 years old wives. Wives who have experienced short-time work or who worked between 2001-2013 in a field that was (probably) affected by the 2009 crisis are excluded. In the bottom image I control additionally for wife's age as a second order polynomial and the number of minor children in each age group (0-1, ..., 16-18 years old). 2007 is the baseline year. Data: SOEPlong v30

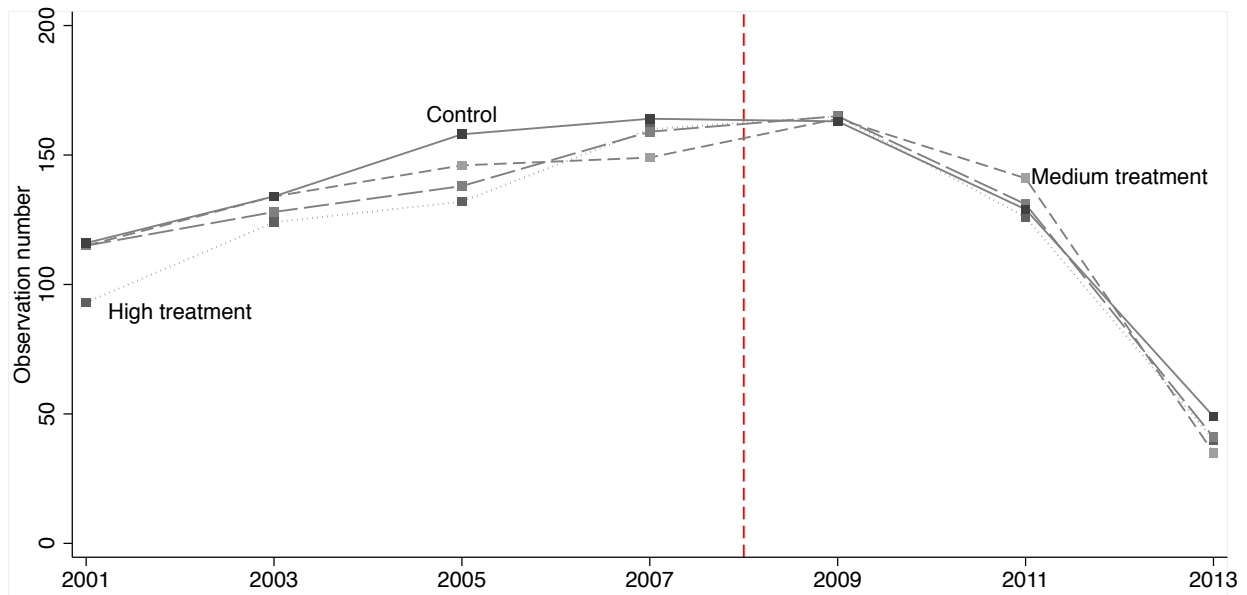
Figure C.40: The estimated impact of alimony restriction on 30-54 years old low-intensity treatment wives for the years prior to and subsequent to the adoption of the law in 2008, without wives who worked in a field that was affected by the 2009 crisis



Notes: The term “Zugewinnausgleich” means equalisation of accrued gains, and the term “Zugewinnausgleichsrecht” law of equalisation of accrued gains.

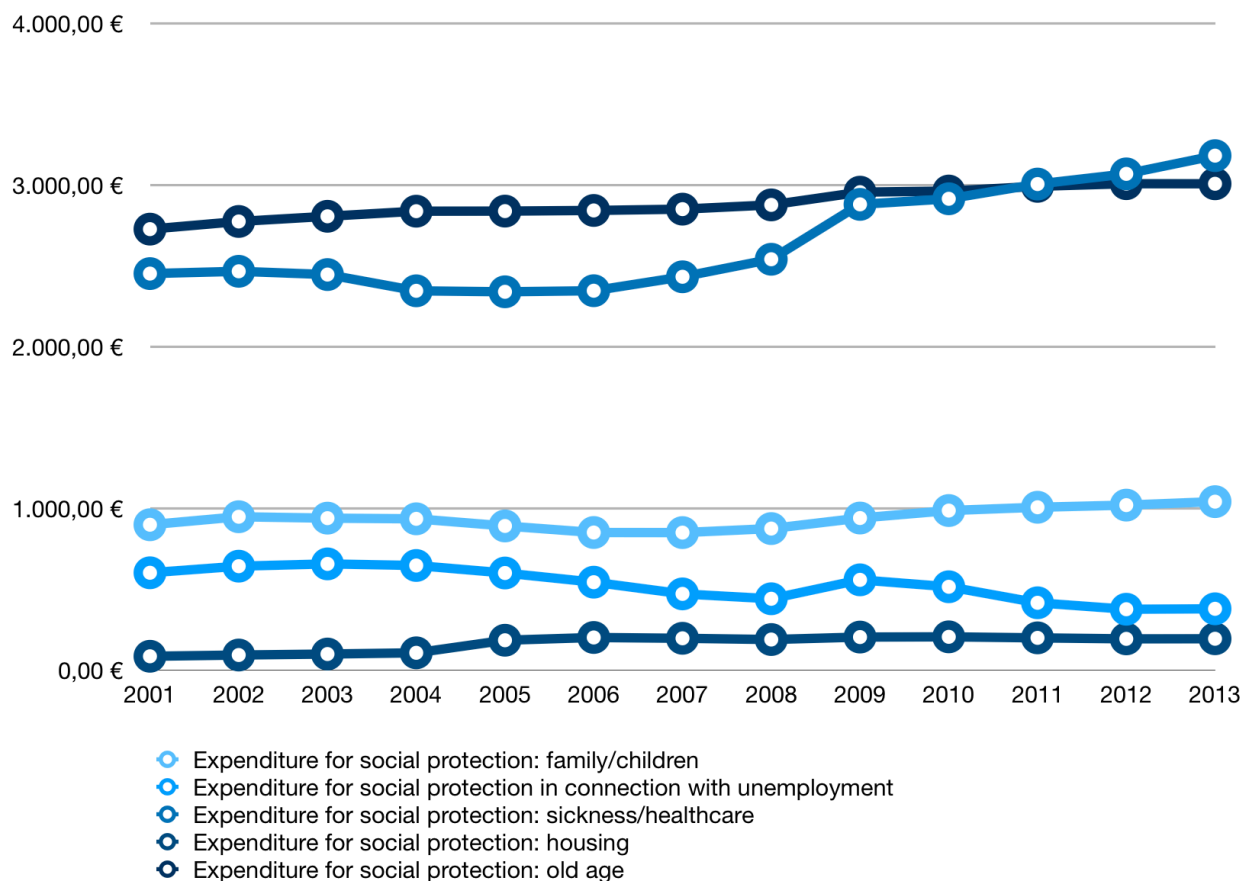
Source: Google 2017, accessed on 06.13.2017

Figure C.41: Web search interest for “equalisation of accrued gains” and “law of equalisation of accrued gains”



Notes: The figure shows observation number for the control and treatment groups. The sample consists of 792 wives living in West Germany, 3,514 obs.  
Data: SOEPlong v30

Figure C.42: Observation number over the years 2001-2013



Source: European Commission, eurostat n.d.; for further explanation see European Commission, eurostat 2012; own compilation

Figure C.43: Expenditure in Euro per inhabitant (at constant 2010 prices)