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Marital Sorting, Inequality and the Role of Female Labor Supply: Evidence from East and West Germany

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Abstract

This paper examines to what extent marital sorting affects cross-sectional earnings inequality in Germany over the past three decades, while explicitly taking into account labor supply choices. Using rich micro data, the observed distribution of couples' earnings is compared to a counterfactual of randomly matched spouses. Hypothetical earnings are predicted based on a structural model of household labor supply. For West Germany, a positive effect of marital sorting on inequality is found after adjusting for labor supply behavior, while the effect is limited when earnings are taken as given. This means that there is positive sorting in earnings potential which is veiled by relatively low female labor force participation. In East Germany, the impact of marital sorting on inequality is highly disequalizing irrespective of adjusting for labor supply choices. This is mainly due to the fact that East German women are much more attached to the labor market.

JEL Classification: D31, D63, J12, J22
Keywords: earnings inequality, marital sorting, labor supply, Germany

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1 Introduction

Positive marital sorting may contribute to inequality across couple households by reducing the potential for income equalization within families. The observation of increasing correlation of spouses' earnings is typically interpreted as an indication of couples becoming more similar in terms of earnings-related characteristics such as ability or education (Mare, 1991). Assortative mating is considered as an important driver of growing inequality in many societies (Lam, 1997).[1] However, positive correlation in earnings is not only determined by "who lives with whom" (Jenkins and Micklewright, 2007), but is also related to secular trends in female labor force participation, which have been found to play a differential role across the income distribution (Bredemeier and Juessen, 2013).

This paper examines to what extent marital sorting affects cross-sectional earnings inequality across couple households in Germany since the 1980s while explicitly taking into account labor supply behavior. Using rich micro data from the German Socio-Economic Panel, the observed distribution of couples' earnings is compared to two different counterfactual distributions. Both rely on a hypothetical sample of randomly matched couples. In a first step, earnings of hypothetical spouses are taken as observed in the data in order to construct a counterfactual distribution of couple earnings. While this is standard in the related literature (e.g., Aaberge et al., 2005; Greenwood et al., 2014; Hryshko et al., 2014) the procedure ignores that the amount of earnings does not only depend on earnings potential, but is also the result of an endogenous labor supply decision. This depends on the household context, most importantly the spouse's characteristics. That is why, in a second step, counterfactual labor supply choices, and hence earnings, of randomly matched couples are predicted based on a structural model of household labor supply. Differences in earnings inequality between the distributions of observed and hypothetical couples before and after labor supply adjustment allow to disentangle the effects of sorting in earnings potential and the role of labor supply. The focus on Germany allows to compare the impact of marital sorting on inequality separately for East

[1] In general, changes in household context have been found to contribute to income inequality (see, e.g., Jenkins, 1995; Daly and Valletta, 2006; Martin, 2006; Peichl et al., 2012).

and West Germany. Due to the division until 1990 the two parts of the country exhibit distinct differences in educational sorting, earnings correlation and female labor force participation.

The main finding of the paper is that the impact of marital sorting on earnings inequality across couple households depends on the choice of the counterfactual as well as the extent of women's attachment to the labor force. Comparing the observed level of inequality across couples to a counterfactual of randomly matched spouses while taking earnings as given suggests that the impact of marital sorting has been rather limited in West Germany since the 1980s. However, taking into account predicted labor supply choices of randomly matched couples, a pronounced disequalizing effect of marital sorting on earnings inequality is found for West Germany. In East Germany, the effect of marital sorting on inequality since the mid-1990s is found to be disequalizing as well, which holds irrespective of adjusting for labor supply choices.

The difference between East and West Germany is driven by two factors. First, educational sorting as well as earnings correlation among couples are more pronounced in the East than in the West. Moreover, there is a positive relationship between labor supply of East German women and their male spouses' position in the earnings distribution. This relationship has changed from downward sloping to a rather flat pattern in West Germany. Second, marital sorting in earnings potential may affect overall earnings inequality across couples only if both spouses are sufficiently attached to the labor force (Greenwood et al., 2014). While female labor force participation has substantially increased since the mid-1980s in West Germany, female labor supply in East Germany has traditionally been higher both at the extensive and the intensive margin. This explains why the impact of sorting is small when not accounting for labor supply behavior in West Germany. There is strong sorting in earnings potential which would make the distribution across couples more unequal if West German women were substantially more attached to the labor market – as is the case in East Germany.

There are two closely related studies on the relationship between marital sorting and inequality in the U.S. taking into account labor supply. Hyslop (2001)

looks at the interaction of individual wage inequality and family earnings inequality within an intertemporal framework. Greenwood et al. (2014) compare family earnings inequality in 1960 and 2005 and impose female labor force participation on the aggregate level and across the two time periods as counterfactuals. The contribution of this paper is to quantify the importance of marital sorting for cross-sectional earnings inequality by predicting counterfactual earnings for randomly matched couples within the same cross-section based on a structural model of household labor supply. Moreover, most of the existing literature on marital sorting and inequality focuses on U.S. data. To the best of my knowledge this is the first empirical study on the relationship between marital sorting and earnings inequality for Germany.[2]

The paper is organized as follows. Section 2 gives an overview of the previous literature. Section 3 introduces the methodology and describes the empirical application as well as the data. Results are presented in section 4. Section 5 concludes.

2 Background and Literature

Previous studies on the effect of an increasing association of female and male earnings on inequality can largely be classified as accounting approaches. Typically, the observed distribution of income or earnings is compared to counterfactual distributions manipulating female earnings or the correlation between spouses' earnings while observed individual earnings are taken as given. Schwartz (2010) estimates the contribution of the association between spouses' earnings to growing earnings inequality among married couples in the U.S. and finds that earnings inequality would have been 25–30% lower than actually observed when the trend correlation between male and female earnings in couples would have remained at its level in the 1960s (particularly at the top of the distribution). Karoly and Burtless (1995) apply decomposition techniques to examine how demographic trends in the U.S. have affected income inequality across families and conclude that female earnings had a key influence on family income inequality due to increasing correlation with total

[2] Blossfeld and Timm (2003) study the role of the educational system in West Germany for educational homogamy, but do not explicitly look at earnings or income inequality. Ermisch et al. (2006) estimate the extent to which assortative mating affects intergenerational mobility.

family income since 1980. Burtless (1999) attributes 13% of overall inequality to the growing correlation of husbands' and wives' earnings. However, Cancian and Reed (1998, 1999) conclude that female earnings were not the main driving force towards increasing inequality and find the role of husbands' earnings to be much more important. Reed and Cancian (2009) find that changes in *income* sorting account for more than half of the increase in income inequality. They discuss several trends that have contributed to increasing correlation of male and female earnings in couple households, among others increases in assortative mating, the increasing propensity to work for women married to highly educated men, and the rise in returns to education. In a decomposition analysis, Eika et al. (2014) quantify the contribution of various factors to the distribution of household income and conclude that educational assortative mating accounts for a large part of the cross-sectional inequality in the U.S. and Norway. Hryshko et al. (2014) examine the role of wives' earnings for U.S. household earnings inequality and stability. Counterfactual earnings are constructed by randomly rematching married men and women and using the combined earnings. They find that coordination of spouses' labor supply decisions and positive assortative mating play a minor role.

Based on a decomposition of the Gini coefficient Aaberge et al. (2005) introduce an index for the association of spouses' labor incomes and find an increase in Norway over the period 1973–1997. They compare the observed distribution of couple earnings to a reference distribution of randomly matched couples holding individual earnings fixed. However, they emphasize that "*the correct way to derive the hypothetical [...] income distribution would consist in, first, randomly matching the partners' productivities, i.e. potential wages, and second, simulating their income-producing choices, given the random match*" (Aaberge et al., 2005, p. 507). Taking into account labor supply choices is important, since earnings do not only reflect a worker's productivity (the wage rate) but also depend on the number of hours worked, which is determined by the allocation of partners' time on paid work, household production and leisure (Juhn and Murphy, 1997; Devereux, 2004; Gottschalk and Danziger, 2005). This is related to the household context and, therefore, changes in household characteristics are reflected in changing la-

bor supply behavior. That is why the assessment of the effect of marital sorting on earnings inequality should adjust for labor supply behavior in order to explicitly distinguish two different determinants, which are observed simultaneously: First, assortativeness in couple formation is related to partners matching according to their preferences or productivities and is indicated by similar age, education or ethnicity within couples. Second, correlation of spouses' earnings is related to labor supply choices *given* the observed match. These two related but still different determinants should be disentangled in order to identify the socio-demographic trends of growing inequality.

In the existing literature, the approaches to construct counterfactual earnings or income distributions largely ignore the role of labor supply behavior, which is explicitly taken into account in this paper. One exception is Hyslop (2001), who focuses on the interaction of individual wage inequality and family earnings inequality within an intertemporal labor supply framework. The main finding is that U.S. wages are correlated within families and that labor supply responds to wage changes of other family members. While Hyslop (2001) studies the role of labor supply behavior for family earnings inequality responding to permanent individual family members' wage shocks, the purpose of this paper is to quantify the importance of marital sorting for *cross-sectional* earnings inequality across couples. Another exception is the study by Greenwood et al. (2014), which analyzes the distributions of U.S. family earnings in 1960 and 2005 and compares the observed levels of inequality to a counterfactual distribution, which would occur when matching of couples within years was random. They find that the random matching counterfactual leaves the 1960 level of inequality virtually unchanged, while the 2005 inequality is substantially reduced. They further examine the role of married female labor force participation by augmenting their baseline within-year random matching of couples' earnings by imposing counterfactual female labor force participation rates across the two time periods. Compared to the observed levels of inequality the levels of inequality are almost the same for the counterfactuals of random matching and imposing swaps in married female labor force participation. These results shed light on the importance of female labor supply behavior for the impact of assortative mating on economic

inequality. While Greenwood et al. (2014) use aggregate long-term changes in female labor force participation across generations as counterfactuals, the approach in this paper is to use estimates of endogenous labor supply behavior and predict counterfactual earnings for randomly matched couples within the same cross-section.

3 Methodology and Empirical Application

For the purpose of this analysis, the "flocking index" (Aaberge et al., 2005), which is derived from a decomposition of the Gini coefficient, is extended. The index quantifies both the extent and the sign of the effect of the association of female and male labor earnings ("flocking together"[3]) on inequality across couples and is based on the observed and a hypothetical distribution of couple earnings. The hypothetical distribution is constructed by matching spouses' individual earnings randomly to each other. However, it has to be noted that a shortcoming of previous applications of this index is that the difference between the observed and the counterfactual distribution does not reflect changes due to labor supply behavior. Hence, taking into account labor supply coordination requires a simulation of counterfactual choices given the randomly matched household context.

The flocking index. Consider a population of n couple households indexed $i \in \{1, \ldots, n\}$ and a distribution of household earnings $Y = (y^1, \ldots, y^n)$, where household i's total earnings are the sum of both the female and the male spouse's individual earnings: $y^i = y_f^i + y_m^i$. The distribution of total earnings Y is determined by the gender-specific marginal earnings distributions, Y_f and Y_m, as well as the correlation of spouses' earnings, $Corr\,[Y_f, Y_m]$, and, hence, their positions in the respective earnings distribution. Taking Y_f and Y_m as given, the level of inequality in total household earnings, represented by the Gini coefficient, $G(Y)$, is bounded between an upper and a lower value: $G(Y) \in [G^{min}(Y), G^{max}(Y)]$. The bounds depend on

[3] The proverb "*Birdes of a feather will flocke togither*" (Minsheu, 1599) might date back to Plato's *Republic* (Jowett, 1892) and means that those with similar taste tend to congregate in groups. A modern version refers to "*doctors marrying doctors rather than nurses*" (OECD, 2011).

the spouses' earnings distributions and are defined as

$$\mathrm{G(Y)} = \begin{cases} G^{max}(Y) & \text{if } \; Corr\left[Y_f, Y_m\right] = 1 \\ G^{min}(Y) & \text{if } \; Corr\left[Y_f, Y_m\right] = -1 \end{cases} \tag{1}$$

This means that the level of total couple earnings inequality is highest (lowest) if the highest earning woman forms a couple with the highest (lowest) earning man, the second highest earning woman with the second highest (lowest) man and so on. Hence, the pattern of marital sorting with respect to earnings has the most (dis)equalizing effect on earnings inequality across couple households in a situation where sorting in earnings is perfectly negative (positive).

A way to assess to what extent the observed inequality in the distribution of couple earnings is affected by non-random sorting in earnings is to compare the observed distribution with a hypothetical one where spouses' earnings are randomly matched to each other. Consider a counterfactual distribution of randomly matched couples indexed $\tilde{i} \in \{1, \ldots, n\}$, where $\tilde{i}$ is achieved by a permutation of i. A randomly matched couple $\tilde{i}$'s total earnings are $y^{\tilde{i}} = y_f^{\tilde{i}} + y_m^{\tilde{i}}$. Note that, without any further adjustments, the inequality in the gender-specific marginal distributions remain unchanged, i.e., $G(\widetilde{Y}_s) = G(Y_s)$ for $s \in \{f, m\}$. However, inequality of total earnings $\widetilde{Y}$ is affected, since the random matching of couples changes the correlation of spouses' earnings. This implies that in general $G(\widetilde{Y}) \neq G(Y)$. Normalizing the difference between the observed and the hypothetical Gini coefficients by the distance between the hypothetical Gini and the upper and lower bounds respectively yields an index of the extent of "flocking together" (Aaberge et al., 2005):

$$V(Y, \widetilde{Y}) = \begin{cases} \frac{G(Y) - G(\widetilde{Y})}{G^{max}(Y) - G(\widetilde{Y})} & if \; G(Y) \geq G(\widetilde{Y}), \\ \frac{G(Y) - G(\widetilde{Y})}{G(\widetilde{Y}) - G^{min}(Y)} & if \; G(Y) < G(\widetilde{Y}), \end{cases} \tag{2}$$

where $V \in [-1, 1]$. Positive values of V imply that $G(Y) > G(\widetilde{Y})$, i.e., observed inequality of couple earnings is greater than inequality of the distribution of random matches. This reflects a disequalizing pattern of sorting in earnings, while negative values of V indicate a sorting pattern that is equalizing compared to ran-

dom matching. Note that the extreme cases of either perfect positive sorting, i.e., $G(Y) = G^{max}(Y)$ (negative sorting, i.e., $G(Y) = G^{min}(Y)$) imply the maximum (minimum) values of $V = 1$ ($V = -1$). Finally, the case of $V = 0$ represents a situation where inequality for observed and random sorting coincide.[4]

Adjusting for labor supply behavior. Sorting of couples with respect to earnings, i.e., non-zero earnings correlation, does not necessarily only reflect changes in the assortativeness in couple formation but is also affected by changes in the coordination of couples' labor market behavior. Consider, for example, a perfectly negative sorting pattern where the highest earning woman and the least earning man form a couple and vice versa. Assuming that resources are equally shared within households, this would indicate that sorting with respect to earnings is most equalizing. However, since earnings are a function of earnings *potential* (the wage rate) and the *supply* of working time on the labor market (hours), it remains unclear whether earnings correlation rather reflects assortative mating in traits like ability or education (*"doctors marry nurses"*) rather than patterns of labor market behavior of couples (*"female doctors work less when married to a male doctor"*). The latter example implies that the extent of "flocking together" with respect to earnings may be affected by couples' labor supply choices. Formally, household i's observed earnings y^i depend on the spouses' wages, hours worked and household characteristics X^i:

$$y_s^i = \bar{w}_s^i \times h_s^i = \bar{w}_s^i \times h_s(\bar{w}_f^i, \bar{w}_m^i, X^i) \tag{3}$$

for $s \in \{f, m\}$ and where $\bar{w}$ and h denote individual hourly wage rates and hours worked respectively. Hence, taking the thought experiment of a hypothetical random matching of couples seriously, necessarily implies that individual hours worked would adjust given the hypothetical household context, i.e., $y_s^i \neq y_s^{\tilde{i}}$ since $(\bar{w}_f^i, \bar{w}_m^i, X^i) \neq (\bar{w}_f^{\tilde{i}}, \bar{w}_m^{\tilde{i}}, X^{\tilde{i}})$. Adjusting for labor supply behavior requires an imputation of a hy-

[4] Note that the interpretation of the flocking index is similar to a measure of correlation between two stochastic variables. Aaberge et al. (2005) show that the flocking index is equal to the correlation coefficient when the Gini coefficient is replaced by the squared coefficient of variation.

pothetical labor supply choice and, hence, earnings for randomly matched couples:

$$\hat{y}_s^{\tilde{i}} = \bar{w}_s^{\tilde{i}} \times \hat{h}_s(\bar{w}_f^{\tilde{i}}, \bar{w}_m^{\tilde{i}}, X^{\tilde{i}}). \tag{4}$$

In the empirical application, the prediction of hypothetical labor supply choices will be based on estimates of a structural model of household labor supply. The predictions are used to calculate the level of inequality in the counterfactual couple earnings distribution, $G(\widehat{Y})$, and finally the flocking index after labor supply adjustment:

$$\widehat{V} = \widehat{V}(Y, \widehat{Y}). \tag{5}$$

The interpretation of the adjusted flocking index is the same as before: Positive values indicate a disequalizing and negative values an equalizing pattern. The main difference is that labor supply coordination given the household context is explicitly taken into account. Comparing the unadjusted and the adjusted flocking indexes, V and $\widehat{V}$, indicates whether taking into account randomly matched couples' labor supply behavior changes the impact of marital sorting on inequality across couples. This is summarized in the cross-tabulation of potential outcomes in Table 1.

Table 1: Comparison of unadjusted and adjusted flocking index

	$\widehat{V} > V$	$\widehat{V} < V$
$V < 0$	*equalizing* effect of marital sorting *overestimated*	*equalizing* effect of marital sorting *underestimated*
$V > 0$	*disequalizing* effect of marital sorting *underestimated*	*disequalizing* effect of marital sorting *overestimated*

The case of $V < 0$ implies an equalizing effect of sorting in earnings on inequality when not taking into account labor supply adjustments. This is in absolute terms overestimated (underestimated) when adjusting for labor supply yields a larger (smaller) value for $\widehat{V}$. On the other hand, in the case of $V > 0$, the implied disequalizing pattern is underestimated (overestimated) when adjusting for labor supply yields a larger (smaller) value for $\widehat{V}$. This means that observed patterns of labor supply coordination among couple households may either cushion or exacerbate the extent to which marital sorting affects earnings inequality across couple households.

Structural model of household labor supply. The prediction of labor supply decisions for randomly matched couples is based on a standard approach in counterfactual microsimulation, i.e., a structural discrete-choice model of household labor supply and conditional logit estimation techniques.[5] Assume that a couple i's spouses jointly maximize utility U by optimally choosing from a discrete choice set of J combinations of working time categories (h_f^{ij}, h_m^{ij}). Utility of couple i in category $j \in \{1, ..., J\}$ is given by

$$U^{ij} = W(D^{ij}, h_f^{ij}, h_m^{ij} | X^i) + \epsilon^{ij}, \tag{6}$$

where $W(\cdot)$ captures the systematic part of the utility function with the main arguments being the household's disposable income D^{ij} and working time of both spouses (assuming disutility from labor) given a set of household characteristics X^i. Disposable income is given by $D^{ij} = d(\bar{w}_f^i h_f^{ij}, \bar{w}_m^i h_m^{ij}, I^i | X^i)$, where $\bar{w}$ denotes hourly wage rates, which are assumed to be fixed across choices, and I^i denotes non-labor income. The tax-benefit function $d(\cdot)$ transforms labor earnings and other gross income into disposable income given household characteristics. Unobserved heterogeneity in preferences is captured by adding the stochastic term, which is assumed to be iid following a Gumbel (extreme value type I) distribution. These assumptions allow the empirical estimation of a conditional logit model following McFadden (1974), where the probability that household i chooses working time category k over all other available categories $l \in \{1, ..., J\} \backslash k$ is

$$P(U^{ik} > U^{il}) = P(W^{ik} - W^{il} > \epsilon^{il} - \epsilon^{ik}) = \frac{\exp(W^{ik})}{\sum_{l=1}^{J} \exp(W^{il})}. \tag{7}$$

The resulting set of estimated coefficients from the systematic part of the utility function $W(\cdot)$ based on observed couples' behavior can be interpreted as population averages of preferences for disposable income and leisure given observed heterogeneity in household characteristics. The obtained estimates are used to predict counter-

[5] See Aaberge et al. (1995), Bargain et al. (2014), Blundell and Meghir (1998), Blundell et al. (2000), Hoynes (1996) and Van Soest (1995) for prominent examples in the literature. For a detailed overview of microsimulation models and the empirical estimation of structural labor supply models see Creedy and Kalb (2006).

factual labor supply choices for randomly matched couples given hypothetical wages $(\bar{w}_f^{\tilde{i}}, \bar{w}_m^{\tilde{i}})$ and household characteristics $X^{\tilde{i}}$.

There are mainly two advantages of structural approaches over reduced-form approaches when empirically estimating labor supply models for this research question. First, the use of reduced-form estimations is more appropriate when one is interested in marginal effects of an intervention on labor supply (local treatment effect). In case of further-reaching counterfactuals many relevant factors change simultaneously (here a different household environment). Hence, analyzing labor supply effects of (hypothetical) large-scale interventions requires a structural model of household labor supply, which is capable of capturing all relevant determinants simultaneously within a coherent framework of household utility maximization. Second, the discrete-choice approach with random utility maximization is attractive, because both the economic and the econometric model are integrated and maximum likelihood estimation in the econometric model directly implies utility maximization in the economic model (Aaberge et al., 1995).

Empirical estimation of labor supply model. The structural model of household labor supply and its estimation are described in (6) and (7). The systematic part $W(\cdot)$ of the utility function is represented by a quadratic specification, i.e., the main arguments – disposable income and spouses' working time – enter both in linear as well as in quadratic form. In addition, several interactions of income and leisure with household characteristics capture observed heterogeneity in labor supply decisions ("taste shifters").[6] In addition, indicators for fixed cost of work and working time categories are included (Van Soest, 1995).

The conditional logit estimation of (7) is based on a discrete choice set of seven working time categories for each individual with 10, 20,...,60 hours of work per week as well as the non-work category of zero hours. Therefore, couple households have a choice set of $7 \times 7 = 49$ categories.[7] This requires an imputation of disposable

[6] These comprise individual spouses' characteristics (age, age squared, indicators for high and low skill, indicator for handicap status) as well as household characteristics (indicators for the presence of children aged 0–2, 3–6 and 7–16, marital status and an indicator for the presence of a person needing care).

[7] The labor supply model is estimated separately for East and West Germany and separately for

income for counterfactual working time categories. While it is straightforward to impute *gross* labor earnings for counterfactual categories by multiplying the individual hourly wage rates with the number of working hours assuming that wage rates are determined independently from working time, one of the labor supply model's main arguments is the households' disposable income.[8] This is imputed based on a reduced-form regression approach (see Frenette et al., 2007; Biewen and Juhasz, 2012; Peichl, 2012; Bargain et al., 2013), where for each year t observed disposable income of household i is the left-hand side variable. The regression equation reads

$$D_t^i = X_t^i \alpha_t^x + Z_t^i \alpha_t^z + XZ_t^i \alpha_t^{xz} + u_t^i, \tag{8}$$

where D_t^i is observed disposable income, Z_{it} is a vector of gross incomes (from labor, assets, private pensions and other sources) including third-order polynomials and X_t^i is a set of household characteristics which are relevant for tax-benefit policies in Germany.[9] The vector XZ_t^i comprises various interactions of gross incomes and household characteristics. The error term is denoted by u_t^i. The regression results yield values for R^2 very close to one (0.95–0.98), which means that this fairly simple regression model captures almost the entire observed variation in disposable household incomes and, therefore, has sufficient predictive power to impute disposable incomes in both observed and counterfactual choice categories.[10]

Data, sample selection and randomization. The simulation model is based on micro data from the German Socio-Economic Panel Study (SOEP), which is a panel survey of households and individuals that has been conducted annually since

couples with a choice set restricted to only seven working time categories (semi-flexible couples), where only one spouse can adjust hours worked in the market flexibly and the other spouse is in education, in military/civilian service, on parental leave, pensioner, civil servant, self-employed or has capital income exceeding half the level of labor income. Estimation results are shown in Appendices C.1 and C.2.

[8] Wage rates are not observed for individuals currently not in employment and are estimated on observed wages using a Heckman correction for sample selection (Heckman, 1976, 1979). Wages are predicted for the entire sample.

[9] These include marital status, age, age squared and hours worked by both spouses, indicators for the presence of children of different ages as well as indicators for civil servants and self-employed.

[10] The tax-benefit model is estimated jointly on the East and West German samples. Regression results are shown in Appendix C.3.

1984 and currently comprises 30 waves (Wagner et al., 2007; SOEP, 2015). Population weights make the respondents' information representative for the German population. The sample is restricted to couples (both married and unmarried) where both spouses are of prime working age (25–59), excluding same-sex couples. The empirical analysis is conducted on separate subsamples of couples from East and West Germany and for the data years 1986–2010 (1996–2010 for East Germany).[11]

Couples observed in the data are randomly matched to each other by data year and the East and West German subsample respectively. The main results are based on an unconditional randomization, i.e., within each East/West and data year cell any woman and any man can potentially be matched to form a hypothetical couple. Additional results are based on three conditional randomization procedures in order to make sure that predictions of hypothetical labor supply choices are not entirely driven by certain couple characteristics. The conditional randomizations are defined as follows: (i) randomization is conditional on marital status, i.e., married (unmarried) individuals can only be randomly matched to a married (unmarried) individual of the opposite sex, (ii) only individuals with or without dependent children in the household can be matched to each other and (iii) randomization is conditional on the male spouse's age, i.e., within age quartiles.

Figure A.1 shows the correlation of spouses' ages as observed in the data and for different randomizations. Observed age correlation is unsurprisingly very high and steady over time with a coefficient around 0.9. Randomization eliminates age correlation and is close to zero for hypothetical couples. The only exception is, by construction, randomization conditional on age with a level above 0.8. Further minor exceptions with correlation coefficients well below 0.2 are conditional on marital status and the presence of children, in particular for East Germany.

[11] For East Germany, SOEP data are available since 1990. Here, the period 1990–1995 is excluded since it was characterized by far reaching political and economic adjustment processes after reunification.

4 Results

4.1 Trends in Marital Sorting, Inequality and Labor Supply

Educational sorting. Figure 1 shows the observed educational composition of couples in the data as well as the counterfactual after unconditional random matching for both East and West Germany. The first and second columns show the shares of couples where both spouses have the same level of education, while the third and fourth columns show the share of couples where either the male or female spouse has a higher level of education. It becomes apparent that there is strong sorting on education since the share of same-education couples is more frequently observed than one would expect from random matching. Contrary, couples with different educational degrees are less often observed than in the random matching case. While the level of educational sorting is higher in East than in West Germany, there is an increasing trend in West Germany, particularly for couples with high education.

Inequality and correlation. Trends in observed earnings inequality and correlation over time in both East and West Germany are shown in Figure 2.[12] In West Germany, the Gini coefficient of couples' total labor earnings (left panel) has slightly increased from just below 0.3 to 0.33 between the mid-1980s and 2010. This upward trend was more pronounced for male earnings inequality, while this has been decreasing throughout the period under consideration for female earnings inequality, though at a much higher level, from around 0.65 to 0.55. The high level of earnings inequality among women in West Germany is mainly due to low participation rates and hours worked (see below). Earnings inequality in East Germany is higher than in the West for men and couples, but lower for women. The pronounced decrease from the mid-2000s onwards is mainly driven by an increase in employment for both men and women.

The right panel of Figure 2 shows the correlation of spouses' *quintiles* in the gender-specific earnings and wage distributions.[13] For both East and West Germany

[12] The results for labor supply, earnings inequality and correlation as well as the respective 95% confidence intervals based on 250 bootstrap replications are displayed in Appendix B.

[13] The correlation of *levels* cannot distinguish changes in the gender-specific marginal distribu-

correlation in earnings has trended upward throughout the period under consideration. Earnings correlation in the West changed from slightly negative to slightly positive, though close to zero. Both the level and increase in earnings correlation among East German couples is substantially larger. The correlation in hourly wages is higher in the East than in the West and positive and stable for both East and West. This indicates that changes in labor supply behavior of couples may have played an important role. In particular, increases in female labor force participation may not have been uniformly distributed across the distribution of male earnings (Juhn and Murphy, 1997; Bredemeier and Juessen, 2013).

Labor supply. Figures 3 and 4 show the mean changes in observed female labor supply by the male spouse's earnings quintile.[14] Several observations stand out. First, the level of female labor supply, both at the extensive and intensive margin, is substantially larger in East than in West Germany across the entire distribution of male earnings. On average, an East German woman whose male spouse is in the bottom quintile is more attached to the labor market than a West German woman whose male spouse is in the top quintile. This underlines the marked difference between East and West German women with respect to their labor market attachment. Second, female labor force participation has substantially increased in West Germany since the 1980s. Labor supply of East German women increased as well, but to a lesser extent. Third, while the increase in West German female labor supply is observed across all quintiles of male earnings, the change is more pronounced in the upper tail of the distribution. The relationship between female labor force participation and the male's position in the earnings distribution has changed from downward sloping to a flat pattern in the West, while it is positive in East Germany.

tions from changes in the *association* between spouses (see Bredemeier and Juessen, 2013, p. 608).

[14] The descriptive analysis is restricted to female labor force participation since male labor supply is found to be stable with participation rates usually well above 90% and average hours worked above 40 hours per week in both East and West Germany. See Tables B.1 and B.2 in the Appendix.

4.2 Impact of Marital Sorting on Inequality

The descriptive analysis in the previous section has shown that couples in East and West Germany substantially differ with respect to the level of female labor force attachment as well as the association of female and male earnings across the distribution. The main purpose of this paper is to disentangle the cross-sectional impact of marital sorting in earnings potential from changes in couples' labor supply behavior on earnings inequality. The observed level of cross-sectional earnings inequality among couples is compared to two counterfactuals: (i) random matching of couples holding individual earnings constant and (ii) random matching with individual earnings adjusted for hypothetical labor supply choices.

Comparing observed and randomly matched couples. The results for the Gini coefficient of earnings inequality are presented in Figure 5. The solid line reflects the observed level of couple earnings inequality discussed in the previous section. The dashed line indicates the level of earnings inequality after random matching of couples and taking individual earnings as given. For the West German sample, the solid and dashed lines in the left panel are almost identical, indicating that the sorting of couples has almost no effect on the level of earnings inequality. Only during the 2000s there is a slight deviation indicating a limited disequalizing impact. This is also reflected in the result for the flocking index displayed in Figure 6.[15] The level above but close to zero indicates that couple sorting has an almost neutral impact, at most marginally disequalizing, with respect to inequality in West Germany throughout the period under consideration.[16]

Adjusting for labor supply choices. The dash-dotted line in Figure 5 indicates the level of inequality after adjusting labor supply choices given the hypothetical couples' characteristics. The Gini coefficient is substantially below the observed level, implying a strong equalizing impact of random matching when labor supply

[15] Note that Figures 5 and 6 refer to results obtained from unconditional random matching. Results for alternative conditional randomization schemes are displayed in Figures A.2 and A.3 in the Appendix. Exact numbers and bootstrapped confidence intervals are shown in Table B.4.

[16] Recall that the flocking index can vary between -1 (extremely equalizing) and 1 (extremely disequalizing), while a value of zero indicates neutrality, see equation (2) and Table 1.

choices are accounted for. This results in a flocking index for West Germany, which is positive and large and hence implies a disequalizing effect of couple sorting, which is underestimated when labor supply is not adjusted for. The corresponding results for East Germany are displayed in the right panels of Figures 5 and 6. The pattern is substantially different compared to West Germany. Random matching without adjusting for labor supply reduces the level of couple earnings inequality compared to observed levels. This results in a positive and large flocking index, which is increasing over time. The adjustment for labor supply only marginally changes the disequalizing impact of couple sorting.[17]

Against the background of the marked differences in female labor force participation between East and West Germany, these results are in line with the conclusion of Greenwood et al. (2014, p. 351) who note that *"for positive assortative matching to have an impact on income inequality married females must work"*. In West Germany, due to the limited extent of female labor force attachment, observed female earnings are on average too low to have a sizeable impact on inequality. This is different in East Germany, where women are more attached to the labor market. However, while the pattern of sorting in observed earnings in West Germany has almost no impact on inequality, the pattern of sorting in *earnings potential* does have a much stronger and disequalizing impact, which is veiled by comparably low female labor force participation.

Heterogeneity across the distribution. Figures 7 and 8 show the mean changes in the female participation rate and the number of hours worked by women after adjusting for labor supply choices of randomly matched couples.[18] On average, the change in labor market participation is negative with a clear downward sloping pattern across the distribution of hypothetical male earnings. Women who are randomly matched to a man at the top of the distribution reduce their labor supply more than at the bottom of the distribution. This holds for both East and West

[17] Figure A.4 shows that the comparably high level of earnings correlation in East Germany is also substantially reduced due to random matching without adjusting for couples' labor supply choices. The observed and counterfactual West German earnings correlations are close to zero.

[18] Figures A.5 and A.6 in the Appendix show that male labor supply remains almost unchanged after random matching of couples.

Germany with the pattern being more pronounced in the East. The resulting pattern for hours worked is very similar. Women randomly matched to a man at the bottom of the earnings distribution would on average even slightly expand hours worked, while women matched to high earning men reduce their hours.[19] This result is in line with the interpretation of male earnings having an "income effect" on female labor supply (Reed and Cancian, 2009). For Germany, Bargain et al. (2014) indeed find that cross-wage elasticities among couples are significantly negative and particularly large in magnitude for Germany compared to many other countries.

5 Conclusions

This paper quantifies the impact of marital sorting on couple earnings inequality in Germany. Observed earnings are compared to counterfactuals based on hypothetical samples of randomly matched couples, whose counterfactual earnings are predicted using estimates from a structural model of household labor supply. This procedure explicitly acknowledges that earnings are to a considerable extent endogenously determined by couples' labor supply choices depending on spouses' characteristics.

The main result is that the impact of marital sorting on couple earnings inequality depends on the choice of the counterfactual and the extent of female labor force participation. Taking earnings of randomly matched spouses as given suggests that the impact of marital sorting has been rather limited in West Germany over the past three decades. However, adjusting for labor supply choices reveals a pronounced disequalizing impact. In East Germany, the pattern of marital sorting contributes to earnings inequality irrespective of adjusting for labor supply choices. The different results for East and West Germany highlight the role of female labor supply, given that marital sorting may affect inequality only if both spouses actually work (Greenwood et al., 2014). As female employment in East Germany is substantially higher than in the West, positive educational sorting of spouses directly translates into more inequality in East Germany than one would observe in

[19] The fact that the response of female labor supply to random matching of couples is negative at the extensive, but for some positive at the intensive margin means that especially women already in the labor force expand their hours worked when matched to a low-earning man.

case of random matching. In West Germany, there is positive sorting in education as well, but its potentially disequalizing impact is veiled by relatively low female labor force participation across the distribution.

From a policy maker's perspective the findings of this study suggest a trade-off. Promoting female labor force participation may come at the price of more inequality. Since employment rates among women in West Germany have been expanding – particularly at the top of the distribution – inequality can be expected to increase. The implications for optimal public policies are ambiguous. On the one hand, government intervention may not be justified since increasing female labor force participation results from couples' choices. On the other hand, a growing share of dual earner couples implies a declining importance of intra-family redistribution, which may be substituted by government redistribution. Further research should address the welfare implications within a model of optimal taxation of couples.

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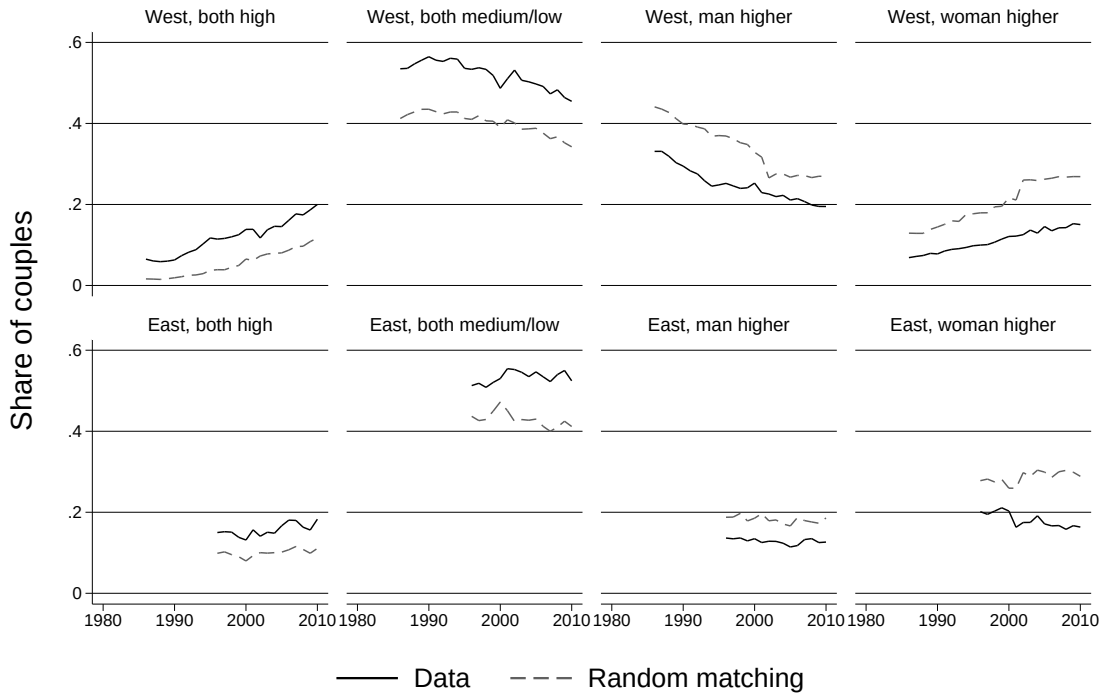
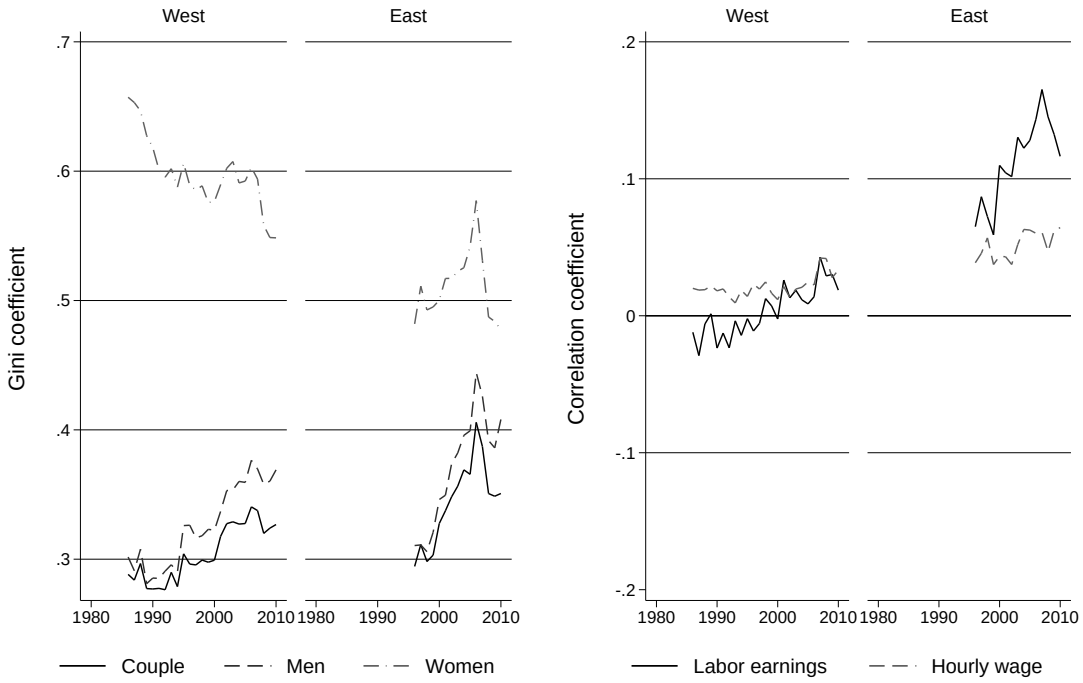
Figures

Figure 1: Educational composition of couples – Data vs. random matching



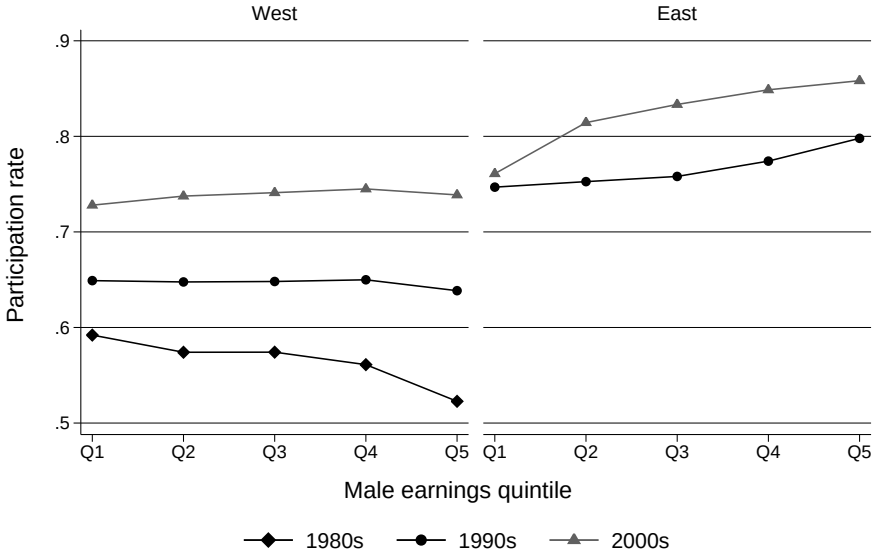
Note: This graph shows the composition of couples by their level of education separately for West (top panel) and East Germany (bottom panel) as observed in the data and after random matching of couples respectively. The first (second) column shows the share of couples where both spouses have obtained a tertiary (vocational or no) educational degree. The third and fourth columns show the share of couples where the male or female spouse holds a higher educational degree.

Figure 2: Earnings inequality and correlation among couples



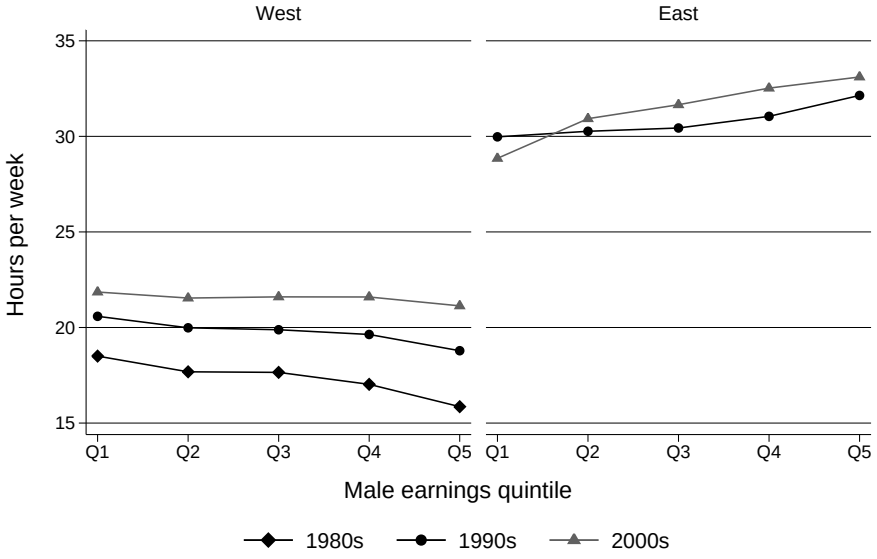
Note: The left panel of this graph shows the Gini coefficient of couples' total labor earnings and of male and female labor earnings over time separately for West and East Germany. The right panel shows the correlation of spouses' quintiles in the gender-specific distributions of total labor earnings and hourly wage rate respectively.

Figure 3: Female labor market participation by male earnings quintile



Note: This graph shows the observed labor market participation rate of women by the earnings quintile of the male spouse and by decade and separately for West and East Germany.

Figure 4: Female hours worked per week by male earnings quintile



Note: This graph shows the observed number of women's hours worked per week by the earnings quintile of the male spouse and by decade and separately for West and East Germany.

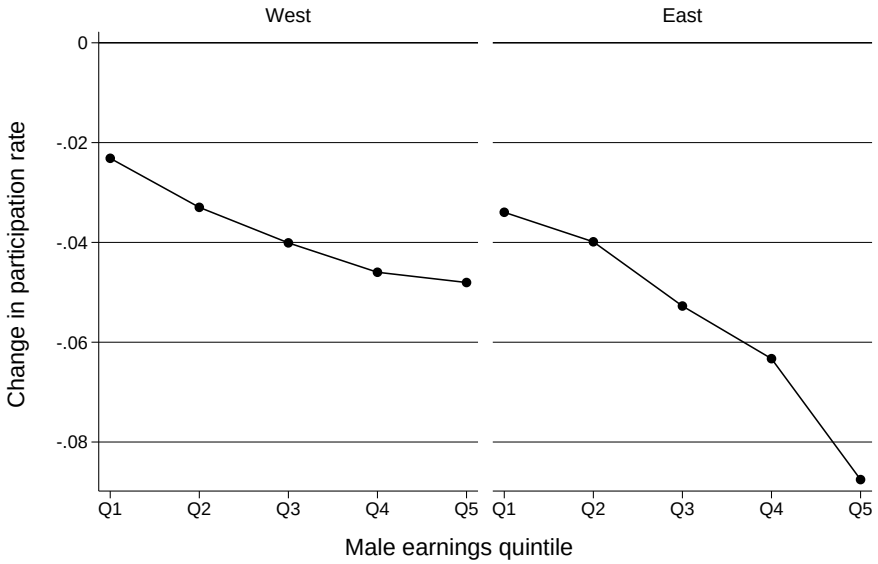
Figure 5: Earnings inequality among couples – Data vs. random matching

Note: This graph shows the trends of Gini coefficients indicating the inequality in the distribution of couples' labor earnings as observed in the data, after random matching and after random matching and adjustment of the randomly matched couples' labor supply respectively.

Figure 6: Impact of marital sorting on inequality among couples

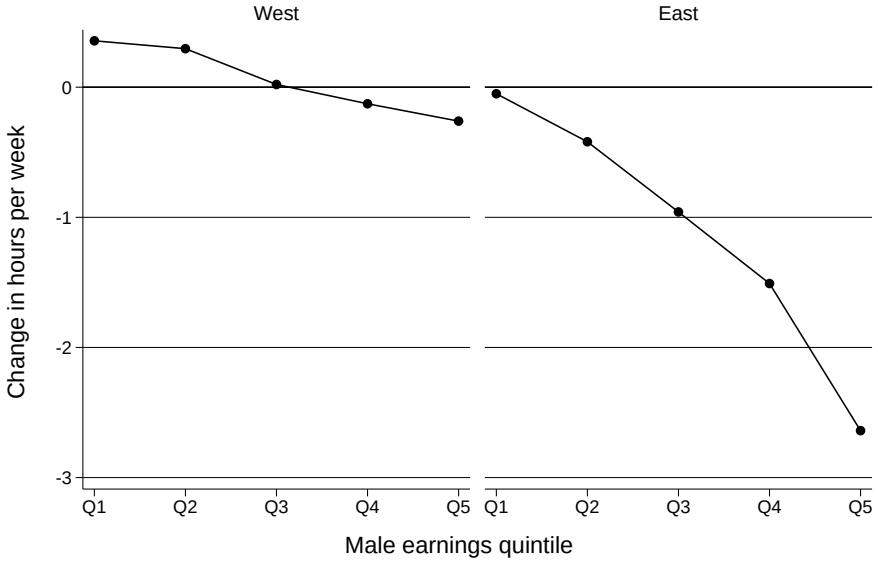
Note: This graph shows the trends of the impact of assortative mating on couple earnings inequality indicated by the flocking index based on random matching and on random matching and adjustment of the randomly matched couples' labor supply respectively.

Figure 7: Adjustment of female labor market participation after random matching



Note: This graph shows the mean change of women's labor market participation rate by the earnings quintile of the randomly matched male spouse for West and East Germany separately.

Figure 8: Adjustment of female hours worked after random matching

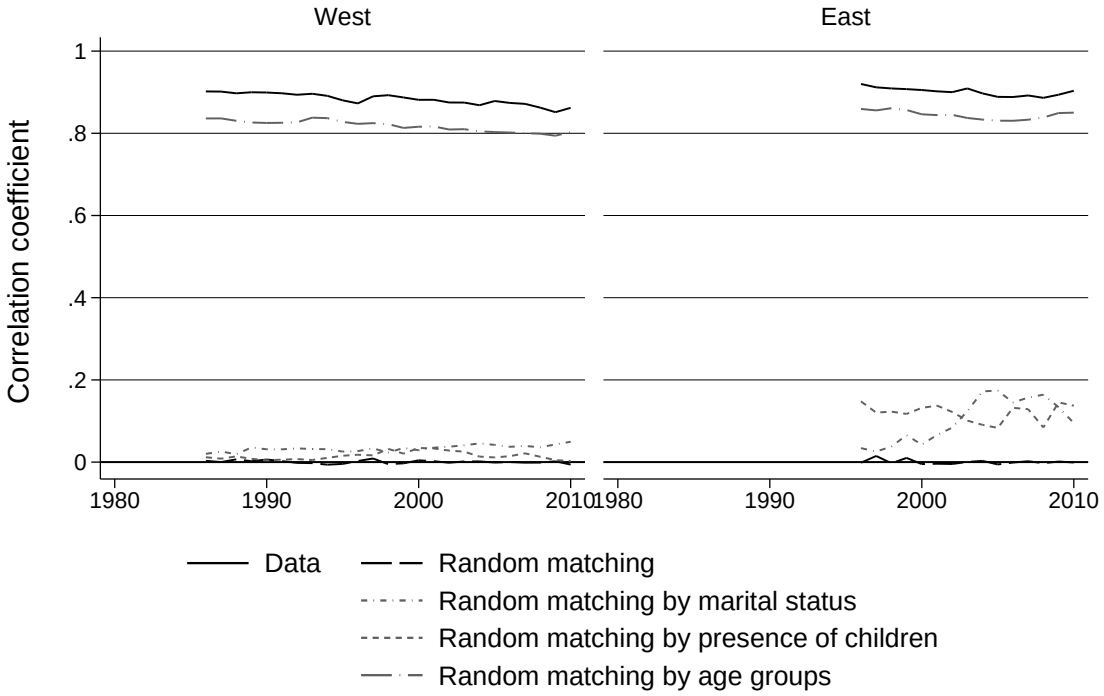


Note: This graph shows the mean change of women's hours worked per week by the earnings quintile of the randomly matched male spouse for West and East Germany separately.

Appendix

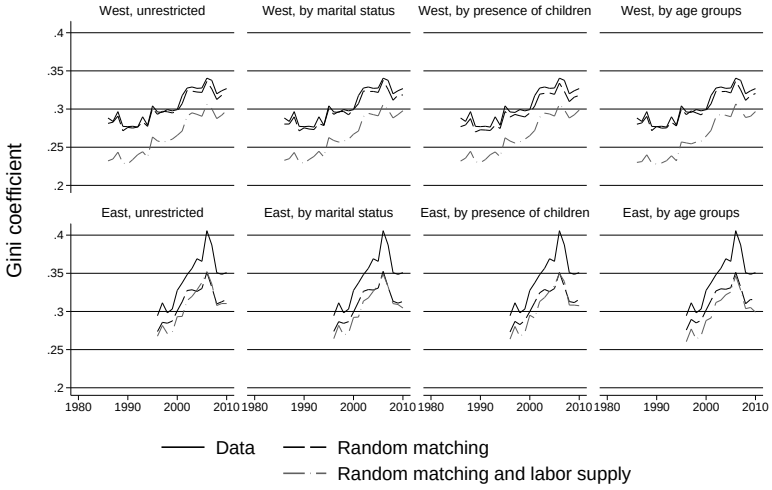
A Additional Figures

Figure A.1: Age correlation among couples – Data vs. random matching



Note: This graph shows the correlation of spouses' age as observed in the data as well as for four different randomizations. Random matching by marital status (presence of children) implies that randomization only occurs within the groups of married and unmarried spouses (spouses with and without children in the household) respectively. Randomization by age groups implies that randomization occurs within four groups defined by the male spouse's age quartile.

Figure A.2: Earnings inequality among couples – Data vs. random matching

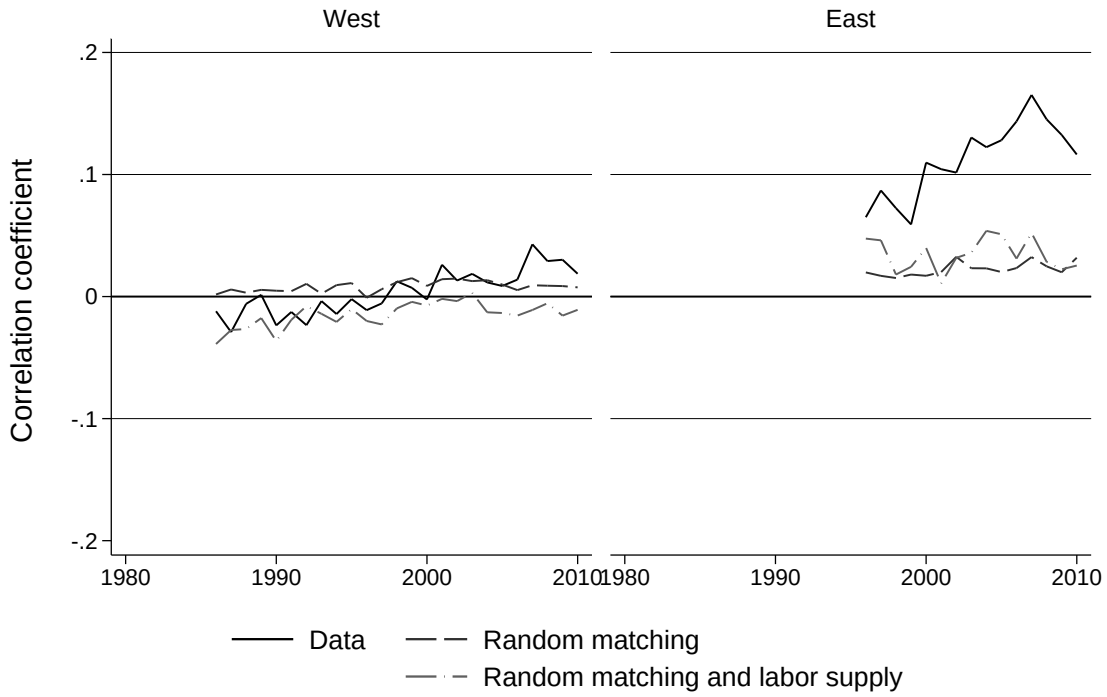


Note: This graph shows the trends of Gini coefficients indicating the inequality in the distribution of couples' labor earnings as observed in the data, after random matching and after random matching and adjustment of the randomly matched couples' labor supply respectively for four different randomizations. Random matching by marital status (presence of children) implies that randomization only occurs within the groups of married and unmarried spouses (spouses with and without children in the household) respectively. Randomization by age groups implies that randomization occurs within four groups defined by the male spouse's age quartile.

Figure A.3: Impact of marital sorting on inequality among couples

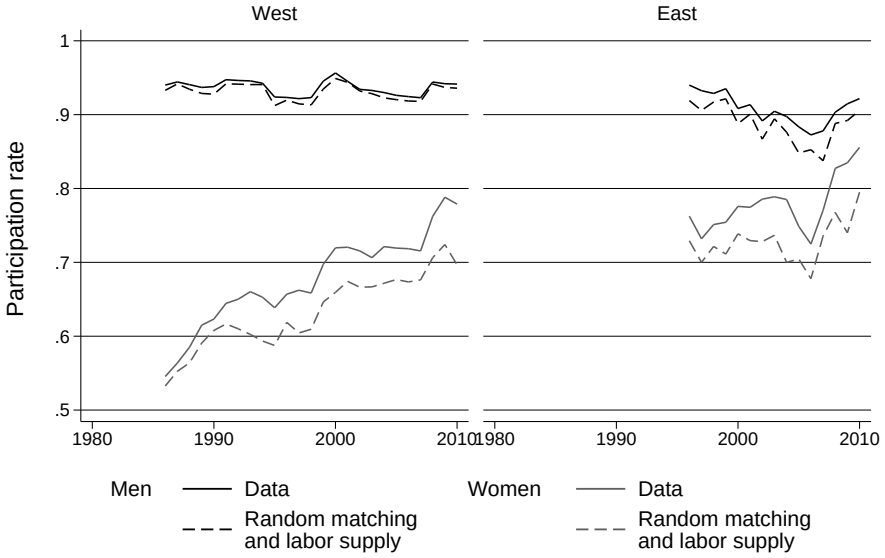
Note: This graph shows the trends of the impact of assortative mating on couple earnings inequality indicated by the flocking index based on random matching and on random matching and adjustment of the randomly matched couples' labor supply respectively for four different randomizations. Random matching by marital status (presence of children) implies that randomization only occurs within the groups of married and unmarried spouses (spouses with and without children in the household) respectively. Randomization by age groups implies that randomization occurs within four groups defined by the male spouse's age quartile.

Figure A.4: Earnings correlation among couples – Data vs. random matching



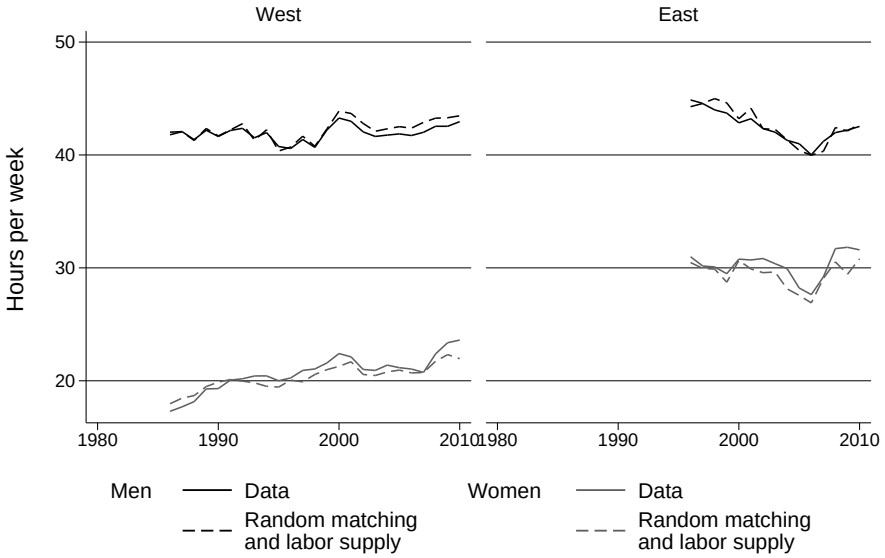
Note: This graph shows the trends of the correlation of labor earnings within couples as observed in the data, after random matching and after random matching and adjustment of the randomly matched couples' labor supply respectively.

Figure A.5: Labor market participation – Data vs. random matching



Note: This graph shows the trends in labor market participation by gender and for West and East Germany separately as observed in the data as well as after random matching and labor supply adjustment of randomly matched couples.

Figure A.6: Hours worked per week – Data vs. random matching



Note: This graph shows the trends in hours worked per week by gender and for West and East Germany separately as observed in the data as well as after random matching and labor supply adjustment of randomly matched couples.

B Additional Tables

Table B.1: Labor market participation

		Men				Women			
Country	Year	Data		Random and LS		Data		Random and LS	
West Germany	1986	.94	[.93;.95]	.93	[.92;.94]	.55	[.52;.56]	.53	[.51;.55]
	1987	.94	[.94;.95]	.94	[.93;.95]	.56	[.54;.58]	.55	[.53;.57]
	1988	.94	[.93;.95]	.93	[.92;.95]	.59	[.57;.6]	.56	[.55;.59]
	1989	.94	[.93;.95]	.93	[.91;.94]	.61	[.6;.64]	.59	[.57;.61]
	1990	.94	[.93;.95]	.93	[.91;.94]	.62	[.6;.64]	.61	[.58;.63]
	1991	.95	[.94;.96]	.94	[.93;.95]	.64	[.62;.66]	.62	[.59;.64]
	1992	.95	[.94;.96]	.94	[.93;.95]	.65	[.63;.67]	.61	[.58;.63]
	1993	.95	[.93;.96]	.94	[.93;.95]	.66	[.64;.68]	.6	[.58;.63]
	1994	.94	[.93;.95]	.94	[.93;.95]	.65	[.63;.67]	.59	[.57;.62]
	1995	.92	[.91;.93]	.91	[.89;.93]	.64	[.62;.66]	.59	[.56;.61]
	1996	.92	[.91;.94]	.92	[.9;.93]	.66	[.63;.68]	.62	[.59;.64]
	1997	.92	[.91;.93]	.91	[.9;.93]	.66	[.64;.69]	.6	[.58;.63]
	1998	.92	[.91;.94]	.91	[.89;.93]	.66	[.64;.68]	.61	[.58;.63]
	1999	.95	[.93;.95]	.93	[.92;.95]	.70	[.67;.72]	.65	[.62;.67]
	2000	.96	[.95;.96]	.95	[.93;.96]	.72	[.70;.74]	.66	[.63;.68]
	2001	.95	[.94;.95]	.94	[.94;.95]	.72	[.70;.73]	.67	[.66;.69]
	2002	.93	[.92;.94]	.93	[.92;.94]	.72	[.70;.73]	.67	[.65;.69]
	2003	.93	[.92;.94]	.93	[.91;.94]	.71	[.69;.72]	.67	[.64;.69]
	2004	.93	[.92;.94]	.92	[.91;.94]	.72	[.70;.74]	.67	[.65;.69]
	2005	.93	[.92;.94]	.92	[.9;.93]	.72	[.70;.74]	.68	[.66;.70]
	2006	.92	[.91;.94]	.92	[.9;.93]	.72	[.70;.74]	.67	[.65;.69]
	2007	.92	[.91;.94]	.92	[.9;.93]	.72	[.69;.74]	.68	[.65;.70]
	2008	.94	[.93;.95]	.94	[.93;.95]	.76	[.74;.78]	.71	[.68;.73]
	2009	.94	[.93;.95]	.94	[.92;.95]	.79	[.77;.81]	.72	[.70;.75]
	2010	.94	[.93;.95]	.94	[.92;.95]	.78	[.75;.8]	.70	[.67;.72]
East Germany	1996	.94	[.93;.95]	.92	[.88;.94]	.76	[.73;.79]	.73	[.69;.77]
	1997	.93	[.92;.95]	.91	[.87;.93]	.73	[.69;.77]	.70	[.66;.73]
	1998	.93	[.91;.95]	.92	[.89;.94]	.75	[.72;.79]	.72	[.69;.77]
	1999	.94	[.92;.95]	.92	[.89;.94]	.75	[.72;.79]	.71	[.67;.74]
	2000	.91	[.88;.93]	.89	[.84;.91]	.78	[.74;.8]	.74	[.69;.78]
	2001	.91	[.9;.93]	.9	[.87;.92]	.77	[.75;.8]	.73	[.69;.76]
	2002	.89	[.87;.91]	.87	[.84;.89]	.79	[.76;.81]	.73	[.69;.77]
	2003	.9	[.89;.92]	.89	[.87;.91]	.79	[.76;.82]	.74	[.70;.78]
	2004	.9	[.88;.92]	.88	[.85;.91]	.79	[.75;.81]	.70	[.65;.74]
	2005	.88	[.86;.91]	.85	[.81;.88]	.75	[.71;.78]	.70	[.65;.75]
	2006	.87	[.84;.9]	.85	[.81;.89]	.72	[.69;.77]	.68	[.63;.73]
	2007	.88	[.85;.9]	.84	[.79;.87]	.77	[.74;.8]	.74	[.69;.77]
	2008	.9	[.88;.93]	.89	[.85;.92]	.83	[.79;.86]	.77	[.72;.81]
	2009	.91	[.88;.94]	.89	[.84;.92]	.83	[.79;.87]	.74	[.69;.79]
	2010	.92	[.89;.95]	.91	[.86;.94]	.86	[.82;.89]	.8	[.75;.84]

Note: This table shows the labor force participation rate as observed in the data and after random matching and adjustment of labor supply choices. The numbers in brackets indicate 95% confidence intervals based on 250 bootstrap replications.

Table B.2: Hours worked

		Men				Women			
Country	Year	Data		Random and LS		Data		Random and LS	
West Germany	1986	42	[41.4;42.5]	41.8	[41;42.6]	17.3	[16.5;18]	18	[17.1;18.7]
	1987	42.1	[41.6;42.5]	42.1	[41.3;42.9]	17.7	[17.1;18.4]	18.5	[17.6;19.3]
	1988	41.4	[40.8;42]	41.3	[40.5;42.1]	18.2	[17.4;18.9]	18.7	[17.8;19.5]
	1989	42.2	[41.7;42.9]	42.3	[41.5;43.2]	19.3	[18.7;20]	19.5	[18.7;20.3]
	1990	41.6	[41;42.1]	41.7	[40.9;42.5]	19.3	[18.5;20.1]	19.9	[19;20.6]
	1991	42.2	[41.6;42.7]	42.2	[41.4;43.2]	20.1	[19.3;20.8]	20.1	[19.2;21.1]
	1992	42.4	[41.9;42.9]	42.8	[41.9;43.8]	20.2	[19.4;21]	20	[19.1;20.8]
	1993	41.5	[40.9;42.1]	41.3	[40.4;42.2]	20.4	[19.6;21.2]	19.8	[18.9;20.9]
	1994	42	[41.3;42.7]	42.2	[41.3;43.3]	20.4	[19.7;21.2]	19.5	[18.4;20.4]
	1995	40.7	[40.1;41.3]	40.3	[39.3;41.2]	20	[19.2;21.1]	19.4	[18.4;20.6]
	1996	40.6	[39.8;41.3]	40.7	[39.7;41.6]	20.3	[19.4;21.1]	20.1	[19.2;21]
	1997	41.4	[40.7;42.1]	41.7	[40.8;42.6]	20.9	[20;21.8]	19.9	[18.9;20.8]
	1998	40.7	[39.9;41.4]	40.8	[39.7;41.8]	21	[20.1;21.9]	20.6	[19.3;21.6]
	1999	42.2	[41.6;42.8]	42.3	[41.4;43.2]	21.6	[20.8;22.6]	21	[19.8;21.9]
	2000	43.3	[42.6;43.8]	43.9	[42.9;44.6]	22.4	[21.5;23.2]	21.3	[20.4;22.5]
	2001	43	[42.6;43.4]	43.7	[43.1;44.3]	22.1	[21.5;22.6]	21.7	[21.1;22.3]
	2002	42	[41.5;42.5]	42.8	[42;43.7]	21	[20.2;21.6]	20.6	[19.7;21.3]
	2003	41.6	[41;42.2]	42.1	[41.4;42.7]	20.9	[20.1;21.5]	20.5	[19.6;21.2]
	2004	41.8	[41.1;42.3]	42.3	[41.6;43.2]	21.4	[20.6;22.2]	20.8	[20;21.6]
	2005	41.9	[41.3;42.4]	42.5	[41.8;43.2]	21.2	[20.4;21.8]	20.9	[20.1;21.9]
	2006	41.7	[41;42.4]	42.4	[41.5;43.3]	21	[20.3;21.9]	20.7	[19.8;21.6]
	2007	42	[41.3;42.6]	42.9	[41.9;43.9]	20.7	[20;21.6]	20.7	[19.7;21.6]
	2008	42.5	[41.9;43.1]	43.3	[42.3;44.1]	22.4	[21.5;23.2]	21.7	[20.7;22.8]
	2009	42.5	[41.9;43.2]	43.3	[42.5;44.3]	23.4	[22.5;24.2]	22.3	[21.1;23.4]
	2010	42.9	[42.1;43.7]	43.5	[42.6;44.5]	23.6	[22.7;24.6]	22	[20.9;23.3]
East Germany	1996	44.3	[43.5;45.1]	44.9	[43.1;46.2]	31	[29.7;32.4]	30.5	[28.9;32]
	1997	44.6	[43.5;45.4]	44.6	[42.8;46]	30.2	[28.5;31.7]	30	[28.4;31.8]
	1998	44	[43;45]	45	[43.3;46.5]	30.1	[28.6;31.5]	29.9	[28.2;31.7]
	1999	43.7	[42.7;44.6]	44.6	[43;46.1]	29.5	[28.1;31]	28.7	[26.8;30.2]
	2000	42.8	[41.5;44]	43.2	[41.2;44.7]	30.8	[29.3;32]	30.7	[28.6;32.2]
	2001	43.2	[42.3;44]	44.1	[42.6;45.3]	30.7	[29.5;32]	29.9	[28.3;31.2]
	2002	42.3	[41.2;43.4]	42.3	[40.7;43.6]	30.8	[29.5;32]	29.6	[28.1;31.2]
	2003	42	[40.9;43]	42.3	[41.1;43.7]	30.4	[29.2;31.6]	29.6	[27.9;31.2]
	2004	41.3	[40.1;42.4]	41.3	[39.6;43]	29.9	[28.8;31.2]	28.1	[26.4;29.8]
	2005	41	[39.8;42.2]	40.4	[38.4;42.1]	28.2	[26.6;29.6]	27.6	[25.5;29.2]
	2006	40	[38.1;41.2]	40	[37.8;41.7]	27.6	[26;29.1]	26.9	[24.8;29.1]
	2007	41.2	[39.6;42.6]	40.3	[38;42.3]	29.2	[27.8;30.7]	29.1	[27.2;30.7]
	2008	42	[40.7;43.3]	42.4	[40.3;43.9]	31.7	[30.4;33.2]	30.5	[28.5;32.4]
	2009	42.2	[40.6;43.5]	42.1	[39.9;43.9]	31.8	[30.3;33.4]	29.4	[27.2;31.4]
	2010	42.5	[40.7;44]	42.7	[40.2;44.6]	31.6	[30.4;33.1]	30.8	[28.9;33]

Note: This table shows the number of hours worked per week as observed in the data and after random matching and adjustment of labor supply choices. The numbers in brackets indicate 95% confidence intervals based on 250 bootstrap replications.

Table B.3: Correlation in couple earnings

		Hourly wage				Labor earnings					
Country	Year	Data		Random		Data		Random		Random and LS	
West Germany	1986	.02	[-.03;.07]	0	[-.05;.05]	-.01	[-.07;.03]	0	[-.05;.05]	-.04	[-.09;.02]
	1987	.02	[-.03;.07]	0	[-.05;.05]	-.03	[-.08;.02]	.01	[-.04;.05]	-.03	[-.09;.03]
	1988	.02	[-.04;.08]	0	[-.06;.05]	-.01	[-.06;.05]	0	[-.05;.06]	-.03	[-.09;.03]
	1989	.02	[-.04;.08]	0	[-.06;.06]	0	[-.06;.05]	.01	[-.05;.06]	-.02	[-.08;.04]
	1990	.02	[-.04;.08]	0	[-.05;.06]	-.02	[-.07;.03]	0	[-.05;.07]	-.04	[-.09;.03]
	1991	.02	[-.04;.08]	0	[-.06;.06]	-.01	[-.07;.05]	0	[-.06;.06]	-.02	[-.08;.04]
	1992	.01	[-.06;.08]	0	[-.06;.07]	-.02	[-.09;.04]	.01	[-.07;.07]	-.01	[-.08;.06]
	1993	.01	[-.05;.07]	0	[-.07;.07]	0	[-.06;.05]	0	[-.06;.07]	-.01	[-.08;.06]
	1994	.02	[-.04;.09]	0	[-.06;.06]	-.01	[-.07;.04]	.01	[-.06;.06]	-.02	[-.08;.06]
	1995	.01	[-.04;.09]	0	[-.07;.06]	0	[-.06;.06]	.01	[-.05;.07]	-.01	[-.08;.05]
	1996	.02	[-.04;.09]	-.01	[-.07;.06]	-.01	[-.08;.04]	0	[-.06;.07]	-.02	[-.09;.05]
	1997	.02	[-.04;.09]	0	[-.06;.07]	-.01	[-.07;.06]	.01	[-.07;.09]	-.02	[-.09;.04]
	1998	.02	[-.05;.09]	.01	[-.06;.08]	.01	[-.06;.08]	.01	[-.06;.09]	-.01	[-.09;.06]
	1999	.02	[-.05;.09]	0	[-.06;.06]	.01	[-.05;.07]	.02	[-.05;.08]	0	[-.07;.06]
	2000	.01	[-.05;.08]	-.01	[-.07;.06]	0	[-.06;.07]	.01	[-.05;.08]	-.01	[-.09;.05]
	2001	.02	[-.03;.07]	0	[-.05;.04]	.03	[-.03;.07]	.01	[-.04;.06]	0	[-.06;.04]
	2002	.01	[-.03;.07]	0	[-.05;.05]	.01	[-.04;.07]	.01	[-.03;.07]	0	[-.06;.05]
	2003	.02	[-.03;.08]	0	[-.05;.06]	.02	[-.03;.07]	.01	[-.04;.06]	0	[-.05;.06]
	2004	.02	[-.04;.08]	.01	[-.06;.06]	.01	[-.05;.07]	.01	[-.04;.07]	-.01	[-.07;.05]
	2005	.02	[-.03;.08]	0	[-.06;.06]	.01	[-.06;.06]	.01	[-.05;.07]	-.01	[-.07;.04]
	2006	.02	[-.04;.09]	0	[-.07;.07]	.01	[-.04;.07]	.01	[-.05;.08]	-.02	[-.09;.05]
	2007	.04	[-.02;.1]	0	[-.06;.06]	.04	[-.02;.1]	.01	[-.05;.07]	-.01	[-.07;.06]
	2008	.04	[-.03;.11]	0	[-.07;.07]	.03	[-.03;.09]	.01	[-.06;.07]	-.01	[-.07;.06]
	2009	.03	[-.04;.1]	0	[-.07;.07]	.03	[-.04;.09]	.01	[-.07;.08]	-.02	[-.08;.06]
	2010	.03	[-.05;.11]	0	[-.08;.07]	.02	[-.06;.08]	.01	[-.07;.08]	-.01	[-.09;.07]
East Germany	1996	.04	[-.05;.12]	0	[-.09;.1]	.07	[-.01;.15]	.02	[-.07;.11]	.05	[-.06;.14]
	1997	.05	[-.05;.14]	0	[-.1;.11]	.09	[.02;.19]	.02	[-.08;.12]	.05	[-.05;.14]
	1998	.06	[-.05;.14]	0	[-.1;.1]	.07	[-.01;.15]	.02	[-.08;.12]	.02	[-.09;.12]
	1999	.04	[-.05;.13]	-.01	[-.09;.1]	.06	[-.04;.15]	.02	[-.09;.12]	.02	[-.09;.13]
	2000	.04	[-.06;.15]	.01	[-.09;.11]	.11	[.02;.21]	.02	[-.08;.12]	.04	[-.06;.14]
	2001	.04	[-.03;.13]	0	[-.09;.09]	.1	[.02;.19]	.02	[-.07;.11]	.01	[-.08;.1]
	2002	.04	[-.06;.13]	.01	[-.1;.09]	.1	[.02;.18]	.03	[-.07;.13]	.03	[-.05;.13]
	2003	.05	[-.04;.14]	-.01	[-.11;.1]	.13	[.03;.21]	.02	[-.07;.12]	.04	[-.06;.14]
	2004	.06	[-.04;.16]	0	[-.11;.1]	.12	[.04;.2]	.02	[-.08;.11]	.05	[-.05;.15]
	2005	.06	[-.05;.18]	-.01	[-.12;.11]	.13	[.03;.23]	.02	[-.09;.13]	.05	[-.05;.17]
	2006	.06	[-.07;.17]	0	[-.14;.13]	.14	[.04;.24]	.02	[-.09;.14]	.03	[-.08;.15]
	2007	.06	[-.07;.17]	0	[-.12;.13]	.17	[.07;.27]	.03	[-.08;.14]	.05	[-.07;.19]
	2008	.05	[-.07;.15]	0	[-.1;.11]	.15	[.04;.26]	.02	[-.09;.15]	.03	[-.1;.14]
	2009	.06	[-.09;.18]	0	[-.12;.12]	.13	[.01;.24]	.02	[-.1;.15]	.02	[-.11;.16]
	2010	.06	[-.06;.19]	0	[-.12;.13]	.12	[0;.23]	.03	[-.13;.15]	.03	[-.12;.16]

Note: This table shows the correlation in hourly wages and earnings as observed in the data, after random matching before and after adjustment of labor supply choices. The numbers in brackets indicate 95% confidence intervals based on 250 bootstrap replications.

Table B.4: Couple earnings inequality and flocking index

		Gini coefficient						Flocking index			
Country	Year	Data		Random		Random and LS		Random		Random and LS	
West Germany	1986	.29	[.28;.3]	.28	[.27;.29]	.23	[.22;.25]	.21	[-.05;.45]	.67	[.56;.78]
	1987	.28	[.27;.3]	.28	[.27;.3]	.23	[.22;.25]	.02	[-.2;.32]	.58	[.47;.71]
	1988	.3	[.28;.31]	.29	[.28;.3]	.24	[.23;.26]	.16	[-.19;.44]	.65	[.53;.78]
	1989	.28	[.26;.29]	.27	[.26;.29]	.23	[.22;.24]	.14	[-.17;.39]	.58	[.45;.70]
	1990	.28	[.26;.29]	.28	[.26;.29]	.23	[.21;.24]	.02	[-.26;.29]	.56	[.43;.67]
	1991	.28	[.26;.29]	.28	[.26;.29]	.23	[.22;.25]	.04	[-.23;.33]	.53	[.39;.67]
	1992	.28	[.26;.29]	.28	[.26;.29]	.24	[.23;.25]	.02	[-.36;.35]	.53	[.36;.69]
	1993	.29	[.28;.3]	.28	[.27;.3]	.24	[.23;.26]	.2	[-.2;.59]	.63	[.48;.83]
	1994	.28	[.26;.29]	.28	[.27;.29]	.24	[.22;.25]	.07	[-.34;.41]	.62	[.44;.77]
	1995	.3	[.29;.32]	.3	[.28;.32]	.26	[.25;.28]	.11	[-.22;.38]	.56	[.38;.69]
	1996	.3	[.28;.31]	.29	[.28;.31]	.26	[.24;.27]	.07	[-.24;.39]	.52	[.35;.66]
	1997	.3	[.28;.31]	.3	[.28;.31]	.26	[.24;.28]	-.04	[-.36;.32]	.52	[.35;.65]
	1998	.3	[.29;.31]	.3	[.28;.31]	.26	[.24;.27]	.07	[-.28;.43]	.53	[.38;.76]
	1999	.3	[.29;.31]	.29	[.28;.31]	.26	[.25;.28]	.08	[-.25;.38]	.51	[.33;.66]
	2000	.3	[.28;.31]	.3	[.28;.31]	.27	[.25;.28]	.05	[-.29;.44]	.47	[.29;.71]
	2001	.32	[.31;.33]	.31	[.3;.32]	.27	[.26;.28]	.24	[-.06;.49]	.59	[.45;.73]
	2002	.33	[.32;.34]	.32	[.31;.34]	.29	[.28;.3]	.07	[-.18;.34]	.48	[.35;.61]
	2003	.33	[.32;.34]	.32	[.31;.34]	.3	[.28;.31]	.14	[-.15;.36]	.46	[.33;.6]
	2004	.33	[.31;.34]	.32	[.31;.33]	.29	[.28;.3]	.09	[-.21;.34]	.45	[.31;.59]
	2005	.33	[.32;.34]	.32	[.31;.34]	.29	[.28;.31]	.14	[-.15;.42]	.49	[.34;.64]
	2006	.34	[.33;.36]	.34	[.32;.35]	.31	[.29;.32]	.09	[-.17;.41]	.44	[.29;.61]
	2007	.34	[.33;.35]	.33	[.31;.34]	.3	[.29;.31]	.23	[-.09;.49]	.51	[.36;.66]
	2008	.32	[.31;.33]	.31	[.3;.33]	.29	[.27;.31]	.17	[-.12;.44]	.47	[.3;.64]
	2009	.32	[.31;.34]	.32	[.3;.33]	.29	[.28;.31]	.14	[-.17;.43]	.46	[.28;.61]
	2010	.33	[.31;.34]	.32	[.31;.34]	.3	[.28;.32]	.15	[-.24;.48]	.45	[.23;.66]
East Germany	1996	.29	[.28;.31]	.27	[.26;.29]	.27	[.24;.29]	.61	[.03;1.18]	.68	[.06;1.13]
	1997	.31	[.29;.33]	.29	[.27;.31]	.28	[.26;.31]	.62	[-.02;1.07]	.67	[.08;1.05]
	1998	.3	[.28;.32]	.28	[.26;.31]	.27	[.25;.3]	.32	[-.38;.8]	.51	[-.05;.86]
	1999	.3	[.28;.32]	.29	[.27;.31]	.27	[.25;.3]	.39	[-.14;.92]	.54	[.13;.93]
	2000	.33	[.31;.35]	.3	[.28;.33]	.29	[.27;.33]	.62	[-.05;1.39]	.64	[.03;1.31]
	2001	.34	[.31;.36]	.31	[.29;.33]	.29	[.27;.31]	.51	[.03;.92]	.66	[.38;.93]
	2002	.35	[.33;.37]	.33	[.31;.35]	.31	[.29;.34]	.47	[-.03;.87]	.57	[.22;.92]
	2003	.36	[.33;.38]	.33	[.31;.36]	.32	[.3;.35]	.53	[.01;.95]	.59	[.23;.95]
	2004	.37	[.34;.4]	.33	[.3;.35]	.33	[.3;.36]	.73	[.3;1.33]	.74	[.19;1.29]
	2005	.37	[.34;.39]	.33	[.3;.36]	.34	[.31;.37]	.70	[.19;1.22]	.63	[-.07;1.34]
	2006	.41	[.37;.44]	.35	[.32;.38]	.35	[.33;.39]	.84	[.29;1.47]	.84	[.33;1.71]
	2007	.39	[.36;.42]	.33	[.3;.36]	.34	[.3;.37]	.86	[.44;1.38]	.84	[.24;1.48]
	2008	.35	[.32;.38]	.31	[.29;.34]	.31	[.28;.34]	.84	[.28;1.75]	.85	[.28;1.81]
	2009	.35	[.32;.38]	.31	[.28;.34]	.31	[.28;.35]	1.01	[-.46;3.26]	1.03	[-.19;4.13]
	2010	.35	[.32;.39]	.32	[.29;.35]	.31	[.28;.35]	.82	[-.13;3.12]	.87	[-.13;2.53]

Note: This table shows the Gini coefficient of couple earnings as observed in the data as well as the flocking index comparing earnings inequality after random matching before and after adjustment of labor supply choices to inequality as observed in the data. The numbers in brackets indicate 95% confidence intervals based on 250 bootstrap replications.

C Regression Results

C.1 Labor Supply Model (West Germany)

Table C.1: Conditional logit regression results (flex. couples, 1986–1998)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
disp. inc.	0.004***	-0.003***	0.002***	0.005***	0.004***	-0.002***	0.008***	-0.000***	-0.004***	-0.001***	0.005***	-0.001***	0.005***
disp. inc.^{2}/100	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	-0.004***	-0.000***	-0.010***	-0.017***	-0.005***	0.009***	-0.004***	-0.003***	0.012***	-0.004***	0.001***	0.002***	-0.025***
disp. inc. x age^2 (male)/100	0.002***	0.001***	0.014***	0.017***	0.003***	-0.009***	0.005***	0.005***	-0.013***	0.005***	-0.002***	-0.007***	0.032***
disp. inc. x age (female)/100	-0.009***	0.015***	0.004***	0.006***	0.000	0.003***	-0.019***	0.008***	0.014***	0.016***	-0.016***	0.010***	0.009***
disp. inc. x age^2 (female)/100	0.010***	-0.017***	-0.006***	-0.005***	0.005***	-0.005***	0.019***	-0.012***	-0.019***	-0.019***	0.018***	-0.008***	-0.013***
disp. inc. x high-skilled (male)/100	0.003***	-0.015***	0.007***	0.011***	0.008***	-0.019***	-0.015***	-0.011***	-0.034***	-0.031***	-0.020***	-0.015***	-0.000
disp. inc. x unskilled (male)/100	0.001***	0.028***	-0.004***	0.042***	0.011***	0.001***	0.022***	0.011***	-0.001***	-0.006***	0.023***	-0.020***	0.024***
disp. inc. x high-skilled (female)/100	0.020***	0.084***	-0.031***	-0.019***	-0.018***	-0.035***	-0.052***	-0.033***	-0.030***	-0.010***	0.016***	-0.036***	0.020***
disp. inc. x unskilled (female)/100	-0.020***	0.009***	-0.028***	-0.068***	-0.043***	-0.017***	-0.047***	-0.010***	-0.027***	-0.033***	-0.004***	-0.004***	-0.045***
disp. inc. x kids 0-2/100	-0.026***	-0.056***	-0.008***	-0.095***	-0.025***	0.048***	0.060***	-0.004***	0.020***	-0.002***	0.079***	0.053***	-0.057***
disp. inc. x kids 3-6/100	0.009***	0.015***	0.013***	0.019***	0.005***	0.025***	-0.031***	-0.027***	0.017***	0.013***	-0.038***	0.008***	0.033***
disp. inc. x kids 7-16/100	0.021***	0.001***	-0.008***	-0.017***	0.008***	-0.005***	-0.010***	0.004***	0.012***	-0.021***	-0.001***	-0.014***	-0.017***
disp. inc. x married/100	0.073***	0.081***	0.043***	-0.039***	-0.199***	0.025***	-0.051***	0.038***	-0.063***	-0.023***	-0.044***	0.009***	-0.006***
disp. inc. x care/100	-0.111***	-0.091***	-0.043***	-0.062***	0.042***	0.106***	-0.151***	0.026***	0.016***	-0.036***	0.005***	0.014***	0.017***
leisure (male)	0.346***	0.354***	0.395***	0.544***	0.417***	0.343***	0.750***	0.457***	0.062***	0.258***	0.513***	0.631***	0.638***
leisure (female)	0.110***	0.009***	0.132***	0.132***	0.229***	0.014***	0.404***	0.270***	0.126***	0.133***	0.208***	0.264***	0.388***
leisure (male)^2/100	-0.258***	-0.458***	-0.310***	-0.738***	-0.631***	-0.580***	-0.768***	-0.517***	-0.444***	-0.351***	-0.538***	-0.571***	-0.363***
leisure (female)^2/100	-0.216***	-0.217***	-0.210***	-0.214***	-0.214***	-0.241***	-0.272***	-0.264***	-0.228***	-0.135***	-0.180***	-0.213***	-0.210***
leisure (male) x age (male)/100	-0.942***	-0.147***	-1.069***	-0.153***	0.405***	0.186***	-0.810***	-0.509***	1.216***	-0.064***	-0.682***	-1.276***	-1.905***
leisure (male) x age^2 (male)/100	1.133***	0.211***	1.380***	0.326***	-0.285***	-0.206***	0.949***	0.671***	-1.458***	0.194***	0.825***	1.506***	2.311***
leisure (male) x high-skilled (male)/100	-0.682***	-1.089***	-1.543***	-0.698***	-2.854***	-2.479***	-1.552***	-2.775***	-0.285***	-2.384***	-4.193***	-1.237***	-2.787***
leisure (male) x unskilled (male)/100	2.683***	2.279***	1.578***	1.596***	1.513***	1.418***	4.053***	3.390***	3.942***	2.759***	2.644***	1.626***	2.704***
leisure (male) x married/100	2.280***	-0.087***	2.571***	-3.295***	-11.507***	-0.271***	-3.652***	-1.489***	-4.089***	-3.066***	0.017	1.665***	0.313***
o.leisure (male) x handicap (male)/100	0.000	0.865***	3.822***	6.388***	0.000	3.688***	4.180***	0.000	1.456***	4.354***	5.272***	2.148***	4.646***
leisure (female) x age (female)/100	0.204***	0.439***	0.036***	0.368***	-0.009*	0.753***	-0.560***	-0.350***	0.521***	-0.158***	-0.260***	-0.328***	-1.246***
leisure (female) x age^2 (female)/100	0.003	-0.109***	0.313***	-0.086***	0.305***	-0.558***	0.787***	0.701***	-0.407***	0.494***	0.486***	0.606***	1.771***
leisure (female) x high-skilled (female)/100	2.706***	2.512***	-1.434***	-1.047***	-0.350***	-2.495***	-4.117***	-4.327***	-4.964***	-2.613***	-1.880***	-3.255***	-0.937***
leisure (female) x unskilled (female)/100	-1.140***	-0.445***	-0.906***	-2.118***	-1.630***	-0.505***	-1.130***	0.513***	-1.070***	-0.515***	0.752***	-1.026***	0.088***
leisure (female) x kids 0-2/100	3.676***	2.179***	3.447***	3.119***	3.485***	7.417***	9.966***	5.653***	9.074***	6.397***	12.047***	8.322***	4.119***
leisure (female) x kids 3-6/100	5.926***	5.753***	4.628***	4.840***	4.638***	7.784***	4.347***	5.002***	5.392***	4.151***	5.100***	6.580***	4.928***
leisure (female) x kids 7-16/100	2.679***	2.882***	1.665***	1.450***	2.581***	1.871***	1.074***	2.937***	3.169***	1.840***	2.313***	2.187***	2.063***
leisure (female) x married/100	4.518***	8.016***	5.063***	0.679***	-3.132***	4.563***	1.102***	2.492***	-3.616***	0.875***	2.481***	0.825***	5.368***
o.leisure (female) x handicap (female)/100	0.000	-2.049***	-2.916***	-0.319***	0.000	-3.032***	-1.024***	0.000	-2.102***	-1.310***	-0.581***	-0.204***	1.849***
leisure (female) x care/100	-0.330***	-2.662***	-1.265***	-0.237***	1.515***	2.197***	-3.175***	3.947***	4.235***	5.675***	9.662***	0.530***	1.183***
fixed costs (male)	-4.450***	-8.110***	-5.433***	-14.562***	-12.431***	-12.516***	-13.792***	-9.238***	-9.730***	-7.198***	-10.487***	-11.320***	-6.112***
part-time 20h (male)	-1.702***	-0.728***	-1.090***	0.332***	0.177***	2.101***	1.517***	0.772***	1.059***	0.378***	-2.111***	0.931***	-1.793***
part-time 40h (male)	1.558***	1.231***	1.487***	1.254***	1.458***	1.668***	1.091***	1.546***	1.687***	1.642***	1.661***	1.241***	1.344***
fixed costs (female)	-3.027***	-2.744***	-2.886***	-2.471***	-2.522***	-2.695***	-2.706***	-2.850***	-2.780***	-2.005***	-1.900***	-2.444***	-2.168***
part-time 20h (female)	0.813***	0.829***	0.903***	0.704***	0.701***	0.779***	0.556***	0.800***	0.406***	0.610***	0.912***	0.624***	0.223***
part-time 40h (female)	1.607***	1.570***	1.764***	1.392***	1.609***	1.492***	1.401***	1.059***	1.171***	1.269***	1.655***	1.587***	1.106***
Pseudo R^2	0.366	0.360	0.368	0.374	0.370	0.368	0.366	0.364	0.350	0.328	0.386	0.354	0.336
Observations	335980309	344526448	347684155	358372378	362892530	33432407	339040947	352986886	347222869	362821431	366090270	374337558	374948343

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.2: Conditional logit regression results (flex. couples, 1999–2010)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
disp. inc.	0.003***	-0.001***	0.002***	-0.001***	0.001***	0.001***	-0.002***	0.005***	0.003***	-0.001***	-0.000***	-0.001***
disp. inc.^{2}/100	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	-0.004***	0.003***	-0.008***	-0.006***	-0.007***	0.013***	-0.001***	-0.019***	-0.015***	0.012***	0.022***	0.016***
disp. inc. x age^2 (male)/100	0.001***	-0.009***	0.009***	0.007***	0.006***	-0.017***	-0.001***	0.020***	0.016***	-0.015***	-0.026***	-0.018***
disp. inc. x age (female)/100	-0.000***	0.004***	-0.004***	0.014***	0.009***	-0.008***	0.021***	0.001***	0.007***	0.001***	-0.014***	-0.008***
disp. inc. x age^2 (female)/100	0.005***	0.006***	0.006***	-0.014***	-0.009***	0.011***	-0.019***	0.002***	-0.006***	0.004***	0.021***	0.010***
disp. inc. x high-skilled (male)/100	-0.003***	-0.009***	0.025***	0.027***	-0.011***	-0.004***	0.009***	0.023***	0.028***	0.029***	-0.036***	-0.037***
disp. inc. x unskilled (male)/100	-0.005***	0.014***	0.011***	0.038***	0.026***	0.000	-0.047***	-0.026***	0.032***	0.003***	-0.031***	-0.046***
disp. inc. x high-skilled (female)/100	-0.075***	-0.003***	-0.004***	0.004***	-0.001***	-0.021***	0.002***	0.007***	0.010***	0.016***	0.009***	-0.016***
disp. inc. x unskilled (female)/100	-0.017***	-0.007***	-0.014***	-0.019***	-0.033***	-0.030***	-0.046***	-0.019***	-0.032***	0.000	-0.061***	-0.047***
disp. inc. x kids 0-2/100	-0.075***	-0.033***	-0.005***	-0.053***	0.001***	0.061***	0.035***	-0.002***	0.001*	-0.074***	0.020***	0.008***
disp. inc. x kids 3-6/100	0.015***	0.021***	-0.024***	-0.019***	-0.022***	-0.022***	-0.002***	0.011***	0.007***	0.017***	-0.009***	0.001***
disp. inc. x kids 7-16/100	0.017***	0.005***	0.003***	-0.008***	-0.012***	-0.005***	-0.010***	-0.017***	-0.010***	-0.014***	-0.014***	0.018***
disp. inc. x married/100	-0.025***	0.071***	0.088***	-0.008***	0.028***	-0.058***	-0.070***	0.003***	-0.026***	-0.033***	-0.036***	0.041***
disp. inc. x care/100	0.095***	0.148***	0.016***	-0.019***	0.069***	-0.022***	-0.021***	0.107***	-0.017***	-0.041***	0.004***	-0.043***
leisure (male)	0.189***	0.565***	0.604***	0.492***	0.614***	0.498***	0.345***	0.665***	0.481***	0.054***	0.367***	0.231***
leisure (female)	0.287***	0.019***	0.332***	0.212***	0.257***	0.193***	0.053***	0.327***	0.353***	0.240***	0.434***	0.531***
leisure (male)^2/100	-0.299***	-0.523***	-0.642***	-0.768***	-0.485***	-0.683***	-0.579***	-0.484***	-0.459***	-0.557***	-0.422***	-0.272***
leisure (female)^2/100	-0.211***	-0.119***	-0.141***	-0.196***	-0.181***	-0.138***	-0.126***	-0.190***	-0.115***	-0.163***	-0.175***	-0.182***
leisure (male) x age (male)/100	0.138***	-1.351***	-1.128***	-0.217***	-1.406***	-0.151***	0.211***	-1.566***	-0.704***	1.139***	-0.350***	-0.268***
leisure (male) x age^2 (male)/100	0.017**	1.701***	1.346***	0.478***	1.739***	0.225***	-0.027***	1.827***	0.893***	-1.002***	0.553***	0.293***
leisure (male) x high-skilled (male)/100	-0.315***	-2.818***	-1.277***	-0.066***	-4.042***	-3.130***	-1.438***	-0.266***	-0.501***	1.459***	-3.745***	-2.392***
leisure (male) x unskilled (male)/100	2.208***	3.266***	3.118***	5.234***	3.515***	2.562***	0.415***	2.240***	4.843***	4.889***	2.457***	0.003
leisure (male) x married/100	-2.538***	3.561***	4.662***	-1.242***	0.210***	-1.324***	-1.696***	-0.099***	-2.161***	0.985***	-1.320***	2.642***
leisure (male) x handicap (male)/100	0.088***	3.529***	1.790***	3.888***	5.550***	6.272***	1.974***	1.854***	3.807***	5.020***	6.329***	4.643***
leisure (female) x age (female)/100	-0.327***	0.178***	-1.361***	-0.208***	-0.456***	-0.171***	0.300***	-0.791***	-1.215***	-0.429***	-1.286***	-1.902***
leisure (female) x age^2 (female)/100	0.641***	0.042***	1.913***	0.516***	0.780***	0.398***	0.016**	1.205***	1.662***	0.722***	1.784***	2.425***
leisure (female) x high-skilled (female)/100	-2.742***	-1.477***	-1.215***	-2.092***	-2.695***	-3.281***	-0.710***	-1.167***	-0.510***	-0.310***	-3.311***	-4.177***
leisure (female) x unskilled (female)/100	-0.665***	0.748***	1.318***	0.581***	1.091***	-0.201***	-0.352***	2.214***	0.778***	0.820***	-1.321***	-0.765***
leisure (female) x kids 0-2/100	5.394***	6.032***	6.078***	5.151***	4.523***	7.064***	6.331***	7.017***	3.733***	6.257***	3.326***	9.981***
leisure (female) x kids 3-6/100	5.585***	4.399***	3.742***	3.902***	4.317***	4.942***	4.530***	5.540***	4.010***	4.760***	3.048***	1.557***
leisure (female) x kids 7-16/100	3.127***	2.810***	2.536***	2.110***	1.941***	1.886***	2.097***	1.770***	2.378***	2.383***	2.302***	3.379***
leisure (female) x married/100	-0.062***	3.921***	5.162***	1.414***	2.322***	-1.029***	0.320***	3.183***	1.403***	0.833***	1.747***	4.358***
leisure (female) x handicap (female)/100	-1.111***	1.696***	0.979***	0.954***	1.389***	-3.640***	-13.156***	3.358***	3.561***	2.347***	0.031	4.377***
leisure (female) x care/100	11.500***	5.306***	0.697***	3.240***	8.444***	4.823***	8.527***	6.424***	-0.003	2.830***	7.768***	6.744***
fixed costs (male)	-5.356***	-9.762***	-12.963***	-16.337***	-9.252***	-13.793***	-11.757***	-9.647***	-7.900***	-11.187***	-7.316***	-5.363***
part-time 20h (male)	-0.040***	1.530***	2.447***	3.637***	0.460***	1.886***	1.813***	1.467***	0.480***	1.364***	0.462***	-0.437***
part-time 40h (male)	1.702***	1.293***	1.351***	1.397***	1.347***	1.350***	1.513***	1.138***	0.905***	1.310***	1.145***	1.008***
fixed costs (female)	-1.680***	-1.386***	-1.322***	-1.180***	-1.054***	-0.822***	-0.779***	-0.865***	-0.788***	-0.792***	-0.872***	-1.376***
part-time 20h (female)	0.357***	0.366***	0.619***	0.325***	0.213***	0.518***	0.468***	0.211***	0.219***	-0.082***	-0.020***	-0.122***
part-time 40h (female)	1.442***	0.969***	1.169***	1.073***	1.014***	1.081***	1.223***	0.778***	0.893***	0.836***	1.078***	0.399***
Pseudo R^2	0.334	0.301	0.302	0.306	0.307	0.306	0.319	0.273	0.259	0.290	0.278	0.243
Observations	328039075	359586206	335907103	347417252	342410334	339452645	342166853	316847524	309467487	300035673	316216404	298504962

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.3: Conditional logit regression results (semi-flex. couples, male, 1986–1998)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
disp. inc.	0.006***	0.043***	0.198***	0.043***	0.013***	-0.017***	-0.020***	0.042***	-0.055***	0.050***	0.021***	-0.008***	-0.009***
disp. inc.^{2}/100	-0.000***	-0.000	0.000***	-0.000***	0.000***	-0.000***	0.000***	0.000***	-0.000***	-0.000***	-0.000***	0.000***	-0.000***
disp. inc. x age (male)/100	0.102***	-0.355***	-0.797***	-0.250***	0.016***	0.047***	-0.058***	-0.229***	0.317***	-0.284***	-0.157***	0.006***	-0.044***
disp. inc. x age^2 (male)/100	-0.103***	0.378***	0.947***	0.290***	-0.005**	-0.045***	0.116***	0.272***	-0.359***	0.337***	0.189***	0.018***	0.019***
disp. inc. x age (female)/100	-0.113***	0.142***	-0.199***	0.036***	-0.093***	0.048***	0.099***	0.003***	-0.008***	0.040***	0.073***	-0.001*	0.114***
disp. inc. x age^2 (female)/100	0.124***	-0.116***	0.213***	-0.044***	0.096***	-0.079***	-0.142***	-0.015***	-0.008***	-0.045***	-0.096***	-0.018***	-0.111***
disp. inc. x high-skilled (male)/100	0.499***	-0.245***	1.109***	0.661***	0.165***	0.436***	-0.070***	0.050***	-0.008***	0.199***	-0.009***	-0.088***	0.135***
disp. inc. x unskilled (male)/100	-0.031***	0.520***	-0.262***	-0.251***	0.674***	0.067***	0.446***	0.428***	0.796***	0.034***	-0.096***	0.207***	0.666***
disp. inc. x high-skilled (female)/100	0.034***	-0.028***	-0.121***	-0.320***	0.069***	-0.067***	-0.104***	-0.083***	-0.133***	-0.036***	0.072***	-0.078***	0.196***
disp. inc. x unskilled (female)/100	-0.050***	-0.017***	-0.226***	-0.060***	-0.079***	-0.072***	0.096***	-0.266***	0.317***	0.206***	-0.050***	0.105***	-0.283***
disp. inc. x kids 0-2/100	-0.008***	0.188***	0.188***	-0.282***	-0.148***	-0.032***	-0.057***	0.154***	-0.224***	0.034***	-0.044***	0.043***	-0.075***
disp. inc. x kids 3-6/100	0.095***	-0.008***	-0.056***	0.100***	0.076***	-0.037***	0.039***	0.064***	-0.109***	-0.076***	-0.096***	0.020***	-0.058***
disp. inc. x kids 7-16/100	0.100***	0.115***	-0.077***	-0.034***	-0.127***	-0.056***	-0.077***	0.101***	-0.040***	0.057***	-0.030***	-0.132***	-0.046***
disp. inc. x married/100	-0.557***	0.109***	0.312***	0.177***	0.293***	0.370***	0.789***	-0.189***	-0.606***	-0.122***	-0.109***	0.242***	-0.381***
disp. inc. x care/100	0.138***	0.133***	-0.032***	0.060***		-0.182***	0.176***	-0.433***	-0.568***	-0.109***	-0.153***		-0.486***
leisure (male)	0.233***	1.939***	7.377***	4.395***	1.201***	-0.203***	0.389***	2.538***	-1.810***	2.716***	3.199***	1.873***	1.283***
leisure (male)^2/100	-0.396***	-0.437***	-0.610***	-3.701***	-0.583***	-0.937***	-1.368***	-0.982***	-1.429***	-1.167***	-3.866***	-1.492***	-1.351***
leisure (male) x age (male)/100	0.219***	-7.738***	-34.676***	-12.517***	-4.335***	2.904***	0.385***	-7.433***	15.113***	-9.615***	-5.481***	-5.863***	-2.026***
leisure (male) x age^2 (male)/100	0.011	9.545***	40.182***	14.979***	5.327***	-3.613***	1.067***	8.359***	-17.075***	11.826***	6.554***	7.491***	2.366***
leisure (male) x high-skilled (male)/100	17.531***	-9.946***	60.181***	24.727***	10.324***	28.922***	3.746***	-3.967***	-8.434***	2.951***	-0.926***	-12.379***	8.190***
leisure (male) x unskilled (male)/100	-2.126***	21.396***	-10.317***	-14.830***	23.461***	13.208***	16.132***	9.951***	42.491***	13.723***	-4.104***	18.646***	18.226***
leisure (male) x married/100	-9.138***	-8.764***	10.572***	-0.851***	7.553***	30.480***	13.585***	-37.528***	-58.084***	-8.436***	-1.503***	14.320***	-15.192***
o.leisure (male) x handicap (male)/100	0.000	27.743***	-36.410***	-11.511***	0.000	-19.542***	-19.568***	0.000	6.295***	4.356***	3.764***	8.968***	6.787***
fixed costs (male)	-7.149***	-1.842***	-3.469***	-101.339	-8.452***	-14.539***	-24.419***	-5.499***	-27.125***	-18.705***	-105.646	-24.455***	-27.469***
part-time 20h (male)	-21.005	-22.194	-0.270***	38.339***	0.323***	-19.105	7.274***	-0.771***	7.624***	-17.867	38.822***	6.336***	-16.803
part-time 40h (male)	1.264***	1.313***	1.900***	7.656***	1.742***	0.901***	1.391***	0.816***	2.401***	1.350***	7.022***	1.307***	1.850***
o.disp. inc. x care/100					0.000							0.000	
Pseudo R^2	0.423	0.474	0.532	0.584	0.543	0.508	0.496	0.518	0.603	0.573	0.492	0.537	0.560
Observations	3164238	4192720	3249659	4095917	4056213	6438754	7099575	5814263	7190974	7975051	8741341	8963486	9452198

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.4: Conditional logit regression results (semi-flex. couples, male, 1999–2010)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
disp. inc.	0.012***	0.000	-0.026***	-0.011***	-0.014***	0.016***	0.015***	0.015***	0.001***	0.017***	0.013***	-0.015***
disp. inc.^{2}/100	0.000***	0.000***	0.000***	-0.000***	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	-0.058***	-0.092***	0.087***	0.062***	0.095***	-0.030***	-0.067***	-0.086***	0.012***	-0.098***	-0.035***	0.046***
disp. inc. x age^2 (male)/100	0.075***	0.147***	-0.090***	-0.074***	-0.114***	0.050***	0.080***	0.100***	-0.016***	0.111***	0.027***	-0.050***
disp. inc. x age (female)/100	-0.005***	0.077***	0.032***	-0.003***	-0.025***	-0.035***	-0.003***	0.023***	-0.013***	0.025***	-0.016***	0.035***
disp. inc. x age^2 (female)/100	0.007***	-0.113***	-0.050***	0.009***	0.042***	0.036***	0.010***	-0.027***	0.022***	-0.025***	0.019***	-0.040***
disp. inc. x high-skilled (male)/100	-0.153***	0.358***	-0.034***	-0.047***	0.084***	0.063***	-0.293***	0.227***	0.016***	0.024***	0.130***	0.040***
disp. inc. x unskilled (male)/100	-0.031***	0.369***	0.190***	0.052***	0.573***	0.216***	0.404***	-0.012***	0.074***	-0.655***	0.514***	0.043***
disp. inc. x high-skilled (female)/100	0.017***	0.003***	-0.045***	0.014***	0.025***	0.031***	0.045***	-0.019***	0.099***	-0.050***	0.012***	-0.043***
disp. inc. x unskilled (female)/100	-0.052***	-0.026***	-0.110***	-0.058***	-0.077***	0.061***	-0.025***	0.004***	0.009***	-0.214***	-0.102***	-0.017***
disp. inc. x kids 0-2/100	0.051***	0.067***	-0.052***	-0.050***	0.036***	-0.060***	-0.027***	-0.018***	-0.040***	0.041***	0.004***	0.044***
disp. inc. x kids 3-6/100	0.037***	0.012***	-0.004***	-0.006***	-0.010***	-0.036***	0.039***	0.007***	-0.008***	0.076***	-0.012***	-0.012***
disp. inc. x kids 7-16/100	-0.027***	-0.011***	-0.035***	-0.016***	0.005***	-0.012***	0.009***	0.028***	0.043***	0.012***	0.008***	-0.038***
disp. inc. x married/100	0.055***	-0.223***	0.232***	-0.085***	-0.057***	-0.338***	-0.112***	-0.141***	-0.080***	-0.054***	0.074***	-0.064***
disp. inc. x care/100	-0.220***		0.027***	0.106***	0.477***	0.051***	0.006**	-0.027***	-0.087***	0.045***	0.453***	-0.357***
leisure (male)	1.028***	0.948***	-0.082***	0.323***	-0.173***	0.818***	1.374***	1.196***	0.321***	1.059***	0.979***	0.584***
leisure (male)^2/100	-0.658***	-0.985***	-0.761***	-1.192***	-0.935***	-0.519***	-0.734***	-0.636***	-0.624***	-0.418***	-0.803***	-0.582***
leisure (male) x age (male)/100	-2.978***	-2.207***	2.154***	2.125***	3.969***	-2.460***	-4.439***	-3.768***	0.490***	-3.483***	-1.731***	-0.513***
leisure (male) x age^2 (male)/100	3.762***	3.217***	-2.136***	-2.141***	-4.268***	3.654***	5.840***	4.648***	-0.428***	3.717***	1.583***	0.529***
leisure (male) x high-skilled (male)/100	-9.404***	12.746***	-0.130*	-1.696***	3.978***	2.465***	-15.501***	11.729***	3.742***	-0.078	7.849***	-5.329***
leisure (male) x unskilled (male)/100	0.164*	19.456***	18.603***	8.036***	18.243***	12.414***	18.476***	6.320***	5.870***	-19.499***	7.921***	-6.534***
leisure (male) x married/100	-3.512***	-4.794***	7.548***	-7.149***	-3.628***	-11.070***	-3.351***	-6.078***	-1.493***	0.215**	-0.613***	-0.776***
leisure (male) x handicap (male)/100	5.468***	-13.255***	-4.518***	0.197*	-3.459***	1.170***	3.548***	9.099***	0.082		0.948***	7.716***
fixed costs (male)	-13.030***	-18.982***	-11.266***	-26.014***	-16.208***	-8.936***	-11.646***	-10.714***	-11.207***	-6.551***	-14.195***	-8.699***
part-time 20h (male)	0.564***	5.437***	2.259***	5.633***	1.853***	-2.228***	1.334***	2.297***	0.455***	1.556***	3.255***	0.229***
part-time 40h (male)	1.377***	1.313***	0.975***	1.503***	0.830***	1.129***	0.993***	1.051***	0.948***	0.986***	0.391***	0.697***
o.disp. inc. x care/100		0.000										
o.leisure (male) x handicap (male)/100										0.000		
Pseudo R^2	0.426	0.444	0.432	0.466	0.465	0.426	0.430	0.395	0.396	0.338	0.354	0.386
Observations	8973531	9148251	10699150	8193577	7222334	8293894	7630784	7052122	7820701	7353997	7540848	7832090

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.5: Conditional logit regression results (semi-flex. couples, female, 1986–1998)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
choice													
disp. inc.	-0.005***	0.007***	0.005***	0.010***	0.005***	0.003***	0.007***	0.001***	-0.005***	0.006***	-0.003***	-0.007***	-0.014***
disp. inc.^{2}/100	-0.000***	0.000***	-0.000***	0.000***	0.000***	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	-0.000***	0.000***	-0.000***
disp. inc. x age (male)/100	-0.010***	-0.046***	-0.035***	-0.005***	-0.039***	-0.010***	-0.013***	-0.009***	0.040***	-0.048***	-0.042***	-0.019***	0.040***
disp. inc. x age^2 (male)/100	0.012***	0.051***	0.039***	-0.004***	0.037***	0.015***	0.011***	0.008***	-0.048***	0.047***	0.038***	0.015***	-0.044***
disp. inc. x age (female)/100	0.026***	0.015***	0.020***	-0.054***	0.026***	0.001	-0.018***	0.008***	-0.019***	0.024***	0.061***	0.054***	0.023***
disp. inc. x age^2 (female)/100	-0.014***	-0.013***	-0.025***	0.067***	-0.014***	-0.006***	0.017***	-0.009***	0.032***	-0.024***	-0.057***	-0.051***	-0.017***
disp. inc. x high-skilled (male)/100	-0.089***	-0.097***	-0.078***	-0.047***	-0.125***	-0.045***	-0.017***	-0.034***	-0.081***	-0.136***	-0.049***	-0.074***	-0.038***
disp. inc. x unskilled (male)/100	-0.036***	-0.041***	-0.043***	0.105***	-0.044***	-0.029***	0.012***	-0.009***	-0.065***	-0.118***	-0.107***	-0.058***	0.074***
disp. inc. x high-skilled (female)/100	-0.035***	-0.096***	0.065***	0.003*	0.693***	0.019***	-0.029***	0.019***	0.097***	0.035***	0.038***	0.009***	0.015***
disp. inc. x unskilled (female)/100	0.062***	-0.107***	-0.036***	-0.158***	-0.007***	0.005***	-0.283***	-0.007***	0.119***	-0.033***	0.104***	-0.234***	-0.136***
disp. inc. x kids 0-2/100	0.017***	-0.123***	0.026***	0.002	0.020***	-0.052***	-0.146***	-0.019***	0.051***	-0.346***	-0.249***	-0.055***	0.044***
disp. inc. x kids 3-6/100	0.070***	-0.083***	-0.164***	-0.120***	-0.418***	-0.026***	-0.081***	-0.045***	0.037***	0.046***	0.015***	0.055***	-0.098***
disp. inc. x kids 7-16/100	-0.059***	0.003***	0.049***	-0.086***	0.003***	-0.014***	-0.022***	-0.033***	0.024***	-0.194***	-0.057***	0.036***	0.071***
disp. inc. x married/100	0.178***	-0.015***	0.002	0.336***	-0.375***	-0.007***	0.367***	0.005***	-0.011***	0.137***	-0.051***	-0.096***	0.055***
disp. inc. x care/100	-5159.989	-1.103***	4.175***	0.536***	2.093***	-6.712	1.753***	-4.264		-262.290	0.756***	0.095***	-1.002***
leisure (female)	-0.256***	0.059***	0.007***	0.461***	-0.032***	0.128***	0.215***	0.183***	0.122***	0.403***	-0.338***	0.031***	-0.408***
leisure (female)^2/100	-0.195***	-0.118***	-0.144***	-0.352***	-0.214***	-0.108***	-0.112***	-0.211***	-0.290***	-0.163***	-0.150***	-0.166***	0.009***
leisure (female) x age (female)/100	1.344***	0.048***	0.835***	-1.418***	0.885***	0.028*	-0.698***	0.077***	0.334***	-1.419***	2.320***	0.250***	1.847***
leisure (female) x age^2 (female)/100	-0.866***	0.447***	-0.851***	1.809***	-0.368***	-0.031*	0.842***	0.004	0.054***	1.889***	-2.265***	0.197***	-1.723***
leisure (female) x high-skilled (female)/100	-3.887***	-4.148***	0.244***	-2.037***	15.735***	-0.197***	1.806***	-0.248***	-0.787***	-2.543***	-1.643***	-2.158***	-3.905***
leisure (female) x unskilled (female)/100	4.150***	-2.252***	1.851***	-1.883***	0.738***	-0.089*	-6.054***	0.029	7.621***	-0.218***	2.273***	-2.191***	3.146***
leisure (female) x kids 0-2/100	4.641***	-0.746***	1.957***	3.602***	7.066***	1.716***	0.041	2.120***	5.818***	-5.883***	4.784***	1.854***	5.121***
leisure (female) x kids 3-6/100	6.355***	3.826***	-0.039	0.870***	-8.851***	0.684***	1.268***	0.802***	5.964***	7.406***	7.544***	7.266***	1.623***
leisure (female) x kids 7-16/100	1.344***	3.771***	3.130***	0.772***	3.115***	0.805***	0.622***	1.347***	4.578***	-2.810***	1.719***	5.224***	7.682***
leisure (female) x married/100	9.134***	-3.529***	-4.800***	17.874***	-2.060***	0.218**	9.780***	-0.593***	-0.352***	1.542***	-4.144***	-2.123***	-4.839***
o.leisure (female) x handicap (female)/100	0.000	-1.957***	-5.475***	8.712***	0.000	303.091	-25.358***	0.000	-7.704***	-5.688***	-7.336***	-6.204***	0.000
leisure (female) x care/100	-54306.815	-36.217***	127.401***	-0.830***	66.171***	200.301	70.045***	245.982		-15944.037	37.270***	-0.673***	-17.878***
fixed costs (female)	-3.081***	-2.816***	-2.573***	-3.414***	-1.885***	-2.094***	-1.097***	-3.191***	-2.947***	-2.344***	-0.880***	-2.021***	-1.296***
part-time 20h (female)	0.679***	1.538***	0.596***	0.139***	0.917***	0.907***	0.352***	0.760***	0.884***	1.367***	0.544***	0.679***	1.515***
part-time 40h (female)	1.252***	1.470***	1.383***	0.951***	1.748***	1.170***	1.201***	1.457***	1.154***	1.093***	1.761***	0.769***	1.874***
o.disp. inc. x care/100									0.000				
o.leisure (female) x care/100									0.000				
Pseudo R^2	0.386	0.334	0.290	0.280	0.325	0.203	0.226	0.207	0.253	0.249	0.271	0.220	0.309
Observations	12591481	11972737	13758332	12470703	12258477	11132632	14587580	12827808	12650008	13386891	17437336	13918247	13668123

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.6: Conditional logit regression results (semi-flex. couples, female, 1999–2010)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
disp. inc.	-0.014***	-0.003***	-0.002***	0.005***	-0.009***	0.003***	-0.000	0.000***	0.010***	0.019***	0.012***	-0.004***
disp. inc.^{2}/100	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	0.030***	0.054***	-0.004***	0.006***	-0.042***	0.029***	-0.022***	-0.088***	0.067***	-0.026***	0.055***	0.009***
disp. inc. x age^2 (male)/100	-0.028***	-0.052***	0.003***	-0.009***	0.041***	-0.026***	0.020***	0.093***	-0.067***	0.036***	-0.060***	-0.006***
disp. inc. x age (female)/100	0.036***	-0.053***	0.021***	-0.018***	0.103***	-0.029***	0.030***	0.092***	-0.113***	-0.046***	-0.109***	0.015***
disp. inc. x age^2 (female)/100	-0.042***	0.070***	-0.032***	0.016***	-0.112***	0.019***	-0.024***	-0.100***	0.132***	0.051***	0.131***	-0.031***
disp. inc. x high-skilled (male)/100	-0.011***	-0.109***	-0.025***	-0.031***	-0.035***	-0.019***	-0.062***	-0.042***	-0.122***	0.014***	-0.058***	-0.100***
disp. inc. x unskilled (male)/100	0.141***	0.018***	-0.104***	-0.014***	-0.215***	0.050***	-0.005***	0.512***	-0.017***	-0.022***	0.028***	0.107***
disp. inc. x high-skilled (female)/100	0.064***	0.084***	-0.063***	-0.015***	-0.052***	0.055***	-0.010***	0.060***	0.093***	-0.159***	0.061***	0.104***
disp. inc. x unskilled (female)/100	0.178***	-0.148***	0.040***	0.077***	0.009***	0.094***	0.249***	0.424***	0.207***	-0.072***	-0.120***	0.115***
disp. inc. x kids 0-2/100	-0.218***	-0.238***	0.073***	-0.030***	0.035***	0.089***	0.208***	-0.078***	-0.023***	0.184***	-0.335***	0.148***
disp. inc. x kids 3-6/100	0.360***	0.034***	-0.097***	0.011***	-0.016***	-0.048***	-0.021***	-0.148***	-0.042***	0.189***	-0.106***	-0.023***
disp. inc. x kids 7-16/100	0.034***	0.010***	-0.016***	0.021***	-0.042***	-0.017***	-0.003***	-0.027***	0.058***	0.145***	-0.032***	-0.072***
disp. inc. x married/100	-0.103***	-0.111***	0.035***	-0.056***	-0.219***	0.041***	-0.142***	0.079***	-0.165***	-0.388***	-0.073***	0.254***
disp. inc. x care/100	-3.440***	-0.430***	0.031***	0.356***	-0.186***	1.081***	-0.060***	-1.203***	0.646***	0.003	2.240***	-0.581***
leisure (female)	-0.418***	0.329***	0.050***	0.273***	0.006	0.843***	0.222***	0.204***	1.035***	1.039***	0.773***	-0.015***
leisure (female)^2/100	-0.312***	-0.311***	-0.128***	-0.212***	-0.182***	-0.283***	-0.237***	-0.198***	-0.175***	-0.182***	-0.201***	-0.187***
leisure (female) x age (female)/100	3.245***	-0.511***	0.535***	-0.371***	1.252***	-2.509***	-0.003	0.260***	-4.358***	-3.583***	-2.942***	0.968***
leisure (female) x age^2 (female)/100	-3.308***	1.240***	-0.740***	0.440***	-1.208***	2.864***	0.471***	-0.182***	5.477***	4.222***	3.977***	-1.465***
leisure (female) x high-skilled (female)/100	2.531***	-4.494***	-4.678***	-3.554***	-5.553***	-0.220***	-2.837***	-3.043***	-0.353***	-8.897***	-0.521***	0.652***
leisure (female) x unskilled (female)/100	6.665***	-4.054***	-3.454***	2.024***	1.410***	5.268***	11.637***	11.622***	9.607***	-3.595***	-4.899***	0.310***
leisure (female) x kids 0-2/100	3.644***	3.551***	3.205***	6.572***	5.452***	-0.047	15.656***	7.453***	3.678***	5.591***	-3.440***	2.222***
leisure (female) x kids 3-6/100	13.208***	5.739***	0.818***	4.306***	2.345***	2.300***	5.687***	-2.511***	4.465***	8.433***	2.716***	4.753***
leisure (female) x kids 7-16/100	4.066***	3.905***	1.389***	3.637***	0.611***	1.107***	2.240***	0.771***	5.577***	8.339***	1.257***	-1.179***
leisure (female) x married/100	-4.316***	-2.277***	2.383***	0.616***	-7.645***	2.089***	-4.551***	-1.047***	-1.503***	-8.651***	-1.506***	11.232***
leisure (female) x handicap (female)/100	-22.501***	-3.285***	-0.678***		-7.993***	-8.657***	-1.226***	-9.863***	3.027***	-1.779***	0.543***	3.282***
leisure (female) x care/100	-124.542***	-21.812***	0.215	22.555***	-4.025***	61.578***	-6.973***	-12.134***	12.170***	4.630***	66.124***	-17.213***
fixed costs (female)	-2.449***	-2.228***	-1.229***	-2.254***	-1.668***	-2.761***	-1.557***	-0.580***	-0.723***	-0.704***	-1.406***	-2.085***
part-time 20h (female)	0.609***	0.272***	0.575***	0.718***	0.775***	0.469***	0.006*	-0.036***	0.461***	-0.414***	0.512***	0.823***
part-time 40h (female)	1.129***	0.439***	0.799***	0.799***	1.261***	1.052***	0.783***	1.288***	0.776***	0.807***	0.551***	1.167***
o.leisure (female) x handicap (female)/100				0.000								
Pseudo R^2	0.238	0.234	0.143	0.214	0.237	0.263	0.206	0.234	0.205	0.215	0.192	0.228
Observations	11887008	11747792	11496142	10420137	10543246	11602213	10485349	10119711	8588356	9613779	8533448	9088268

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

C.2 Labor Supply Model (East Germany)

Table C.7: Conditional logit regression results (flex. couples, 1996–2010)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
choice															
disp. inc.	-0.002***	-0.009***	-0.011***	-0.004***	0.005***	0.009***	-0.007***	0.003***	-0.002***	-0.008***	-0.007***	-0.005***	0.002***	-0.001***	-0.002***
disp. inc.^{2}/100	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	0.020***	-0.020***	0.019***	0.052***	0.009***	-0.017***	0.016***	0.002***	0.033***	0.051***	0.041***	0.010***	0.021***	-0.008***	0.014***
disp. inc. x age^2 (male)/100	-0.022***	0.019***	-0.019***	-0.057***	-0.020***	0.023***	-0.025***	-0.004***	-0.035***	-0.051***	-0.043***	-0.014***	-0.014***	0.014***	-0.021***
disp. inc. x age (female)/100	-0.024***	0.070***	0.052***	-0.023***	-0.012***	-0.021***	0.019***	-0.006***	-0.028***	-0.015***	-0.012***	0.021***	-0.026***	0.014***	0.016***
disp. inc. x age^2 (female)/100	0.030***	-0.070***	-0.058***	0.028***	0.028***	0.019***	-0.012***	0.008***	0.037***	0.014***	0.017***	-0.014***	0.026***	-0.011***	-0.020***
disp. inc. x high-skilled (male)/100	-0.039***	-0.028***	0.037***	0.008***	0.136***	0.092***	0.008***	0.025***	0.028***	0.026***	0.118***	-0.054***	-0.025***	-0.044***	0.114***
disp. inc. x unskilled (male)/100	-0.015***	0.068***	0.010***	0.246***	0.090***	-0.019***	-0.067***	-0.056***	-0.172***	-0.263***	-0.001	0.009***	0.049***	0.057***	0.024***
disp. inc. x high-skilled (female)/100	0.017***	-0.001	-0.042***	0.001	-0.026***	-0.020***	0.034***	0.002***	0.011***	-0.045***	-0.029***	-0.069***	-0.025***	0.002***	0.046***
disp. inc. x unskilled (female)/100	-0.213***	0.221***	-0.103***	0.182***	0.164***	0.380***	-0.178***	0.151***	0.147***	-0.164***	0.063***	-0.267***	-0.143***	-0.053***	-0.481***
disp. inc. x kids 0-2/100	0.050***	-0.177***	0.066***	0.255***	0.063***	0.079***	0.009***	-0.043***	-0.137***	-0.058***	-0.109***	0.001	-0.025***	-0.012***	0.187***
disp. inc. x kids 3-6/100	0.006***	-0.001	0.085***	-0.028***	-0.141***	-0.058***	-0.010***	-0.000	0.084***	-0.011***	-0.055***	-0.031***	-0.083***	0.049***	-0.118***
disp. inc. x kids 7-16/100	0.035***	0.036***	0.020***	-0.071***	-0.034***	-0.001	-0.029***	-0.007***	-0.010***	-0.001*	-0.003***	-0.028***	0.011***	-0.006***	-0.019***
disp. inc. x married/100	0.288***	-0.082***	-0.134***	-0.049***	-0.173***	0.207***	-0.000	-0.113***	0.070***	0.065***	0.021***	0.021***	-0.022***	0.017***	0.093***
o.disp. inc. x care/100	0.000	0.037***	-0.144***	0.000	0.483***	-0.237***	-0.112***	0.086***	0.127***	-0.003	-0.209***	-0.038***	-0.029***	-0.104***	0.820***
leisure (male)	0.688***	0.521***	0.604***	0.504***	1.062***	0.651***	0.274***	0.603***	0.281***	0.211***	0.107***	-0.064***	0.699***	0.515***	0.081***
leisure (female)	0.459***	0.210***	-0.042***	0.135***	0.413***	0.260***	-0.006*	0.529***	0.059***	0.280***	0.301***	0.093***	0.192***	0.611***	0.177***
leisure (male)^2/100	-1.000***	-0.848***	-1.193***	-0.724***	-1.250***	-1.000***	-0.852***	-0.891***	-0.686***	-0.590***	-0.820***	-0.434***	-0.882***	-0.824***	-0.594***
leisure (female)^2/100	-0.403***	-0.297***	-0.323***	-0.367***	-0.339***	-0.288***	-0.426***	-0.404***	-0.285***	-0.204***	-0.392***	-0.291***	-0.256***	-0.361***	-0.255***
leisure (male) x age (male)/100	-0.880***	-0.141***	0.714***	-0.122***	-1.252***	-0.127***	1.331***	0.163***	0.575***	0.706***	2.016***	1.436***	-0.861***	0.009	1.291***
leisure (male) x age^2 (male)/100	1.269***	0.466***	-0.650***	0.242***	1.640***	0.202***	-1.243***	-0.120***	-0.309***	-0.585***	-1.896***	-1.324***	1.443***	0.257***	-1.239***
leisure (male) x high-skilled (male)/100	-4.226***	-5.956***	-2.111***	-1.423***	-2.066***	1.646***	-1.720***	-0.311***	0.811***	2.280***	0.114***	-4.992***	-2.072***	-2.696***	7.780***
leisure (male) x unskilled (male)/100	1.330***	0.934***	4.486***	3.688***	3.066***	4.433***	4.019***	3.194***	0.987***	2.656***	6.805***	1.599***	1.391***	6.896***	3.043***
leisure (male) x married/100	7.605***	-1.966***	-3.969***	-0.775***	-3.183***	2.502***	-4.982***	-4.325***	-0.850***	-0.752***	-4.374***	-1.474***	-2.170***	0.228***	1.508***
leisure (male) x handicap (male)/100	1.069***	2.512***	3.461***	5.636***	3.393***	3.612***	-0.756***	0.855***	6.379***	0.383***	2.208***	8.579***	5.410***	-6.986***	-1.920***
leisure (female) x age (female)/100	-1.234***	-0.153***	1.415***	0.850***	-0.538***	-0.422***	1.613***	-0.864***	0.507***	-0.487***	-0.121***	0.784***	0.182***	-1.629***	0.330***
leisure (female) x age^2 (female)/100	1.539***	0.541***	-1.425***	-0.813***	0.839***	0.795***	-1.550***	1.367***	-0.111***	0.637***	0.640***	-0.689***	-0.083***	2.256***	-0.359***
leisure (female) x high-skilled (female)/100	-3.994***	-4.047***	-3.861***	-1.212***	-2.148***	-4.152***	-1.608***	-5.333***	-2.118***	-3.625***	-5.384***	-5.008***	-4.117***	-5.921***	-1.401***
leisure (female) x unskilled (female)/100	8.384***	19.468***	1.880***	12.306***	10.612***	7.921***	0.055	2.720***	6.641***	-5.266***	7.720***	7.445***	3.445***	1.246***	-7.178***
leisure (female) x kids 0-2/100	9.351***	7.984***	4.401***	16.342***	-0.418***	8.861***	6.500***	8.254***	7.268***	7.266***	6.043***	4.340***	6.195***	1.513***	12.020***
leisure (female) x kids 3-6/100	3.282***	3.660***	5.264***	2.221***	0.777***	1.198***	2.991***	0.816***	5.249***	0.565***	3.455***	0.975***	1.370***	3.859***	-0.821***
leisure (female) x kids 7-16/100	2.239***	2.999***	3.322***	-0.834***	0.227***	1.927***	0.342***	2.116***	2.101***	0.687***	2.858***	1.070***	1.769***	2.281***	1.579***
leisure (female) x married/100	10.275***	-0.903***	-1.559***	0.515***	-3.091***	3.446***	-1.884***	-4.713***	0.862***	2.271***	-0.517***	0.785***	2.005***	-0.010	5.706***
leisure (female) x handicap (female)/100	7.171***	-0.058	4.724***	3.637***	0.745***	2.060***	0.040	0.066	-3.827***	8.902***	-0.001	1.294***	0.481***	0.967***	-0.899***
o.leisure (female) x care/100	0.000	4.741***	-8.743***	0.000	193.244	5.235***	2.835***	14.439***	1.059***	6.587***	0.028	6.640***	6.854***	-1.160***	210.072
fixed costs (male)	-20.936***	-18.099***	-26.701***	-13.682***	-27.421***	-20.223***	-17.004***	-17.899***	-13.441***	-11.390***	-15.207***	-9.649***	-17.949***	-15.723***	-11.507***
part-time 20h (male)	-18.491	2.157***	5.498***	-20.343	-22.100	-17.660	0.530***	-18.546	2.060***	-1.032***	2.958***	1.751***	2.553***	-0.263***	1.316***
part-time 40h (male)	0.774***	1.129***	0.827***	0.412***	0.827***	0.635***	0.391***	0.678***	0.538***	0.435***	0.263***	1.283***	0.405***	0.500***	0.366***
fixed costs (female)	-5.969***	-4.502***	-4.957***	-4.884***	-5.374***	-4.075***	-5.631***	-4.724***	-3.579***	-2.724***	-4.527***	-3.381***	-2.118***	-4.102***	-2.479***
part-time 20h (female)	0.050***	-0.562***	0.048***	-0.273***	0.094***	-0.492***	-0.210***	0.076***	-1.045***	-0.329***	-0.018***	-0.661***	-2.112***	-0.111***	-0.522***
part-time 40h (female)	1.125***	1.027***	1.030***	1.267***	1.088***	0.914***	0.726***	0.880***	0.887***	1.171***	0.691***	0.744***	0.688***	0.734***	1.086***
Pseudo R^2	0.379	0.356	0.352	0.346	0.362	0.346	0.316	0.332	0.278	0.275	0.295	0.285	0.305	0.315	0.281
Observations	97752697	92638812	83917596	86339225	83509475	67908512	72110311	67447569	68623667	66769458	56064036	67637444	72769459	56052423	68905907

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.8: Conditional logit regression results (semi-flex. couples, male, 1996–2010)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
disp. inc.	-0.058***	-0.027***	0.022***	-0.002***	0.026***	0.048***	-0.122***	-0.006***	0.021***	-0.004***	-0.091***	0.085***	-0.003***	-0.013***	0.040***
disp. inc.^{2}/100	-0.000***	-0.000***	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	0.000***	0.000***	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	0.191***	0.015***	0.230***	-0.026***	-0.109***	-0.427***	0.539***	0.090***	-0.171***	0.095***	0.707***	-0.493***	0.006*	0.055***	-0.219***
disp. inc. x age^2 (male)/100	-0.292***	-0.105***	-0.210***	0.063***	0.099***	0.476***	-0.591***	-0.094***	0.250***	-0.125***	-0.822***	0.519***	-0.001	-0.051***	0.237***
disp. inc. x age (female)/100	0.145***	0.218***	-0.341***	0.031***	-0.059***	0.185***	0.024***	-0.072***	0.078***	-0.083***	-0.288***	0.110***	0.034***	0.019***	0.115***
disp. inc. x age^2 (female)/100	-0.118***	-0.221***	0.402***	-0.037***	0.117***	-0.212***	-0.039***	0.081***	-0.093***	0.149***	0.376***	-0.100***	-0.059***	-0.032***	-0.160***
disp. inc. x high-skilled (male)/100	0.102***	0.790***	-0.074***	-0.081***	-1.116***	0.469***	0.909***	0.040***	0.266***	-0.217***	0.325***	-0.193***	0.006	0.081***	0.208***
disp. inc. x unskilled (male)/100	-680.626	2.210***	-2.422***	4.448			6.713***	-10.176	1247.393	-614.166	0.422***	-3146.514	-11.022	-6.632	-5498.268
disp. inc. x high-skilled (female)/100	0.193***	0.020***	0.581***	0.256***	0.009**	-0.015***	0.161***	-0.047***	-0.103***	0.019***	-0.130***	-0.225***	0.044***	-0.053***	-0.283***
disp. inc. x unskilled (female)/100	56.302	-0.405***	1.031***	-0.088***	0.161***		0.154***	-0.179***	-0.541***	-2259.339		-21341.365	-0.093***	-0.044***	
disp. inc. x kids 0-2/100	0.290***	0.720***	-0.529***	-0.223***	0.136***	-0.119***	0.013***	0.146***	-0.089***	0.014***	0.010***	0.147***	-0.012***	-0.091***	-0.049***
disp. inc. x kids 3-6/100	-0.047***	-0.658***	0.012**	-0.127***	0.226***	-0.056***	-0.275***	0.055***	0.068***	0.029***	-0.178***	0.054***	-0.075***	0.011**	1.164***
disp. inc. x kids 7-16/100	-0.035***	-0.160***	0.341***	0.090***	-0.143***	0.029***	-0.332***	0.036***	0.032***	-0.060***	-0.020***	-0.299***	-0.055***	-0.056***	-0.160***
disp. inc. x married/100	0.336***	-0.499***	-0.651***	0.034***	0.799***	0.920***	0.156***	0.021***	-1.136***	-0.290***	0.080***	-0.082***	0.033***	0.035***	-0.233***
disp. inc. x care/100	-0.285***	0.156***	1.013***	0.168***	6.149***	-0.499***	-0.046***	-0.001	-0.122***		0.861***		-0.149***		-2.108***
leisure (male)	-0.225***	0.436***	0.635***	-0.009	2.618***	3.508***	-0.257***	0.532***	1.988***	1.310***	-2.140***	3.277***	0.072***	2.322	2.004***
leisure (male)^2/100	-0.394***	-1.585***	-0.957***	-0.142***	-1.562***	-3.967***	-4.388***	-0.310***	-0.769***	-1.074***	-1.386***	-1.136***	0.055***	-3.118	-0.401***
leisure (male) x age (male)/100	3.062***	3.169***	0.231***	-0.319***	-8.117***	-7.684***	11.340***	-1.508***	-7.223***	-2.796***	15.198***	-11.889***	-0.557***	-3.875***	-6.850***
leisure (male) x age^2 (male)/100	-4.346***	-4.120***	0.390***	1.515***	9.422***	9.133***	-11.676***	1.877***	10.656***	4.128***	-17.099***	13.370***	0.678***	4.939***	6.708***
leisure (male) x high-skilled (male)/100	15.168***	24.022***	12.164***	-0.291**	-34.297***	9.417***	15.066***	-0.439***	6.521***	-8.043***	2.955***	-5.460***	-2.646***	-9.501***	5.071***
leisure (male) x unskilled (male)/100	-9384.904	37.996***	-0.092	-317.965			125.086***	206.965	30937.105	-20744.829	-13.951***	-99233.877	197.600	120.063	-33705.868
leisure (male) x married/100	5.725***	8.407***	-19.938***	-0.783***	17.877***	21.493***	4.340***	-2.963***	-38.871***	-16.216***	-7.747***	0.362*	-0.918***	2.872***	8.545***
leisure (male) x handicap (male)/100	-8.366***	10.570***		3.124***	80.340			4.021***		-2.159***			-1.598***	-6.336***	
fixed costs (male)	-3.635***	-26.754***	-13.664***	-1.935***	-27.954***	-107.438	-114.315	-3.362***	-7.447***	-17.922***	-23.686***	-21.301***	-1.030***	-87.012	19.324
part-time 20h (male)	-24.342	6.661***	1.537***	-2.586***	-20.869	2.929	3.490	-0.079***	1.732***	-33.949	-16.174	-27.050	-0.935***	33.891	-22.653
part-time 40h (male)	1.241***	0.862***	0.233***	0.884***	0.619***	6.793***	6.153***	-0.110***	-0.725***	0.001	-0.170***	0.839***	2.350***	6.527	0.175***
Pseudo R^2	0.483	0.537	0.455	0.312	0.559	0.507	0.544	0.285	0.366	0.459	0.535	0.515	0.387	0.488	0.462
Observations	2719626	2959159	2457427	3050068	2198798	1465996	1670753	1485645	1596532	2537143	2117430	1574930	1160446	1356152	1067682

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.9: Conditional logit regression results (semi-flex. couples, female, 1996–2010)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
disp. inc.	0.009***	0.046***	-0.021***	-0.008***	0.010***	-0.034***	-0.043***	-0.066***	-0.055***	0.006***	-0.030***	-0.142***	-0.129***	0.073***	0.037***
disp. inc.^{2}/100	-0.000***	0.000***	-0.000***	0.000***	0.000***	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	-0.000***	-0.000***	0.000***	-0.000***	-0.000***
disp. inc. x age (male)/100	-0.046***	0.245***	0.099***	-0.248***	-0.036***	-0.049***	0.026***	0.076***	-0.055***	-0.003	0.179***	0.199***	0.152***	0.073***	-0.017***
disp. inc. x age^2 (male)/100	0.039***	-0.326***	-0.133***	0.312***	0.064***	0.034***	-0.023***	-0.112***	0.033***	-0.038***	-0.192***	-0.238***	-0.121***	-0.073***	0.001
disp. inc. x age (female)/100	0.019***	-0.503***	0.024***	0.250***	-0.010***	0.288***	0.184***	0.234***	0.346***	-0.012***	-0.007***	0.513***	0.524***	-0.364***	-0.117***
disp. inc. x age^2 (female)/100	-0.003	0.564***	-0.003	-0.376***	-0.020***	-0.317***	-0.215***	-0.215***	-0.356***	0.049***	0.001	-0.596***	-0.652***	0.372***	0.114***
disp. inc. x high-skilled (male)/100	-0.035***	-0.116***	-0.057***	-0.027***	0.155***	0.113***	-0.046***	-0.003*	0.043***	0.022***	-0.084***	0.356***	0.060***	0.401***	0.128***
o.disp. inc. x unskilled (male)/100	0.000	0.000	0.000	0.000	0.000	0.000	-11.497	-5.902	-21.445	0.025***	-18.362	0.654***	-9.207	-8.743	-0.154***
disp. inc. x high-skilled (female)/100	0.034***	-0.255***	0.096***	0.083***	-0.016***	0.284***	0.401***	-0.149***	-0.034***	-0.066***	-0.234***	-0.045***	0.022***	0.057***	0.167***
disp. inc. x unskilled (female)/100	-5.847		-6.943	2.318***	-0.050***	-484.366***	0.396***	-2027.335	34832.216	0.065	-1279.593	5.203***	-0.127***	4.092***	-5.384
o.disp. inc. x kids 0-2/100	0.000	0.000	0.000	-5.982	-0.141***	-0.345***	-8.104***	0.884***	0.210***	-0.029	-0.455***	9.068***	-380.107	-0.666***	-0.351***
disp. inc. x kids 3-6/100	-0.068***	-4.137***	-0.186***	-0.031***	-0.047**	0.221***	0.089***	-0.803***	0.050***	0.056***	-0.157***	0.484***	-0.898***	-0.425***	-0.144***
disp. inc. x kids 7-16/100	0.043***	0.109***	-0.052***	0.070***	0.047***	-0.171***	-0.293***	0.456***	0.167***	0.036***	-0.192***	-0.421***	-1.391***	-0.344***	-0.051***
disp. inc. x married/100	-0.054***	1.831***	-0.008	1.149***	-0.060***	-1.143***	0.176***	-0.642***	-0.477***	-0.040***	-0.056***	-0.061***	-0.395***	0.080***	0.088***
disp. inc. x care/100	0.113				-7.173	0.296***	-0.292***	-644.066		-10.251	-0.429***	-875.345	0.695***		0.111***
leisure (female)	0.222***	5.605***	0.064***	0.248***	0.581***	-0.634***	-0.116***	-1.310***	-1.566***	0.570***	0.423***	-2.691***	-1.887***	0.483***	0.234***
leisure (female)^2/100	-0.413***	-1.003***	-0.334***	-1.006***	-0.427***	-0.595***	-0.503***	-0.642***	-0.441***	-0.806***	-0.487***	-0.613***	-1.884***	-0.597***	-0.776***
leisure (female) x age (female)/100	1.090***	-24.838***	1.002***	0.882***	-1.679***	6.743***	2.460***	8.663***	9.258***	0.699***	0.758***	15.739***	17.431***	1.733***	1.609***
leisure (female) x age^2 (female)/100	-1.343***	26.468***	-0.853***	-1.777***	2.179***	-7.746***	-2.732***	-9.011***	-9.879***	-0.762***	-0.644***	-18.192***	-20.285***	-2.624***	-1.323***
leisure (female) x high-skilled (female)/100	-3.156***	-9.864***	-5.770***	-14.439***	-1.587***	9.701***	11.170***	-10.071***	-3.900***	1.275***	-3.822***	-5.996***	9.594***	1.468***	-4.974***
leisure (female) x unskilled (female)/100	254.085		285.373	46.125***	-4.026***	-4414.218***	10.413***	-45015.628	871676.747	-6.741	-20918.610	82.415***	6.302***	157.665***	227.656
o.leisure (female) x kids 0-2/100	0.000	0.000	-2.201***	411.442	18.001***	-0.828***	-59.515***	29.306***	9.351***	1.126***	-20.982***	198.914***	-8544.682	-26.344***	22.081***
leisure (female) x kids 3-6/100	5.720***	-107.161***	11.931***	20.376***	-2.400***	9.375***	8.932***	-17.578***	7.802***	-2.274***	-6.120***	12.303***	-16.214***	13.526***	5.055***
leisure (female) x kids 7-16/100	-0.832***	14.161***	0.493***	3.141***	1.065***	-2.145***	-3.768***	14.881***	4.472***	0.001	-6.339***	-5.873***	-37.659***	-18.984***	2.042***
leisure (female) x married/100	-3.225***	82.441***	0.942*	55.795***	5.488***	-31.191***	2.653***	-13.334***	-8.674***	-0.357**	-6.145***	5.245***	24.001***	-1.831***	0.400*
leisure (female) x handicap (female)/100	-0.268		-1.296***			0.306		-10960.544		1.531***	0.547***		1.779***	-3.723***	1.381***
leisure (female) x care/100	-14.102				262.081	12.759***	-7.323***	-28045.498		185.808	-10.302***	-15450.084	0.840		-1.074***
fixed costs (female)	-4.919***	-6.734***	-2.974***	-8.420***	-4.091***	-7.742***	-5.407***	-5.233***	-4.577***	-8.106***	-4.131***	-4.412***	-20.188***	-3.403***	-7.536***
part-time 20h (female)	0.221***	-0.187***	-2.977***	-13.914	1.616***	-0.603***	-0.379***	-0.431***	-0.314***	0.088***	-0.400***	-1.809***	0.493***	-0.935***	-0.430***
part-time 40h (female)	1.186***	0.367***	1.569***	0.666***	0.818***	0.608***	0.511***	0.374***	0.254***	-0.047***	0.907***	1.448***	-0.233***	1.599***	0.954***
Pseudo R^2	0.319	0.471	0.392	0.538	0.289	0.394	0.369	0.355	0.316	0.348	0.389	0.507	0.596	0.523	0.473
Observations	2245964	1567860	2043006	2233735	2179856	2464049	2199848	2497313	2488542	2498139	2316370	2126915	2325043	3127173	2178813

Note: This table shows results of the conditional logit estimation described in equation (7) for each year separately. The dependent variable is the household choice of working time category. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

C.3 Tax-Benefit System

Table C.10: Tax-benefit regression results (1986–1998)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
total gross inc.	0.605***	0.362***	0.387***	0.339**	0.369***	0.295**	0.119	0.286**	0.151	0.383***	0.470***	0.492***	0.123
total gross inc.^{2}/100	-0.002	0.002	0.004*	0.002	-0.000	0.001	0.005***	0.002	0.004*	0.002	-0.002	0.001	0.004*
total gross inc.^{3}/1000	0.000	-0.000	-0.000*	-0.000	0.000	-0.000	-0.000***	-0.000	-0.000	-0.000*	0.000	-0.000*	-0.000*
total gross inc. x married	-0.238*	-0.000	-0.123	-0.050	0.097	0.194*	0.189*	0.086	0.067	0.017	-0.125	-0.067	0.273**
total gross inc. x kids 0-2	-0.349***	-0.140*	0.078	0.173	0.056	-0.187*	-0.271**	-0.065	0.030	0.062	-0.094	0.012	-0.108
total gross inc. x kids 3-6	0.047	-0.053	0.026	0.009	-0.050	0.026	0.157**	0.060	0.112	-0.082	-0.130**	-0.056	-0.190**
total gross inc. x kids 7-16	-0.047*	-0.057**	-0.034	0.021	-0.035	0.014	-0.002	-0.018	0.064*	0.005	-0.066*	-0.051	-0.073*
total gross inc. x kids 17-25	0.086***	0.118***	0.198***	0.118***	0.090***	0.053*	0.063**	0.065**	0.062*	0.084***	0.088***	0.026	0.017
total gross inc.^{2}/100 x married	0.003	-0.001	-0.001	0.001	-0.001	-0.002	-0.004***	-0.001	0.000	-0.002	0.002*	-0.001	-0.003*
total gross inc.^{2}/100 x kids 0-2	0.005***	0.004**	-0.001	-0.002	-0.000	0.001	0.007***	-0.000	-0.001	-0.002	0.002	-0.002	0.001
total gross inc.^{2}/100 x kids 3-6	-0.001	0.002	-0.000	-0.000	0.001	0.000	-0.001	-0.000	-0.002*	0.001	0.001*	-0.001	0.003**
total gross inc.^{2}/100 x kids 7-16	0.001***	0.001*	0.001	-0.000	0.001***	0.000	0.000	0.000	-0.001*	0.000	0.001***	0.000	0.001
total gross inc.^{2}/100 x kids 17-25	-0.001***	-0.001***	-0.002***	-0.001***	-0.000	0.000	0.001*	-0.001	-0.001**	-0.001***	-0.000	0.000	0.000
total gross inc.^{3}/1000 x married	-0.000	0.000	0.000	-0.000*	0.000	0.000	0.000***	0.000	-0.000	0.000*	-0.000	0.000	0.000
total gross inc.^{3}/1000 x kids 0-2	-0.000*	-0.000*	0.000	0.000	0.000	-0.000	-0.000***	0.000	0.000	0.000	-0.000	0.000	-0.000
total gross inc.^{3}/1000 x kids 3-6	0.000	-0.000	0.000	0.000	-0.000	-0.000	0.000	0.000	0.000*	-0.000	-0.000	0.000*	-0.000**
total gross inc.^{3}/1000 x kids 7-16	-0.000***	-0.000	-0.000	0.000	-0.000***	-0.000	-0.000*	-0.000	0.000**	-0.000	-0.000***	-0.000	-0.000
total gross inc.^{3}/1000 x kids 17-25	0.000***	0.000	0.000***	0.000***	-0.000	-0.000**	-0.000***	0.000**	0.000***	0.000***	-0.000	-0.000	-0.000
labor inc. (male)	-0.185	-0.001	-0.142	-0.003	0.044	0.166	0.072	0.088	0.085	-0.113	-0.125	-0.319***	-0.067
labor inc. (female)	-0.216	-0.207	-0.111	0.052	0.151	0.110	0.043	-0.052	0.207	-0.044	-0.416**	-0.293*	0.089
labor inc. (male)^2/100	0.003*	0.001	0.001	0.000	0.001	-0.000	0.000	-0.001	0.000	0.002*	0.005***	0.005***	0.002
labor inc. (male)^3/1000	-0.000	-0.000	0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000	-0.000	-0.000***	-0.000***	0.000
labor inc. (female)^2/100	0.004	0.015	0.000	-0.003	-0.001	0.002	0.002	0.004	-0.005	0.003	0.024***	0.008	0.000
labor inc. (female)^3/1000	0.000	-0.000	0.000	0.000	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000***	-0.000	0.000
labor inc. (male) x married	0.100	-0.042	0.137	-0.006	-0.070	-0.231*	-0.134	-0.158	-0.148	0.034	-0.000	0.056	-0.211
labor inc. (male) x kids 0-2	0.377***	0.158*	-0.063	-0.104	-0.044	0.269**	0.265***	0.215**	0.153*	0.087	0.133	0.060	0.158
labor inc. (male) x kids 3-6	-0.006	0.062	0.036	0.026	0.054	0.008	-0.201***	-0.059	-0.085	0.085	0.172***	0.118*	0.224***
labor inc. (male) x kids 7-16	0.092***	0.122***	0.093***	0.042	0.069***	0.034	0.054**	0.070***	-0.023	0.019	0.098***	0.121***	0.109***
labor inc. (male) x kids 17-25	0.027	-0.017	-0.091***	-0.020	-0.041*	0.025	-0.037	0.033	0.064*	-0.006	0.017	0.062*	0.094*
labor inc. (female) x married	0.317	0.310	0.213	0.020	-0.127	-0.046	0.031	0.102	-0.130	0.079	0.486***	0.274*	-0.142
labor inc. (female) x kids 0-2	0.281**	-0.069	0.059	0.107	0.090	0.174*	0.113	0.080	-0.144	-0.042	0.145	0.208*	0.032
labor inc. (female) x kids 3-6	-0.026	0.012	-0.085	-0.002	0.149**	0.096	0.024	0.116	0.067	0.078	0.017	0.037	-0.098
labor inc. (female) x kids 7-16	-0.018	-0.010	-0.055	-0.053	-0.021	-0.057*	-0.047	-0.032	-0.010	0.024	-0.001	0.043	0.101***
labor inc. (female) x kids 17-25	-0.038	-0.123***	-0.029	0.006	-0.027	-0.030	0.027	0.028	0.031	-0.064*	-0.100**	-0.021	-0.007
labor inc. (male)^2/100 x married	-0.001	0.000	-0.000	0.001	0.001	0.003**	0.002	0.004	0.002*	-0.000	-0.001	-0.001	0.002
labor inc. (male)^2/100 x kids 0-2	-0.004***	-0.002**	0.002	0.001	0.001	-0.002*	-0.004***	-0.002*	-0.002**	-0.001	-0.001	0.002	-0.000
labor inc. (male)^2/100 x kids 3-6	0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.003***	0.001	0.002*	-0.000	-0.002**	-0.001	-0.002**
labor inc. (male)^2/100 x kids 7-16	-0.001***	-0.001***	-0.001**	-0.000	-0.001***	-0.000	-0.001***	-0.001***	0.001*	0.000	-0.001***	-0.001**	-0.001*
labor inc. (male)^2/100 x kids 17-25	-0.001*	0.000	0.001***	-0.000	0.000	-0.001**	0.000	-0.001***	-0.001**	-0.000	-0.001*	-0.001**	-0.002***
labor inc. (male)^3/1000 x married	0.000	0.000	-0.000	-0.000	-0.000	-0.000***	-0.000	-0.000	-0.000	-0.000	0.000*	0.000	-0.000
labor inc. (male)^3/1000 x kids 0-2	0.000***	0.000**	-0.000**	-0.000	-0.000	0.000	0.000***	0.000	0.000*	0.000	0.000	-0.000	-0.000
labor inc. (male)^3/1000 x kids 3-6	-0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000***	-0.000	-0.000**	-0.000	0.000**	0.000	0.000
labor inc. (male)^3/1000 x kids 7-16	0.000***	0.000**	0.000	0.000	0.000***	0.000	0.000***	0.000***	-0.000**	-0.000	0.000***	0.000*	0.000
labor inc. (male)^3/1000 x kids 17-25	0.000*	-0.000*	-0.000***	0.000	0.000	0.000***	0.000	0.000***	0.000**	-0.000	0.000*	0.000**	0.000***
labor inc. (female)^2/100 x married	-0.005	-0.016	-0.001	0.002	0.004	-0.003	-0.002	-0.004	0.005	-0.002	-0.024***	-0.007	0.003
labor inc. (female)^2/100 x kids 0-2	-0.013	0.004	-0.004	-0.012*	-0.008	-0.002	-0.006	-0.007	0.011	0.003	-0.006*	-0.008*	0.008
labor inc. (female)^2/100 x kids 3-6	0.004**	0.001	0.007***	0.003	-0.006**	-0.004	-0.001	-0.006**	-0.002	-0.000	0.003	0.003	0.005**
labor inc. (female)^2/100 x kids 7-16	0.001	0.002	0.003	0.005**	0.001	0.003**	0.002	0.003**	0.001	0.000	0.001	-0.000	-0.002**
labor inc. (female)^2/100 x kids 17-25	0.002	0.005***	-0.000	-0.002	-0.001	0.001	-0.005*	-0.003	-0.005	0.001	0.002	-0.001	-0.001
labor inc. (female)^3/1000 x married	-0.000	0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	-0.000	0.000	0.000***	0.000	-0.000
labor inc. (female)^3/1000 x kids 0-2	0.000	-0.000	0.000	0.000*	0.000	-0.000	0.000*	0.000*	-0.000	-0.000	0.000*	0.000	-0.000
labor inc. (female)^3/1000 x kids 3-6	-0.000***	-0.000	-0.000**	-0.000	0.000*	0.000	0.000	0.000***	0.000	0.000	-0.000*	-0.000**	-0.000**
labor inc. (female)^3/1000 x kids 7-16	-0.000	-0.000	-0.000	-0.000**	-0.000	-0.000**	-0.000	-0.000***	-0.000	-0.000	-0.000	-0.000	0.000*
labor inc. (female)^3/1000 x kids 17-25	-0.000	-0.000***	0.000	0.000	0.000	-0.000	0.000**	0.000	0.000	-0.000	-0.000	0.000	0.000
asset inc.	0.699	0.731	1.802***	1.403	1.620	1.082*	0.598*	0.799	1.596**	0.953**	0.901***	1.485***	0.931
asset inc.^{2}/100	0.032	0.347	-0.144***	-0.084	-0.197	-0.080	-0.018	-0.016	-0.176	-0.047	-0.016	-0.125**	-0.029
asset inc.^{3}/1000	-0.000	-0.004	0.000**	-0.000	0.001	0.000	0.000***	-0.000	0.001	0.000	0.000	0.000***	0.000
asset inc. x married	-0.011	0.506	-1.074*	-0.712	-1.191	-0.331	-0.126	-0.146	-0.564	-0.245	0.592*	-0.776*	-0.181
asset inc. x kids 0-2	0.807	0.300	1.821*	0.290	0.161	1.004*	0.986**	-0.310	-0.244	0.092	-1.251*	-0.054	0.968
asset inc. x kids 3-6	-0.017	-0.423	-0.301	0.229	0.210	0.253	0.203	-0.002	-0.105	0.068	-0.196	0.264	-0.573
asset inc. x kids 7-16	-0.162*	-0.337***	-0.108	-0.093	-0.199*	-0.334***	0.028	-0.066	-0.286***	-0.141	-0.437***	-0.266**	-0.208**
asset inc. x kids 17-25	-0.239***	-0.678***	-0.296***	-0.047	0.227*	-0.102	-0.059	0.188	0.145	0.404**	-0.467**	-0.116	0.353**
asset inc.^{2}/100 x married	-0.057	-0.430	0.124**	0.050	0.195	0.035	0.013	-0.003	0.128	0.025	-0.088***	0.111**	0.015
asset inc.^{2}/100 x kids 0-2	-0.191	-0.076	-0.594	-0.094	0.015	-0.189	-0.224***	0.049	0.035	-0.143	0.229	-0.040	-0.304*
asset inc.^{2}/100 x kids 3-6	-0.016	0.053	0.030*	-0.045	-0.032	-0.034	-0.027	0.001	0.001	-0.014	-0.002	-0.013	0.071
asset inc.^{2}/100 x kids 7-16	0.008*	0.026***	-0.000	0.003	0.015**	0.038***	-0.005	0.002	0.021**	0.012	0.048***	0.016	0.007**
asset inc.^{2}/100 x kids 17-25	0.011***	0.064***	0.012*	0.000	-0.021**	0.010	-0.003	-0.030**	-0.027**	-0.053***	0.052**	0.002	-0.018**
asset inc.^{3}/1000 x married	0.000	0.004	-0.000**	0.000	-0.001	-0.000	-0.000**	0.000	-0.000	-0.000	0.000***	-0.000***	-0.000
asset inc.^{3}/1000 x kids 0-2	0.001*	0.000	0.004	0.000	-0.000	0.001*	0.001***	-0.000	-0.000	0.002	-0.001	0.000	0.001*
asset inc.^{3}/1000 x kids 3-6	0.000	-0.000	-0.000*	0.000	0.000*	0.000	0.000	0.000	-0.000	0.000*	0.000	0.000	0.000
asset inc.^{3}/1000 x kids 7-16	-0.000	-0.000**	0.000	-0.000	-0.000*	-0.000***	0.000	-0.000	-0.000*	-0.000	-0.000***	-0.000	-0.000**
asset inc.^{3}/1000 x kids 17-25	-0.000***	-0.000***	-0.000	0.000	0.000**	-0.000*	0.000	0.000**	0.000***	0.000***	-0.000***	-0.000	0.000**
Constant	989.776***	1002.039***	1074.446***	1128.059***	932.795***	856.369***	1277.585***	1128.120***	1264.974***	1066.486***	1247.168***	1357.868***	1544.352***
R^2	0.969	0.965	0.960	0.954	0.967	0.974	0.971	0.972	0.970	0.964	0.966	0.956	0.955
Observations	2475	2411	2276	2154	2073	2068	2029	2015	2009	2198	2144	2117	1985

Note: This table shows results of the tax benefit regression described in equation (8) for each year separately. The dependent variable is household disposable income. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.11: Tax-benefit regression results (1999–2010)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
total gross inc.	0.101	-0.037	0.139*	0.157**	0.176***	0.279***	0.256***	0.233***	0.128**	0.186***	0.287***	0.249***
total gross inc.^{2}/100	0.003**	0.004***	0.002**	0.002**	0.001***	0.000	0.000	0.001*	0.001***	0.002***	0.001	0.001*
total gross inc.^{3}/1000	-0.000***	-0.000***	-0.000*	-0.000**	-0.000***	0.000	-0.000	-0.000	-0.000**	-0.000***	-0.000	-0.000
total gross inc. x married	0.234**	0.238**	0.063	0.169**	0.011	-0.025	-0.027	-0.042	-0.032	0.066	-0.030	0.049
total gross inc. x kids 0-2	0.004	-0.093	0.014	0.312***	0.036	0.095	-0.024	0.072	0.050	0.056	0.480***	0.157
total gross inc. x kids 3-6	-0.149*	0.003	-0.016	-0.038	0.127***	-0.040	0.092**	0.178***	0.031	0.020	-0.024	-0.096*
total gross inc. x kids 7-16	-0.029	-0.001	0.015	0.038*	0.045***	0.026	0.026	0.048**	0.098***	0.045**	0.049*	0.055*
total gross inc. x kids 17-25	0.091**	0.241***	0.202***	0.137***	0.201***	0.235***	0.181***	0.163***	0.242***	0.138***	0.136***	0.136***
total gross inc.^{2}/100 x married	-0.003***	-0.002**	-0.001	-0.002*	-0.000	0.000	-0.000	0.001**	0.000	-0.001*	0.000	0.000
total gross inc.^{2}/100 x kids 0-2	-0.001	-0.001	0.000	-0.005**	-0.001	-0.001	0.001	-0.001	-0.001	0.000	-0.004***	0.000
total gross inc.^{2}/100 x kids 3-6	0.003***	0.000	0.000	0.000	-0.001***	0.000	-0.001**	-0.002**	0.001	-0.000	0.001	0.001**
total gross inc.^{2}/100 x kids 7-16	0.001	0.000	-0.000	-0.001***	-0.000***	-0.000	0.000	-0.001***	-0.001***	-0.000	-0.000	-0.001***
total gross inc.^{2}/100 x kids 17-25	0.000	-0.002***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***	-0.000***	-0.001***	-0.001***
total gross inc.^{3}/1000 x married	0.000***	0.000*	0.000	0.000	0.000	-0.000*	0.000	-0.000***	-0.000	0.000*	-0.000	-0.000
total gross inc.^{3}/1000 x kids 0-2	0.000	0.000	-0.000	0.000*	0.000	0.000	-0.000	0.000	0.000**	-0.000	0.000	-0.000
total gross inc.^{3}/1000 x kids 3-6	-0.000**	-0.000	-0.000	-0.000	0.000***	-0.000	0.000*	0.000	-0.000**	0.000	-0.000	-0.000**
total gross inc.^{3}/1000 x kids 7-16	-0.000*	-0.000	0.000*	0.000***	0.000***	0.000	-0.000***	0.000***	0.000***	0.000	0.000	0.000***
total gross inc.^{3}/1000 x kids 17-25	-0.000	0.000***	0.000***	0.000***	0.000***	0.000***	0.000**	0.000***	0.000***	0.000	0.000*	0.000*
labor inc. (male)	0.044	0.211*	0.193***	0.136**	0.189***	0.071	0.102	0.117**	0.207***	0.208***	0.108*	0.088
labor inc. (female)	0.126	0.366***	0.159	0.100	0.123*	0.032	0.116	0.111*	0.214***	-0.005	0.118	0.043
labor inc. (male)^2/100	0.002	-0.000	-0.000	0.000	-0.000	0.001	0.001	0.000	-0.000	-0.001***	0.000	0.001
labor inc. (male)^3/1000	-0.000	-0.000	0.000	0.000	0.000	-0.000*	-0.000	-0.000	-0.000	0.000***	-0.000	-0.000
labor inc. (female)^2/100	0.002	-0.003	-0.000	0.003	0.001	0.002	-0.000	0.002*	-0.000	0.006**	0.001	0.004
labor inc. (female)^3/1000	-0.000	0.000	0.000	-0.000	-0.000	-0.000	0.000	-0.000*	-0.000	-0.000**	-0.000	-0.000
labor inc. (male) x married	-0.173	-0.176*	-0.060	-0.168***	0.011	0.019	0.058	0.038	0.022	-0.077*	0.046	-0.065
labor inc. (male) x kids 0-2	0.064	0.211*	0.048	-0.181**	0.030	0.017	0.089	-0.000	0.031	-0.002	-0.504***	-0.018
labor inc. (male) x kids 3-6	0.141*	0.040	0.044	0.115***	-0.063*	0.103***	-0.028	-0.120**	0.016	0.032	0.070	0.173***
labor inc. (male) x kids 7-16	0.064*	0.062*	0.038***	0.028	0.008	0.033	0.024	0.022	-0.043**	-0.001	0.018	0.018
labor inc. (male) x kids 17-25	-0.026	-0.171***	-0.096***	0.003	-0.125***	-0.161***	-0.090***	-0.046*	-0.146***	-0.079***	-0.067***	-0.032
labor inc. (female) x married	-0.029	-0.302**	-0.053	-0.004	0.029	0.137*	0.055	0.047	0.072	0.137	0.037	0.064
labor inc. (female) x kids 0-2	0.034	0.154	-0.118	-0.046	0.106	0.089	-0.011	0.047	0.052	-0.364*	-0.222*	0.037
labor inc. (female) x kids 3-6	0.012	-0.018	0.027	0.022	0.058*	-0.035	-0.034	0.026	-0.077	0.043	0.070	0.013
labor inc. (female) x kids 7-16	0.022	0.062*	0.033*	-0.001	0.002	0.003	-0.009	0.009	-0.004	0.039	-0.020	-0.005
labor inc. (female) x kids 17-25	-0.064	-0.058	-0.105***	-0.060*	-0.095***	-0.118***	-0.066**	-0.099***	-0.217***	-0.069*	-0.068**	-0.061*
labor inc. (male)^2/100 x married	0.001	0.001	0.001	0.002***	0.000	-0.000	-0.001	-0.000	-0.000	0.001***	-0.001	0.000
labor inc. (male)^2/100 x kids 0-2	0.001	-0.001	-0.000	0.002***	0.000	0.000	-0.001	0.000	0.000	0.000	0.008***	-0.000
labor inc. (male)^2/100 x kids 3-6	-0.001	-0.000	-0.000	-0.001***	0.000**	-0.001***	0.001*	0.002***	-0.000	-0.000	-0.000	-0.002***
labor inc. (male)^2/100 x kids 7-16	-0.001	-0.001**	-0.000***	-0.000	-0.000	-0.000*	-0.000*	-0.000	0.000***	0.000	-0.000	0.000
labor inc. (male)^2/100 x kids 17-25	-0.000	0.002***	0.000**	-0.001**	0.001***	0.001***	0.000***	0.000	0.001***	0.000*	0.000*	-0.000
labor inc. (male)^3/1000 x married	-0.000	-0.000	-0.000	-0.000***	0.000	0.000	0.000	0.000*	0.000	-0.000***	0.000	-0.000
labor inc. (male)^3/1000 x kids 0-2	-0.000	0.000	0.000	-0.000***	-0.000	-0.000	0.000	-0.000	-0.000	0.000	-0.000***	0.000
labor inc. (male)^3/1000 x kids 3-6	0.000	0.000	-0.000	0.000***	-0.000*	0.000***	-0.000**	-0.000**	0.000	-0.000	0.000	0.000***
labor inc. (male)^3/1000 x kids 7-16	0.000	0.000**	0.000	-0.000	-0.000	0.000**	0.000***	-0.000	-0.000***	-0.000	0.000	-0.000
labor inc. (male)^3/1000 x kids 17-25	0.000	-0.000***	-0.000***	0.000***	-0.000***	-0.000***	-0.000**	-0.000	-0.000***	-0.000	-0.000	0.000**
labor inc. (female)^2/100 x married	-0.001	0.005**	0.001	-0.003	-0.001	-0.002	0.000	-0.002	-0.001	-0.005*	-0.001	-0.004
labor inc. (female)^2/100 x kids 0-2	0.001	-0.002	0.008	0.002	-0.002	-0.004*	-0.000	-0.002	-0.001	0.027	0.002	-0.001
labor inc. (female)^2/100 x kids 3-6	0.001	0.000	-0.000	0.001	-0.001	0.004*	0.002*	-0.001	-0.000	-0.001	-0.002	0.000
labor inc. (female)^2/100 x kids 7-16	-0.001	-0.001	-0.001	0.000	0.000	-0.000	0.000	-0.000	-0.000	-0.001	0.000	0.000
labor inc. (female)^2/100 x kids 17-25	0.001	0.000	0.001	0.001	0.000	0.001*	0.000	0.001*	0.002***	0.001	0.001	0.001
labor inc. (female)^3/1000 x married	0.000	-0.000*	-0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000*	0.000	0.000
labor inc. (female)^3/1000 x kids 0-2	-0.000	0.000	-0.000	-0.000	0.000	0.000**	0.000	0.000	0.000	-0.000	-0.000	0.000
labor inc. (female)^3/1000 x kids 3-6	-0.000	-0.000	0.000	-0.000*	0.000	-0.000**	-0.000**	0.000	0.000	0.000	0.000	-0.000
labor inc. (female)^3/1000 x kids 7-16	0.000	0.000	0.000*	-0.000*	-0.000	0.000	0.000	0.000	0.000	0.000	-0.000	-0.000
labor inc. (female)^3/1000 x kids 17-25	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000*	-0.000	-0.000*	-0.000**	-0.000	-0.000	-0.000
asset inc.	0.150	0.396	0.886***	0.655***	0.612***	0.480***	0.537***	0.817***	0.459**	0.696***	0.490**	0.616**
asset inc.^{2}/100	0.016	-0.009	-0.026	-0.018*	-0.009	-0.002	-0.001	-0.007*	0.001	-0.016***	-0.011	-0.012
asset inc.^{3}/1000	-0.000	0.000	0.000	0.000*	0.000		-0.000	0.000	-0.000	0.000***	0.000	0.000
asset inc. x married	0.331	0.387	-0.142	0.098	-0.083	-0.076	0.041	-0.112	0.328*	-0.101	0.347*	0.297
asset inc. x kids 0-2	-0.096	0.125	0.012	0.104	0.717***	0.433*	-0.031	-0.003	0.115	0.848*	1.565***	-0.420
asset inc. x kids 3-6	0.258	-0.029	0.086	-0.107	-0.029	0.247*	0.098	0.316	0.030	0.099	-0.245	-0.044
asset inc. x kids 7-16	0.032	-0.048	-0.078*	-0.149**	-0.088	0.086*	0.029	-0.100*	-0.055	-0.054	-0.341***	-0.259**
asset inc. x kids 17-25	0.235**	0.148	-0.224***	-0.199***	0.003	0.027	0.127***	0.019	-0.236***	-0.132***	-0.147	-0.451***
asset inc.^{2}/100 x married	-0.019	-0.001	0.015	0.006	0.006	0.002	-0.001	0.001	-0.006	0.013***	-0.006	-0.010
asset inc.^{2}/100 x kids 0-2	0.031	-0.000	0.010	-0.034	-0.046***	-0.022*	-0.005	-0.010	-0.017	-0.163**	-0.139***	0.012
asset inc.^{2}/100 x kids 3-6	-0.040	-0.005	-0.020	0.001	0.001	-0.008*	-0.001	-0.017	-0.012	-0.014*	0.008	-0.008
asset inc.^{2}/100 x kids 7-16	-0.003	-0.004	0.001	0.002	0.001	-0.005**	-0.004**	0.002	-0.002	-0.003	0.013***	0.012*
asset inc.^{2}/100 x kids 17-25	-0.015***	-0.015***	0.006***	0.006***	-0.002	-0.001*	-0.003***	-0.001	0.003***	0.003***	0.008*	0.017***
asset inc.^{3}/1000 x married	0.000	-0.000	-0.000	-0.000	-0.000	0.000**		0.000	0.000	-0.000***	0.000	0.000
asset inc.^{3}/1000 x kids 0-2	-0.000	-0.000	-0.000	0.000	0.000**	0.000*	0.000	0.000	0.000	0.001**	0.000*	0.000
asset inc.^{3}/1000 x kids 3-6	0.000	0.000	0.000	-0.000	-0.000	0.000	-0.000	0.000	0.000	0.000**	-0.000	0.000
asset inc.^{3}/1000 x kids 7-16	0.000	0.000	-0.000	-0.000	-0.000	0.000*	0.000**	-0.000	0.000*	0.000*	-0.000***	-0.000*
asset inc.^{3}/1000 x kids 17-25	0.000***	0.000***	-0.000***	-0.000***	0.000	0.000	0.000***	-0.000***	-0.000***	-0.000***	-0.000*	-0.000**
o.asset inc.^{3}/1000						0.000						
o.asset inc.^{3}/1000 x married							0.000					
Constant	1438.193***	1410.244***	1321.302***	1271.541***	1269.759***	1301.663***	1257.600***	1240.465***	1353.466***	1244.229***	1122.995***	1297.217***
R^2	0.950	0.953	0.956	0.961	0.961	0.981	0.985	0.978	0.972	0.978	0.975	0.966
Observations	2194	2068	3513	3251	3518	3360	3150	2908	2995	2716	2442	2189

Note: This table shows results of the tax benefit regression described in equation (8) for each year separately. The dependent variable is household disposable income. Significance levels are indicated as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.