# Joint Taxation and Intra-Household Inequality: Evidence from Same-Sex Couples*

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**Abstract**

Joint taxation of couples is often criticized for distorting labor supply and reinforcing household income inequality, particularly by disincentivizing secondary earners. Yet, empirical evidence is limited, as switching to joint taxation is typically endogenous and observed responses among different-sex couples are shaped by gender norms. We study the 2013 extension of joint income taxation to same-sex civil partners in Germany to isolate how tax incentives influence household income allocation. Using administrative tax return data on the universe of filers, we provide the first large-scale evidence on same-sex couples in Germany. We find that joint taxation increases within-couple inequality, primarily through reduced earnings of secondary earners. The partner pay gap rises by 4.1 percentage points - a 12.8% increase relative to the pre-reform level. Estimated tax elasticities are statistically significant but smaller than those for women in different-sex couples. However, they become insignificant when estimated within relative earner groups, suggesting that responses reflect increased inequality within couples rather than individual responses to marginal tax changes. Additionally, we show that same-sex couples are less likely than different-sex couples to choose withholding schemes that reinforce income differences between partners. Our findings suggest that joint taxation increases intra-household inequality, especially when incentives align with gender norms and there is scope for specialization.

**Keywords:** Joint income taxation, intra-household inequality, gender norms, LGBTQ

**JEL Codes:** J12, J16, J22, H24, D13

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# 1 Introduction

Many policies targeted at the household impact within household inequality by affecting labor supply (Albanesi et al., 2023; Olivetti and Petrongolo, 2017). A key policy is the taxation of spouses. One common form is joint income taxation, used in many countries, including the United States, France, and Germany. Under joint taxation, spouses are taxed on their combined income, which affects each partner's marginal tax rate. In progressive tax schedules, this raises the marginal tax rate for the secondary earner while lowering it for the primary earner. As a result, joint taxation is argued to discourage labor force participation among secondary earners - often women - and to reinforce intra-household inequality (Bick and Fuchs-Schündeln, 2017; Borella et al., 2023; Bronson et al., 2024). Despite its policy importance, empirical evidence on the effects of joint taxation remains scarce for several reasons. First, there is a lack of exogenous variation that changes the tax system between spouses. Second, switching to joint taxation usually coincides with changes in marital status, making it difficult to disentangle tax effects from those related to marriage itself. Third, even when setting identification concerns aside, existing studies mainly concentrate on different-sex couples, where labor market responses are entangled with gender roles. Traditional gender norms, such as the male-breadwinner model, prescribe men as primary earners and women as secondary earners (Bertrand et al., 2015; Bursztyn et al., 2017). As a result, tax incentives and norms often reinforce one another, making it difficult to determine whether observed specialization reflects policy, norms, or their interaction. Identifying the behavioral effects of joint taxation thus requires a setting where tax incentives vary independently of marital transitions and entrenched gender roles. Our empirical context offers such a setting. We show that joint taxation increases intra-household income inequality by reducing the income of the secondary earner.

In this paper, we exploit the 2013 extension of joint income taxation to same-sex civil partners in Germany. Same-sex civil partnerships were introduced in 2001, but unlike different-sex couples, they were excluded from joint filing. In 2013, the Federal Constitutional Court deemed this unequal tax treatment unconstitutional, leading to the reform. This institutional setting offers a unique opportunity to examine the impact of joint taxation. The reform creates a quasi-experimental framework, as it altered only the tax treatment of same-sex partners while leaving other legal aspects unchanged. Same-sex couples are also less bound by traditional within-household gender roles (Goldberg, 2013; Siminski and Yetsenga, 2022), enabling us to more cleanly distinguish the effects of tax incentives. We analyze this setting using income tax return data from 2008 to 2020, covering the universe of income tax returns of all same-sex civil partners (SSCPs) who ever filed jointly, as well as income tax

records for the universe of jointly filing different-sex couples (DSCs).

Our analysis yields three main contributions. First, by leveraging comprehensive administrative data, we present the first large-scale descriptive analysis of the income and household composition of SSCPs in Germany. We show that within the overall income distribution, SSCPs are underrepresented at the lower end and increasingly overrepresented toward the upper percentiles, with the strongest concentration around the 70th to 80th percentile. Moreover, SSCPs allocate intra-household income more equally than their different-sex counterparts. We also document that women in SSCPs - especially secondary earners - have considerably higher incomes than their different-sex counterparts, while it's the opposite for men in SSCPs.

Second, to provide evidence on the effects of introducing joint income taxation, we exploit the 2013 reform using an event-study and difference-in-difference design that compares outcomes for SSCPs, who became newly eligible for joint taxation, to DSCs, who remained unaffected. We focus on behavioral responses reflected in changes in income at both the individual and household levels. Since SSCPs and DSCs differ systematically in their household composition and income allocation, we create a matched comparison sample of DSCs based on pre-reform demographic and income characteristics to enhance comparability. This design enables us to analyze the impact on each partner individually as well as on the household as a whole. We find that joint taxation increases inequality within couples, primarily due to reduced earnings of secondary earners, while primary earners remain unaffected. Four years after the reform, the partner pay gap widened by up to 4.1 percentage points relative to different-sex couples, driven by income reductions of secondary earners of 11.6% and a labor force participation reduction of 2.4 percentage points. The effects are most pronounced among couples with children and those with initially equal pre-reform incomes. Taken together, the findings suggest that joint taxation incentivizes greater household specialization by enhancing the tax benefit associated with unequal earnings.

Third, we explore how gender norms shape household responses to taxation. The reform enables us to identify behavioral responses among same-sex couples but does not provide a counterfactual for different-sex couples, making it challenging to isolate the role of norms. To address this, we conduct two complementary analyses of tax responsiveness. While our previous analysis estimated the average treatment effect of joint taxation, we now exploit heterogeneity in treatment intensity - that is, variation in the change of the marginal tax rate. This allows us to estimate reported income elasticities and enables a comparison with estimates from different-sex couples. We find a statistically significant elasticity of 0.32 - a 1% increase in the net-of-tax rate leads to a 0.32% increase in income. This is comparable to average estimates in the literature, but smaller than those found for women in different-sex

couples (Hermle and Peichl, 2018; Herold and Wallossek, 2024; Saez et al., 2012). However, when we estimate the elasticities of primary and secondary earners separately, they are small and insignificant. This suggests that the observed responses reflect income reallocation between partners rather than individual labor supply adjustments to tax incentives. In our second approach, we examine tax-planning behavior through couples' withholding class choices - a feature unique to the German tax system. This mechanism allows couples to balance tax benefits from joint taxation throughout the year by shifting the monthly withholding tax burden, effectively redistributing net income between partners. While this does not affect total annual tax liability, these choices reveal couples' preferences over income allocation and each partner's role within the household. By altering monthly net income, they also influence the salience of the secondary-earner disincentives embedded in joint taxation. Comparing withholding choices across the distribution of the partners' income gap, we find that SSCPs tend to make more neutral and income-equalizing choices. In contrast, different-sex couples disproportionately select withholding schemes that reduce the wife's monthly net income, consistent with traditional female secondary-earner norms. Both findings suggest that observed tax responses are shaped by the interaction with social norms, with the strongest results when norms and incentives reinforce each other.

We contribute to several strands of literature. First, we contribute to the literature that examines spouses' labor supply responses to family income tax reforms. There are only a limited number of studies due to the lack of natural experiments. These findings consistently show that joint (individual) taxation has a negative (positive) impact on women's labor supply. No significant effect has been found for men (Kalíšková, 2014; Herold and Wallossek, 2024; LaLumia, 2008; Selin, 2014; Isaac, 2023). However, most of this evidence comes from survey or cross-sectional data, or from policy changes implemented decades ago.[1] In addition to these quasi-experimental studies, a series of papers employ structural life cycle models to evaluate the effect of joint taxation on married women's labor supply (Bick and Fuchs-Schündeln, 2017, 2018; Borella et al., 2023; Guner et al., 2012). We contribute to this literature by leveraging a recent, well-defined policy change and comprehensive administrative panel data that minimize concerns about measurement error or reporting bias.

[1] LaLumia (2008) uses repeated cross-sectional survey data to examine the transition from separate to joint taxation in certain US states in 1948, revealing significant decreases in the labor force participation among married women. Selin (2014) analyzes Sweden's shift from joint to separate taxation in the 1970s with a small-sample two-wave panel data, finding increased employment among wives of high-income men. Kalíšková (2014) studies the Czech introduction of joint taxation for married couples (with at least one child) in 2005 using Labor Force Survey data and estimates a decline in the employment rate of married women with children, but only a minimal effect on hours worked. Closest to our paper, Isaac (2023) examines the introduction of joint filing for same-sex marriages in the US on their labor supply using cross-sectional survey data. He finds no significant intensive margin responses (hours worked) but relatively large extensive margin responses (participation) among secondary earners, in line with Selin (2014).

By focusing on same-sex couples, our setting isolates the effect of tax incentives from confounding gender norms. A central advantage of our setting is that we observe earnings for both partners, which enables a within-household analysis of behavioral responses to taxation and allows us to move beyond gender-based categories by focusing on secondary and primary earners. Moreover, the German tax system offers strong and predictable incentives for specialization: joint filing strictly lowers a couple's tax burden compared to individual taxation whenever incomes are unequal, and - unlike in the U.S. - never results in a "marriage penalty".[2] The size of the tax benefit increases with the income gap between spouses, thereby financially incentivizing unequal earnings. Since SSCPs make up only a small share of the population, their behavioral responses are also unlikely to generate marked adjustments, such as wage spillovers. While our findings are consistent with prior evidence that joint taxation discourages labor supply among secondary earners, we provide new evidence on the underlying mechanism, showing that responses occur primarily along the intensive margin. In addition, we show that this behavioral adjustment leads to a persistent increase in within-household income inequality – dynamics that prior studies could not observe due to data limitations.

We also contribute to the growing literature on the labor supply and earnings of same-sex couples. For a recent overview, see Badgett et al. (2021) and Badgett et al. (2024). Existing research shows that same-sex couples tend to allocate household and labor market responsibilities more equally and specialize less than different-sex couples even when children are present (Van der Vleuten et al., 2021; Andresen and Nix, 2022; van der Vleuten et al., 2023). Male same-sex couples typically spend less time in the labor force, while female same-sex couples spend more time than their heterosexual counterparts. Wage gaps also exist between heterosexual and homosexual individuals, often characterized by a "lesbian premium" and a "gay penalty" (Antecol and Steinberger, 2013; Drydakis, 2022; Leppel, 2009; Tebaldi and Elmslie, 2006; Carpenter, 2007; Humpert, 2016). Further studies analyze the impact of marriage legalization and find mixed results.[3] Most prior studies rely on small or non-representative survey data (Badgett et al., 2024), as administrative data on same-sex couples is rare outside Scandinavia (Andresen and Nix, 2022; van der Vleuten et al., 2023). We contribute to this literature by assembling comprehensive administrative tax data covering the universe of joint filing same-sex civil partners in Germany, enabling their

[2] We estimate that same-sex couples in Germany receive an average tax benefit of €885 from switching, whereas in the U.S., approximately 40% of marriages face a marriage penalty (Isaac, 2023).

[3] Hansen et al. (2020) study the state-wise legalization of same-sex marriage in the US and show that legalization has led to a decrease in labor among female same-sex spouses. Hamermesh and Delhommer (2020) uses the same setting and finds higher family incomes among couples with longer marriage exposure. Sansone (2019) shows increased individual and joint employment probabilities and a reduced gap in hours worked between the household head and the secondary earner following marriage equality.

first large-scale descriptive evidence on household and income composition.[4] Our results confirm and expand upon earlier research showing that compared to DSCs, SSCPs tend to match less on age, have fewer children, more equal distribution of household income, and a higher rate of female labor force participation. Moreover, quasi-experimental evidence on how public policies affect same-sex couples remains scarce (Badgett et al., 2024; Isaac, 2023). By exploiting the introduction of joint taxation for SSCPs, we provide new evidence on its impact on intra-household earnings and labor supply, contributing to ongoing debates about the distributional and behavioral effects of family tax policy in this under-researched population.

Lastly, we contribute to the literature on the role of gender norms in intra-household decision-making and their interaction with policy incentives. While seminal work such as Becker (1981) models household decision-making as the outcome of efficient specialization, a large body of research shows that income and labor supply decisions are also shaped by traditional gender norms and social expectations (Bertrand et al., 2015; Bertrand, 2020; Andresen and Nix, 2022; Kleven, 2022; Fernández et al., 2004). However, much less is known about how these norms interact with household-level policy incentives, such as taxation, to shape behavior (Coelho et al., 2024). Recent evidence from Germany indicates that responses to joint taxation are primarily concentrated on women's earnings, with little impact on men (Herold and Wallossek, 2024). Both Giommoni and Rubolino (2022) and Ichino et al. (2019) show that gender norms shape how households respond to tax incentives: in Italy, women reduce earnings to qualify as so-called dependent spouses, while in Sweden, couples respond more strongly to policies that align with their prevailing norms - traditional or egalitarian. Buettner et al. (2019) show that German couples are more likely to shift net income within the year through their withholding scheme when the secondary earner is the wife. Together, these studies suggest that the effects of tax policy are shaped by existing gender norms. We contribute by showing that SSCPs allocate income more equally and are less responsive to secondary-earner tax incentives. Extending Buettner et al. (2019), we also document that tax planning behavior differs substantially between same-sex and different-sex couples.

This paper is structured as follows. Section 2 sets out the theoretical considerations and outlines the institutional background on joint taxation and SSCPs in Germany. Section 3 presents the administrative data and descriptive evidence on SSCPs. Section 4 analyzes the impact of introducing joint taxation on their income levels and distribution. Section 5 disentangles tax incentives from gender norms by comparing the tax responsiveness of

[4] Humpert (2016) provides early descriptive evidence on same-sex couples in Germany using the Mikrozensus, a repeated cross-sectional household survey. He identifies roughly 157 same-sex couples either through self-reporting or via cohabitation-based proxy rules. Our findings are broadly aligned, although our data are more comprehensive.

households with different sex compositions. Section 6 concludes.

# 2 Conceptual Framework and Institutional Setting

In this section, we outline our conceptual framework and derive four hypotheses that will be tested in our paper. Additionally, we describe the institutional setting, including the income taxation system and withholding tax system in Germany. Finally, we provide details about same-sex civil partnerships in Germany.

## 2.1 Conceptual Framework

We present a conceptual framework to illustrate how tax incentives and social norms shape household labor allocation, which we use to derive a set of testable hypotheses. We consider a household with two partners $i \in \{1, 2\}$, each deriving utility from private consumption $C_i$, leisure $\ell_i$, and the jointly produced household good $H$. Household decisions are shaped by individual preferences but subject to shared constraints on income and time. Each partner maximizes their own utility, and the household allocation results from a coordinated solution under a joint budget and household production constraint:

$$\begin{aligned} \max_{C_i,H,\ell_i} \; U_1(C_1, H, \ell_1) + U_2(C_2, H, \ell_2) \quad \text{s.t.} \quad & C_1 + C_2 \leq Y_1 + Y_2, \\ & 1 = L_{m,i} + L_{h,i} + \ell_i, \\ & Y_i = w_i L_{m,i}, \\ & H = \phi_1 L_{h,1} + \phi_2 L_{h,2}. \end{aligned}$$

with $w_i$ denoting the market wage, $L_{m,i}$ market labor, $L_{h,i}$ household labor, and $\phi_i$ productivity in household production. Comparative advantage arises whenever $\phi_1/w_1 \neq \phi_2/w_2$, leading one partner to specialize in household production while the other focuses on market work.[5]

Including taxation changes the net return to market work by altering the effective

[5]Bargaining models relax the pure efficiency view, allowing allocations to depend on relative bargaining power, itself shaped by outside options. Here, household decisions are the outcome of a negotiated equilibrium, where the household maximizes a weighted sum of individual utilities (Manser and Brown, 1980; McElroy and Horney, 1981; Chiappori, 1992; Lundberg and Pollak, 1994).

marginal wage, thereby modifying their labor supply incentives:

$$Y_i^* = Y_i \left(1 - \tau^{av}(Y^{tax})\right), \quad \text{where} \quad \tau^{av}(Y^{tax}) = \frac{T(Y^{tax})}{Y^{tax}}$$
$$w_i^* = w_i \left(1 - \tau^{mtr}(Y^{tax})\right), \quad \text{with} \quad \tau^{mtr}(Y^{tax}) = \frac{dT(Y^{tax})}{dY^{tax}}$$

where $T(\cdot)$ is the tax liability and $Y^{tax}$ the taxable income. Under individual taxation, the taxable income only depends on the individual's income, $Y^{tax} = Y_i$, while under joint taxation, it is a function of the household income, $Y^{tax} = f(Y_1 + Y_2)$. In a progressive tax system, joint taxation typically raises $\tau^{mtr}$ for the secondary earner and lowers it for the primary earner, reducing the secondary earners net wage $w_i^*$ and incentivizing greater within-household specialization. Labor supply choices $L_{m,i}$ then respond to these net wages through the households utility maximization, affecting the allocation between market work, household work, and leisure (Bick and Fuchs-Schündeln, 2018; Saez et al., 2012).

Beyond economic incentives, preferences and social norms also shape household labor allocation. Preferences represent intrinsic valuations or tastes regarding the division of labor and leisure, including a desire for equality (Hermle et al., 2024). Social norms, especially traditional gender norms, impose external expectations that assign roles for market work and household production (Akerlof and Kranton, 2000). Norms enter the households utility through individual-specific disutility terms when partners deviate from prescribed labor allocations. We let $\theta_i$ denote the norm-prescribed level of market labor for partner $i$, and $\psi_i$ capture the strength of the norm, with larger values implying a higher cost of deviating from $\theta_i$. The function $D(L_{m,i}, \theta_i)$ then measures the disutility from deviating from this target allocation.

$$U_i \;=\; U_i(C_i, H, \ell_i) \;-\; \psi_i \cdot D(L_{m,i}, \theta), \tag{1}$$

For different-sex couples with $i = \{f, m\}$, gender norms often prescribe asymmetric household roles, such as assigning a higher share of household work to women or expecting men to be the primary earner, implying $\psi_f > 0$ for women, by penalizing a higher market labor supply (Bertrand et al., 2015).[6]

For same-sex couples, the target allocation may be more egalitarian or individually negotiated, implying smaller $|\psi_i|$. Empirical evidence supports this interpretation: same-sex couples tend to divide paid and household labor more equally, with less specialization driven by traditional gender roles (Martell and Roncolato, 2020; Van der Vleuten et al., 2021; Bauer,

[6] In Bertrand et al. (2015), the norm penalizes women only when their income share exceeds 50%, i.e., assuming similar wages $D(L_{m,i}, \theta) = D(L_{m,i})\,\mathbf{1}\{L_{m,f} > L_{m,m}\}$.

2016). While parenthood and the duration of relationships can lead to increased specialization among couples, qualitative studies emphasize that gender norms do not rigidly dictate labor division in same-sex households (Goldberg, 2013; Kelly and Hauck, 2015).

**Combined effect of taxation and norms** Consider a progressive tax schedule where partner 1 has higher pre-tax earnings and thus has a comparative advantage in the labor market. Switching to joint taxation increases (decreases) the marginal tax rate $\tau^{mtr}$ for partner 2 (1), reducing (increasing) their effective wage $w_i^*$. In the absence of norms, partner $i$ chooses $L_{m,i}$ to satisfy

$$U_C \, w_i^* = U_{\ell_i},$$

which, totally differentiated with respect to $\tau^{mtr}$, yields

$$\frac{dL_{m,i}}{d\tau^{mtr}} = \frac{\left[U_{CC} L_{m,i} w_i^* + U_C\right] w_i}{U_{CC}(w_i^*)^2 + U_{\ell_i \ell_i}} \; < \; 0.$$

Thus, a higher marginal tax rate reduces market hours through the mechanical fall in $w_i^*$.

**Hypothesis 1** *Introducing joint taxation lowers the secondary earner's net wage, reducing their market labor supply and increasing specialization.*

Now, suppose a norm prescribes partner 2 to spend more time on housework. The FOC then becomes

$$U_C \, w_i^* \; = \; U_\ell + \psi_i D_{L_{m,i}},$$

and the corresponding labor-supply response to $\tau^{mtr}$ has an additional curvature term $\psi_i D_{L_{m,i} L_{m,i}}$ in the denominator:

$$\frac{dL_{m,i}}{d\tau^{mtr}} = \frac{\left[U_{CC} \, L_{m,i} \, w_i^* + U_C\right] \, w_i}{U_{CC} \, (w_i^*)^2 + U_{\ell_i \ell_i} \; + \; \psi_i \, D_{L_{m,i} L_{m,i}}}.$$

When $\psi_2 > 0$, a stronger norm increases the curvature term and thus amplifies the response to taxation on the side where the norm penalizes higher market work (i.e. when $L_{m,2} > \theta_2$). Conversely, on the side where the norm penalizes lower market work (i.e. when $L_{m,2} < \theta_2$), the norm dampens the response.

**Hypothesis 2** *In different-sex couples, norms amplify specialization when aligned with taxation incentives and dampen it when they oppose each other.*

Same-sex couples provide a clearer separation of economic incentives from gender norms, as they do not adhere to fixed gender roles. Consequently, norm-related costs are minimal ($\psi_i \approx 0$), allowing observed responses to reflect the pure tax channel.

**Hypothesis 3** *In same-sex couples, weak norms suggest that responses closely follow the pure tax channel. As a result, the response of secondary earners is weaker than in different-sex couples with a male breadwinner, but stronger than in those with a female breadwinner.*

Children enhance tax-induced specialization through two channels. First, they raise the marginal product of time spent at home, such as childcare, thereby widening the comparative advantage. Second, they can increase the salience of norm-related disutility $\psi_i$. In different-sex couples, these two channels often reinforce one another; in same-sex couples, effects primarily operate through the first.

**Hypothesis 4** *Children amplify specialization, especially in different-sex couples where norms and technology interact.*

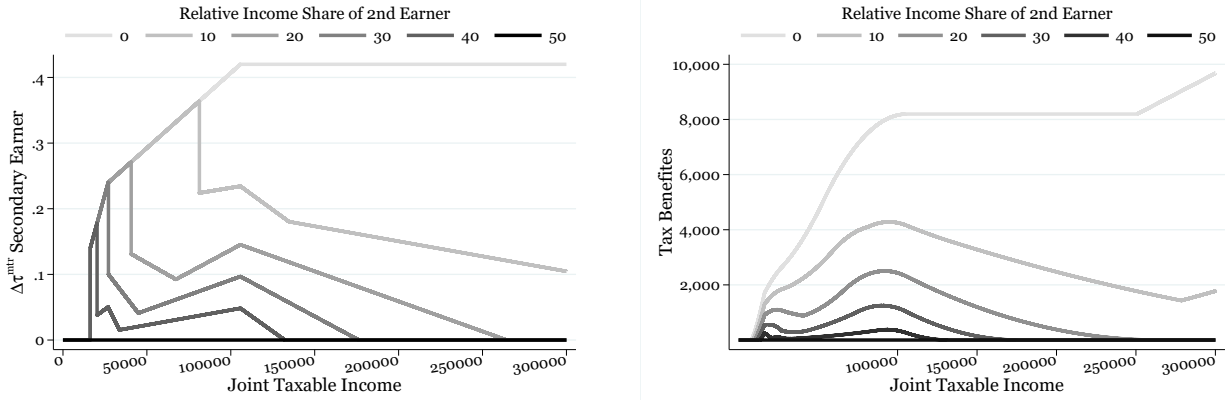
## 2.2 Income Taxation of Couples in Germany

**Annual income tax** As in many other countries, such as the US and various European countries, the German tax system allows married couples and civil partners to file either individually or jointly (refer to Table A.1 for an overview). In practice, the vast majority of couples (around 97%) opt for joint filing. Under individual taxation, the total tax liability, $T^{ind}$, is calculated by summing the tax liabilities based on the income of spouse 1 ($Y_1$) and spouse 2 ($Y_2$). By contrast, when filing taxes jointly, the couple's income tax liability, $T^{joint}$, is calculated on the average of both partners' income, and then doubling it:

$$\begin{aligned} T^{ind} &= T(Y_1) + T(Y_2) \\ T^{joint} &= 2 \cdot T((Y_1 + Y_2)/2) \end{aligned}$$

Because Germany has a progressive income tax schedule, joint income taxation has two effects. First, marginal tax rates respond asymmetrically: the primary earner faces a lower marginal tax rate $\tau^{mtr}$ compared to individual taxation, while the secondary earner faces a higher rate $\tau^{mtr}$. Figure 1a illustrates how the secondary earners $\tau^{mtr}$ increases with both own income and household income under joint filing. Generally, the greater the income difference between spouses, the greater the increase in the $\tau^{mtr}$ for the secondary earner. Various kinks in the German tax code contribute to variations in the $\tau^{mtr}$ for the secondary earner in relation to the overall household income. This corresponds to the distortion in Subsection 2.1, where joint taxation reduces the secondary earners incentive to increase labor supply. Second, joint taxation lowers the overall tax burden, producing net tax benefits for

Figure 1: Impact of joint taxation relative to individual taxation




(a) $\Delta\tau_2^{mtr}$ (b) $-\Delta T$

*Notes:* Panel (a) shows the difference in marginal tax rates for the secondary earner, and Panel (b) shows the tax benefits when switching from single to joint taxation for different income levels and specific relative income distributions between partners. *Source*: Own calculation based on the tax schedule in 2013.

couples who file jointly.[7] Figure 1b shows these benefits across different household incomes and relative income shares. The magnitude of tax benefits increases with the difference in relative income between spouses, particularly favoring the single-earner model. Additionally, tax benefits vary across the income distribution due to tax kinks in the German income tax schedule. In Appendix B.1, we provide a numerical example comparing joint taxation with individual taxation for two partners to further illustrate these effects.

**Withholding tax** In the German context, the incentives created by joint taxation can be reinforced by couples' choice of withholding income tax schedule (*Lohnsteuerklassen*). Like many countries, Germany operates an automatic income tax withholding system for wage income. Under this system, employers deduct the expected income tax from employees salaries each month and transfer these payments directly to the tax authority. These withholding payments are credited against the individuals or married couples final tax liability when the annual tax return is filed.

The withholding tax rate applied to each spouse depends on the assigned tax class. By default, married couples are placed in the IV/IV combination, which mirrors individual taxation for each partner.[8] Due to the tax benefits from joint income taxation and income

[7] In contrast, some systems, such as in the US or Switzerland, may imply a "marriage penalty" where joint filers pay more than comparable unmarried individuals.

[8] The default IV/IV assignment was introduced in 2013. Prior to that date, spouses had to actively select a tax class at their local registration office (Koch, 2024).

splitting, couples with unequal earnings often face excessive withholding taxes during the year, followed by tax refunds upon annual filing. To bring monthly withholding closer to the expected final joint tax liability, spouses can therefore choose to assign a different tax class, III/V. In this arrangement, the primary earner is typically assigned tax class III, while the secondary earner is assigned tax class V. This transfers the basic tax allowance from the partner in class V to the partner in class III, thereby altering the distribution of taxes paid on wage income during the year.[9] This mechanism is particularly relevant when partners earn different amounts; when earnings are similar, the default IV/IV schedule already provides a close approximation to the final joint tax liability. This choice has implications for the monthly withholding burden and net earnings of each spouse. The secondary earner, now subject to higher average and marginal tax rates, faces a higher individual tax burden on their monthly wage income and lower net earnings. By contrast the primary earner benefits from lower average and marginal tax rates, resulting in a smaller monthly tax burden and higher net earnings. In effect, the withholding system shifts take-home pay from the lower-earning to the higher-earning partner during the year. Notably, the couple's final annual tax burden is not affected by the choice of withholding tax schedule. However, withholding determines the timing of tax payments throughout the year and how the tax burden is allocated between partners on a monthly basis. When spouses pool income fully, are unconstrained by liquidity, and correctly perceive their annual liability, withholding should not affect behavior. In practice, however, studies have shown that spouses do not completely pool their incomes (see e.g. Attanasio and Lechene, 2014; Beblo and Beninger, 2017; Blundell et al., 2007; Gelber, 2014; Lundberg et al., 1997) and that individuals misunderstand complex tax schedules and respond more strongly to salient components like monthly withholding (see e.g. Abeler and Jäger, 2015; Liebman and Zeckhauser, 2004; Chetty et al., 2009; Rees-Jones and Taubinsky, 2020).

Consequently, the German income tax system not only incentivizes unequal earnings among spouses through joint taxation, but can also reinforce intra-household income inequality by shifting net wage income via withholding tax assignments. This increases the salience of secondary-earner disincentives and may amplify the negative impact of joint taxation on secondary earners.

[9] Tax class III is not automatically assigned to the primary earner. The reverse allocation can also be chosen, but it has no tax-planning advantage and instead increases withholding tax even further.

## 2.3 Same-Sex Civil Partnerships

To establish a legal framework for same-sex couples in Germany, the concept of civil partnership (*Eingetragene Lebenspartnerschaft*) was introduced in 2001.[10] This marked a pivotal shift from a historical backdrop tainted by anti-homosexual regulations.[11] While civil partnerships in Germany granted homosexual couples access to many rights similar to different-sex marriages, certain distinctions still remained. These distinctions were intentionally maintained in order to secure a majority in the Federal Council (Sanders, 2016). Importantly, by 2005 civil partners were subject to the same divorce law as married different-sex couples, including identical rules on separation, alimony, and pension and property division. Between 2005 and 2010, remaining legal differences between civil partnerships and marriage were gradually removed. Key equalizations until 2010 included inheritance taxation, survivor benefits, and pension entitlements, though these adjustments occurred in stages rather than through a single reform.

In 2013, joint income taxation was extended to include same-sex civil partnerships (SSCP), which corrected a previous inequality. On May 7, 2013, the different income tax treatment of same-sex and different-sex couples was declared incompatible with the constitution (BVerfGE, May 2013). The reform was implemented in July 2013. Figure A.1 displays the number of Google searches for joint taxation (*Ehegattensplitting*) and civil partnership (*Lebenspartnerschaft*) around the time of the reform, showing a clear spike in public interest at the moment of implementation. From now on, civil partnerships could file their taxes jointly. SSCPs were also able to file jointly for previous years in their civil partnership if the tax return for those years was still open. This applied either because no return had yet been filed or because a return had been filed with a claim for joint taxation and a formal objection, which kept the assessment provisional and not legally binding.[12] SSCPs received the resulting tax refunds as a one-off lump-sum payment, including statutory interest, which in many cases resulted in substantial payouts. The implementation of joint filing for SSCPs did not immediately lead to the automatic assignment of the spousal tax classes, as is the case for married different-sex spouses. This change was only introduced in 2015. Instead,

[10] Civil partnerships were only available for same-sex partners in Germany, setting it apart from countries like France, where civil partnerships are open to both same-sex and different-sex couples.

[11] Most notably, until 1994, the *law against homosexuality act* criminalized relationships between two males. However, in 1969, it was partially amended to only prohibit homosexual prostitution and illicit relations involving individuals under the age of 21.

[12] It is difficult to find information on this process. Thus, we conducted interviews with two activist lawyers who were part of the leading legal LGBTQ+ collective *LSVD* that fought for same-sex equality and same-sex marriage, while also advocating for civil partners to legally claim joint taxation before the reform in 2013. You can find the interview script in Appendix B.2 for more detailed insights on this process, as well as the perception of the introduction of civil partnership, joint taxation, and marriage in the community.

SSCPs were required to submit a letter to their local tax authority requesting a change in their tax classes to IV/IV or III/V.

In October 2017, same-sex marriage was legalized.[13] Couples who were already in a civil partnership could choose to maintain their status or convert it into a marriage. As part of this legislative change, the option to enter into new civil partnerships was abolished.

Figure A.2a shows the absolute number of registered civil partnerships and marriages from 2008 to 2020. The total number of civil partnerships increased each year until 2017, when same-sex marriage became legal. After that, no new civil partnerships were established, and existing ones had the option to transition to marriage. It is worth noting that there is no significant increase in partnerships from 2013 to 2014, indicating a consistent pattern in the dynamics of civil partnerships even after the introduction of joint filing for same-sex civil partnerships.

# 3 Administrative Data on Same-Sex Couples

In this section, we present details about the income tax data and outline our main outcome variables. Additionally, we provide the first large-scale descriptive evidence on same-sex couples in Germany (SSCPs).

## 3.1 German Taxpayer Panel

For our analysis, we leverage the *German Taxpayer Panel* (TPP) for the years 2008-2020. The TPP is a yearly dataset that includes information on all German income-filing taxpayers.[14] It is managed and provided by the German Federal Statistical Office and the statistical offices of the Länder. The dataset consists of administrative microdata obtained by merging income tax returns and tax assessments from the tax authority. The tax unit can be either a single individual, or a married couple or civil partners who file their taxes jointly.

We have access to the entire population of German taxpayers. This access requires specific research project inquiries and is granted with a restricted set of variables.[15] The data includes specific information about taxable income, which is divided into all different income sources. It also provides details about final and withholding income taxes. Additionally, it includes basic sociodemographic characteristics, such as gender, marital status, filing status, year of birth, state of residence, religion, children's year of birth, and the number of children. To

[13] Same-sex marriage was supported by a majority of the population (Küpper et al., 2017).

[14] Since 2012, it also includes employer-provided information for employed individuals who do not file their taxes (Fauser, 2022)

[15] Usually, the TPP is only provided as a stratified 5% random sample.

correctly identify same-sex couples, specifically those in registered civil partnerships, we rely on a unique feature in our dataset. In 2013, a same-sex marker was introduced to indicate joint filing for civil partners. This distinction enables us to create a sample of all SSCPs who have ever filed their taxes jointly at some point in time.

Upon filing jointly, one partner is added to the other partner's spell in the data.[16] This means that both partners can be observed when filing jointly. By utilizing individual tax IDs introduced in Germany in 2010, we are able to link partners across all years. To the best of our knowledge, we are the first to link German income tax data for same-sex couples prior to their joint filing. Our unique access to the entire population of same-sex civil partnerships filing jointly enables us to explore the earnings dynamics of these couples surrounding civil partnerships.

**Outcome Variables** Throughout this paper, we focus on three main constructed variables to analyze income and within-couple income distribution: labour force participation and income of the primary and secondary earners, as well as the partner pay gap. Labour force participation refers to an indicator for having positive income. Income refers to combined earnings from three sources: income from employment, self-employment, and business income. Although the data also contain information on rental income, capital income, income from forestry and agriculture, and other sources, the three earnings categories above are arguably the most responsive to changes in labor supply. To proxy for labor supply, we use labor income because the tax return data does not contain of information about hours worked.

We define the primary (secondary) earner as the partner earning more (less) than 51% (49%) of the total household income. For descriptive statistics, we define primary and secondary earners based on income in the analyzed year. In contrast, for our analysis of the impact of joint taxation and tax elasticities, we establish primary and secondary earner status based on the pre-treatment years. This approach allows us to track individuals consistently over time. However, fixing the relative income status may induce some mean reversion and does not account for couples switching earner roles over time. To address these issues, we also estimate a general partner pay gap, defined as the absolute income difference between partners divided by their total income. A pay gap of 0 indicates a fully equal income distribution, while a pay gap of 1 indicates a single-earner household. This measure enables the analysis of within-couple income inequality without assuming fixed relative earner statuses.

[16] For different-sex couples, the wife is typically appended to the husband's spell.

## 3.2 Descriptive Evidence: Same-Sex Couples

The dataset's unique coverage of the universe of German SSCPs who filed jointly between 2008 and 2020 offers a rare opportunity to document stylized facts about their economic characteristics. Before imposing additional sample restrictions for our empirical analysis on joint taxation and tax responsiveness, we use the full set of observed SSCPs to present descriptive evidence on their income and sociodemographic composition.

**General Information** Our data contains a total of 76,693 unique civil partnerships, 139,728 unique individual SSCP partners, and 1,500,854 observations at the individual-year level. Table A.2 reports the yearly number of newly observed SSCPs, distinguishing between male and female couples, marriages, and the number of partnerships that first file jointly in that given year, while comparing it to the total number of registered SSCPs. The frequency and composition of entries over time reflect institutional and social changes affecting civil partnerships in Germany, including the introduction of joint taxation in 2013 and same-sex marriage in 2017.[17]

As illustrated in Table A.2, there are very few observations of SSCPs filing jointly even before the formal introduction of joint taxation in 2013. These cases either reflect couples who were filing objections, as discussed in Subsection 2.3, or couples with unfinished tax filings who filed retroactively after the reform was passed. Unfortunately, we are unable to distinguish between these two groups in the data. However, there are very few SSCPs filing jointly in 2011 or prior. The first noticeable increase occurs in 2012. This timing implies that there are only a few cases of filed objections, while the high number in 2012 is likely driven by not yet turned in filings, as income tax returns for 2012 could be submitted until June 2013, which is after the reform was announced in May. From 2013 onward, the number of jointly filing SSCPs has increased steadily. This trend likely reflects both the gradual adoption of the new joint filing option and the broader rise in the number of registered partnerships. By 2016, the number of jointly filing SSCPs in the tax data nearly matches the official count of registered partnerships. This suggests that our data captures a large share of the relevant population. However, a complete match is not expected, as certain groups, such as students, unemployed individuals, or individuals below the basic tax-free allowance, either have no taxable income or are not required to file tax returns.

The analysis hinges heavily on identifying couples. Although joint filing is not mandatory and spouses can choose to file separately, most couples opt for joint filing due to the financial

[17]Note that the total number of SSCPs does not equal the sum of male and female observations due to inconsistencies in the sex variable, which hinder our ability to accurately identify the sex composition of all couples.

Table 1: Descriptive statistics of same-sex civil partners

| | SSCP | | | |
|---|---|---|---|---|
| | (1) All | (2) Female | (3) Male | (4) DSC |
| Female | 0.46 | 1.00 | 0.00 | 0.46 |
| Age | 44 | 43 | 45 | 45 |
| Age difference | 6.3 | 5.0 | 7.5 | 3.5 |
| Nr. children | 0.25 | 0.38 | 0.12 | 1.61 |
| West Germany | 0.79 | 0.80 | 0.77 | 0.83 |
| Household income | 79,318 | 70,592 | 86,954 | 76,777 |
| Income 1st earner | 59,060 | 50,105 | 66,926 | 61,581 |
| Income 2nd earner | 20,258 | 20,487 | 20,028 | 15,196 |
| Partner paygap | 0.50 | 0.45 | 0.55 | 0.61 |
| Share both work | 0.76 | 0.81 | 0.73 | 0.65 |
| Wage income $> 0$ | 0.78 | 0.81 | 0.74 | 0.78 |
| Self-empl. income $> 0$ | 0.11 | 0.10 | 0.11 | 0.05 |
| Business income $> 0$ | 0.08 | 0.06 | 0.11 | 0.12 |
| Wage income if $> 0$ | 41,849 | 37,330 | 45,812 | 41,033 |
| Self-empl. income if $> 0$ | 37,325 | 30,532 | 43,390 | 50,041 |
| Business income if $> 0$ | 34,234 | 26,569 | 41,086 | 31,560 |
| N | 139,726 | 63,366 | 74,424 | 10,240,300 |

*Notes*: This table reports descriptive statistics for same-sex civil partners (SSCPs), overall and by sex. The number of female and male couples does not sum to the total because of missing sex identifiers. SSCP statistics are taken from the first year the partners file jointly. The comparison group consists of different-sex couples (DSCs) aged 25–55 who were already jointly filing in 2013 and are observed in the data for at least nine years. Income is the sum of earnings from employment, self-employment, and business income. The partner pay gap is defined as the difference between partners' incomes relative to the total household income. *Source*: Taxpayer Panel.

benefits. For example, in different-sex marriages, this amounts to 98.7%.

**Descriptives** Table 1 presents summary statistics for all observed SSCPs in the first year they file jointly. As a comparison group, we include married different-sex couples (DSCs) who filed jointly in 2013, restricted to individuals aged 25 to 55. Approximately 46% of SSCPs are female couples, in line with the official registry data. The SSCPs in our data are, on average, 44 years old and exhibit an age gap between partners of 6.3, which is larger compared to the average age gap of 3.5 in DSCs - particularly among male couples.[18] This is consistent with prior evidence of greater demographic heterogeneity, and in particular larger age differences, among same-sex couples (Badgett et al., 2024; Ciscato et al., 2020).[19]

[18]Note that since we restrict DSC couples to being aged 25 to 55, we are bounding this average from above. Using the same restriction for SSCPs reduces the age gap average to 5.1, 5.8 for male couples and 4.4 for female couples.

[19]Smaller age gaps among female SSCPs may be related to their higher rate of parenthood. Child-rearing increases commitment and relationship stability, which tends to make partner selection more assortative

Childbearing rates differ substantially across groups. Female SSCPs have an average of 0.38 children, male SSCPs 0.12, and DSCs 1.61. These differences reflect both institutional barriers to parenthood and higher biological and procedural hurdles – particularly for male couples (Badgett et al., 2024). The share of couples residing in West Germany is also somewhat lower among SSCPs (79%) than DSCs (83%).

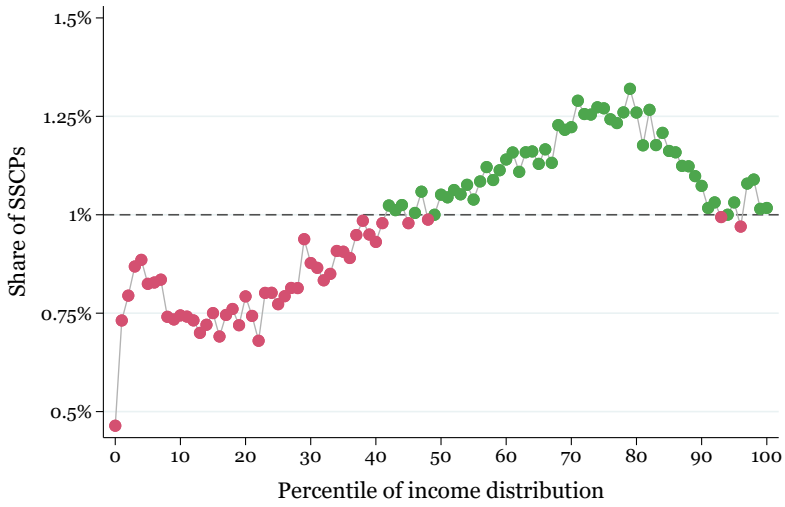
The total income from business, self-employment, and employment is broadly similar between SSCPs and DSCs. However, within SSCPs, individuals in male couples earn more on average than in female couples, reflecting the underlying gender earnings gap in Germany. Female SSCPs have the lowest total household earnings, driven by the lower incomes of the primary earner, although they exhibit a higher average income among secondary earners. In contrast, male SSCPs have both the highest household earnings and the highest earnings among primary earners. However, if we also split the DSC income outcomes by sex, as reported in Table A.3, we replicate the general finding from the literature: same-sex men earn less than men in different-sex marriages, while same-sex women earn more than different-sex women (Badgett et al., 2021; Drydakis, 2022; Humpert, 2016). It even holds when considering only observations with positive income.

These individual-level earnings patterns translate into the observed differences in within-couple income inequality. The average partner pay gap is substantially lower among SSCPs (0.50) than DSCs (0.61), reflecting more unequal earnings splits in DSCs. This is likely related to lower childbearing rates and correspondingly less household specialization, in line with previous findings (Black et al., 2007). The pay gap is lowest among female SSCPs with 0.45, compared to 0.55 among male SSCPs, consistent with prior evidence that lesbian couples exhibit more equal earnings within households (Black et al., 2007; Badgett et al., 2024). The share of couples in which both partners report positive income is 11 percentage points higher among SSCPs (76%) than DSCs (65%), reinforcing the notion of lower household specialization among same-sex couples. Among SSCPs, dual participation is somewhat higher for female than male couples, consistent with previous findings of greater dual labor market participation among women in same-sex relationships (Antecol and Steinberger, 2013; Martell and Roncolato, 2020).

Another notable difference emerges in the composition of income sources. The share of wage earners is similar between SSCPs and DSCs (around 78%), though it is slightly higher among female SSCPs (81%) than male SSCPs (74%). Among those with positive wage income, average earnings are nearly identical across SSCPs and DSCs. Differences become more pronounced for self-employment and business income. The share of individuals with self-employment income is substantially higher among SSCPs (11%) than DSCs (5%), while

(Ciscato et al., 2020; Lundberg et al., 2016).

Figure 2: Same-sex civil partners across the income distribution




*Notes*: This figure plots the share of individuals in same-sex civil-partners (SSCPs) within each percentile of the income distribution. Percentiles are calculated by age and year, using the universe of all jointly filing SSCPs and different-sex spouses, excluding zero-income observations; individuals with zero income are shown separately (percentile = 0). Deviations above (green) or below (red) the 1% line indicate over- or underrepresentation across the income distribution. *Source*: Taxpayer Panel.

the share with business income is somewhat lower (8% vs. 12%). These patterns may reflect occupational self-selection or differences in education and sectoral composition among same-sex couples (Carpenter, 2005; Antecol et al., 2008; Badgett et al., 2024). Where SSCPs are more represented - self-employment - they tend to earn less, while in business income, where they are less represented, they earn more on average. This inverse relationship suggests compositional differences in the scale or type of entrepreneurial activity. Within SSCPs, gender differences are largest in self-employment and business income, with men earning substantially more than women. This pattern aligns with prior German evidence that gender gaps are widest in these income categories (Drechsel-Grau et al., 2022).

**Income Distribution** We assess how SSCPs are positioned within the income distribution for all individuals in jointly filing SSCPs and DSCs, excluding zero-income observations. Specifically, we calculate percentiles of income by age and year and then compute the share of SSCPs within each percentile. Figure 2 displays the resulting distribution. If SSCPs were uniformly distributed across the income distribution, their share would equal 1% in each percentile. The figure shows, however, that SSCPs are markedly underrepresented at the lower end and increasingly overrepresented toward the upper percentiles, with the strongest peak between the 70th and 80th percentiles. This pattern indicates that individuals in SSCPs are disproportionately concentrated in higher income brackets relative to DSCs. For

completeness, we additionally include individuals with zero income as a separate category (percentile = 0). SSCPs make up the smallest share within this group compared to the rest of the distribution, consistent with the strong concentration of zero-income individuals among DSCs.

# 4 The Impact of Joint Taxation

This section examines the impact of joint income taxation, focusing on the income of primary and secondary earners as well as the partner pay gap. First, we describe our analyzed sample, the applied sample restrictions, and our control group of different-sex couples (DSCs). In Table 2, we present descriptive statistics for each analyzed sample. Second, we outline our empirical strategy. Third, we provide our baseline results and demonstrate that the parallel trend assumption holds. Finally, we conduct several robustness checks and present evidence of heterogeneous effects.

## 4.1 Analyzed Sample

**Sample Restrictions** We restrict the sample of SSCPs to individuals aged 25 to 55 in 2013 for whom both partners can be linked in the baseline year 2012, the year preceding the reform. Our main analysis focuses on couples who first filed jointly in 2013, i.e., those directly affected by the policy change. In supplementary analyses, we relax this restriction.

As discussed in Subsection 3.2, SSCPs were also allowed to file taxes retroactively for preceding partnership years, provided tax assessments for those years were still pending due to ongoing legal disputes or incomplete filings. Using couples as the comparison group allows us to capture household-level outcomes such as partner pay gaps and outcomes by relative earner status. Because DSCs were unaffected by the reform, they provide an appropriate benchmark for aggregate time shocks affecting all couples. We exclude retroactive filers, identified as those submitting joint returns before 2013, from the main analysis for three reasons. First, retroactive filing likely reflects higher tax literacy or strong financial incentives. Second, these couples received lump-sum reimbursements for forgone tax benefits, which in some cases constituted substantial income shocks (see Appendix B.2). Third, because their initial joint filing years range between 2008 and 2012, this subgroup exhibits systematic differences in intra-household income distribution.

**Control Group: Different-sex couples** As a control group, we construct a sample of married different-sex couples (DSCs) who meet the same age and linkage restrictions

Table 2: Descriptive statistics of the analysis samples

| | SSCP | | DSC |
|---|---|---|---|
| | (1) Main | (2) Retro | (3) Matched |
| Female | 0.46 | 0.43 | 0.41 |
| Age | 41 | 42 | 42 |
| Age difference | 5.3 | 5.5 | 3.9 |
| Nr. children | 0.20 | 0.27 | 0.33 |
| West Germany | 0.82 | 0.80 | 0.80 |
| Income 1st earner | 58,076 | 68,259 | 60,932 |
| Income 2nd earner | 28,911 | 26,824 | 28,645 |
| Partner paygap | 0.32 | 0.41 | 0.39 |
| Share both work | 0.92 | 0.87 | 0.85 |
| Benefits joint filing | 885 | 1,353 | . |
| Δ MTR 1st earner | -0.03 | -0.04 | . |
| Δ MTR 2nd earner | 0.07 | 0.10 | . |
| N | 8,455 | 11,274 | 4,159,126 |

*Notes*: This table reports descriptive statistics for the *Main* analysis sample of SSCPs, the *Retro* SSCPs who filed jointly prior to the reform, the full sample of different-sex couples (DSCs), and the matched control sample of DSCs. Columns (1), (2), and (3) show values in 2012, the event-time baseline year ($t = -1$). For the *Retro* sample, values are shown in their respective baseline year relative to their first joint-filing year. The partner pay gap is defined as the difference between partners' income relative to total household income. Benefits from joint filing are estimated as the hypothetical tax benefit if a couple could already file jointly in $t = -1$. ΔMTR is the hypothetical change in the marginal tax rate if the couple could already switch to joint filing in $t = -1$. *Source*: Taxpayer Panel.

and were married by 2013. As shown in Table 1, DSCs systematically differ from SSCPs, particularly in household composition and within-couple income distribution. To improve comparability, we apply a two-step matching procedure. First, we perform exact matching at the individual level on age, number of children, pre-reform income decile, pre-reform labor force participation, and relative earner status. Primary and secondary earners are defined solely by income rank within the couple, regardless of gender. Second, within each exact matching cell, we assign weights to DSC observations equal to the ratio of SSCPs to DSCs in that cell. This reweighting aligns the covariate distribution of the control group with that of the treated group. Unmatched control observations are excluded from the analysis.

**Descriptive Statistics** Table 2 reports descriptive statistics for the analyzed samples. Columns (1) and (2) present statistics for our main SSCP analysis sample and for the subgroup of retroactive filers (called: *retro*). These statistics refer to the year immediately preceding each couple's first joint filing (event time $t = -1$), which corresponds uniformly to 2012 for the main sample, but varies for retro filers depending on their initial filing year. General characteristics closely align with those previously reported for all SSCPs in the year

of their first joint filing in Table 1.

SSCPs in the main analysis sample are on average 41 years old, with an age difference of 5.3 years between partners, and 46% of couples are female. Relative to the full SSCP population, the average secondary earner has higher earnings. This reflects the fact that the descriptives come from the pre-joint-filing years and that both partners must be observed in the data.[20] Consequently, the partner pay gap in the main sample is smaller than in the broader SSCP population. Table 2 also reports simulated tax savings had couples been able to file jointly in their baseline year. For the main sample, average savings would have been about €. These benefits reflect a decrease of roughly -0.03 in the marginal tax rate (MTR) of primary earners and an increase of 0.07 for secondary earners. This confirms the expected incentive structure: joint taxation reduces tax rates for the higher earner while raising them for the lower earner.

Retroactive filers differ systematically from couples who first filed in 2013. Their partner pay gap is about 9 percentage points larger, driven primarily by higher primary earner incomes. As a result, their hypothetical tax benefits are considerably larger, averaging €1,353. This pattern suggests that couples with the highest potential gains were more likely to file retroactively. Probit regressions support this interpretation: retroactive filing is strongly associated with higher household income, a larger partner pay gap, and the presence of children. In contrast, couples first filing in 2013 are more often wage earners, consistent with lower tax literacy or less complex tax incentives.

Turning to DSCs, Table 1 shows that differences relative to SSCPs are substantial, particularly in household composition and the distribution of income between partners. After applying the two-step matching procedure, these differences narrow considerably. The matched DSC sample provides a more comparable control group, which we use in the diff-in-diff analysis below.

## 4.2 Empirical Strategy

To estimate the effect of introducing joint taxation for SSCPs in 2013, we employ two complementary approaches. First, we estimate an event-study design that traces the income dynamics of SSCPs around the introduction of joint filing (Equation 2). Second, we implement a dynamic difference-in-differences design using matched DSCs as a control group (Equation 3). The event study allows us to document pre-trends and the timing of effects,

[20] Missing individuals are typically those with no income, incomes below the basic tax-free amount, or employed non-filers, who are often located at the lower end of the income distribution (Hauck and Wallossek, 2024). Requiring both partners thus selects couples with relatively higher individual incomes, inflating average secondary-earner earnings.

while the difference-in-differences design accounts for aggregate time shocks that may have affected all couples:

$$y_{it} = \delta_i + \sum_{k \neq 2012} \beta^k \cdot D_t^k + X_{it} + \epsilon_{it} \tag{2}$$

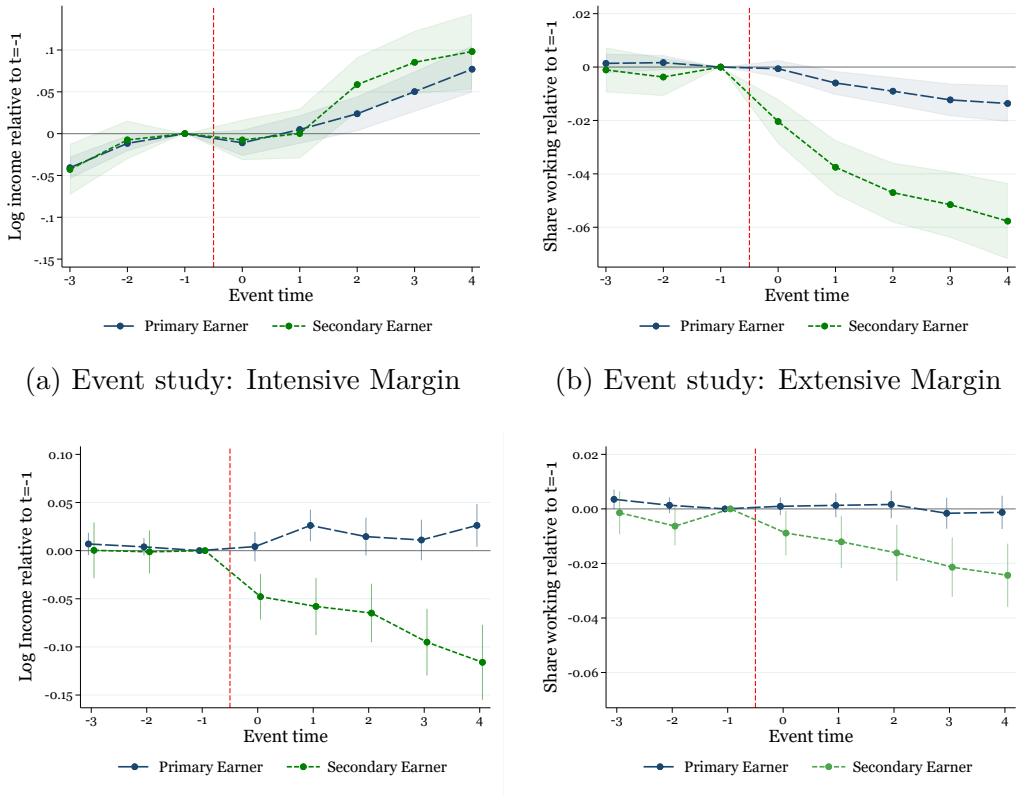
$$y_{it} = \delta_i + \sum_{k \neq 2012} \beta^k \cdot D_t^k + \sum_{k \neq 2012} \gamma^k \cdot (D_t^k \cdot T_i) + X_{it} + \epsilon_{it} \tag{3}$$

Here, $y_{it}$ denotes the outcome variable for individual $i$ at time $t$. The index $i$ refers to all individuals or the respective primary and secondary earners. The outcome variables include the individual's log earned income, a binary indicator for positive earnings (labor force participation), and the couple-level partner pay gap. All income variables are adjusted for inflation using the consumer price index.[21] $D_t$ is a binary time indicator variable that takes the value 1 if the time indicator $t$ equals the current period $k$ and captures dynamic effects relative to the baseline year 2012. $\delta_i$ denotes individual fixed effects. The vector of control variables $X_{it}$ includes 5-year age bins, partner age difference, region, number of children, and dummies indicating the presence of children aged under 4, between 4 and 6, and between 7 and 12 years. The error term $\epsilon_{it}$ captures unobserved factors. In the diff-in-diff design, $T_i$ is an indicator for being in a SSCP. The interaction term $(D_t^k \cdot T_i)$ measure the dynamic differential evolution of outcomes for treated SSCPs relative to the matched DSCs control group, with coefficients $\gamma_k$ as the parameters of interest.[22] Standard errors are clustered at the couple level to account for intra-household correlation.

We define the event window from three years before the reform to four years after, stopping in 2017 when same-sex marriage was legalized, to avoid confounding effects from this subsequent policy change. Primary and secondary earners are defined based on their relative income rank in the pre-reform years, $t = \{-3, -1\}$, which keeps relative earner roles constant.

We make two key identifying assumptions in our framework. First, individuals could not select into treatment. Second, in the absence of the 2013 introduction of joint filing for SSCPs, the incomes of SSCPs and DSCs would have followed parallel trends. We examine the validity of these assumptions in Section Subsection 4.3.

Figure 3: Income relative to reform year and treatment effects, by relative earner




(a) Event study: Intensive Margin

(b) Event study: Extensive Margin

(c) Diff-in-diff: Intensive Margin

(d) Diff-in-diff: Extensive Margin

*Notes*: Panels (a) and (b) report event study estimates ($\beta_k$) from Equation 2, while Panels (c) and (d) report dynamic diff-in-diff estimates ($\gamma^k$) from Equation 3. Outcomes are log earnings (intensive margin) and labor force participation (extensive margin), shown separately for primary and secondary earners. The sample comprises same-sex couples who first filed jointly in 2013, with primary and secondary earners defined in pre-reform years. The control group in the DiD design consists of matched different-sex couples. The reform year 2013 is denoted by $t = 0$. Shaded areas/vertical bars indicate 95% confidence intervals. *Source*: Taxpayer Panel.

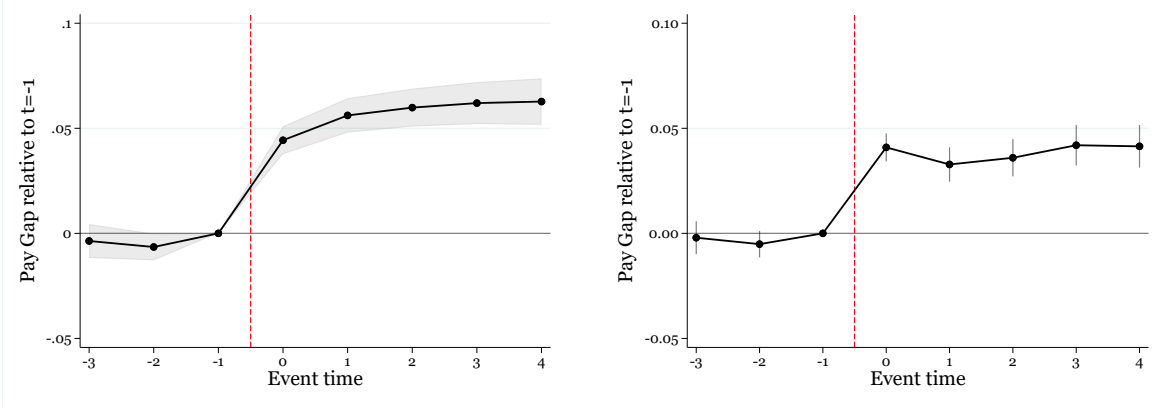
## 4.3 Main Results

**Earned Income** Figure 3a and Figure 3b present event-study estimates for log income (intensive margin), which excludes zeros, and labor force participation (extensive margin), shown separately for primary and secondary earners. Pre-trends are similar for both groups, followed by a visible break in the reform year $t = 0$. On the intensive margin, both primary and secondary earners exhibit a kink in log income following the reform. Among primary earners, income remains persistently below the pre-reform trajectory. Among secondary earners, income falls below the pre-reform trajectory for about two periods before partially

[21]While labor supply cannot be observed directly, changes in income and intra-couple earnings gaps provide reduced-form evidence of behavioral responses to taxation.

[22]Because our setting involves a single-treatment date, we do not require the assumption of homogeneous treatment effects, as discussed in recent diff-in-diff literature (e.g., Goodman-Bacon, 2021).

Figure 4: Partner pay gap relative to reform year and treatment effects




(a) Event study

(b) Dynamic diff-in-diff

*Notes*: This figure presents estimates of the partner pay gap around the reform year. Panel (a) displays event-study coefficients ($\beta^k$) from Equation 2, while Panel (b) shows interaction-term coefficients ($\gamma^k$) from Equation 3. The sample comprises same-sex couples who first filed jointly in 2013, with the control group in the diff-in-diff estimation consisting of matched different-sex couples. The reform year 2013 corresponds to $t = 0$. The partner pay gap is defined as the absolute difference between partners' earnings divided by their total household earnings. Shaded areas in Panel (a) and vertical bars in Panel (b) indicate 95% confidence intervals.

reverting to an upward trend. On the extensive margin, labor force participation declines persistently - modestly for primary earners, but substantially for secondary earners. In Figure A.3, we pool all individuals without distinguishing between primary and secondary earners. Overall log income exhibits a clear kink at the reform year, followed by two years of slower growth before gradually returning to its pre-reform slope. Labor force participation shows a steady decline, falling by 3.4% relative to the pre-reform level.

Figure 3c and Figure 3d report the estimates difference-in-differences, using matched DSCs as the control group. Pre-reform coefficients are insignificant, confirming the parallel trends assumption. For primary earners, the reform shows no systematic impact on log income: coefficients fluctuate around zero, a small transitory uptick at $t = 1$ and $t = 4$. By contrast, secondary earners' earnings decline immediately after the reform and continue to diverge relative to DSCs, cumulating to 11.6% lower earnings by $t = 4$. On the extensive margin, primary earners again display no meaningful change. Among secondary earners, the probability of positive earnings declines significantly relative to the control group, dropping by 2.4 percentage points by $t = 4$. The divergence from the event-study estimates arises from trends in the DSC sample, as discussed in Subsection 4.4. Taken together, these results suggest that the reform reduced both earnings and labor force participation among secondary earners, while primary earners remained unaffected.

**Partner pay gap** To assess how joint taxation affects the intra-household distribution of income, we will next examine the partner pay gap. A key advantage of this measure is that it does not require us to predefine primary and secondary earners. Figure 4a shows event-study estimates for SSCPs. Pre-trends are stable and close to zero. In the reform year ($t = 0$), the partner pay gap widens significantly and remains at a higher level, with an increase of 6.3 percentage points in the long run. Figure 4b presents estimates relative to matched DSCs using the diff-in-diff approach. The pay gap among SSCPs increases significantly, though the magnitude is somewhat smaller: by $t = 4$, the gap is 4.1 percentage points larger than in the control group.

To put these results into perspective, we use the averages reported in Table 2. In the year prior to the reform, the average combined household income of SSCPs was approximately €86 987 (€58 076 for the primary earner and €28 911 for the secondary earner), resulting in an absolute partner pay gap of €29 165, or relative gap of 0.32. The diff-in-diff results suggest a widening of the relative pay gap by 4.1 percentage points. This is a 12.8% increase relative to the pre-reform level and an increase in the absolute partner pay gap of €3566.[23]

Taken together, our findings indicate that joint taxation among SSCPs elicited substantial behavioral responses. Secondary earners significantly and persistently reduced their earnings, primarily along the intensive margin. This resulted in a marked widening of the partner pay gap and a reallocation of household income that is consistent with the incentives created by joint taxation.

## 4.4 Identification and Robustness

**Parallel Trends** A key identifying assumption of the diff-in-diff design is that, in the absence of the reform, the outcomes for SSCPs and matched DSCs would have evolved in parallel. As mentioned earlier, pre-trend estimates are not significantly different from zero for all outcomes.

To further assess comparability, we compare the event-study estimates for SSCPs with those of the matched DSC controls as shown in Figure A.4. On the intensive margin (Panels a and b), log earnings of primary and secondary earners display very similar pre-reform trajectories in both groups. For primary earners, SSCPs and DSCs evolve almost identically: both series exhibit a mild kink around $t = 0$, followed by a gradual drift upward. This similarity reflects the common definition of primary earners[24] and shared macroeconomic

[23] It is important to note that changes in the relative partner pay gap can reflect movements in both the numerator and denominator: An increase in the absolute income difference between partners raises the relative gap, while a decrease in total household income can also increase it.

[24] Since primary earners are defined based on earning more than 51% of household income in the pre-reform years, this selection induces mechanical mean reversion starting from $t = 0$, when the definition no

developments. For secondary earners, the patterns diverge. SSCPs show a clear break at the reform year and remain below the trajectory of their DSC counterparts, which do not display a contemporaneous break at $t = 0$ but instead exhibit a mild kink at $t = 1$ and a stronger subsequent rise. This stronger post-reform increase among DSC aligns with the lower initial earnings levels of secondary earners, which allow for greater growth potential, and with mean-reversion dynamics associated with the definition of secondary earner status in the pre-reform period. On the extensive margin (Panels d and e), labor force participation is essentially flat in the pre-reform period for both SSCPs and matched DSCs. After the reform, participation declines in both groups, somewhat more for secondary earners than for primaries. For primary earners, the magnitude of the decline is very similar across SSCPs and DSCs, while for secondary earners, the reduction is substantially larger among SSCPs.[25]

Turning to the partner pay gap, the DSC event study likewise reveals no significant pre-reform deviations, but does show a moderate post-reform increase. This explains why the diff-in-diff estimate of the pay gap effect is smaller than the SSCP event-study effect. While part of the DSC increase may be due to matched baseline characteristics that also predict income allocation trends, an important factor is the faster rise in the number of children among DSCs in the post period (from 0.32 to 0.72 on average) relative to SSCPs (from 0.21 to 0.34).

Overall, these findings confirm the validity of the matched DSCs as a control group: pre-trends are flat, and observed post-reform differences align with common macro shocks and demographic changes rather than violations of the parallel trends assumption.

**Relative earner definitions** Our baseline definition of primary and secondary earners is based on their relative income rank averaged over the pre-reform event window. This approach minimizes mechanical role switching after the reform, but some switching remains where the secondary earner becomes the primary and vice versa. Switching occurs at least once for about 17% of couples, ranging between 2–8% by event time. It is concentrated among couples with a relatively lower relative pay gap and couple income. The switch persists in about 18% of these couples, whereas 42% only switch in one period. While some of these responses may reflect behavioral reactions to the reform, a substantial part is mechanical: fixing earner roles based on pre-reform ranks means that normal income variation after 2013

longer constrains classification.

[25] The modest post-reform decline in participation among DSCs is consistent with the sample construction. Prior to the reform, SSCPs could only appear in the data if they filed taxes individually, which required having income. Since DSCs are matched to SSCPs on baseline income deciles, a similar restriction applies to them, leaving scope for downward adjustments post-reform, even in the absence of treatment.

is recorded as switching.[26]

As a robustness test, we re-estimate the models under four alternative specifications: (i) limiting the sample to individuals with stable pre-reform income, defined as annual deviations no larger than 30% from their pre-reform average; (ii) limiting the sample to couples where the primary earner accounts for more than 60% of pre-reform income; (iii) a complementary check where we relax the definition and assign roles based only on the baseline year; and (iv) excluding all couples that switch status after the reform.

Excluding individuals with unstable pre-reform income (alternative i) mitigates mechanical mean reversion and reduces the likelihood of couples switching relative earner roles after the reform. This restriction excludes about 10% of primary earners and nearly 30% of secondary earners. The results, presented in Figure A.5, confirm our main findings. The main difference is a sharper drop in earnings for secondary earners in the intensive margin event study. However, this does not affect the difference-in-differences estimates, as the control group is similarly affected by the restriction. The results for restricting to couples where the primary earner earned more than 60% pre-reform (alternative ii), or assigning roles based solely on the baseline year (alternative iii), are robust and consistent with our main specification.

However, when we exclude couples who switch roles after the reform (alternative iv), the results become more pronounced: primary earners exhibit an unaffected upward income trend, while secondary earners experience a larger and more persistent drop. This pattern indicates that role-switching attenuates the contrast between earners, biasing the role-specific effects toward each other. As a result, the baseline estimates are conservative, particularly for secondary earners. Importantly, the partner pay gap result is robust across all specifications.

**Selection into Treatment** Regarding selection into treatment, eligibility for joint taxation was expanded exogenously to SSCPs in 2013. However, joint filing itself remained optional. As displayed in Table A.2, 24,294 couples filed jointly in 2013, a number that includes retroactive filers, whom we exclude from our main analysis. Our baseline analysis, therefore, captures couples directly affected by the reform in the first year of eligibility. Yet, there was a share that did not file, although registered as SSCPs. By 2014, the number of joint filers had risen to about 30,021. This cohort likely includes both couples who were already eligible in 2013 but delayed filing, and a larger share of newly formed partnerships. Because of this composition, the 2014 cohort is less suited as a baseline, but it remains informative: later adopters may differ systematically in their gains from joint taxation or in

[26]Running similar tests for the DSC control sample that experiences no treatment yields that in that sample 23% of couples experience a relative earner switch post-reform.

other characteristics such as income levels and filing status.[27] For robustness, we therefore combine the 2013 and 2014 cohorts, still using 2013 as the treatment year, to test whether our findings are sensitive to timing heterogeneity or selective take-up. The diff-in-diff results for this sample, presented in Figure A.6, show that results are robust to including the 2014 cohort: Timing differs in the short run, but long-run effects are unchanged.

## 4.5 Heterogeneous Effects

We next examine how the effects of joint taxation differ across different household compositions and contexts. For this part, we estimate separate event studies by subgroup. The results are summarized in Table A.4 and displayed for the pay gap in Figure A.7.

**Male vs. Female** Existing literature documents systematic differences between male and female same-sex couples. Specifically, female couples are more likely to have children and exhibit lower degrees of household specialization (Badgett et al., 2024; Martell and Roncolato, 2020). Our findings indicate that female couples exhibit a stronger response to the reform. Female secondary earners reduce their labor income more significantly along both the intensive and extensive margins. This translates to a larger pay gap increase among female SSCPs as shown in Figure A.7b.

**East vs. West Germany** The historical division between East and West Germany produced distinct gender norms and labor market institutions. While West Germany followed a male breadwinner model supported by conservative family policies, East Germany, under socialist rule, promoted female labor force participation and dual-earner households. These institutional and normative differences continue to shape gender norms and economic behavior between the formally divided East and West Germany, even decades after reunification (Alesina and Fuchs-Schündeln, 2007; Boelmann et al., 2025). In our context, it is unclear whether these enduring differences matter. On average, the East still exhibits higher female labor force participation, lower wages, and a greater share of dual-earner households (Hermle et al., 2024). But since same-sex couples are less constrained by traditional gender roles, we expect limited regional variation. Our findings support this interpretation: we find no significant differences in behavioral responses between East and West Germany.

[27] Probit regressions confirm that couples first filing in 2014 were more likely to have been non-filers in the year prior. This suggests that part of the later take-up reflects administrative inertia or delayed compliance rather than deliberate timing of joint filing.

**Without vs. with Children** Partnerships with childcare responsibilities may be more responsive to joint taxation incentives, given their greater scope for household specialization (Becker, 1981; Kleven et al., 2019). To test this, we further split our sample based on whether couples ever have children. We find that the within-couple inequality effects are more pronounced among couples with children. By period $t = 4$, the partner pay gap is approximately 5 percentage points higher in this group as shown in Figure A.7c. This is driven primarily by a stronger intensive margin response of the secondary earner. Importantly, the overall results are not solely driven by couples with children. Among childless couples, the partner pay gap still increases significantly in the long run. As childless couples make up the majority of the sample, their responses more closely mirror the overall effect. These findings suggest that while the presence of children amplifies the reform's impact, they are not the only driver. We note that female same-sex couples are more likely to have children than male couples, which partially accounts for the observed gender differences.

**Pre-reform paygap** We further examine heterogeneity based on the average partner pay gap in the pre-reform period ($t = -3$ to $t = -1$). We divide the sample into five groups, ranging from equal earners (gap 0.0-0.2) to highly unequal couples (gap 0.8-1.0). This analysis allows us to test whether couples with different baseline levels of within-household inequality respond differently to joint taxation. Couples with more equal pre-reform earnings may have greater scope for adjustment, as there is less pre-existing specialization. However, as shown in Figure 1a, couples with more unequal earnings face stronger tax incentives, driven by larger changes in marginal tax rates when switching to joint taxation. We find no consistent pattern of heterogeneity along the intensive or extensive margin. However, the long-run increase in the partner pay gap declines steadily with higher levels of pre-reform inequality, as shown in Figure A.7d. Couples with the most equal pre-reform earnings exhibit the largest rise in within-couple inequality, whereas it slightly decreases among the most unequal couples.[28]

**Income Sources** We also examine whether our findings are driven by all sources of income or if the observed reactions are specifically linked to either wage or non-wage income, which includes business and self-employment income. Wage income is subject to third-party reporting and withholding, leaving little room for behavioral adjustments beyond real labor supply changes. These changes tend to be small because hours and contracts are rigid in the short run (Kleven and Schultz, 2014). In contrast, self-employment income offers more

[28]Notably, the baseline partner pay gap is lower among more equal couples, which may mechanically contribute to the larger observed increases.

flexibility – both in reporting and timing, as well as in real adjustments such as work hours or effort. We assign income types to each individual (or couple): wage earner, non-wage earner, or mixed-income earner. The results indicate that couples in which at least one partner has only non-wage income, or where both partners have mixed earnings, experience the highest increase in within-couple inequality. In the long run, these couples face a partner pay gap of about 8 percentage points, as shown in Figure A.7e. This gap arises because primary earners increase their income significantly, while secondary earners experience substantial drops in income following the reform. In contrast, couples where both partners, or only one partner, have solely wage income show the smallest reaction.

# 5 Tax Responsiveness across Household Types

While the reform estimates show that joint taxation increases inequality within same-sex couples, they provide limited insight into how same-sex couples respond to their own tax incentives and how these responses compare to those of different-sex couples. If households with similar economic characteristics react differently to identical tax incentives, this suggests that part of the behavioral response may reflect differences in underlying gender norms. To explore the role of gender norms in shaping taxation-related behavioral responses, we examine two distinct forms of behavioral response to taxation across household types. First, we estimate income elasticities to assess how same-sex couples adjust their reported income in response to changes in net-of-tax rates using variation in the marginal tax rates, and compare them to the elasticities of different-sex couples. Second, we analyze tax planning behavior by studying couples' choices over income tax withholding schemes - a planning tool that reallocates monthly net income across partners without affecting annual tax liability. Differences in these responses - both in real labor supply and in tax planning behavior - reveal how gender norms shape household decisions, even when tax incentives are identical.

## 5.1 Income Elasticity

The reform analysis showed that joint taxation increased income inequality within same-sex couples, primarily by reducing the earnings of the secondary earner. However, that analysis captured only the average effect, without accounting for differences in the size of the tax incentive. As shown in Figure 1a, changes in marginal tax rates, $\Delta\tau^{mtr}$, from switching to joint taxation vary strongly across households depending on income levels and shares. This cross-sectional variation allows us to go beyond average effects and estimate tax elasticities – a standardized measure of the extent to which individuals adjust their income in response to

changes in their marginal tax rate. Because elasticities are widely used in public finance as benchmarks of behavioral response, they facilitate direct comparison between same-sex and different-sex couples. In particular, there exists a large body of evidence on income tax elasticities, often disaggregated by gender (e.g. Herold and Wallossek, 2024; Hermle and Peichl, 2018; Gelber, 2014), which provides a natural comparison point. Comparing our estimates for SSCPs with these benchmarks enables us to assess whether SSCPs systematically differ from different-sex couples in their responsiveness to tax incentives.

**Sample** We apply the same sample restrictions as in section 4. In addition, we limit the sample to individuals with stable pre-reform income, defined as no more than a 30% deviation from their pre-reform mean, to reduce concerns about mean reversion. We further restrict the sample to individuals with a positive marginal tax rate in the baseline year. Those with zero marginal tax rates are excluded because they did not face a tax-relevant behavioral margin prior to the reform. For these individuals, $\Delta\tau^{mtr}$ primarily reflects entry into the tax schedule and implies unusually large changes that could disproportionately influence the elasticity estimates. Figure A.8a displays the distribution of $\tau_{-1}^{mtr}$ for our analyzed sample. Due to the structure of the German tax schedule, marginal tax rates jump from 0% to around 15% at the basic allowance threshold (8,130). The range between 15% and 25% reflects the steep initial progression zone. The bulk of observations lies between 25% and 42%, where marginal rates increase more gradually across a wider income range. The spike at 42% corresponds to the top statutory rate, with a small upper tail at 45% representing the very highest-income households.

**Approach** In a progressive tax system, the marginal tax rate $\tau^{mtr}$ and income are jointly determined, which creates a simultaneity bias. To overcome endogeneity when estimating behavioral responses, we follow the standard literature and construct simulated, mechanical marginal tax rates based on pre-reform taxable income (Gruber and Saez, 2002; Weber, 2014). Specifically, we apply the post-reform tax rules – the joint taxation scheme – to pre-reform taxable income in the baseline period $t = -1$. This allows us to simulate the change in marginal tax rates, $\Delta\tau^{mtr}$, that individuals would have faced had they already filed jointly before the reform. Figure A.8b displays the distribution of the implied $\Delta\tau^{mtr}$ for our sample by relative earner rank.

We then convert these simulated marginal tax rates into net-of-tax rates, $NTR \equiv 1 - \tau^{mtr}$, and use proportional (log) changes as the treatment variable in elasticity estimation. Formally, we define the hypothetical net-of-tax rate under joint-filing rules as $NTR_{i,-1}^{\text{hyp}}$ and the actual net-of-tax rate under individual filing as $NTR_{i,-1}^{\text{ind}}$. The simulated proportional

change is then

$$\Delta \ln NTR_i^s = \ln\left(\frac{NTR_{i,-1}^{\text{hyp}}}{NTR_{i,-1}^{\text{ind}}}\right) \tag{4}$$

To estimate the elasticity, we regress the change in log income on the actual change in the log net-of-tax rate, instrumented with its simulated counterpart $\Delta \ln NTR^S$. This IV strategy purges the mechanical endogeneity between current income and marginal tax rates:

$$\ln\left(\frac{y_{it}}{y_{i,-1}}\right) = \Delta \ln y_{it} = \nu_a + \lambda_t + \epsilon \cdot \ln \widehat{\Delta NTR}_i + X_{it} + \xi_{it} \tag{5}$$

Here, $e$ measures the percentage change in earnings associated with a 1% change in the net-of-tax rate. We include age fixed effects $\nu_a$, and a vector of controls $X_{it}$ (partner age difference, region, number of children, and child-age dummies for ages 0–3, 4–6, 7–12). In the full sample, which extends beyond couples directly hit by the 2013 reform, we also add year fixed effects $\lambda_t$. $\epsilon_{it}$ is an individual error term. Standard errors are clustered at the couple level.

**Results** Table 3 reports elasticity estimates across several subsamples: all couples, female and male couples, and couples with and without children. Within each panel, we present results for all earners combined as well as separately for primary and secondary earners.

In the pooled sample of all observations (Column 1), we estimate an elasticity of 0.32, which is statistically significant at the 1% level. This implies that a 1% increase in the net-of-tax rate leads to a 0.32% increase in reported income. Splitting by relative earner role, we find a significant elasticity of 0.41 for primary earners (Column 2), whereas secondary earners (Column 3) show a small, negative, and statistically insignificant response. Note that elasticities reflect how strongly income responds to the size of the tax change, not whether average income increased or decreased. Panels B to E examine heterogeneity by gender composition and parental status. Elasticities are largest among female couples (Panel B) and couples with children (Panel D), although standard errors are also higher in these groups. By contrast, male (Panel C) and childless couples (Panel E) display smaller and less significant responses. Across all subsamples, results turn insignificant once we split by relative earner status. This suggests that the pooled elasticities primarily reflect the increased household inequality shown in Subsection 4.3. However, when we analyze primary earners, who exhibit heterogeneity in $\Delta\tau^{mtr} < 0$, and secondary earners, who exhibit heterogeneity in $\Delta\tau^{mtr} > 0$, we mostly find insignificant results. Thus, couples increase inequality based on their relative earner positions but do not respond to individual marginal tax incentives.

In terms of magnitude, the pooled elasticity estimate falls below those found for women

Table 3: Tax elasticity estimates

| | (1) All | (2) Primary | (3) Secondary |
|---|---|---|---|
| **Panel A: All** | | | |
| $\Delta \ln NTR$ | 0.32*** | 0.41** | -0.10 |
| | (0.08) | (0.21) | (0.16) |
| **Panel B: Female** | | | |
| $\Delta \ln NTR$ | 0.50*** | 0.43 | -0.06 |
| | (0.14) | (0.30) | (0.32) |
| **Panel C: Male** | | | |
| $\Delta \ln NTR$ | 0.24** | 0.39 | -0.10 |
| | (0.10) | (0.29) | (0.18) |
| **Panel D: Children** | | | |
| $\Delta \ln NTR$ | 1.03*** | 0.84 | 0.26 |
| | (0.25) | (0.66) | (0.51) |
| **Panel E: Childless** | | | |
| $\Delta \ln NTR$ | 0.20** | 0.33 | -0.16 |
| | (0.08) | (0.21) | (0.16) |
| $N$ | 12,761 | 6,832 | 5,061 |

*Notes*: This table reports elasticity estimates from Equation 5 for various subsamples. The sample includes individuals aged 25–55 who first filed jointly in 2013, have stable pre-reform income, and have a positive baseline marginal tax rate. Columns (1)-(3) report estimates for all individuals, primary earners, and secondary earners, respectively. Primary and secondary earners are defined based on their relative income rank in the baseline period ($t = -1$). The sample size $N$ refers to the main estimation sample. Robust standard errors in parentheses, clustered at the couple level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Source:* Taxpayer Panel

in DSCs using the same data, such as Herold and Wallossek (2024) (0.65) and Hermle and Peichl (2018) (0.71), and is closer to the values reported for men, such as 0.39 in Hermle and Peichl (2018). However, our results reveal important differences across couple types. Female couples and couples with children exhibit stronger responses to tax incentives, and female couples are also more likely to have children. This highlights the role of children in facilitating household specialization even in a setting where gender roles are muted. Yet, in different-sex couples, the pattern is notably asymmetric: women respond strongly, while men show little or no response. Taken together, responses are stronger when there is scope for specialization, with gender norms amplifying the resulting behavioral adjustments.

## 5.2 Withholding Tax Class

We next examine withholding-class choices, which reveal preferences over how couples allocate net income across partners throughout the year. As explained in section 2, the German withholding system allows married spouses and civil partners to shift the monthly withholding burden between partners. While these choices do not affect the couple's total annual

tax liability, they allow couples to bring forward the tax advantage from joint taxation into their monthly take home pay by assigning a lower withholding rate to the higher earner and a higher withholding rate to the lower earner. This increases the primary earner's net income for the year and reduces that of the secondary earner. The adjustment matters primarily when partners earn different amounts; for couples with similar earnings, the default withholding schedule already provides an accurate approximation of their final tax position. While these choices do not affect the couple's total annual tax liability, they allow couples to bring forward the tax advantage from joint taxation into their monthly take-home pay by assigning a lower withholding rate to the higher earner and a higher withholding rate to the lower earner. The adjustment matters primarily when partners earn different amounts; for couples with similar earnings, the default withholding schedule already provides an accurate approximation of their final tax position.

When couples do not fully pool income, this mechanism reinforces unequal take-home pay and can strengthen the bargaining position of the higher earner.[29] Withholding choices, therefore, offer a unique opportunity to observe couples' preferences over within-year income sharing and the assignment of primary versus secondary earner roles. We analyze whether SSCPs and DSCs differ in the extent to which they select withholding combinations consistent with income specialization.

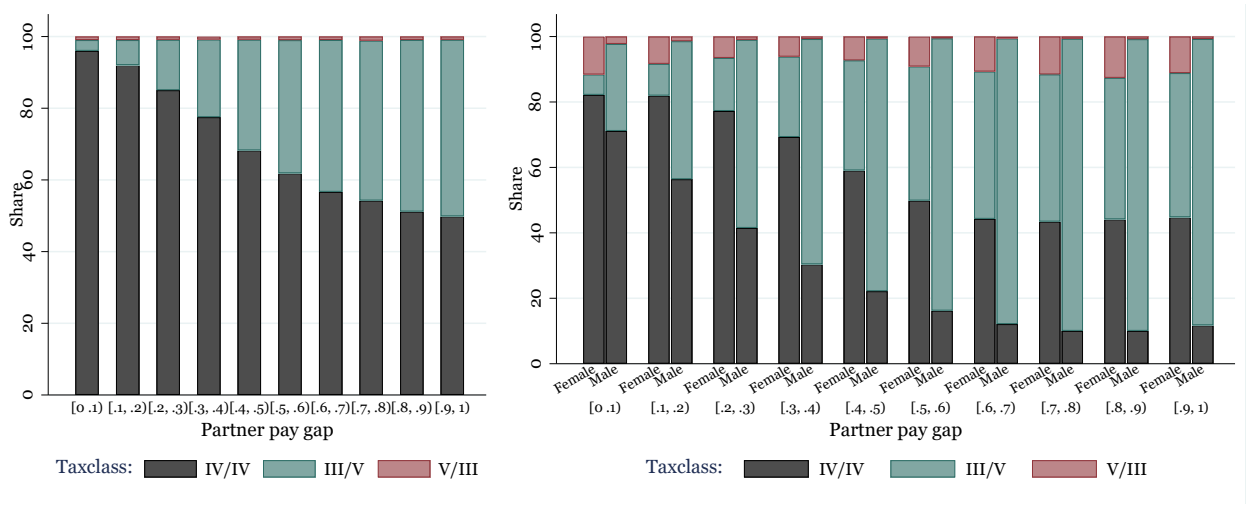
**Sample** For the analysis of withholding choices, we focus on the period 2015-2020. Same-sex civil partners only became eligible to select withholding tax classes in 2015, two years after the introduction of joint taxation.[30] We restrict the sample to couples in which both partners earn positive labor income, as withholding choices are only relevant when both partners receive wage income and are subject to payroll withholding.

**Approach** We examine whether withholding tax class selections align with traditional gender roles and whether same-sex partners make systematically different choices compared to their different-sex counterparts. Following Buettner et al. (2019), we group couples by the partner pay gap and analyze the prevalence of each tax class combination. We classify couples by the partner pay gap because withholding choices matter most when earnings differ, and doing so allows us to compare decisions among couples facing similar financial incentives. For different-sex couples (DSCs), we distinguish between couples with a male or a female primary earner to compare how gendered expectations shape tax-planning behavior.

[29] Koch (2024) shows that defaults in withholding tax schedules affect labor supply: the introduction of the individual default schedule for different-sex newlyweds increased women's earnings and reduced the partner pay gap.

[30] Therefore, the treatment effects analyzed in section 4 are unaffected by withholding responses.

Figure 5: Withholding tax class choices by couple type




(a) SSCP (b) DSC by sex of primary earner

*Notes*: This figure shows the chosen tax class combinations for SSCPs in Panel (a) and for DSC in Panel (b) along the partner pay gap distribution for the years 20152018. For DSCs the results are split by couples with a male primary earner (Male) or female primary earner (Female). Tax class III/V refers to the primary earner being in tax class III and V/III to the primary earner being in tax class V. The partner pay gap is defined as the absolute difference between partners' incomes before taxes relative to the couple's total income before taxes. *Source*: TaxPayer Panel

In the German system, couples can either opt for the IV/IV combination under which both partners are taxed as if they filed individually or select the withholding tax shifting combination of III/V. In our analysis, we distinguish between III/V - indicating the primary earner faces a lower withholding burden in class III and the secondary earner a higher burden in class V - and V/III, which represents the disadvantageous, or "incorrect", combination from a tax-planning perspective. In this scenario, the primary earner faces a higher monthly tax burden compared to individual taxation, while the secondary earner experiences the opposite effect.

**Results** Figure 5a plots the share of tax class combinations for SSCPs across the distribution of the partner pay gap. Our results illustrate that SSCPs are increasingly likely to choose the combination that benefits the primary earner, III/V, as the partner pay gap widens. This positive relationship aligns with a tax-planning interpretation, where larger income differences make shifting withholding more attractive. However, even among the most unequal couples, nearly 45% continue to opt for the neutral IV/IV scheme. The share of couples selecting that "incorrect" tax class of V/III is only about 1% regardless of the pay gap group. Patterns are similar for male and female same-sex couples (see Figure A.9).

Relative to DSCs, illustrated in Figure 5b, SSCPs are substantially more likely to choose the neutral IV/IV combination. This difference is especially pronounced among DSCs with

a male primary earner, where the women will now face a higher withholding tax. For DSCs with a female primary earner, tax class choices more closely resemble those of SSCPs. By contrast, DSCs in which the woman is the primary earner exhibit patterns more similar to SSCPs, with a higher prevalence of IV/IV. However, even in these couples, roughly 10% select the incorrect V/III allocation, which lowers the woman's net monthly income and increases the man's. In these couples, this choice cannot even be rationalized from a tax planning perspective, suggesting that norms about the earner role may persist even when the woman is the higher earner.[31]

Therefore, even when facing identical tax incentives, same-sex couples are more likely to select neutral tax class schemes. This contrast suggests that tax planning behavior is also shaped by social norms, and that withholding serves as a salient channel through which these norms operate.

# 6 Conclusion

Understanding how tax policy shapes household labor supply and income allocation is crucial for public policy, especially as family structures become more diverse. However, isolating the effects of household taxation has been challenging due to the lack of exogenous variation and the confounding influence of traditional gender norms. This paper addresses these challenges by exploiting the extension of joint taxation to same-sex couples in Germany and leveraging novel administrative tax data covering the universe of jointly-filing same-sex civil partners. Our descriptive analysis reveals that same-sex partners are doverrepresented in the upper part of the income distribution and allocate their income more equally than different-sex couples. However, the introduction of joint taxation for same-sex couples in 2013 resulted in a significant increase in within-couple pay gaps, primarily driven by reduced incomes among secondary earners facing higher marginal tax rates. Heterogeneity analysis reveals that responses are strongest among female couples, those with children, and couples with more equal pre-reform earnings - groups with greater potential for adjustment and specialization. Together, these findings suggest that joint taxation in a progressive system reduces household labor supply and increases within-couple income inequality, potentially reflecting preferred household divisions that become financially feasible through the tax benefits.

We further examine the tax responsiveness of same-sex couples and explore its interaction with gender norms through a comparison with different-sex couples. Using variation in marginal tax rates under joint taxation, we find elasticities of around 0.32 - smaller than those

[31] The results align with the earlier findings of Buettner et al. (2019), who document similar patterns for the 2004 cross-section.

for different-sex couples. However, when analyzed by earner role, elasticities are insignificant, suggesting that responses are not driven by the size of the tax incentive, but the increased within-couple inequality. Additionally, same-sex couples avoid withholding schemes that penalize the secondary earner, unlike different-sex couples, who tend to choose options that disadvantage the female spouse and reinforce inequality.

Taken together, these findings indicate that the behavioral response to household tax incentives is not uniform; rather, it depends on the underlying social norms and specialization potential within couples. Consequently, policies aimed at influencing household labor supply may have heterogeneous and unintended effects across family types. This underscores the need for more nuanced approaches to tax design in increasingly diverse societies. This project not only helps us better understand the particular economic dynamics experienced by same-sex couples, but also provides broader insights into how joint taxation can impact household labor supply decisions, raising important questions about efficiency, fairness, and gender equity in tax policy.

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# A Appendix Tables & Graphs

## A.1 Appendix Tables

Table A.1: Income tax systems with joint or family filing

| **Country** | **Tax filing** | | |
|---|---|---|---|
| | Joint | Optional | Family |
| Brazil | | x | |
| Chile | | x | |
| Estonia | | x | |
| France | | | x |
| Germany | | x | |
| Ireland | | x | |
| Israel | | x | |
| Luxembourg | x | | |
| Malta | | x | |
| Norway | | x | |
| Panama | | x | |
| Poland | | x | |
| Portugal | | | x |
| Spain | | x | |
| Switzerland | | x | |
| United States | | x | |

*Notes*: This table presents all countries where the personal income tax system is characterized by either joint filing of spouses, optional joint or individual filing, or family-based taxation. *Source*: OECD (2016).

Table A.2: Number of same-sex civil partners in tax data and official registers

| | Joint Filing in TPP | | | | | |
|---|---|---|---|---|---|---|
| | (1) All | (2) Male | (3) Female | (4) Married | (5) First | (6) Registered |
| **Panel A: Couple-Level** | | | | | | |
| 2008 | 1,226 | 540 | 670 | . | 1,226 | 19,000 |
| 2009 | 1,314 | 574 | 719 | . | 119 | 19,000 |
| 2010 | 1,563 | 677 | 877 | . | 251 | 23,000 |
| 2011 | 5,176 | 2,095 | 303 | . | 3,630 | 26,000 |
| 2012 | 15,648 | 6,191 | 9,294 | . | 10,635 | 30,000 |
| 2013 | 24,294 | 9,896 | 14,100 | . | 9,027 | 35,000 |
| 2014 | 30,021 | 12,570 | 17,030 | . | 6,408 | 41,000 |
| 2015 | 35,657 | 15,145 | 19,919 | . | 6,424 | 43,000 |
| 2016 | 40,814 | 17,601 | 22,542 | . | 6,170 | 44,000 |
| 2017 | 46,056 | 19,993 | 25,329 | 5,867 | 6,378 | 55,000 |
| 2018 | 52,049 | 22,890 | 28,373 | 7,991 | 7,270 | 59,000 |
| 2019 | 57,605 | 25,621 | 31,178 | 9,239 | 7,003 | 76,000 |
| 2020 | 62,589 | 28,180 | 33,580 | 10,501 | 6,453 | 87,000 |
| **Panel B: ID-Level** | | | | | | |
| 2008 | 2,410 | 1,058 | 1,316 | . | 241 | |
| 2009 | 2,582 | 1,128 | 1,413 | . | 230 | |
| 2010 | 2,266 | 1,161 | 1,087 | . | 413 | |
| 2011 | 9,399 | 3,944 | 5,369 | . | 7,092 | |
| 2012 | 30,986 | 12,247 | 18,431 | . | 21,056 | |
| 2013 | 48,098 | 19,533 | 27,980 | . | 17,854 | |
| 2014 | 59,473 | 24,827 | 33,834 | . | 12,632 | |
| 2015 | 70,647 | 29,971 | 39,547 | . | 12,678 | |
| 2016 | 80,833 | 34,826 | 44,728 | . | 12,121 | |
| 2017 | 91,191 | 39,505 | 50,270 | 11,588 | 12,538 | |
| 2018 | 102,945 | 45,157 | 56,308 | 15,775 | 14,286 | |
| 2019 | 113,762 | 50,380 | 61,853 | 18,234 | 13,716 | |
| 2020 | 123,313 | 55,218 | 66,537 | 20,666 | 12,586 | |

*Notes*: This table reports the absolute number of same-sex civil partners in the data and the number officially registered. Columns (1)-(3) report the number of jointly filing SSCPs, overall and by sex. Column (4) reports the number of married SSCPs beginning in 2017, when same-sex marriage was legalized. Column (5) reports the number of couples filing jointly for the first time in that year. Column (6) reports the officially registered number of SSCPs. The number of observations is shown at both the individual and couple level. *Source:* Taxpayer Panel.

Table A.3: Income statistics by sex for same-sex and different-sex couples

| | SSCP | | DSC | |
|---|---|---|---|---|
| | (1) Female | (2) Male | (3) Female | (4) Male |
| Income | 34,928 | 42,742 | 19,363 | 58,046 |
| Income if 1st earner | 50,105 | 66,926 | 45,952 | 64,280 |
| Income if 2nd earner | 20,487 | 20,028 | 14,081 | 21,486 |
| Income if >0 | 38,898 | 50,121 | 26,060 | 60,084 |
| Relative share | . | . | 0.27 | 0.75 |
| Income > 0 | 0.90 | 0.86 | 0.75 | 0.97 |
| Wage income > 0 | 0.81 | 0.74 | 0.68 | 0.86 |
| Self-empl. income > 0 | 0.10 | 0.11 | 0.04 | 0.06 |
| Business income > 0 | 0.06 | 0.11 | 0.07 | 0.17 |

*Notes*: This table reports descriptive income statistics for same-sex civil partners (SSCPs) and different sex spouses (DSCs) by sex. Statistics for SSCPs are taken from the first year the partners file jointly. DSCs are restricted to individuals aged 25-55 who were already jointly filing in 2013. Income is the sum of earnings from employment, self-employment, and business income. *Source*: Taxpayer Panel.

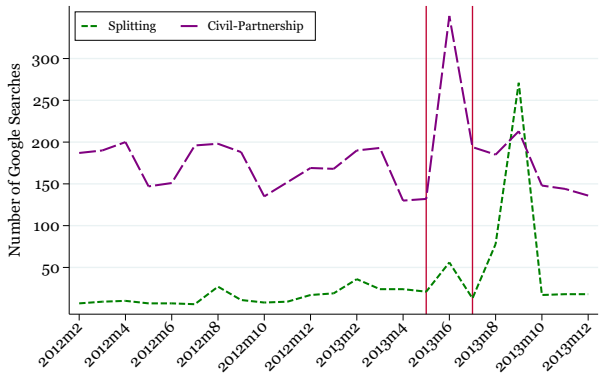
Table A.4: Event study estimates in $t = 4$, by subgroup

| | Income | | LFP | | |
|---|---|---|---|---|---|
| | (1) 1st | (2) 2nd | (3) 1st | (4) 2nd | (5) Gap |
| Women | 0.046 | 0.011 | -0.018 | -0.071 | 0.096 |
| | (0.013) | (0.026) | (0.004) | (0.008) | (0.005) |
| Men | 0.052 | 0.063 | -0.014 | -0.053 | 0.072 |
| | (0.013) | (0.022) | (0.003) | (0.007) | (0.004) |
| East | 0.136 | 0.116 | -0.001 | -0.055 | 0.053 |
| | (0.036) | (0.050) | (0.007) | (0.016) | (0.011) |
| West | 0.071 | 0.089 | -0.017 | -0.058 | 0.066 |
| | (0.014) | (0.024) | (0.004) | (0.008) | (0.005) |
| Childless | 0.061 | 0.076 | -0.014 | -0.065 | 0.067 |
| | (0.014) | (0.023) | (0.004) | (0.007) | (0.005) |
| Children | 0.197 | 0.254 | -0.010 | -0.028 | 0.041 |
| | (0.033) | (0.062) | (0.006) | (0.019) | (0.012) |
| Non-Wage | 0.217 | 0.055 | -0.001 | -0.008 | 0.080 |
| | (0.030) | (0.059) | (0.001) | (0.005) | (0.010) |
| Wage | 0.078 | 0.124 | -0.001 | 0.002 | 0.017 |
| | (0.014) | (0.021) | (0.001) | (0.002) | (0.004) |
| Pre Pay Gap [0.0-0.2) | 0.064 | 0.022 | -0.012 | -0.015 | 0.116 |
| | (0.022) | (0.027) | (0.004) | (0.007) | (0.006) |
| Pre Pay Gap [0.2-0.4) | 0.070 | 0.033 | -0.010 | -0.052 | 0.084 |
| | (0.024) | (0.031) | (0.005) | (0.010) | (0.008) |
| Pre Pay Gap [0.4-0.6) | 0.067 | 0.130 | -0.010 | -0.079 | 0.014 |
| | (0.032) | (0.064) | (0.006) | (0.017) | (0.011) |
| Pre Pay Gap [0.6-0.8) | 0.114 | 0.342 | -0.042 | -0.149 | -0.030 |
| | (0.039) | (0.094) | (0.014) | (0.031) | (0.014) |
| Pre Pay Gap [0.8-1] | 0.166 | 0.640 | -0.010 | -0.128 | -0.114 |
| | (0.054) | (0.179) | (0.019) | (0.051) | (0.018) |

*Notes*: This table reports event-study estimates ($\beta^k$) for period $t = 4$ from Equation 2, separately by subgroup. Standard errors are shown in parentheses. The sample includes same-sex civil partners who first filed jointly in 2013. Primary and secondary earners are defined by their relative income rank in the pre-reform years. Income refers to log earnings; LFP is an indicator for having positive income. *Childless* and *Children* refer to couples who never have or ever have children, respectively. *Non-wage* refers to individuals without wage income, and *Wage* refers to individuals in couples where both partners have wage income. *Pre pay gap [0–0.2)* includes couples with a pre-reform partner pay gap greater than or equal to 0 and less than 0.2. *Source*: Taxpayer Panel.

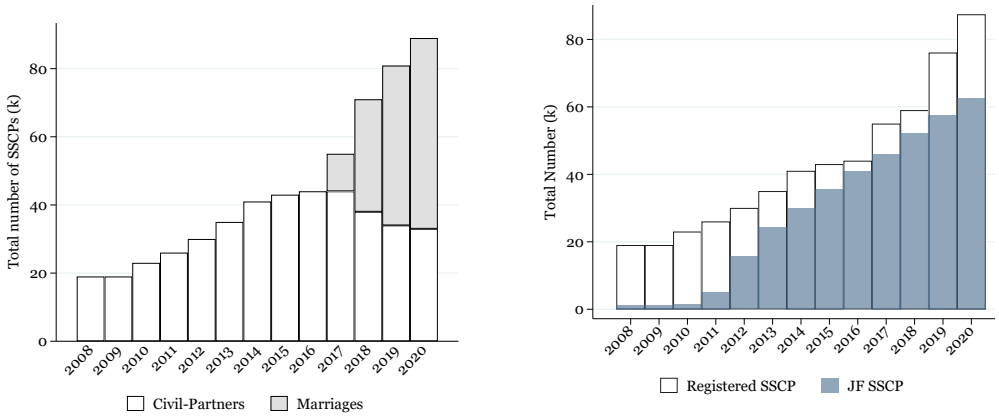
## A.2 Appendix Figures

Figure A.1: Google searches for joint taxation and civil-partnership around the reform




*Notes:* This figure illustrates the absolute number of monthly Google searches for joint taxation (*Ehegattensplitting*) and civil partnership (*Lebenspartnerschaft*) during the months surrounding the ruling in May 2013 and the final reform in July 2013. *Source*: Own calculation based on Google trend data.

Figure A.2: Number of SSCPs

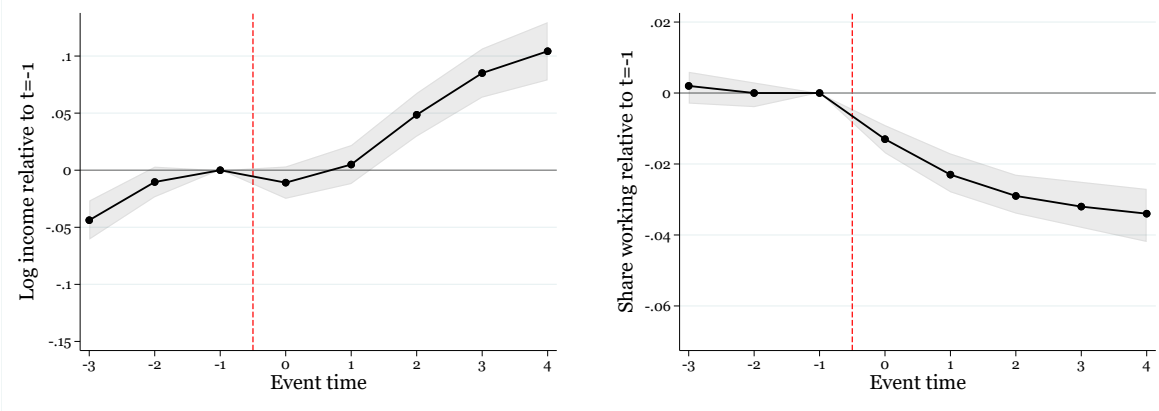



(a) Registered partnerships

(b) Registered and jointly filing partnerships

*Notes*: This figure shows the annual absolute number of registered same-sex civil partnerships in Germany and joint filing of SSCPs in the German income tax data (TPP). Panel (a) displays only the absolute number of registered SSCPs. In contrast, Panel (b) compares this figure to the jointly filing SSCPs observed in the data, represented in blue. *Source*: Federal Statistical Office (Micro Census) and Taxpayer Panel.

Figure A.3: Income relative to reform year, all individuals

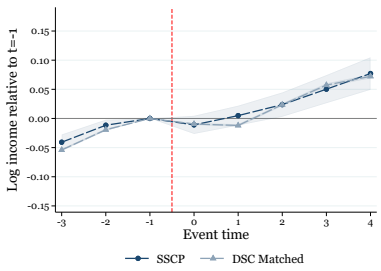



(a) Log income

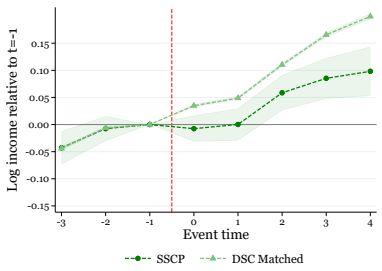
(b) Labor force participation

*Notes*: This figure displays the event study results ($\beta_k$) from estimating Equation 2 for log earnings (Panel (a)), and labor force participation (Panel (b)). The sample comprises all individuals in same-sex couples who first filed jointly in 2013, without distinguishing between primary and secondary earners. The year of reform, 2013, is denoted as $t = 0$. Income is measured as the sum of business, self-employment, and employment earnings. Labor force participation is defined as having positive income. Shaded areas indicate 95% confidence intervals. *Source*: Taxpayer Panel.

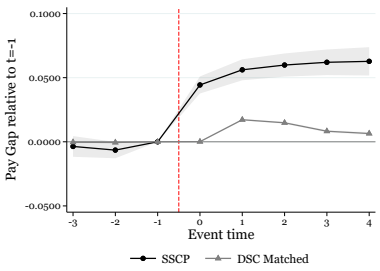
Figure A.4: Event-study estimates compared to matched different-sex couples



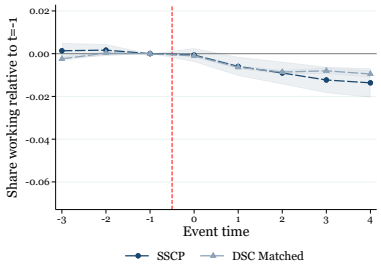

(a) Log income primary earner



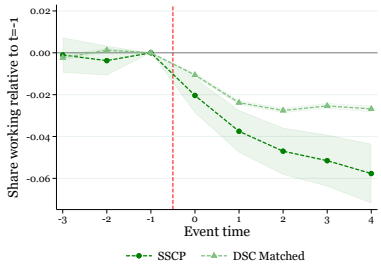

(b) Log income secondary earner




(c) Partner pay gap



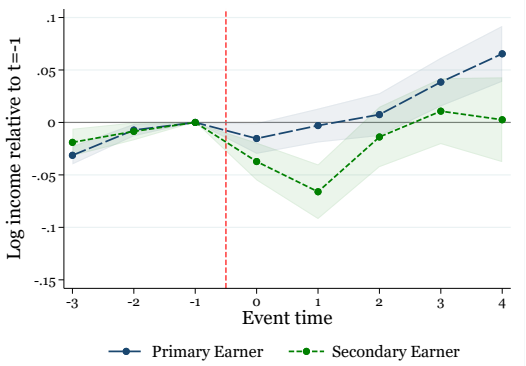

(d) LFP primary earner



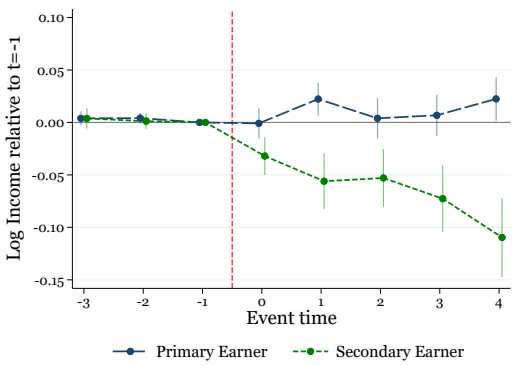

(e) LFP secondary earner

*Notes*: This figure presents event-study estimates ($\beta^k$) from Equation 2 for same-sex couples who first filed jointly in 2013 (SSCPs) and for matched different-sex couples (DSCs). The reform year, 2013, is denoted by $t = 0$. Primary and secondary earners are defined based on their relative income rank in the pre-reform years. Panel (a) shows log earnings of primary earners, Panel (b) log earnings of secondary earners, Panel (c) the partner pay gap, and Panels (d) and (e) labor force participation of primary and secondary earners, respectively. Earnings are defined as the sum of employment, self-employment, and business income, while labor force participation is an indicator for having positive earnings. The partner pay gap is defined as the absolute difference in partners earnings divided by total household earnings. Shaded areas indicate 95% confidence intervals. *Source*: Taxpayer Panel.

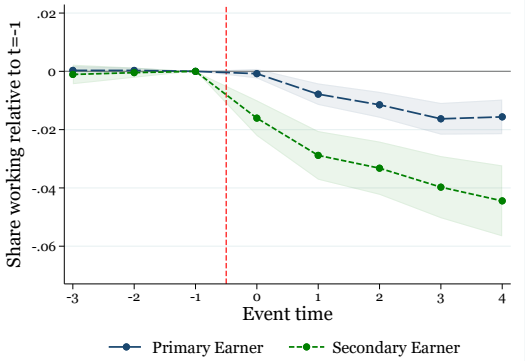
Figure A.5: Income and partner pay gap relative to the reform, restricted sample



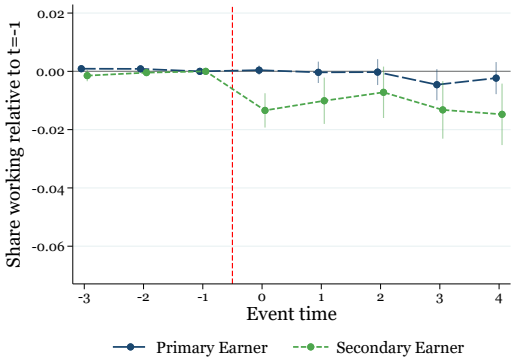

(a) Event Study: Intensive Margin



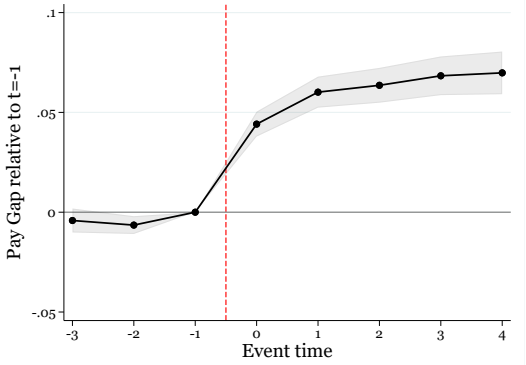

(b) Diff-in-Diff: Intensive Margin



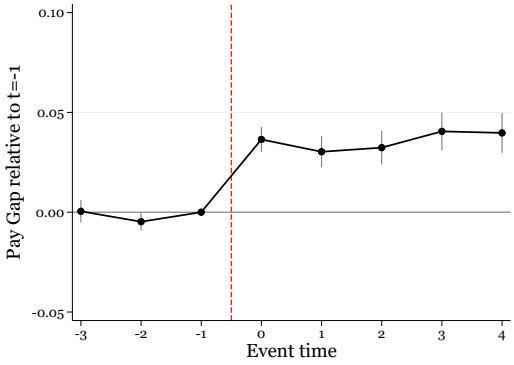

(c) Event Study: Extensive Margin




(d) Diff-in-Diff: Extensive Margin



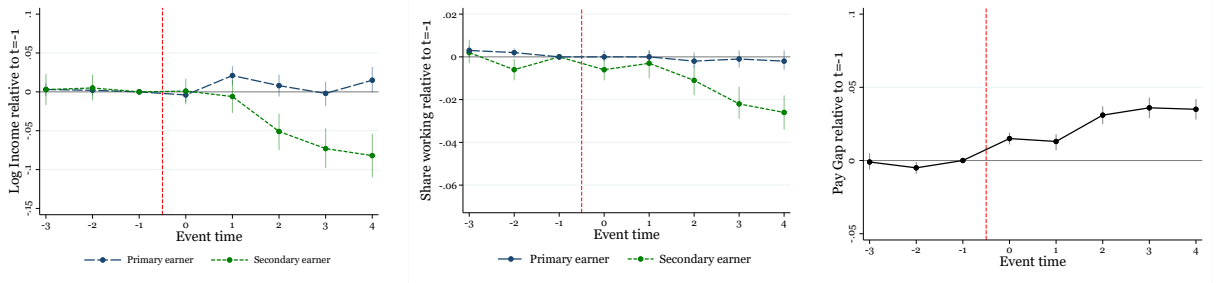

(e) Event Study: Partner pay gap




(f) Diff-in-Diff: Partner pay gap

*Notes*: This figure displays event study (Panels a, c, e) and dynamic diff-in-diff (Panels b, d, f) estimates from Equation 2 and 3. Outcomes are log earnings (intensive margin), labor force participation (extensive margin), and the partner pay gap. The sample comprises all individuals in same-sex couples who first filed jointly in 2013. Primary and secondary earners are defined by relative pre-reform income rank. The control group in the diff-in-diff design consists of matched different-sex couples. The reform year 2013 is denoted by $t = 0$. Shaded areas/vertical bars indicate 95% confidence intervals. *Source*: Taxpayer Panel.

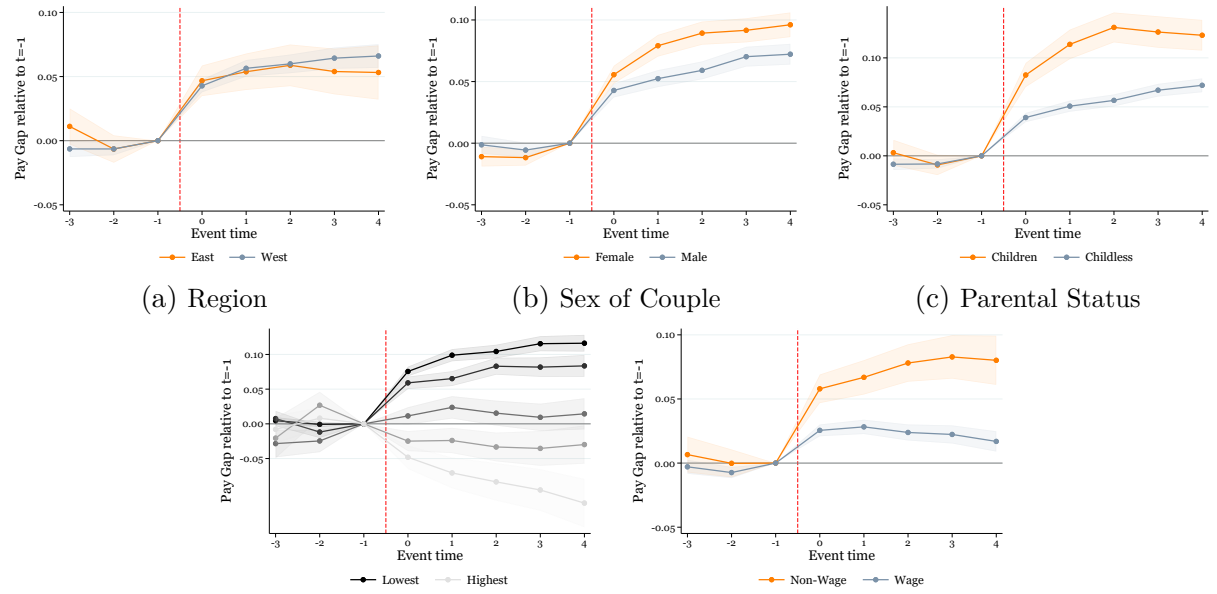
Figure A.6: Income and partner pay gap treatment effects, 2013-2014 sample




(a) Log income (b) Labor force participation (c) Partner pay gap

*Notes*: This figure displays interaction-term coefficients ($\gamma^k$) from Equation 3 for log earnings, Panel (a), labor force participation, Panel (b), and the partner pay gap, Panel (c), shown separately for primary and secondary earners where applicable. The treatment sample comprises same-sex couples who first filed jointly in either 2013 or 2014, with primary and secondary earners defined according to their relative income rank in the pre-reform years. The control group consists of matched different-sex couples. The reform year 2013 is denoted by $t = 0$ for both cohorts. Earnings are defined as the sum of business, self-employment, and employment income, labor force participation as having positive earnings, and the partner pay gap as the absolute difference between partners earnings divided by total household earnings. Vertical bars indicate 95% confidence intervals. *Source*: Taxpayer Panel.

Figure A.7: Event-study pay gap estimates for different sub-groups

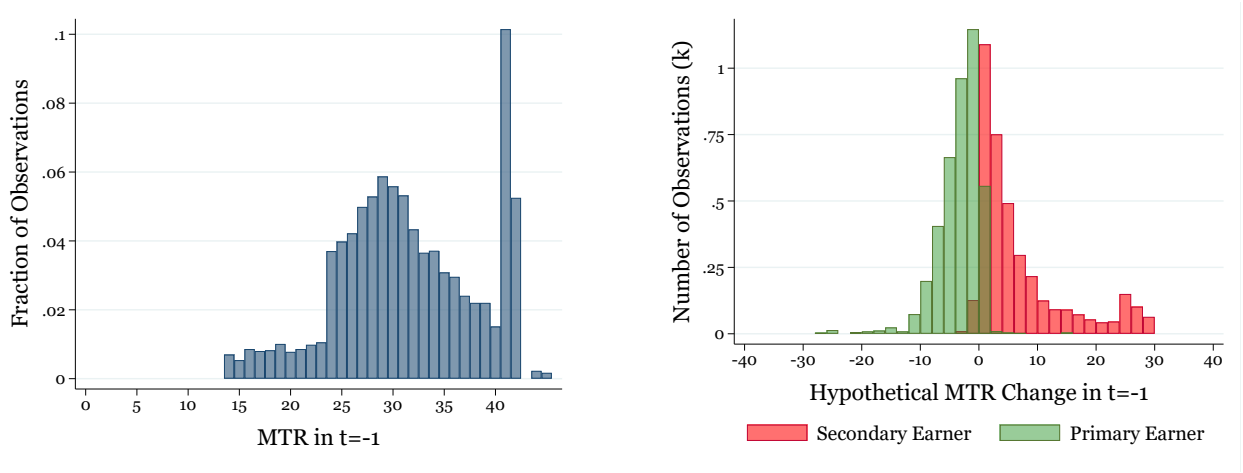



(a) Region (b) Sex of Couple (c) Parental Status

(d) Pre-Reform Pay Gap (e) Income Source

*Notes*: This figure presents event-study estimates ($\beta^k$) from Equation 2 for different sub-groups of the analysis sample of same-sex couples who first filed jointly in 2013 (SSCPs). The reform year, 2013, is denoted by $t = 0$. The partner pay gap is defined as the absolute difference in partners earnings divided by total household earnings. Shaded areas indicate 95% confidence intervals. *Childless* and *Children* refer to couples who never have or ever have children, respectively. *Non-wage* refers to individuals without wage income, and *Wage* refers to individuals in couples where both partners have wage income. *Source*: Taxpayer Panel.

Figure A.8: Marginal tax rates and simulated changes under joint taxation

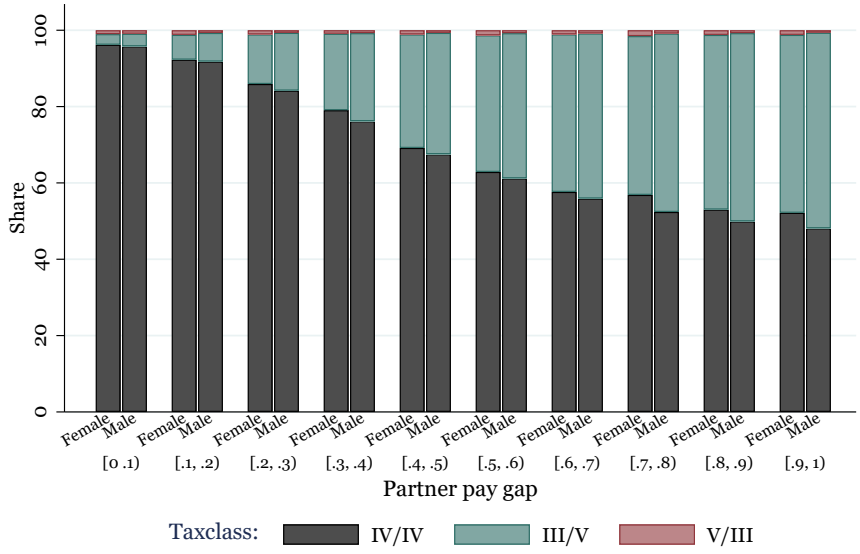



(a) Baseline marginal tax rates

(b) Simulated change under joint taxation

*Notes*: Panel (a) shows marginal tax rates in $t = -1$ before the introduction of joint taxation. Panel (b) shows the simulated mechanical change in marginal tax rates, $\Delta\tau^{mtr}$, obtained by applying joint filing rules to pre-reform taxable income in $t = -1$ using Equation 4. The distribution is displayed separately for primary and secondary earners, defined by their relative income shares in $t = -1$. Positive values indicate an increase in the marginal tax rate under joint taxation, while negative values indicate a decrease. The sample includes same-sex couples who first filed jointly in 2013. *Source*: Taxpayer Panel.

Figure A.9: Withholding tax class choices by sex among same-sex civil partners




*Notes*: This figure shows the chosen tax class combination by partner pay gap for female and male same-sex civil partners for the years 2015-2018. The partner pay gap is defined as the absolute difference in partners' pre-tax incomes divided by total pre-tax household income. *Source*: Taxpayer Panel.

# B Appendix Sublements

## B.1 Numerical Example of Joint vs. Individual Taxation

In this example, we compare the tax liability and marginal tax rates of joint and individual taxation for a hypothetical couple under the German income tax schedule from 2013. Person 1 earns 80,000 annually, while Person 2 earns 20,000. When taxed individually, Person 1's tax liability is 23,576, resulting in a marginal tax rate (MTR) of 42%, and Person 2's tax liability is 1,759, with an MTR of 25%. The couple's combined tax liability when taxed individually is 25,335. However, when taxed jointly, their total tax liability decreases to 21,820, with a joint marginal tax rate of 36%.

| **Scenario** | **Tax Liability (€)** | **Marginal Tax Rate (MTR)** |
|---|---|---|
| **Taxed Individually** | 25,335 | |
| Person 1 (80,000 €) | 23,576 | 42% |
| Person 2 (20,000 €) | 1,759 | 25% |
| **Taxed Jointly (100,000 €)** | 21,820 | 36% |

This reduction highlights the benefit of joint taxation, particularly when there is a significant earnings disparity between the two partners. The joint taxation system lowers the overall tax burden by 3,155, primarily by reducing the marginal tax rate for the higher earner (Person 1), while increasing it for the lower earner (Person 2).

## B.2 Interviews with legal LGBTQ activists

**Interview 1 conducted 2022**

**Q:** Civil-partnerships for same-sex marriages were established in 2001. Can you describe how this introduction was received and perceived by the community?
**A:** Some people saw it as a compromise because they wanted marriage equality and civil partnerships initially lacked most of the legal benefits associated with marriage. My partner and I, along with other same-sex partnerships, viewed the formation of a civil partnership more as a symbolic gesture for our relationship.

**Q:** Joint-taxation was not granted to same-sex civil partnerships before 2013. Several civil partnerships like you and your partner still filed their income taxes jointly to claim that right. Can you describe how this worked in practice?
**A:** At the end of each year, my partner and I simply filed a joint income tax return, similar to what married couples do. We included a note that if joint taxation was denied, the income tax return should be considered provisional and not legally binding, with reference to §165 of the tax code (Abgabenordnung). In the case where our claim was selected as a test case, the tax return remained non-binding until a legally binding decision was reached. If the tax authorities still insisted on individual tax filing, we would submit an objection, again referring to article 165.

**Q:** Can you assess how prevailed this practice was?
**A:** There was a major campaign by the LSVD (Interest Group for Lesbians and Gays) encouraging people to do this. They also published a template text for the claim. However, it was still a significant effort, and I think there were probably about hundreds who did it.

**Q:** How cooperative were the local tax authorities on these claims?
**A:** I personally had no contact with them. However, this claim eventually turned into a test case (at least 100 processes) which helped streamline the efforts on the part of the tax authorities, reducing their administrative costs.

**Q:** What happened to the open claims in 2013, after a reform made joint taxation eligible to civil partnerships?
**A:** In 2013, when joint taxation was finally allowed, all past tax returns that had not been legally binding could be retroactively filed as joint tax returns. The resulting tax benefits were disbursed as a one-time payment with an added 4% interest. Managing these payments was a significant task for the responsible tax authorities, particularly due to the interest component, which sometimes led to errors or miscalculations in the payments.

**Q:** Did you perceive the one-off payment as some sort of windfall money?
**A:** People expected it to work eventually, but it was still an income shock to receive all that money at once.

**Q:** Was fighting for joint taxation viewed as a means of a step towards legalizing same-sex marriage?
**A:** You can truly gauge equality at the cash register. The equalization of income tax treatment was not only perceived as a symbolic step toward achieving marriage equality but also held significant legal value. Article 6 of the German Constitution Code, which states that "Marriage and family are under the special protection of the state order", had been used as a legal argument against granting joint taxation to civil partnerships. However, it was expected that this article would eventually be interpreted differently.

**Q:** What changed when same-sex marriage was legalized in 2017?
**A:** First off, civil partnerships were not automatically changed into a marriage. Instead, a formal registration of marriage was required. Upon registration, couples received a marriage certificate, that dated the start of their marriage back to the inception of the civil partnerships. This change in legal status allowed same-sex spouses to retroactively file their taxes jointly for all years of their civil partnership in which they initially submitted their taxes separately. To do this, spouses simply had to fill out and submit the tax return of each of these years jointly. There was a specific deadline for this process. Due to the tax benefits from joint taxation, many couples tried to convert their civil partnership into a marriage before this deadline. However, because the change in legal status was not automatic, partnerships where one partner had passed away could not change their legal status and consequently did not receive these tax benefits.

**Q:** How widespread was this process among partnerships that changed their legal status to married.
**A:** There were quite a few people who found it too complicated before 2013. But with marriage equality, many couples did it.

**Interview 2 conducted 2022**

**Q:** Civil-partnerships for same-sex marriages were established in 2001. What were your personal experiences leading to the introduction?
**A:** I was a member of both the Schwule Juristen and LSVD. Since the mid-90s, we had been politically involved in the legalization of marriage for same-sex partners. Through the demands and actions of these interest groups, there was a wave of essays assessing same-sex marriage from a legal perspective. The concept of the "Abstandsgebot" was derived from this [By referencing Article 6 of the constitution (GG), Abstandsgebot refers to the demand that civil partnerships should not be granted the same rights as marriage]. Ultimately, the Federal Constitutional Court ruled that Article 6 of the Basic Law did not mandate marriage equality.

**Q:** How did you perceive the introduction of civil partnerships?
**A:** Ambivalent. On one hand, it was positive that it was finally introduced. On the other hand,

the approach of having to include differences to different-sex marriage was frustrating.

**Q:** Joint-taxation was not granted to same-sex civil partnerships before 2013. Several civil partnerships like you and your partner still filed their income taxes jointly to claim that right. Can you describe how this worked in practice?
**A:** We only started filing our tax returns jointly in 2008. We included a cover letter with our tax return, which was drafted using LSVD's template letter. Joint taxation was rejected, so we lodged an objection against the rejection.

**Q:** What happened to the open claims in 2013, after a reform made joint taxation eligible to civil partnerships?
**A:** In 2013, we submitted our tax returns with a note indicating that previous tax returns were still pending. We received termination notices for the past tax returns shortly after. However, it was not until 2015 that we finally received a one-time payment for the pre-2013 tax returns.

**Q:** Was fighting for joint taxation viewed as a means of a step towards legalizing same-sex marriage?
**A:** Yes, there was an impression that it was a step towards achieving same-sex marriage. The Second Senate of the Federal Constitutional Court, which had authority over the matter, had previously imposed restrictions on marriage. However, the constitutional court's stance shifted, emphasizing that differences between different-sex marriage and civil partnerships must be thoroughly justified. This shift was perceived as a gradual erosion of those distinctions, leaving only the political decision as the remaining factor in the path to marriage equality.

**Q:** What changed when same-sex marriage was legalized in 2017?
**A:** We changed our legal status in 2018 because there were no earlier appointments available. It wasn't an emotional date for us. We also undertook the task of retroactively filing our taxes, covering the period from the inception of our partnership in 2002 until 2008 when we began to file claims. Tax authorities typically discard previous tax returns after a period of 10 years. Consequently, we needed to preserve those earlier tax returns, which contained the same income information, to enable us to file them jointly once more.