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**Unintended Effects of Transparency: The  
Consequences of Income Disclosure by  
Politicians**

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# Unintended Effects of Transparency: The Consequences of Income Disclosure by Politicians\*

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## Abstract

Public disclosure laws on politicians' outside income aim to enhance electoral accountability, but their effects remain unclear and may backfire. Using a German disclosure reform, administrative tax data, and a difference-in-difference design, we show that MPs increased their outside income after public disclosure. We find suggestive evidence that the effect is driven by right-leaning MPs. A survey among voters shows that perceptions of outside income differ by party alignment: right-leaning voters view it as a sign of competence, while left-leaning voters associate it with weaker voter representation. These findings highlight the complex interplay between transparency, voter perception, and political behavior.

KEYWORDS: tax data, outside income, politicians, income disclosure

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# 1 Introduction

Transparency is essential for ensuring accountability, as it provides the necessary information to monitor and evaluate actions. Disclosure policies are often seen as an alternative to more rigid regulations, offering flexibility and respecting freedom of choice. These policies can reduce information asymmetries, enhance accountability, and enable individuals to make informed decisions. By revealing potential conflicts of interest and increasing visibility into actions and affiliations, disclosure policies can deter unethical behavior, such as corruption, by raising the likelihood of detection and public scrutiny. However, disclosure can also be ineffective or even backfire for various reasons. Communicating accurate information may be challenging due to misunderstandings or poorly designed policies (Bhargava and Loewenstein, 2015). Individuals might avoid certain information or focus only on specific aspects, and even the same information can be interpreted in different ways (see Faia et al. (2024) for an example and Golman et al. (2017) for a general review.).

Democratic countries are particularly concerned about the ability of voters to hold members of parliament (MPs) accountable, which heavily relies on the availability of information about their parliamentary and non-parliamentary actions. Many countries have implemented disclosure laws regarding politicians' outside activities and income to enhance accountability and transparency. Disclosure provides voters with information about their representatives, helping them make informed decisions during elections. It allows for scrutiny of potential conflicts of interest and may increase trust in the political system by alleviating concerns about corruption. According to Djankov et al. (2010), over 100 countries worldwide have such laws in place, with roughly half of them making the disclosed information public. Despite their widespread use, there is little causal evidence on the effects of public disclosure laws regarding outside activities and income, as well as their impact on politicians' engagement in such activities. This lack of evidence can be attributed to several reasons. First, obtaining high-quality data on politicians' income is challenging, especially for periods before the introduction of disclosure rules, as information about politicians' outside work is, by design, not observable. Second, even the disclosed data is often incomplete and prone to misreporting. Third, making causal statements about the impact of disclosure laws requires identifying a suitable control group to establish a counterfactual scenario. Finally, to understand the relationship between MPs and voters, we must consider voters' perceptions regarding outside work.

In this paper, we aim to fill this gap by analyzing the relationship between voters' perceptions and politicians' actions by exploiting a disclosure law as a source of exogenous variation. Since 2007, information on the outside activities and earnings of MPs from the German federal parliament (*Bundestag*) has been publicly accessible. Each outside activity is reported using a bracket system, with income top-coded at 7000€ per activity. We show that the reform has received significant attention from both the media and voters. Our analysis consists of three steps. First, we descriptively characterize the volume and nature of outside work using publicly available data on outside work, political background, and voting statistics. Second, we causally identify the effect of the disclosure law using administrative tax data. Lastly, we conduct a tailored survey among the German voting population to study voters' perceptions regarding outside income.

We manually collected data on all disclosed outside activities and income from 2005 to

2013, including detailed information about the type of outside work. We merged this data at the MP level with various demographic and political background variables. The descriptive analysis reveals several key findings. First, consistent with prior evidence, we find that MPs from right-leaning parties are more likely to engage in outside activities and earn significantly higher outside income (see, among others, Weschle (2022)). Second, the largest category of outside income is derived from self-employment and business activities, in which right-leaning MPs are also overrepresented. Third, compared to the overall income distribution in Germany, outside income among federal MPs is heavily skewed, with a small number of top earners accounting for a significant portion of the total income. Specifically, the top 10% of MPs earn approximately 44% of the disclosed outside income.

To causally examine politicians' reactions to the disclosure of outside income, we use administrative tax return data from 2001 to 2011. By distinguishing between federal and state MPs, we treat state MPs — who were not subject to any disclosure rules during our sample period — as our control group in a difference-in-differences design. We find that federal MPs increased their outside income by 15% following public disclosure in 2007. Additionally, the probability of MPs earning positive outside income increased significantly by 4.5 percentage points. Given the heavy skew in the distribution of MPs' outside income, we conduct quantile regressions. Our analysis reveals that the effect is driven by most of the outside income distribution and is particularly pronounced at the top. Furthermore, the response is primarily driven by income from self-employment and business activities rather than wages and salaries. Using proxies for political leaning derived from tax data, we find suggestive evidence that right-leaning MPs are the main contributors to this effect. This finding is consistent with the effect being driven by top incomes and self-employment income, which are both more likely to be associated with right-leaning MPs, according to publicly disclosed data.

To study the impact of public disclosure on politicians' behavior, we must consider the interplay between voters' perceptions and politicians' actions regarding outside work. If MPs correctly anticipate how their electorate perceives outside work, this may influence their decisions to engage in such activities. The effect of disclosure on income is ex-ante ambiguous, as it depends on voters' perceptions. If voters learn that their elected officials earn substantial income in addition to their political mandate, they may perceive this behavior as a potential conflict of interest or even corruption. Consequently, office-seeking politicians who are attuned to their voters' perceptions might reduce their non-parliamentary activities in response. Conversely, if voters perceive an MP's outside income and activities as indicators of competence, they may accept or even support such behavior. In this case, MPs would likely increase their time spent on outside activities, thereby heightening the risk of influence from third parties. Overall, voters' perceptions of outside income are crucial for understanding the effects of its disclosure.

We conduct a tailored, representative survey experiment among 4000 German voters to measure voters' perceptions of outside work. We present each voter with several hypothetical MPs and randomize the level and type of outside income for each MP, as well as several other characteristics, such as party affiliation. Voters are then asked to rate the MPs in four dimensions: (1) how well they represent their voters, (2) whether they act in their own or third-party interests, (3) their level of competence, and (4) how hardworking they are.

Our survey results corroborate the heterogeneous effects of political leaning identified in our causal analysis. By splitting the sample based on voters' political leaning, we show that

right-leaning voters do not perceive MPs with higher outside income as less likely to represent voters' interests. Instead, they view these MPs as more competent and hardworking. In contrast, left-leaning voters perceive MPs with higher outside income as less likely to represent their interests and do not consider them to be more competent or hardworking. This pattern aligns with our suggestive finding that the increase in outside income due to the disclosure law was primarily driven by right-leaning MPs. Both right- and left-leaning MPs accurately anticipate their voters' perceptions of outside work and respond accordingly.

We contextualize our survey results by benchmarking the effect size against the well-established concept of partisan bias. As commonly noted in the literature, voters exhibit significant partisan bias, meaning they rate candidates from their preferred party more favorably, all else being equal. For instance, in our study, MPs from voters' preferred party are perceived as more competent and hardworking. We demonstrate that the difference in perception between left- and right-leaning voters is nearly as large as the estimated partisan bias itself. Taken together, our estimated effects of public disclosure and the differences in voter perceptions lead us to conclude that MPs accurately anticipate voters' perceptions and may use public disclosure as a signaling tool. More broadly, the interplay between the sender and receiver of information greatly influences the effectiveness of transparency policies and should be considered in their design.

We contribute to several strands of the literature. To the best of our knowledge, this paper provides the first quasi-experimental evidence that public disclosure influences the volume of politicians' outside income. In contrast to Djankov et al. (2010), we go beyond cross-country comparisons and offer causal evidence. We focus on an advanced democracy with low levels of corruption, as evidenced by Germany's ranking of 9th on Transparency International's Corruption Perception Index. A few papers have examined politicians' reactions to information disclosure in developing countries. Banerjee et al. (2024) investigate how public disclosure of past performance impacts politicians' behavior and electoral outcomes. It creates strong incentives for politicians to align their actions with voter preferences. By empowering voters with reliable information, electoral incentives are strengthened, motivating politicians to act in the public interest. Ferraz and Finan (2008, 2011) and Avis et al. (2018) show that electoral accountability improves when information about corruption in audited municipalities is made public. Bobonis et al. (2016) document the effects of monitoring corrupt actions in Puerto Rico's municipal governments and find that mayors anticipating pre-election information disclosures behave honestly before the election but not afterward. We contribute to the literature by demonstrating that politicians may use public disclosure as a signaling tool.

We contribute to a broader literature studying the link between public disclosure and income reporting behavior.<sup>1</sup> The effects of income disclosure have been studied, among others, for the general population (Bø et al., 2015, Slemrod et al., 2022), CEOs (Mas, 2016), and public employees (Mas, 2017). Public disclosure of tax returns, whether by individuals or firms, is often used to raise tax compliance, particularly in low-income countries with limited capacity for other enforcement strategies.<sup>2</sup> Most recently, Regan and Manwaring (2024)

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<sup>1</sup> More broadly, we also add to the growing literature on pay transparency (see Cullen (2024) for a review) and its effects on various other outcomes.

<sup>2</sup> Both Slemrod et al. (2022) and Bø et al. (2015) find that income disclosure leads to higher levels of tax compliance driven by a shift in social norms and concerns for reputation. Dwenger and Treber (2022) explicitly study whether public shaming increases tax compliance through social pressure. They exploit the introduction of a naming-and-shaming policy in Slovenia to show that taxpayers reduce their tax debt to avoid shaming. Perez-Truglia and Troiano (2018) ran a field experiment to study shaming by sending different letters to tax delinquents in the US.

studied the link between tax compliance and public disclosure in Uganda. The threat of publicly disclosing delinquency raises compliance, but subsequently disseminating delinquent behavior lowers others' compliance. In total, they show that public disclosure was less effective in raising revenue compared to alternative methods like simple reminders. Nathan et al. (2024) conduct an information-disclosure natural field experiment and highlight the role of fairness concerns in tax compliance. Disclosure policies are also relevant in the context of corporate tax compliance. Hoopes et al. (2024) document a movement toward greater disclosure of private information to tax authorities and an increasing exchange of information among third parties. However, the goal of enhancing tax compliance, increasing reported taxable income, or reducing income shifting has not been fully achieved. For example, Hasegawa et al. (2013) and Hoopes et al. (2018) highlight the role of unintended and undesirable consequences of public disclosure. Furthermore, Perez-Truglia (2020) shows that income disclosure can negatively affect the life satisfaction of poorer individuals who compare themselves to others higher in the income distribution. We contribute to this literature by studying politicians whose incentives differ from those of the general population. We show that an increase in transparency can have unintended consequences due to politicians' reelection incentives and heterogeneous perceptions among voters.

Our paper complements a line of research that studies differences in information selection and processing based on political preferences. Faia et al. (2024) provide evidence of partisan bias in information processing and selection. Meeuwis et al. (2022) find that Republicans and Democrats interpret the same public information differently, which subsequently affects their investment decisions. Ditto et al. (2024) review the literature on how partisan bias affects political judgment, highlighting that individuals process and evaluate political information differently according to their partisan affiliations. Similar to our study, these studies demonstrate that individuals process information differently depending on their party preferences.

The rest of the paper proceeds as follows. Section 2 describes the institutional background and provides a descriptive analysis of the publicly disclosed data. Section 3 outlines our empirical strategy and the tax-return data. Section 4 presents causal evidence on the impact of public disclosure on outside income and emphasizes the importance of party alignment. Section 5 outlines our survey design and results. Section 6 concludes.

## 2 Institutional Context and Publicly Disclosed Data

In the following section, we describe the institutional context of our setting. We explain the underlying disclosure rules for outside activities and associated income in detail, and we describe the enforcement mechanisms. Over 100 countries worldwide have some form of disclosure laws, but fewer than 50 countries make these disclosures available to the public (Djankov et al., 2010). In Germany, from 2005 onward, information on outside work had to be privately disclosed to the President of the German Bundestag. In 2007, this information was made publicly available, retroactively covering disclosures from 2005. Furthermore, we show that voter and media attention regarding the policy change was high. Last, we descriptively characterize the volume and nature of the reports, and we describe who reports outside work.

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They demonstrate that public shaming is a powerful policy instrument for improving tax compliance. Similarly, Angaretis et al. (2024) show that non-monetary sanctions like public disclosure or license suspension can be efficient tax enforcement tools. See Bursztyn and Jensen (2017) for a survey of the literature on social pressure and shaming effects.

Table 1: General Disclosure Requirements

<b>(A) Outside Activities</b>	
Remunerated activity during the term of the mandate	e.g. speech
Functions in enterprises	e.g. supervisory board
Functions in public corporations and institutions	e.g. board of trustees
Functions in clubs, associations and foundations	e.g. development aid agency or foundations
<b>(B) Outside Income</b>	
Level 0	income below 1000€
Level 1	income between 1000€ and 3500€
Level 2	income between 3500€ and 7000€
Level 3	income over 7000€
<b>(C) Frequency and Time Frame</b>	
Once, monthly or yearly	starting and ending date
<b>(D) Source</b>	
Company's name and location	

Notes: These rules correspond to the legal status of the two electoral periods, 16 and 17, that we are examining. Disclosed income and activities are published on the website of the German Bundestag and in the *Amtliches Handbuch*.

## 2.1 Institutional Background

Like in many other countries, both federal and state MPs in Germany are legally allowed to engage in outside activities in addition to their political responsibilities. For example, lawyers may continue practicing law, and self-employed MPs can continue with their businesses. However, it is explicitly stated in §44a of the Members of the Bundestag Act (*Abgeordnetengesetz*) that “the exercise of the mandate of a Member of the Bundestag shall be central to his or her activity”.<sup>3</sup>

In late 2004, payments to federal MPs by large companies such as Siemens and Volkswagen became the focus of public attention. As a result, in August 2005, the German federal parliament passed a law requiring federal MPs to disclose their outside activities and income publicly. The purpose of this disclosure was to reveal any potential conflicts of interest that could affect their mandate. However, the law was controversial, and some MPs filed a lawsuit against it, arguing that it violated their privacy rights and made it less appealing for certain professionals, such as entrepreneurs, to run for office. While waiting for the final decision of the Federal Supreme Court, the President of the German Bundestag (*Bundestagspräsident*) decided that MPs would only have to disclose their outside activities and income privately to the administration of the Bundestag, rather than publicly. In July 2007, the German constitutional court narrowly rejected the lawsuit, allowing all past and future information on outside income and activities to be made public. This information is freely accessible to voters and is widely reported by the media.<sup>4</sup>

Disclosure rules for outside activities and associated income are summarized in Table 1. The information is published on the website of the German Bundestag (see Appendix Figure A.1 for an example of an MP's webpage). Disclosure obligations involve the publication of each (1) outside activity, (2) corresponding outside income per activity, (3) its frequency,

<sup>3</sup> The interested reader can find an English version of the Code of Conduct for Members of the German Bundestag online (Bundestag, 2013).

<sup>4</sup> Importantly, the introduction of public disclosure does not coincide with a starting election period. In Appendix Table A.1, we provide details about election periods 16 and 17 in the Federal Parliament.

and (4) its source and location. Disclosed income is defined as the gross amounts paid, including expenses, compensations, and the value of benefits in kind, and does not consider deductions. Not all kinds of outside income need to be disclosed. For example, stock options or shareholdings in private corporations, if they are lower than 25%, are exempted. The brackets of the published outside income are as follows: Income below 1000€ are categorized as level 0, those between 1000€ and 3500€ are referred to as level 1, and outside income between 3500€ and 7000€ are called level 2. Level 3 refers to outside income above 7000€ per activity.

Every MP must submit the required information to the President of the German Bundestag within three months. The administration of the Bundestag then publishes the data on individual websites maintained by the German Bundestag for each MP. If an MP misreports or fails to report accurately, the administration makes the violation public and imposes a fine on the MP. Sanctions may include reductions in their salary of up to 50%. Moreover, in addition to the monetary fine, there is a high cost to their reputation, as these cases are widely discussed in the media.<sup>5</sup>

Various watchdog organizations and the media extensively report on the published data.<sup>6</sup> We show that the reform has received significant attention from voters, as proxied by Google searches (see Appendix Figure A.2a). Voters' attention also varies significantly with the political cycle and peaks shortly before federal elections, as shown by the number of clicks on web pages of the Bundestag (see Appendix Figure A.2b). Additionally, the media, proxied by the number of newspaper articles mentioning politicians' outside income and MPs themselves, evidenced by the frequency of mentions of outside income in parliamentary speeches, paid significant attention to the reform (see Appendix Figures A.2c and A.2d).

## 2.2 Publicly Disclosed Data on Outside Income and Activities

Before we provide causal evidence on the effects of public disclosure on income, we descriptively characterize the volume and nature of outside work. We do so by manually collecting all publicly disclosed information on outside income and activities from the Bundestag website. We merge the data with demographic information such as gender, party affiliation, committee membership, and voting statistics for each MP of the German federal parliament between 2005 and 2013. Overall, our hand-collected dataset consists of 1294 MP-election period observations, covering election periods 16 and 17 of the German federal parliament.<sup>7</sup>

We extract several demographic variables from the handbook of German MPs, including their names, gender, age, marital status, residence, whether they hold a doctoral degree, their party affiliation, and the number of terms they have served. During our sample period, approximately half of the MPs belong to one of the right-leaning parties, the Christian Democrats (*CDU/CSU*) and the Liberal Democrats (*FDP*), while the other half are members of one of the left-leaning parties, the Social Democrats (*SPD*), the environmental-left *The Greens*, and the far-left *The Left*. Additionally, to measure the interests and positions of MPs, we collect

<sup>5</sup> This has already happened twice, most notably in 2008, to Otto Schily, the former minister of the interior. As an attorney, he argued that the disclosure law would violate his client's privacy rights.

<sup>6</sup> The most prominent watchdog organizations in Germany are the NGOs known as *abgeordnetenwatch*, *lobbycontrol*, and *Transparency International*. They collect, process, and prepare information to uncover abuses in politics and administration.

<sup>7</sup> We have data for 864 individual MPs, with 430 MPs present throughout both election periods. Appendix Table A.1 provides an overview of the two election periods under study as well as the composition of MPs in the German federal parliament by party.



Table 2: Publicly Disclosed Data: Volume and Nature of Outside Work

	mean	median	sd	max	N
disclosed outside income > 0	0.25	0.00	0.44	1.00	1294
disclosed outside income	5091.21	0.00	16609.78	188015.84	1294
Disclosed outside income by the four most common activities:					
self-employment & business activities	2008.03	0.00	10413.92	136704.25	1294
practicing as an attorney	716.90	0.00	6388.92	132143.20	1294
board member	773.98	0.00	4148.71	76270.58	1294
giving speeches or publishing books	490.53	0.00	5850.10	174586.16	1294

Notes: This table provides summary statistics for the yearly and publicly disclosed amounts of outside income for federal MPs. To determine the value of outside income, we assign the lower bound of each bracket to every activity (see Section 2.2). Source: Hand-collected data for election periods 16 and 17.

information on the committees that each MP was part of and whether they held a committee chair position. Lastly, we added a dummy for the MPs directly elected to parliament.<sup>8</sup> Summary statistics of all these variables can be found in Appendix Table B.1. During the period under study, the federal parliament consists of around one-third of female MPs. An average MP is 51 years old, and around 70% are married.

We collect information on every disclosed activity, income level (ranging from 0 to 3), start and end date, and frequency (monthly, yearly, once) for each federal MP. We do not include activities directly related to the MP’s political work, such as government positions or activities related to their party. In Appendix Table B.2, we summarize the disclosed information regarding income level and frequency. Throughout our sample period, 18% of all activities fall into the highest category of outside income (level 3). The majority of activities (94%) occur only once, while 2% and 4% of all activities take place yearly or monthly, respectively. The distribution of levels and frequencies also remains stable across the two election periods. To determine the value of outside income, we assign the lower bound of each bracket to every activity. We then calculate the total amount of reported outside income for every federal MP per election period and divide it by four to ensure comparability with the yearly tax data.<sup>9</sup>

### 2.2.1 Publicly Disclosed Data: Volume and Nature of Outside Work

Table 2 provides summary statistics for the reported outside income and activities. 25% of MPs report activities with income of at least 1000€ (level 1 and above), and 69% report at least one (unpaid) activity. Based on our conservative imputation, MPs have an average yearly income of at least 5000€. It is important to note that these estimates are lower-bound estimates due to our conservative imputation method, as described above. Additionally, the reporting system conceals higher incomes by categorizing all incomes above 7000€ as level 3. In Appendix Figure B.1, we plot the outside income distribution, which shows a significant skew. Specifically, the top 10% of MPs earn approximately 44% of the reported outside income. Based on the information provided in the disclosed income statements, we categorize the

<sup>8</sup> Elections in the German Parliaments are conducted using a personalized proportional representation system combining elements from both proportional representation and majority voting systems in which each citizen has two votes. The first vote is for a candidate representing their electoral district, while the second vote is for a political party at the national level. In each electoral district, the candidate who receives the highest number of first votes directly enters parliament. However, each party’s proportionate share of the second vote determines the composition of the parliament. Parties with less than proportionate directly elected representatives send additional MPs from their pre-defined party list so that their representation aligns with their share of second votes.

<sup>9</sup> We also adjust for inflation to 2010 € using the German CPI.

Table 3: Publicly Disclosed Outside Income: Correlations

	(1) disclosed income > 0	(2) disclosed income > 0	(3) log disclosed income	(4) log disclosed income	(5) # disclosed activities	(6) # disclosed activities
right-leaning MP	0.189*** (0.027)	0.166*** (0.028)	0.493** (0.218)	0.477** (0.217)	2.017** (0.947)	1.985*** (0.762)
female		-0.126*** (0.028)		-0.303 (0.277)		-0.330 (1.045)
age		-0.000 (0.001)		0.050*** (0.010)		0.013 (0.055)
married		-0.039 (0.031)		-0.221 (0.248)		-1.784 (1.154)
East Germany		-0.103*** (0.030)		-0.261 (0.347)		-2.266*** (0.673)
doctoral degree		0.058* (0.035)		-0.348 (0.234)		0.512 (0.743)
directly elected		-0.036 (0.027)		0.330* (0.192)		0.528 (0.784)
number of terms served		0.003 (0.009)		-0.086* (0.050)		0.168 (0.333)
committee chair		0.085* (0.048)		0.325 (0.277)		1.486 (1.488)
committee FE		yes		yes		yes
N	1294	1294	329	329	1294	1294
# respondents	864	864	264	264	864	864

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The outcome variable is the lower bound measure of outside income based on the disclosed data. To construct outside income, we assign the lower bound of the bracket to each activity. Standard errors are clustered at the individual level. Source: Hand-collected data for election periods 16 and 17.

activities. The following four activities account for approximately 78% of all publicly disclosed outside income: business activities, practicing law, serving as a board member, and giving speeches or publishing books.

## 2.2.2 Publicly Disclosed Data: Descriptive Statistics

In Table 3, we show correlations between outside income, demographics, and party alignment. One notable finding is that MPs belonging to right-leaning parties tend to earn significantly more from outside activities compared to MPs from left-leaning parties. The probability of a right-leaning MP reporting any outside income is 19 percentage points higher than that of a left-leaning MP. Moreover, when considering only MPs with positive outside income, right-leaning MPs' disclosed income is 49% higher than that of their left-leaning counterparts. The difference in disclosed income also reflects a higher labor supply from right-leaning MPs, who disclose two activities more than left-leaning MPs. These differences cannot be attributed to demographic factors such as gender, age, marital status, education, or location, nor to political variables such as whether they were directly elected, political experience, committee chairmanship, or committee membership (see columns (2), (4), and (6) of Table 3).<sup>10</sup> This finding is consistent with previous literature, which also highlights greater involvement in outside work among right-leaning MPs (Hurka et al., 2018, Weschle, 2022, Becker et al., 2009, Eggers and Hainmueller, 2009).

Further analysis of the sources of outside income reveals that a significant portion of the gap between right-leaning and left-leaning MPs can be attributed to income from business

<sup>10</sup> As a robustness check, we impute the midpoint of each bracket except for the last bracket, where we impute the lower bound. Here, the disparities between the two groups become even more pronounced (see Appendix Table B.3).

activity, with lesser extent to income from board memberships (see Appendix Table B.4). There are no differences in income from practicing law or in income received from giving speeches or publishing books between both groups.

### 3 Empirical Strategy and Tax-Return Data

The use of publicly disclosed information does not allow us to make causal statements about the impact of public disclosure on outside income. Disclosed income is imprecisely measured and is only available for federal MPs after the introduction of disclosure requirements. We overcome these challenges, leverage administrative tax return data covering the universe of German taxpayers, and employ a differences-in-differences approach. We use the fact that MPs need to declare their income from parliamentary activities in a respective income category, thereby distinguishing MPs from other taxpayers. We further exploit the longitudinal nature of the data and the timing of election dates, as well as the different remuneration schemes across parliaments, to define treatment and control units as explained below.

#### 3.1 Empirical Strategy

Since 2007, federal MPs have had to disclose their outside activities and income publicly. We take advantage of the fact that members of the federal parliament (*Bundestag*) are affected by disclosure rules, while members of state parliaments (*Landtag*) are not. Therefore, our treatment units consist of members of the federal parliament, and our control group consists of members of state parliaments. This setup allows us to employ a difference-in-difference design by comparing federal and state MPs before and after the reform. By assuming parallel trends between the treatment and control group, we can uncover the causal effect of the public disclosure law. We implicitly verify this assumption using a dynamic difference-in-differences design approach. It is important to note that German state and federal MPs are highly comparable, as both groups serve as full-time politicians, undergo similar election processes, and bear a significant level of responsibility due to the decentralized nature of the German government structure.

Our baseline estimation is structured as follows: Let  $Y_{ist}$  be an outcome of politician  $i$  resident in state  $s$  in year  $t$ . We then estimate the following equation:

$$Y_{it} = \beta \text{Treat}_i \cdot \text{Reform}_t + \gamma_i + \lambda_{st} + \epsilon_{it} \quad (1)$$

where  $\text{Treat}_i$  is a dummy variable taking the value of one if  $i$  is a federal MP and  $\text{Reform}_t$  is an indicator equal to 1 from 2007 onwards. We also include individual fixed effects  $\gamma_i$  to control for potentially unobserved and time-constant features of MPs. The state-year fixed effects  $\lambda_{st}$  absorb state-specific shocks such as local economic and political conditions. Finally, we cluster our standard errors at the individual level to account for serial correlation. The coefficient of interest is  $\beta$ , which identifies the causal effect of the public disclosure law. Our sample period runs from 2001 to 2011. Since our setup represents a classical difference-in-differences design with just one treatment cohort, we do not have to assume homogeneous treatment effects for our estimator to be consistent (Goodman-Bacon, 2021).

We also estimate a dynamic version of equation (1) to test for pre-trends and account for

dynamic post-treatment effects. For this purpose, we define a set of dummy variables  $\mathbb{1}_{k=t}$ , which equals one if  $k$  equals  $t$  and zero otherwise. To estimate the effects of introducing the public disclosure rules, we run the following equation:

$$Y_{it} = \sum_{k=2001}^{2005} \beta_k \text{Treat}_i \cdot \mathbb{1}[k = t] + \sum_{l=2007}^{2011} \beta_l \text{Treat}_i \cdot \mathbb{1}[l = t] + \gamma_i + \lambda_{st} + \epsilon_{it} \quad (2)$$

where we omit the interaction of the 2006 dummy to normalize our estimates to the pre-reform year. Therefore,  $\beta_k \forall k \in \{2001, \dots, 2005\}$  refer to differences in trends between the treatment and control group before the reform, while  $\beta_l \forall l \in \{2007, \dots, 2011\}$  represent the dynamic treatment effects.

## 3.2 German Taxpayer Panel

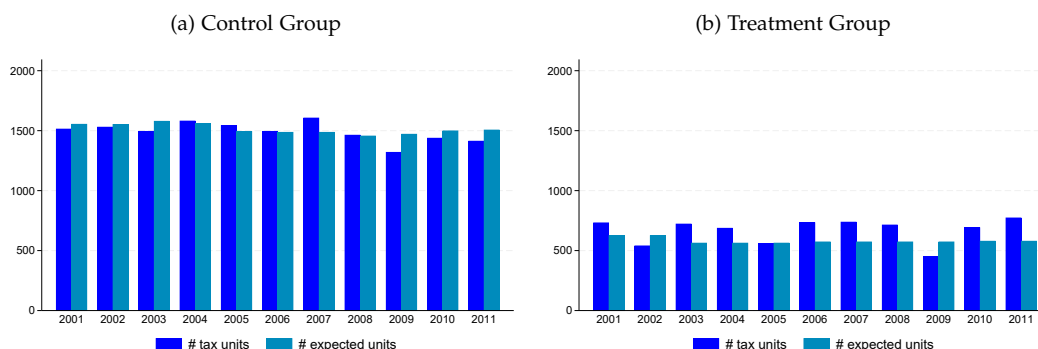
The German Taxpayer Panel covers the period from 2001 to 2011 and includes all tax units. It is an administrative data set collected by German tax authorities and managed by the German Federal Statistical Office. Each observed tax unit can be a single individual or a couple filing jointly. The dataset contains all the necessary information to calculate a taxpayer’s annual income tax, including socio-demographic characteristics such as age, gender, state of residence, and marital status. Furthermore, it provides detailed information on income from various sources and tax base parameters such as deductions and donations. Due to strict data protection regulations, we cannot identify individuals or link the data with other data sets. In contrast to the tax return data, our hand-collected data provides a rich set of demographic and political variables. Still, the publicly disclosed information on income is imprecisely measured and is only available for federal MPs after the reform. Therefore, the advantage of tax return data lies in its precise income measurement both before and after the reform. However, it does not provide information about the specific types of outside activities, such as giving a speech or working as a lawyer.

We use different income categories in the German income tax system to define our outcome variables. Our primary outcome is the total income from sources that MPs are required to disclose. These incomes include income from (1) salaries and wages, (2) (non-corporate) businesses and self-employment, (3) agriculture and forestry, and other sources. Additionally, we will analyze the impact on each of these categories separately. We do not include capital income in our analysis because MPs are not required to disclose it, and it is only observable until 2009 in the tax data.

### 3.2.1 Identification of Treatment and Control Group

In our difference-in-differences design, we compare federal MPs, the treatment group, to state MPs, the control group. In Figure 1, we show that the number of MPs identified in the tax data closely matches the number of MPs present in parliament for both federal and state MPs. We determine both groups in the tax data as follows. First, we identify all members of any parliament by restricting the sample to those who report positive income from parliamentary activities. We exclude all MPs from the three German city-states (Berlin, Hamburg, and Bremen) since being an MP is only a part-time job in these state parliaments (*Feierabendparlamente*). Next, we exploit that federal and state MPs have systematically different

Figure 1: Treatment and Control Group: Identified vs. Expected Units



Notes: This figure compares the number of units identified in the tax data with the expected number of MPs. The grey bar represents the units identified in the tax data, while the black bar indicates the expected units. Source: Taxpayer Panel, 2001-2011.

remuneration schemes. In particular, federal MPs generally receive higher compensation than state MPs. Additionally, we utilize the panel structure of our data and election dates of each parliament to identify individuals who have recently entered or left parliament in a given year.<sup>11</sup>

In Appendix Table C.2, we provide further demographic information about both our treatment and control group. We show that our identified federal MPs in the tax data also match the federal parliament’s actual demographic composition in terms of average age (52 compared to 51 years old), the proportion of females (31% compared to 32%), the share of married MPs (72% compared to 73%), and the share of MPs from East Germany (18% compared to 17%).

### 3.2.2 Proxy for Political Leaning

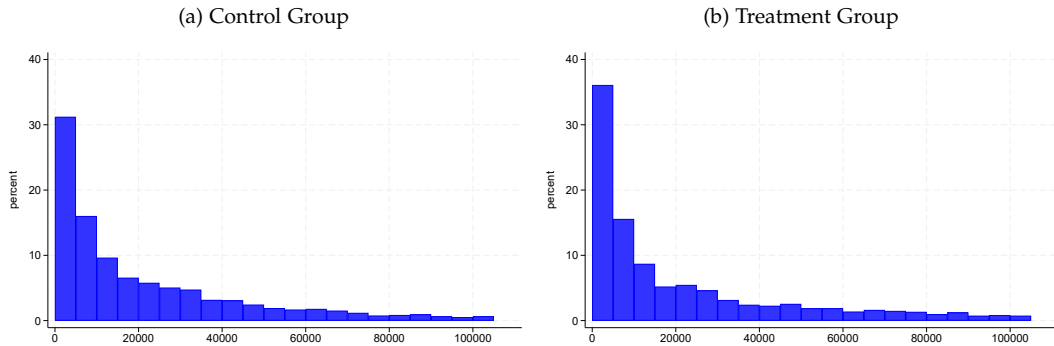
To proxy for political leaning, we leverage variations in party taxes and membership fees between political parties and the fact that these fees can be claimed as income tax deductions. In Germany, political parties require all members holding official political positions (*Mandatsträger*) to pay a portion of their remuneration to their party, known as the party tax (*Mandatsträgerbeitrag*). Party taxes are defined in German party law (*Parteiengesetz*), and their amounts vary significantly across parties and official positions, which include federal, state, and EU MPs as well as lower-level positions such as mayors and local council members (Kühr, 2014). While parties do not provide official information on the exact share for each official position, both media reports and the official accountability reports of political parties indicate that left-leaning parties impose significantly higher party taxes than their right-leaning counterparts.<sup>12</sup> They also consistently report higher party tax revenues per MP (see Appendix Figure A.3a).<sup>13</sup>

<sup>11</sup> In Appendix A.1, we provide a detailed description of our allocation mechanism for the treatment and control units. Additionally, we include information on both election periods, the average number of MPs in each parliament, and the differences in average compensation by parliament.

<sup>12</sup> For instance, in the state parliament of Saxony-Anhalt, right-leaning MPs only have to pay between 5% (FDP) and 6.5% (CDU). In contrast, left-leaning MPs must pay between 8.5% (SPD) and 15% (The Left) of their remuneration as a party tax (Süddeutsche Zeitung, 2023).

<sup>13</sup> We hand-collected the accountability reports of political parties from 2003 to 2011, during which parties are legally required to report party tax revenues due to transparency laws since 2003. We calculate the total amount of

Figure 2: Treatment and Control Group: Pre-Reform Outside Income Distribution



Notes: Panels (a) and (b) display the distribution of positive outside income for the control and treatment groups. For data security reasons, the distribution is trimmed at the top. Source: Taxpayer Panel, 2001-2006.

We define a proxy for the political leaning of each MP based on the fees and donations made to political parties. The tax data includes information on the total amount of party taxes, membership fees, and donations to political parties, as these can be claimed as deductions at the household level. To address various types of measurement errors, we take the following steps. First, we regress the total deductions on election cycle fixed effects, as donations typically vary systematically with the political cycle. We then take the residuals from that regression and split the data by marital status, accounting for the fact that married couples can claim higher deductions compared to single individuals. Additionally, we subdivide single and married MPs into federal and state MPs, respectively, to consider that the level of party taxes required is usually larger for federal MPs. Within these four groups, we allocate MPs to the proxy for right-leaning parties if their residual deductions are below the sample median of their respective group.

### 3.2.3 Outside Income in the Tax Data: Descriptive Statistics

Our descriptive analysis of the tax data shows that 69% of all MPs earned positive outside income before the reform (see Appendix Table C.1). This rate is slightly lower for federal MPs (around 58%) compared to state MPs, which have a rate of around 73%.

Figure 2 plots the distribution of positive pre-reform outside income for both the treatment and the control group. Both distributions are heavily skewed, with most MPs earning a low amount of outside income and a small share of top earners. The top 10% of MPs earn approximately 73% of total outside income in both the treatment and control group.<sup>14</sup> Despite the conservative reporting and imputation, the publicly disclosed data show a similar, albeit slightly less skewed, overall distribution of outside income compared to the tax data, as shown in Appendix Figure B.1.

party tax revenues for both right-leaning and left-leaning parties. We then divide these by the total number of MPs in the federal, state, and EU parliaments to obtain a proxy for the party tax level. Ideally, we would normalize by the total number of party members holding official positions, including municipal and county-level officials. However, since this data is not available, the overall number of MPs will serve as a reasonable proxy. Left-leaning parties report between 21% in 2003 and 38% in 2010 higher party tax revenues per MP than right-leaning parties. Party tax revenues also represent a larger share of total revenues for left-leaning parties (see Appendix Figure A.3b). As one can see in Appendix Figure A.3c, left-leaning parties also require higher membership fees.

<sup>14</sup> This percentage is significantly higher than the top 10% share in the general population, which is around 28% (Drechsel-Grau et al., 2022).

As expected, the yearly outside income reported in the tax data is significantly higher than publicly disclosed income. Specifically, the mean outside income for federal MPs is 22500€, which is approximately four times higher than the income recorded in the publicly disclosed data (see Appendix Table C.1). This finding may partly result from our conservative imputation, but it likely depends much more on the income bracket system itself. Because activities are categorized into income levels based on their remuneration, the true amount of publicly disclosed outside income may be concealed. This is particularly relevant for activities that fall into the highest income level, where any remuneration exceeding 7000€ is classified under level 3.<sup>15</sup>

On average, federal MPs earn around 22500€ from outside sources, while state MPs earn 36000€.<sup>16</sup> However, the difference between the median values of the two groups is less pronounced. Putting these figures into perspective, during our sample period, the average federal MP received an average of 85000€ as income from parliamentary activities per year. Both federal MPs and state MPs earn outside income from businesses and self-employment, whereas state MPs also rely more on wages and salaries. In line with the publicly disclosed data, about half of federal MPs declare income from businesses and self-employment, while only about 22% receive income from wages and salaries.

Appendix Table C.3 shows that outside income in the tax data correlates similarly with demographic variables as in the publicly disclosed data. MPs classified as right-leaning are both more likely to earn positive outside income and earn higher outside income conditional on having positive outside income. As in the publicly disclosed data, female MPs have lower incomes, whereas West German and older MPs display higher incomes.

## 4 Causal Effects of Public Disclosure

We present causal evidence regarding the effect of public disclosure of outside income, utilizing a difference-in-differences design based on administrative tax data. We begin by presenting our baseline results on both the extensive and intensive margins. To strengthen the parallel trends assumption underlying our research design, we visualize dynamic difference-in-differences results. In the next step, we explore who responds to public disclosure. More specifically, we examine whether different income components reported on tax returns respond differently to public disclosure. Additionally, we investigate which segments of the income distribution are most responsive and demonstrate the differential impact of disclosure on various subgroups. Most notably, we check for different responses by party alignment. Lastly, we present various robustness checks.

### 4.1 Baseline Results

In Table 4, we present the main results of our difference-in-differences design using administrative tax data. Columns (1) to (3) show that the probability of having positive outside income increased significantly by around five percentage points. Additionally, treated federal MPs

<sup>15</sup> Throughout our sample period, 18% of all activities fall into the highest category of outside income (see Appendix Table B.2).

<sup>16</sup> This difference may come as a surprise, considering that the political discourse typically focuses on federal MPs. There are several possible explanations for this disparity, such as the lower level of public attention given to state MPs or their stronger ties to their hometowns and original professions.

Table 4: Effect of Public Disclosure: Extensive and Intensive Margin

	(1)	(2)	(3)	(4)	(5)	(6)
	outside income > 0			log outside income		
treatment x reform	0.0494*** (0.0159)	0.0558*** (0.0162)	0.0568*** (0.0170)	0.1581** (0.0622)	0.1661*** (0.0622)	0.1550** (0.0659)
politician FE	yes	yes	yes	yes	yes	yes
state x year FE	yes	yes	yes	yes	yes	yes
election cycle FE		yes	yes		yes	yes
exclude incoming & outgoing			yes			yes
N	25044	25044	22462	17326	17326	15433
# politicians	4091	4091	3864	3185	3185	2952

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. This table presents estimates from equation (1) using a dummy variable for positive outside income in columns (1 - 3) and log outside income in columns (4 - 6) as outcome variables. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

significantly increased their outside income by 15-16% compared to untreated state MPs in response to the introduction of public disclosure (see columns (4) to (6)). These results hold and even get slightly stronger once we control for election cycle fixed effects to account for the different political cycles of federal and state MPs (see columns (2) and (5)). Another potential concern is the possibility of conflating outside income with income earned before or after MPs entered or left Parliament. Therefore, we exclude incoming and outgoing MPs from our sample (see columns (3) and (6)). However, our estimates remain almost unchanged.

Figure 3 visualizes the estimates of our dynamic difference-in-differences approach. The effect only emerged after the introduction of public disclosure in 2007. It is important to note that there is no evidence of any significant differential trend between the treatment and control group before the reform. This finding strengthens the assumption of parallel trends underlying our research design. Furthermore, we do not observe any differential trend during the period of private disclosure from 2005 to 2006. This suggests that politicians respond to public disclosure, not private disclosure. It is worth mentioning that it takes some time for MPs to adjust their labor supply, which explains why the effect gradually builds up. Approximately three years after the treatment, the effect stabilizes at an increase of around 20%.

## 4.2 Heterogeneous Treatment Effects

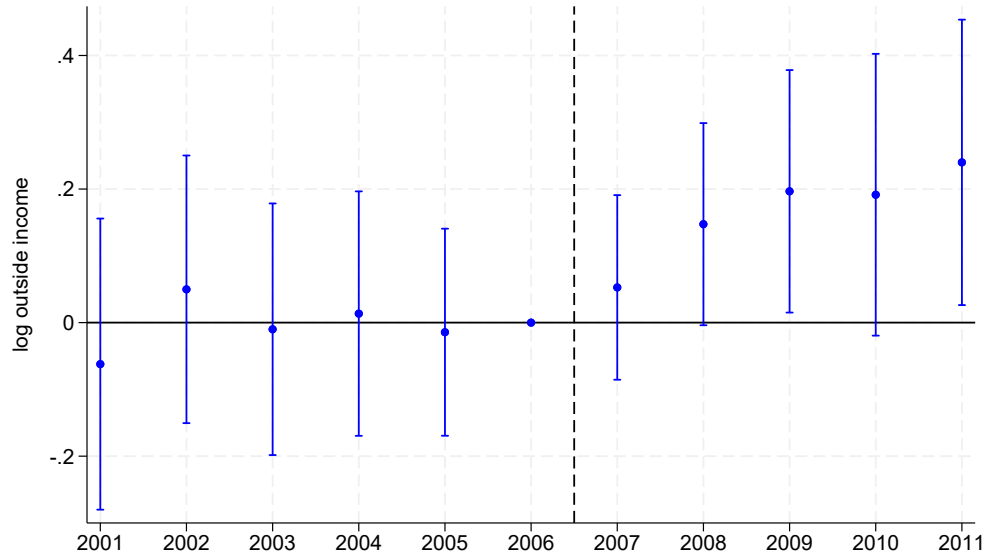
To gain a deeper understanding of the effect of public disclosure on outside income, we further exploit our data in the following ways. First, we decompose outside income into subcomponents such as wage income or income from self-employment. Second, we analyze the entire distribution of outside income and apply an unconditional quantile regression. Third, we also run interaction models to analyze the impact of disclosure requirements on different subgroups, such as a proxy for party affiliation, gender, or age.

### 4.2.1 Effects on Different Income Categories

To disentangle the total effect of an increase in outside income, we use income from various income categories as our outcome variable. The effect may vary based on voter perceptions of different types of outside income. Additionally, for MPs, income from self-employment is easier to adjust than wage income. Table 5 shows the results for income from businesses & self-employment, wages & salaries, and other sources. The results show that the increase



Figure 3: Dynamic Effect of Public Disclosure



Notes: This graph displays the coefficients  $\beta_t$  and the corresponding 95% confidence intervals estimated by equation (2) using log outside income as the outcome variable. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

Table 5: Effect of Public Disclosure: Heterogeneous Effects by Income Category

	(1)	(2)	(3)	(4)	(5)	(6)
income from	businesses & self-employment income > 0	log income	wages & salaries income > 0	log income	other sources income > 0	log income
treatment x reform	0.0398** (0.0171)	0.1656** (0.0806)	0.0095 (0.0112)	0.0391 (0.0843)	0.0145 (0.0135)	0.0062 (0.1104)
politician FE	yes	yes	yes	yes	yes	yes
state x year FE	yes	yes	yes	yes	yes	yes
N	25044	12005	25044	7150	25044	5714
# politicians	4091	2397	4091	1419	4091	1160

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . This table presents estimates from equation (1) using log outside income and a dummy variable for positive income from business operations and self-employment (columns 1 & 2), wages and salaries (columns 3 & 4), and other sources (columns 5 & 6) as outcome variables. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

in outside income is solely driven by income from business and self-employment, which increased significantly by 16% at the intensive margin and four percentage points at the extensive margin. This aligns with the results from the publicly disclosed data showing that outside income from self-employment is the largest category of outside income (see Table 2). All other coefficients are positive but statistically insignificant.

#### 4.2.2 Effects along the Income Distribution: Quantile Regression

As shown in Figure 2, MPs' outside income is unequally distributed and heavily skewed. Whereas ordinary least squares regressions yield an estimate of the average treatment effect, quantile regressions allow us to estimate the effect of the policy change on the entire distribution of outside income. Therefore, we conduct (unconditional) quantile regressions using log outside income as the outcome variable. In Appendix Figure C.1, we present the results for

Table 6: Effect of Public Disclosure: Heterogeneous Effects by Demographics & Party Proxy

	(1)	(2)	(3)	(4)	(5)
	log outside income				
treatment x reform	0.0315 (0.0782)	0.0524 (0.0830)	-0.0887 (0.1630)	-0.0701 (0.1698)	-0.0903 (0.2030)
treatment x reform x proxy for right-leaning	0.3070*** (0.1002)	0.2919*** (0.0999)	0.2736*** (0.1012)	0.2516** (0.1042)	0.2865*** (0.1071)
treatment x reform x female		-0.0865 (0.1540)	-0.0809 (0.1533)	-0.0744 (0.1544)	-0.0824 (0.1620)
treatment x reform x East Germany			-0.1751 (0.1772)	-0.1396 (0.1719)	-0.1634 (0.1694)
treatment x reform x above median age				0.0283 (0.1285)	0.0197 (0.1284)
treatment x reform x married					-0.0234 (0.1557)
politician FE	yes	yes	yes	yes	yes
state x year x group FE	yes	yes	yes	yes	yes
N	17326	17266	17266	17239	17239
# politicians	3185	3179	3179	3174	3174

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . This table displays estimates from a fully interacted version of equation (1) using log outside income as the outcome variable. The construction of the proxy for party alignment is described in Section 3.2.2. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

all nine deciles of the outside income distribution (Firpo et al., 2009). The treatment effect is insignificant for the bottom 20% of the distribution. Between the third and eighth decile, the treatment effect is statistically significant and relatively constant at around 20%. The effect is largest at the ninth decile, indicating that the effect is driven by most of the distribution and is particularly pronounced at the top.

#### 4.2.3 Effects by Demographics & Party Proxy

Since the increase in outside income is primarily driven by self-employment income and the upper tails of the income distribution, right-leaning MPs are likely candidates to explain this effect, as they tend to be more self-employed and possess higher outside incomes. To test this hypothesis, we utilize our proxy for party membership, which is based on deductions for party taxes and membership fees from the tax data described in Section 3.2.2. We interact each term in our baseline equation (1) with indicators to assess the effect on various demographics.

Results in Table 6 indicate a significantly higher increase in outside income among likely right-leaning MPs compared to their likely left-leaning counterparts. Columns (2) to (5) demonstrate that other demographic variables, such as gender, marital status, age, or residence in East Germany do not influence this interaction effect. In Figure 4, we show that both groups of MPs were on parallel trends before the introduction of public disclosure. After the disclosure reform, only the likely right-leaning MPs increased their outside income, while the likely left-leaning MPs showed no change in their outside income.

#### 4.2.4 Robustness Checks

We conduct several robustness checks. First, we assess the validity of our control group. Although state MPs are not directly affected by the disclosure law, there may be indirect spillover effects. Therefore, we use high-earning non-politicians as an alternative control group. To define this control group, we take a random 5% sample from the Taxpayer Panel and select all non-politicians whose average pre-reform income falls between the 5th and 95th

percentiles of the pre-reform total income distribution of treated federal MPs, defined as the sum of outside income and income from being a politician. Appendix Table C.5 presents the results of estimating equation (1) using non-politicians as an alternative control group. The resulting estimate is quantitatively similar to our baseline and is highly statistically significant. This consistency also holds when the control group is expanded to include individuals in the 1st to 99th percentile of the pre-reform politician income distribution. Additionally, we confirm that high-earning non-politicians exhibit parallel trends with federal MPs prior to the reform, establishing their viability as an alternative control group (see Appendix Figure C.2). These findings indicate that our results are robust to the choice of control group.

Second, we re-ran our dynamic difference-in-differences design with election cycle fixed effects to account for the varying political cycles of federal and state MPs. We present the results in Appendix Figure C.3 and compare them to our baseline results shown in Figure 3. Additionally, in Appendix Figure C.4, we re-ran the analysis depicted in Figure 4 while accounting for election cycle fixed effects. In both cases, our results remain unchanged.

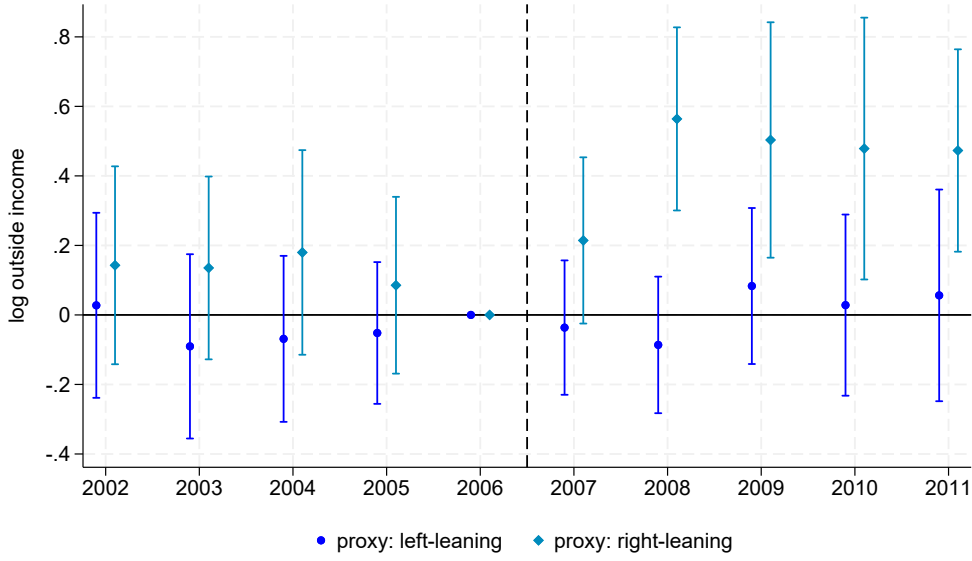
Third, we test whether our results depend on our construction of the proxy for being a right-leaning MP. Specifically, we do not adjust for election cycle effects and conduct the same assignment for the treatment and control group. The results remain similar when using these coarser versions of the proxy for party alignment (see Appendix Table C.6).

Another reason for the positive effect on outside income, particularly in business and self-employment, could be increased tax compliance among MPs, as these types of income are self-reported. The fact that their income is now public knowledge may have created stronger incentives for MPs to report their income accurately. If MPs were genuinely concerned about being caught evading taxes, they should have taken action back in 2005, when private disclosure was first introduced. They should have anticipated the high likelihood that their privately disclosed activities would become public retroactively due to the ongoing lawsuit. However, there was no increase in income during the two years prior to public disclosure, when information was privately disclosed to the President of the German Bundestag. A more plausible explanation is that federal MPs primarily engage in business and self-employment activities, as the majority of outside income is generated through these avenues.

## 5 Voters' Perceptions of Outside Income

In this section, we examine whether the differences in responses to public disclosure by MPs reflect their anticipation of voters' perceptions of outside income. Ex-ante, it is unclear which direction the income response will take. On one hand, MPs might use public disclosure to signal their quality to voters. If MPs believe their voters will reward them for outside activities, this could encourage them to engage more, resulting in increased outside income. On the other hand, if MPs suspect that their voters will disapprove of such behavior due to potential conflicts of interest, it could lead to a decrease in outside income. We have descriptively seen differences in the probability and the amount of outside income based on party alignment (see Section 4.2.3). Our causal evidence further indicates that MPs classified as right-leaning increased their outside income. In contrast, left-leaning MPs did not change their outside income in response to public disclosure. In this part of our analysis, we test how voters perceive outside work.

Figure 4: Dynamic Effects of Public Disclosure by Proxy for Party Alignment



Notes: This graph displays the coefficients  $\beta_i$  and the corresponding 95% confidence intervals estimated by a fully interacted version of equation (2) using log outside income as the outcome variable. The construction of the proxy for right-leaning MPs is described in Section 3.2.2. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

## 5.1 Survey Experiment: Design

To investigate why the disclosure law led to different responses by party alignment, we conducted a customized survey of 4025 German respondents.<sup>17</sup> The survey was conducted between December 12, 2023, and January 5, 2024, targeting respondents eligible to vote in the German federal election. To align with the political landscape during the implementation of the disclosure law, we focused on respondents who expressed an intention to vote for parties represented in the German federal parliament at that time. Left-leaning voters were defined as those intending to vote for the Social Democrats (SPD), the Greens, or the Left, while right-leaning voters were those intending to vote for the Christian Democrats (CDU/CSU) or the Free Democrats (FDP). Respondents were first required to pass a standard attention check and were sampled to ensure representativeness in terms of gender, age, region, and party preference based on the German voting population in the last federal election in 2021.

Our survey experiment follows a conjoint design (see Stantcheva (2023) for more details). We present participants with three profiles featuring hypothetical MPs with randomized characteristics. To align with the reporting scheme during the reform, we assign MPs an equal probability of having no outside income, between 1000€ and 3500€, between 3500€ and 7000€, and more than 7000€. For MPs with positive outside income, we randomly assign one of four activities (giving speeches, being a lawyer, running a business, board membership) associated with the outside income. The selected activities represent the top four in overall outside income, accounting for approximately 75% of the total outside income reported (see Table 2). To obscure the survey’s purpose, we also randomize various characteristics of the hypothetical MP. These characteristics include gender (male, female), marital status (single,

<sup>17</sup> We pre-registered the survey experiment in the AEA RCT Registry as AEARCTR-0012508.

married), experience in parliament (1, 2, 3, or more legislative periods), party membership (SPD, The Greens, The Left, CDU/CSU, FDP), as well as their mandate (directly elected, elected via party-list). The distribution of these characteristics mirrors the composition of the German federal parliament after the 2021 election. Additionally, we randomize the order of the hypothetical MPs' characteristics for each respondent.

After being presented with a hypothetical MP, respondents rate their agreement on a categorical scale from 1 to 5 for the following four statements: (1) "The MP primarily represents his/her voters", (2) "The MP primarily represents their own or third-party interests", (3) "The MP is hardworking", (4) "The MP is competent".<sup>18</sup> We normalize all outcomes by their sample standard deviation. After rating three hypothetical MPs, we ask respondents whether they have informed themselves about MPs' outside income and, if so, through which source. Approximately 43% of respondents state that they have obtained information on MPs' outside income. The original survey questions and their translation are in Appendix E. Summary statistics of all variables are presented in Appendix Table D.1.

## 5.2 Survey Experiment: Results

Given the randomization of the MP's characteristics, we can estimate the causal effect of outside income and activities using a simple OLS regression (Hainmueller et al., 2014). We run the following regression:

$$Y_{ir} = \alpha + \sum_{e=1}^3 \beta_e^{inc} \cdot D_e^{inc} + \sum_{j=1}^3 \beta_j^{job} \cdot D_j^{job} + X_{ir} + \epsilon_{ir} \quad (3)$$

where  $Y_{ir}$  corresponds to the outcome variable of respondent  $i$  in round  $r$ .  $D_e^{inc}$  and  $D_e^{job}$  are dummies indicating the income level and activity of the MP, respectively. To increase precision, we include a vector of control variables  $X_{ir}$ , including all other randomized MP characteristics, all respondent demographic variables, and round fixed effects. We always cluster the standard errors  $\epsilon_{ir}$  at the respondent level.

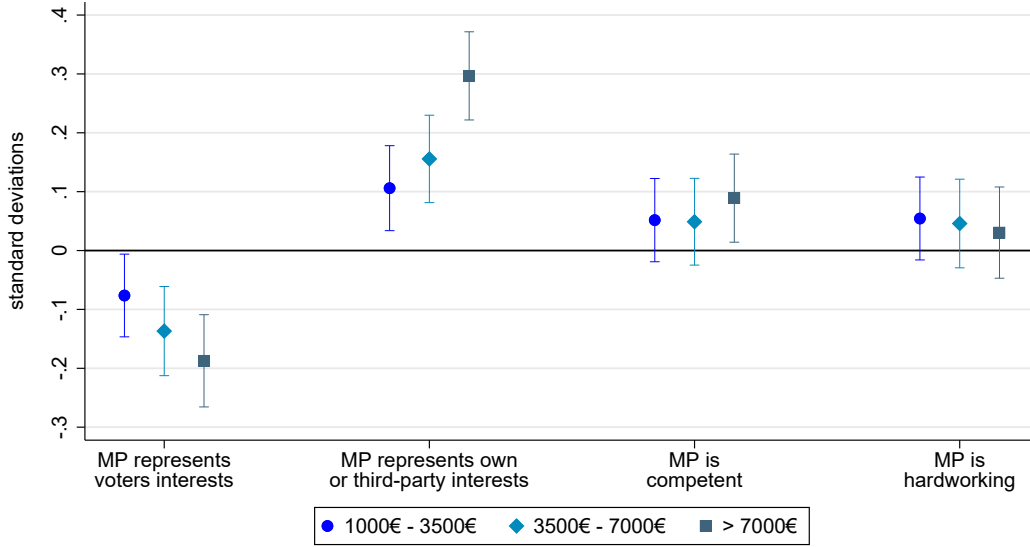
### 5.2.1 General Effects

In Figure 5, we plot the estimates of the three levels of outside income for each outcome separately. On average, voters perceive MPs with outside income as being up to 0.19 standard deviations ( $p < 0.01$ ) less likely to represent their interests and up to 0.30 standard deviations ( $p < 0.01$ ) more likely to represent their own or third-party interests compared to MPs with no outside income. Conversely, the average voter also perceives MPs with outside income to be slightly more competent ( $p < 0.05$ ) and hardworking, even though the estimates are not statistically significant.

As shown in Appendix Table D.2, the type of activity an MP engages in also has a significant impact on voter perception. Voters view attorneys as significantly more hardworking and competent than MPs who give speeches. MPs who run businesses are perceived to be significantly more likely to represent their own or third-party interests. In contrast, voters see MPs serving as board members as significantly less likely to represent their constituents,

<sup>18</sup> The ordering of the questions is randomized for each respondent.

Figure 5: Voters' Perceptions of Outside Income



Notes: This graph displays the coefficients  $\beta_1^{inc}$ ,  $\beta_2^{inc}$ , and  $\beta_3^{inc}$  and their corresponding 95% confidence interval obtained from estimating equation (3). Standard errors are clustered at the individual level. The point estimates can be found in Appendix Table D.2. Source: Own survey.

significantly more likely to prioritize their own or third-party interests, and significantly less hardworking compared to MPs who give speeches.

## 5.2.2 Different Effects by Political Leaning

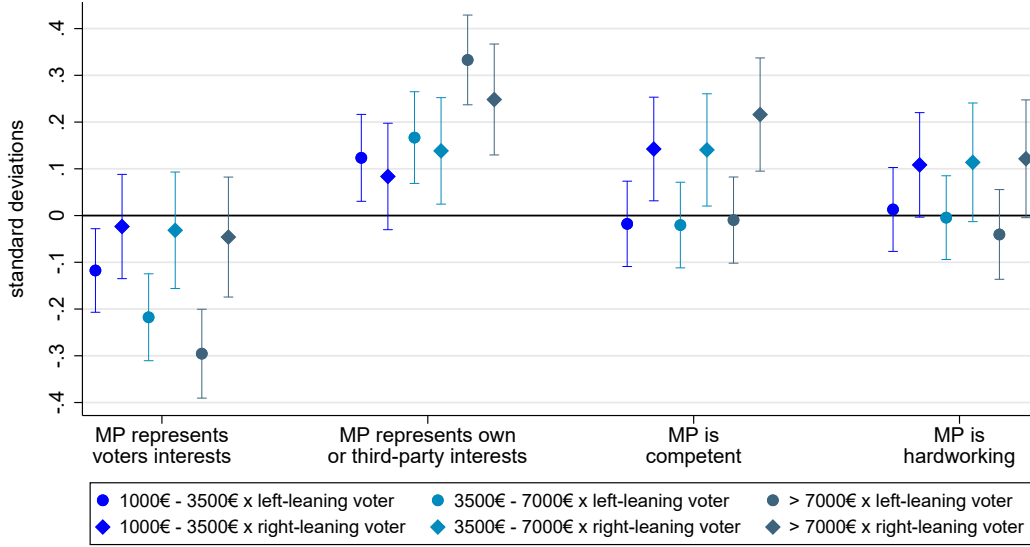
We run a version of equation (3), which allows the effects to be different by political leaning:

$$Y_{ir} = \alpha + \sum_{e=1}^3 \beta_e^{inc} D_e^{inc} + \sum_{j=1}^3 \beta_j^{job} D_j^{job} + \sum_{e=1}^3 \gamma_e^{inc} D_e^{inc} \cdot D_i^{left} + \sum_{j=1}^3 \gamma_j^{job} D_j^{job} \cdot D_i^{left} + X_{ir} + \epsilon_{ir} \quad (4)$$

where  $Y_{ir}$  corresponds to the outcome variable of respondent  $i$  in round  $r$ .  $D_i^{left}$  is a dummy taking the value one if the respondent intends to vote for a left-leaning party. Then,  $\gamma_e^{inc}$  and  $\gamma_j^{job}$  represent the differential treatment effect for left-leaning respondents.

In Figure 6, we present the treatment effects for voters who support right-leaning parties separately from those who favor left-leaning parties. Voters from left-leaning parties fully drive the negative effect on voter representation, while those favoring right-leaning parties show no significant impact. The difference between left- and right-leaning voters is highly statistically significant (see Appendix Table D.3). Conversely, the perceived competence and work ethic of MPs are influenced exclusively by voters favoring right-leaning parties. These voters regard MPs with positive outside income as significantly more competent ( $p < 0.01$ ) and hardworking ( $p < 0.05$ ). This finding aligns with our previous evidence regarding the heterogeneous effects of the disclosure law based on political leaning. Since right-leaning party voters interpret a moderate amount of outside income as a positive signal of MPs' competence and work ethic, there is an incentive for right-leaning MPs to increase their outside income.

Figure 6: Voters' Perceptions of Outside Income by Political Leaning



Notes: This graph displays the coefficients  $\beta_1^{inc}$ ,  $\beta_2^{inc}$ , and  $\beta_3^{inc}$  as well as  $\beta_1^{inc} + \gamma_1^{inc}$ ,  $\beta_2^{inc} + \gamma_2^{inc}$ , and  $\beta_3^{inc} + \gamma_3^{inc}$  and their corresponding 95% confidence interval from equation (4). Standard errors are clustered at the individual level. The point estimates are presented in Appendix Table D.3. Source: Own survey.

### 5.2.3 Robustness Checks: Survey Results

Since we conducted the survey years after the reform, we implicitly assume that voters' perceptions are comparable over time. We re-ran our previous analysis and demonstrate in Appendix Tables D.4 and D.5 that our results remain unchanged when we restrict the sample to voters who were already eligible to vote in 2013, thereby focusing on those who are at least 30 years old. We also rule out the possibility that the differential responses of left-leaning and right-leaning voters could be explained by differences in their levels of information. As shown in Appendix Table D.6, both groups report similar levels of awareness regarding outside income. Other robustness checks include estimating our regressions without control variables, using ordered logit instead of OLS, and employing binary outcome variables that equal one if the outcome exceeds the middle category of the ordinal scale. None of these robustness checks significantly alter our results (see Appendix Tables D.7 - D.12).

### 5.3 Benchmarking the Effects

Are the observed differences between left-leaning and right-leaning voters large enough to explain the increase in outside income after public disclosure from Section 4.1? We benchmark the effect size using the well-established concept of partisan bias, which refers to the tendency of voters to favor politicians from their preferred party (Ditto et al., 2019). We estimate the partisan bias from our survey data using the following equation:

$$Y_{ir} = \alpha + \beta \mathbb{1}[\text{MP from preferred party}]_{ir} + X_{ir} + \epsilon_{ir} \quad (5)$$

where  $Y_{ir}$  is the outcome of respondent  $i$  in round  $r$ , and  $\mathbb{1}[\text{MP from preferred party}]_{ir}$  represents a dummy taking the value one when the hypothetical MP belongs to the voter's

Table 7: Partisan Bias in Voters' Perception

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hard-working (in sd)
MP from preferred party	0.309*** (0.026)	-0.103*** (0.026)	0.283*** (0.026)	0.288*** (0.028)
controls	yes	yes	yes	yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficient  $\beta$  from estimating equation (5).  $\beta$  represents the difference in the perception of voters between MPs from their preferred and all other parties expressed in standard deviations. The control variables include all treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

preferred party. Given that party preferences are controlled for using the vector  $X_{ir}$ , which includes all other randomized MP characteristics, all respondent demographic variables, and round fixed effects (which is the same as in equation (3)),  $\beta$  represents the difference in voters' perceptions between MPs from their preferred party and all other parties.

As shown in Table 7, we observe a strong and precisely estimated partisan bias. Voters perceive politicians from their preferred parties to be more likely to represent voters' interests rather than their own or third-party interests. They view them as more competent and hardworking. All estimates range from 0.10 to 0.31 standard deviations in the expected direction for all outcomes.

Using the estimated partisan bias, we can contextualize our survey results in Figures 5 and 6. For instance, the difference in the perception of high outside income-earning MPs (those earning more than 7000€) representing their voters between left-leaning and right-leaning voters is as large as 81% ( $=0.249/0.309$ ) of the partisan bias.<sup>19</sup> Thus, the impact of outside income is nearly as substantial as that of an MP belonging to the voter's preferred party. The effect size of the difference between left- and right-leaning voters is quite similar for other outcomes. The effects on voters' perceptions of MPs representing their own or third-party interests, competency, and work ethic are as large as 82%, 80%, and 56% of their respective partisan bias. These results imply that outside income is a crucial factor in voter perceptions of MPs.

#### 5.4 Survey Experiment: Summary

Our survey results show that right-leaning voters do not perceive MPs with higher outside income as less likely to represent voters' interests. Instead, they view these MPs as more competent and hardworking. In contrast, left-leaning voters perceive MPs with higher outside income as less likely to represent their interests and do not consider them to be more competent or hardworking. This pattern aligns with our findings that the increase in outside income due to the disclosure law was primarily driven by MPs who are likely to be right-leaning. If MPs correctly anticipate their voters' perceptions of outside work, right-leaning MPs understand that they will not face punishment and may even be rewarded by their constituents. In contrast, left-leaning MPs tend to avoid such activities, considering their voters' perceptions. In summary, politicians are aware of their voters' views and take them into account when

<sup>19</sup> We take the coefficient 0.309 on partisan bias from column (1) of Table 7. The coefficient 0.249 is taken from column (1) of Table D.3 from the coefficient on  $> 7000€$  x left-leaning voter.



deciding to engage in outside work.

## 6 Conclusion

This paper provides empirical evidence that public disclosure of outside work has unintended effects. We analyze the interplay between voters' perceptions and politicians' actions regarding outside work by examining the implementation of disclosure regulations for German federal MPs. To study the behavioral effects on politicians, we exploit administrative tax return data and a difference-in-differences design, with unaffected state MPs serving as the control group. After information on outside work became publicly available, MPs, on average, increased their outside income by 15%, and the probability of having outside income rose significantly by 4.5 percentage points. Using a proxy for political leaning in the tax data, we find suggestive evidence that MPs from right-leaning parties primarily drive this effect. We further complement these findings with a survey experiment among voters. Consistent with our results from the tax data, voters' perceptions of outside income vary along party lines. Right-leaning voters view outside income as a positive indicator of competence while left-leaning voters feel that the electorate's interests are less represented, with politicians' or third parties' interests being prioritized. Overall, MPs accurately anticipate their voters' perceptions of outside work and act accordingly, thereby using public disclosure as a signaling tool.

By observing MPs' behavior in response to the public disclosure of their outside income, we can derive important policy implications for the design of disclosure rules and transparency initiatives. A well-designed transparency policy should reduce the asymmetric information between voters and politicians while also accounting for any behavioral adjustments. These adjustments depend significantly on how the intended audience — in our case, voters — perceives the disclosed information. While transparency makes information available, it can be selected, processed, and interpreted in various ways. Therefore, when designing a disclosure policy, it is essential to consider the opinions and perceptions of the audience. Overall, the interplay between the sender and receiver of information greatly influences the effectiveness of transparency policies.

The outside jobs of politicians vary in type—such as giving speeches or serving on supervisory boards—along with the time invested and the degree of interdependence with third parties. We can observe none of these factors in the tax data. As a result, we are unable to assess the impact on the quality of parliamentary work or identify potential conflicts of interest. Furthermore, due to the short time horizon of our study, we have not examined any selection effects of individuals entering politics. We leave these aspects for future research.

## References

- Angaretis, C., Galle, B., Organ, P. R. and Prohofsky, A.: 2024, Non-monetary sanctions as tax enforcement tools: Evaluating California's top 500 program, *Journal of Policy Analysis and Management* **43**(4), 1057–1078.
- Avis, E., Ferraz, C. and Finan, F.: 2018, Do government audits reduce corruption? Estimating the impacts of exposing corrupt politicians, *Journal of Political Economy* **126**(5), 1912–1964.
- Banerjee, A., Enevoldsen, N., Pande, R. and Walton, M.: 2024, Public information is an incentive for politicians: Experimental evidence from Delhi elections, *American Economic Journal: Applied Economics* **16**(3), 323–353.
- Becker, J., Peichl, A. and Rincke, J.: 2009, Politicians' outside earnings and electoral competition, *Public Choice* **140**(3), 379–394.
- Bhargava, S. and Loewenstein, G.: 2015, Behavioral economics and public policy 102: Beyond nudging, *American Economic Review* **105**(5), 396–401.
- Bø, E., Slemrod, J. and Thoresen, T. O.: 2015, Taxes on the internet: Deterrence effects of public disclosure, *American Economic Journal: Economic Policy* **7**(1), 36–62.
- Bobonis, G. J., Cámara Fuertes, L. R. and Schwabe, R.: 2016, Monitoring corruptible politicians, *American Economic Review* **106**(8), 2371–2405.
- Bundestag: 2013, Code of conduct for members of the German Bundestag, [https://www.bundestag.de/resource/blob/195006/a1232d4a394f7cdee1b9bcc2f374880/code\\_of\\_conduct-data.pdf](https://www.bundestag.de/resource/blob/195006/a1232d4a394f7cdee1b9bcc2f374880/code_of_conduct-data.pdf).
- Bursztyn, L. and Jensen, R.: 2017, Social image and economic behavior in the field: Identifying, understanding, and shaping social pressure, *Annual Review of Economics* **9**, 131–153.
- Cullen, Z.: 2024, Is pay transparency good?, *Journal of Economic Perspectives* **38**(1), 153–180.
- Ditto, P. H., Celniker, J. B., Siddiqi, S. S., Güngör, M. and Relihan, D. P.: 2024, Partisan bias in political judgment, *Annual Review of Psychology* .
- Ditto, P. H., Liu, B. S., Clark, C. J., Wojcik, S. P., Chen, E. E., Grady, R. H., Celniker, J. B. and Zinger, J. F.: 2019, At least bias is bipartisan: A meta-analytic comparison of partisan bias in liberals and conservatives, *Perspectives on Psychological Science* **14**(2), 273–291.
- Djankov, S., La Porta, R., Lopez de Silanes, F. and Shleifer, A.: 2010, Disclosure by politicians, *American Economic Journal: Applied Economics* **2**(2), 179–209.
- Drechsel-Grau, M., Peichl, A., Schmid, K. D., Schmieder, J. F., Walz, H. and Wolter, S.: 2022, Inequality and income dynamics in Germany, *Quantitative Economics* **13**(4), 1593–1635.
- Dwenger, N. and Treber, L.: 2022, Shaming for tax enforcement, *Management Science* **68**(11), 8202–8233.
- Eggers, A. C. and Hainmueller, J.: 2009, MPs for sale? Returns to office in postwar British politics, *American Political Science Review* **103**(4), 513–533.
- Faia, E., Fuster, A., Pezone, V. and Zafar, B.: 2024, Biases in information selection and processing: Survey evidence from the pandemic, *The Review of Economics and Statistics* **106**(3), 829–847.
- Ferraz, C. and Finan, F.: 2008, Exposing corrupt politicians: The effects of Brazil's publicly released audits on electoral outcomes, *The Quarterly Journal of Economics* **123**(2), 703–745.
- Ferraz, C. and Finan, F.: 2011, Electoral accountability and corruption: Evidence from the audits of local governments, *American Economic Review* **101**(4), 1274–1311.

- Firpo, S., Fortin, N. M. and Lemieux, T.: 2009, Unconditional quantile regressions, *Econometrica* **77**(3), 953–973.
- Golman, R., Hagmann, D. and Loewenstein, G.: 2017, Information avoidance, *Journal of Economic Literature* **55**(1), 96–135.
- Goodman-Bacon, A.: 2021, Difference-in-differences with variation in treatment timing, *Journal of Econometrics* **225**(2), 254–277.
- Hainmueller, J., Hopkins, D. J. and Yamamoto, T.: 2014, Causal inference in conjoint analysis: Understanding multidimensional choices via stated preference experiments, *Political analysis* **22**(1), 1–30.
- Hasegawa, M., Hoopes, J. L., Ishida, R. and Slemrod, J.: 2013, The effect of public disclosure on reported taxable income: Evidence from individuals and corporations in Japan, *National Tax Journal* **66**(3), 571–607.
- Hoopes, J. L., Robinson, L. and Slemrod, J.: 2018, Public tax-return disclosure, *Journal of Accounting and Economics* **66**(1), 142–162.
- Hoopes, J. L., Robinson, L. and Slemrod, J.: 2024, Corporate tax disclosure, *Journal of the American Taxation Association* **46**(2), 31–61.
- Hurka, S., Daniel, W. and Obholzer, L.: 2018, Determinants of moonlighting in the European Parliament, *The Journal of Legislative Studies* **24**(1), 127–147.
- Kühr, H.: 2014, *Legalität und Legitimität von Mandatsträgerbeiträgen*, Nomos Verlagsgesellschaft GmbH & Co. KG.
- Mas, A.: 2016, Does disclosure affect CEO pay setting? Evidence from the passage of the 1934 Securities and Exchange Act, *Working Paper* .
- Mas, A.: 2017, Does transparency lead to pay compression?, *Journal of Political Economy* **125**(5), 1683–1721.
- Meeuwis, M., Parker, J. A., Schoar, A. and Simester, D.: 2022, Belief disagreement and portfolio choice, *The Journal of Finance* **77**(6), 3191–3247.
- Nathan, B. C., Perez-Truglia, R. and Zentner, A.: 2024, Paying your fair share: Perceived fairness and tax compliance, *NBER Working Paper* 32588 .
- Perez-Truglia, R.: 2020, The effects of income transparency on well-being: Evidence from a natural experiment, *American Economic Review* **110**(4), 1019–1054.
- Perez-Truglia, R. and Troiano, U.: 2018, Shaming tax delinquents, *Journal of Public Economics* **167**, 120–137.
- Regan, T. and Manwaring, P.: 2024, Public disclosure and tax compliance: Evidence from Uganda, *Working Paper* .
- Slemrod, J., Rehman, O. U. and Waseem, M.: 2022, How do taxpayers respond to public disclosure and social recognition programs? Evidence from Pakistan, *Review of Economics and Statistics* **104**(1), 116–132.
- Stantcheva, S.: 2023, How to run surveys: A guide to creating your own identifying variation and revealing the invisible, *Annual Review of Economics* **15**, 205–234.
- Süddeutsche Zeitung: 2023, Linke-Abgeordnete zahlen höchste Mandatsträgerabgaben, <https://www.sueddeutsche.de/wirtschaft/finanzen-linke-abgeordnete-zahlen-hoechste-mandatstraegerabgaben-dpa.urn-newsml-dpa-com-20090101-230508-99-602571>.
- Weschle, S.: 2022, Politicians’ private sector jobs and parliamentary behavior, *American Journal of Political Science* .

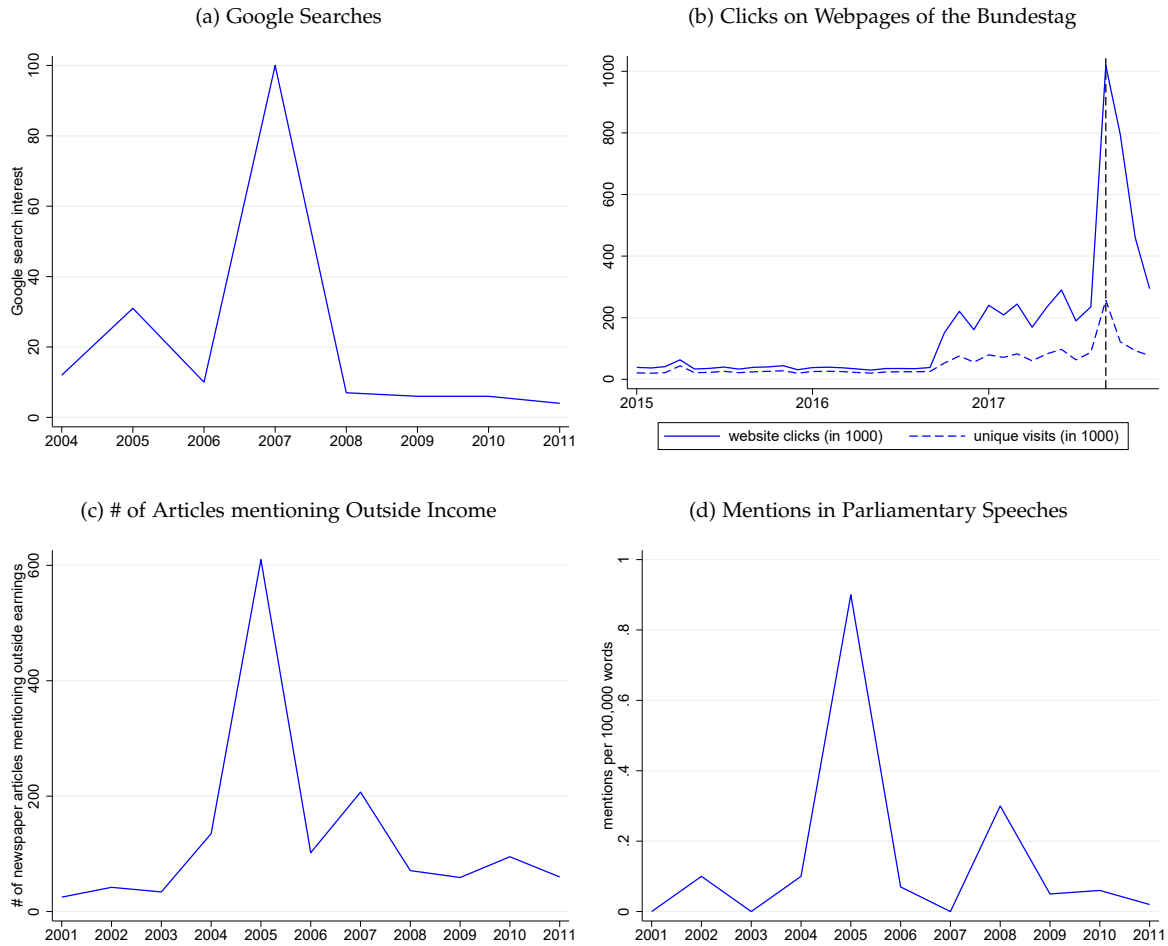
# A Additional Graphs and Tables: Background & Institutions

Figure A.1: Example of Public Disclosure of Outside Income

Veröffentlichungspflichtige Angaben
<b>1. Berufliche Tätigkeit vor der Mitgliedschaft im Deutschen Bundestag</b>
Bundesminister, Bundesministerium der Finanzen, Berlin
<b>2. Entgeltliche Tätigkeiten neben dem Mandat</b>
Alfred Herrhausen Gesellschaft, Berlin, Vortrag, 2009, Stufe 3
Hasso-Plattner-Institut für Softwaresystemtechnik, Potsdam, Vortrag, 2009, Stufe 3
INTES - Akademie für Familienunternehmen, Bonn, Vortrag, 2009, Stufe 3
Marlene Künstler Referentenvermittlung, Moos, Vortrag, 2009, Stufe 3
<b>3. Funktionen in Unternehmen</b>
ThyssenKrupp AG, Düsseldorf, Mitglied des Aufsichtsrates

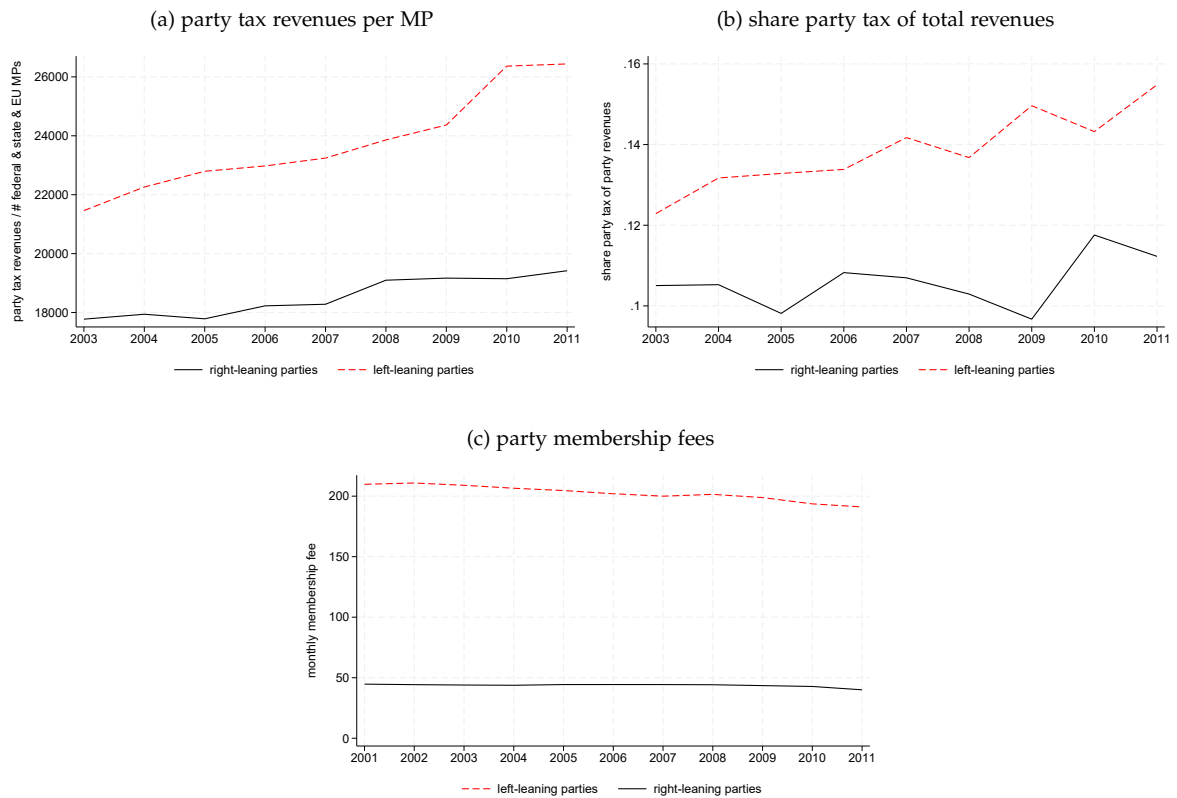
Notes: This figure is a screenshot of Peer Steinbrück's published outside income in election period 17. Source: Website of the Bundestag [https://webarchiv.bundestag.de/archive/2010/0427/bundestag/abgeordnete17/biografien/S/steinbrueck\\_peer.html](https://webarchiv.bundestag.de/archive/2010/0427/bundestag/abgeordnete17/biografien/S/steinbrueck_peer.html).

Figure A.2: Interest in Outside Activities and Income



Notes: Panel (a) plots the search interest relative to the highest point during the specified period. A value of 100 represents the peak popularity of this search term. Source: Google Trends in Germany from 2004 to 2011 with search term: "Nebeneinkünfte" (outside income). Panel (b) plots monthly website clicks and unique visitors (in 1000) on the web pages of the German Bundestag from January 2015 to January 2018. The dashed line marks the federal election in September 2017. Panel (c) plots the number of articles mentioning politicians' outside income from the newspaper archive GENIOS covering the years 2001 to 2011. Panel (d) shows the frequency of outside income mentions in parliamentary speeches, presented per 100,000 words. Source: Die Zeit. Source: freedom of information request to the Bundestag.

Figure A.3: Party tax and membership fees: left-leaning and right-leaning parties



Notes: Panel (a) plots the total party tax revenues of left-leaning (SPD, The Greens, and the Left) and right-leaning parties (CDU/CSU and FDP), divided by their total number of MPs in the federal, state, and EU parliaments. This serves as a proxy for the level of party tax. Panel (b) plots the total party tax revenues of left-leaning and right-leaning parties, expressed as a proportion of their total party revenues. Panel (c) plots the average party membership fees for left-leaning and right-leaning parties based on incomes equal to the average remuneration of federal and state MPs. Source: Accountability reports of political parties (*Rechenschaftsberichten politischer Parteien*).

## A.1 Background & Institutions - Allocation of treatment and control units

Table A.1: Details of Election Periods 16 and 17 in Federal Parliament

	Election Period 16	Election Period 17
<b>Election Details</b>		
Election Date	18.09.2005	27.09.2009
Duration	18.10.2005 - 27.10.2009	27.10.2009 - 22.10.2013
Number of Seats	614	622
<b>Party</b>		
Christian Democrats (CDU/CSU)	226	239
Social Democrats (SPD)	222	146
Free Democrats (FDP)	61	93
Far-left (The Left)	54	76
Green party (The Greens)	51	68

Notes: This table displays information on the German federal parliament for election periods 16 and 17.

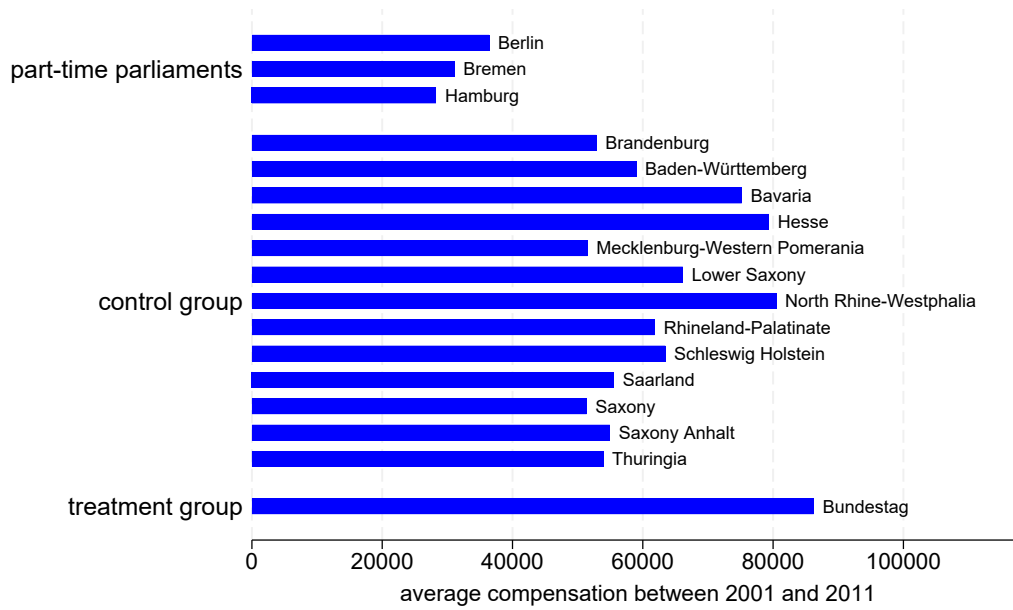
Table A.2: Average Number of MPs in Federal and State Parliaments

	number of MPs	election years
<b>Treatment Group</b>	<b>623</b>	
Federal Parliament	623	2002, 2005, 2009
<b>Control Group</b>	<b>1520</b>	
Baden Württemberg	134	2001, 2006, 2011
Mecklenburg-Vorpommern	71	2002, 2006, 2011
North Rhine Westphalia	210	2005, 2010
Rhineland-Palatinate	101	2001, 2006, 2011
Schleswig-Holstein	83	2005, 2009
Saarland	51	2004, 2009
Saxony	126	2004, 2009
Bavaria	187	2003, 2008
Hessia	112	2003, 2008
Lower Saxony	163	2003, 2009
Brandenburg	88	2004, 2009
Saxony-Anhalt	106	2002, 2006, 2011
Thuringia	88	2004, 2009
<b>Part-time parliament (excluded in all years)</b>	<b>352</b>	
Berlin	146	2001, 2006, 2011
Bremen	85	2003, 2007, 2011
Hamburg	121	2001, 2004, 2008, 2011

Notes: This table denotes the average number of MPs in each parliament from 2001 to 2011. Germany consists of 16 states (*Länder*). We exclude the city-states of Berlin, Bremen, and Hamburg from our analysis because they have part-time parliaments (*Feierabendparlament*).

**Identification of Treatment and Control Group** We determine both groups as follows. First, we identify all federal, state, and EU parliament members who report positive income from parliamentary activities. Next, we gather information on the remuneration and election dates of all 16 state parliaments and the federal and European parliaments from 2001 to 2011. Appendix Figure A.4 displays the average remuneration for the federal, EU, and all state parliaments throughout the sample period. Since state MPs generally receive lower salaries than federal MPs, we distinguish between the two groups within state-year cells. Before 2009, members of the European Parliament received the same compensation as federal MPs. To identify these units, we leverage the increase in their compensation in 2009 resulting from the harmonization of salaries across the European Union. We exclude observations where income from parliamentary activities underwent a significant discontinuous jump in 2009 due to the reform. We can identify approximately two-thirds of the 99 EU parliamentarians because one-third entered the European Parliament for the first time. It is important to note that this creates a bias towards zero, as a

Figure A.4: Average Compensation of MPs in Each Parliament



Notes: This figure illustrates the distribution of average compensation for MPs in each parliament, based on data from 2001 to 2011.

small portion of the treatment group is actually untreated. Throughout our sample period, there were no changes in income disclosure requirements for members of the European Parliament. Furthermore, we exclude households in which both the head and the spouse are MPs, as they could potentially belong to both the treatment and the control group. This only involves a very small number of couples within our sample period, and their inclusion does not alter our results. In addition, we exploit the panel structure of our data to identify individuals who have recently entered or left parliament in a given year. This is necessary because their pre-political income could be erroneously categorized as outside income. Furthermore, when MPs depart from parliament, they receive a transitional payment (*Übergangsgeld*). We make use of two facts: (1) the majority of MPs vacate their parliamentary position following elections, and (2) the transitional payment is lower than the regular salary. Thus, we can identify MPs who experience a significant decrease in income from parliamentary activities immediately after a state or federal election. We classify these MPs as dropouts. Federal MPs receive an extra month of transitional payments for every year they have served in parliament. These transitional payments are limited to a maximum of 18 months. Upon leaving parliament, starting from the second month, the transitional payments will be decreased by the same amount as any other income the former MP receives. Additionally, we exclude all MPs from the three German city-states (Berlin, Hamburg, and Bremen) since being an MP is only a part-time job in these state parliaments (*Feierabendparlamente*). Table A.2 shows the number of MPs we expect by parliament and corresponding election years for federal and state parliaments.



Table B.1: Publicly Disclosed Data: Descriptive Statistics

	mean	median	sd	min	max	N
female	0.32	0.00	0.47	0.00	1.00	1294
age	51.39	53.00	9.91	24.00	76.00	1294
married	0.73	1.00	0.45	0.00	1.00	1294
East Germany	0.17	0.00	0.38	0.00	1.00	1294
doctoral degree	0.19	0.00	0.39	0.00	1.00	1294
right-leaning	0.50	1.00	0.50	0.00	1.00	1294
directly elected	0.46	0.00	0.50	0.00	1.00	1294
number of terms served	2.89	2.00	1.88	1.00	11.00	1294
committee chair	0.07	0.00	0.26	0.00	1.00	1294
committee: interior	0.06	0.00	0.23	0.00	1.00	1294
committee: social	0.06	0.00	0.23	0.00	1.00	1294
committee: science	0.05	0.00	0.22	0.00	1.00	1294
committee: agriculture	0.05	0.00	0.22	0.00	1.00	1294
committee: family	0.05	0.00	0.22	0.00	1.00	1294
committee: health	0.05	0.00	0.22	0.00	1.00	1294
committee: culture	0.03	0.00	0.18	0.00	1.00	1294
committee: human rights	0.03	0.00	0.16	0.00	1.00	1294
committee: justice	0.05	0.00	0.22	0.00	1.00	1294
committee: tourism	0.03	0.00	0.16	0.00	1.00	1294
committee: environment	0.05	0.00	0.22	0.00	1.00	1294
committee: traffic	0.06	0.00	0.23	0.00	1.00	1294
committee: election	0.02	0.00	0.16	0.00	1.00	1294
committee: economics	0.06	0.00	0.23	0.00	1.00	1294
committee: EU	0.05	0.00	0.22	0.00	1.00	1294
committee: development	0.04	0.00	0.19	0.00	1.00	1294
committee: exterior	0.06	0.00	0.23	0.00	1.00	1294
committee: budget	0.12	0.00	0.32	0.00	1.00	1294
committee: petition	0.04	0.00	0.19	0.00	1.00	1294
committee: accounting	0.02	0.00	0.16	0.00	1.00	1294
committee: sports	0.03	0.00	0.16	0.00	1.00	1294
committee: defense	0.05	0.00	0.22	0.00	1.00	1294

Source: Publicly disclosed data for election periods 16 and 17.

## B Additional Graphs and Tables: Publicly Disclosed Data

The publicly disclosed dataset comprises various data sources. First, we downloaded the *Stammdaten aller Abgeordneten seit 1949*.<sup>20</sup> The dataset contains biographical information about federal MPs, including variables such as birthplace, gender, party affiliation, birthday, dates of entering and exiting parliament, number of children, etc. Second, we digitized the *Amtliches Handbuch des Deutschen Bundestages für die Wahlperiode 16-17 (Official Handbook of the German Bundestag for the Election Period 16-17)*. This serves as our primary dataset and provides information on outside activities and earnings following the required reporting scheme (e.g., type of activity, outside earnings level, frequency, and location). In addition, the handbooks include information about committee memberships, such as which MP is a regular member of a particular committee, who serves as the chair of a specific committee, and the committees in which the MPs are involved. Finally, we collected voting statistics from the *Bundeswahlleiter (Federal Election Officer)*, including results for each federal election and a list of candidates for the federal election.

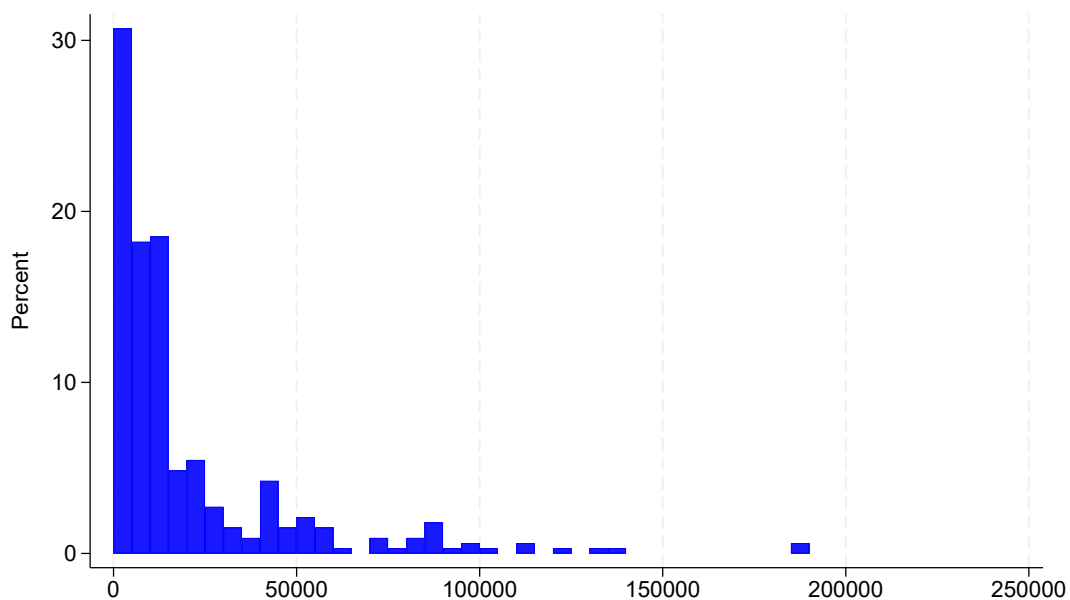
<sup>20</sup> Source: [www.bundestag.de/service/opendata](http://www.bundestag.de/service/opendata), accessed 25.10.2017

Table B.2: Publicly Disclosed Data: Distribution of Levels and Frequency by Activity

	election period 16		election period 17		total	
	N	in percent	N	in percent	N	in percent
level 0	1317	0.485	1402	0.483	2719	0.484
level 1	697	0.257	780	0.267	1477	0.262
level 2	206	0.076	218	0.075	424	0.075
level 3	497	0.183	512	0.175	1009	0.179
frequency: once	2563	0.943	2736	0.937	5299	0.940
frequency: yearly	67	0.025	59	0.020	126	0.022
frequency: monthly	87	0.032	126	0.043	213	0.038
total	2717	1.000	2921	1.000	5629	1.000

Notes: We provide the absolute and percentages of each income bracket within a given election period as well as across both election periods. Source: Publicly disclosed data for election periods 16 and 17.

Figure B.1: Distribution of Publicly Disclosed Income



Notes: This figure shows the distribution of positive outside income based on publicly disclosed data. To determine the value of outside income, we assign the lower bound of each bracket to every activity. We then calculate the total reported outside income for each federal MP per election period. To ensure comparability with the yearly tax data, we normalize this amount to 2010 € using the German CPI and divide it by four. Source: Publicly disclosed data for election periods 16 and 17.

Table B.3: Publicly Disclosed Data: Correlations using Mid-point Imputation

	(1) disclosed income > 0	(2) disclosed income > 0	(3) log disclosed income	(4) log disclosed income
right-leaning MP	0.179*** (0.029)	0.149*** (0.031)	0.945*** (0.159)	0.828*** (0.166)
female		-0.072** (0.035)		-0.600*** (0.173)
age		-0.001 (0.002)		0.014 (0.009)
married		-0.010 (0.035)		-0.262 (0.183)
East Germany		-0.079* (0.043)		-0.507*** (0.193)
doctoral degree		0.039 (0.036)		0.134 (0.192)
directly elected		0.039 (0.028)		-0.085 (0.159)
number of terms served		-0.001 (0.009)		-0.003 (0.053)
committee chair		0.066 (0.045)		0.452 (0.281)
committee FE		yes		yes
N	1294	1294	897	897
# respondents	864	864	638	638

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The outcome variable is the mid-point imputation measure of outside income based on the reported data. To calculate outside income, we assign each activity the mid-point of its respective bracket. For the top bracket, we use the lower bound of the bracket. Standard errors are clustered at the individual level. Source: Publicly disclosed data for election periods 16 and 17.

Table B.4: Publicly Disclosed Data: By Sources & Political Party

disclosed income category	(1) business owner	(2) attorney	(3) board member	(4) publishing/talks
right-leaning MP	2256*** (681)	539 (422)	859*** (268)	-303 (329)
N	1294	1294	1294	1294
# respondents	864	864	864	864

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The outcome variable is the lower bound measure of outside income based on the disclosed data described in Section 2.2. To determine the value of outside income, we assign the lower bound of each bracket to every activity. We then calculate the total amount of reported outside income for each federal MP per election period. This amount is normalized to 2010 € using the German CPI and divided by four to ensure comparability with the yearly tax data. Standard errors are clustered at the individual level. Source: Publicly disclosed data for election periods 16 and 17.

## C Additional Graphs and Tables: Tax Data

Table C.1: Descriptive Statistics: Pre-reform Outside Income in the Tax Data

	mean	sd	median	share > 0	N
<i>all MPs</i>					
outside income	32390	289525	4373	0.685	14187
business & self-employment	9274	328685	0	0.468	14187
wages & salaries	20742	334834	0	0.310	14187
other sources	2373	15877	0	0.224	14187
<i>federal MPs</i>					
outside income	22455	95428	1158	0.5753	3880
business & self-employment	10700	73255	0	0.4546	3880
wages & salaries	9655	57579	0	0.2157	3880
other sources	2100	13369	0	0.1471	3880
<i>state MPs</i>					
outside income	36130	334522	5705	0.726	10307
business & self-employment	8737	382996	2	0.473	10307
wages & salaries	24916	391166	0	0.346	10307
other sources	2477	16723	0	0.254	10307

Notes: Outside income includes all income from (i) salaries and wages, (ii) business and self-employment income, and (iii) other sources, excluding income from parliamentary activities. Source: Taxpayer Panel 2001-2006

Table C.2: Demographic Information: Federal and State MPs

	federal MPs		state MPs
	Disclosed data	Tax data	Tax data
female	0.32	0.31	0.28
age	51.39	51.87	55.55
married	0.73	0.72	0.76
East Germany	0.17	0.18	0.28
(proxy for) right-leaning	0.50	0.43	0.48

Notes: Source: Publicly disclosed data for election periods 16 and 17 (column 1) and Taxpayer Panel 2001-2011 for the remaining columns. In column (1), the official data for party affiliation used, while in columns (2) and (3) we use the proxy described in Section 3.2.2.

Table C.3: Outside Income in the Tax Data: Correlations

	(1) outside earnings > 0	(2) log outside earnings	(3) log outside earnings	(4) log outside earnings
proxy for right-leaning	0.0604*** (0.0088)	0.0152* (0.0084)	0.2771*** (0.0452)	0.0891** (0.0435)
female		-0.1627*** (0.0138)		-0.8824*** (0.0664)
East Germany		-0.1024*** (0.0136)		-0.6525*** (0.0641)
above median age		0.1073*** (0.0105)		0.2946*** (0.0516)
married		0.0419*** (0.0136)		0.0892 (0.0662)
N	25504	25343	18086	17993
# politicians	4558	4544	3945	3928

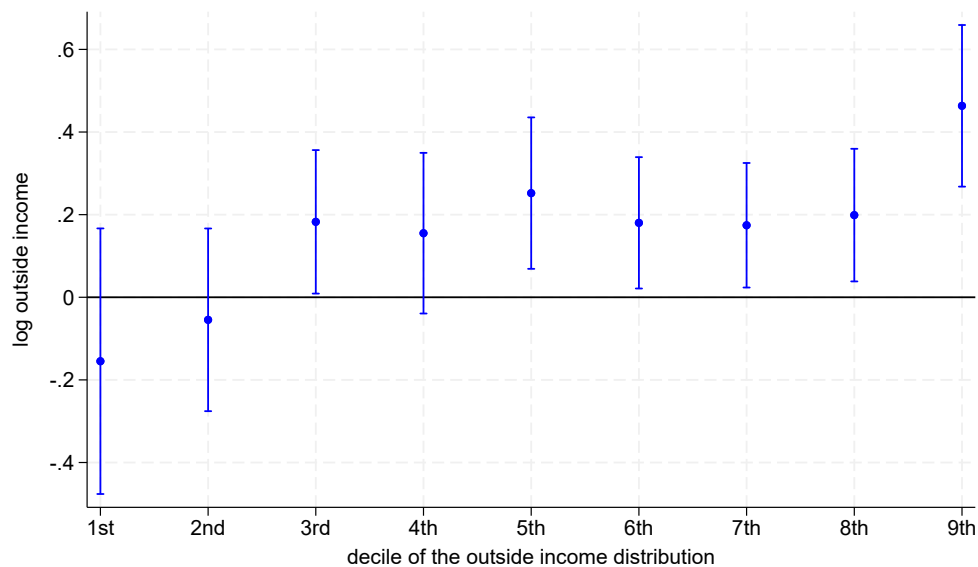
Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The outcome variable is a dummy variable indicating positive outside income (columns 1 - 2) and the log of outside income (columns 3 - 4). The proxy for right-leaning MPs is described in Section 3.2.2. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001 - 2011.

Table C.4: Effect of Public Disclosure: Quantile Regressions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	log outside earnings								
	1st decile	2nd decile	3rd decile	4th decile	5th decile	6th decile	7th decile	8th decile	9th decile
treatment x reform	-0.1548 (0.1640)	-0.0546 (0.1128)	0.1826** (0.0886)	0.1551 (0.0992)	0.2521*** (0.0935)	0.1802** (0.0811)	0.1743** (0.0769)	0.1989** (0.0819)	0.4634*** (0.0998)
politician FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
state x year FE	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	18516	18516	18516	18516	18516	18516	18516	18516	18516
# politicians	4085	4085	4085	4085	4085	4085	4085	4085	4085

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. This table displays estimates from equation (1) using unconditional quantile regression for the first through ninth deciles. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

Figure C.1: Effect of Public Disclosure: Quantile Regression



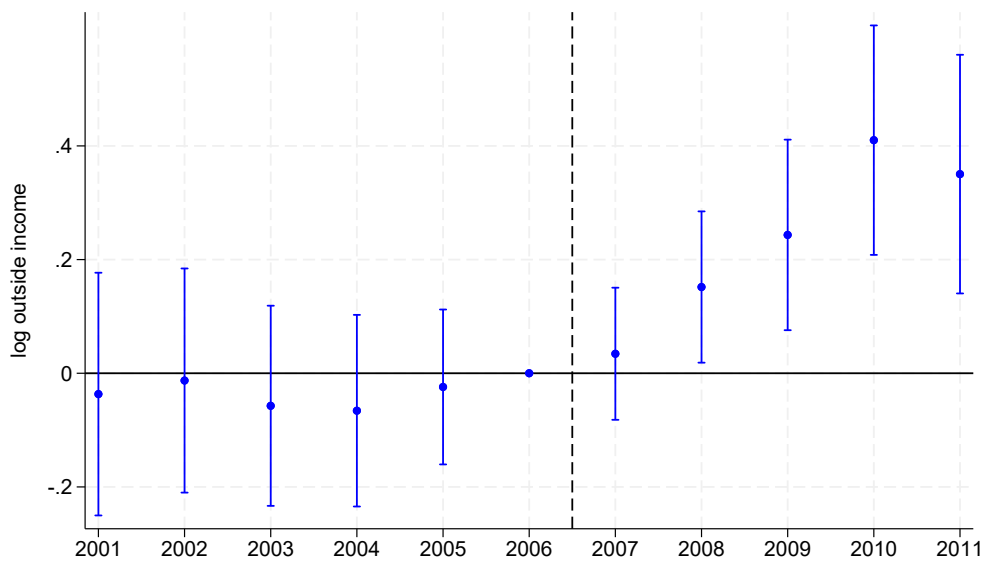
Notes: This graph displays the coefficient  $\beta$  and the corresponding 95% confidence interval when estimating equation (1) using unconditional quantile regression for the first through ninth deciles. Standard errors are clustered at the individual level. The point estimates can be found in Appendix Table C.4. Source: Taxpayer Panel, 2001-2011.

Table C.5: Effect of Public Disclosure: Non-politicians as an alternative control group

	(1)	(2)
	log outside earnings	log outside earnings
treatment x reform	0.2201*** (0.0640)	0.2641*** (0.0641)
individual FE	yes	yes
state x year FE	yes	yes
control group	5th - 95th percentile of pre-reform politician income distribution	1th - 99th percentile of pre-reform politician income distribution
N	310570	519242
# individuals	31373	52458

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. This table presents estimates from equation (1) using log outside income as the outcome variable. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

Figure C.2: Dynamic Effect of Public Disclosure: Non-politicians as an alternative control group



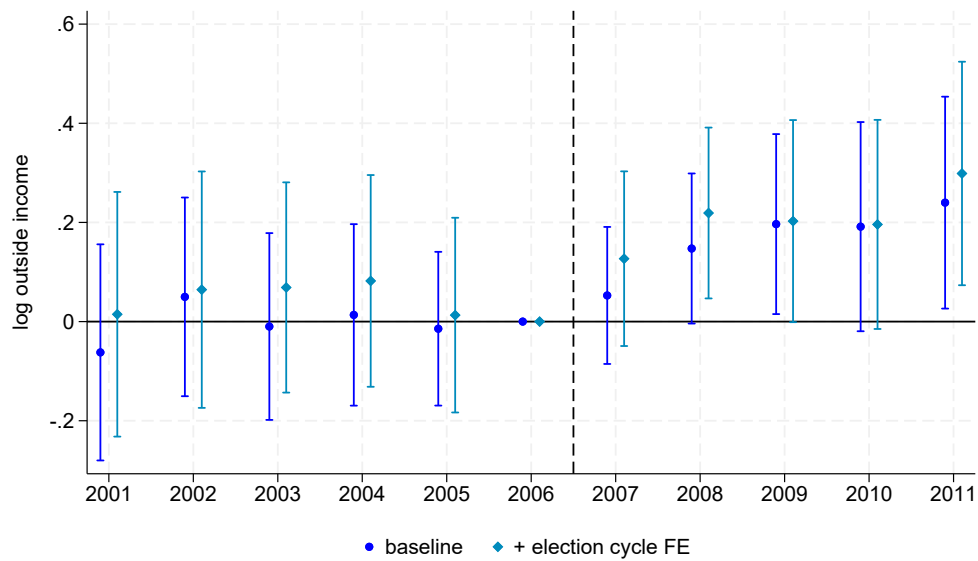
Notes: This graph displays the coefficients  $\beta_t$  and their corresponding 95% confidence intervals, estimated by a fully interacted version of equation (2) using log outside income as the outcome variable and non-politicians as the control group as described in Section 4.2.4. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

Table C.6: Effect of Public Disclosure: Robustness of Heterogeneous Effects

	(1)	(2)	(3)
	log outside income	log outside income	log outside income
treatment x reform	0.0315 (0.0782)	0.0284 (0.0743)	0.0027 (0.0861)
treatment x reform x proxy for right-leaning	0.3070*** (0.1002)	0.2743** (0.1119)	0.2691** (0.1214)
politician FE	yes	yes	yes
state x year x group FE	yes	yes	yes
assignment within single and married	yes	yes	yes
adjust for election cycle	yes	yes	
assignment within treatment and control	yes		
N	17326	17326	17326
# politicians	3185	3185	3185

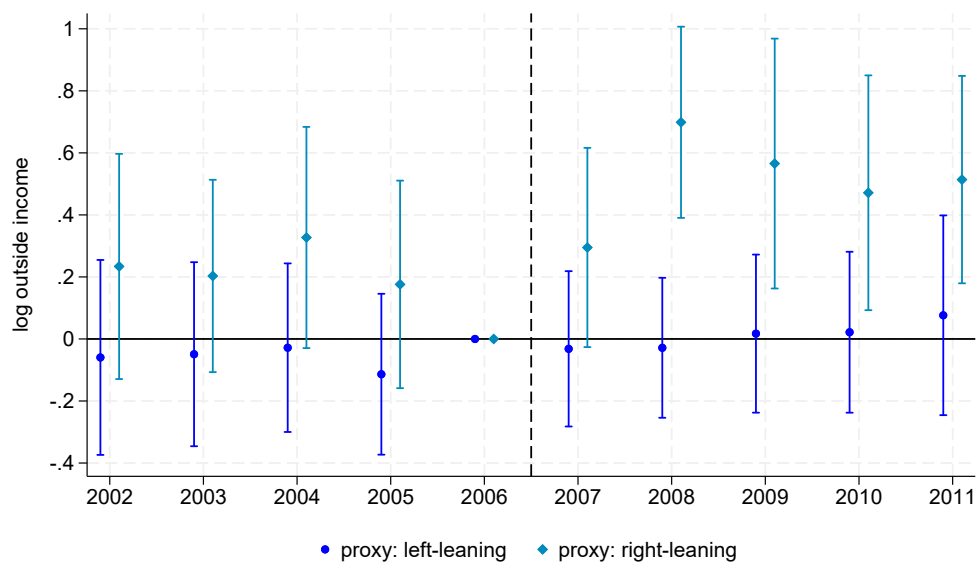
Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. This table displays estimates from a fully interacted version of equation (1) using log outside income as the outcome variable. The construction of the proxy for right-leaning MPs is described in Section 3.2.2. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

Figure C.3: Dynamic Effect of Public Disclosure with Election Cycle FE



Notes: This graph displays the coefficients  $\beta_t$  and their corresponding 95% confidence intervals, estimated by a fully interacted version of equation (2) with election cycle fixed effects and using log outside income as the outcome variable. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

Figure C.4: Dynamic Heterogeneous Effect of Public Disclosure with Election Cycle FE



Notes: This graph displays the coefficients  $\beta_t$  and the corresponding 95% confidence intervals estimated by a fully interacted version of equation (2) with election cycle fixed effects and using log outside income as the outcome variable. The construction of the proxy for right-leaning MPs is described in Section 3.2.2. Standard errors are clustered at the individual level. Source: Taxpayer Panel, 2001-2011.

## D Additional Graphs and Tables: Survey Data

Table D.1: Survey: Descriptive Statistics

	mean	median	sd	min	max	N
MP represents voters' interests	4.23	4.00	1.40	1.00	7.00	12075
MP represents own or third-party interests	4.09	4.00	1.41	1.00	7.00	12075
MP is competent	4.34	4.00	1.32	1.00	7.00	12075
MP is hardworking	4.09	4.00	1.42	1.00	7.00	12075
female	0.52	1.00	0.50	0.00	1.00	12075
age: 18 - 29	0.13	0.00	0.34	0.00	1.00	12075
age: 30 - 39	0.14	0.00	0.35	0.00	1.00	12075
age: 40 - 49	0.14	0.00	0.35	0.00	1.00	12075
age: 50 - 59	0.20	0.00	0.40	0.00	1.00	12075
age: 60 or older	0.39	0.00	0.49	0.00	1.00	12075
East Germany	0.20	0.00	0.40	0.00	1.00	12075
left-leaning	0.56	1.00	0.50	0.00	1.00	12075
informed about outside income	0.43	0.00	0.49	0.00	1.00	12015

Source: Own survey.

Table D.2: Voters' Perception of Outside Income

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hardworking (in sd)
outside income: 1000€ - 3500€	-0.076** (0.036)	0.106*** (0.037)	0.052 (0.036)	0.054 (0.036)
outside income: 3500€ - 7000€	-0.137*** (0.039)	0.156*** (0.038)	0.049 (0.038)	0.046 (0.038)
outside income: > 7000€	-0.187*** (0.040)	0.297*** (0.038)	0.089** (0.038)	0.030 (0.040)
attorney	-0.006 (0.033)	0.034 (0.034)	0.189*** (0.034)	0.103*** (0.033)
business owner	-0.047 (0.032)	0.096*** (0.034)	0.028 (0.033)	0.179*** (0.033)
board member	-0.207*** (0.035)	0.164*** (0.036)	-0.046 (0.034)	-0.103*** (0.034)
controls	yes	yes	yes	yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}$ ,  $\beta_2^{inc}$ ,  $\beta_3^{inc}$ ,  $\beta_1^{job}$ ,  $\beta_2^{job}$ , and  $\beta_3^{job}$  from equation (3). The control variables include all other treatment dummies, fixed effects for survey rounds, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.



Table D.3: Voters' Perception of Outside Income by Political Leaning

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hardworking (in sd)
outside income: 1000€ - 3500€	-0.023 (0.057)	0.084 (0.058)	0.142** (0.057)	0.108* (0.057)
outside income: 3500€ - 7000€	-0.031 (0.064)	0.138** (0.058)	0.140** (0.061)	0.114* (0.065)
outside income: > 7000€	-0.046 (0.065)	0.248*** (0.061)	0.216*** (0.062)	0.121* (0.064)
outside income: 1000€ - 3500€ x left-leaning voter	-0.094 (0.073)	0.040 (0.075)	-0.160** (0.073)	-0.095 (0.073)
outside income: 3500€ - 7000€ x left-leaning voter	-0.186** (0.080)	0.028 (0.077)	-0.161** (0.077)	-0.118 (0.079)
outside income: > 7000€ x left-leaning voter	-0.249*** (0.081)	0.085 (0.078)	-0.226*** (0.077)	-0.162** (0.081)
attorney	0.033 (0.048)	0.006 (0.049)	0.145*** (0.053)	0.098* (0.051)
business owner	-0.018 (0.049)	0.054 (0.053)	0.053 (0.050)	0.242*** (0.049)
board member	-0.235*** (0.055)	0.159*** (0.053)	-0.104* (0.054)	-0.137*** (0.053)
attorney x left-leaning voter	-0.064 (0.066)	0.051 (0.067)	0.079 (0.069)	0.011 (0.068)
business owner x left-leaning voter	-0.050 (0.065)	0.075 (0.070)	-0.045 (0.066)	-0.112* (0.065)
board member x left-leaning voter	0.053 (0.072)	0.006 (0.071)	0.105 (0.070)	0.064 (0.070)
controls	yes	yes	yes	yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}$ ,  $\beta_2^{inc}$ ,  $\beta_3^{inc}$ ,  $\beta_1^{job}$ ,  $\beta_2^{job}$ ,  $\beta_3^{job}$ ,  $\gamma_1^{inc}$ ,  $\gamma_2^{inc}$ ,  $\gamma_3^{inc}$ ,  $\gamma_1^{job}$ ,  $\gamma_2^{job}$ , and  $\gamma_3^{job}$  from equation (4). The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.4: Voters' Perception of Outside Income: Drop Young Voters

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hardworking (in sd)
outside income: 1000€ - 3500€	-0.082** (0.039)	0.140*** (0.040)	0.053 (0.038)	0.050 (0.039)
outside income: 3500€ - 7000€	-0.153*** (0.042)	0.211*** (0.040)	0.048 (0.040)	0.034 (0.042)
outside income: > 7000€	-0.211*** (0.043)	0.337*** (0.040)	0.076* (0.040)	0.005 (0.042)
attorney	-0.008 (0.035)	0.016 (0.036)	0.192*** (0.036)	0.089** (0.036)
business owner	-0.036 (0.034)	0.058 (0.036)	0.037 (0.034)	0.185*** (0.035)
board member	-0.228*** (0.037)	0.161*** (0.037)	-0.054 (0.036)	-0.116*** (0.037)
drop young voters	yes	yes	yes	yes
controls	yes	yes	yes	yes
N	10146	10146	10146	10146
# respondents	3382	3382	3382	3382

Notes: This table displays the coefficients  $\beta_1^{inc}$ ,  $\beta_2^{inc}$ ,  $\beta_3^{inc}$ ,  $\beta_1^{job}$ ,  $\beta_2^{job}$ , and  $\beta_3^{job}$  from equation (3), excluding voters under the age of 30. The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.5: Voters' Perception of Outside Income by Political Leaning: Drop Young Voters

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hardworking (in sd)
outside income: 1000€ - 3500€	-0.034 (0.061)	0.122* (0.063)	0.153** (0.060)	0.112* (0.061)
outside income: 3500€ - 7000€	-0.048 (0.069)	0.213*** (0.061)	0.130** (0.065)	0.106 (0.070)
outside income: > 7000€	-0.059 (0.071)	0.309*** (0.065)	0.230*** (0.065)	0.116* (0.070)
outside income: 1000€ - 3500€ x left-leaning voter	-0.083 (0.078)	0.031 (0.081)	-0.176** (0.078)	-0.109 (0.079)
outside income: 3500€ - 7000€ x left-leaning voter	-0.186** (0.086)	-0.007 (0.081)	-0.142* (0.081)	-0.125 (0.086)
outside income: > 7000€ x left-leaning voter	-0.267*** (0.088)	0.049 (0.083)	-0.271*** (0.082)	-0.197** (0.087)
attorney	0.031 (0.051)	0.003 (0.053)	0.152*** (0.056)	0.081 (0.056)
business owner	-0.006 (0.051)	-0.005 (0.056)	0.066 (0.053)	0.237*** (0.051)
board member	-0.237*** (0.059)	0.155*** (0.056)	-0.095* (0.057)	-0.150*** (0.058)
attorney x left-leaning voter	-0.065 (0.071)	0.025 (0.071)	0.072 (0.074)	0.016 (0.073)
business owner x left-leaning voter	-0.051 (0.068)	0.113 (0.073)	-0.054 (0.069)	-0.094 (0.069)
board member x left-leaning voter	0.020 (0.077)	0.009 (0.074)	0.077 (0.073)	0.063 (0.075)
drop young voters controls	yes yes	yes yes	yes yes	yes yes
N	10146	10146	10146	10146
# respondents	3382	3382	3382	3382

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job}, \beta_3^{job}, \gamma_1^{inc}, \gamma_2^{inc}, \gamma_3^{inc}, \gamma_1^{job}, \gamma_2^{job}, \gamma_3^{job}$  from equation (4), excluding voters under the age of 30. The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.6: Knowledge about Outside Income by Political Leaning

	(1) informed about outside income	(2) informed about outside income
left-leaning voter	0.024 (0.019)	0.024 (0.018)
controls	no	yes
N	4005	4005

Notes: This table displays the coefficient  $\beta^{left}$  from estimating the following equation  $Y_i = \beta^{left} D_i^{left} + X_i + \epsilon_i$ . The control variables  $X_i$  include the respondents' gender, four age dummies, and a dummy variable indicating whether they live in East Germany. Robust standard errors are displayed in parentheses. Source: Own survey.

Table D.7: Voters' Perception of Outside Income: Without Controls

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hardworking (in sd)
outside income: 1000€ - 3500€	-0.080** (0.037)	0.113*** (0.037)	0.045 (0.037)	0.053 (0.037)
outside income: 3500€ - 7000€	-0.135*** (0.040)	0.160*** (0.038)	0.049 (0.039)	0.049 (0.040)
outside income: > 7000€	-0.188*** (0.041)	0.299*** (0.038)	0.094** (0.039)	0.035 (0.041)
attorney	-0.004 (0.034)	0.031 (0.034)	0.188*** (0.035)	0.100*** (0.034)
business owner	-0.042 (0.033)	0.099*** (0.035)	0.033 (0.034)	0.182*** (0.033)
board member	-0.210*** (0.037)	0.160*** (0.036)	-0.040 (0.036)	-0.109*** (0.036)
controls	no	no	no	no
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job}, \beta_3^{job}$  from equation (3), excluding the control variables. The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.8: Voters' Perception of Outside Income by Political Leaning: Without Controls

	(1) voters' interests (in sd)	(2) own or third-party interests (in sd)	(3) competency (in sd)	(4) hardworking (in sd)
outside income: 1000€ - 3500€	-0.024 (0.058)	0.087 (0.058)	0.143** (0.058)	0.112* (0.058)
outside income: 3500€ - 7000€	-0.034 (0.065)	0.133** (0.058)	0.139** (0.063)	0.110* (0.066)
outside income: > 7000€	-0.060 (0.067)	0.248*** (0.061)	0.219*** (0.064)	0.119* (0.065)
outside income: 1000€ - 3500€ x left-leaning voter	-0.097 (0.074)	0.044 (0.075)	-0.170** (0.075)	-0.097 (0.074)
outside income: 3500€ - 7000€ x left-leaning voter	-0.176** (0.081)	0.046 (0.077)	-0.156** (0.078)	-0.100 (0.081)
outside income: > 7000€ x left-leaning voter	-0.227*** (0.083)	0.089 (0.078)	-0.222*** (0.079)	-0.151* (0.082)
attorney	0.036 (0.050)	0.001 (0.049)	0.148*** (0.055)	0.097* (0.053)
business owner	-0.014 (0.049)	0.060 (0.053)	0.057 (0.051)	0.244*** (0.050)
board member	-0.247*** (0.057)	0.157*** (0.052)	-0.106* (0.055)	-0.148*** (0.054)
attorney x left-leaning voter	-0.068 (0.068)	0.052 (0.067)	0.073 (0.071)	0.006 (0.069)
business owner x left-leaning voter	-0.049 (0.066)	0.070 (0.070)	-0.044 (0.068)	-0.112* (0.067)
board member x left-leaning voter	0.072 (0.075)	0.005 (0.072)	0.123* (0.072)	0.075 (0.072)
controls	no	no	no	no
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job}, \beta_3^{job}, \gamma_1^{inc}, \gamma_2^{inc}, \gamma_3^{inc}, \gamma_1^{job}, \gamma_2^{job},$  and  $\gamma_3^{job}$  from equation (4) without the control variables. The control variables include all other treatment dummies, fixed effects for the survey round, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.9: Voters' Perception of Outside Income: Ordered Logit

	(1) voters' interests	(2) own or third-party interests	(3) competency	(4) hardworking
outside income: 1000€ - 3500€	-0.145** (0.065)	0.205*** (0.067)	0.092 (0.066)	0.087 (0.064)
outside income: 3500€ - 7000€	-0.256*** (0.068)	0.302*** (0.069)	0.085 (0.067)	0.087 (0.068)
outside income: > 7000€	-0.354*** (0.072)	0.561*** (0.069)	0.163** (0.069)	0.043 (0.071)
attorney	-0.002 (0.060)	0.047 (0.060)	0.394*** (0.063)	0.206*** (0.061)
business owner	-0.104* (0.060)	0.164*** (0.062)	0.042 (0.060)	0.336*** (0.061)
board member	-0.388*** (0.063)	0.276*** (0.065)	-0.083 (0.063)	-0.170*** (0.063)
estimation	ordered logit	ordered logit	ordered logit	ordered logit
controls	yes	yes	yes	yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job},$  and  $\beta_3^{job}$  from equation (3) estimated using an ordered logit model. The control variables include all other treatment dummies, fixed effects for survey rounds, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.10: Voters' Perception of Outside Income by Political Leaning: Ordered Logit

	(1) voters' interests	(2) own or third-party interests	(3) competency	(4) hardworking
outside income: 1000€ - 3500€	-0.075 (0.103)	0.181* (0.104)	0.275*** (0.102)	0.177* (0.102)
outside income: 3500€ - 7000€	-0.085 (0.112)	0.294*** (0.104)	0.242** (0.107)	0.192* (0.115)
outside income: > 7000€	-0.107 (0.118)	0.477*** (0.108)	0.400*** (0.110)	0.200* (0.117)
outside income: 1000€ - 3500€ x left-leaning voter	-0.121 (0.133)	0.043 (0.135)	-0.318** (0.133)	-0.155 (0.133)
outside income: 3500€ - 7000€ x left-leaning voter	-0.299** (0.141)	0.010 (0.138)	-0.269* (0.138)	-0.177 (0.143)
outside income: > 7000€ x left-leaning voter	-0.430*** (0.147)	0.145 (0.140)	-0.413*** (0.140)	-0.272* (0.147)
attorney	0.085 (0.089)	-0.011 (0.089)	0.339*** (0.100)	0.214** (0.094)
business owner	-0.031 (0.091)	0.095 (0.095)	0.104 (0.093)	0.487*** (0.092)
board member	-0.436*** (0.100)	0.274*** (0.097)	-0.172* (0.096)	-0.201** (0.098)
attorney x left-leaning voter	-0.148 (0.120)	0.103 (0.121)	0.100 (0.129)	-0.012 (0.123)
business owner x left-leaning voter	-0.124 (0.122)	0.125 (0.126)	-0.107 (0.123)	-0.264** (0.122)
board member x left-leaning voter	0.092 (0.129)	0.003 (0.131)	0.161 (0.127)	0.057 (0.129)
estimation controls	ordered logit yes	ordered logit yes	ordered logit yes	ordered logit yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job}, \beta_3^{job}, \gamma_1^{inc}, \gamma_2^{inc}, \gamma_3^{inc}, \gamma_1^{job}, \gamma_2^{job},$  and  $\gamma_3^{job}$  from equation (4) using an ordered logit model. The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.11: Voters' Perception of Outside Income: Binary Outcomes

	(1) Dummy: voters' interests	(2) Dummy: own or third-party interests	(3) Dummy: competency	(4) Dummy: hardworking
outside income: 1000€ - 3500€	-0.037** (0.018)	0.033* (0.018)	0.017 (0.018)	0.005 (0.017)
outside income: 3500€ - 7000€	-0.058*** (0.019)	0.055*** (0.018)	0.023 (0.018)	0.011 (0.018)
outside income: > 7000€	-0.074*** (0.019)	0.117*** (0.018)	0.034* (0.019)	0.011 (0.018)
attorney	0.002 (0.017)	0.017 (0.017)	0.115*** (0.017)	0.068*** (0.016)
business owner	-0.032* (0.017)	0.048*** (0.018)	0.020 (0.017)	0.095*** (0.016)
board member	-0.085*** (0.017)	0.058*** (0.017)	-0.014 (0.017)	-0.014 (0.016)
controls	yes	yes	yes	yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job},$  and  $\beta_3^{job}$  from estimating equation (3) using a binary outcome variable. The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

Table D.12: Voters' Perception of Outside Income by Political Leaning: Binary Outcomes

	(1) Dummy: voters' interests	(2) Dummy: own or third-party interests	(3) Dummy: competency	(4) Dummy: hardworking
outside income: 1000€ - 3500€	-0.035 (0.028)	0.017 (0.029)	0.063** (0.027)	0.012 (0.025)
outside income: 3500€ - 7000€	-0.026 (0.029)	0.051* (0.029)	0.048* (0.027)	0.026 (0.027)
outside income: > 7000€	-0.016 (0.030)	0.090*** (0.029)	0.086*** (0.029)	0.040 (0.027)
outside income: 1000€ - 3500€ x left-leaning voter	-0.005 (0.037)	0.028 (0.037)	-0.081** (0.037)	-0.012 (0.035)
outside income: 3500€ - 7000€ x left-leaning voter	-0.056 (0.038)	0.005 (0.037)	-0.042 (0.037)	-0.026 (0.036)
outside income: > 7000€ x left-leaning voter	-0.103*** (0.039)	0.048 (0.037)	-0.090** (0.038)	-0.051 (0.037)
attorney	0.039 (0.026)	0.009 (0.025)	0.101*** (0.027)	0.087*** (0.024)
business owner	-0.001 (0.025)	0.050* (0.027)	0.040 (0.025)	0.136*** (0.025)
board member	-0.092*** (0.025)	0.078*** (0.027)	-0.027 (0.026)	-0.009 (0.024)
attorney x left-leaning voter	-0.064* (0.034)	0.013 (0.033)	0.025 (0.035)	-0.034 (0.033)
business owner x left-leaning voter	-0.055 (0.034)	-0.004 (0.035)	-0.037 (0.034)	-0.074** (0.033)
board member x left-leaning voter	0.015 (0.033)	-0.036 (0.035)	0.025 (0.034)	-0.008 (0.032)
controls	yes	yes	yes	yes
N	12075	12075	12075	12075
# respondents	4025	4025	4025	4025

Notes: This table displays the coefficients  $\beta_1^{inc}, \beta_2^{inc}, \beta_3^{inc}, \beta_1^{job}, \beta_2^{job}, \beta_3^{job}, \gamma_1^{inc}, \gamma_2^{inc}, \gamma_3^{inc}, \gamma_1^{job}, \gamma_2^{job},$  and  $\gamma_3^{job}$  from equation (4) using a binary outcome variable. The control variables include all other treatment dummies, survey round fixed effects, the respondents' gender, four age dummies, a dummy indicating whether they live in East Germany, and a left-leaning dummy. Standard errors are clustered at the individual level. Source: Own survey.

## E Survey - Questionnaire

Vielen Dank für Ihre Teilnahme. Zu Beginn benötigen wir noch ein paar demografische Informationen von Ihnen. (*Thank you for your participation. To get started, we need some demographic information from you.*)

**Q1:** Wie alt sind Sie? (*How old are you?*)

- unter 30 (*below 30*)
- 30 - 39
- 40 - 49
- 50 - 59
- 60 oder älter (*60 or older*)

**Q2:** Welches Geschlecht haben Sie? (*What gender are you?*)

- männlich (*male*)
- weiblich (*female*)

**Q3:** In welchem Teil Deutschlands leben Sie? (*In which part of Germany do you live?*)

- Westdeutschland (*West Germany*)
- Ostdeutschland (*East Germany*)

**Q4:** Welche Partei würden Sie wählen, wenn am kommenden Sonntag Bundestagswahl wäre? (*Which party would you vote for if there were a federal election next Sunday?*)

*Respondents who indicate the AfD are screened out since the party did not exist at the time of the reform. We also screen out respondents who indicated voting for other party or not voting at all.*

- SPD (*Social Democratic Party of Germany*)
- CDU/CSU (*Christian Democratic Union/Christian Social Union*)
- Die Grünen (*The Greens*)
- FDP (*Free Democratic Party*)
- DIE LINKE (*The Left*)
- AfD (*Alternative for Germany*)
- Sonstige Partei (*Other party*)
- Würde nicht wählen (*Non-voter*)

Auf den Internetseiten des deutschen Bundestages sind Biografien von Abgeordneten zu finden. Angelehnt an diese Informationen, zeigen wir Ihnen im Folgenden drei fiktive Biografien von Abgeordneten und bitten Sie jedes Profil zu bewerten. (*You can find biographies of members of parliament on the website of the German Bundestag. Based on this information, we will show you three fictional biographies of members of parliament below and ask you to rate each profile.*)

Geschlecht ( <i>gender</i> )	männlich/weiblich ( <i>male/female</i> )
Familienstand ( <i>marital status</i> )	verheiratet/ledig ( <i>married/single</i> )
Parteizugehörigkeit ( <i>party membership</i> )	SPD, The Greens, The Left, CDU/CSU, FDP
Erfahrung im Bundestag ( <i>experience in parliament</i> )	1, 2, 3 oder mehr Legislaturperioden (1, 2, 3 or more legislative periods)
Mandat ( <i>mandate</i> )	über ein Direktmandat/über ein Listenmandat ( <i>directly elected/elected via party-list</i> )
Veröffentlichungspflichtige Angaben über Nebentätigkeiten und Nebeneinkünfte im letzten Jahr ( <i>published outside activities and income last year</i> )	keine veröffentlichungspflichtigen Nebentätigkeiten und -nebeneinkünfte/Anwalt/Selbstständiger Unternehmer/Aufsichtsrats- oder Beiratsposten/Vortrags- oder publizistische Tätigkeit/Verdienst zwischen 1000€ und 3500€/Verdienst zwischen 3500€ und 7000€/Verdienst von mehr 7000€ ( <i>no outside activities and income/laywer/business owner/board member/giving speeches/income between 1000€ and 3500€/income between 3500€ and 7000€/income larger than 7000€</i> )

*The order of the attributes above is randomized across respondents.*

**Q5:** Auf einer Skala von 1 bis 5, wie sehr stimmen Sie folgenden Aussagen zu? (*On a scale of 1 to 5, how much do you agree with the following statements?*)

*The order of the following statements is randomized across respondents.*

**Q5a:** Es handelt sich um einen Abgeordneten, der primär die Interessen seiner Wähler vertritt. (*This is a representative who primarily represents their voters' interests.*)

– 1 “stimme gar nicht zu (*strongly disagree*)” ... 5 “stimme voll und ganz zu (*strongly agree*)”

**Q5b:** Es handelt sich um einen fachlich kompetenten Abgeordneten. (*This is a competent MP.*)

– 1 “stimme gar nicht zu (*strongly disagree*)” ... 5 “stimme voll und ganz zu (*strongly agree*)”

**Q5c:** Es handelt sich um einen Abgeordneten, der primär die eigenen oder die Interessen Dritter vertritt. (*This is a representative who primarily represents his own or third party interests.*)

– 1 “stimme gar nicht zu (*strongly disagree*)” ... 5 “stimme voll und ganz zu (*strongly agree*)”

**Q5d:** Es handelt sich um einen hart arbeitenden Abgeordneten. (*This is a hard working MP.*)

– 1 “stimme gar nicht zu (*strongly disagree*)” ... 5 “stimme voll und ganz zu (*strongly agree*)”

**Q6:** Haben Sie sich jemals über die Nebentätigkeiten und -einkünfte deutscher Politiker informiert? Wenn ja, wie? (*Have you ever informed yourself about the outside activities and income of German politicians? If so, how?*)

– Ja, über Familie oder Freunde (*Yes, from family and friends*)

– Ja, über die Website des Deutschen Bundestages (*Yes, from the website of the Bundestag*)

– Ja, über Medien wie z.B. Fernsehen, Zeitung (*Yes, from the media such as in newspapers or on TV*)

– Ja, über soziale Medien wie z.B. Twitter/X, Instagram oder Facebook (*Yes, from social media such as Twitter/X, Instagram, or Facebook*)

– Nein (*No*)

– Keine Angabe (*No answer*)