

# Revealed Social Preferences of Dutch Political Parties

## Online Appendices D – L\*

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\*This Appendix contains the supplementary materials of our paper “Revealed Social Preferences of Dutch Political Parties” in the *Journal of Public Economics*.

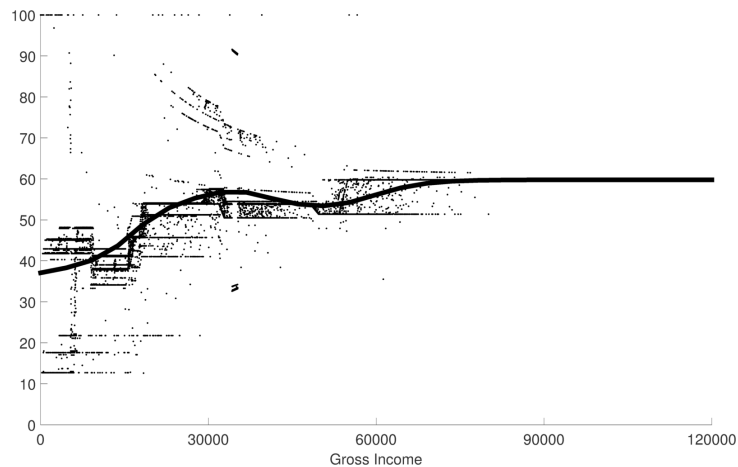
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## D Supplementary figures baseline

Figure D.1: Marginal tax rates in the baseline



*Notes:* The scatter plot shows marginal tax rates for the individuals in our sample under the baseline tax system. The solid line is a fitted kernel regression.

Figure D.2: Compensated and uncompensated intensive-margin elasticities by income in the baseline

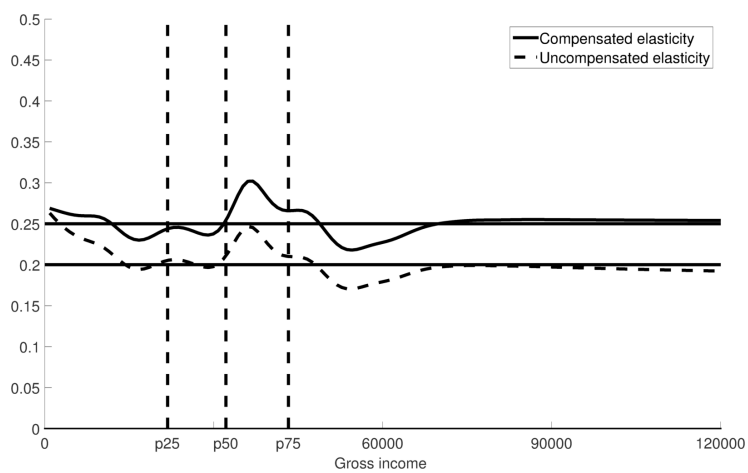
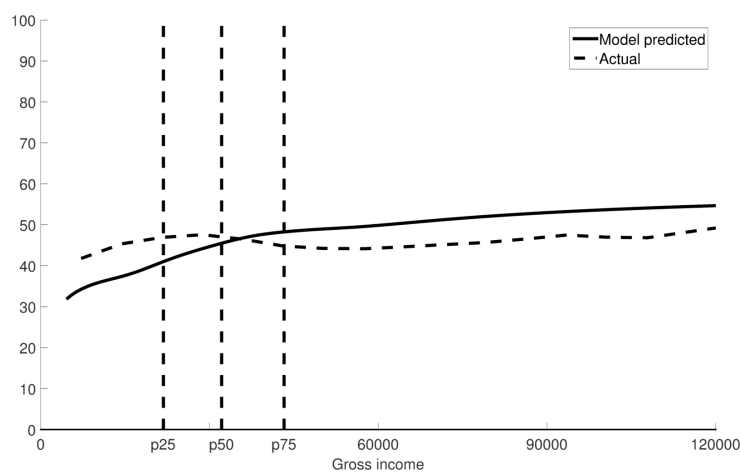


Figure D.3: Model-predicted participation taxes, actual participation taxes and the extensive-margin elasticity



*Note:* The solid line represents the model-predicted participation tax. The dashed line represents a kernel of the actual participation tax in the Netherlands. The dashed-dotted line represents the participation elasticity with respect to the wage rate,  $\frac{dE_n}{dn} \frac{n}{E_n}$ .

## E Political parties in the Netherlands

Table E.1: Political parties in the national elections of 2002<sup>a</sup>

Name	Acronym	Profile	Seats before 2002 election	Seats after 2002 election	Seats after 2012 election
Partij van de Arbeid	PvdA	Social democrat	45	23	38
Volkspartij voor Vrijheid en Democratie	VVD	Conservative liberal	38	24	41
Christen Democratisch Appèl	CDA	Christian democrat	29	43	13
Democraten 66	D66	Social liberal	14	7	20
GroenLinks	GL	Environmental progressive	11	10	4
Socialistische Partij	SP	Socialist	5	9	15
ChristenUnie	CU	Protestant orthodox	5	4	5
Staatkundig Gerefor- meerde Partij	SGP	Protestant orthodox	3	2	3
Lijst Pim Fortuyn	LPF	Anti political establishment	-	26	-
Leefbaar Nederland	LN	Anti political establishment	-	2	-

<sup>a</sup>Source: Graafland and Ros (2003) and [www.tweedekamer.nl](http://www.tweedekamer.nl).

The Dutch parliament is called States General and consists of two bodies. The Second Chamber, or Lower House of the Dutch parliament contains 150 seats. The First Chamber, or Upper House or Senate, contains 75 seats. The Second Chamber is the most important body, since it has legislative powers, such as the right of amendment. The First Chamber can only approve or reject of legislation that has been proposed by the Second Chamber. Throughout our paper we focus on the second Chamber. Seats for the Second Chamber are awarded through national elections, at least every 4 years, unless the ruling (coalition) government breaks down at an earlier date. The Netherlands has a system of party-list proportional representation. That is, if a party gets  $x$  percent of the votes in the country it is awarded with  $1.5x$  seats.

Table E.1, based on Graafland and Ros (2003), provides an overview of the political parties that received votes in the 2002 elections. We added the most recent, 2012-election outcomes. Political parties are ordered according to their seats in parliament in the period 1998-2002, before the elections in 2002. The 2002 elections were preceded by two periods with so-called ‘purple’ governments: Kok-I from 1994-1998, and Kok-II from 1998-2002, named after prime minister Wim Kok. These ruling governments consisted of the center-left PvdA, right-wing VVD, and the smaller, center party *D66*. They had 97 of a total of 150 seats in parliament before the 2002 elections. However, in a short period of time Pim Fortuyn and his populist party *LPF* became very popular. Pim Fortuyn was murdered in the run-up to the 2002 elections, but his party still obtained 26 seats in the Second Chamber. They formed a coalition together with CDA and VVD, which fell apart less than one year later. The more traditional parties CDA, VVD, and *D66* then formed a new

coalition. Since the beginning of the century many coalition governments have proven unstable. Indeed, there have been 5 general elections between 2002 and 2012. Since 2012 the ruling coalition consists of VVD and PvdA.

## F Detailed tax-benefit proposals political parties

We use the data from the policy packages that political parties submitted for analysis to CPB Netherlands Bureau for Economic Policy Analysis in 2002.<sup>1</sup> Clearly, not all party proposals are related to income redistribution. Below we outline the policy changes that are most relevant for our analysis: the proposed changes in taxes on labor income, corporate taxes, tax on consumption, taxes on capital income, and benefits for the non-employed. The resulting scatter plots for the effective marginal tax rates are shown in Figure F.1.

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<sup>1</sup>CPB (2002b) gives an extensive overview of the proposed policy changes and the resulting effects in Dutch. A brief English summary can be found in CPB (2002a).

Table F.1: Proposed changes by the socialist party (SP)<sup>a</sup>

	Effect on government budget (in billion euro)
<b>Labor taxes</b>	
– Abolishment of health-care premiums	–8.05
– Across-the-board increase in tax bracket rates of 3 percentage points	+8.20
– Reduction in first tax bracket rate of –0.7 percentage points	–1.45
– Introduction of a fifth bracket beyond 213,358 euro with a rate of 72 percent	NA <sup>b</sup>
– Higher earned-income tax credit	–1.80
– Income-dependent tax credit elderly	–0.10
<b>Corporate taxes</b>	
– Reduction in unemployment insurance premiums for employers	–0.15
– Abolishment of employer subsidies for low-wage workers	+0.90
– Abolishment of various types of employer subsidies	+0.80
– Higher corporate income tax	+0.30
– Experience rating disability benefits employers	+0.25
<b>Consumption taxes</b>	
– Higher energy taxes	+3.20
– Tax on emissions by planes	+1.00
– Tax on empty seats on planes	+0.15
– Abolishment of sewage taxes	–1.85
<b>Capital income taxes</b>	
– Abolishment of deductability of mortgage interest rate payments for mortgages in excess of 190,000 euro	+1.10
– Tax on land	+0.20
– Abolishment of presumptive capital income tax	–4.10
– Introduction capital gains tax	+6.30
– Introduction of wealth tax	+1.00
<b>Benefits non-employed</b>	
– Increase in benefits linked to the social minimum by 5 percent	–2.40
– Introduction of tax credit benefit recipients	–0.65

<sup>a</sup>Source: CPB (2002b). The effects on the government budget are in billion euro in 2006 (in 2002 prices), and do not account for the impact of behavioral changes on the government budget.

<sup>b</sup> The effect on the government budget of the introduction of the fifth bracket is not reported in CPB (2002b).

Table F.2: Proposed changes by the labor party (PvdA)<sup>a</sup>

	Effect on government budget (in billion euro)
<b>Labor taxes</b>	
– Change in health-care premiums	–0.50
– Reduction in first tax bracket rate of –1.5 percentage points	–2.25
– Higher earned-income tax credit	–0.60
– Higher tax credit elderly	–0.10
– Higher child-care subsidies	–0.10
– Reduction in a number of work-related subsidies	+0.35
– Reduction in a number of deductibles	+0.20
<b>Corporate taxes</b>	
– Reduction in unemployment insurance premiums for employers	–0.40
– Lower corporate income tax	–1.00
– Increase in taxes on profits of closely-held companies	+0.10
– Higher tax credit self-employed	–0.50
<b>Consumption taxes</b>	
– Higher energy taxes	+1.80
– Tax on emissions by planes	+0.25
– Abolishment of reduced tax rate on company cars	+1.10
– Tax on packaging	+0.10
– Tax on surface-quarried minerals	+0.10
<b>Capital income taxes</b>	
– Higher mortgage interest rate deductability for new house owners	–0.10
– Reduction in deductability of pensions savings via annuities	+0.30
– Abolishment of general tax-favored savings	+0.80
– Tax on land	+0.15

<sup>a</sup>Source: CPB (2002b). The effects on the government budget are in billion euro in 2006 (in 2002 prices), and do not account for the impact of behavioral changes on the government budget.



Table F.3: Proposed changes by the Christian-democratic party (CDA)<sup>a</sup>

	Effect on government budget (in billion euro)
<hr/>	
Labor taxes	
– Change in health-care premiums	+5.10
– Income-dependent health care subsidy	–2.40
– Higher first and second tax bracket rate by 1.3 percentage points	+2.55
– Lower start of third tax bracket	+0.40
– Income-dependent child subsidies	–3.30
– Higher earned-income tax credit	–1.00
 Corporate taxes	
– Lower disability and unemployment insurance premiums employers	–3.05
– Abolishment of various employer subsidies	+1.10
 Capital income taxes	
– Abolishment of general tax credit for local taxes	+0.30
– More generous rent subsidies	–0.90
– Tax favored savings scheme	–0.35
– Reduction in deductability of pensions savings via annuities	+0.30
 Benefits non-employed	
– Higher refundable tax credit non-working partners	–0.70

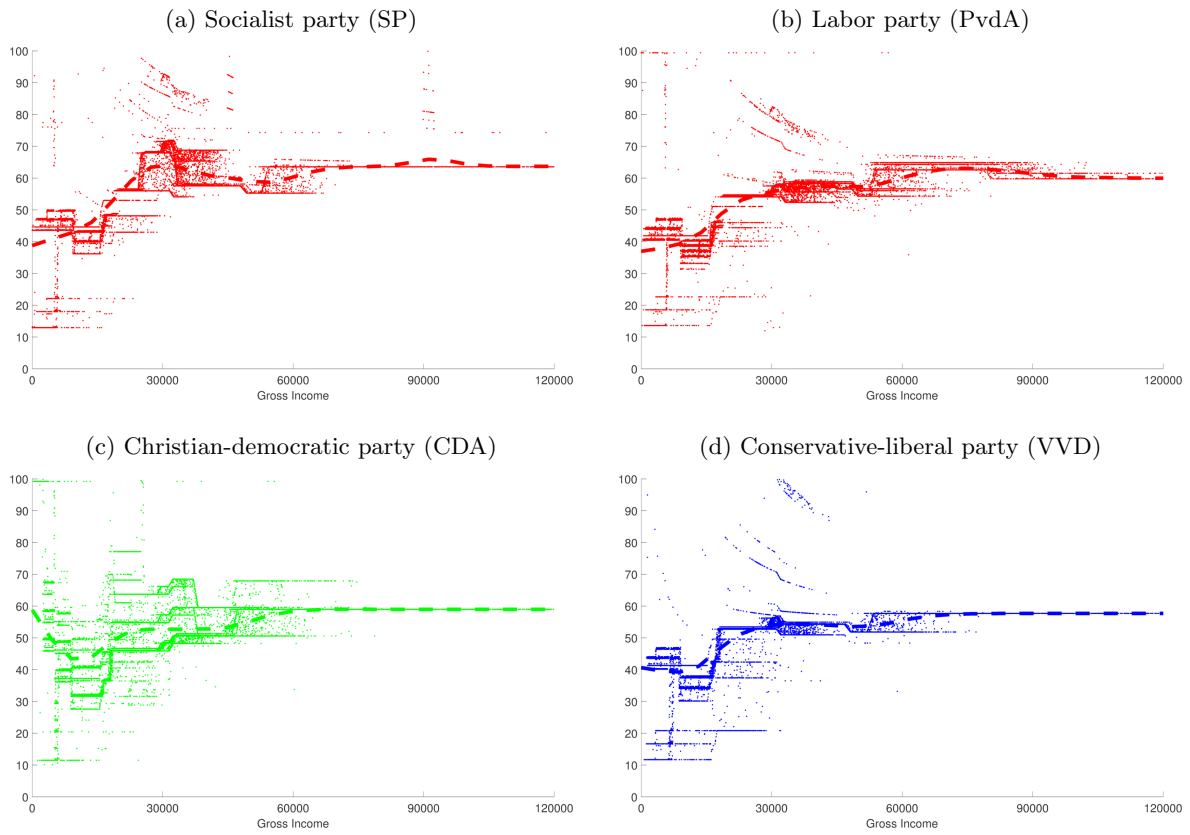
<sup>a</sup>Source: CPB (2002b). The effects on the government budget are in billion euro in 2006 (in 2002 prices), and do not account for the impact of behavioral changes on the government budget.

Table F.4: Proposed changes by the conservative-liberal party (VVD)<sup>a</sup>

	Effect on government budget (in billion euro)
<b>Labor taxes</b>	
– Abolishment of income-dependent health-care subsidies	–5.00
– Introduction of nominal health-care premiums	+4.75
– Reduction in first tax bracket rate by –0.4 percentage points	–0.60
– Reduction in fourth tax bracket rate by –3.0 percentage points	–0.45
– Higher earned-income tax credit	–1.50
– Higher tax credits elderly and children	–0.20
– Higher child-care subsidies	–0.10
– Reduction in a number of deductibles	+0.55
<b>Corporate taxes</b>	
– Abolishment of employer subsidies for low-wage workers	+0.90
– Corporate income tax for pension funds	+0.10
<b>Consumption taxes</b>	
– Higher energy taxes	+0.20
<b>Capital income taxes</b>	
– Reduction in deductability of pensions savings via annuities	+0.30
– Abolishment of general tax-favored savings	+0.80
– Lower inheritance taxes	–0.20
– Abolishment of general tax credit for local taxes	+0.30
– Abolishment of local taxes on housing for private owners	–1.10
– Abolishment of local taxes on housing for firms	–1.10
– Abolishment of local user taxes on housing	–0.90

<sup>a</sup>Source: CPB (2002b). The effects on the government budget are in billion euro in 2006 (in 2002 prices), and do not account for the impact of behavioral changes on the government budget.

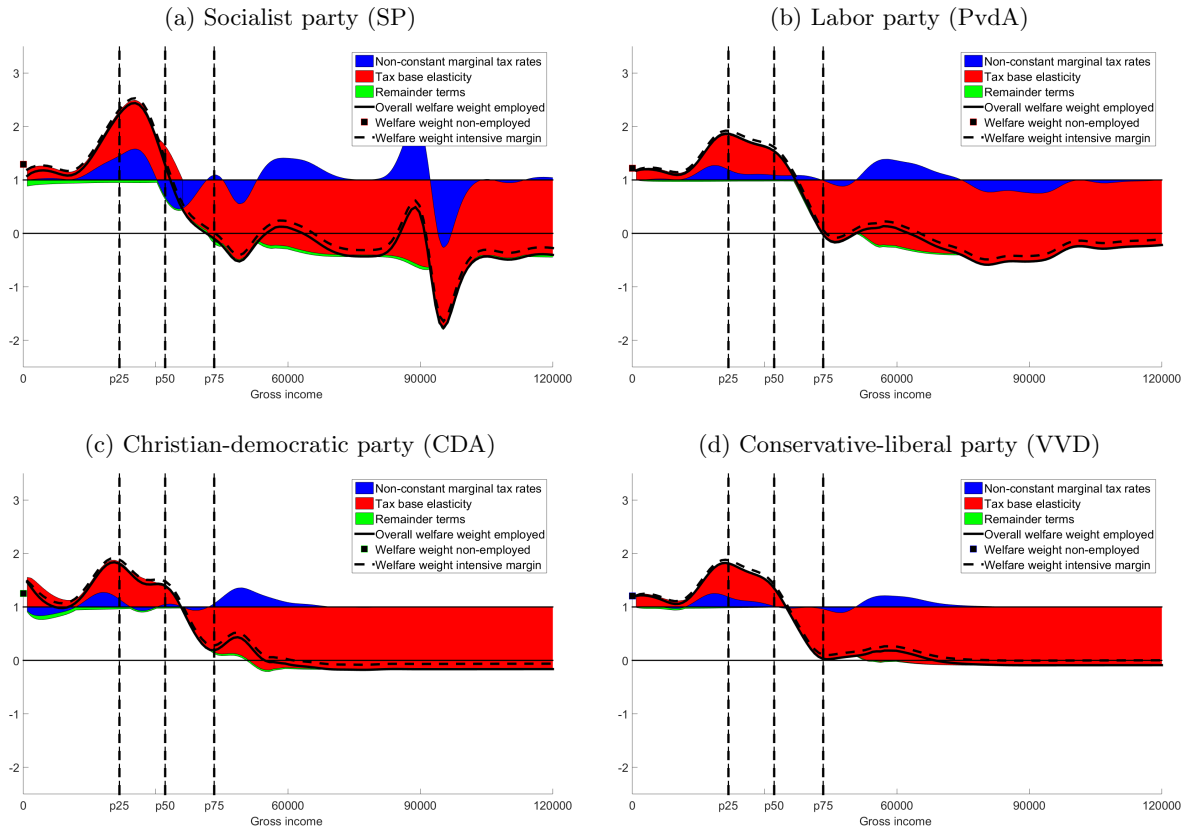
Figure F.1: Scatter plots effective marginal tax rates by income of different political parties



*Notes:* The scatter plot shows marginal tax rates for the individuals in our sample under the tax system proposed by each political party. The dashed line is a kernel estimate of the marginal tax rate by income.

## G Decomposition political weights

Figure G.1: Decomposition political weights of different political parties



*Notes:* The figures decompose the political weights of each party into its main determinants, see equation (7). The dashed line gives the political weights if the extensive margin is switched off.

## H Variance political weights different political parties

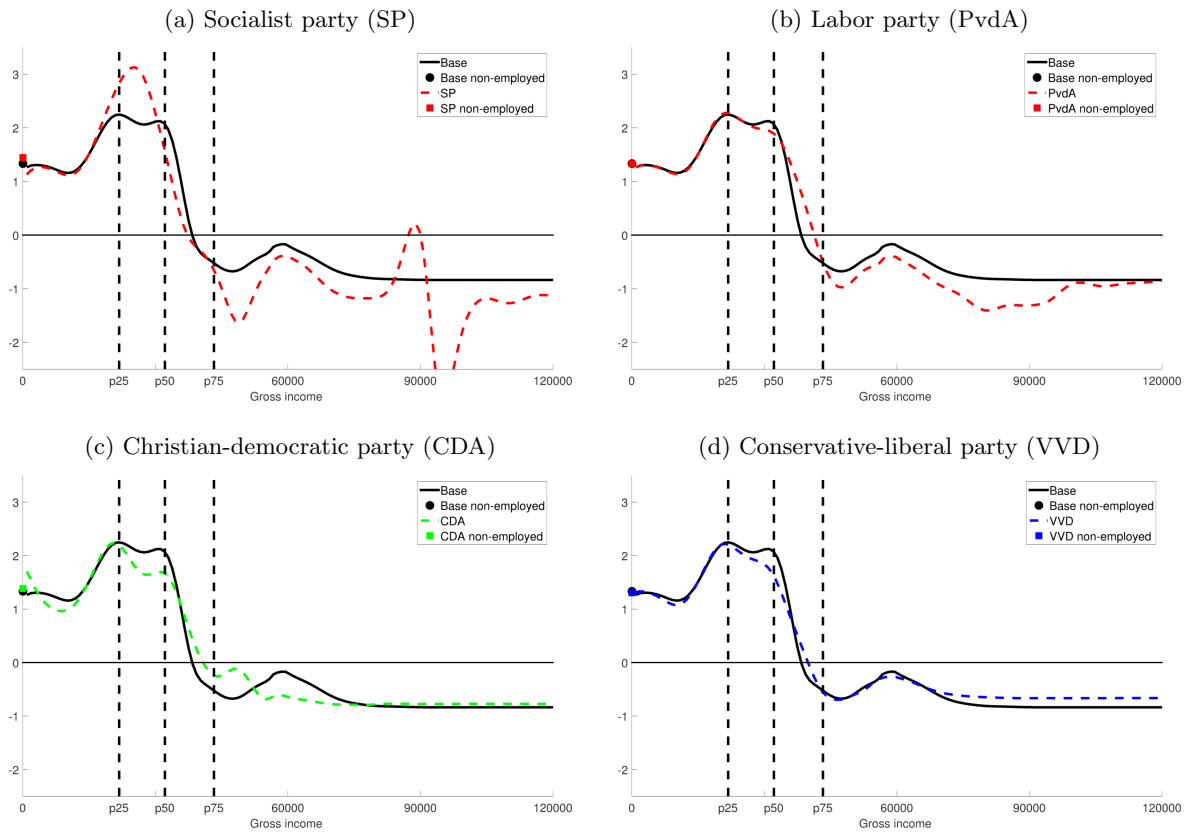
Table H.1: Differences in proposals between parties

	Variance w.r.t. baseline	Change in variance
Baseline	0.000	0.000
SP	0.049	0.136
PvdA	0.009	0.025
CDA	0.018	0.051
VVD	0.006	0.018

*Note:* The first column gives the variance of the political weights  $g_z^x$  of party  $x$  in deviation of the welfare weights in the baseline  $g_z^0$ . The second column gives the ratio between column one and the variance of the weights in the baseline.

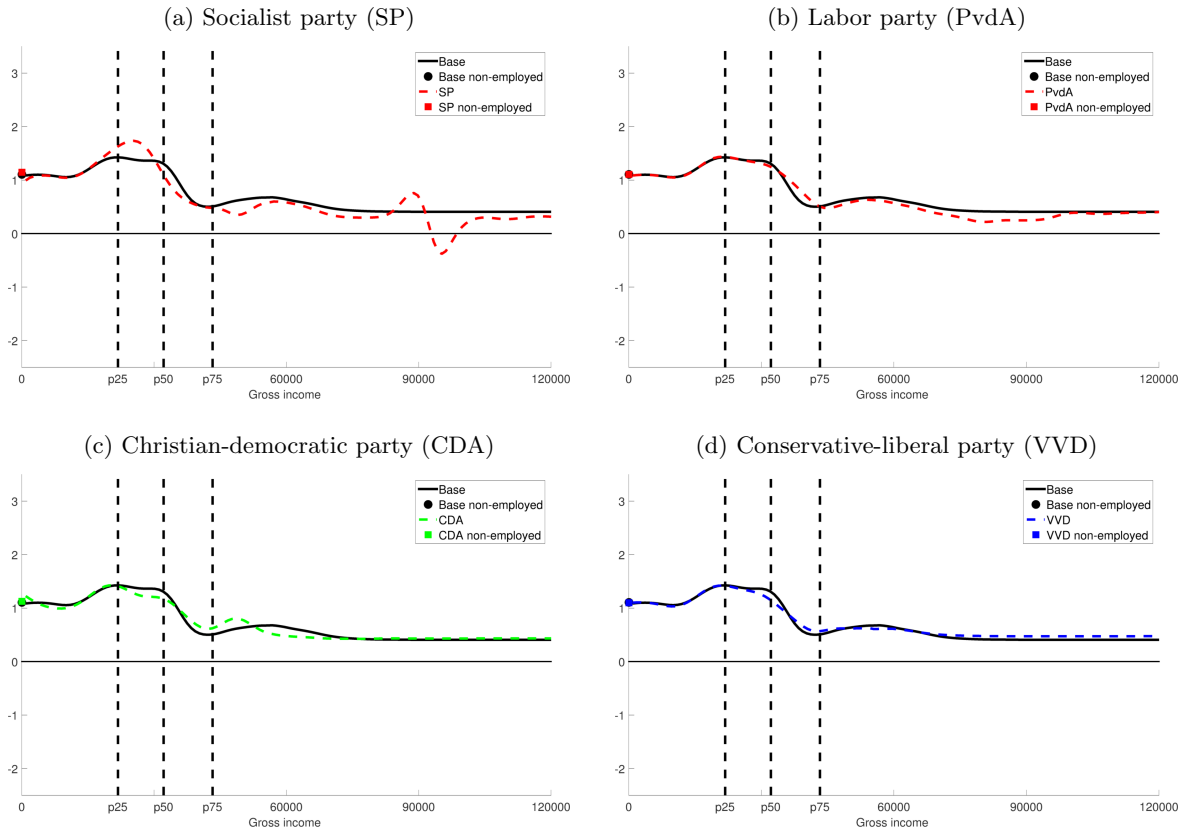
# I Political weights with high and low elasticities

Figure I.1: Political weights by income for different political parties with high elasticities



Notes: Elasticities on the intensive and extensive margin are both 50 percent higher than in the baseline.

Figure I.2: Political weights by income for different political parties with low elasticities



Notes: Elasticities on the intensive and extensive margin are both 50 percent lower than in the baseline.

## J Political weights for different household types

In this appendix, we derive political weights for individuals belonging to different household types. We split our sample into childless singles, single parents, primary earners without children, primary earners with children, secondary earners without children, and secondary earners with children. For each household type we employ their type-specific income distribution, EMTRs and PTRs, and extensive- and intensive-margin elasticities. Figures J.1-J.6 show the resulting political weights for each group. Note that the horizontal scale is adjusted for single parents and secondary earners. For these groups the distribution of earnings becomes too noisy to calculate meaningful welfare weights beyond 60,000 euros, due to low numbers of observations at higher incomes.

First, we consider the robustness of our first result: increasing political weights from low to middle incomes. In the baseline tax system, the political weights increase for all household types, except for secondary earners with children. The location of the peak in welfare weights differs somewhat between the different household types. The largest group in our sample are the primary earners with children. Their welfare weights peak at around 29,000 euros, which is close to median income in the full sample. For the other household types the peak lies somewhat lower.

Second, we consider the political weights for top-income earners. For singles, political weights turn slightly negative beyond 60,000 euros. For primary earners with and without children welfare weights remain positive at top income levels, because of their relatively low intensive-margin elasticity. We do not calculate political weights at top-income levels for the other three household types, because these groups contain too few top-income earners. However, also for these groups the political weights turn negative at high income levels.

Third, we consider the effect of the proposals of political parties on the behavior of political weights with income. For all political parties, political weights follow a similar pattern compared to the welfare weights in the baseline. In particular, they follow a hump-shaped pattern for all household types, except for secondary earners with children. Quantitatively, the differences are the largest for the CDA and SP. The peak in welfare weights shifts to the left in the proposals of the CDA. For the SP, the peak moves to the right for singles, and to the left for primary earners. For the SP, we also observe a peak and trough in the political weights around 90 thousand euro for primary earners with children, as the child benefit drops to zero at this income level in their proposals. However, still the most striking is how close the political weights remain to the weights of the baseline tax system even when we consider the political weights by household type.

Finally, the profile of political weights of primary earners looks relatively flat, which is explained by their relatively low extensive- and intensive margin elasticities, see equation (7). The political weights of single parents follow a clear inverse U-shape. This is consistent with e.g. Blundell et al. (2009) who also find hump-shaped welfare weights for working single parents in Germany and the UK. Furthermore, the hump is particularly pronounced for this group because of their relatively high extensive- and intensive-margin elasticity.



Figure J.1: Political weights for childless singles

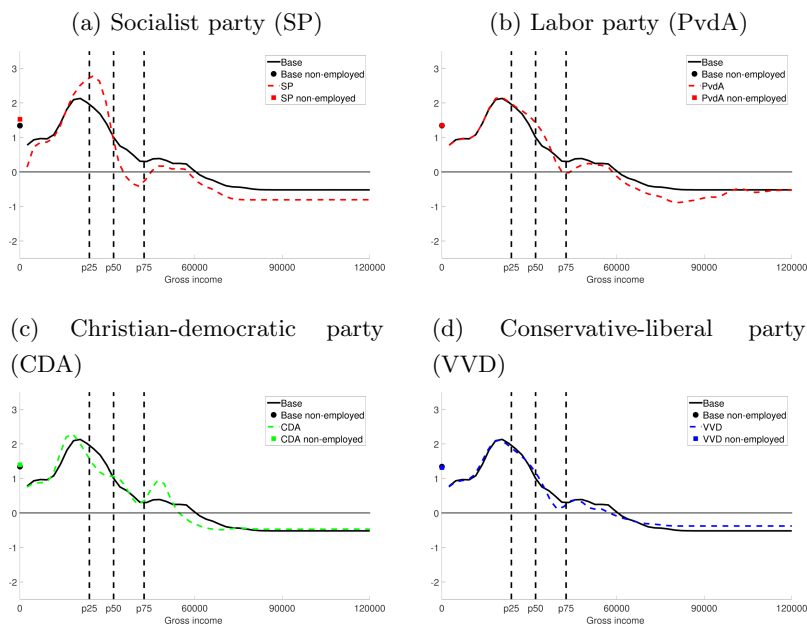
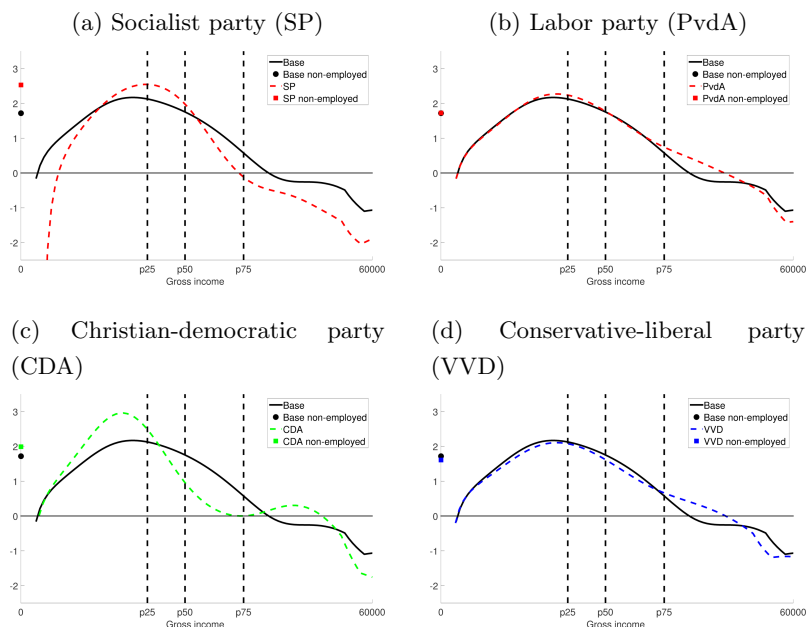


Figure J.2: Political weights for single parents



Notes: Figures J.1 and J.2 show political weights for childless singles and single parents for each political party (dashed line) and the baseline (solid line). Intensive - and extensive-margin elasticities are calibrated to the labor-supply behavior of singles with/without children.  $p_x$  denotes the  $x$ -th percentile of the income distribution among singles with/without children.

Figure J.3: Political weights for primary earners without children

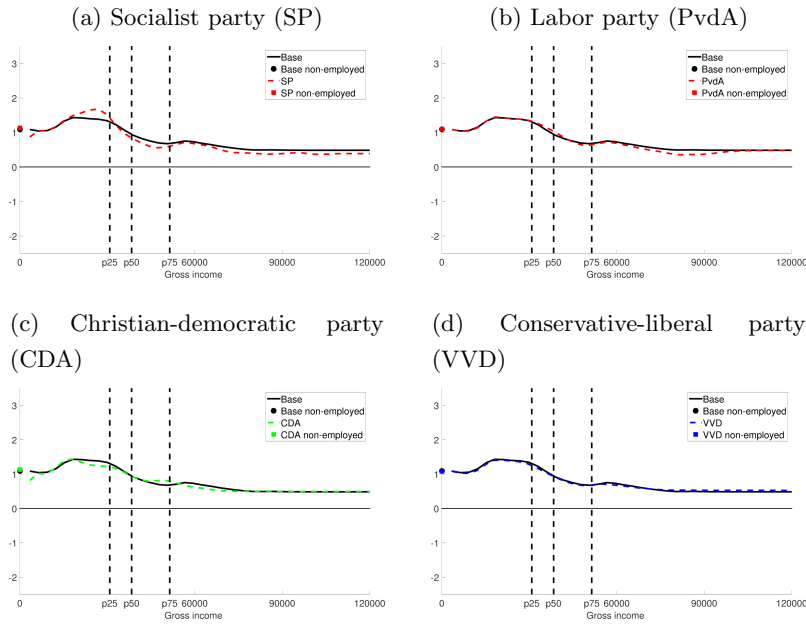
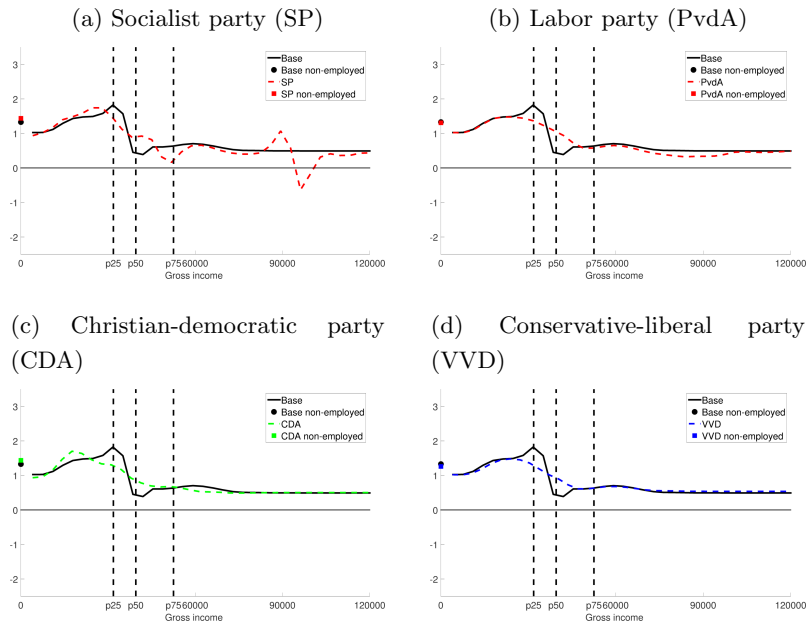


Figure J.4: Political weights for primary earners with children



Notes: Figures J.3 and J.4 show political weights for primary earners with and without children for each political party (dashed line) and the baseline (solid line). Intensive - and extensive-margin elasticities are calibrated to the labor-supply behavior of primary earners with/without children.  $p_x$  denotes the  $x$ -th percentile of the income distribution among primary earners with/without children.

Figure J.5: Political weights for secondary earners without children

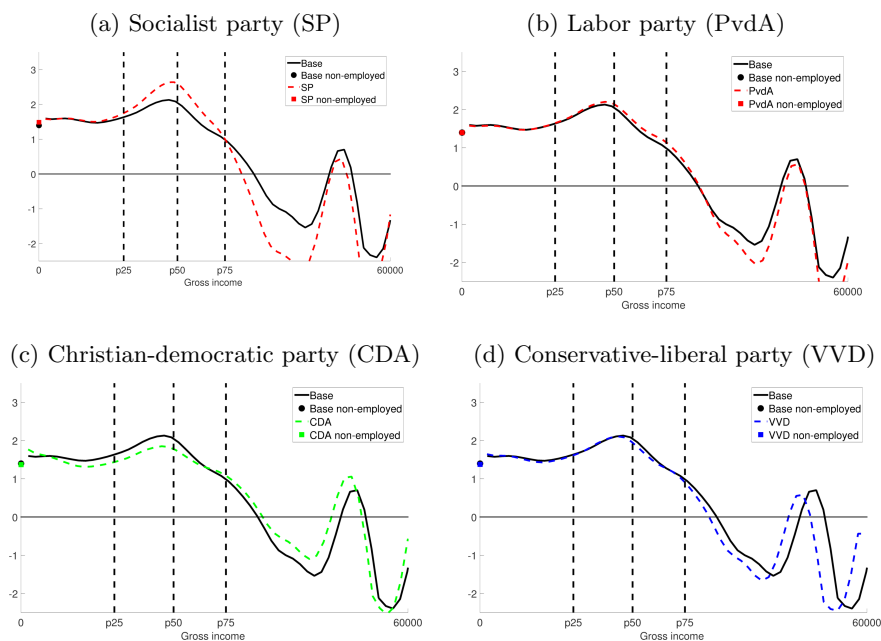
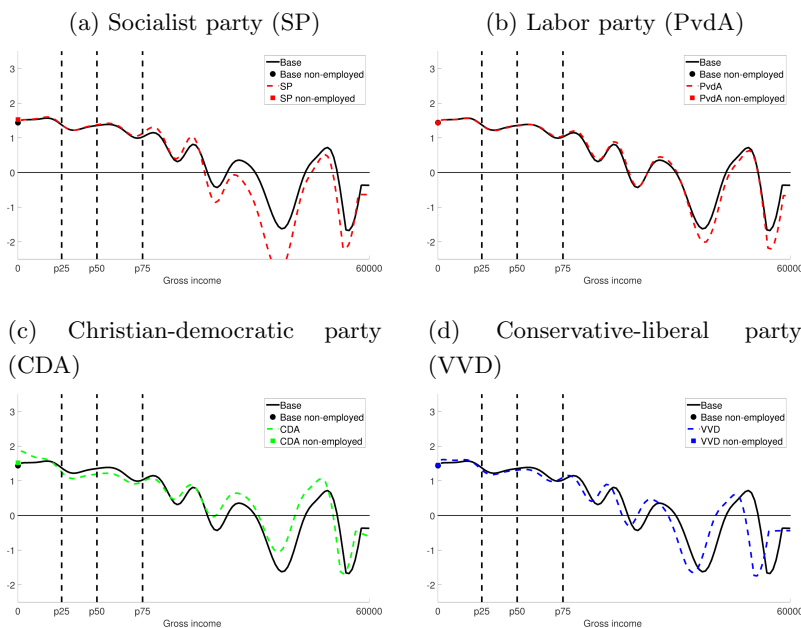


Figure J.6: Political weights for secondary earners with children



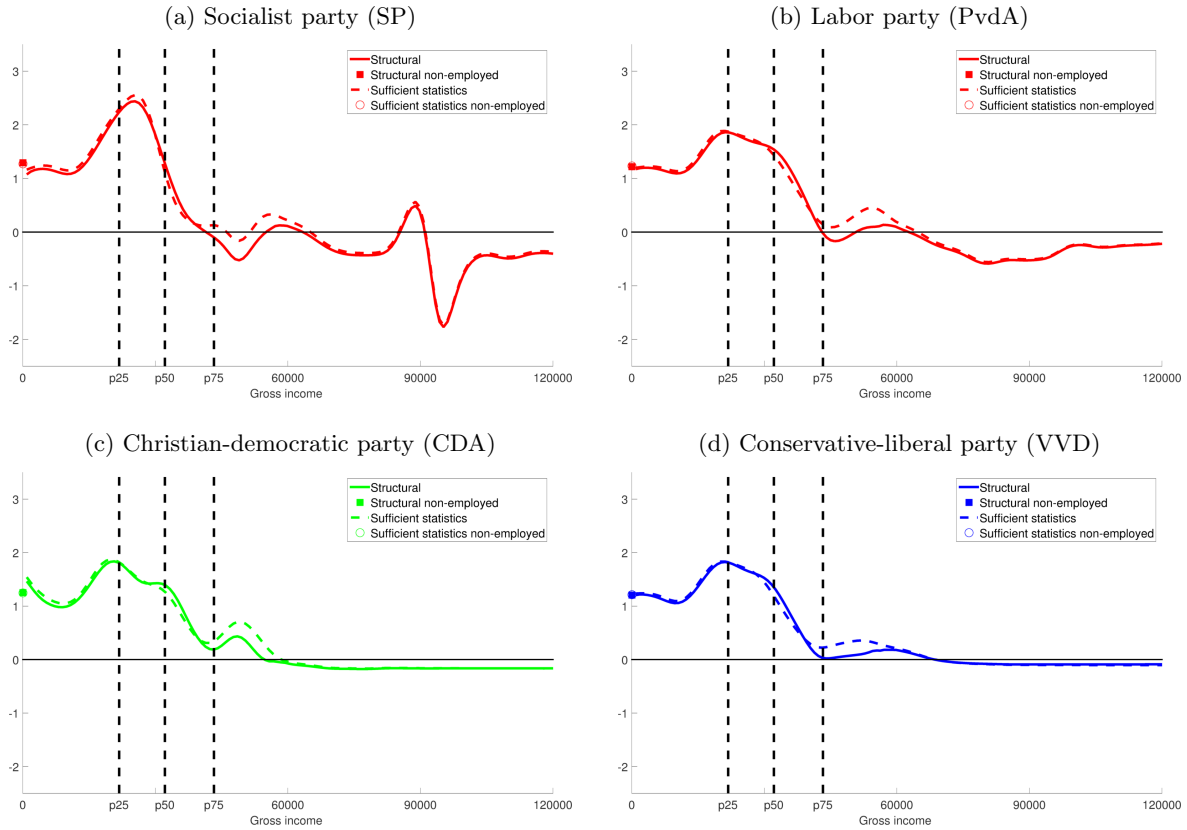
Notes: Figures J.5 and J.6 show political weights for secondary earners with and without children for each political party (dashed line) and the baseline (solid line). Intensive - and extensive-margin elasticities are calibrated to the labor-supply behavior of secondary earners with/without children.  $p_x$  denotes the  $x$ -th percentile of the income distribution among secondary earners with/without children.

## K Structural model versus sufficient statistics

In this appendix we consider political weights derived using our baseline structural model, and compare them to political weights calculated using a sufficient-statistics approach. The proposals of the political parties can potentially affect i) the intensive - and extensive-margin elasticities, ii) the distribution of income, and iii) the employment rate. If we calculate political weights using only the information from sufficient statistics we implicitly assume that these statistics remain constant, which may bias the political weights. The structural model is able to take into account the effect of the proposals on the statistics. However, misspecification of the structural model may lead to a different type of bias.

In Figure K.1 we compare the political weights calculated using both approaches. We find that the two approaches produce close to identical weights. One reason for this may be that the proposals of political parties remain relatively close to the baseline, and as such, do not have a strong impact on the sufficient statistics. Because the two approaches yield close to identical weights, we consider it unlikely that our results are biased by a misspecification of our structural model.

Figure K.1: Political weights of different political parties derived under structural and sufficient-statistics approach



*Notes:* Figure K.1 shows political weights calculated using our structural model (solid line), and using sufficient statistics (dashed line). In our structural model we take into account that political party proposals affect i) intensive - and extensive-margin elasticities, ii) the income distribution and iii) employment rates. In the sufficient-statistics approach these statistics are assumed to remain constant.

## L Redistribution via in-kind transfers

Table L.1 gives the implicit marginal tax rate due to in-kind transfers by different deciles of disposable household income. The data are taken from Kuhry and Pommer (2006), where we have made a number of adjustments. First, the analysis in Kuhry and Pommer (2006) is based on a sample for the entire Dutch population, whereas our analysis focusses on employed individuals only. Since students and elderly are not included in our analysis, we set spending for higher education and long-term care to zero. Furthermore, we exclude the publicly provided private goods that are already taken into account in the calculations of the EMTRs and PTRs in the baseline: the health-insurance system, rent subsidies, and the tax deductibility of health-related expenses not covered by the health-insurance system. Also, we exclude expenditures for housing via the mortgage-rent deductibility and imputed rent, since these are not included in the calculation of marginal tax rates either, see also footnote 24 in the main text. Finally, we exclude spending on basic and intermediate education because labor supply on the intensive margin is not determined by education expenditures on children. That is, when an individual decides to work more hours, this does not change the expenditures on the education of his or her children.

We calculate the implicit marginal tax rates on net income due to the expenditure side of the public budget as  $\frac{\Delta S}{\Delta c} = \frac{S_i - S_j}{c_i - c_j}$ , where  $S_i$  and  $S_j$  denote the average net benefits of government expenditures and  $c_i$  and  $c_j$  denote the average net household incomes in deciles  $i$  and  $j$  (where  $c_i > c_j$ ). From Table L.1 we can conclude that the EMTRs change little when including in-kind transfers. Moreover, this is an upper bound, since changes in EMTRs in terms of gross household income are even smaller. We cannot calculate the political weights including in-kind transfers, since we lack the data to map changes in EMTRs and PTRs based on disposable household incomes to changes in EMTRs and PTRs based on individual gross incomes. However, the changes should be small given that the change in EMTRs and PTRs will be small.

Table L.1: Distribution of government expenditures by decile of net after-tax household incomes<sup>a</sup>

Household income decile	1	2	3	4	5	6	7	8	9	10
Average disposable household income	2900	10800	14700	18000	21500	25400	30000	34900	41700	64100
Public transport	407	146	148	163	182	228	222	221	254	292
Culture and recreation	219	190	242	262	279	388	473	520	609	688
Public services	42	59	130	78	42	40	93	115	174	231
Housing <sup>b</sup>	10	22	20	18	22	19	14	11	6	4
Cost of living supplements <sup>c</sup>	50	156	118	65	26	14	11	4	2	1
Total net benefit	728	573	658	586	551	689	813	871	1045	1216
Implicit marginal tax rate (%)		1.96	-2.18	2.18	1.00	-3.54	-2.70	-1.18	-2.56	-0.76

<sup>a</sup>Source: Own calculations using Kuhry and Pommer (2006). <sup>b</sup>Excluding rent subsidies, which are already included in the baseline. <sup>c</sup>Excluding social assistance benefits, which are already included in the baseline.

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