Political Rents Under A Changing Electoral System

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Abstract:

Several studies have shown evidence indicating that politicians profit financially from holding office by extracting rents. The mechanisms allowing them to do so, however, remain unclear. Based on newly-collected data from probate inventories, we obtain a measure of wealth for a sample of just-elected politicians and their losing contenders in Dutch district-level elections (1860-1917). Using a regression discontinuity design, we estimate the returns from politics, and then relate the estimates to various contending explanations: electoral reforms, career opportunities and party organization. The results show that close election winners, who end up in politics, are significantly wealthier than their contenders, and that this result can be explained by a combination of these factors. The results are robust to other estimators, and changes in bandwidth and specification.

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1 Introduction

In the majority of modern constitutions around the world, it is stipulated that the people have the power to decide what happens to their country. In practice, however, such direct forms of governance are hardly ever implemented, and national rule involves some delegation of power from the people to representatives, politicians, who are in turn expected to act in the interest of those who elected them. In many cases, this turns out to be only partially true. Politicians are often suspected to use and abuse their political position for private gain, or otherwise pursue policies that are counter to the interests of their constituents. Several studies have shown the existence of particular forms of political rents, that is to say, benefits accruing to politicians beyond their formal compensation (**?**). Although often suspected to be monetary, political rents can take on many forms, including, but not limited to advantaging certain firms and sectors, creating excess employment, ignoring certain preferences of the electorate and prioritizing one's own, engaging in discretionary spending to increase their chances at reelection, and in more extreme cases, sabotage or otherwise tilt the playing field in favor of incumbent politicians over newcomers.

Throughout modern history, accusations of politicians' abuse of power have not escaped the attention of politicians themselves either. Many attempts have been made by politicians to regulate themselves in order to minimize or altogether root out abuse of power, the most prominent and often-used being of course regular elections. Regular elections are assumed to ensure at least some degree of accountability by providing politicians with an incentive to act in such a way as to increase their chances of being reelected. Elections, however, are not a panacea. Under many circumstances, elections fail to adequately reduce abuse of power by politicians, for example, in the case of failure of relevant information about politicians' performance reaching the general public. Elections are not the only mechanisms that politicians, political theorists and economists have come up with: several other mechanisms aimed at ensuring accountability include term limits, to prevent the same individuals from holding power too long, asset disclosure laws, to force politicians to disclose information about their wealth, its origin and its evolution, the institution of a publicly accessible debate, for example in an assembly or lower house, or a free press to disseminate relevant and trustworthy information. Furthermore, constitutions itself can be thought of as a device to enact constraints on the behavior of politicians as well as the general public. Other institutions that are present in a large number of countries include a senate, or other independent judicial organs that yield various degrees of power to ensure judicial coherence of laws. In many countries, there are also various restrictions on eligibility: it is often the case that a member of parliament cannot simultaneously serve as an executive. Finally, supranational institutions can also be thought of attempts at constraining national politicians' behavior and at ensuring that the rights of certain constituencies are respected.

All of the aforementioned instruments are often thought to play an important role in reducing corruption and improving democratic accountability, but politicians have also used the very same instruments at their disposal to entrench themselves or have otherwise distorted those institutions. Some examples involve delaying, annulling or falsifying elections, or constraining the elections so as to place certain restrictions on candidates belonging to a certain gender or religion, or on a minimum amount of wealth. Propaganda can also be thought of as interference with the purpose of the press, that is, disseminating relevant and trustworthy information.

The effect of yet other mechanisms can be thought of as ambiguous: one case in point is the institu-

tion of a salary or other compensation for politicians: one the one hand, salaries are expected to increase the independence of politicians in face of attempts at bribery or other attempts at pressuring a politician. On the other hand, remuneration might attract less trustworthy or lower-ability individuals to politics that might not have the best interests of the constituents at heart, or otherwise induces shirking on the part of politicians. Another example of an institution of which the mechanisms at work are not clear are political parties: political parties and associated party discipline serve as an additional constraint on elected politicians: political party membership can be thought of as a bargain between the party and an individual politician: a party might help an individual with political aspirations get elected by providing a platform to disseminate information about the individual's ideologies, policies and ideas. In return, the politician offers the party their popularity and the promise of broadly supporting the party's entire program (regardless of their views on any specific policy). Should the politician renege on this bargain, the party can decide to oust the politician. A competing perspective on the function of political parties argues that political parties can restrict the set of available policies, or force politicians to act in the party's interest, rather than in the interest of their constituents.

In this paper, I investigate a subset of the aforementioned mechanisms: I attempt to find what the influence is of eligibility and suffrage regimes and political parties on the ability of politicians to extract rents using a specific case in history: the road towards universal suffrage in the Netherlands in the late 19th and early 20th centuries. The Netherlands started out as a country under absolute monarchy in the early 19th century, but switched to constitutional monarchy and parliamentary control following liberal reforms in 1848. This meant by no means that the country met present-day standards in terms of democratic accountability: there were severe restrictions to suffrage in the most important governmental bodies: one had to be male, and pay a minimum amount of taxes to be accorded the right to vote, although eligibility was (theoretically) completely unconstrained. In the other governmental body, however, eligibility restrictions also applied: contrary to the lower house, there were restrictions on eligibility, again related to the amount of taxes paid. Throughout the late 19th and early 20th centuries, politicians have campaigned for, and ultimately achieved, universal suffrage. This happened in several stages: electoral reforms were enacted in 1887 and 1896 before universal male suffrage was introduced in 1917 and universal suffrage in 1918. I relate these different electoral regimes to regression discontinuity estimates of political rents [explain before what this is] to find out whether average political rents decreases after opening up the political arena to more and more stringent competition.

This same period also saw the development and rise in popularity of political parties. As the differences between liberal and confessional (Christian) factions of parliament mounted, politicians and politically conscious citizens began to organize themselves into election associations (*Kiesvereenigingen*), the existence of which was quickly superseded by political parties as we know them today: the first political party, the Anti-Revolutionary Party (ARP) was founded in 1879. The existence of political parties can have important consequences for political behavior, and by relating the RDD estimates to variation in party allegiance, I investigate what the influence of political parties are on the ability of politicians to extract rents.

The principal methodological problem is to identify the causal effect of being politically active on personal end-of-life wealth. A more naive analysis would encompass regressing personal wealth on being politically active, but there might be many (observable and unobservable) differences that are potentially

correlated with personal wealth. As an example of observables, politicians might become older than their contestant counterparts, leaving them with more time to accumulate wealth, which would confound the *ceteris paribus* effect of politically active on personal wealth. As an example of an unobservable difference, politicians might be systematically more skilled than their nonpolitician contestants, in which case the correlation between winning an election and end-of-life wealth can also be the result of ability differences. More generally, politicians are usually selected on observables and also likely on unobservables rather than being randomly allocated to a political position irrespective of any confounding covariates (**?**). In this paper, we attempt to neutralize these and similar issues by using a regression discontinuity approach to identify the causal effect of being politically active on personal end-of-life wealth.

The results show firstly that politicians who marginally won elections are significantly wealthier at the end of their life than politicians who marginally lost.

[Results]

The remainder of this study is structured as follows. First, in section 2, we discuss the historical background by focusing on (i) the details of eligibility and suffrage restrictions and their evolution over time, (ii) electoral associations and the origins political parties, and (iii) the logic and system of elections in the district system, which was active until 1917. In section 3, we introduce the methodology. In section 4, we show the results and investigate various alternative explanations. In section 5, we conclude.

2   Institutional Background

2.1   Elections in the Netherlands, 1848-1917

In the period 1848-1917, all elections to the lower house were organized in the framework of a district system. Before 1848, the year in which constitutional reforms liberalized the electoral system and political institutions of the country, delegates to the Lower house were elected indirectly: the enfranchised electorate elected delegates to an intermediary assembly called the Provincial Estates, which then elected delegates to the lower house. Delegates to the upper house were elected in a similar way, and in contrast to the lower house elections, the 1848 constitution left this system intact for the elections to the upper house, whereas the elections to the lower house were subject to reform, effectively rendering them direct, and more democratic (**?**). From 1849 onward, lower house elections took place biannually, in which every two years, half of the seats were up for contest. In almost all cases, districts features two seats, and hence, in each election, one seat was up for election. This also meant that a lower house member was elected for four years.

The precise mapping from municipality (the lowest-level administrative unit of the Netherlands) to district was stipulated in the electoral law (*Kieswet*), in which the stated objective was that each district, and consequently each representative, represent about 45,000 inhabitants (**?**). Accordingly, after the constitutional revision in 1848, the lower house had 68 seats, corresponding roughly to the representation of 45,000 inhabitants by each of those seats. In the meantime, however, population growth had taken off, meaning that it was more and more difficult to apply this rule. The lawmakers responded to this issue

by increasing the number of seats, creating and changing the composition of districts: the number of lower house seats raised from 68 to 86 in about 10 years. However, because of the stakes involved (issues related to gerrymandering), it became more and more difficult to agree upon a given composition, effectively delaying any reform from 1878 to a constitutional revision in 1887, after it was capped at 100. At the same time, with population growth not stalling, and compromise aimed at the reallocation of districts being difficult, the district system saw imbalances between districts become more and more salient. This particularly favored sparsely over densely populated districts. Even the electoral law reforms of 1896, which encompassed, among other reforms, a partition of the largest cities into various districts, effectively increasing their representation, could not change the imbalance that disfavored them.

Issues like these also caused the district system to come under fire from various sides of the political spectrum (**?**). One frequently expressed criticism focused on the strong deviation from proportional representation caused by the district system: in the population, it was argued, confessional (Protestant and Catholic) parties could count on a majority, of which they were deprived during the district system. In the first election under proportional representation (1918), this was indeed the case. Another issue was related to the set of rules that stipulated under which circumstances an election was won. Significantly, throughout the entire period, elections required that an absolute majority of votes be obtained. This also applied to elections which were contested by more than two candidates: in case no candidate obtained an absolute majority, a second round was organized in which the two candidates who obtained the highest amount of votes competed against each other. As mentioned, this first-past-the-post-like system particularly favored the liberal party over confessional politicians, because even though confessional politicians were usually the most popular in the first round, a liberal-socialist coalition block could still beat the confessional candidate in the second.

[Still add something about the balance between cities and countryside]

Lower house members were also compensated for their political activity. The 1815 Constitution stipulated that lower house members were entitled to a retribution of expenses of 2500 guilders per year, aiming to cover the costs of living in the Hague, in addition to traveling reimbursements at the rate of 1,50 per kilometer (**?**). If we compare these numbers to the work of **?** and **?**, who provide wage data for different professions in the Netherlands from 1819-1913, we find that the lump sum amounts to approx. 9 times the yearly wage of an average worker in 1850. The reimbursement of 1,50 per kilometer equaled about twice the average wage in 1850. After the 1848 Constitution, politicians sought legitimacy partly by decreasing the lump sum to 2000 guilders per year and the traveling reimbursements at 1,50 per travelled kilometer. Rising wages made this sum equal to about 5 times the average wage in 1890. In 1917, these numbers were raised again, this time to 5,000 guilders. The workers' wage, however, had not yet doubled, but only increased by a factor of about 1.5, enlarging the gap again. With respect to the reimbursement of traveling expenses, from then on, members of parliament were awarded free public transportation, attenuating the need to look for a place of residence in the Hague, and decreasing the gap between politicians who lived close and far from the Hague. In addition, (former) members of parliament were awarded a pension (**?**) of 100 guilders for each active year in parliament, with a maximum total pension of 2,000 guilders.

Both before and after 1848, politics was generally considered (by politicians themselves) an honorary function, unlike a job. Many politicians objected to paying or retributing the costs associated with being

a representative, fearing it would (i) incentivize politicians with seeking votes, thereby compromising the representative's independence, and (ii) attract politicians who would be prone to doing so (see e.g. **?**). With time, more and more politicians, principally liberals and socialists, started to change their views for a variety of reasons, the most important of which being that working class individuals might be discouraged to take part in the country's representative institutions because of financial vulnerability. This view gradually became more mainstream, especially as politicians with a working class background became more frequent in parliament (ref to myself) and lead to the incorporation of the raise of the retribution in the 1917 constitutional revision.

In terms of international comparability, these trends closely paralleled developments in e.g. France, Germany and Great Britain. In Germany, the 1871 *Reichsverfassung* explicitly forbade to compensate delegates to the *Reichstag* in any way, but in 1906, a limited and imperfect system of retribution was instated (**??**). In France, parliamentary compensation had been the object of parliamentary struggle since the revolution, and a 1906 hike caused widespread indignation (**?**). In Great Britain, members of parliament were nonsalaried until 1911, after a scandal within the Labor Party sparked parliament to legislate parliamentary compensation (**?**).

2.2   Political Party Formation

The electoral system in the Netherlands after 1848 was centered on individual delegates, not political parties. Politicians were supposed to be independent, not least with respect to their own delegates, and to promote the common interests of the country (**?**). Political parties were preceded by *Kiesvereenigingen*, electoral unions, of eligible individuals with (generally) the same political orientation, intending to coordinate their voting behavior. These electoral unions were partly a response to rising and increasing awareness of ideological differences between various factions, but also partly to increase information about elections: oftentimes, the electorate was not aware of what candidates' political positions were (**?**) and diffusion of political views, for instance through newspapers, was limited. Faced with this nontransparent environment, **?** argues that the electorate often based their opinions on those of individuals of high societal standing: burgomasters, notaries, clerics and similar individuals.

[I want to write about the path leading to the existence of political parties from Kiesvereenigingen]

[Here I want to write about campaigning, campaign financing]

[I want to write about the ideological basis underlying various parties]

2.3   Electoral Reforms

[I want to talk about reforms of the *Kieswet*, what and why - and how eventually universal suffrage came to existence] The district system for lower house was put in place after the 1848 Constitution, in which the King, frightened by events elsewhere in Europe, had ordered the most influential liberal politician of the time, J.R. Thorbecke, to draft a new Constitution, on which several reforms were based. At the time, it was widely known that this marked an era that broke with constitutional monarchy and set a precedent for further democratization, but both active and passive suffrage were still severely restricted: about 85,000 men on a population of over 2.5 million had the right to active suffrage for both upper and

lower houses. However, whereas eligibility for the upper house was limited to those who surfaced on the so-called *Lijst Verkiesbaren voor de Eerste Kamer*, a list on which figured a certain number of the highest tax-paying individuals. The list was assembled on a per-province basis, and based on the rule of thumb that for each 3,000 inhabitants, 1 individual would be eligible for election (REF Moes, Broncommentaar). Voting was therefore restricted explicitly on the basis of wealth. Additionally, suffrage was also restricted to males over 30.

Entry to the lower house, however, was formally unrestricted, so that formally, every citizen aged 30 or higher could be a candidate in the lower house elections. In practice, however, citizens were understood to be only the male members of the population, which was formalized by a constitutional revision in 1887.

[Talk about active and passive suffrage and the changing requirements over time]

The first elections under proportional representation were also the first elections in which electoral lists were printed according to party membership, nudging the voters to vote for a party, rather than a particular candidate.

2.4 Related Studies

[Eggers & Hainmueller, Dal Bo et al., Fisman et al., Ferraz & Finan]

3 Data

3.1 Close Elections

The *Repositorium Tweede Kamerverkiezingen 1848-1917* (Repository Lower House Elections) is a repository containing information about all elections to the Dutch lower house over the period 1848-1917, in which elections were organized at the district-level. As mentioned, any candidate who met the requirements of passive suffrage could be voted for - there was no predetermined list of candidates. Theoretically, therefore, there was no cap on the number of contestants in a given elections. Practically, however, local newspapers diffused who would be the contestants in upcoming elections, which frequently went hand in hand with an endorsement by the editorial board of a particular candidate. In practice, elections were almost always contested by two candidates, whereas there is also a minority of elections in which one candidate ran uncontested. Other exceptions include the more densely populated cities, such as Amsterdam and Rotterdam, in which a relatively large number of candidates, sometimes up to 10, would contest for several (up to three) seats.

The *Repositorium* contains data on virtually all these elections, including the names of the candidates who contested in a given election, the amount of votes they obtained, the number of enfranchised individuals in this district, voter turnout, and also some metadata, including the amount of seats that are contested in the particular election, the type of election, and the election date. Based on this data, we also define the set of winners in each election e, $\{Winners\}_e$, which consists of candidates whose rank in terms of the amount of votes $\leq$ the amount of seats that were contested.

In total, there are about 2400 unique elections in the district system over the period 1860-1917. In line with other studies using close elections (e.g. **?**), we use a vote margin-based approach to identify which elections are close: in particular, we first find the *marginal winner (MW)* in the election, which is defined as a winning candidate with the lowest number of votes from all winning candidates. In the vast majority of cases, this amounts to the only winner, because the election had only one seat up for election, but in a significant minority of the cases, this yields a different candidate. Then, at the candidate-district level (candidate i, district e), we define and compute vote margins as follows:

$$\text{Margin}_i = \begin{cases} \frac{\text{Amount of Votes}_i - \text{Amount of Votes}_{MW}}{\text{Amount of Votes}_e} & \text{if } i \in \{\text{Winners}\} \\ \frac{\text{Amount of Votes}_{MW} - \text{Amount of Votes}_i}{\text{Amount of Votes}_e} & \text{if } i \notin \{\text{Winners}\} \end{cases} \tag{1}$$

This way of defining the margin ensure that winners end up with a margin ≥ 0, whereas losers have a negative margin. Then, a close election is an election in which there is at least a candidate with a margin $\in [-x, 0)$, where x is an arbitrary bandwidth. After data collection, elaborated on in the next section, we chose bandwidth $x = 20\%$, meaning that we identify elections as close if there is at least one candidate who obtained at most 20 percentage points fewer votes than the marginal winner. This yields about 500 close elections, in which there are at least 500 candidates that lost the election with a margin that is less in absolute value than $x\%$. There are a significant amount of elections in which some of the close candidates are candidates who either already were active in politics, or were elected in the lower house at a later moment. We then proceed to identify close losers who did not end up in politics later by requiring that the close candidates not be in the union of all Winners-sets, and we end up with candidates that (i) marginally lost an election and (ii) did not end up in the lower house later, or were not active in the lower house already.

3.2 Matched and Nonmatched Samples

After having identified the nonpoliticians eligible to serve as counterfactual observations for just-elected politicians, we construct two datasets: one with the purpose of finding an election-fixed effects estimator, calculating the difference in wealth between just-winners and just-losers in the same election, and secondly, an unmatched dataset in which each observation, be it a closely-elected politician or a close runner-up nonpolitician, is an independent entry. The matched dataset set consists therefore of non-politician runners-up, who are matched to any politician who just beat them. In this dataset, there is some dependency of various observations. For example, if an election featured three candidates, one of which obtained 35% of the vote count, the runner-up 33%, and the last candidate 32%, and there was one contested seat, both the runner-up and the last candidate qualify to be matched with the winner and feature in the matched dataset. If, by contrast, there were two contested seats, the third candidate closely lost to *both* the first and the second candidate, warranting the inclusion of two separate observations: one match of the just-losing runner-up with the second candidate, and one with the first. In the analysis, we elaborate on the sensitivity of our results to the exclusion of these observations. In general, however, there is no reason to think that a sample of matched candidates would give an unbiased estimate of the average treatment effect. Anecdotal evidence suggests that close candidates in such second-round

elections differ in at least one very important aspect: winners are usually liberal or socialist politicians, whereas losers tend to be confessional politicians (**?**). Only if within elections, candidates are very similar can such a matched estimator give a good estimate of the ATE. In other words, we want the treatment (being elected into lower house) to be uncorrelated to observable and non-observable covariates. With that purpose, we construct the second dataset.

The second dataset is constructed by going combining (i) all candidates that marginally lost an election and did not end up in the lower house later, and were not active in the lower house before, and (ii) all candidates that marginally won an election, i.e., with a margin $\in [0, x]$. In this dataset, there are also a number of dependencies: both runners-up and politicians can figure in the dataset more than once, implying that they have been exposed to the treatment (or the control group) more than once. We explain how we deal with this in section 4.2.

3.3   Personal Wealth

[Talk about the Memories van Successie, problem of time-comparability (time to death as a covariate), evasion and limited availability of data]

The *Memories van Successie* are archives primarily containing documents specifying the appraisal of a deceased individual's assets and liabilities with the purpose of levying inheritance taxes. The first inheritance tax that targeted lineal descendants was instated in 1877, and from that year onward, every individual whose estimated wealth was higher than some minimum threshold (in practice, almost everyone) was subjected to an appraisal of their assets and liabilities, and depending on the particular composition of the inheritance, a specific inheritance tax (**?**). Citizens were initially expected to voluntarily declare their assets and liabilities within a year after the decease, but the authorities were by no means depending on voluntary action: civil servants provided the tax authorities with lists of deceased individuals, after which descendants could be summoned to declare. In all cases, descendants had to declare under oath that the list of assets and liabilities they submitted was truthful in a court (**?**). Several miscellaneous documents containing internal correspondence within the tax agency also indicate that taxation was approached with care and legal requirements were paid attention to.

It is not generally known precisely how the Dutch tax agency appraised all asset classes, in particular, real estate, but most financial assets were appraised with eye for detail: listed stock and bond prices were quoted from the *Prijscourant*, a publication administered by the Amsterdam stock exchange, which contained accurate data about contemporaneous stock prices. The value of foreign assets were without exception denoted in Dutch guilders. The *Memories* are publicly available from 1877-1927 in all Dutch provincial archives. After 1927, the *Memories* are still part of the internal administration of the Dutch tax agency, hence, they are by and large inaccessible to the public. Any particular document contains the name, place and date of death of the individual, followed by an initial statement of an individual's assets, liabilities and net wealth. Afterwards, an entire detailed inventory describing all their assets and liabilities, including financial claims can be found. Finally, the assets, liabilities and net wealth are again stated at the end of the *Memories*. By default, I use the net wealth that is first stated, and although sometimes slight differences can be found, the correlation between these two statements is 0.99.

3.4 Other Covariates

I retrieve a proprietary dataset from the *Politiek Documentatiecentrum* (PDC), a think-tank focused on Dutch politics. The data encompass various demographic and other variables related to a politicians' life, including their birth and death date and place, which allow me to find the politicians in the *Memories* archives, as well as information about their political allegiance and their professional career. For non-politicians, I make use of the search engines of provincial archives, a historical newspaper search engine *Delpher*, and various genealogy websites to find the dates and places of decease. For these non-politicians, there is generally less information about their professions, and the level of detail is generally lower, but whereever possible, this information is also retained. Political party membership or allegiance is also found through these means.

4 Methodology

4.1 Empirical approaches

We employ three different procedures to estimate the average treatment effect of being elected into national politics on personal wealth: first, and most importantly, we employ a regression discontinuity approach. Second, we employ the matched sample and traditional regression analysis, and third, we employ several synthetic matching procedures.

4.1.1 Regression Discontinuity

The basic specification that we use is:

$$W_i = \alpha + \delta \cdot 1_{\text{Margin}_i > 0} + X_i \beta + \epsilon_i \tag{2}$$

In this specification, individual i is either treated (Margin ≥ 0), or untreated (Margin < 0). To test the validity of our RDD design, we include the pre-determined potential covariates described in table 1 in the analysis. The vector X_i includes the running variable Margin_i. Because the treatment should have been randomly allocated with respect to these covariates, we should not expect to see any significant point estimates. The inclusion of covariates, however, does help in obtaining a more precise estimate of the local treatment effect (**?**).

4.1.2 Natural Matching

Natural matching entails that for every close election, we find the candidate i, who (i) marginally won, and the candidate j, who was the runner-up, and estimate the treatment effect as:

$$W_{iet} - W_{jet} = \alpha + \text{Controls}_{et} \cdot \beta + \epsilon_{et} \tag{3}$$

Where α is the average difference in wealth between the winner and the runner-up in election e after accounting for all other factors, e.g. winners' margin, the winner's and loser's party allegiance, etc.

4.1.3 Synthetic Matching

Thirdly, we employ several synthetic matching procedures, which involves matching all winners to similar losers on the basis of district, demographic and other control variables. For a large subsection of runners-up, we were able to find their profession, using various sources, their date of birth, and their date of decease. The first procedure we employ is *k*-nearest neighbor matching.

4.2 Covariate Balance

The validity of our regresssion discontinuity design hinges on several testable assumptions. Most significantly, there has to be some randomness in the treatment assignment mechanism conditional on the subjects having exerted effort to end up with some score (**?**). In this setting, this means that politicians should have incomplete control over the amount of votes that they obtain: no matter what amount of effort they have exerted, what characteristics they have, conditional on those factors, the allocation of the treatment (i.e. winning the election) should be random. **?**, who also uses a close elections design, brings forth two arguments in favor of this: first, the turnout on election day might vary, for instance because of the weather. Secondly, vote counting is error prone and uncertain, thereby giving precise election outcomes inherent uncertainty.

The implications of this presumed local randomness should manifest itself in *covariate balance*: all predetermined covariates should be random with respect to the treatment. In the analysis, we provide several graphical indications and use the **?** test to formally assess whether this is so. Among the covariates observed *before* treatment are: age at the time of voting, profession, education, number of times participated in elections before close election, political party. Two unobservable covariates deserve our attention: first, it is likely that politicians' initial wealth levels are randomly distributed according to treatment and control group: it is likely that wealthier candidates had more means to invest in their campaign and were thus more likely to achieve a particular margin. But conditional on them having invested a certain amount, the inherent uncertainty close to the threshold makes it such that the distribution of initial wealth close to the threshold is still similar in both groups. Second, while ability or succesfulness might vary systematically among elected politicians and non-elected candidates (as in **?**), again, close to the threshold, the distribution of ability is likely to be the same for both groups.

? identify a number of covariates that, despite the nature of close elections, tend to differ sharply between winning candidates and losing candidates: for example, the winning party in the district in the previous election tends to be the same as the winning party in the current election, and the winners tends to spend more on the campaign than the losers. Furthermore, in their context (US Post-WWII Senate elections), there are marked differences in incumbency between winners and runners-up. In this context, it is also possible that incumbency has a causal effect on politicians' wealth. In the analysis, we account for this using three different strategies: (i) limiting the analysis to close elections of first-time politicians, (ii) explicitly investigating the influence of tenure in politics, and (iii) limiting the analysis to districts in which the incumbent retired.

Finally, several politicians have been observed more than once, as they took part in more than one close election. On the one hand, each of these observations represents a valid data point, and the treatment

effect might be heterogeneous with respect to political tenure, but on the other hand, it might skew the results towards politicians that participated in close elections many times. In the analysis, we also filter the dataset so that each individual, be it a politician or a nonpolitician, only figures in the dataset the *first time* they are exposed to the treatment.

Of course, there are also a number of covariates that are determined after the treatment was administered, and there are no *a priori* reasons why these should be balanced. This discussion therefore closely relates to the interpretation of the findings, which we discuss in section 6. Plausible covariates that could differ between groups, and could be correlated with end-of-life wealth are the number of years lived after treatment, number of times participated in elections after close election, active working period after treatment. In table 1, I summarize the plausible covariates which we investigate in the empirical analysis.

Pre-determined Covariates		Other Covariates	
Covariates	Observed	Covariates	Observed
Education	Yes	# Elections After Close Election	Yes
Profession	Yes	Active Working Period After CE	Yes
Age of Time of Election	Yes	Number of Years Lived After CE	Yes
Political Party	Yes		
# Elections Before Close Election	Yes		
Initial Wealth	No		
Ability	No		
Campaign Finance	No		

Table 1: Covariates

In table 2, I show the distribution of the covariates in the treatment (Politician) and control (Non-politician) groups. The first rows show the running variable and variables associated with the running variable, i.e. variables where a difference between groups is expected. Indeed, for all these variables, Margin (the running variable), Turnout, and Amount of Votes, there is a statistically significant difference between Politicians and Non-politicians, which is unsurprising, as politicians have won these elections, and should have garnered more votes on average. Secondly, there is also a statistically significant difference between the amount of seats that were contested in a close election from which I have sampled politicians and from which I have sampled non-politicians. On average, politicians have won in larger districts, whereas non-politicians have lost in slightly smaller districts, and politicians are also more likely to be sampled from regular (scheduled) elections rather than second rounds or other types of elections. On average, politicians also win in districts with a higher electoral threshold than non-politicians. All of these imbalances are likely to be an artifact of the asymmetric nature of sampling, i.e. the filtering of close elections to close elections in which an individual who never became a politician, lost. It is unlikely that any of these have any confounding impact on politicians' wealth.

Next, I contrast the political affiliations of politicians and non-politicians by looking at newspaper and electoral union recommendations for politicians. As mentioned, the first *de facto* political party came into existence in 1879, hence, a significant part of the elections takes place in a context without political parties, but with growing and ever more clear political differences between factions in parliament and society. For non-politicians, party affiliation is not readily available. Therefore, I make use of newspaper and electoral union recommendations: newspapers had a clear affiliation, as had electoral unions,

which were precursors of political party, and I construct dummy variables indicating whether a person was recommended by a newspaper or electoral union of a certain faction, or, after 1879, was a member of a political party. These indicators are not mutually exclusive - indeed, it often happened, in time of coalition, that candidates were both recommended by Anti-Revolutionary and Catholic candidates, for example, or by Liberal and Socialist factions. As becomes clear from the table, all these affiliations are balanced across treatment and control group.

Furthermore, [before, after]

Finally, [lifespan, yod, yoe]

In appendix X, I employ several procedures to ensure covariate balance, also on these inconsequential covariates, and conduct the same analysis as in chapter X. The results are qualitatively very similar to the results displayed in the main text.

Table 2: Covariate Balance in Politicians and Non-Politicians

	Non-Politician (N=232)		Politician (N=297)			
	Mean	Std. Dev.	Mean	Std. Dev.	Diff. in Means	p
Margin	-0.10	0.06	0.07	0.05	0.17	0.00
Turnout	2299.26	1703.47	3194.77	3044.42	895.50	0.00
Amount Votes	929.85	678.55	1717.18	1651.51	787.33	0.00
Amount Seats in District	1.39	1.16	2.01	2.03	0.62	0.00
Election: General	0.38	0.49	0.60	0.49	0.21	0.00
Election: Other	0.62	0.49	0.40	0.49	-0.21	0.00
Kiesdrempel	1322.61	1002.21	1783.03	1482.20	460.42	0.00
Rec: AR	0.13	0.34	0.15	0.36	0.02	0.46
Rec: RC	0.10	0.31	0.07	0.26	-0.03	0.19
Rec: Lib	0.30	0.46	0.34	0.47	0.04	0.35
Rec: Soc	0.01	0.11	0.01	0.12	0.00	0.96
# Elections Participated Before	1.35	2.38	6.23	7.32	4.87	0.00
# Elections Participated After	1.33	2.06	5.04	5.82	3.72	0.00
Yrs Lived After Close Election	19.36	12.18	20.17	11.31	0.81	0.43
Year of Death	1900.00	14.07	1903.64	14.26	3.64	0.00
Year of Election	1880.50	14.64	1883.39	14.72	2.89	0.03

5   Regression Discontinuity Analysis

[Plot of E[Y|X] to also see the discontinuity in outcomes]

[Plot of E[W|X] to not see a discontinuity in covariates]

[Density of X (check for manipulation, McGreary test]

[Main results, including the alternative estimators that I explain in section 4]

6   Various Explanations

- Political tenure - Career path - Party organization

7   Robustness Checks

[Optimal bandwidth, Imbens and Karayanaraman, and other bandwidths]

7.1   Placebo Checks

[Placebo Checks]

[Show robustness to different estimation windows] Here: use local linear regression, not global polynomials (Gelman and Imbens). [OLS, Local linear, and polynomial estimates]

[binscatter plots of Y|X (discontinuity) and also covariates|X]

8   Conclusion