Supporting Information: How Lasting is Voter Gratitude? An Analysis of the Short- and Long-term Electoral Returns to Beneficial Policy

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Abstract

This documents provides additional information referenced in the main paper.

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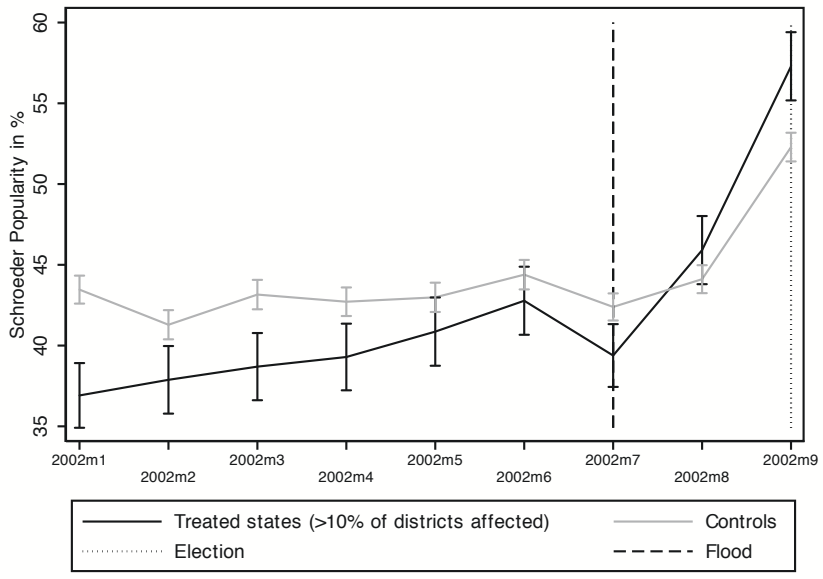
I. Potential Alternative Explanation for High Electoral Returns in Affected Regions

Some have pointed out that the SPD's victory in 2002 may have simply resulted from Gerhard Schröder (SPD) being much more popular than his political opponent Edmund Stoiber and not from the incumbent's massive and swift policy response to the Elbe flooding. For this argument to be valid we should see a differential reaction to the announcement of Stoiber's candidacy in affected and control regions. We use state-level information on the popularity of chancellor Schröder from the Forsa survey data to explore the validity of this argument. Figure 2 plots monthly Schröder's approval ratings in affected and unaffected states in 2002.

Figure 1: Popularity Ratings of Gerhard Schröder and Flood Onset



Note: Percent of voters that intend to vote for Gerhard Schröder with .90 confidence envelopes. Based on Forsa polling data (average monthly N=8,753 (min N=6,044, max N=9,889) available at GESIS – Leibniz Institute for the Social Sciences (dataset identification code: ZA3909).

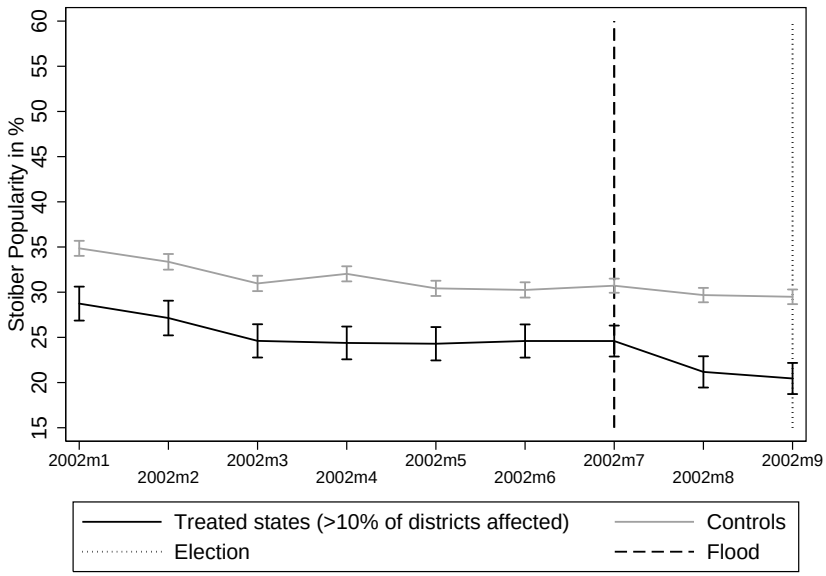
Stoiber's candidacy was announced at the end of January 2002 after Angela Merkel had met with Edmund Stoiber at the so called "Wolfratshauser Frühstück" on 22nd January 2002. In this meeting Angela Merkel stepped back from running for Chancellor and Stoiber became the CDU/CSU's candidate. If there indeed was a "candidacy effect" that differentially affected treated and control districts, we should see a sharp increase in the Schröder's popularity ratings

in February 2002. If we look at figure1 however, we see no such increase.

To the contrary, popularity decreases slightly in the affected states, but the change appears extremely modest. We find, however, almost exactly the same pattern as in the paper: Schröder's popularity increases in both treated and control states once the flood sets in, but clearly much more strongly in treated than in control states. The change in treated states is indeed a massive 16 percentage points, from about 37 percent in July to more than 53 percent in September. Moreover, as with SPD popularity (figure 2 in the paper), the single-crossing point in this figure is exactly when the flood sets in.

In addition, we also inspected Stoiber's popularity in treated and control states. Figure 2 shows that these time series follow almost exactly the same pattern in treated and control groups. The flood onset seemed to have slightly decreased Stoiber's popularity in treated areas, while it remained relatively stable in control states.

Figure 2: Popularity Ratings of Edmund Stoiber and Flood Onset



Note: Percent of voters that intend to vote for Edmund Stoiber with .90 confidence envelopes. Based on Forsa polling data (average monthly N=8,753 (min N=6,044, max N=9,889) available at GESIS – Leibniz Institute for the Social Sciences (dataset identification code: ZA3909).

This timing of events again strongly suggests that the disaster response caused the substantial SPD vote gains in affected regions we document in the paper and not the announcement

of Stoiber's candidacy.

II. List of Directly Affected Electoral Districts

The table below displays the list of electoral districts included in our *Flooded* measure.

	District Name	District ID	State
1	Elbe-Elster - Oberspreewald-Lausitz II	65	Brandenburg
2	Schwerin - Ludwigslust	13	Mecklenburg-Vorpommern
3	Lüchow-Dannenberg - Lüneburg	37	Niedersachsen
4	Delitzsch - Torgau-Oschatz - Riesa	152	Sachsen
5	Leipzig I	153	Sachsen
6	Leipzig II	154	Sachsen
7	Leipziger-Land - Muldentalkreis	155	Sachsen
8	Kamenz - Hoyerswerda - Großenhain	156	Sachsen
9	Löbau-Zittau - Görlitz - Niesky	157	Sachsen
10	Bautzen - Weißwasser	158	Sachsen
11	Sächsische Schweiz - Weißeritzkreis	159	Sachsen
12	Dresden I	160	Sachsen
13	Dresden II - Meißen I	161	Sachsen
14	Freiberg - Mittlerer Erzgebirgskreis	162	Sachsen
15	Döbeln - Mittweida - Meißen II	163	Sachsen
16	Chemnitz	164	Sachsen
17	Chemnitzer Land - Stollberg	165	Sachsen
18	Annaberg - Aue-Schwarzenberg	166	Sachsen
19	Zwickauer Land - Zwickau	167	Sachsen
20	Vogtland - Plauen	168	Sachsen
21	Altmark	66	Sachsen-Anhalt
22	Elbe-Havel-Gebiet	67	Sachsen-Anhalt
23	Magdeburg	69	Sachsen-Anhalt
24	Anhalt	71	Sachsen-Anhalt
25	Bernburg - Bitterfeld - Saalkreis	72	Sachsen-Anhalt
26	Halle	73	Sachsen-Anhalt
27	Herzogtum Lauenburg - Stormarn-Süd	10	Schleswig-Holstein
28	Gera - Saale-Holzland-Kreis	196	Thüringen
29	Greiz - Altenburger Land	197	Thüringen

III. Variables Description

The list below provides definitions and sources for the covariates that are included in the regressions.

- *Population Density*: Inhabitants per square kilometer. Source: Bundeswahlleiter Strukturdaten (selected years).
- *Share of Foreigners*: Share of registered foreigners in total population. Source: Bundeswahlleiter Strukturdaten (selected years).
- *Population Outflow*: Net out-migration (inflows minus outflows) per 1000 inhabitants. Source: Bundeswahlleiter Strukturdaten (selected years).
- *Share of Elderly*: Share of population aged 60 years in total population. Source: Bundeswahlleiter Strukturdaten (selected years).
- *Unemployment Rate*: Official unemployment rate. Bundeswahlleiter Strukturdaten (selected years).
- *Employment Share: Agriculture*: Share of registered employees in the agricultural sector in total number of registered employees. Bundeswahlleiter Strukturdaten (selected years).
- *Employment Share: Manufacturing*: Share of registered employees in the manufacturing sector in total number of registered employees. Bundeswahlleiter Strukturdaten (selected years).
- *Employment Share: Trade Services*: Share of registered employees in the trade service and traffic sector in total number of registered employees. Bundeswahlleiter Strukturdaten (selected years).
- *Employment Share: Other Services*: Share of registered employees in other services sector in total number of registered employees. Bundeswahlleiter Strukturdaten (selected years).

- *SPD Incumbent in Land*: Coded 1 if SPD is majority party in Land Parliament and 0 otherwise. Source: GESIS – Leibniz Institute for the Social Sciences, DVD "Landtagswahlen 1960-2004" (V2.0). www.election.de/ltw.html

- *Distance to Elbe or Flooded Tributary*: Shortest as-the-crow-flies distance from district centroid to Elbe river or major flooded tributary as shown on map in kilometers. Authors' GIS computation.