

# Online Appendix:

## E-lections: Voting Behavior and the Internet

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### Appendix A: Election Data

Data on election outcomes are obtained from the statistical offices of the German states (election statistics). These are *Statistikamt Nord* for elections in Hamburg and Schleswig-Holstein; *Statistisches Landesamt Sachsen-Anhalt* for elections in Saxony-Anhalt; *Amt fuer Statistik Berlin-Brandenburg* for elections in Berlin and Brandenburg; *Bayerisches Landesamt fuer Statistik und Datenverarbeitung* for elections in Bavaria; *Statistisches Landesamt Baden-Wuerttemberg* for elections in Baden-Wuerttemberg; *Hessisches Statistisches Landesamt* for elections in Hesse; *Statistisches Landesamt Rheinland-Pfalz* for elections in Rhineland-Palatinate; *Statistisches Amt Saarland* for elections in Saarland; *Landesbetrieb fuer Statistik und Kommunikationstechnologie Niedersachsen* for elections in Lower Saxony; *Landesbetrieb Information und Technik Nordrhein-Westfalen* for elections in North Rhine-Westphalia; *Statistisches Landesamt Bremen* for elections in Bremen; *Statistisches Landesamt des Freistaates Sachsen* for elections in Saxony; *Statistisches Amt Mecklenburg-Vorpommern* for elections in Mecklenburg-Western Pomerania; and *Thueringer Landesamt fuer Statistik* for elections in Thuringia.

The election statistics report outcomes for federal elections (elections to the federal parliament), state elections (elections to the state parliaments), and local elections (elections to the district, municipal and city councils) on the municipality level. Both the federal parliament (*Bundestag*) and the state parliaments (*Landtage/Buergerschaft/Abgeordnetenhaus*) are legislative bodies consisting of one chamber. The usual election cycle lasts 4-5 years. The local councils (*Kreistag/Gemeinderat/Stadtrat*) are elected every 4-6 years. They do not have legislative powers but fulfill representative and executive tasks. The councils monitor the local administrations and have certain rights of proposal and participation.

Unlike Anglo-Saxon parliamentary elections, mandates to parliaments and councils are distributed according to the principle of proportionality. Consequently, the share of mandates a

party wins equals the share of votes it obtains. However, usually a party has to surpass a certain threshold (e.g. 5 percent of votes in federal elections) to be granted seats in the elected body. Only in the elections to the municipality councils in some smaller municipalities in the states of Rhineland-Palatinate and Baden-Wurttemberg are mandates distributed according to a first-past-the-post procedure. We ensure that we only use the outcomes of elections where proportional representation rules apply.

Election data have been recoded to uniformly represent Germany's territorial structure on December 31st 2008. To account for territorial changes that took place between 1990 and 2008, we use recoding keys provided by the *Federal Statistical Office of Germany* for the West German municipalities and by the Statistical Offices of the East German states for the East German municipalities. Most municipality reforms were mergers between municipalities. In these cases, we collapse information on municipalities that merged during our period of analysis. This procedure leaves us with observations for 11,989 municipalities. Comparing this number to the official number of 12,227 municipalities, it turns out that we cannot properly track the changes in about 2 percent of the cases. We drop those cases. They do not show any systematic pattern. Furthermore, we entirely drop 157 municipalities with less than 100 inhabitants (*Kleinstgemeinden*) in the pre-Internet era because several special rules apply to these municipalities, e.g. the opportunity to constitute a “municipality assembly” instead of an elected council. Most importantly, local elections in these extraordinarily small municipalities are not meaningful since the elected body consists of (nearly) all elective inhabitants. This leaves us with a final sample for 11,832 municipalities.

Following the election cycle to the federal parliament, we group election outcomes into three periods: A broadband Internet period from 2004 to 2008; a pre-Internet period from 1995 to 1999; and another pre-Internet period from 1990 to 1994. The outcomes of elections taking place during 2000 and 2003 are not considered, since DSL data are not available at the municipality level for this period. For every municipality, we observe outcomes of each election type once per period. Table A1 reports the elections considered in our estimations.

All local elections to the municipality councils, city councils and district councils take place at the same day within states. In general, we restrict our analysis of local elections to the city and municipality councils. For those states where information is not available for this type of election

(Mecklenburg-Western Pomerania and Schleswig-Holstein), or where municipalities use majority vote when electing municipality councils (Rhineland-Palatinate), we use elections to the simultaneously elected district councils instead. The Baden-Wuerttemberg statistical office does not provide election outcomes for the district councils at the municipality level, which prompted us to leave out local election outcomes for the 103 municipalities with majority vote in Baden-Wuerttemberg. In the city-states of Hamburg and Berlin, the state parliament is simultaneously the city council. Hence we do not observe local elections there. In the city-state of Bremen, however, city councils for the municipalities of Bremen and Bremerhaven are elected and consequently included as local elections.

Federal elections, as well as most state elections, also contain an element of majority vote. While the overall share of seats a party gains is determined by its share of votes, voters can to a certain degree decide on individual candidates on a first-past-the-post basis.<sup>1</sup> However, this decision on individual candidates (*Erststimme*) might be strategic, whereas the decisive vote is always the vote cast for a party (*Zweitstimme*). Thus we consider only those votes that eventually determine the distribution of seats in the elected parliament. Moreover, in most local elections and some state elections, the electorate has several votes that can be used to change the rank order of candidates on the nominees' lists proposed by the parties. However, for all the municipalities observed it is the share of total votes obtained that determines the constitution of the respective parliament or council, according to the principle of proportionality.

From the official election statistics, we calculate turnout as the total number of voters (irrespective of whether they cast a valid or an invalid vote) divided by the total number of inhabitants eligible to vote. The statistical offices provide this information at the municipality level. We observe parties, voting blocks and individual nominees. For organizational reasons or due to legal restrictions, it can happen that a party proposes candidate lists that are formally accounted for as lists of voting blocks. For instance, GRUENE quite frequently nominates candidates on “Green Alternative Lists” in local elections that are formally classified as voting blocks. We carefully checked these nominations and recoded votes for party-affiliated voting blocs as votes for the respective party. Moreover, we count votes for joint nominations of parties

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<sup>1</sup> For instance, in federal elections, the electorate can cast a vote on individual candidates (almost exclusively proposed by parties) with a second ballot (*Erststimme*). In every election district, the candidate who wins the majority of these votes is directly elected to the parliament. However, this does not affect the overall share of seats a party wins in the federal parliament.

and voting blocs as votes for the respective party. If a party does not nominate candidates in single municipalities, we count this party as having received zero votes in the respective election.

We aggregate votes for specific parties in four different groups: Votes for established parties, for parties on the right fringe, for parties on the left fringe, and for a residual group of other small parties. When classifying the parties, we take the different historical backgrounds of East and West Germany into account. From 1949 to 1989, the German Democratic Republic was governed by the Socialist Unity Party SED. Under the socialist regime of the German Democratic Republic, this party regularly won well above 90 percent of the votes in the bogus elections it held to legitimize its autocratic rule. During the uprisings that led to the fall of the Berlin Wall, the SED changed its name to PDS and continued to exist after reunification. In the course of time, it merged with the WASG and some other leftist factions to form the party LINKE.<sup>2</sup> During our period of analysis, LINKE and its predecessors regularly won significant vote shares in East German elections, became elected into state parliaments, and even participated in governing coalitions. In the Western states, LINKE and its predecessors played a minor role and struggled to win parliamentary seats. Consequently, we take LINKE as an established party in the East German sample, but classify it as left-fringe party in the West German sample.

We always classify the CDU and its Bavarian branch CSU, the SPD, the FDP and the GRUENE to be established parties. CDU/CSU and SPD have been the dominant parties in the German multiparty system since 1949, both in terms of membership as well as of votes obtained. For our period of analysis, all federal and state governments where lead by one of those two parties. FDP has been active since the foundation of the Federal Republic of Germany as well. It usually wins seats to the federal and to the state parliaments and frequently participates in governments led by the CDU/CSU or the SPD. GRUENE emerged from the ecologist movement and the peace movement. It was founded as a party in 1980. Since then, it has developed into a nationwide organization, is regularly represented in all German parliaments, and also participates in governments. For ideological reasons, GRUENE is usually the SPD's preferred coalition partner, while during our period of analysis the FDP more frequently formed coalitions with the

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<sup>2</sup> We always collapse votes of all predecessors of LINKE to account for mergers that took place until 2008.

CDU/CSU (SPD-GRUENE and CDU/CSU-FDP are subsequently referred to as “major coalitions”).

Parties from the right fringe of the political spectrum follow nationalist ideologies, are at least skeptical towards the democratic system and the universal rights granted by the constitution, and frequently polemicize against migrants and foreigners. Overall, this group consists of more than 30 parties and factions, with some active in certain regions only. Most radical parties and organizations, such as the NOF (National Offensive) or the NL (National List) that sympathize with the Nazi ideology, have been forbidden by the authorities. Others like BFB (Federation of Free Citizens) or PRO (Party of Constitutional Offensive) are less radical. They do not actively fight the democratic constitution, but propagate law-and-order policies, oppose the “political establishment” and advocate restrictive migration policies and a less generous treatment of foreigners. Consequently, parties on the right fringe usually attract protest voters.

Parties on the left fringe of the political spectrum follow communist ideologies, are at least skeptical towards the democratic system and the property rights granted by the constitution, and frequently polemicize against the global economy and the free-market system. Overall, this group consists of around 20 parties and factions that are often affiliated with each other. Besides LINKE and its predecessors (which are classified as parties on the left fringe in West Germany but not in East Germany), there are three dominant branches: Successors to the Communist Party of Germany that had been forbidden in 1956, e.g. the DKP (German Communist Party) or the KPD (Communist Party of Germany); Leninist, Stalinist and Maoist organizations like the MLPD (Marxist-Leninist Party of Germany); and Trotskyist organizations like the RSB (Revolutionary Socialist Federation). Like most parties on the right fringe, these left-fringe parties are regularly monitored by either the national intelligence service (*Bundesverfassungsschutz*) or the states’ intelligence services (*Landesverfassungsschutz*). Some other parties on the left fringe, such as the DS (Democratic Socialists) or the APD (Workers’ Party), follow less strictly a distinct ideology. They recruit out of alternative and peace movements, advocate anti-capitalist agendas and call for redistribution.

We classify all remaining nominations as from small non-established parties. This group also contains organizations without party status as well as individual candidates. Most frequently, small parties are religious parties like PBC (Party of Bible-adherent Christians) or single-issue

parties like MUT (Animal Protection Party), but also fun parties like DBU (German Beer Drinkers' Union). Particularly in local elections we observe a variety of voting blocs that usually focus their activities on their home regions. If voting blocs have an explicit affiliation with an established party or any fringe party, we count votes for this voting bloc as votes for the respective party. The remainder forms the group of small parties as a residual category for the election outcomes for nominations that are not included in the other three party groups.

TABLE A1—TIMING OF THE ELECTIONS

	Pre-Internet Period	Pre-Internet Period	Internet Period	Election Type
	1990-1994	1995-1999	2004-2008	
	(1)	(2)	(3)	(4)
Schleswig-Holstein	1994	1998	2005	National
	1992	1996	2005	State
	1994	1998	2008	Local
Hamburg	1994	1998	2005	National
	1993	1997	2004	State
	n.a.	n.a.	n.a.	Local
Lower Saxony	1994	1998	2005	National
	1990	1998	2008	State
	1991	1996	2006	Local
Bremen	1994	1998	2005	National
	1991	1999	2007	State
	1991	1995	2007	Local
North Rhine-Westphalia	1994	1998	2005	National
	1990	1995	2005	State
	1994	1999	2004	Local
Hesse	1994	1998	2005	National
	1991	1995	2008	State
	1993	1997	2006	Local
Rhineland-Palatinate	1994	1998	2005	National
	1991	1996	2006	State
	1994	1999	2004	Local
Baden-Wuerttemberg	1994	1998	2005	National
	1992	1996	2006	State
	1994	1999	2004	Local
Bavaria	1994	1998	2005	National
	1994	1998	2008	State
	1990	1996	2008	Local
Saarland	1994	1998	2005	National
	1990	1999	2004	State
	1994	1999	2004	Local
Berlin	1994	1998	2005	National
	1990	1999	2006	State
	n.a.	n.a.	n.a.	Local

TABLE A1—TIMING OF THE ELECTIONS (CONTINUED)

	Pre-Internet Period 1990-1994	Pre-Internet Period 1995-1999	Internet Period 2004-2008	Election Type
	(1)	(2)	(3)	(4)
Brandenburg	1994	1998	2005	National
	1990	1999	2004	State
	1993	1998	2008	Local
Mecklenburg-Western Pomerania	1994	1998	2005	National
	1990	1998	2006	State
	1994	1999	2004	Local
Saxony	1994	1998	2005	National
	1990	1999	2004	State
	1994	1999	2004	Local
Saxony-Anhalt	1994	1998	2005	National
	1990	1998	2006	State
	1994	1999	2004	Local
Thuringia	1994	1998	2005	National
	1990	1999	2004	State
	1994	1999	2004	Local

Notes: Table gives the timing of federal elections, state elections and local elections for the periods referred to in the paper. Since Hamburg and Berlin are city states, local elections overlap with state elections.

## Appendix B: Close Elections

Here we test whether the Internet effect on voter turnout varies between close and lop-sided elections. We use data from the five leading German polling institutes that regularly assess people's intention to vote for specific parties in federal and state elections. The results are published online, in newspapers, and broadcasted on TV. We use information from the polls conducted one week before election day<sup>3</sup> and construct four not-mutually-exclusive identifier variables for close elections at the federal and state level, respectively: (i) the two major government and opposition parties differ in polls by less than 5 percentage points; (ii) the two major coalitions differ in polls by less than 5 percentage points; (iii) the governing major party is not leading the polls; (iv) the governing coalition is expected to get less than 50 percent of the votes. According to our definitions, the following Internet-period elections are ‘close’: (i) state elections in Schleswig-Holstein, Hesse, Brandenburg, and Mecklenburg-Western Pomerania; (ii) state elections in Schleswig-Holstein, Hesse, Rhineland-Palatinate, Brandenburg, and Mecklenburg-Western Pomerania; (iii) federal election and state elections in North Rhine-Westphalia and Mecklenburg-Western Pomerania; (iv) federal election and state elections in Schleswig-Holstein, North Rhine-Westphalia, Hesse, Bavaria, Berlin, Saxony, Saxony-Anhalt, and Thuringia.

Since we do not observe systematic differences in the Internet effect on voter turnout between federal and state elections, we estimate the Internet effect in close elections across the two types of election. To allow for heterogeneity in the Internet effect on voter turnout, we interact DSL availability in the second-stage equation (equation B3) with a dummy variable that equals one for close elections. To establish causality, we instrument for *DSL* and *DSL* × *close* in the first-stage equations (equations B1 and B2) with *PSTN* and *PSTN* × *close*. The model is of the following form:

$$(B1) \quad DSL_i = \alpha + \gamma_1 PSTN_i + \gamma_2 close_e PSTN_i + \Delta \mathbf{X}'_i \gamma_3 + \alpha_t + \alpha_e + \nu_{ie},$$

$$(B2) \quad close_e DSL_i = \alpha + \delta_1 PSTN_i + \delta_2 close_e PSTN_i + \Delta \mathbf{X}'_i \delta_3 + \alpha_t + \alpha_e + \tau_{ie},$$

$$(B3) \quad \Delta E_{ie} = \alpha + \beta_1 \widehat{DSL}_i + \beta_2 \widehat{close}_e \widehat{DSL}_i + \Delta \mathbf{X}'_i \beta_3 + \alpha_t + \alpha_e + \varepsilon_{ie}.$$

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<sup>3</sup> We also used polls conducted one month before election day, with similar results.

The results in Table B1 reveal that the interaction effect is only significantly different from zero on the 5-percent level in one case. In this case the interaction effect is negative, implying an even larger demobilizing effect of the Internet in close elections than in lop-sided elections. In general, the results suggest that the Internet affects turnout irrespective of whether the elections are expected to be close or not.

TABLE B1—EXPECTATION OF CLOSE ELECTIONS (ONE WEEK PRIOR TO THE ELECTION)

	Two major parties differ in polls by less than 5 pp.	Two major coalitions differ in polls by less than 5 pp.	Governing major party is not leading the polls (less than 50 percent of votes)	Governing coalition is not leading the polls (less than 50 percent of votes)
	(1)	(2)	(3)	(4)
<i>Panel A: LATE 1 Sample</i>				
DSL availability	-4.092*** (1.003)	-4.223*** (1.170)	-5.169*** (1.361)	-4.580*** (1.476)
DSL availability × column variable	-2.693 (4.054)	0.090 (1.587)	1.779 (1.481)	0.531 (1.642)
Number of MDFs		869		
Number of municipalities		3,333		
Number of observations		6,666		
<i>Panel B: LATE 2 Sample</i>				
DSL availability	-5.009** (2.196)	-6.549** (3.049)	-3.438 (2.288)	-1.422 (2.215)
DSL availability × column variable	-0.222 (5.358)	2.748 (3.245)	-3.257 (2.370)	-5.839** (2.886)
Number of municipalities		1,800		
Number of observations		3,600		
<i>Panel C: LATE 3 Sample</i>				
DSL availability	-4.471 (6.205)	-4.4715 (6.205)	3.129 (6.505)	0.554 (3.069)
DSL availability × column variable	5.025 (6.204)	5,.025 (6.204)	-7.413 (7.740)	-5.025 (6.204)
Number of counties		63		
Number of municipalities		1,249		
Number of observations		2,498		

Notes: Table reports pooled municipality-level instrumental-variable regressions at two major levels of governance in Germany, federal elections and state elections. The dependent variable is voter turnout. Panel A refers to instrumental variable regressions on the basis of the LATE 1 sample with the 4,200m threshold and the 4,200m threshold interacted with a close election dummy variable as instruments; Panel B refers to instrumental-variable regressions on the basis of the LATE 2 sample with “No closer MDF” and “No closer MDF” interacted with a close election dummy variable as instruments; and Panel C refers to instrumental-variable regressions on the basis of the LATE 3 sample with OPAL and OPAL interacted with a close election dummy variable as instruments. Columns refer to dummy variables indicating close elections based on polls one week before the election day. Column 1 indicates whether the two major government and opposition parties were less than 5 percentage points apart; column 2 indicates whether the major coalitions differ by less than 5 percentage points; column 3 indicates whether the major governing party is not leading the polls; column 4 indicates whether the governing coalition is expected to get less than 50 percent of the votes. The control variables and sample definitions are detailed in the notes to Tables 2-4. Standard errors are clustered on the municipality level. \*\*\* 1 percent significance level; \*\* 5 percent significance level; \* 10 percent significance level.

## Appendix C: Event Study Estimation

Since our first-difference model in the paper is equivalent to a fixed-effects model with municipality-by-election-type fixed effects, an alternative way to inspect pre-Internet trends in election outcomes is to stack election outcomes from the three election cycles and run an “event study” version of our reduced-form regressions with each one of the three treatment dummies interacted with dummies for the three election cycles. The model is of the following form:

$$(C1) \quad E_{iec} = \alpha + \alpha_{ie} + \alpha_c + \beta_1 \alpha_{c=-2} PSTN_i + \beta_2 \alpha_{c=1} PSTN_i + \mathbf{X}'_{ic} \beta_3 + \varepsilon_{iec},$$

where  $i$  indexes municipalities,  $e$  election types, and  $c$  election cycles. We observe two pre-Internet-period election cycles ( $c = \{-2; -1\}$ ) and one Internet-period election cycle ( $c = 1$ ).  $E_{iec}$  is the election outcome of interest.  $\alpha_{ie}$  are municipality-by-election-type fixed effects and  $\alpha_c$  are election-cycle fixed effects.  $PSTN_i$  is one of our three treatment dummies derived from technological peculiarities of the voice telephony network. The treatment effects,  $\beta_1$  and  $\beta_2$ , are measured relative to the treatment effect in the election cycle 1995-1999, which precedes the period of broadband roll-out.  $\mathbf{X}_{ic}$  is a vector of time-varying socio-economic characteristics of the municipalities. It includes controls for population size and the share of female population.  $\varepsilon_{iec}$  is an error term clustered at the municipality level.

Figure C1 shows the results of this procedure for three separate reduced-form regressions of voter turnout on our treatment dummies within the respective LATE samples. The figure reveals parallel pre-Internet trends in voter turnout between treated and control municipalities. In the Internet period voter turnout increases significantly more in the treated West German municipalities (LATE 1 and LATE 2 sample) in which DSL was not readily available at the beginning of the Internet period than in the control municipalities. Note that the effects in the reduced-form estimations are positive because our treatment variables reflect technological peculiarities that hinder broadband roll-out, i.e. they equal unity if the municipality has a *lower* probability of having DSL access. By contrast, voter turnout decreases slightly more, though not significantly different from zero, in the East German OPAL areas, where DSL technology was not compatible, as compared to the control municipalities. This clearly shows that treatment and control municipalities differ in voter turnout after the introduction of the Internet, but not before.

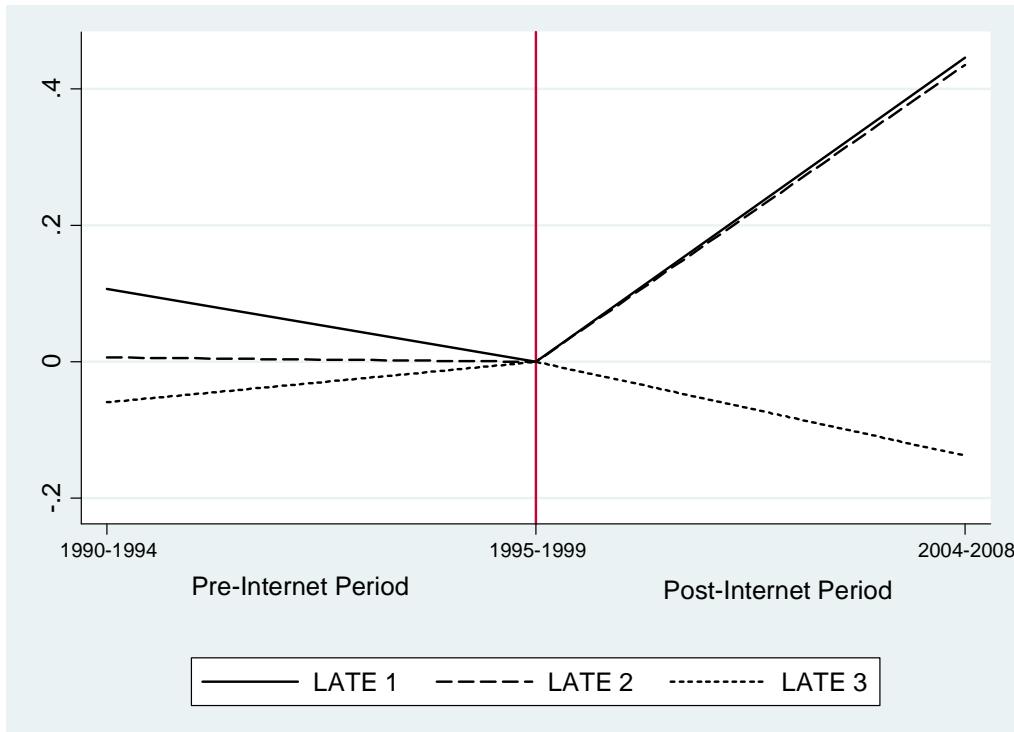


FIGURE C1. EVENT-STUDY ESTIMATES OF THE THREE INSTRUMENTS ON VOTER TURNOUT

Notes: Each chart plots coefficients from an event-study analysis over three election periods. Period -2 spans the years 1990-1994, Period -1 the years 1995-1999, and Period 1 the years 2004-2008. Period -2 and -1 correspond to the pre-Internet era and Period 1 to the internet era. Coefficients are defined relative to Period -1, i.e. the period before the Internet was introduced. The samples are limited to the LATE 1-3 samples described in Tables 2-4. All specifications include controls for female population share, population, municipality-election-specific fixed effects, election year fixed effects, and period-election-specific fixed effects. LATE 1 additionally includes MDF-by-election-year fixed effects. LATE 2 includes an interaction of period and distance to the MDF and period and distance to the next urban center. LATE 3 includes county-period fixed effects.

## Appendix D: Mean Comparisons across Treatment Status

In section IV of the paper we show that trends in municipalities' socio-economic characteristics from the pre-Internet to the Internet period do not systematically differ between treatment and control municipalities. Here, we explore differences in the pre-Internet *levels* of municipalities' socio-economic characteristics between treatment and control municipalities. Table D1 presents adjusted mean comparisons for the municipalities' socio-economic characteristics in our three samples for the pre-Internet election cycle considered in our first-difference model. In line with our regression analysis, we adjust the socio-economic characteristics for MDF fixed effects in the LATE 1 sample, for distance to actual MDF and distance to the next urban center in the LATE 2 sample, and for county fixed effects in the LATE 3 sample. The table reveals that these differences are in most cases negligible, even though some are statistically significant.

To test whether these level differences in municipalities' socio-economic characteristics affect the findings from our first-difference model, we modify the first-difference model from the paper by including the pre-Internet *levels* of the municipalities' socio-economic characteristics ( $\mathbf{X}_i$ ) instead of their *changes* ( $\Delta\mathbf{X}_i$ ). We thus estimate the following two-stage model:

$$(D1) \quad DSL_i = \gamma_0 + \gamma_1 PSTN_i + \mathbf{X}'_i \gamma_2 + \alpha_{eyear} + \alpha_e + \nu_{ie},$$

$$(D2) \quad \Delta E_{ie} = \beta_0 + \beta_1 \widehat{DSL}_i + \mathbf{X}'_i \beta_2 + \alpha_{eyear} + \alpha_e + \varepsilon_{ie}.$$

The results are shown in Table D2. The table reveals that controlling for these initial differences by including the pre-Internet levels of the municipalities' socio-economic characteristics in our first-difference model does not affect our findings.

TABLE D1—MEAN COMPARISON

	Treatment (mean)	SE	Control (mean)	SE	p-value
	(1)	(2)	(3)	(4)	(5)
<u>LATE 1</u>					
Female population share	50.09	0.04	49.80	0.05	0.00
Share of population aged 18-65	63.15	0.08	62.60	0.11	0.51
Share of population aged 65 and older	18.90	0.08	18.47	0.10	0.56
Daily wage (in 2008 €)	91.89	0.15	91.13	0.19	0.53
Share of net migration	-0.09	0.03	-0.15	0.04	0.65
Share of foreigners	2.60	0.07	2.17	0.07	0.15
Unemployment rate	4.76	0.04	4.48	0.05	0.54
Share of unskilled workers	10.99	0.10	10.94	0.13	0.82
Share of skilled workers	81.97	0.12	82.56	0.14	0.14
Share of high-skilled workers	7.05	0.10	6.50	0.11	0.01
<u>LATE 2</u>					
Female population share	50.00	0.11	49.78	0.05	0.10
Share of population aged 18-65	62.93	0.24	62.27	0.09	0.01
Share of population aged 65 and older	18.51	0.21	18.30	0.09	0.21
Daily wage (in 2008 €)	92.51	0.45	91.11	0.17	0.01
Share of net migration	-0.18	0.07	-0.16	0.03	0.71
Share of foreigners	2.63	0.16	2.26	0.06	0.03
Unemployment rate	4.52	0.10	4.40	0.05	0.20
Share of unskilled workers	10.37	0.23	10.91	0.11	0.07
Share of skilled workers	81.87	0.29	82.46	0.12	0.09
Share of high-skilled workers	7.76	0.27	6.63	0.10	0.00
<u>LATE 3</u>					
Female population share	49.56	0.06	49.91	0.13	0.23
Share of population aged 18-65	69.56	0.11	68.89	0.30	0.80
Share of population aged 65 and older	19.16	0.11	19.60	0.31	0.47
Daily wage (in 2008 €)	69.01	0.22	68.83	0.43	0.81
Share of net migration	-0.69	0.04	-0.59	0.08	0.87
Share of foreigners	0.26	0.02	0.35	0.04	0.20
Unemployment rate	13.08	0.13	14.10	0.33	0.29
Share of unskilled workers	4.49	0.08	4.53	0.16	0.79
Share of skilled workers	87.47	0.14	86.92	0.32	0.47
Share of high-skilled workers	8.04	0.13	8.56	0.32	0.54

Notes: Table reports descriptive statistics for the LATE 1-3 samples in the pre-Internet period (1995-1999). Values in percent, unless otherwise specified. First two columns report means and standard deviations for treated municipalities (4,200m threshold = 1 in LATE 1; “No Closer MDF” = 1 in LATE 2; OPAL = 1 in LATE 3). Third and fourth columns report analogous values for control municipalities. Column (5) reports p-values of the test of conditional mean difference between (1) and (3) with  $H_0$  “no difference”. Conditional means result from a regression of the respective control variable on the treatment (4,200m threshold, “No Closer MDF”, OPAL) conditional on MDF-fixed effects in the LATE 1; distance to the MDF and distance to the next urban center in the LATE 2; and county fixed effects in the LATE 3 sample. LATE 1 sample consists of 3,342 observations, LATE 2 sample of 1,801 observations and LATE 3 sample of 1,253 observations.

TABLE D2—ESTIMATION RESULTS FOR THE LATE 1-3 SAMPLES CONDITIONAL ON INITIAL LEVELS IN THE PRE-INTERNET PERIOD

	LATE 1	LATE 2	LATE 3
	(1)	(2)	(3)
Δ voter turnout	-3.117*** (0.990)	-3.339* (1.911)	1.289 (3.660)
Δ vote share established parties	-1.362 (0.982)	-2.610 (2.428)	0.909 (6.712)
Δ vote share small parties	2.067** (0.879)	1.795 (2.201)	0.495 (6.564)
Δ vote share right-fringe parties	-0.329 (0.270)	0.326 (0.709)	-1.138 (1.476)
Δ vote share left-fringe parties	-0.376 (0.308)	0.490 (0.600)	-0.266 (0.167)
<i>First stage</i>			
Instrument	-0.141*** (0.009)	-0.129*** (0.010)	-0.090*** (0.025)
F test of excluded instruments	249.40	159.38	13.13
Number of MDFs	869	-	-
Number of counties	-	-	63
Number of municipalities	3,333	1,800	1,249
Number of observations	9,923	5,362	3,747

Notes: Table reports municipality-level pooled instrumental variable regressions for elections at three main levels of governance in Germany: federal elections, state elections, and local elections. Each cell of the table shows the coefficient from a separate regression of an election outcome on DSL availability. Columns refer to different models and rows refer to different outcome variables and test statistics. In LATE 1, the variable of interest is the threshold dummy at 4,200m; in LATE 2, the variable of interest is the “No Closer MDF” dummy; and in LATE 3, the variable of interest is the OPAL dummy. All estimations control for election type dummies, year dummies and pre-Internet levels of the following municipality characteristics in levels from the pre-Internet period: female population share, share of population aged 18-65, share of population older than 65, average wage, net migration share, share of foreigners, unemployment rate, and share of unskilled, skilled and high-skilled workers. Column 1 estimations additionally include MDF-by-election-type dummies; column 2 estimations include controls for the distance to the actual MDF and the distance to the next urban center; and column 3 estimations include county-by-election type dummies. Standard errors are clustered on the municipality level. \*\*\* 1 percent significance level; \*\* 5 percent significance level; \* 10 percent significance level.

## Appendix E: Data on Newspaper Circulation

Data on newspaper circulation are provided by the German Audit Bureau of Circulations IVW (*Informationsgemeinschaft zur Feststellung der Verbreitung von Werbeträgern e.V.*) for every other year from 2000 onwards. Based on a survey from one representative week, IVW provides municipality-level information on the circulation of nearly all daily newspapers. These data provide the most detailed picture of the German newspaper market. We group the newspapers into the following five mutually exclusive categories: local newspapers; leading national newspapers, yellow-press newspapers, other newspapers, and Sunday newspapers. We rely on Schütz to determine each area's local newspapers and only consider their sales within this area.<sup>4</sup> Leading national newspapers are sold across the country, provide a more even coverage between local and national news, and are purported to engage in high-quality journalism. Yellow-press newspapers rely on eye-catching headlines as selling point and their articles are usually not well-researched. As such, yellow-press newspapers are rather a source of entertainment than of political information.

The “Yellow-press newspapers” category includes the six newspapers *Abendzeitung*, *Berliner Kurier*, *Bild*, *B.Z.*, *Express*, *Hamburger Morgenpost*, *Morgenpost für Sachsen* and *TZ*. “National daily newspapers“ are the seven leading national newspapers: *Die Welt*, *Frankfurter Allgemeine*, *Frankfurter Rundschau*, *Handelsblatt*, *Neues Deutschland*, *Süddeutsche*, and *TAZ*. All remaining daily newspapers sold in a municipality that do not match the former criteria are classified as other daily newspapers. Finally, we add one additional category, that of Sunday newspapers. Table E1 provides descriptive statistics on the five categories, subdivided as well by our three samples of municipalities.

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<sup>4</sup> Schütz, Walter J. 2005. *Zeitungen in Deutschland. Verlage und ihr publizistisches Angebot 1949-2004*. Berlin: Verlag VISTAS; Schütz, Walter J. 2005. *Zeitungsatlas 2004*. Berlin: Verlag VISTAS.

TABLE E1—DESCRIPTIVE STATISTICS FOR NEWSPAPER CIRCULATION

	Pre-Internet Period (2000)		Internet Period (2008)		Change	
	Mean (1)	SD (2)	Mean (3)	SD. (4)	Mean (5)	SD. (6)
<u>Panel A: All</u>						
All daily newspapers	61.79	21.91	51.45	21.04	-10.34	18.55
Local daily newspapers	39.21	17.07	32.41	13.86	-6.81	9.37
Other daily newspapers	13.06	21.30	11.91	20.21	-1.15	14.71
National daily newspapers	1.50	2.51	1.32	2.22	-0.18	1.34
Yellow-press daily newspapers	8.21	7.91	5.96	6.26	-2.25	4.61
Sunday newspapers	0.16	0.92	0.59	2.10	0.43	2.13
Observations (number)	11,814					
<u>Panel B: LATE 1</u>						
All daily newspapers	59.08	27.24	50.46	25.20	-8.61	19.72
Local daily newspapers	37.51	16.15	31.97	13.77	-5.54	9.24
Other daily newspapers	14.02	23.94	12.97	22.70	-1.04	15.41
National daily newspapers	1.32	2.01	1.22	2.19	-0.09	1.95
Yellow-press daily newspapers	6.36	8.57	4.39	6.68	-1.97	5.96
Sunday newspapers	0.17	0.99	1.19	2.97	1.02	2.91
Observations (number)	3,319					
<u>Panel C: LATE 2</u>						
All daily newspapers	61.54	28.05	53.29	26.25	-8.25	23.47
Local daily newspapers	38.45	16.85	33.27	14.18	-5.18	10.09
Other daily newspapers	15.06	24.86	14.25	24.16	-0.81	19.44
National daily newspapers	1.45	2.27	1.29	1.72	-0.16	1.53
Yellow-press daily newspapers	6.78	8.44	4.62	6.44	-2.16	6.51
Sunday newspapers	0.19	1.03	0.90	2.72	0.71	2.68
Observations (number)	1,792					
<u>Panel D: LATE 3</u>						
All daily newspapers	58.04	14.25	43.46	10.83	-14.58	9.22
Local daily newspapers	41.37	18.14	31.02	13.51	-10.36	7.76
Other daily newspapers	11.17	18.78	8.25	13.82	-2.92	6.69
National daily newspapers	0.49	0.63	0.58	0.80	0.10	0.81
Yellow-press daily newspapers	5.01	7.00	3.60	5.62	-1.41	4.30
Sunday newspapers	0.06	0.26	0.02	0.19	-0.04	0.21
Observations (number)	1,247					

Notes: Table reports descriptive statistics for the circulation of daily newspapers. Values are in percent unless otherwise specified. “All newspapers” refers to the sum of daily newspapers (excluding Sunday newspapers) circulating in a municipality. “Local daily newspapers” refers to newspapers that focus on local news, whereas “other daily newspapers” have a more even coverage of local and national news. “National daily newspapers” are the seven leading national newspapers: *Die Welt*, *Frankfurter Allgemeine*, *Frankfurter Rundschau*, *Handelsblatt*, *Neues Deutschland*, *Süddeutsche*, and *TAZ*. “Yellow press newspapers” include the six newspapers *Abendzeitung*, *Berliner Kurier*, *Bild*, *B.Z.*, *Express*, *Hamburger Morgenpost*, *Morgenpost für Sachsen*, and *TZ*. Descriptive statistics are reported for all German municipalities in Panel A as well as for the three LATE samples in Panels B-D (cf. Notes to tables 2-4). Due to missings in the newspaper data, we observe 24 municipalities fewer than in the election estimations. For each sample, columns 1 and 2 report means and standard deviations from the pre-Internet period (2000), columns 3 and 4 report the analogous values for the broadband-Internet period (2008), and columns 5 and 6 report changes between the two periods.

## Appendix F: Further Figures and Tables

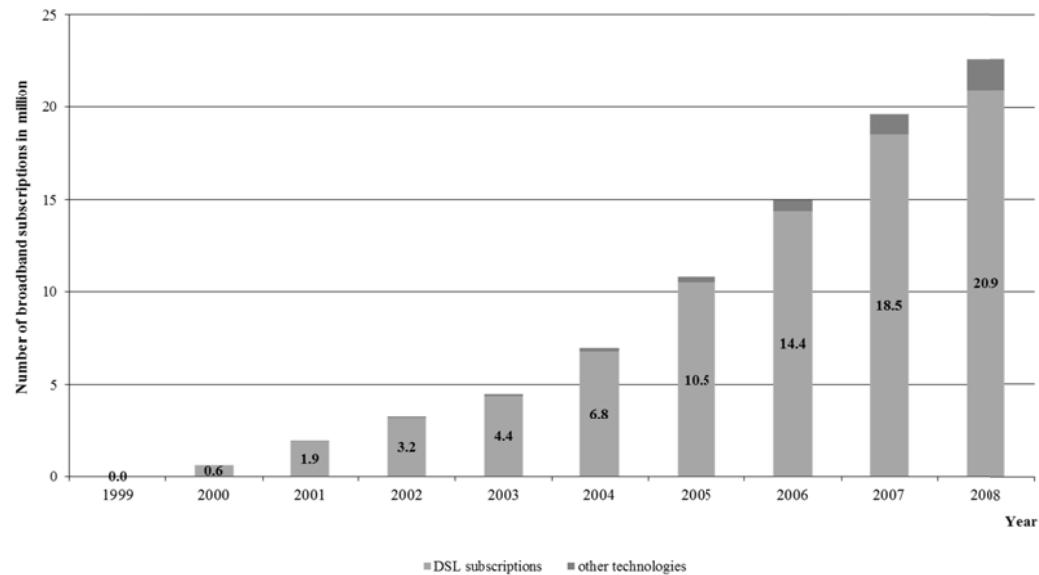


FIGURE F1. BROADBAND SUBSCRIPTIONS IN GERMANY

Notes: Chart shows the evolution of broadband subscriptions in Germany. The lower, lighter bars (and the numbers therein) show the number of DSL subscriptions that are realized via DSL. The upper, darker bars represent the number of broadband subscriptions that are realized via other technologies, mainly via the cable TV network. Source: Bundesnetzagentur. 2012. *Jahresbericht 2011*. Bonn; Kopf, Wolfgang. 2012. "Transitorische oder unendliche Regulierung?" Matthias Kurth and Mathias Schmoeckel (eds), *Regulierung im Telekommunikationssektor: Chancen und Risiken im historischen Prozess*. Tübingen: Mohr Siebeck, 127-141.

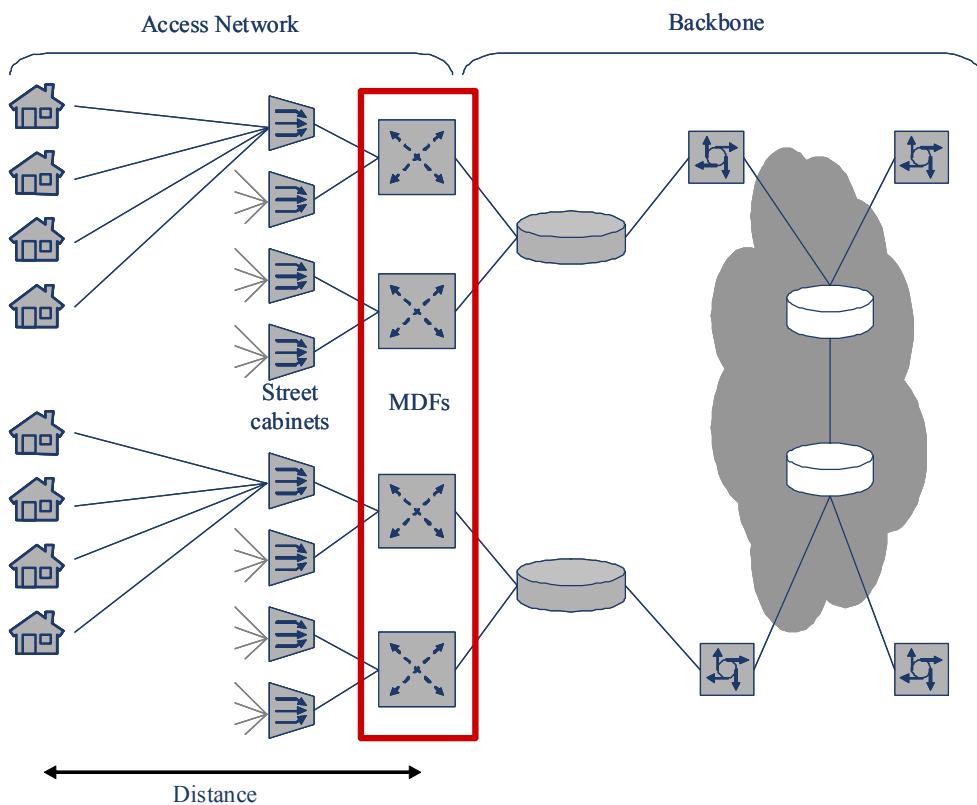


FIGURE F2. THE STRUCTURE OF A DSL NETWORK

Notes: The access network is based on the traditional copper wires of the public switched telephone network (PSTN). The early generations of DSL technology connect the copper wires of the access network to the backbone network at the main distribution frame by means of a Digital Subscriber Line Access Multiplexer (DSLAM). This structure allows bandwidths of up to 16 Mbit/s. For the newer VDSL technology, which allows bandwidths of up to 50 Mbit/s, as well as for areas where the distance between households and MDFs is too long to make DSL feasible, the copper wire between the MDF and a node which is nearer to the household, e.g. a street cabinet, is bypassed by fiber wire, and an (Outdoor-) DSLAM is installed at this node (street cabinet). Source: Anell, Patrick, Stephan Jay, and Thomas Plückebaum. 2007. "Nachfrage nach Internetdiensten – Dienstearten, Verkehrseigenschaften und Quality of Service." wik Discussion Paper 302.



FIGURE F3. SPATIAL DISTRIBUTION OF MDFs IN WEST GERMANY AND OPAL-NODES IN EAST GERMANY

Notes: Map shows the spatial distribution of more than 6,000 main distribution frames (MDF) in West Germany (white) and those nodes that are based on OPAL technology in East Germany (grey). Borders within the map are state borders.

TABLE F1—DESCRIPTIVE STATISTICS OF AVERAGE SOCIO-ECONOMIC CHARACTERISTICS BY HIGH-LOW DSL AVAILABILITY

	Below Median		Above Median		Diff	p-value
	Mean	Std. Dev.	Mean	Std. Dev.	(3)-(1)	
	(1)	(2)	(3)	(4)	(5)	(6)
Female population share	49.85	0.02	50.35	0.02	0.50	0.00
Share of population aged 18-65	65.69	0.06	63.07	0.06	-2.62	0.00
Share of population aged 65 and older	19.32	0.05	18.89	0.04	-0.43	0.00
Daily wage (in 2008 €)	79.91	0.17	89.56	0.14	9.65	0.00
Share of net migration	-0.40	0.02	-0.09	0.01	0.31	0.00
Share of foreigners	1.70	0.04	3.78	0.05	2.07	0.00
Unemployment rate	9.19	0.07	6.05	0.05	-3.14	0.00
Share of unskilled workers	8.48	0.07	10.24	0.06	1.77	0.00
Share of skilled workers	84.40	0.07	80.94	0.08	-3.46	0.00
Share of high-skilled workers	7.12	0.05	8.81	0.07	1.69	0.00
Municipalities (number)	5,915		5,917			

Notes: Table reports descriptive statistics for the LATE 1-3 samples in the Internet period (2004-2008). Values in percent, unless otherwise specified. The first two columns report means and standard deviations averaged over the Internet period (2004-2008) for municipalities with below-median Internet availability, while the third and fourth columns report the analogous values for municipalities with Internet availability above the median. Column (5) reports the difference between (3) and (1), and Column 6 the p-value for an F-test of the equality of means across (1) and (3).

TABLE F2—DESCRIPTIVE STATISTICS LATE 1

	Pre-Internet Period (1995-1999)		Internet Period (2004-2008)		Change	
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)	Mean (5)	Std. Dev. (6)
<i>Outcome Variables</i>						
Voter turnout	75.80	7.36	68.35	9.48	-7.45	6.64
Vote share established parties	88.41	17.98	84.96	18.39	-3.45	7.25
Vote share small parties	8.52	18.71	10.57	19.52	2.05	6.61
Vote share right-fringe parties	2.80	2.94	1.69	1.89	-1.11	2.08
Vote share left-fringe parties	0.28	0.56	2.78	2.84	2.50	2.66
<i>Broadband Internet</i>						
DSL availability (share of households)	0.00	0.00	0.77	0.24	0.77	0.24
Above threshold (share of municipalities)	0.35	0.48	0.35	0.48	0.00	0.00
<i>Control Variables</i>						
Female population share	49.99	2.02	49.99	2.00	0.00	1.22
Share of population aged 18-65	65.58	3.29	62.94	4.99	-2.64	4.77
Share of population aged 65 and older	16.49	3.72	18.76	3.80	2.27	1.89
Real daily wage (in 2008 €)	95.80	6.36	91.59	7.20	-4.21	3.89
Share of net migration	0.45	2.36	-0.12	2.14	-0.57	3.16
Share of foreigners	2.44	2.94	2.44	3.21	0.00	2.10
Unemployment rate	3.93	1.63	4.68	2.13	0.75	1.80
Share of unskilled workers	13.30	5.16	10.93	4.80	-2.37	3.56
Share of skilled workers	81.09	5.43	82.20	5.43	1.11	4.02
Share of high-skilled workers	5.60	3.89	6.86	4.37	1.26	2.40
Municipalities (number)				3,333		
Observations (number)				9,923		

Notes: Table reports descriptive statistics for the LATE 1 sample. Values in percent, unless otherwise specified. LATE 1 refers to the sample where we employ the 4,200m-threshold instrument. It consists of West German municipalities without an own MDF that are actually connected to the closest MDF. The number of observations does not add up to three times the number of municipalities because we have 76 missing observations for local elections in Baden-Wuerttemberg. The first two columns report means and standard deviations for the pre-Internet period (1995-1999), columns 3-4 report the analogous values for the broadband-Internet period (2004-2008), and columns 5-6 report changes between the two periods. DSL availability refers to the years 2005-2008. Control variables in the pre-Internet period refer to the years 1999 (share of foreigners, skills, wages); 2000 (unemployment); or 2001 (remaining variables).

TABLE F3—DESCRIPTIVE STATISTICS LATE 2

	Pre-Internet Period (1995-1999)		Internet Period (2004-2008)		Change	
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)	Mean (5)	Std. Dev. (6)
<u>Outcome Variables</u>						
Voter turnout	76.07	7.51	68.89	9.82	-7.19	6.60
Vote share established parties	85.33	21.82	81.88	22.09	-3.45	8.67
Vote share small parties	11.55	22.77	13.75	23.49	2.20	8.10
Vote share right-fringe parties	2.86	3.00	1.74	1.85	-1.12	2.11
Vote share left-fringe parties	0.26	0.51	2.63	2.62	2.37	2.46
<u>Broadband Internet</u>						
DSL availability (share of households)	0.00	0.00	0.73	0.30	0.73	0.30
“No Closer MDF” (share of municipalities)	0.84	0.37	0.84	0.37	0.00	0.00
<u>Control Variables</u>						
Female population share	49.80	2.03	49.81	2.02	0.02	1.16
Share of population aged 18-65	65.73	2.99	62.35	5.20	-3.38	5.08
Share of population aged 65 and older	16.06	3.43	18.35	3.51	2.29	1.69
Real daily wage (in 2008 €)	95.69	6.24	91.28	7.06	-4.41	3.65
Share of net migration	0.42	2.07	-0.17	1.89	-0.58	2.75
Share of foreigners	2.34	2.64	2.31	2.64	-0.03	1.89
Unemployment rate	3.82	1.55	4.42	2.04	0.60	1.64
Share of unskilled workers	13.34	4.96	10.81	4.44	-2.53	3.23
Share of skilled workers	81.17	4.98	82.37	4.96	1.20	3.62
Share of high-skilled workers	5.49	3.63	6.82	4.09	1.33	2.14
Distance to next urban center (in km)	5.33	0.94	5.33	0.94	0.000	0.000
Distance to actual MDF (in km)	25.99	12.37	25.99	12.37	0.000	0.000
Municipalities (number)			1,800			
Observations (number)			5,362			

Notes: Table reports descriptive statistics for the LATE 2 sample. Values in percent, unless otherwise specified. LATE 2 refers to the sample where we employ the “No Closer MDF” instrument. It consists of West German municipalities without an own MDF that are connected to an MDF above the 4,200m threshold and do not have another MDF less than 4,200m distant. The number of observations does not add up to three times the number of municipalities because there are 38 missing observations for local elections in Baden-Württemberg. The first two columns report means and standard deviations for the pre-Internet period (1995-1999), columns 3-4 report the analogous values for the broadband-Internet period (2004-2008), and columns 5-6 report changes between the two periods. DSL availability refers to the years 2005-2008. Control variables in the pre-Internet period refer to the years 1999 (share of foreigners, skills, wages); 2000 (unemployment); or 2001 (remaining variables).

TABLE F4—DESCRIPTIVE STATISTICS LATE 3

	Pre-Internet Period (1995-1999)		Internet Period (2004-2008)		Change	
	Mean (1)	Std. Dev. (2)	Mean (3)	Std. Dev. (4)	Mean (5)	Std. Dev. (6)
<u>Outcome Variables</u>						
Voter turnout	71.94	9.86	61.92	11.35	-10.02	9.17
Vote share established parties	77.68	28.91	76.26	31.02	-1.42	12.36
Vote share small parties	18.41	30.89	20.17	32.70	1.76	11.87
Vote share right-fringe parties	3.89	4.00	3.43	4.07	-0.47	3.02
Vote share left-fringe parties	0.02	0.09	0.14	0.30	0.13	0.30
<u>Broadband Internet</u>						
DSL availability (share of households)	0.00	0.00	0.56	0.35	0.56	0.35
OPAL MDF (share of municipalities)	0.13	0.34	0.13	0.34	0.00	0.00
<u>Control Variables</u>						
Female population share	49.90	1.93	49.61	1.98	-0.29	1.18
Share of population aged 18-65	69.82	3.22	69.47	3.88	-0.34	2.76
Share of population aged 65 and older	16.77	3.52	19.22	3.81	2.45	1.87
Real daily wage (in 2008 €)	71.58	7.33	68.98	7.23	-2.60	2.99
Share of net migration	-0.35	2.23	-0.68	2.24	-0.33	3.08
Share of foreigners	0.26	0.58	0.27	0.66	0.02	0.76
Unemployment rate	12.04	3.74	13.22	4.40	1.18	2.91
Share of unskilled workers	5.02	3.16	4.50	2.82	-0.52	2.65
Share of skilled workers	87.34	4.65	87.39	4.62	0.06	3.49
Share of high-skilled workers	7.65	4.36	8.11	4.43	0.47	2.42
Municipalities (number)				1,249		
Observations (number)				3,747		

Notes: Table reports descriptive statistics for the LATE 3 sample. Values in percent, unless otherwise specified. LATE 3 refers to the sample where we employ the OPAL instrument. It consists of East German municipalities whose distance to the actual MDF is below 4,200m. The first two columns report means and standard deviations for the pre-Internet period (1995-1999), the third and fourth columns report the analogous values for the broadband-Internet period (2004-2008). The fifth and sixth columns report changes between the two periods. DSL availability refers to the years 2005-2008. Control variables in the pre-Internet period refer to the years 1999 (share of foreigners, skills, wages); 2000 (unemployment); or 2001 (remaining variables).

TABLE F5—REDUCED-FORM RESULTS

	LATE 1 Threshold		LATE 2 “No Closer MDF”		LATE 3 OPAL	
	(1)	(2)	(3)	(4)	(5)	(6)
Δ voter turnout	0.476*** (0.136)	0.502*** (0.136)	0.507** (0.246)	0.457* (0.248)	-0.134 (0.344)	-0.058 (0.343)
Δ vote share established parties	0.179 (0.138)	0.193 (0.137)	0.248 (0.315)	0.285 (0.313)	-0.098 (0.618)	-0.068 (0.618)
Δ vote share small parties	-0.279** (0.122)	-0.284** (0.122)	-0.157 (0.281)	-0.199 (0.278)	-0.010 (0.603)	-0.041 (0.602)
Δ vote share right-fringe parties	0.044 (0.037)	0.039 (0.038)	0.010 (0.095)	-0.017 (0.094)	0.085 (0.136)	0.086 (0.132)
Δ vote share left-fringe parties	0.056 (0.043)	0.051 (0.044)	-0.102 (0.077)	-0.069 (0.074)	0.024* (0.014)	0.023 (0.014)
Control variables	N	Y	N	Y	N	Y
Number of Observations	9,923	9,923	5,362	5,362	3,747	3,747

Notes: Table reports municipality-level pooled regressions for elections at three main levels of governance in Germany, namely federal elections, state elections, and local elections. Each cell shows the coefficient from a separate regression of an election outcome on the respective instrument. Columns 1-2 show first-difference estimates for the LATE 1 sample with the threshold at 4,200m as key explanatory variable; columns 3-4 show the corresponding set of first-difference estimates for the LATE 2 sample with “No Closer MDF” as key explanatory variable, and columns 5-6 show corresponding results for the LATE 3 sample with OPAL as key explanatory variable. The control variables for the three samples and sample definitions are detailed in the notes to tables 2-4. Standard errors are clustered on the municipality level. \*\*\* 1 percent significance level; \*\* 5 percent significance level; \* 10 percent significance level.

TABLE F6—ESTIMATES FOR SINGLE PARTIES AND COALITIONS

	LATE1 Threshold (1)	LATE2 “No Closer MDF” (2)	LATE3 OPAL (3)
<i>Panel A: Party Vote Shares</i>			
Δ vote share CDU	-1.093 (1.158)	-2.028 (2.411)	2.438 (6.353)
Δ vote share SPD	-0.649 (1.088)	-0.255 (1.854)	4.650 (5.026)
Δ vote share FDP	0.424 (0.591)	0.105 (0.977)	-2.130 (3.003)
Δ vote share GRUENE	-0.051 (0.440)	0.078 (0.827)	-0.199 (1.030)
Δ vote share LINKE	-0.370 (0.305)	0.512 (0.535)	-3.910 (3.328)
<i>Panel B: Coalition Vote Shares</i>			
Δ vote share SPD/GRUENE	-0.699 (1.118)	-0.177 (2.002)	4.452 (5.025)
Δ vote share CDU/FDP	-0.669 (1.192)	-1.922 (2.418)	0.308 (6.496)
Δ vote share CDU/FDP/GRUENE	-0.720 (1.180)	-1.844 (2.367)	0.109 (6.518)
Δ vote share SPD/FDP/GRUENE	-0.276 (1.092)	-0.071 (2.113)	2.322 (5.415)
Δ vote share SPD/GRUENE/LINKE	-1.070 (1.085)	0.336 (1.932)	0.542 (5.088)
Δ vote share SPD/LINKE	-1.019 (1.053)	0.257 (1.813)	0.741 (5.067)
<i>First Stage</i>			
Instrument	-0.141*** (0.009)	0.136*** (0.010)	-0.080*** (0.026)
F test of excluded instruments	252.88	180.40	9.54.
Number of observations	9,923	5,362	3,747

Notes: Table reports municipality-level instrumental-variable regressions for single established parties (Panel A) and coalitions (Panel B). Observations are pooled across elections at the three main levels of governance in Germany. Each cell in the upper part of the table shows the coefficient from a separate regression. Columns refer to different models and rows refer to different outcome variables. In the LATE1 sample, the instrument is the threshold dummy at 4,200m; in the LATE2 sample, the instrument is the “No Closer MDF” dummy; and in the LATE3 sample, the instrument is the OPAL dummy. The F test of excluded instruments refers to the Kleibergen-Paap F statistic. A more detailed description of the subsamples and the control variables is provided in the notes to tables 2-4. Standard errors are clustered on the municipality level.  
 \*\*\* 1 percent significance level; \*\* 5 percent significance level; \* 10 percent significance level.

TABLE F7—DESCRIPTIVE STATISTICS SOEP

	Percentage of individuals (1)		Percentage of individuals (2)
<i>Outcome Variables</i>			
TV watching (standardized)	0.00	<i>Control Variables (continued)</i>	
Every day TV watching	83.5	Lower secondary education	35.0
Entertainment working days (hours)	2.29	Medium secondary education	30.2
Entertainment on Saturdays (hours)	3.28	Higher secondary education	27.0
Entertainment on Sundays (hours)	3.91	University of applied sciences degree	8.7
		University degree	12.5
<i>Broadband Internet</i>			
DSL subscription in household	56.1	Apprentice	7.4
Threshold dummy	7.6	Unemployed	5.0
“No Closer MDF” dummy	85.6	Retired	26.5
OPAL dummy	4.3	Blue-collar worker	15.6
<i>Control Variables</i>			
Female	52.4	White-collar worker	32.8
Age (years)	49.45	Entrepreneur	6.3
Married	64.6	First-generation immigrants	10.0
Single	28.7	Second-generation immigrants	5.1
Children in household (number)	0.45	Tenant	45.8
East German	22.4	Household income (log)	7.852

Notes: Values are in percent unless otherwise specified. Sample consists of all adults in SOEP 2008 with available information on the respective variable.