

# Moral Hazard in Electoral Teams: List Rank and Campaign Effort\*

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## Abstract

How do parties motivate candidates to exert effort in closed-list elections, where seat outcomes are uncertain only for candidates in marginal list positions? We argue that parties can solve this moral hazard problem by committing ex ante to allocate higher offices in government, such as cabinet portfolios, monotonically with list rank. Under this schedule of compensation, parties have incentives to rank candidates in order of quality (under some conditions) and candidates have incentives to increase the volume and geo-diversity of their campaign efforts as their rank improves. Using detailed data on Norwegian candidates and their use of mass and social media in recent elections, we confirm that (1) candidate quality increases with list rank, and (2) candidates in safer ranks shift from intra-district to extra-district and national media exposure—a composition of effort that can increase their party’s chance of entering government, and thus their own potential share of the spoils.

*Keywords:* party lists; cabinet promotion; Gamson’s law; proportional representation; campaign effort; campaign media.

*JEL Classification:* D72

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## Appendix A: Formal description of theory

See the main article for Appendix A, which provides a formal description of the theory.

## Appendix B: Supplementary information

Table B.1: Summary statistics on earnings score for candidates

<b>Election year</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Candidates (N)</b>	<b>Population (N)</b>	<b>Match rate w/ Statistics Norway</b>
1997	0.212	0.869	1,464	3,340,844	70%
2001	0.233	0.871	1,572	3,403,416	78%
2005	0.212	0.659	1,814	3,481,427	88%
2009	0.290	1.009	2,153	3,626,318	100%
2013	0.295	1.068	2,175	3,838,685	100%
2017	0.276	1.007	2,458	4,086,932	100%

*Note: The table displays summary statistics for the earnings scores. The scores derive from annual Mincer regressions on personal income levels (wage incomes plus net firm revenues) estimated on the entire population (aged 18 and above). The earnings scores are measured as standardized residuals with a population-wide mean of 0 and a standard deviation of 1. Candidates are individuals who were running for one of the nine main parties in the relevant parliamentary election. For previously unelected candidates, we use data from the year before the relevant election. For previously elected candidates (including candidates elected as the first deputy MP) we use data from the year before their first successful election. Earnings scores for candidates are defined by the average scores in years before candidates were elected to parliament. The match rate indicates the percentage of candidates identified with earnings scores in the register data.*

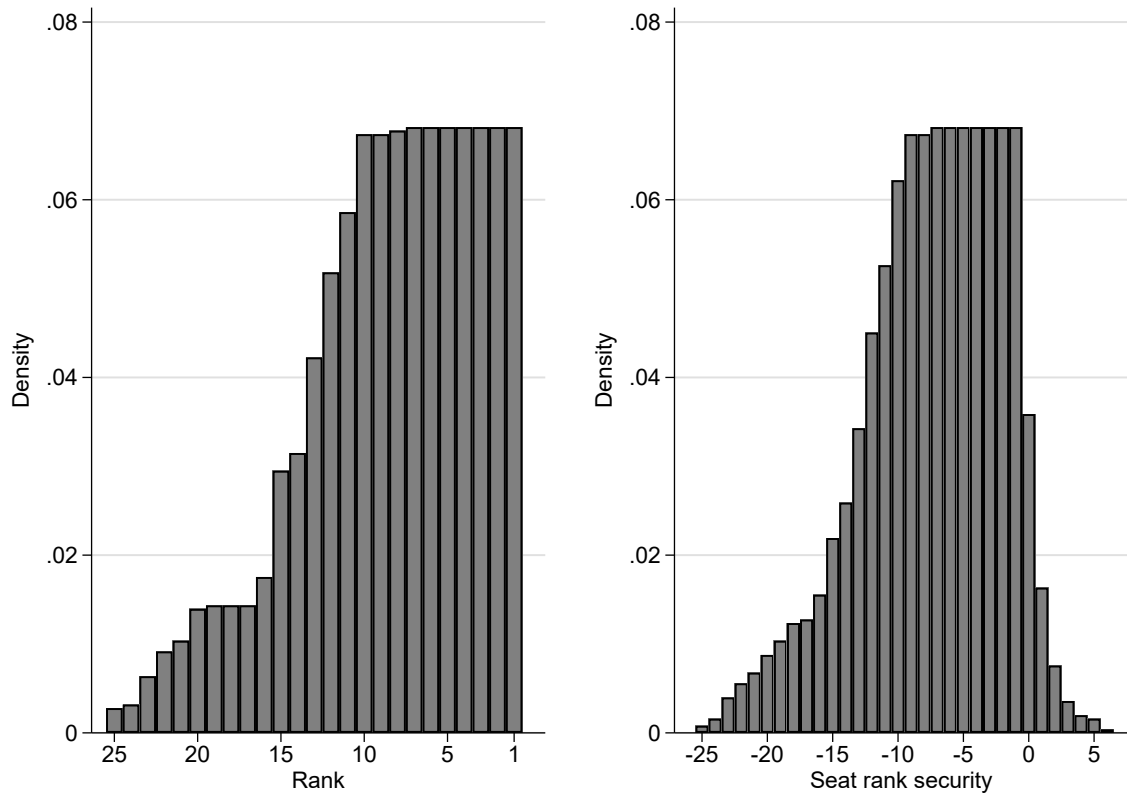


Figure B.1: Histograms for rank and seat rank security

*Note: The sample is limited to the nine main parties participating in the 2017 Norwegian Parliamentary election ( $N=2,487$ ). A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election.*

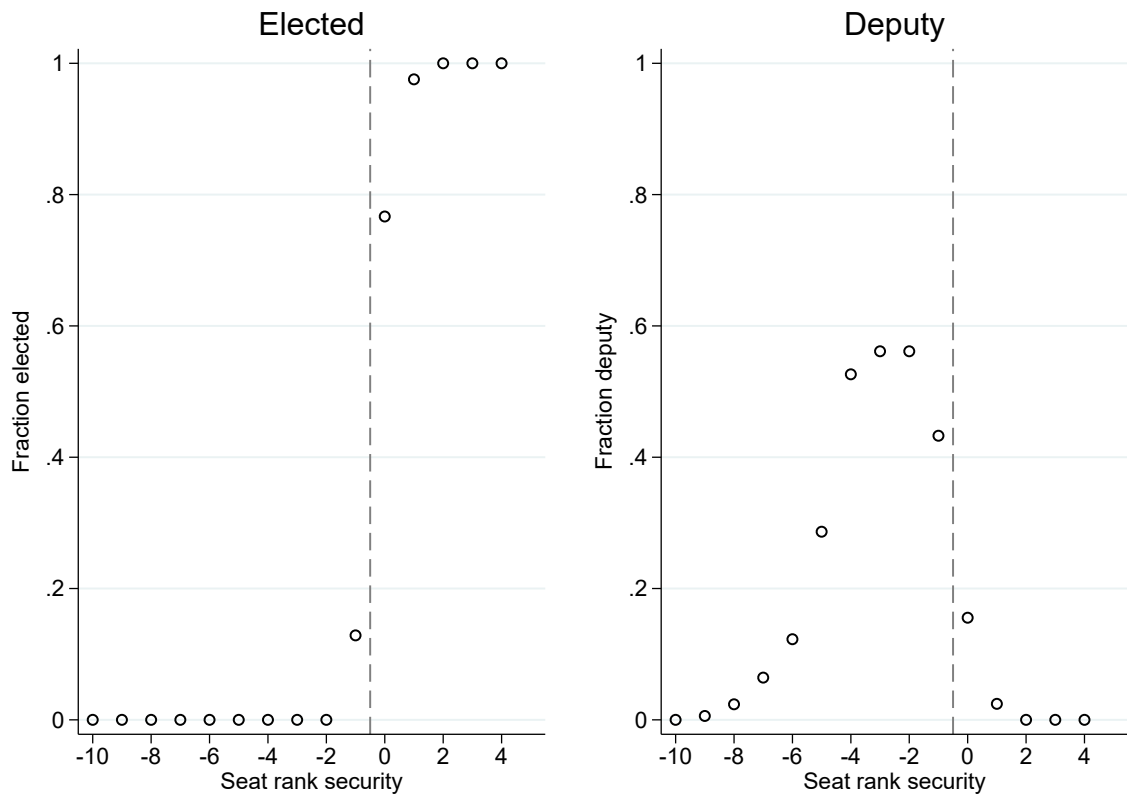


Figure B.2: Election outcomes by seat rank security

*Note: The left-hand panel (right-hand panel) displays the fraction of candidates elected (elected as deputy) by candidate's seat rank security. A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election. The x-axes are censored at  $-10$  and  $+4$ .*

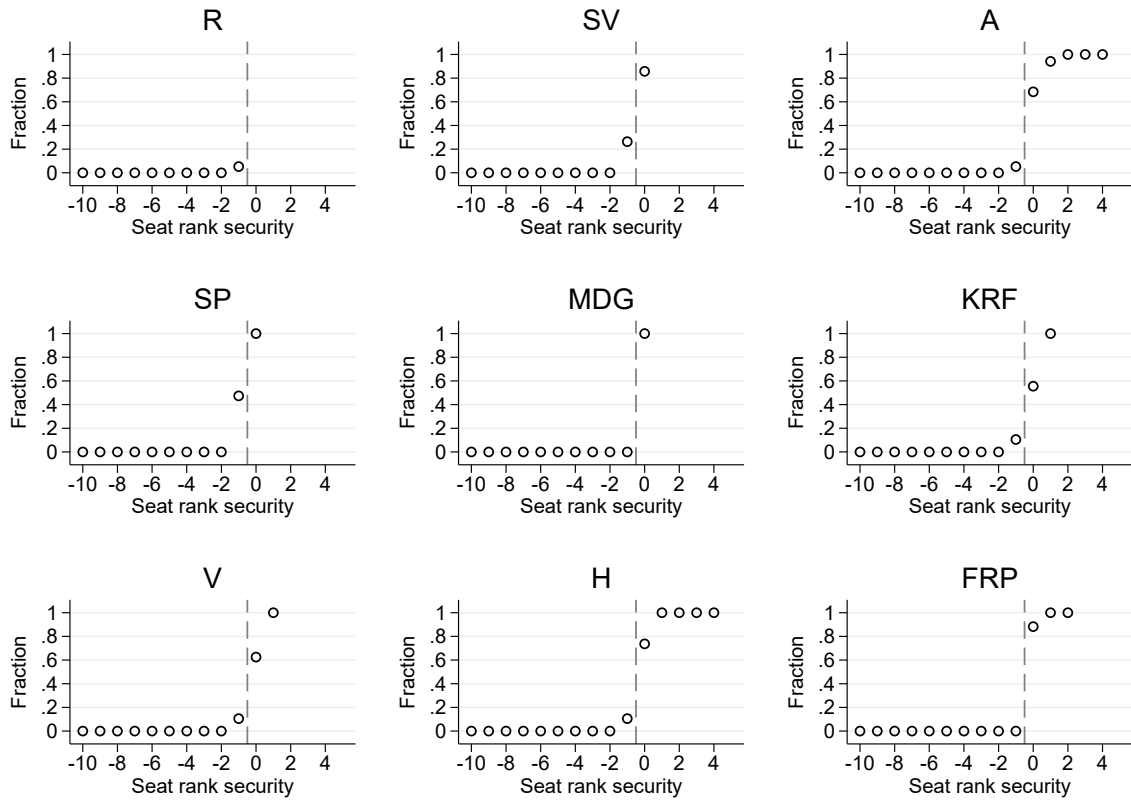


Figure B.3: Fraction of candidates elected by seat rank security and party

*Note:* For each of the nine main parties, this figure plots the fraction of candidates elected by seat rank security ( $N=2,487$ ). A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election. The nine main parties are the Red Party (R), Socialist Left Party (SV), Labor Party (A), Center Party (SP), Green Party (MDG), Christian Democratic Party (KRF), Liberal Party (V), Conservative Party (H), and Progress Party (FRP). The x-axes are censored at  $-10$  and  $+4$ .

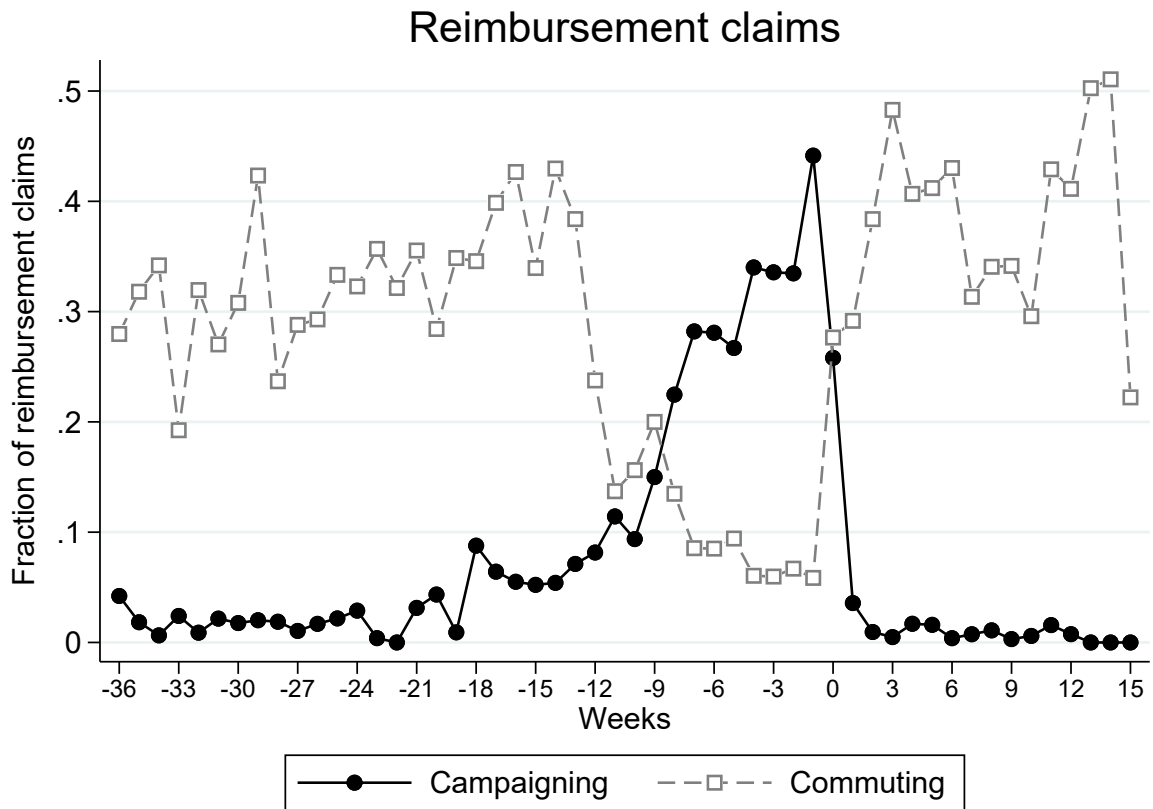


Figure B.4: Reasons for reimbursement claims over time

*Note: This figure displays the fraction of reimbursement claims made for campaigning and commuting, respectively, over time. The sample covers all reimbursement claims made in the 2017 calendar year. Election day is in week 0. We classify a reimbursement claim as campaigning if the reason given includes “election” (“valg”), “booth” (“stand”), or “door” (“dør”). We classify a reimbursement claim as commuting if the reason given includes “commute” (“pendle”) or “Starting.”*

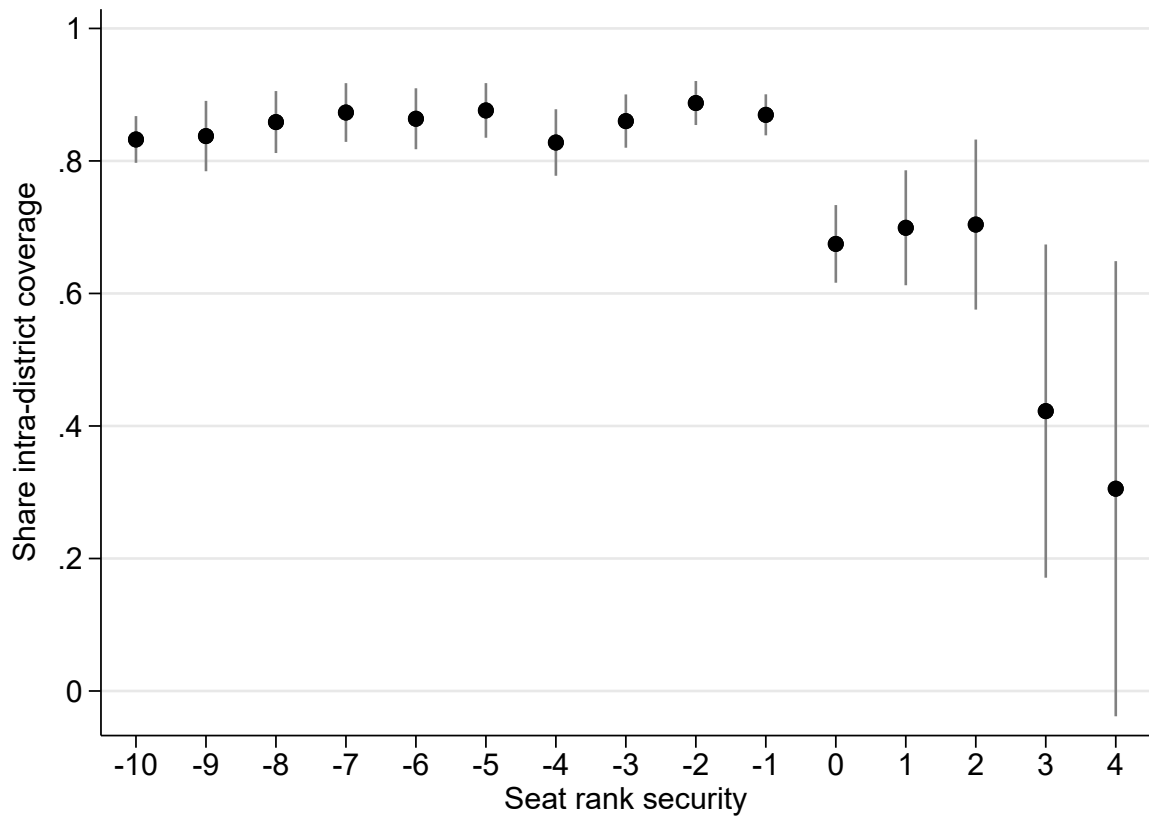


Figure B.5: Mean share of mass media coverage that is within-district, by list rank, excluding national media

*Note: Sample restricted to the hundred days leading up to the election day. National media outlets are excluded. A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election. The x-axes are censored at -10 and +4.*



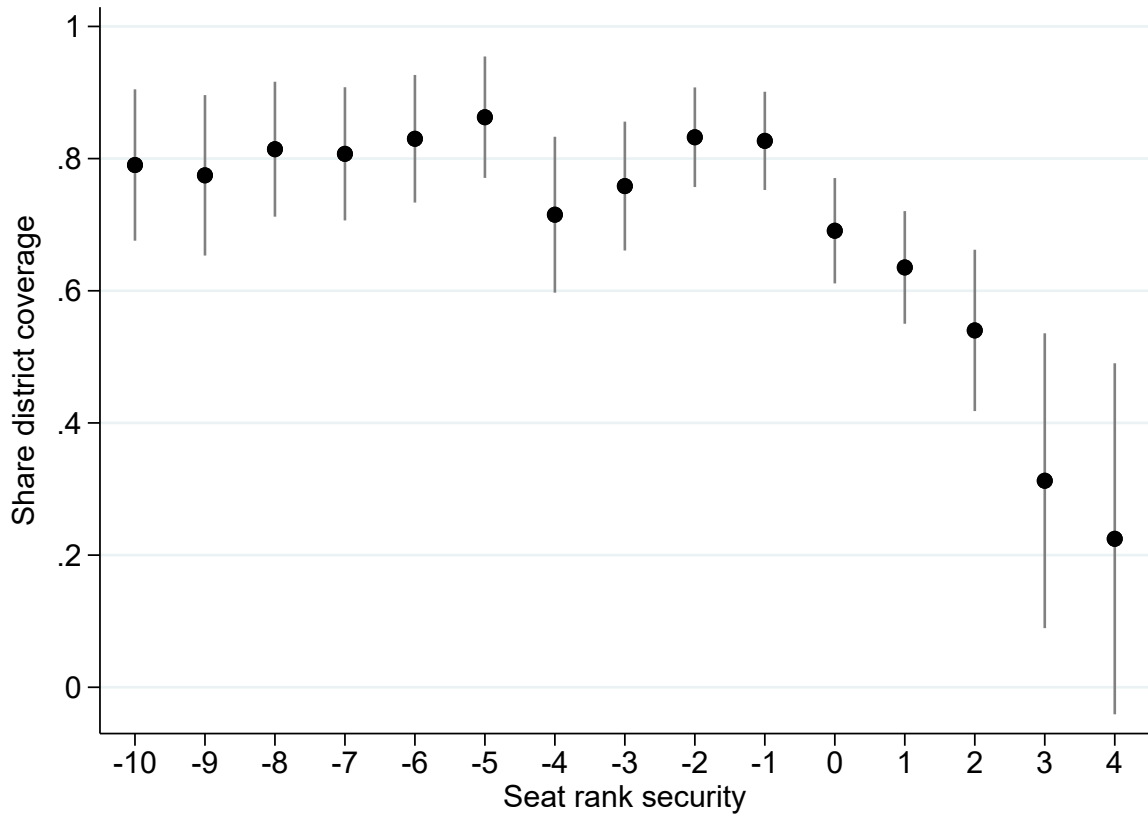


Figure B.6: Mean share of mass media coverage that is within-district, by list rank, for the two largest parties

*Note: Sample restricted to the hundred days before election day and to candidates ( $N=564$ ) running for one of the two largest parties (Labor and Conservatives). A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election. The x-axis are censored at  $-10$  and  $+4$ .*

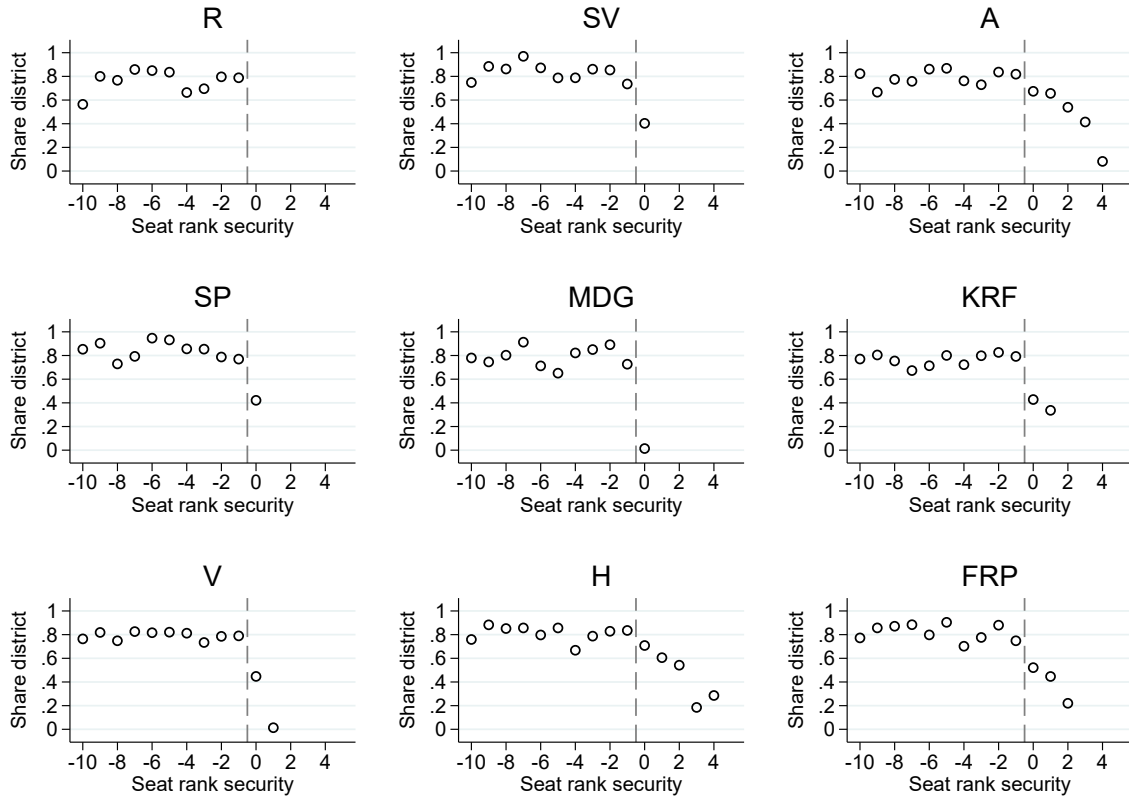


Figure B.7: Within-district media coverage by party and seat rank security

*Note:* For each of the nine main parties, this figure plots the mean share of mass media coverage that is within-district by seat rank security ( $N=2,487$ ). A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election. The nine main parties, with number of hot/safe candidates in parentheses, are the Red Party (R; 0), Socialist Left Party (SV; 7), Labor Party (A; 55), Center Party (SP; 10), Green Party (MDG; 1), Christian Democratic Party (KRF; 10), Liberal Party (V; 9), Conservative Party (H; 48), and Progress Party (FRP; 29).

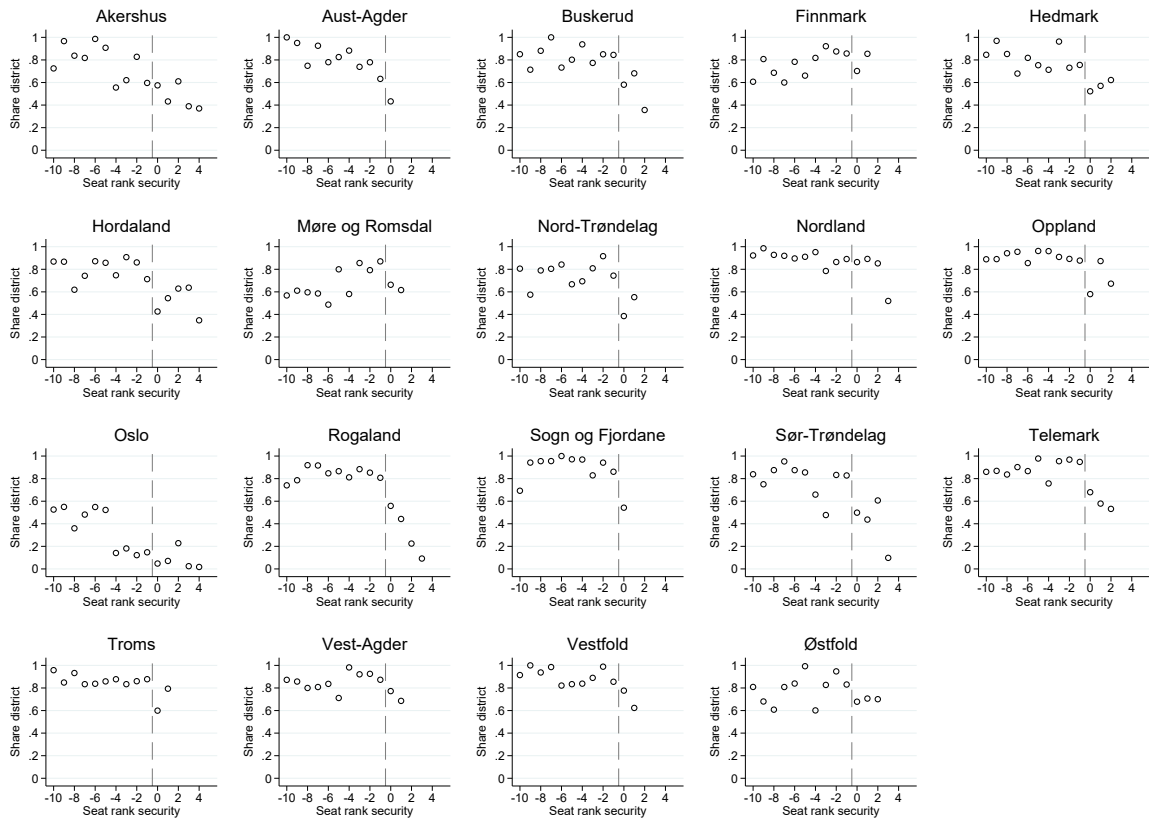


Figure B.8: Within-district media coverage by district and seat rank security

*Note:* For each of the nineteen districts, this figure plots the mean share of mass media coverage that is within-district by seat rank security ( $N=2,487$ ). A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election.

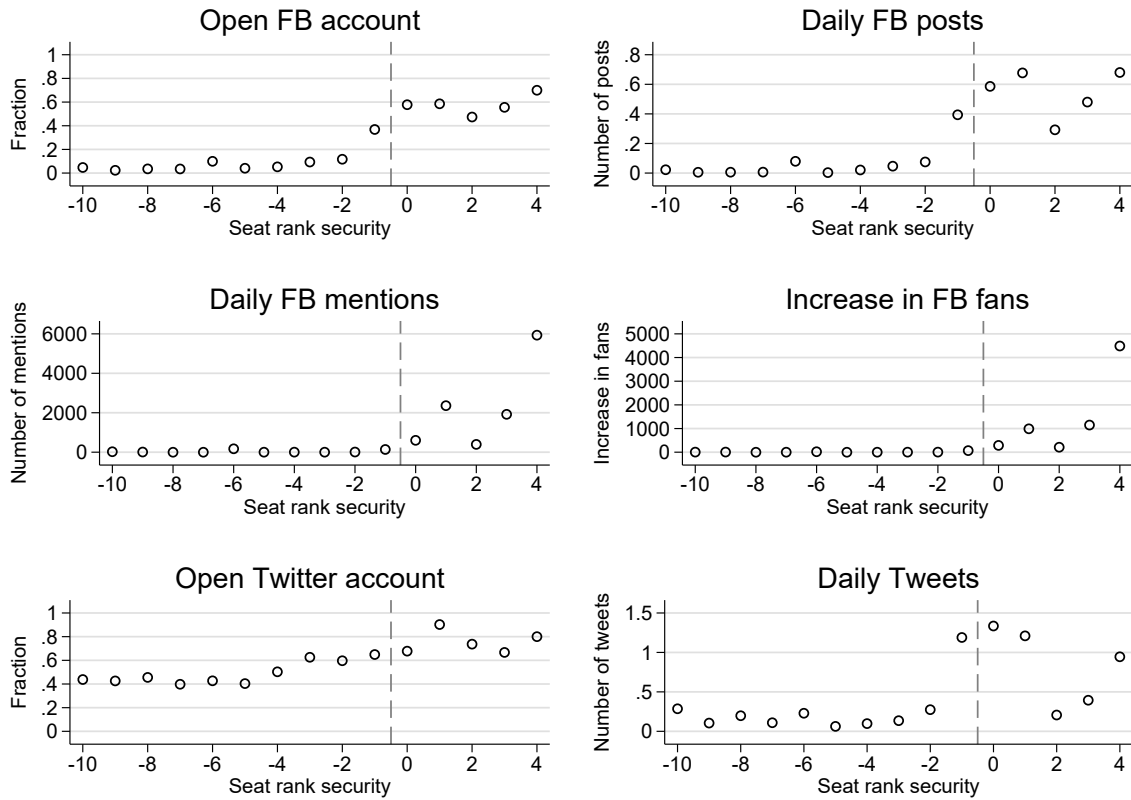


Figure B.9: Supplementary social media outcomes by candidate electoral viability  
*Note:* Sample restricted to the hundred days before election day and to candidates ( $N=2,487$ ) running any of the nine main parties. A candidate's seat rank security is defined as the number of seats won by his or her party in the last election (in a given district), minus the candidate's rank on the list in the current election. The x-axes are censored at  $-10$  and  $+4$ .

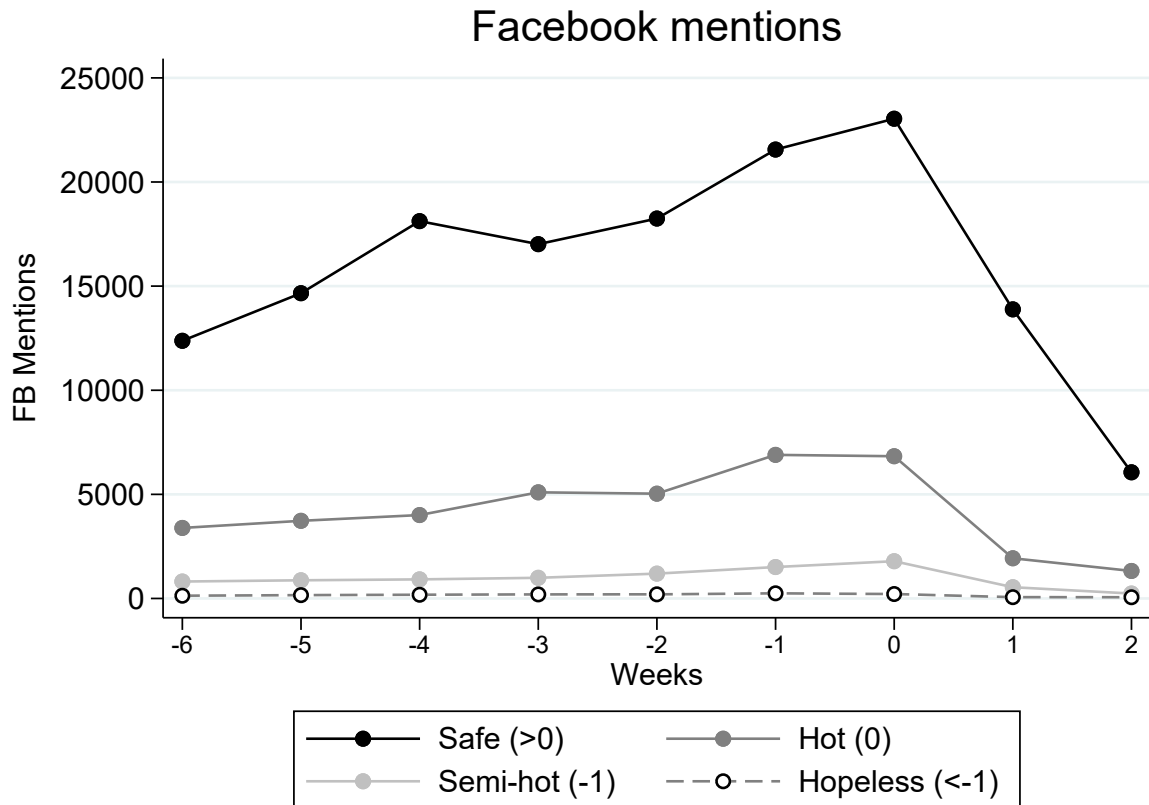


Figure B.10: Facebook mentions over time by candidate electoral viability

*Note: This figure displays candidates' Facebook mentions over the campaign period by candidates' electoral viability using four categories: Safe candidates (seat rank security > 0); Hot (seat rank security 0); semi-hot (seat rank security of -1) and hopeless (seat rank security < -1). Candidates without open Facebook accounts have zero mentions.*

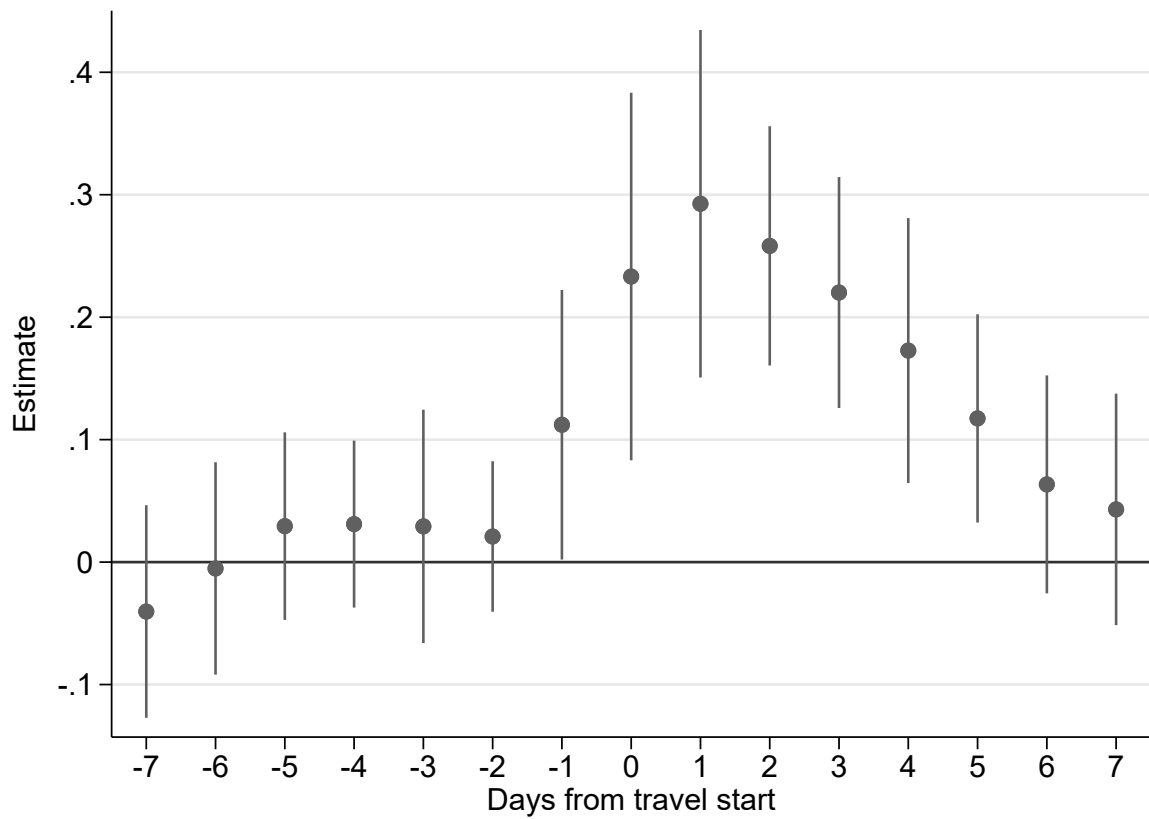


Figure B.11: Incumbents' travel behavior and media coverage

*Note: This figure displays estimated coefficients and 95% error bars from a candidate-district fixed effect model. This model relates candidate trips to district  $d$  starting at day 0 to media coverage of the candidate in district  $d$  in a fifteen-day window surrounding the start of the trip ( $N=100$ ). Candidates from Oslo, as well as trips to Oslo (where the parliament is located) are excluded. Cabinet ministers and outgoing politicians are not included.*

## Appendix C: Traditional and social media data

By international standards, Norway has a high newspaper penetration,<sup>1</sup> and local newspapers remain a key source of information on local candidates. While print subscriptions have declined, digital subscriptions have increased.<sup>2</sup> Survey data from 2017 show that 81% of respondents use Facebook, 50% use Snapchat or Instagram, and 30% use Twitter.<sup>3</sup> The 2017 National Election Surveys show that traditional media remains the main source of information during national election campaigns, and that social media only plays a small role.<sup>4</sup>

### *Social media*

With the help of research assistants, we identified publicly accessible Twitter and Facebook accounts for candidates running for any of the nine main parties (N=2,487).<sup>5</sup> Using this information, the media consultancy firm *Retriever* (<http://www.retriever.no>) established a search engine to collect the relevant activities in each social media account. The social media data cover the nine-week period from Sunday, July 30, to Saturday, September 30. The dataset includes information on whether the candidate had a publicly accessible Twitter account, the daily number of likes, followers, tweets, and retweets. Similarly, the dataset includes information on whether the candidate had a publicly accessible Facebook account, the daily number of post, likes, fans, and mentions. Due to some data issues at *Retriever*, we lack social media data for the periods August 22–25,

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<sup>1</sup>For documentation, see <https://www.nationmaster.com/country-info/stats/Media/Newspapers-and-periodicals/Circulation/Daily/Per-capita>.

<sup>2</sup>For further information on media and digital subscriptions, see <http://www.digitalnewsreport.org/survey/2017/norway-2017/>.

<sup>3</sup>For further information on the survey, see <https://www.statista.com/statistics/738948/social-media-usage-in-norway-by-platform/>.

<sup>4</sup>For further documentation, see the online analysis facility at NSD – Norwegian Center for Research Data, <https://nsd.no/nsd/english/>.

<sup>5</sup>We exclude candidates from minor lists, none of which have won any seats in parliament since 2000 (1,930 candidates). We also exclude the Liberal Party in *Vest-Agder* and *Aust-Agder*, because they run with an identical list of candidates in these districts. The nine main parties, ordered along the left-right dimension, are: *Rødt* (R), *Socialist Left Party* (SV), *Labor Party* (A), *Center Party* (SP), *Greens* (MDG), *Christian Democratic Party* (KrF), *Liberal Party* (V), *Conservative Party* (H), and *Progress Party* (FrP).

August 30–September 6, and September 8–9. For these periods, we interpolate the data.

### *Traditional media*

*Retriever* has access to an (extended) version of the media archive *Atekst*. The database has comprehensive coverage of all news stories appearing in newspapers on the web and in print, as well as stories in radio and TV (advertisements are excluded).<sup>6</sup> Using the names and party affiliations of candidates, *Retriever* generated a dataset on daily media appearances for all candidates in each outlet. These data cover the eighteen-week periods surrounding the 2013 and 2017 elections (May 26–September 28, 2013; May 28–September 30, 2017) and include information on the headquarter locations of the various media outlets (we manually supplement the data in instances where this information is missing).

In the 2017 time window, there are 943 outlets mentioning any candidate (31% print; 62% web; 4% radio; and 3% TV). Across outlets, the average number of overall candidate mentions is 276 (standard deviation = 485). We follow *Retriever*'s classification of media outlets with a local vs. national reach, and supplement this classification wherever necessary.

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<sup>6</sup>For documentation, see <https://web.retriever-info.com/services/archive.html>.