

*Torun Dewan, Christopher Kam, Jaakko  
Meriläinen, and Janne Tukiainen*  
**Candidate Exit and Voter Loyalty  
during Early Democratization**

**Aboa Centre for Economics**

Discussion paper No. 178

Turku

March 2026

The Aboa Centre for Economics is a joint initiative of the  
economics departments of the University of Turku and  
Åbo Akademi University.



Copyright © Author(s)

ISSN 1796-3133

Printed in Uniprint  
Turku  
March 2026

*Torun Dewan, Christopher Kam, Jaakko Meriläinen,  
and Janne Tukiainen*

## **Candidate Exit and Voter Loyalty during Early Democratization**

**Aboa Centre for Economics**

Discussion paper No. 178

March 2026

### **ABSTRACT**

Hirschman's Exit, Voice, and Loyalty (1970) proposed that organizations persist when loyalty tempers incentives to exit after adverse shocks. We test this argument using newly digitized individual-level voting records from 28 English constituencies (1832-1868), covering 134,000 real votes. Voters could exit by switching parties, use voice by splitting their two votes between opposing parties, or remain loyal. Exploiting favorite candidates' exit as a negative shock to the choice set, we show that candidate exits increased party switching more than expressing voice. We show that candidate exit initially induces substantial voter exit and voice, especially among Liberal voters, but that these responses attenuate sharply by the mid-1860s, consistent with the consolidation of party organizations and the emergence of durable partisan loyalty.

JEL Classification: D72, N43, P00

Keywords: candidate turnover, electoral volatility, exit-voice-loyalty, party loyalty, political development, vote switching, voting behavior

## **Contact information**

Torun Dewan

Department of Government, London School of Economics and Political Science

Email: T.Dewan(at)lse.ac.uk

Christopher Kam

Department of Political Science, University of British Columbia

Email: chris.kam(at)ubc.ca

Jaakko Meriläinen

Department of Economics, Stockholm School of Economics

Email: jaakko.merilainen@hhs.se

Janne Tukiainen

Department of Economics, Turku

Email: janne.tukiainen@utu.fi

## **Acknowledgements**

We thank Toke Aidt, Tore Ellingsen, Patrick Kuhn, Tine Paulsen, Pau Vall Prat, Nick Vivyan, Ekaterina Zhuravskaya, and participants at the Virtual Historical Political Economy Workshop 2024, EPSA 2021 and 2023, and the 2024 Annual Congress of the IIPF for helpful feedback. Jaakko Niskakangas, Vinski Pyykönen, and Rami Rakkolainen provided excellent research assistance. This research is funded by the European Union (ERC, INTRAPOL, 101045239). Views and opinions expressed are only those of the authors, however, and do not necessarily reflect those of the European Union or the European Research Council. Neither the European Union nor the granting authority can be held responsible for them.

# 1 Introduction

How do individuals’ responses to shocks shape the stability of collective organizations? Understanding why some members remain loyal while others abandon a group after adverse events is central to the persistence of firms, unions, parties, and states. When shocks alter members’ immediate payoffs, loyalty can provide a stabilizing force that limits exit and allows institutions to endure. Yet despite its importance in theories of institutional persistence, loyalty is rarely observable, and direct evidence on how it evolves in response to shocks remains limited.

The emergence of political parties provides a vivid case in which these mechanisms can be studied. Party formation was a defining transformation of modern democracy and a cornerstone in the development of representative institutions and programmatic policymaking (Lipset and Rokkan 1967; Duverger 1954; Aldrich 1995). Early parties were loose coalitions of influential figures, held together by personal ties and broad ideological sympathies (Ostrogorski 1902). Over time, these factions evolved into stable organizations with structured leadership, clear policy platforms, and enduring voter bases (Cox 1987). Understanding how such attachments formed is central to the economics of institutions: persistent political preferences underpin the stability of governments, shape policy, and influence long-run development (North 1990; Przeworski 2000; Acemoglu and Robinson 2006).

We study this transformation from a bottom-up perspective, focusing on how voters responded to shocks in their electoral choice set. To organize our analysis, we draw on Albert O. Hirschman’s seminal book *Exit, Voice, and Loyalty* (Hirschman 1970), originally proposed as an economic model of organizational behavior. Hirschman argued that dissatisfied members can react to decline by expressing complaints (*voice*), switching to an alternative (*exit*), or remaining attached despite discontent (*loyalty*). Although loyalty may appear irrational, Hirschman viewed it as functionally valuable: it tempers exit and thereby stabilizes organizations. His framework captures a broad range of mechanisms familiar in economics—for example, citizens “voting with their feet” in fiscal federalism (Tiebout 1956; Kleven et al. 2020); worker voice through unions (Freeman 1976, 1980); consumer complaints in industrial organization (Maute and Forrester 1993; Gans, Goldfarb, and Lederman 2021); and shareholder activism in corporate governance (Gantchev 2013; Broccardo, Hart, and Zingales 2022). Across these literatures, exit and voice are well studied, but loyalty typically appears only implicitly or as a residual category.

Our study provides a rare empirical settings in which loyalty can be directly observed and its response to shocks measured (we will also have something to say about voice). Politics

offers a natural arena where loyalty can operate independently of switching costs or product differentiation: partisans may persist in supporting a party even when candidates change or short-term payoffs deteriorate. We test Hirschman’s conjecture that loyalty can “stem the flow of exit” using data from nineteenth-century Britain, a period when party attachments were first taking shape.

The British parliamentary system is an ideal setting for this analysis. Loyalty was a defining feature of its constitutional order: members of both houses pledged loyalty to the Crown; the government faced a “Loyal Opposition”; and by the mid-nineteenth century, elected representatives were largely loyal to emerging parties, producing a two-party division between Conservatives and Liberals. As Cox (1987) shows, this development was underpinned by changing voter behavior—shifts from candidate-based to party-based voting. We contribute by showing that voters did not merely become partisan but also developed loyalty to parties, a behavioral foundation that stabilized Britain’s political system.

Our empirical setting uniquely allows us to explore Hirschman’s framework in full. Because voting was public until 1872, we observe individual ballot choices and can trace voters across elections.<sup>1</sup> We have digitized poll-book data from 105 parliamentary elections held in 28 English constituencies between 1832 and 1868 covering roughly 134,000 votes. Following the exit of a previously preferred candidate, voters can react in three ways. They may remain *loyal* by continuing to support the same party; they may *exit* by switching to the opposing party; or they may express voice by reducing their level of partisan support without fully abandoning their prior side. Because voice is not directly observable in historical elections, we proxy for it using cross-party split-ticket voting. In two-member constituencies, each voter could cast up to two votes. Casting both votes for one party—or “plumping” a single vote—confers a clear partisan advantage and corresponds to full support. By contrast, casting one vote for each party withholds that advantage while still maintaining a link to the voter’s previous camp. Voice, as we proxy it, is thus somewhat akin to a protest vote in today’s parlance.

With these measures at hand, we document a strong persistence in vote choices using our poll book data. That is, there were large groups of voters who remained loyal to Conservatives or Liberals between consecutive elections. Such voters constituted more than half of all repeated voters and this share remained stable throughout our sample period. At first glance, loyalty was a prevalent feature in these elections. Nonetheless, about a quarter of voters in our data changed their partisan vote choice between two consecutive elections. So

---

<sup>1</sup>Another obvious advantage of the individual-level records is that they help us avoid reporting biases in surveys and ecological inference problems associated with the use of aggregate data.

it would appear that over the period of our analysis, while loyalty to party was a strongly expressed sentiment, exit was still used to show discontent or a relative preference for an alternative.

While we can measure and observe loyalty in our data, we must take a further step in order to identify an effect of loyalty that is consistent with Hirschman's claim. To see why, note that a voter may vote consistently for the same party despite party and not because of it. This can arise when a voter has a strict preference for the candidates one party has to offer over another. Such a voter would not be expressing loyalty in the sense of an ostensibly irrational attachment to a team. An interpretation of Hirschman within our context is that a voter would essentially delegate their choice to the party irrespective of the candidates on offer (of course, there may be many rational reasons for them to do so). Equivalently a loyal supporter of a football team gives his support irrespective of the players who wear the club jersey. Were they not to do so and to change allegiance if one of their favorite players leaves, then they would be seen (by fellow supporters) as disloyal.

We therefore conceptualize loyalty not as the repetition of past behavior, but as a residual preference for a party that persists despite negative shocks to the candidate menu. Building on this interpretation and to distinguish party loyalty in our data, we exploit the exit of a voter's previously supported candidate—for example, through death, retirement, or accession to the House of Lords—as (in expectation) a negative shock to his choice set. From an individual voter's point of view, the exit of his previously preferred candidate is uncontrollable and potentially unexpected at the time of voting for that candidate.

A central implication of Hirschman's framework is that the behavioral response to shocks depends on the organizational strength of the institution to which individuals are attached. When organizations are weak and loosely structured, dissatisfaction is more likely to translate into exit or voice; as organizations consolidate and loyalty strengthens, these responses should attenuate. We apply this insight to the historical development of British political parties. Importantly, this process of organizational consolidation was uneven across parties. The Conservative Party developed stronger national coordination, parliamentary discipline, and local associations earlier than its Liberal counterpart, which remained factionalized well into the mid-nineteenth century (Gash 1977; Parry 1993). As party organizations became more cohesive over time—through stronger parliamentary discipline, clearer partisan identities, and increasingly coordinated electoral competition—voters' responses to candidate exit should weaken. This logic yields a sharp empirical prediction: the impact of candidate exit on voter behavior should be strongest early in the period and decline as party organizations consolidate.

Our empirical design leverages individual-level panel data and includes constituency-election year fixed effects, allowing us to hold past voting behavior fixed and compare changes in individual voter behavior within the same local electoral context by controlling for unobserved, time-varying constituency-level factors that might jointly affect candidate exit and vote switching.<sup>2</sup> This design allows us to test Hirschman’s conjecture that loyalty persists even when individual candidates change, functioning as an attachment to the party itself. Whereas they choose from the same menu of parties in consecutive elections, the set of candidates can differ as candidates exit between elections.

Indeed, the group of voters faced with an exit of their previously preferred candidate is more likely to change their vote choice between two consecutive elections (by about 11 – 15 percentage points, depending on the specification). Focusing on a subsample of voters who previously cast a straight Conservative or Liberal vote, we show that voters of exiting candidates become significantly more likely to express “exit” through switching parties. We find a smaller effect for expressing “voice” through split voting—that is, casting one vote to a Conservative candidate and one vote to a Liberal candidate—and no effect on being observed also in the next poll book which we take as a proxy for voter turnout.<sup>3</sup> These effects, however, diminish over time so that by the end of our time frame we observe no effect of candidate exit on voter exit. This change in behavior over time is more pronounced for the Liberal party voters, consistent with the strong Conservative party organization and voter discipline preceding that of the Liberals.

This temporal pattern is central to our interpretation. In the earlier decades we study, British parties remained weakly institutionalized, with electoral competition organized around prominent individuals rather than cohesive organizations. In such an environment, the exit of a previously supported candidate constituted a meaningful disruption to voters’ choice sets, triggering exit or voice in the sense of (Hirschman 1970). As party organizations strengthened over time—through clearer partisan identities, greater parliamentary discipline, and increasingly coordinated electoral competition—voters became less sensitive to candidate-level shocks. Loyalty increasingly attached to parties rather than individuals, dampening both exit and voice. In this sense, the disappearance of exit responses by the mid-1860s reflects not merely voter inertia but the consolidation of party organizations capable of sustaining stable partisan attachments.

---

<sup>2</sup>In some specifications, we also exploit the panel nature of our data by controlling for voter fixed effects and performing within-voter analysis.

<sup>3</sup>While voice is more difficult to measure in our context beyond split-ticketing, historical accounts indicate that constituency-level activism and voter pressure influenced party platforms, reinforcing the role of voters in shaping party structures from below (Hanham 1959; Biagini 1992). The stabilization of the British two-party system was thus not merely imposed from above, but at least partially a result of the micro-level decisions of voters, whose persistent partisan behavior helped shape the contours of electoral competition.

Finally, we study which heterogeneous factors might impact this development. We find that the effects are stronger (i) for voters of losing candidates, (ii) for split voters, and (iii) when candidate exit results in a change in voters' vote options. When a voter's previously preferred candidate does not re-run, there are also implications for vote choices. We see no effects on split voting, but voters who voted for an exiting candidate in the previous election are less likely to cast a Liberal vote and more likely to cast a Conservative vote, on average. Furthermore, studying the personal characteristics of electoral candidates, we see that a vote for an exiting candidate makes a voter less likely to vote for incumbent and aristocratic candidates, suggesting broader re-evaluations of political attachments rather than simple substitution.

**Contributions and related literature** Our main contribution is twofold. First, we provide one of the few empirical settings where Hirschman's full framework—exit, voice, and loyalty—can be observed simultaneously at the individual level. Economists have fruitfully applied Hirschman's model in labor markets, consumer choice, and fiscal federalism. Yet across these domains the loyalty margin has remained largely theoretical or implicit. By exploiting candidate exits as shocks to voters' choice set, we isolate the role of loyalty in sustaining partisan attachments, moving beyond descriptive correlations to provide causal evidence consistent with Hirschman's conjecture.

Second, we contribute to the political economy of democratization by clarifying the interaction between voter behavior and party organizational development in the stabilization of party systems. Much of the literature emphasizes elite coordination, institutional constraints, and franchise extensions (Acemoglu and Robinson 2000, 2006; Lizzeri and Persico 2004; Aidt and Franck 2015), while historical accounts of Britain highlight institutional innovations that stabilized parliamentary government (Cox 1987). We complement this work by showing how voter exit, voice, and loyalty responded to candidate-level shocks when party organizations were weak, and how the subsequent strengthening of party organizations facilitated more durable partisan attachments over time. Using newly digitized poll books from 1832–1868, we demonstrate that party system consolidation at least partially emerged from a feedback process in which organizational capacity and individual loyalty mutually reinforced one another.

The literature on party development stresses elite coordination and institutional constraints (Ostrogorski 1902; Cox 1987; Kam and Newson 2020; Cox and Nowacki 2023). However, our analysis indicates that party formation was not only a top-down process driven by elites but also a bottom-up evolution shaped by voter behavior. As candidate

exit disrupted established voter-party linkages, some voters abandoned their partisan alignment while others remained loyal, reinforcing the emerging party structure.

This pattern aligns with broader theories of party system institutionalization, which suggest that cohesion and discipline emerged in response to electoral volatility and shifts in candidate composition (Mainwaring and Scully 1995). Over time, as partisan identities strengthened, the impact of candidate turnover on voter choices diminished, supporting Hirschman (1970)’s conjecture that loyalty can stem the flow of exit. As such, our analysis speaks to a general mechanism in the economics of institutions: loyalty provides a buffer that stabilizes collective organizations by dampening exit in the face of negative shocks.

## 2 Background and Institutional Context

We start by describing the background and institutional environment of our study—namely, elections in Victorian England. For further information on the electoral context, see for example Mitchell (2008).

### 2.1 Party Loyalty in Democratic Systems

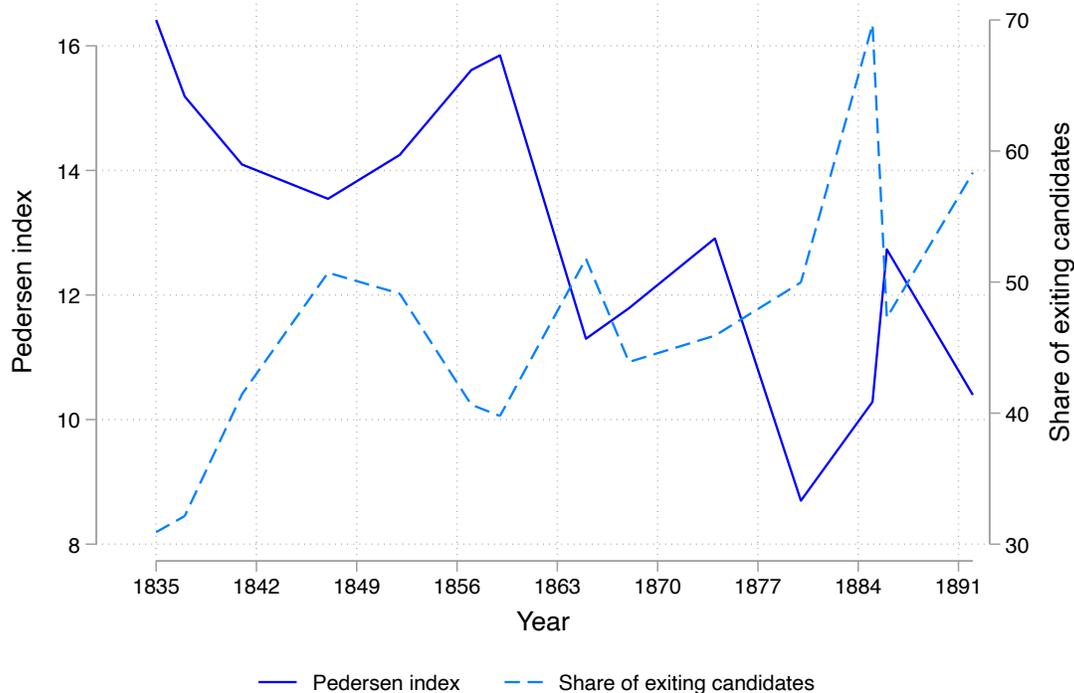
Research on party loyalty and electoral volatility has traditionally relied on two imperfect data sources. Survey-based studies of individual voter behavior have revealed important patterns in party-switching but suffer from social desirability bias and recall errors (Franklin and Jackson 1983; Bakker et al. 2016). Meanwhile, aggregate analyses of electoral volatility have demonstrated how vote swings between parties affect democratic stability (Lipset 1960; Strøm 1992), but these studies struggle with ecological fallacy problems that limit causal inference (Robinson 1950).

The methodological limitations of both approaches have left key questions unanswered, particularly regarding the mechanisms driving shifts between candidate-centered and party-centered voting systems. While Przeworski (1991) argues that electoral volatility is fundamental to democratic competition, Bartolini and Mair (1990) warn that excessive volatility can undermine democratic consolidation. Our historical data allows us to bridge this gap by tracking individual voting behavior across multiple elections while avoiding the measurement problems inherent in contemporary studies.

### 2.2 The Evolution of British Electoral Politics

Average electoral volatility—defined as fluctuations in the total net change in Liberal and Conservative candidates’ vote shares within constituencies following Pedersen

(1979)—decreased towards the 20th century, as shown in Figure 1. This trend could reflect strengthening party loyalty, stabilization in electoral turnout, or nationalization of electoral politics. Notably, this decline coincided with an increase in the proportion of contested constituencies, suggesting electoral stability improved even as competition intensified. And it was not just electoral competition that increased: also the extent of candidate turnover went up over the time period that we study.



**Figure 1.** Average electoral volatility and share of exiting candidates, 1835-1891.

*Notes:* The figure shows the Pedersen index of electoral volatility (left-hand side axis) and the share of exiting candidates (right-hand side axis) computed using the Eggers and Spirling (2014) database. Furthermore, the graph shows linear trends. We define the Pedersen index as the total net change in Liberal and Conservative candidates' vote shares (Pedersen 1979). We compute these variables for each English constituency and (general) election year and take averages.

Historical research on nineteenth-century British politics has produced two competing narratives about the emergence of party-oriented voting. The first perspective, exemplified by Cox (1986, 1987), argues that partisan voting only became dominant after the 1850s. Using aggregate data from over 1,000 parliamentary elections, Cox shows a marked decline in split-ticket voting during the latter half of the nineteenth century. The second view, advanced by Phillips and Wetherell (1995), contends that party-oriented voting emerged

much earlier, pointing to poll books from eight constituencies that show partisan patterns by the 1830s.

This debate connects to broader questions about democratic development, particularly the transition from clientelistic to programmatic politics (Kitschelt 2000; Stokes 2005). In clientelistic systems, voters form personalized relationships with candidates who provide targeted benefits. Party-centered systems, by contrast, emphasize broader policy platforms and public goods provision (Keefer 2007; Hicken 2011). Understanding this transition is crucial for theories of democratic accountability and public goods provision (Bardhan and Mookherjee 2018; Wantchekon 2003).

## 2.3 Elections in Victorian England

Elections in Britain in the Victorian period under investigation took place under the first-past-the-post voting system that is still in place today. A majority of constituencies elected two representatives. Voters were allowed to cast one vote per seat. In those cases, it was possible to cast a *split vote* between candidates of the same or different parties. It was also common for voters to cast *plumpers*—give a single vote to a single candidate and leave the other vote(s) unused.

Initially, the Liberals brought together a loose coalition of mainly Whigs, Radicals and Peelites. Before the consolidation of the Liberal Party in 1859, parliamentary politics on the non-Conservative side consisted of a shifting Whig-Radical-Pelite alignment rather than a unified party organization. Historians emphasize that Conservatives developed stronger organizational capacity and clearer norms of party discipline after 1832, while Whigs continued to operate as an aristocratic governing connection and Radicals remained only loosely integrated (Hanham 1959; Gash 1977; O’Gorman 1989).

Two key institutional reforms, the Great Reform Act of 1832 and the Second Reform Act of 1867, occurred in the period of our analysis. The first of these, introduced in 1832, introduced several measures that mitigated malapportionment. It increased representation in the industrialized cities and took away seats from boroughs with small voting populations. The act also increased the male franchise from 461,788 to 642,740 in England and Wales (Aidt and Franck 2025). The Second Reform Act—or the Representation of the People Act—was passed by the Parliament on August 15, 1867. It further extended the franchise and roughly doubled the size of the electorate, although women were still not allowed to vote, and there were age and various economic requirements for having voting rights (Saunders 2007).

### 3 Poll Book Data

In 1872, the Parliament of the United Kingdom introduced the Secret Ballot Act. Before this reform, voting was done publicly. Voters’ vote choices alongside with their names, and sometimes also other information, were oftentimes recorded in so-called poll books. Figure 2 shows two pages from a poll book in the Aylesbury 1852 general election. The poll book lists voters’ names and occupations and also indicates their vote choices with dashes.

We gather such individual-level voting data from 105 parliamentary elections held in 28 English constituencies. Table 1 summarizes the constituencies and election years covered by these data, most of which we have newly digitized; only data for Ashford (Drake and Pearce 2001), Guildford (Sykes 1977), Sandwich (Andrews 2001), and Sheffield (White and Arthur 2001) were readily available from the UK Data Archive.

The poll books contain around 134,000 voter-election year observations. For each of the voters, we code their vote choice (Conservative split, Conservative plumper, Liberal split, Liberal plumper, or split). To construct our estimation sample, we track voters across consecutive contested general elections primarily based on their names. In cases where two or more voters share the same name, we also use additional information such as occupations or addresses that are available in the poll books, and omit the remaining duplicates.<sup>4</sup>

Our statistical analysis focuses on current voting behavior contingent on vote choices in the previous election. That is, the first election that the person appears in the data is used only for measuring the possible change in behavior, but is not included in the effective regression sample. This leaves us with an effective sample of 48,556 voter-election observations. More than 30,000 of these observations are unique individuals, indicating that we are able to trace the modal voter in two successive poll books.

Two variables that are particularly important to us are indicators for switching vote choice (dependent variable) and having previously voted for at least one exiting candidate (independent variable). We define any switch between Conservative, Liberal, and split votes as vote changing. However, we do not consider switching from a partisan plumper to a partisan split vote, or vice versa, as changing vote choice in our main analyses. To generate

---

<sup>4</sup>A potential concern is that linkage errors—either falsely matching two different individuals or failing to link a true repeat voter—could bias our estimates. False matches introduce noise in both the treatment indicator and the computed vote change but, as long as matching difficulty is unrelated to candidate exit or switching propensity, this error simply attenuates effects toward zero and decreases the precision of our estimates. Missed matches remove some voters from the panel but do not mechanically induce a correlation between exit and switching. Dewan et al. (2019) use a similar approach to link voters across elections to study the connection between voting behavior and socioeconomic mobility. They note that most voters do not change between broader socioeconomic groups and those who do, typically move between adjacent classes. This observation leads us to believe that this approach allows us to link voters across elections fairly credibly.

the indicator for having voted for an exiting candidate, we use information on the exact candidate choice(s) of each voter and whether these candidates re-ran for election or not. Online Appendix Table A1 provides information on the candidates that ran for election in the elections that we observe. We exploit 154 candidate exits in our empirical analyses. The total number of candidacies (that is, candidate-year pairs) in the elections that we use in our analyses is 368.

Name and Occupation.	L.	B.	Ed.	W.	N.
Judkins, William, brewer	—	—	—	—	—
Keedle, John, beershop-keeper	—	—	—	—	—
Kempster, John, butcher	—	—	—	—	—
King, George, coachmaker	—	—	—	—	—
Kingham, John, baker	—	—	—	—	—
Kingham, Joseph, grocer	—	—	—	—	—
Kirby, William, innkeeper	—	—	—	—	—
Kirby, William, carrier	—	—	—	—	—
Knight, John, coachmaker	—	—	—	—	—
Landon, John, canal-carrier	—	—	—	—	—
Landon, William, victualler	—	—	—	—	—
Lehmann, Frederick F., watchmaker	—	—	—	—	—
Lepper, G. A., veterinary-surgeon	—	—	—	—	—
Lepper, Henry, veterinary-surgeon	—	—	—	—	—
Lines, Samuel, farmer	—	—	—	—	—
Lines, Thomas, coachman	—	—	—	—	—
Locke, William Speed, brickmaker	—	—	—	—	—
Locke, William, butcher	—	—	—	—	—
Locke, John, coal-merchant	—	—	—	—	—
Lovett, Moses, brewer	—	—	—	—	—
Lord, John, bricklayer	—	—	—	—	—
Margesson, Edward, tobacconist	—	—	—	—	—
Margesson, George, saddler	—	—	—	—	—
Margesson, Henry James, Crown Inn	—	—	—	—	—
Margesson, John, accountant	—	—	—	—	—
Markham, Thomas, dyer	—	—	—	—	—
Marks, John, baker	—	—	—	—	—
Marshall, James Henry, printer	—	—	—	—	—
Mayne, Samuel, carpenter	—	—	—	—	—
Mayne, Thomas, gardener	—	—	—	—	—
Mead, James, tailor	—	—	—	—	—
Mead, John, chaise-builder	—	—	—	—	—
Medhurst, Charles, draper	—	—	—	—	—
Miles, Thomas, carpenter	—	—	—	—	—
Mitchell, Richard, Anchor	—	—	—	—	—
Mitchell, Thomas, butcher	—	—	—	—	—
Mitchell, Robert, beerhouse-keeper	—	—	—	—	—
Miller, John, whitesmith	—	—	—	—	—
Moores, John, corn-dealer	—	—	—	—	—
Moores, John, junior, draper	—	—	—	—	—
Moores, James, corn-dealer	—	—	—	—	—
Morgan, Dorset, cordwainer	—	—	—	—	—
Moscrop, John, pattern-designer	—	—	—	—	—
Moscrop, Richard, silk-weaver	—	—	—	—	—
Muddiman, Joseph, hairdresser	—	—	—	—	—
Nash, John, butcher	—	—	—	—	—
Nash, William, whitesmith	—	—	—	—	—
Neale, Robert, whitesmith	—	—	—	—	—
Nicholls, Richard, corn-dealer	—	—	—	—	—
Nixon, Robert, silk-weaver	—	—	—	—	—
O'Connor, Michael, tailor	—	—	—	—	—
Orchard, Charles, Harrow Inn	—	—	—	—	—
Oliver, James, victualler	—	—	—	—	—
Olliffe, Robert, hay-binder	—	—	—	—	—
Olliffe, Francis, hay-binder	—	—	—	—	—
Owen, Albert Phillip, surgeon	—	—	—	—	—
Paine, William Stevens, Wingrave	—	—	—	—	—
Palmer, George, Dark Lantern	—	—	—	—	—
Palmer, William, fishmonger	—	—	—	—	—
Palmer, Charles, basket-maker	—	—	—	—	—
Parrott, Joseph, wheelwright	—	—	—	—	—
Parrott, Joseph, solicitor	—	—	—	—	—
Parrott, William, solicitor	—	—	—	—	—
Partridge, William Wright, victualler	—	—	—	—	—
Payne, Frederick William, chemist	—	—	—	—	—
Payne, Philip, draper	—	—	—	—	—
Pennefather, Rev. William	—	—	—	—	—
Perrin, William, cooper	—	—	—	—	—
Pettit, Joseph, grocer	—	—	—	—	—
Petty, John, gardener	—	—	—	—	—
Pickburn, James, printer	—	—	—	—	—
Pickess, Henry B., surgeon	—	—	—	—	—
Pickering, John, servant	—	—	—	—	—
Pigott, Rev. J. Noel, Grendon	—	—	—	—	—
Plater, Richard, victualler	—	—	—	—	—
Pollden, Richard, draper	—	—	—	—	—
Poole, William Hickman, bookseller	—	—	—	—	—
Pretyman, Rev. John Radclyffe	—	—	—	—	—
Price, Mark, victualler	—	—	—	—	—
Prickett, Edward, solicitor	—	—	—	—	—

Figure 2. Pages from they Aylesbury 1852 general election poll book.

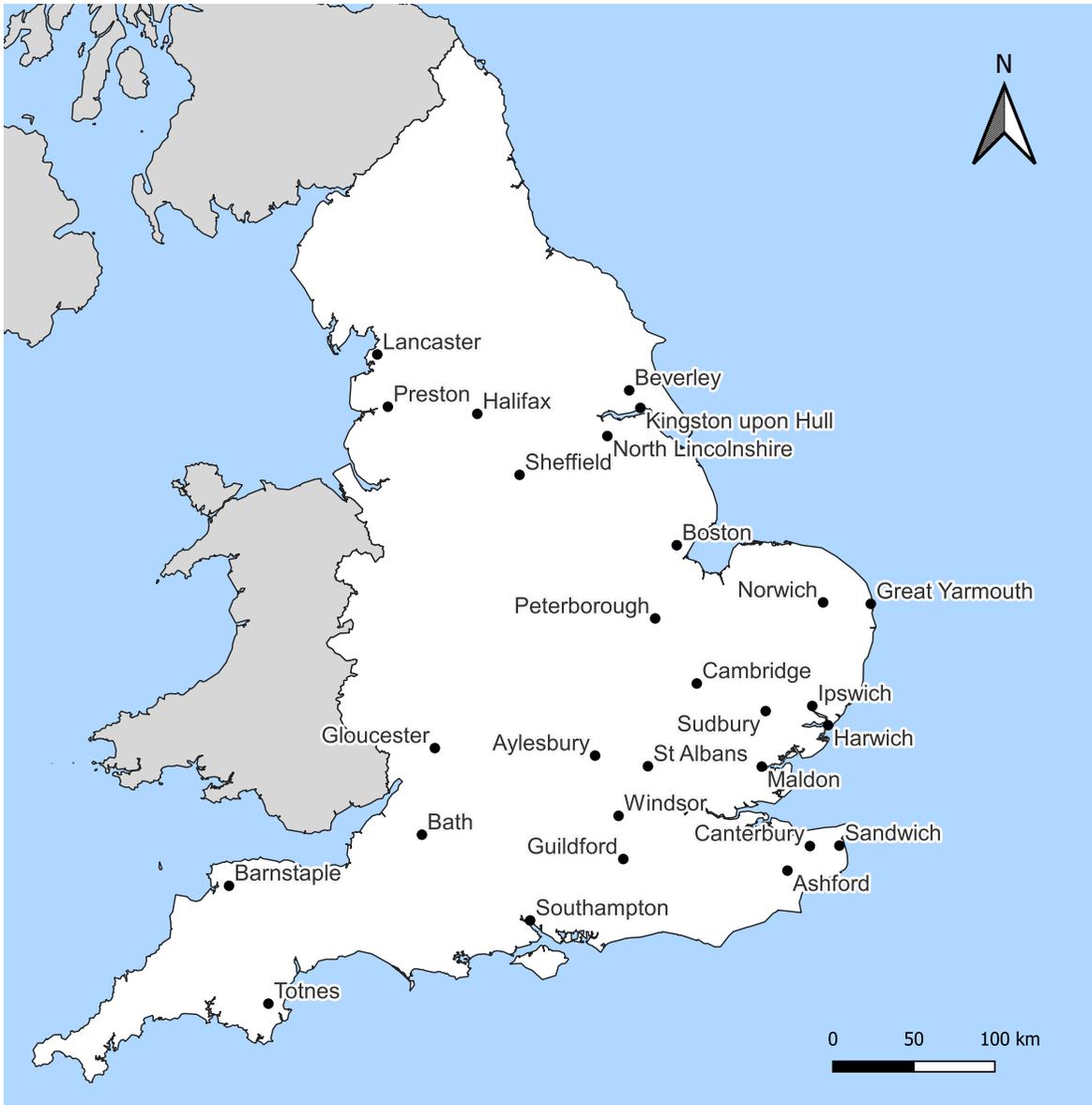
### 3.1 Sample Representativeness

The constituencies in our data are scattered around England (see Figure 3). They also represent a broad range of elections in terms of the number of candidates and exiting

**Table 1.** Poll books included in our sample.

	1832	1835	1837	1841	1847	1852	1857	1859	1865	1868
Aylesbury	✓	✓				✓	✓			
Barnstaple				✓	✓	✓	✓	✓	✓	
Bath					✓	✓				
Beverley								✓	✓	✓
Boston								✓	✓	✓
Cambridge					✓	✓	✓			
Canterbury			✓	✓						
Gloucester						✓	✓	✓		
Great Yarmouth						✓	✓	✓	✓	
Guildford	✓	✓	✓	✓	✓	✓	✓		✓	✓
Halifax		✓	✓		✓	✓				
Harwich							✓	✓		
Ipswich	✓	✓								
Ashford (Kent Eastern)						✓	✓		✓	✓
Kingston upon Hull		✓	✓	✓	✓	✓	✓	✓		
Lancaster			✓	✓	✓	✓	✓	✓	✓	
Maldon					✓	✓	✓	✓		
North Lincolnshire		✓		✓		✓				
Norwich							✓	✓	✓	✓
Peterborough							✓	✓		
Preston						✓	✓	✓		
Sandwich	✓	✓	✓		✓		✓	✓	✓	✓
Sheffield						✓	✓			
Southampton			✓	✓						
St Albans	✓	✓	✓							
Sudbury	✓	✓	✓	✓						
Totnes							✓	✓	✓	
Windsor	✓	✓								

candidates, the number of elected representatives, the size of the electorate, and the Conservative vote share. Table 2 reports means of these variables for the elections included in our sample and all other elections in England between the years 1832 and 1868. Moreover, we report the difference in means and test for the statistical significance thereof using a *t*-test. The elections in our sample have less candidates and elected representatives but more electors than those not in our sample.<sup>5</sup>



**Figure 3.** Map of the constituencies in our sample.

<sup>5</sup>To conduct these comparisons, we use data from Eggers and Spirling (2014) that are available online at <https://github.com/ArthurSpirling/EggersSpirlingDatabase> (accessed July 31, 2020). Online Appendix Figure B1 shows the distributions of these variables.

**Table 2.** Our sample versus other elections.

	Elections in our data	Other elections	Difference	<i>p</i> -value
Number of exiting candidates	1.58	1.97	0.39	0.00
Number of candidates	3.15	3.46	0.31	0.00
Number of elected representatives	1.83	1.99	0.16	0.00
Number of electors	3649	2393	-1256	0.02
Conservative vote share	42.43	43.11	0.68	0.77

*Notes:* Table shows averages for elections included in our data as well as other elections. We also report differences in means and corresponding *p*-values obtained from a *t*-test. The data come from Eggers and Spirling (2014).

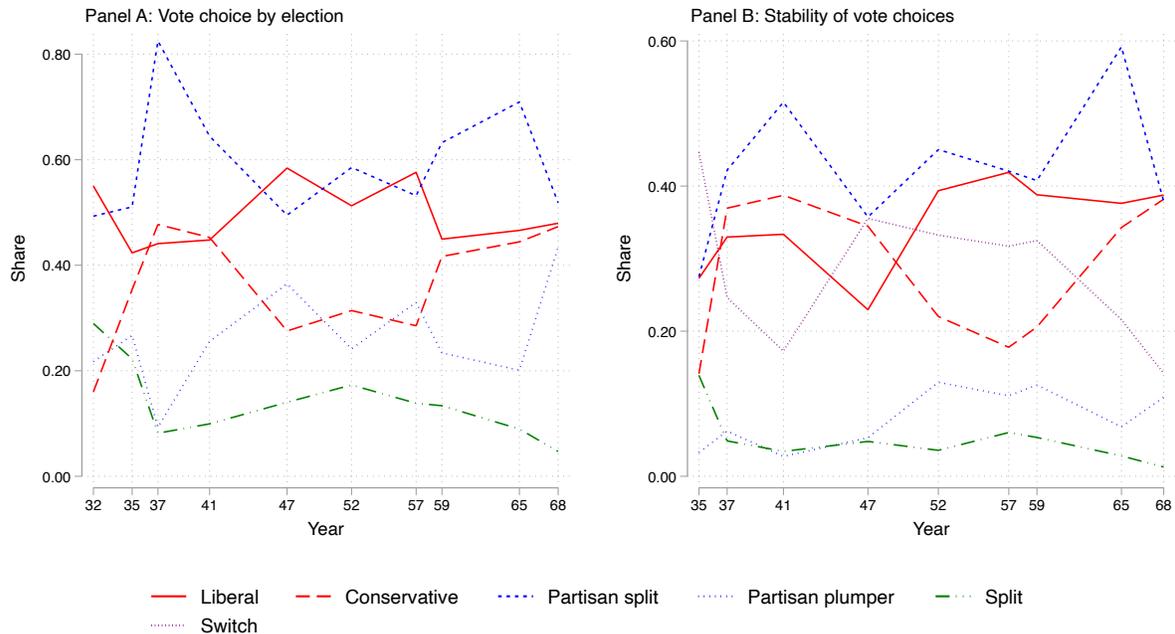
## 4 Persistence of Voting Behavior across Elections

To provide a first glance at our poll book data, we characterize the vote choices by election in Panel A of Figure 4. Throughout our sample period, a vast majority of voters cast a Liberal or a Conservative vote—non-partisan split voters were a minority. Furthermore, out of the partisan voters, partisan splitters were a clear majority. While these trends point towards a large share of the electorate being party-oriented throughout the 1800s, we cannot be certain due to reasons that we discussed in the introduction. That said, the general trends match with those discussed by Cox (1986, 1987). Also in our data, split voting reached its peak around mid-1800s and decreased and remained low after.

A key advantage of the individual-level data is that we can examine the stability of individual voters’ vote choices. The aggregate data are informative about voting tendencies on average, but statistics based on such data could mask changes in the composition of the electorate or large numbers of voters changing their voting behavior between elections. We examine persistence of voting behavior across consecutive elections in Panel B of Figure 4. We see that, out of voters who were observed over two consecutive elections, a vast majority voted in a stable partisan manner. Out of the stable partisan voters, most systematically split their vote between two candidates from the same party. At the same time, we see a relatively large share of voters switching their vote choices. This share has a decreasing trend starting in the end of the 1850s—around the point of time that Cox saw as the dawn of a party-oriented electorate in the UK.

A question that remains open is whether the patterns could reflect compositional effects. That is to say, could non-partisan voters be replaced by partisan voters by the end of our analysis period? As an attempt to rule out this possibility, at least in our data, we split our sample in two: “old voters” who voted in  $t - 1$  and  $t$ , and “new voters” who voted in  $t$  but not in  $t - 1$ . We illustrate the voting behavior of these groups in Online Appendix Figure

C1. While there are differences between these two types of voters, one could hardly argue that new voters would be driving the decline in split voting and increase in partisan voting.



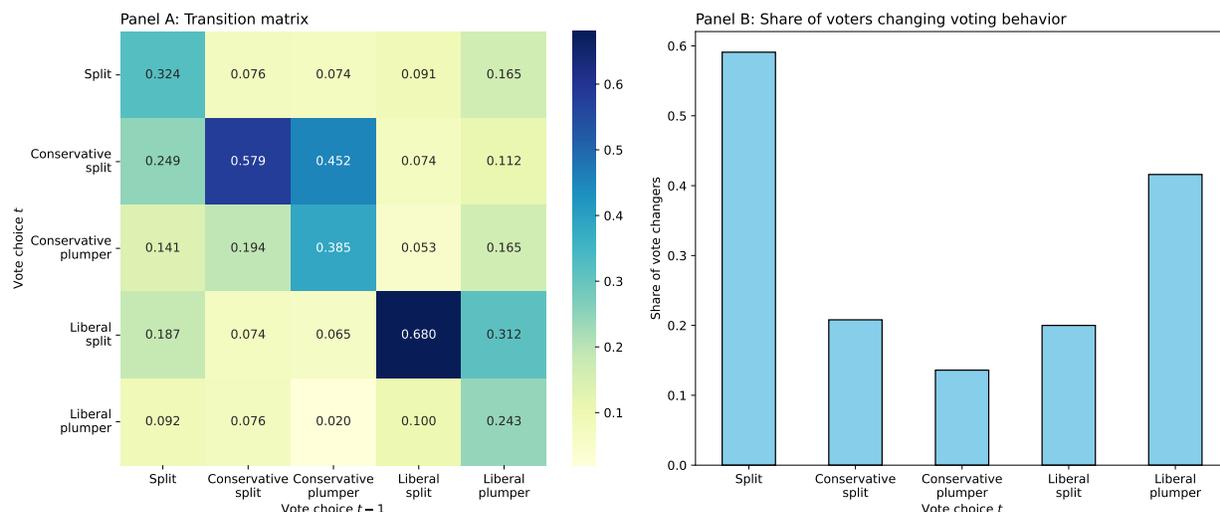
**Figure 4.** Vote choices and persistence in voting behavior over 1832-1868.

*Notes:* The figure illustrates vote choices (Panel A) and persistence in voting behavior (Panel B) over the years 1832-1868. Panel A uses all voter-election observations, and Panel B is based on data on voters who are observed at least in twice in two or more consecutive elections.

We corroborate the notion that many individuals in our data voted in a consistent manner in two consecutive elections by a transition matrix in Panel A of Figure 5. The figure reveals strong persistence in vote choices across two elections. About 32% of voters who cast a split vote in  $t - 1$  also cast a split vote in  $t$ . Voters who cast either Conservative or Liberal partisan split votes—perhaps the strongest indication of a voter’s allegiance to a political party—are considerably more likely to do so than to cast any votes to another party in the next election. Furthermore, maintaining the past vote choice is highly likely even for those voters who gave a partisan plumper vote. Our earlier work suggests that, in part, this persistence could stem from class-oriented voting and voters’ economic interests to support for certain political parties (Dewan, Meriläinen, and Tukiainen 2020; Dewan et al. 2019).

That said, there appear to be clear differences in the prevalence of vote switching depending on past vote choices. Panel B of Figure 5 illustrates this point. Changing voting behavior is much more common among split voters than among those voters who cast partisan votes. We see that voters who cast a Conservative plumper, i.e., voted just for one

Conservative candidate, are slightly less likely to switch their vote choice as Conservative vote-splitters. Liberal vote-plumpers are more likely switch their vote choice than vote-splitters. To account for these differences, our subsequent regression analyses on the impacts of candidate exit on vote switching control for past voting behavior.



**Figure 5.** Relationship between current and past voting behavior.

*Notes:* The figure illustrates transitions between different vote choices (Panel A) and persistence in voting behavior (Panel B). On average, 13% voters cast a split vote, 20% a Conservative split, 17% a Conservative plumper, 39% a Liberal split, and 12% a Liberal plumper. The average propensity of changing the vote choice between  $t - 1$  and  $t$  is 28%.

The general takeaways from this analysis echo those of Phillips and Wetherell. Nonetheless, a significant share—about one fourth—of voters in our data changed their partisan vote choice between two consecutive elections.

## 5 Candidate Exit and Voter Loyalty

The transition from personalistic to partisan voting represents a critical juncture in democratic development. Yet we know relatively little about how voters navigate this shift, particularly when faced with the departure of personally preferred candidates. Drawing on Hirschman’s theoretical framework, we analyze how nineteenth-century British voters responded to candidate exits through three potential mechanisms: maintaining party loyalty despite candidate turnover, exiting to other parties, or withdrawing from electoral participation entirely. This analysis provides insights into the micro-foundations of early party development and the emergence of partisan attachments.

## 5.1 Empirical Specification

We use OLS to estimate the following regression model:

$$\text{Change vote}_{it} = \beta \text{Voted exiting}_{i,t-1} + \text{Vote choice}'_{i,t-1} \gamma + \lambda_c \times \lambda_t + \epsilon_{ict}.$$

Here  $\text{Change vote}_{it}$  is a binary variable that takes the value one if a voter  $i$  (from constituency  $c$ ) changes his vote choice between elections  $t - 1$  and  $t$ , and zero otherwise.<sup>6</sup>  $\text{Voted exiting}$  is an indicator variable that gets the value one if at least one candidate that the voter voted at  $t - 1$  is not rerunning in election  $t$ , and zero otherwise.

From the individual voter’s perspective, whether a previously supported candidate exits the race is plausibly exogenous. A few were occasioned by a candidate’s death; more often they left to seek re-election in more prestigious county seats when one opened up; or in the case of aristocratic candidates, they left the Commons and moved to the Lords on their father’s death.<sup>7</sup> In these cases, voters who had supported the exiting candidate faced an abrupt and largely unanticipated change in the set of available candidates in the subsequent election, making these episodes particularly informative for studying vote switching following candidate exit. Voters make their initial choices without knowing whether a candidate will re-run, rendering subsequent exposure to candidate exit effectively random with respect to their prior vote. Furthermore, we find that voters of candidates who exit after election  $t$  do not have systematically different propensity to change their vote choice between elections  $t - 1$  and  $t$  compared to voters of candidates who continue.<sup>8</sup>

In most specifications, we include controls for previous vote choice which we code in two alternative ways. The first option is to use broad categorization with Liberal, Conservative, and split votes, and the second option is to use a more detailed categorization that separates partisan split and plumper votes. Moreover, we include controls for constituency-election year fixed effects,  $\lambda_c \times \lambda_t$ , to account for differential electoral contexts between constituencies and elections. This means that we abstract from the influence of factors such as electoral

---

<sup>6</sup>As we are interested in the micro foundations of electoral volatility, we only consider changes between split, Conservative, and Liberal as vote changing. That is to say, for instance, switching from a Liberal plumper to Liberal split vote is not considered changing the vote.

<sup>7</sup>For example, Abel Rous Dottin, the Conservative member for Southampton, retired at the 1841 dissolution explicitly on grounds of ill health, citing his inability to endure the demands of a contested election. Other exits were driven by formal legal disqualification rather than electoral considerations. Edward Auchmuty Glover was unseated at Beverley in 1859 following a successful petition for failure to meet the statutory property qualification for Members of Parliament, despite having secured sufficient votes, while Henry Thoby Prinsep lost his seat on similar technical grounds, with his return later voided for procedural irregularities unrelated to voter behavior.

<sup>8</sup>Note that the sample we can use for this test is considerably smaller than in our main analyses, slightly less than 10,000 observations. The regression coefficient from this test is around  $-0.05$  with a  $p$ -value of 0.25.

violence, the total number of candidates running for election, and entry of new candidates.<sup>9</sup> In some specifications, we additionally control for time-invariant voter characteristics by introducing voter fixed effects in our regression.

$\epsilon_{ict}$  is the error term. We cluster our inference at the constituency-election year level. As we do not have complete electoral rolls for the constituencies in our sample, all estimations are conditional on turning out to vote.<sup>10</sup>

## 5.2 Candidate Exit and Stability of Vote Choices

We report estimation results on candidate exit and the stability of vote choices in Table 3. While the aggregate data would suggest that increased candidate turnover is negatively associated with electoral volatility (see Figure 1), the individual-level data reveal an opposite relationship. Having voted an exiting candidate makes a voter more likely to change their vote.

Table 3 reveals that voters who voted for an exiting candidate are about 11–15 percentage points more likely to change their votes than those who voted for a rerunning candidate, out of whom slightly less than one-fourth change their votes. This suggests that candidate exit can explain a large part of vote switching between consecutive elections and, thus, part of the electoral volatility we observe at the aggregate level.

The magnitude of the point estimates remains robust to not controlling for past vote choice (column 1) or controlling for the past vote choice using a narrow (column 2) or a broad categorization (column 3). Holding past vote choices fixed is also warranted because split voters are mechanically more likely to vote for exiting candidates, and their voting behavior tends to be more volatile in general.

We are also able to control for voter fixed effects for voters who are observed in at least three poll books, given the way our dependent variable and lagged voting behavior variables are constructed. These estimation results are presented in column (4) of Table 3. The fixed-effects estimate is statistically significant, and the magnitude is in line with the estimates in columns (1)–(3), despite the smaller sample we have available to us.

We explore the robustness of this main result to alternative coding of the dependent variable. Recall that we defined vote changing as a change between a split vote, a Liberal vote, and a Conservative vote. In Appendix Table D1, we consider casting a plumper, splitting votes between two candidates from the same party, and splitting votes between two

---

<sup>9</sup>If we correlate vote switching with the number of entering and exiting candidates, we find no robust evidence of a relationship. Below, we also return to effect heterogeneity in terms of changes in the number of candidates.

<sup>10</sup>In our sample, having voted for an exiting candidate is not strongly correlated with not showing up in the next poll book which we take as a proxy for not voting. See column (5) of Table 4.

**Table 3.** Effect of candidate exit on vote changing.

	(1)	(2)	(3)	(4)
Voted exiting	0.125*** [0.040]	0.127*** [0.035]	0.148*** [0.036]	0.111*** [0.026]
Conservative (t-1)		-0.415*** [0.054]		
Liberal (t-1)		-0.397*** [0.054]		
Conservative plumper (t-1)			-0.427*** [0.055]	-0.346*** [0.074]
Conservative split (t-1)			-0.427*** [0.072]	-0.356*** [0.084]
Liberal plumper (t-1)			-0.245*** [0.065]	-0.172** [0.073]
Liberal split (t-1)			-0.454*** [0.058]	-0.244*** [0.077]
<i>N</i>	48556	48556	48556	28926
<i>R</i> <sup>2</sup>	0.15	0.23	0.25	0.63
Mean dependent variable	0.29	0.29	0.29	0.29
Reference group mean	0.23	0.23	0.23	0.21
Voter FE				✓

*Notes:* The dependent variable is an indicator for changing party choice (Conservative, Liberal, or split) between two consecutive elections. All specifications control for constituency  $\times$  election year fixed effects. Column (4) additionally controls for voter FEs, using a sample of voters who are observed in at least three poll books. The reference group is voters who voted for a rerunning candidate. Standard errors clustered at the constituency  $\times$  election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

candidates from different parties as different choices. We acquire similar results to those presented here after controlling for past voting behavior.

### 5.3 Candidate Exit, Voter Exit and Voice

Based on the results in Table 3, we conjecture that following candidate exit, most voters choose loyalty, although a significant share still changes their vote choice. In this subsection, we discuss how exactly voters expressed exit or voice.

**Effect of candidate exit on voter exit through party switching** Let us now focus on a subsample of voters who cast a Conservative or a Liberal vote in election  $t - 1$ . We ask: do such voters become more likely to vote for the opposing party after the exit of at least one of their previously preferred candidates? Columns (1) and (2) of Table 4 suggests that this is the case. Voters of exiting candidates are about 4 – 7 percentage points more likely to “exit” their previous party of choice than voters of rerunning candidates, relative to a mean of 11%. However, this difference is not statistically significant at any conventional level.

**Effect of candidate exit on voter voice through split voting** Still focusing on the same subset of voters, we now turn to the question whether voters were more likely to express “voice” through split-ticketing. We report these regression results in columns (3) and (4) of Table 4. Voters who voted for an exiting candidate are about 1 – 3 percentage points more likely to cast a split vote, relative to a mean of 8%.

A natural concern is that split-ticket voting may reflect motivations other than voice. As emphasized by Radice (1992), split voting in nineteenth-century England is consistent with at least three other logics. First, voters may have voted strategically, particularly in three-candidate contests, by using or withholding a second vote to influence which candidate captured the marginal seat. Second, split voting may reflect ideological indifference, as also formalized by Cox (1987), where voters located between the left-most Conservative and right-most Liberal candidates optimally divide their votes. Third, split voting may arise from social or economic cross-pressures, where voters sought to avoid offending powerful interests on either side within the constituency.

Crucially, our analysis does not interpret the level of split voting as voice. Instead, we exploit within-voter changes in voting behavior following the exit of a previously supported candidate, conditioning on constituency–election environments and prior vote choice. Under this design, stable features such as ideological positioning, local cross-pressures, and baseline strategic incentives are differenced out to a first order. A transition from partisan voting to cross-party split voting in response to candidate exit is therefore best interpreted as a withdrawal of full partisan support without full defection.

**Effect of candidate exit on not voting** Voters may also react to candidate exit by exiting themselves—that is to say, by not turning out to vote. We also assess this possibility, although it is important to keep in mind that the exclusivity of the franchise meant that

those who were eligible were often more engaged and motivated to vote and voting was a public affair, which could have lead to increased pressure to vote.<sup>11</sup>

In light of columns (5) and (6) of Table 4, this seems unlikely to be the main margin at which voters react to candidate exit. When we regress an indicator for not voting in election  $t$  on voting for exiting candidate in election  $t - 1$ , we obtain estimates that are virtually zero without the voter fixed effects. In column (6), we include three voter fixed effects and find a small, negative and statistically significant estimate of around  $-2$  percentage points with the voter fixed effects.<sup>12</sup> This is perhaps not surprising given the high levels of voter turnout during the period that we study and the fact that the baseline is very low. Voters included in our data did vote at least once, further decreasing the probability of them not voting in subsequent elections.

## 5.4 Timing and Heterogeneity by Past Party Choice

Table 4 reports fairly large but statistically insignificant effects of candidate exit on exit and voice margins. However, these aggregate estimates conceal substantial heterogeneity across historical periods and across voters with different partisan histories. In this subsection, we show that voter responses to candidate exit were pronounced earlier in the nineteenth century but declined sharply after the mid-1860s, and that this pattern is driven primarily by voters with Liberal partisan histories. We argue that these patterns reflect the evolution of party organization.

A key feature of British politics before the late 1850s is that party labels—especially on the Liberal side—did not correspond to unified political organizations. What later became the unified Liberal Party consisted of competing factions, including Whigs, Radicals, and, by the early 1850s, Peelites.<sup>13</sup> These factions frequently fielded rival candidates within the same constituency, particularly in multi-member boroughs, and differed in their policy priorities and political bases (Cox 1986, 1987). In this environment, individual candidates conveyed information that party labels alone did not. Voters could not reliably infer future

---

<sup>11</sup>O’Gorman (1989, 183) estimates that voter turnout during the period we study was around 80%. However, computing the turnout rate accurately is difficult, as there is no complete information on the exact size of the enfranchised population.

<sup>12</sup>Two aspects of this analysis are worth highlighting. First, we do not observe who were eligible to vote but chose not to do so. We thus code any voter as an exiting voter if they do not show up in the next poll book. This voter exit could be due to not voting, but it could also result from unsuccessful record linkage, the voter falling out of franchise, or the voter dying. Second, the number of observations does not match with the main analyses, as we can now use the first poll book in our data but not the last poll book.

<sup>13</sup>Whigs were associated with constitutional reform and elite governance, Radicals advocated more extensive political reform, and Peelites were former Conservatives who supported free trade following the repeal of the Corn Laws.

**Table 4.** Effect of candidate exit on voter exit through party switching and voice through split voting.

	Exit through party change		Voice through split voting		Exit through not voting	
	(1)	(2)	(3)	(4)	(5)	(6)
Voted exiting	0.073 [0.047]	0.037 [0.033]	0.026 [0.017]	0.010 [0.013]	-0.002 [0.009]	-0.024** [0.012]
Conservative plumper (t-1)					-0.003 [0.007]	-0.003 [0.015]
Conservative split (t-1)	0.045 [0.078]	0.033 [0.061]	-0.047** [0.018]	-0.024 [0.016]	-0.004 [0.008]	-0.004 [0.012]
Liberal plumper (t-1)	0.149* [0.075]	0.194** [0.080]	0.016 [0.029]	-0.039 [0.026]	-0.003 [0.007]	-0.016 [0.013]
Liberal split (t-1)	-0.024 [0.032]	0.137 [0.100]	0.003 [0.014]	-0.029* [0.017]	-0.012 [0.007]	-0.022** [0.009]
<i>N</i>	40392	22719	40392	22719	48601	28384
<i>R</i> <sup>2</sup>	0.13	0.67	0.15	0.52	0.23	0.49
Mean dependent variable	0.15	0.16	0.10	0.07	0.20	0.14
Reference group mean	0.11	0.11	0.09	0.09	0.30	0.31
Constituency × Election year FE	✓	✓	✓	✓	✓	✓
Voter FE		✓		✓		✓

*Notes:* The dependent variable is an indicator for exit through changing party choice (from Conservative to Liberal or vice versa) between two consecutive elections in columns (1) and (2) an indicator for voice through split voting (from Conservative or Liberal to split) in columns (3) and (4). The estimation sample is composed of individuals who cast a Conservative or a Liberal vote in election  $t - 1$ . In columns (5) and (6), the dependent variable is an indicator for not showing up in poll book  $t$ , and the estimation sample is restricted to voters observed in election  $t - 1$ . All specifications control for constituency × election year fixed effects. The reference group is voters who voted for a rerunning candidate. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

representation or policy positions from party affiliation, making the presence or exit of specific candidates especially salient.

This structure changed gradually over the mid-nineteenth century. The formal creation of the Liberal Party in 1859 marked the consolidation of these factions into a single organization, accompanied by increasing coordination in candidate selection and campaigning. As party organizations strengthened, political authority became increasingly mediated through party majorities rather than individual Members of Parliament, and parliamentary discipline tightened. In parallel, party labels became more informative

guides to future representation. These developments imply a declining role for individual candidates in structuring voter behavior, and hence a weaker response to candidate exit.

We therefore distinguish between elections before and after 1865, a breakpoint that captures the transition from candidate-centered to party-centered electoral competition. The mid-1860s not only follow the consolidation of the Liberal Party but also precede the Second Reform Act, marking a period in which partisan identities and organizational cues became increasingly salient for voters (Cox 1986, 1987; Dewan, Meriläinen, and Tukiainen 2020). In such an environment, the exit of a particular candidate should matter less for voters whose expectations about representation are anchored in party affiliation.

Column (1) of Table 5 shows that voters responded much more strongly to candidate exit earlier in the period. Before 1865, the loss of a previously supported candidate increased the probability of changing one’s vote by approximately 16 percentage points. After 1865, by contrast, the estimated effect is close to zero. This sharp decline mirrors broader changes in the structure of British electoral politics and is consistent with a reduced informational and representational role for individual candidates.

Columns (2)–(4) examine heterogeneity by past party choice. Before 1865, voters who had cast a straight-party ballot in the previous election switched to the opposing party in about 15 percent of cases even when all previously supported candidates re-ran, and were an additional 13 percentage points more likely to switch when at least one previously supported candidate exited. After 1865, these responses become substantially smaller. This time pattern is especially pronounced among previous Liberal voters, who exhibit sizable exit responses in the earlier period but little systematic reaction thereafter. Previous Conservative voters, by contrast, display limited responsiveness to candidate exit in both periods.

The asymmetry between Liberal and Conservative voters is informative. Existing accounts emphasize that Conservative organization and voter discipline developed earlier and more uniformly than on the Liberal side (Cox 1986, 1987). As a result, Conservative voters appear to have relied less on individual candidates even in earlier elections, while Liberal voters only begin to exhibit similar behavior once factional competition subsides and the party label becomes a reliable signal of political representation.

Columns (5)–(7) report analogous results for voice, measured through split-ticket voting. Although the estimates are smaller and less precisely estimated, the same temporal pattern emerges. Split-ticket responses to candidate exit are detectable before 1865—again primarily among prior Liberal voters—but are substantially weaker or absent thereafter.<sup>14</sup>

---

<sup>14</sup>Complementary specifications with voter fixed effects, reported in Online Appendix Table D2, yield similar conclusions. While reduced within-voter variation leads to less precise estimates of overall time trends, the attenuation of exit responses after 1865 remains evident.

In sum, these results indicate that voter reactions to candidate exit were shaped by the organization of party competition. In periods characterized by weak party coordination and intra-party factionalism, individual candidates played a central role in structuring voter behavior. As party organizations consolidated and partisan cues became more informative, candidate-centered voting declined, and the electoral consequences of candidate exit diminished accordingly.

**Table 5.** The effect of candidate exit on voting behavior before and after 1865.

	Change vote		Exit through party change		Exit through party change (previously Liberal)		Exit through party change (previously Conservative)		Voice through split voting		Voice through split voting (previously Liberal)		Voice through split voting (previously Conservative)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)							
Voted exiting	0.163*** [0.043]	0.133*** [0.046]	0.212*** [0.062]	-0.019 [0.019]	0.028 [0.021]	0.036 [0.029]	-0.073** [0.036]							
Voted exiting $\times$ 1[Year $\geq$ 1865]	-0.069 [0.073]	-0.250*** [0.069]	-0.358*** [0.070]	-0.070*** [0.025]	-0.007 [0.032]	-0.055* [0.032]	0.054 [0.034]							
Conservative plumper (t-1)	-0.429*** [0.056]													
Conservative split (t-1)	-0.424*** [0.073]	0.066 [0.079]		-0.002 [0.019]	-0.046** [0.019]		0.012 [0.011]							
Liberal plumper (t-1)	-0.243*** [0.065]	0.166** [0.073]			0.016 [0.029]									
Liberal split (t-1)	-0.457*** [0.059]	-0.026 [0.032]	-0.210* [0.107]		0.002 [0.014]	0.016 [0.027]								
<i>N</i>	48556	40392	24834	15558	40392	24834	15558							
<i>R</i> <sup>2</sup>	0.25	0.14	0.17	0.41	0.15	0.19	0.15							
Mean dependent variable	0.29	0.15	0.16	0.13	0.10	0.11	0.08							
Reference group mean	0.07	0.09	0.09	0.10	0.11	0.11	0.10							
Constituency $\times$ Election year FE	✓	✓	✓	✓	✓	✓	✓							

*Notes:* The dependent variable is an indicator for changing party choice (Conservative, Liberal, or split) between two consecutive elections in column (1), an indicator for exit through changing party choice (from Conservative to Liberal or vice versa) between two consecutive elections in columns (2)-(4), and an indicator for voice through split voting (from Conservative or Liberal to split) in column (5)-(7). In columns (2) and (5), the estimation sample is composed of individuals who cast a Conservative or a Liberal vote in election  $t - 1$  (i.e., split voters are excluded); in columns (3) and (6) or (4) and (7) we only include Liberal or Conservative voters in election  $t - 1$ , respectively. The reference group is voters who voted for re-runners before 1865 in all columns. All regressions control for constituency  $\times$  election year fixed effects. Standard errors clustered at the constituency  $\times$  election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

## 6 Mechanisms

In the previous section, we showed that voters reacted strongly to losing a previously supported candidate, and that these responses varied by voters' past partisan behavior and over time. We now examine why candidate exit affects vote choice and what these reactions reveal about the underlying structure of voter attachments.

Our central argument is that the informational content of candidate exit depends on the organizational strength of political parties. When partisan loyalty is weak and party labels provide limited guidance, voters rationally rely on candidate-specific information to form expectations about future representation. In such settings, losing a preferred candidate signals instability in the representational offer, prompting exit or voice in the sense of Hirschman (1970). As party organizations consolidate and partisan labels become more informative—through improved elite coordination, clearer parliamentary discipline, and tighter links between party affiliation and legislative behavior—voters become less sensitive to candidate-level disruptions, and loyalty increasingly attaches to the party rather than to individual candidates (Cox 1986, 1987).

This perspective also helps clarify the timing and partisan asymmetries documented above. Existing accounts emphasize that party coordination and voter discipline developed unevenly across parties, with Conservative organization preceding Liberal consolidation (Cox 1986, 1987). Consistent with this view, the mid-nineteenth century marks a transition in which party labels—particularly for Liberals—became sufficiently informative to sustain durable voter attachments independent of individual candidates. Using individual-level poll book data, Dewan, Meriläinen, and Tukiainen (2020) show that this period coincides with the emergence of stable working-class alignment with the Liberal party, indicating a shift from candidate-centered to party-centered voting. In such an environment, the exit of a particular candidate conveys less new information about future representation, reducing voters' incentives to respond through exit or voice.

In this section, we present three sets of results consistent with this mechanism.<sup>15</sup> First, the impact of candidate exit does not hinge on whether the exiting candidate was electorally successful, which rules out indicators that personal appeal or candidate quality do not appear to be primary mechanisms. Second, voters with weaker partisan commitments—especially

---

<sup>15</sup>For additional results controlling for voter fixed effects, see Online Appendix Table D3. Note also that unlike the main analysis, which conditions on prior support in order to identify loyalty responses to candidate exit, the mechanism analysis considers the full electorate. The purpose is not to re-estimate causal effects of exit, but to examine how electoral support is reallocated across voting margins following candidate exit, and to assess whether these patterns are consistent with loyalty-based explanations or with alternative mechanisms such as candidate quality or strategic replacement.

previous split voters—account for most of the response. Third, changes in the candidate set explain part of the reaction but cannot fully account for the patterns observed, and the availability of experienced candidates does not systematically shape voter responses. We conjecture that the evidence supports the view that candidate exit affects voters through organizational rather than personalistic channels.

## 6.1 Role of Candidate Success

Exiting candidates are somewhat more likely to have lost the previous election, raising the possibility that our estimates might reflect differential reactions to losing versus winning candidates rather than the fact of exit itself. Column (1) of Table 6 interacts candidate exit with whether the voter previously supported a losing candidate.

The estimates show only modest differences. Voters of exiting losers are slightly more prone to change their vote relative to voters of exiting winners, but the overall magnitude of the effect remains similar. Moreover, voters of losing re-running candidates are actually less likely to change their vote than voters of re-running winners, which runs counter to a simple candidate-quality story. The combined coefficient for voters of exiting losers is roughly 0.12, but this arises from small adjustments across components rather than from a large, directional mechanism.

These patterns suggest that the main effect of candidate exit is not driven by whether departing candidates were electorally successful. Candidate quality or personal appeal alone cannot explain the substantive patterns of vote switching.

## 6.2 Past Vote Choice and the Effect of Candidate Exit

The mechanism we emphasize—that exit matters when partisan loyalties are weak—implies that the effect should be strongest among voters whose past behavior reveals weaker commitments. Column (2) of Table 6 tests this by interacting candidate exit with voters' previous vote types.

The results strongly support this interpretation. Split voters—those who distributed their two votes across parties—are substantially more likely than partisan voters to change their vote when a preferred candidate exits. Relative to previous splitters, all partisan groups exhibit smaller effects, and the interaction terms for partisan plumpers are uniformly negative. Previous Liberal plumpers show the smallest differential response, with a coefficient close to zero, while the largest reaction comes from voters with the weakest initial attachments.

Because split voting was common in the 1840s and 1850s and declined thereafter, these results suggest a micro-level mechanism behind the historical decline of split-ticket voting documented by Cox (1986, 1987). When candidate turnover is high, maintaining loyalty to individual candidates is difficult; voters with weak partisan identities thus shifted more readily in response to candidate exit.

### 6.3 Changes in the Choice Set

Candidate exit sometimes alters the feasible set of vote combinations available to voters—for example, by preventing (or enabling) partisan split votes. To assess the role of these choice-set changes, column (3) of Table 6 interacts candidate exit with an indicator for whether the structure of the candidate set changed between elections.

Voters are indeed more likely to change their vote when the candidate set changes substantially. However, two findings show that this is not the primary channel. First, the effect of candidate exit remains large and significant even in elections where no decisive change in the candidate set occurs (column 6). Second, when we restrict attention to cases where partisan split votes become impossible or newly possible, the magnitude of the estimated effects is similar across the two scenarios (columns 4-5).

These results indicate that while changes in the menu of available vote combinations can influence behavior, they do not fully explain why voters respond to candidate exit. Something beyond the mechanical availability of vote types is at work.

### 6.4 Availability of Re-Running Candidates

Finally, we consider whether responses to candidate exit reflect voters shifting toward experienced or “old” candidates with stronger local networks. In nineteenth-century British elections, returning candidates often enjoyed advantages through name recognition, campaign organization, or informal clientelistic practices. If such candidates were better able to attract orphaned voters, then vote switching after exit should be larger in constituencies with more re-running candidates.

Column (7) of Table 6 tests this by interacting candidate exit with the share of old candidates. The interaction term is small and statistically indistinguishable from zero. Voters whose preferred candidate exits are no more likely to switch when many returning candidates are present than when few are. This rules out the idea that strategic advantages of experienced candidates or local patronage networks explain the main result.

**Table 6.** Heterogeneous effects of candidate exit on vote changing.

	Heterogeneity by candidate performance	Heterogeneity by previous vote choice	Heterogeneity by change in choice set	2 + 2 → 1 + 2 candidates	1 + 2 → 2 + 2 candidates	Complement of (4) and (5)	Heterogeneity by old candidate share
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voted exiting	0.073 [0.067]	0.159** [0.064]	-0.000 [0.051]	0.217*** [0.069]	0.202*** [0.055]	0.136*** [0.047]	0.141* [0.083]
Voted losing	-0.135** [0.055]						
Voted exiting × Voted losing	0.183 [0.119]						
Voted exiting × Conservative plumper (t-1)		-0.068 [0.098]					
Voted exiting × Conservative split (t-1)		-0.038 [0.085]					
Voted exiting × Liberal plumper (t-1)		0.176 [0.118]					
Voted exiting × Liberal split (t-1)		-0.070 [0.080]					
Voted exiting × Change in choice set			0.196*** [0.066]				
Voted exiting × Share of old candidates							0.014 [0.148]
Conservative plumper (t-1)	-0.424*** [0.061]	-0.392*** [0.068]	-0.430*** [0.055]	-0.232* [0.114]	-0.616*** [0.077]	-0.384*** [0.070]	-0.427*** [0.055]
Conservative split (t-1)	-0.424*** [0.063]	-0.395*** [0.063]	-0.411*** [0.073]	-0.187 [0.128]	-0.615*** [0.047]	-0.503*** [0.051]	-0.426*** [0.072]
Liberal plumper (t-1)	-0.264*** [0.074]	-0.337*** [0.086]	-0.242*** [0.064]	-0.168 [0.118]	-0.415*** [0.068]	-0.230*** [0.078]	-0.245*** [0.065]
Liberal split (t-1)	-0.453*** [0.056]	-0.408*** [0.060]	-0.455*** [0.058]	-0.358* [0.169]	-0.585*** [0.077]	-0.424*** [0.060]	-0.454*** [0.058]
<i>N</i>	48556	48556	48556	10145	7528	30883	48556
<i>R</i> <sup>2</sup>	0.25	0.25	0.25	0.20	0.31	0.25	0.25
Mean dependent variable	0.29	0.29	0.29	0.23	0.18	0.33	0.29
Reference group mean	0.32	0.52	0.22	0.10	0.14	0.14	0.07
Constituency × Election year FE	✓	✓	✓	✓	✓	✓	✓

*Notes:* The dependent variable is an indicator for switching vote choice between two consecutive elections. Change in candidate set is defined as any change in the number of candidates running for a party. Change in voting options is defined as any change in voters' ability to cast split, party split, or party plumper votes. The reference group is voters who voted for re-running winners in column (1), voters who cast a split vote to re-runners in column (2), voters who voted for re-running candidates in elections in which there was no change in the choice set in column (3), voters who voted for re-running candidates in columns (4)-(6), and voters who voted for re-running candidates and who face no old candidates in column (7). All regressions control for constituency × election year fixed effects. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

## 6.5 Heterogeneity in Split Voting and the Behavior of Past Partisan Voters

Split voting provides a natural proxy for electoral voice in this setting, as it allows voters to express dissatisfaction with a party's candidate slate without fully withdrawing support. However, the results in Online Appendix Table D5 show that split voting responds only weakly to candidate exit per se. Where responses do emerge, they are closely tied to mechanical changes in the choice set—such as the transition from four to three candidates, and to the presence of familiar candidates on the ballot.

These patterns indicate that while voice exists as a potential margin of adjustment, it is institutionally constrained and quantitatively limited in comparison to vote switching. This reinforces the interpretation of candidate exit as primarily triggering exit responses, rather than the reallocation of support through voice.

When restricting the sample to prior Conservative and Liberal voters, candidate exit increases vote switching only when it is accompanied by a mechanical change in the structure of the ballot. As shown in Online Appendix Table D6, exit has little effect on partisan voters' propensity to change their vote when the choice set remains comparable across elections. In contrast, large and statistically significant effects emerge when exit forces transitions between three- and four-candidate contests. This pattern indicates that partisan voters are not generally sensitive to candidate exit per se, but do respond when exit disrupts the effective presence of their party on the ballot. These findings are consistent with a loyalty interpretation in which attachment is mediated by party organization and institutional continuity rather than by individual candidates.

We also examine whether partisan voters respond to candidate exit by reallocating support through split voting, which we interpret as a form of electoral voice. As shown in Online Appendix Table D7, candidate exit has little effect on split voting among past party voters on average, and there is no evidence that split voting increases when exit mechanically alters the choice set. The only setting in which split voting responds to exit is when a large share of familiar candidates remains on the ballot. These results suggest that voice operates only when organizational and informational continuity is high, allowing voters to express dissatisfaction at low cost. In contrast, when candidate exit disrupts the structure of the ballot, partisan voters adjust primarily through vote switching rather than split voting.

## 6.6 Vote Buying and Voter Intimidation

One possibility is that candidates targeted specific voters through material inducements such as bribery or treating, as documented in both historical and contemporary electoral settings (Kam 2017; Aidt and Jensen 2017). In the nineteenth-century England, political operatives sometimes offered payments not only for votes but also for turnout (Nichter 2008), and local elites could on occasion rely on intimidation or coercion to shape electoral participation (Baland and Robinson 2008; Mares and Zhu 2015). Such practices undoubtedly formed part of the broader electoral environment. However, several features of our setting make these mechanisms unlikely to account for the patterns we observe.

First, bribery, treating, and coercion were organized overwhelmingly at the constituency level and remained relatively stable over time, reflecting entrenched local patronage structures rather than the influence of individual candidates. The constituency-election year fixed effects therefore absorb this variation. Candidate exit, by

contrast, is a candidate-specific shock occurring within a given constituency and election, and so it does not covary with constituency-level corruption regimes.

Second, historical accounts indicate that electoral violence and intimidation were far from ubiquitous in the constituencies we study. Wasserman and Jaggard (2006) show that such practices varied widely across space, and Blaxill et al. (2022) document that electoral violence in England peaked only after the Second Reform Act of 1867—after the end of our sample period. This timing further reduces the plausibility that coercion mechanisms are generating our results.

Third, our within-voter comparisons rule out explanations based on changes in the composition of voters susceptible to inducement or pressure. The same individuals alter their behavior when a preferred candidate exits, regardless of overall constituency tendencies toward bribery or coercion.

Finally, these alternative mechanisms cannot reproduce the distinctive pattern of responses we find: early Liberal voters, especially those with weak partisan attachments, exhibit strong exit and voice reactions, while Conservative voters show virtually none. If bribery, treating, or intimidation were driving the responses, we would not expect such systematic partisan asymmetry, nor would we expect the sharp decline in responses after 1865. These behavioral patterns align more closely with the development of partisan loyalty and organizational coherence than with changes in voter manipulation or local patronage structures.

## 6.7 Discussion

The mechanism tests together paint a clear picture of how voters interpreted candidate exit and why their reactions varied so sharply across parties and across the nineteenth century. The consistent pattern is that voters responded to exit when partisan loyalties were weak and organizations were only loosely structured. In such environments, the departure of a preferred candidate signaled instability in the representational offer, and voters reacted through either exit (party switching) or voice (split-ticket voting). Where partisan identities were already cohesive—most evident among Conservative voters—candidate-level disruptions had little effect.

This interpretation aligns closely with Hirschman’s framework. In settings where loyalty is underdeveloped and institutionalized channels of voice are weak, dissatisfaction is more likely to generate exit. As organizations consolidate and loyalty strengthens, both exit and voice become less common: committed members are less willing to abandon the organization or to express dissent within it. The contrast between the early Liberals and the Conservatives

illustrates this logic vividly. Liberal voters in the first half of the century behaved much like members of a low-loyalty organization, reacting sharply to the loss of individual candidates; Conservative voters, by contrast, behaved as members of a more coherent organization in which loyalty constrained both exit and voice.

The mechanism tests also show that these reactions were not driven by personal characteristics of departing candidates or by mechanical changes in the vote combinations available. Candidate performance, candidate experience, and changes in the candidate set all play at most a limited role. Voters were not responding to individuals but to what exit revealed about the organizational capacity of the party to provide continuity and representation.

## 7 Candidate Exit and Subsequent Vote Choices

We have thus far shown that voters of exiting candidates become more likely to change their vote choices in future elections, but we have not touched upon the exact implications this has for the vote choices. We conclude by analyzing these dependent variables.

The first takeaway from Table 7 is that voters who voted an exiting candidate did not become any more likely to cast split votes than those voters who gave their votes to rerunning candidates (column 1). We see that voters who voted an exiting candidate became more likely to cast Conservative votes, and less likely to vote for the Liberals (columns 2 and 3)—although the estimated effect on Conservative voting is only marginally statistically significant and the effect on Liberal voting insignificant. It is worthwhile noting that for most of the time period that our data span, it was the Liberals that were in power.

Moving beyond party choice, we examine the role of two observable candidate characteristics in columns (4) and (5). These are incumbency and being an aristocrat.<sup>16</sup> We code these variables as 0 if none of the candidates that a voter voted for is an incumbent or an aristocrat, and as 1 otherwise. We see that having voted for an exiting candidate is associated with a lower propensity of voting for the incumbent. Furthermore, voters of exiting candidates become less likely to vote for aristocrats.<sup>17</sup>

These results, with the exception of Conservative voting, are robust to controlling for voter fixed effects. We show these estimation results in Online Appendix Table D4.

---

<sup>16</sup>We classify all nobility, high-ranking military officers, and honorables as aristocracy. The classification is based on the titles reported in the Eggers and Spirling (2014) data.

<sup>17</sup>Some have argued that the British politics of the 1800s, with its various franchise reforms, witnessed a decline in the political influence of the British aristocracy (Cannadine 1990). However, others, such as Berlinski, Dewan, and van Coppenolle (2014), have challenged this view.

Altogether, these findings imply that candidate characteristics are not important in the sense that voters would pick a new candidate with the same characteristics as their previously preferred candidate who is no longer running for election. Candidate exit appears to be a focal moment that catalyzes reconsideration of partisan attachments. Thus, candidate turnover and candidate exit in particular could be associated with an increased demand for broader political change.

**Table 7.** Candidate exit and subsequent vote choices.

	Split	Conservative	Liberal	Incumbent	Aristocrat
	(1)	(2)	(3)	(4)	(5)
Voted exiting	0.024 [0.015]	0.105** [0.040]	-0.127*** [0.042]	-0.175*** [0.044]	-0.080* [0.046]
Conservative plumper (t-1)	-0.168*** [0.018]	0.412*** [0.025]	-0.240*** [0.026]	-0.281*** [0.061]	0.035 [0.061]
Conservative split (t-1)	-0.206*** [0.025]	0.348*** [0.052]	-0.140*** [0.048]	0.047 [0.087]	0.065 [0.055]
Liberal plumper (t-1)	-0.152*** [0.034]	-0.176** [0.068]	0.331*** [0.056]	-0.047 [0.079]	-0.029 [0.040]
Liberal split (t-1)	-0.164*** [0.027]	-0.339*** [0.044]	0.507*** [0.039]	0.201*** [0.066]	-0.010 [0.054]
<i>N</i>	48556	48556	48556	48556	48556
<i>R</i> <sup>2</sup>	0.20	0.43	0.44	0.39	0.67
Mean dependent variable	0.13	0.40	0.46	0.48	0.42
Reference group mean	0.14	0.33	0.53	0.59	0.44
Constituency × Election year FE	✓	✓	✓	✓	✓

*Notes:* The dependent variable is an indicator for splitting a vote between Liberals and Conservatives in column (1), an indicator for casting a Conservative (split or plumper) vote in column (2), an indicator for casting a Liberal (split or plumper) vote in column (3), an indicator for voting for at least one incumbent candidate in column (4), and an indicator for voting for at least one aristocrat candidate in column (5). All regressions control for election year and constituency fixed effects. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

## 8 Concluding Remarks

We study a unique empirical setting in which all components of Hirschman’s framework—exit, voice, and loyalty—can be observed and evaluated. Because nineteenth-century British elections were recorded at the individual level, we can trace how each voter responded to a clear instance of organizational decline: the exit of a previously supported candidate. This combination of complete behavioral data and an identifiable

shock allows us to test Hirschman’s central claim that loyalty tempers exit and stabilizes organizations after adversity, especially in the political domain where voice and loyalty matter more than exit.

We first used the voter-level data to describe patterns in vote choice over time. This analysis importantly suggests that trends pointing towards a more party-oriented electorate—such as the decline in split voting after 1850s—resulted from changes in voting behavior rather than from changes in the types of voters. That said, it is noteworthy that a substantial portion of voters maintain consistent voting patterns across consecutive elections already in the earlier decades of the 19th century. However, the constancy of party voting could be misleading; even if some voters voted partisan tickets, they could have been actually voting people without showing loyalty to a party per se.

Our findings highlight the importance of candidate exit in shaping voter behavior. We find that voters who previously supported exiting candidates are significantly more likely to change their partisan voting behavior in subsequent elections—that is, to choose exit or voice—particularly when candidate exit leads to changes in voters’ available choices or when voters supported losing candidates. Moreover, this effect is more pronounced during the earlier decades of our study period. This implies that, despite a large part of the electorate consistently giving partisan votes, we should not view the British electorate early in our study period as a dominantly party-oriented one as Phillips and Wetherell (1995) asserted. Had voters already formed firm connections with and loyalty political parties, they ought not have changed their vote choices as a reaction to candidate exit. However, by the second half of the nineteenth century, voters no longer systematically reacted to candidate exit by altering their voting behavior, consistent with Hirschman’s conjecture that that ostensibly irrational attachment to an organization can in fact play a functional role in styming exit within organizations. Overall, we may conclude that voter alignment with political parties was ultimately a dynamic process that continued throughout the 1800s.

Interestingly, those who react to candidate exit most strongly tend to be split voters who initially showed less partisanship. Candidate exit appears to push these voters towards more partisan voting behavior. In that, our analysis is also in agreement with the conclusions of Cox (1986, 1987) and many others who argued that the British electorate finally became party-oriented around the 1860s, as measured by the prevalence of split voting. What is more, we provide evidence of one mechanism that was driving the decline in split voting over time. Uncovering this type of mechanism would not have been possible without the poll book data.

Poll books provide a novel window into understanding political development. In this study, we have also exemplified their usefulness by documenting one ecological fallacy.

Aggregate data reveal a negative correlation between candidate exit rates and electoral volatility in the time series, but our individual-level data points to an opposite relationship. Conversely, the patterns observed in constituency-level aggregate data regarding split and partisan voting align with the micro-level data, reinforcing the reliability of observed behavioral changes.

More generally, we believe that studying the electoral dynamics of nineteenth-century Britain, a precursor to contemporary democracies, offers invaluable parallels. It was a developing context by modern standards, and thus, our lessons might extend over time to countries that are developing today. Understanding the connections between parties and the voters may be informative in understanding both the course of history and how developing countries today could move from a clientelistic system to one with programmatic parties (Hicken 2011; Stokes 2005; Wantchekon 2003). Candidate orientation is also linked with clientelistic behavior among the politicians, and clientelistic ties may further be bolstered by little variability in available candidates across elections.<sup>18</sup> There is a broad agreement that clientelism may hurt development and democracy by hindering public goods provision, political competition, and political accountability (see Hicken 2011 and Bardhan and Mookherjee 2016 for a reviews). Our findings suggest that the emergence of voter loyalty to party organizations rather than individual candidates can facilitate the transition from a clientelistic system with weak parties to a strong party system with programmatic policies.

A key contribution of our analysis is to clarify the mechanism through which voter loyalty ultimately emerged. Our evidence indicates that loyalty did not arise automatically from repeated voting or from voters' intrinsic attachment to parties, but was facilitated by changes in the organizational structure of political competition. When party organizations were weak and individual Members of Parliament exercised substantial autonomy, candidate exit constituted a meaningful shock to voters' expectations about future representation, prompting exit or voice. As party organizations consolidated—through greater elite coordination, clearer partisan identities, and tighter links between party labels and parliamentary behavior—party affiliation became a more reliable guide to political outcomes. In this environment, loyalty increasingly attached to parties rather than to individual candidates, reducing voters' responsiveness to candidate-level disruptions. This process reflects a feedback mechanism in which stronger party organization facilitates loyalty from the top down, while the resulting stability in voter behavior reinforces party survival and institutionalization.

---

<sup>18</sup>See also Bardhan and Mookherjee (2018) for related theoretical claims.

## References

- Acemoglu, Daron, and James A. Robinson. 2000. "Why Did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective." *Quarterly Journal of Economics* 115 (4): 1167–1199.
- Acemoglu, Daron, and James A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. Cambridge, UK: Cambridge University Press.
- Aidt, Toke S., and Peter S. Jensen. 2017. "From Open to Secret Ballot: Vote Buying and Modernization." *Comparative Political Studies* 50 (5): 555–539.
- Aidt, Toke S., and Raphaël Franck. 2015. "Democratization under the Threat of Revolution: Evidence from the Great Reform Act of 1832." *Econometrica* 83 (2): 505–547.
- Aidt, Toke S., and Raphaël Franck. 2025. *Peaceful and Violent Origins of Voting Rights: A Political Economy Analysis of the Great Reform Act of 1832*. Oxford University Press.
- Aldrich, John H. 1995. *Why Parties? The Origin and Transformation of Political Parties in America*. Chicago: University of Chicago Press.
- Andrews, F. W. G. 2001. "Parliamentary Poll Books of Sandwich, Kent, 1831–1868." UK Data Service, SN: 4170. Available online at <http://dx.doi.org/10.5255/UKDA-SN-4170-1>.
- Bakker, Bert N., Robert Klemmensen, Asbjørn Sonne Nørgaard, and Gijs Schumacher. 2016. "Stay Loyal or Exit the Party? How Openness to Experience and Extroversion Explain Vote Switching." *Political Psychology* 37 (3): 419–429.
- Baland, Jean-Marie, and James A. Robinson. 2008. "Land and Power: Theory and Evidence from Chile." *American Economic Review* 98 (5): 1737–1765.
- Bardhan, Pranab, and Dilip Mookherjee. 2018. "A Theory of Clientelistic Politics versus Programmatic Politics." Working paper. Available online at <http://people.bu.edu/dilipm/wkpap/ClvsPrPolTheoryv6Aug2018.pdf>.
- Bardhan, Pranabh, and Dilip Mookherjee. 2016. "Clientelistic Politics and Economic Development: An Overview." EDI Working Paper Series WP16/10.111.5.
- Bartolini, Stefano, and Peter Mair. 1990. *Identity, Competition and Electoral Availability: The Stabilisation of European Electorates 1885–1985*. Oxford University Press.

- Berlinski, Samuel, Torun Dewan, and Brenda van Coppenolle. 2014. "Franchise Extension and the British Aristocracy." *Legislative Studies Quarterly* 39 (4): 531–558.
- Biagini, Eugenio F. 1992. *Liberty, Retrenchment and Reform: Popular Liberalism in the Age of Gladstone, 1860-1880*. Cambridge: Cambridge University Press.
- Blaxill, Luke, Gideon Cohen, Gary Hutchison, Patrick M Kuhn, and Nick Vivyan. 2022. "Electoral Violence in England and Wales, 1832-1914." *Working Paper, School of Government and International Affairs (SGIA), Durham University*.
- Broccardo, Eleonora, Oliver Hart, and Luigi Zingales. 2022. "Exit versus Voice." *Journal of Political Economy* 130 (12): 3101-3145.
- Cannadine, David. 1990. *The Decline and Fall of the British Aristocracy*. Yale University Press.
- Cox, Gary. 1986. "The Development of a Party-Oriented Electorate in England." *British Journal of Political Science* 16: 187–216.
- Cox, Gary. 1987. *The Efficient Secret*. Cambridge, Cambridge University Press.
- Cox, Gary W., and Tobias Nowacki. 2023. "The Emergence of Party-Based Political Careers in the United Kingdom, 1801–1918." *Journal of Politics* 85 (1): 178–191.
- Dewan, Torun, Christopher Kam, Jaakko Meriläinen, and Janne Tukiainen. 2019. "Class, Social Mobility, and Voting: Evidence from Historical Voting Records." Working paper.
- Dewan, Torun, Jaakko Meriläinen, and Janne Tukiainen. 2020. "Victorian Voting: The Origins of Party Orientation and Class Alignment." *American Journal of Political Science* 64 (4): 869-886.
- Drake, Michael, and Carol Pearce. 2001. "Ashford, 1840-1870: a Socio-demographic Study." UK Data Service, SN: 2948. Available online at <http://dx.doi.org/10.5255/UKDA-SN-2948-1>.
- Duverger, Maurice. 1954. *Political Parties: Their Organization and Activity in the Modern State*. London: Methuen.
- Eggers, Andrew C., and Arthur Spirling. 2014. "Electoral Security as a Determinant of Legislator Activity, 1832–1918: New Data and Methods for Analyzing British Political Development." *Legislative Studies Quarterly* 39 (4): 593–620.

- Franklin, Charles H., and John E. Jackson. 1983. "The Dynamics of Party Identification." *American Political Science Review* 77 (4): 957–973.
- Freeman, R. B. 1976. "Individual Mobility and Union Voice in the Labor Market." *American Economic Review Papers & Proceedings* 66 (2): 361–368.
- Freeman, Richard B. 1980. "The Exit-Voice Tradeoff in the Labor Market: Unionism, Job Tenure, Quits, and Separations." *Quarterly Journal of Economics* 94 (06): 643-673.
- Gans, Joshua S., Avi Goldfarb, and Mara Lederman. 2021. "Exit, Tweets, and Loyalty." *American Economic Journal: Microeconomics* 13 (May): 68–112.
- Gantchev, Nickolay. 2013. "The costs of shareholder activism: Evidence from a sequential decision model." *Journal of Financial Economics* 107 (3): 610-631.
- Gash, Norman. 1977. *Politics in the Age of Peel: A Study in the Technique of Parliamentary Representation, 1830-1850*. Atlantic Highlands, Harvester Press Limited.
- Hanham, Harold John. 1959. *Elections and Party Management: Politics in the Time of Disraeli and Gladstone*. London, Longmans.
- Hicken, Allen. 2011. "Clientelism." *Annual Review of Political Science* 14 (1): 289-310.
- Hirschman, Albert. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, Harvard University Press.
- Kam, Christopher. 2017. "The Secret Ballot and the Market for Votes at 19th-Century British Elections." *Comparative Political Studies* 50 (5): 594-635.
- Kam, Christopher, and Adlai Newson. 2020. *The Economic Origins of Political Parties: A Comparative Perspective*. Cambridge: Cambridge University Press.
- Keefer, Philip. 2007. "Clientelism, Credibility, and the Policy Choices of Young Democracies." *American Journal of Political Science* 51 (4): 804–821.
- Kitschelt, Herbert. 2000. "Linkages Between Citizens and Politicians in Democratic Polities." *Comparative Political Studies* 33 (6-7): 845–879.
- Kleven, Henrik, Camille Landais, Mathilde Muñoz, and Stefanie Stantcheva. 2020. "Taxation and Migration: Evidence and Policy Implications." *Journal of Economic Perspectives* 34 (May): 119–42.

- Lipset, Seymour Martin. 1960. *Political Man: The Social Bases of Politics*. Garden City, New York: Anchor Books.
- Lipset, Seymour Martin, and Stein Rokkan. 1967. *Party Systems and Voter Alignments: Cross-National Perspectives*. New York: Free Press.
- Lizzeri, Alessandro, and Nicola Persico. 2004. "Why Did the Elites Extend the Suffrage? Democracy and the Scope of Government, with an Application to Britain's "Age of Reform"." *Quarterly Journal of Economics* 119 (2): 707–765.
- Mainwaring, Scott, and Timothy R. Scully. 1995. *Building Democratic Institutions: Party Systems in Latin America*. Stanford, CA: Stanford University Press.
- Mares, Isabela, and Boliang Zhu. 2015. "The production of electoral intimidation: Economic and political incentives." *Comparative Politics* 48 (1): 23-43.
- Maute, Manfred F., and William R. Forrester. 1993. "The structure and determinants of consumer complaint intentions and behavior." *Journal of Economic Psychology* 14 (2): 219-247.
- Mitchell, Jeremy C. 2008. *Elections and Party Organization in Victorian England*. London: Palgrave Macmillan.
- Nichter, Simeon. 2008. "Vote Buying or Turnout Buying? Machine Politics and the Secret Ballot." *American Political Science Review* 102 (1): 19–31.
- North, Douglass C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- O’Gorman, Frank. 1989. *Voters, Patrons, and Parties: The Unreformed Electoral System of Hanoverian England 1734-1832*. Oxford: Clarendon Press.
- Ostrogorski, Moisei. 1902. *Democracy and the Organization of Political Parties*. Vol. 1-2 New York: Macmillan.
- Parry, Jonathan. 1993. *The Rise and Fall of Liberal Government in Victorian Britain*. New Haven and London: Yale University Press.
- Pedersen, Mogens N. 1979. "The Dynamics of European Party Systems: Changing Patterns of Electoral Volatility." *European Journal of Political Research* 7 (1): 1–26.
- Phillips, John A., and Charles Wetherell. 1995. "The Great Reform Act of 1832 and the Political Modernization of England." *American Historical Review* 100 (2): 411–436.

- Przeworski, Adam. 1991. *Democracy and the Market: Political and Economic Reforms in Eastern Europe and Latin America*. Cambridge University Press.
- Przeworski, Adam. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950–1990*. Cambridge: Cambridge University Press.
- Radice, Paula Kim Vandersluys. 1992. “Identification, Interests and Influence: Voting Behaviour in Four English Constituencies in the Decade after the Great Reform Act.” Doctoral thesis Durham University.
- Robinson, William S. 1950. “Ecological Correlations and the Behavior of Individuals.” *American Sociological Review* 15 (3): 351-357.
- Saunders, Robert. 2007. “The Politics of Reform and the Making of the Second Reform Act, 1848-1867.” *Historical Journal* 50 (3): 571-591.
- Stokes, Susan C. 2005. “Perverse Accountability: A Formal Model of Machine Politics with Evidence from Argentina.” *American Political Science Review* 99 (3): 315-325.
- Strøm, Kaare. 1992. “Democracy as Political Competition.” *American Behavioral Scientist* 35 (4-5): 375-396.
- Sykes, R. 1977. “Voting Behaviour in Guildford, 1790–1868.” UK Data Service, SN: 977. Available online at <http://dx.doi.org/10.5255/UKDA-SN-977-1>.
- Tiebout, Charles M. 1956. “A Pure Theory of Local Expenditures.” *Journal of Political Economy* 64 (5): 416–424.
- Wantchekon, Leonard. 2003. “Clientilism and Voting Behavior: Evidence from a Field Experiment in Benin.” *World Politics* 55: 399-422.
- Wasserman, Justin, and Edwin Jaggard. 2006. “Electoral violence in mid nineteenth-century England and Wales.” *Historical Research* 80 (207): 124-155.
- White, A., and C. Arthur. 2001. “Name, Residence, Vote and Occupation for the 1852 and 1857 Sheffield General Elections.” UK Data Service, SN: 4241. Available online at <http://doi.org/10.5255/UKDA-SN-4241-1>.

# Candidate Exit and Voter Loyalty during Early Democratization

## Online Appendix

Torun Dewan\* Christopher Kam<sup>†</sup>  
Jaakko Meriläinen<sup>‡</sup> Janne Tukiainen<sup>§</sup>

February 11, 2026

---

\*Department of Government, London School of Economics and Political Science. Email: [T.Dewan@lse.ac.uk](mailto:T.Dewan@lse.ac.uk).

<sup>†</sup>Department of Political Science, University of British Columbia. Email: [chris.kam@ubc.ca](mailto:chris.kam@ubc.ca).

<sup>‡</sup>Department of Economics, Stockholm School of Economics. Email: [jaakko.merilainen@hhs.se](mailto:jaakko.merilainen@hhs.se).

<sup>§</sup>Department of Economics, University of Turku. Email: [janne.tukiainen@utu.fi](mailto:janne.tukiainen@utu.fi).

# Contents

<b>A Further Information on Our Data</b>	<b>OA3</b>
<b>B Comparisons of Our Data and Other Constituencies</b>	<b>OA13</b>
<b>C Voting Behavior of New and Old Voters</b>	<b>OA14</b>
<b>D Further Estimation Results</b>	<b>OA15</b>
D.1 Alternative Coding of Vote Choices . . . . .	OA15
D.2 Additional Fixed Effects Results . . . . .	OA16
D.3 Mechanisms Results for Split Voting and Partisan Sample . . . . .	OA21

## A Further Information on Our Data

Table A1 shows information on the candidates who ran in the elections contained in our data. We report candidates names, partisanship, and election status. Candidates whose names are shown in bold are those whose exit we exploit in our analyses. We exploit 157 candidate exits in our empirical analyses. The total number of candidacies (that is, candidate-year pairs) in the elections that we use in our analyses is 371.

**Table A1.** Candidates in our data.

Year	Constituency	Name	Party	Elected
1832	Aylesbury	H. Hanmer	C	1
1832	Aylesbury	T.B. Hobhouse	L	0
1832	Aylesbury	W. Rickford	L	1
1835	Aylesbury	<b>H. Hanmer</b>	C	1
1835	Aylesbury	<b>J. Lee</b>	L	0
1835	Aylesbury	<b>T.B. Hobhouse</b>	L	0
1835	Aylesbury	W. Rickford	L	1
1852	Aylesbury	<b>A.F. Bayford</b>	C	0
1852	Aylesbury	A.H. Layard	L	1
1852	Aylesbury	<b>J.T. West</b>	C	0
1852	Aylesbury	R. Bethell	L	1
1857	Aylesbury	A.H. Layard	L	0
1857	Aylesbury	Sir R. Bethell	L	1
1857	Aylesbury	T.T. Bernard	C	1
1841	Barnstaple	F. Hodgson	C	1
1841	Barnstaple	Hon. J.W. Fortescue	L	0
1841	Barnstaple	<b>M. Gore</b>	C	1
1841	Barnstaple	<b>Sir J.P.B. Chichester, Bt.</b>	L	0
1847	Barnstaple	<b>F. Hodgson</b>	C	0
1847	Barnstaple	<b>Hon. J.W. Fortescue</b>	L	1
1847	Barnstaple	R. Brembridge	C	1
1852	Barnstaple	<b>R. Brembridge</b>	C	1
1852	Barnstaple	Sir W.A. Fraser, Bt.	C	1
1852	Barnstaple	<b>Viscount Ebrington</b>	L	0
1857	Barnstaple	G. Potts	L	0
1857	Barnstaple	<b>H.T. Prinsep</b>	C	0
1857	Barnstaple	<b>J. Laurie</b>	C	1
1857	Barnstaple	<b>J. Taylor</b>	L	0
1857	Barnstaple	Sir W.A. Fraser, Bt.	C	1
1859	Barnstaple	<b>G. Potts</b>	L	1
1859	Barnstaple	<b>J.D.F. Davie</b>	L	1
1859	Barnstaple	Sir G.S. Stucley, Bt.	C	0
1859	Barnstaple	<b>Sir W.A. Fraser, Bt.</b>	C	0
1865	Barnstaple	H. Gwyn	C	0
1865	Barnstaple	H. Hawkins	L	0
1865	Barnstaple	Sir G.S. Stucley, Bt.	C	1
1865	Barnstaple	T. Cave	L	1
1847	Bath	<b>J.A. Roebuck</b>	L	0
1847	Bath	<b>Lord Ashley</b>	C	1
1847	Bath	<b>Viscount Duncan</b>	L	1

1852	Bath	G.T. Scobell	L	1
1852	Bath	T. Phinn	L	1
1852	Bath	W. Whateley	C	0
1859	Beverley	<b>E.A. Glover</b>	L	0
1859	Beverley	H. Edwards	C	1
1859	Beverley	<b>J.R. Walker</b>	C	0
1859	Beverley	<b>R. Walters</b>	L	1
1865	Beverley	<b>C. Sykes</b>	C	1
1865	Beverley	<b>D. Keane</b>	L	0
1865	Beverley	<b>H. Edwards</b>	C	1
1868	Beverley	A. Trollope	L	0
1868	Beverley	E.H. Kennard	C	1
1868	Beverley	Hon. M.C. Maxwell	L	0
1868	Beverley	Sir H. Edwards, Bt.	C	1
1852	Boston	<b>B.B. Cabbell</b>	C	1
1852	Boston	<b>G.H. Heathcote</b>	L	1
1852	Boston	<b>J.A. Hankey</b>	L	0
1852	Boston	<b>T. Hankey</b>	L	0
1852	Boston	<b>W.H. Adams</b>	C	0
1859	Boston	<b>H. Ingram</b>	L	1
1859	Boston	M. Staniland	L	1
1859	Boston	<b>J.H. Hollway</b>	C	0
1865	Boston	J.W. Malcolm	C	1
1865	Boston	M. Staniland	L	1
1865	Boston	<b>T. Parry</b>	L	0
1868	Boston	J.W. Malcolm	C	1
1868	Boston	M. Staniland	L	0
1868	Boston	T. Collins	C	1
1868	Boston	T.M. Jones	L	0
1847	Cambridge	<b>Hon. J.H.T.M. Sutton</b>	C	0
1847	Cambridge	<b>Hon. W.F. Campbell</b>	L	1
1847	Cambridge	R.A.S. Adair	L	1
1852	Cambridge	<b>F. Mowatt</b>	L	0
1852	Cambridge	<b>J.H. Astell</b>	C	1
1852	Cambridge	K. Macaulay	C	1
1852	Cambridge	R.A.S. Adair	L	0
1857	Cambridge	A. Steuart	C	1
1857	Cambridge	J.T. Hibbert	L	0
1857	Cambridge	K. Macaulay	C	1
1857	Cambridge	R.A.S. Adair	L	0
1837	Canterbury	<b>F. Villiers</b>	L	0
1837	Canterbury	<b>H.P. Gipps</b>	C	0
1837	Canterbury	J. Bradshaw	C	1
1837	Canterbury	<b>Lord Albert Conygham</b>	L	1
1841	Canterbury	Hon. G.A.F.P.S. Smythe	C	1

1841	Canterbury	J. Bradshaw	C	1
1841	Canterbury	T.T. Hodges	L	0
1852	Gloucester	<b>H.T. Hope</b>	C	0
1852	Gloucester	M.F.F. Berkeley	L	1
1852	Gloucester	W.P. Price	L	1
1857	Gloucester	<b>Sir M.F.F. Berkeley</b>	L	0
1857	Gloucester	Sir R.W. Carden	C	1
1857	Gloucester	W.P. Price	L	1
1859	Gloucester	C.J. Monk	L	1
1859	Gloucester	Sir R.W. Carden	C	0
1859	Gloucester	W.P. Price	L	1
1852	Great Yarmouth	<b>C.E. Rumbold</b>	L	1
1852	Great Yarmouth	<b>Sir C. Napier</b>	L	0
1852	Great Yarmouth	Sir E.H.K. Lacon, Bt.	C	1
1852	Great Yarmouth	W.T. McCullagh	L	0
1857	Great Yarmouth	E.M. Watkin	L	1
1857	Great Yarmouth	<b>Hon. C.S. Vereker</b>	C	0
1857	Great Yarmouth	Sir E.H.K. Lacon, Bt.	C	0
1857	Great Yarmouth	<b>W.T. McCullagh</b>	L	1
1859	Great Yarmouth	<b>A.W. Young</b>	L	0
1859	Great Yarmouth	<b>E.W. Watkin</b>	L	0
1859	Great Yarmouth	Sir E.H.K. Lacon, Bt.	C	1
1859	Great Yarmouth	<b>Sir H.J. Strachey, Bt.</b>	C	1
1865	Great Yarmouth	A. Brogden	L	0
1865	Great Yarmouth	J. Goodson	C	1
1865	Great Yarmouth	P. Vanderbyl	L	0
1865	Great Yarmouth	Sir E.H.K. Lacon, Bt.	C	1
1832	Guildford	C.B. Wall	C	1
1832	Guildford	<b>Hon. C.F. Norton</b>	L	0
1832	Guildford	J. Mangles	L	1
1835	Guildford	C.B. Wall	C	1
1835	Guildford	<b>H.A.C. Austen</b>	L	0
1835	Guildford	J. Mangles	L	1
1837	Guildford	C.B. Wall	C	1
1837	Guildford	Hon. J.Y. Scarlett	C	1
1837	Guildford	<b>J. Mangles</b>	L	0
1841	Guildford	<b>C.B. Wall</b>	L	1
1841	Guildford	<b>Hon. J.Y. Scarlett</b>	C	0
1841	Guildford	R.D. Mangles	C	1
1847	Guildford	<b>H. Currie</b>	C	1
1847	Guildford	R.D. Mangles	L	1
1847	Guildford	T.L. Thurlow	C	0
1852	Guildford	J. Bell	L	1
1852	Guildford	R.D. Mangles	L	1
1852	Guildford	<b>T.L. Thurlow</b>	C	0

1857	Guildford	<b>J. Bell</b>	L	0
1857	Guildford	<b>R.D. Mangles</b>	L	1
1857	Guildford	W. Bovill	C	1
1865	Guildford	G.J.H.M.E. Onslow	L	1
1865	Guildford	<b>W. Bovill</b>	C	1
1865	Guildford	<b>W.W. Pocock</b>	L	0
1868	Guildford	G.J.H.M.E. Onslow	L	1
1868	Guildford	R. Garth	C	0
1835	Halifax	C. Wood	L	1
1835	Halifax	E. Protheroe	L	0
1835	Halifax	Hon. J.A.S. Wortley	C	1
1837	Halifax	C. Wood	L	1
1837	Halifax	E. Protheroe	L	1
1837	Halifax	<b>Hon. J.A.S. Wortley</b>	C	0
1841	Halifax	C. Wood	L	1
1841	Halifax	<b>E. Protheroe</b>	L	1
1841	Halifax	<b>Sir G. Sinclair, Bt.</b>	C	0
1847	Halifax	<b>E. Miall</b>	L	0
1847	Halifax	E.C. Jones	C	0
1847	Halifax	H. Edwards	C	1
1847	Halifax	Sir C. Wood, Bt.	L	1
1852	Halifax	<b>E.C. Jones</b>	C	0
1852	Halifax	F. Crossley	L	1
1852	Halifax	H. Edwards	C	0
1852	Halifax	Sir C. Wood, Bt.	L	1
1857	Harwich	<b>G.D. Warburton</b>	L	1
1857	Harwich	H.J.W. Jervis	C	0
1857	Harwich	<b>J. Bagshaw</b>	L	1
1859	Harwich	H.J.W. Jervis	C	1
1859	Harwich	Hon W.F. Campbell	L	1
1859	Harwich	Hon. R.T. Rowley	C	0
1859	Harwich	J.C. Marshman	L	0
1832	Ipswich	<b>C. Mackinnon</b>	C	0
1832	Ipswich	<b>E. Goulburn</b>	C	0
1832	Ipswich	F. Kelly	C	0
1832	Ipswich	J. Morrison	L	1
1832	Ipswich	R. Wason	L	1
1835	Ipswich	F. Kelly	C	1
1835	Ipswich	J. Morrison	L	0
1835	Ipswich	R. Wason	L	0
1835	Ipswich	R.A. Dundas	C	1
1852	Kent Eastern	Sir B.W. Bridges, Bt.	C	0
1852	Kent Eastern	Sir E.C. Dering, Bt.	L	1
1852	Kent Eastern	W. Deedes	C	1
1857	Kent Eastern	<b>E.A. Acheson</b>	L	0

1857	Kent Eastern	Sir B.W. Bridges, Bt.	C	1
1857	Kent Eastern	Sir E.C. Dering, Bt.	L	1
1857	Kent Eastern	<b>W. Deedes</b>	C	0
1865	Kent Eastern	<b>Sir B.W. Bridges, Bt.</b>	C	1
1865	Kent Eastern	<b>Sir E.C. Dering, Bt.</b>	L	1
1865	Kent Eastern	<b>Sir N.J. Knatchbull, Bt.</b>	C	0
1868	Kent Eastern	E.L. Pemberton	C	1
1868	Kent Eastern	H.J. Tufton	L	0
1868	Kent Eastern	Hon. G.W. Milles	C	1
1868	Kent Eastern	Sir J. Croft, Bt.	L	0
1835	Kingston upon Hull	<b>D. Carruthers</b>	C	1
1835	Kingston upon Hull	<b>M.D. Hill</b>	L	0
1835	Kingston upon Hull	W. Hutt	L	1
1837	Kingston upon Hull	B. Wood	L	0
1837	Kingston upon Hull	Sir W.C. James, Bt.	C	1
1837	Kingston upon Hull	W. Hutt	L	1
1837	Kingston upon Hull	W. Wilberforce	C	0
1847	Kingston upon Hull	<b>J. Brown</b>	L	0
1847	Kingston upon Hull	J. Clay	L	1
1847	Kingston upon Hull	<b>M.T. Baines</b>	L	1
1852	Kingston upon Hull	<b>Hon. C.L. Butler</b>	C	0
1852	Kingston upon Hull	J. Clay	L	1
1852	Kingston upon Hull	<b>J.B. Moore</b>	C	0
1852	Kingston upon Hull	<b>Viscount Goderich</b>	L	1
1857	Kingston upon Hull	J. Clay	L	1
1857	Kingston upon Hull	<b>Lord Ashley</b>	L	1
1857	Kingston upon Hull	<b>Lord William Compton</b>	L	0
1857	Kingston upon Hull	<b>W.D. Seymour (2)</b>	L	0
1859	Kingston upon Hull	J. Clay	L	1
1859	Kingston upon Hull	J. Hoare	C	1
1859	Kingston upon Hull	J.H. Lewis	L	0
1837	Lancaster	G. Marton	C	1
1837	Lancaster	P.M. Stewart	L	0
1837	Lancaster	T. Greene	C	1
1837	Lancaster	<b>W.R. Greg</b>	L	0
1841	Lancaster	<b>G. Marton</b>	C	1
1841	Lancaster	J. Armstrong	L	0
1841	Lancaster	T. Greene	C	1
1847	Lancaster	<b>E.D. Salisbury</b>	C	0
1847	Lancaster	S. Gregson	L	1
1847	Lancaster	T. Greene	C	1
1852	Lancaster	<b>J. Ellis</b>	C	0
1852	Lancaster	<b>T. Greene</b>	C	0
1852	Lancaster	S. Gregson	L	1
1852	Lancaster	<b>R.B. Armstrong</b>	L	1

1857	Lancaster	S. Gregson	L	1
1857	Lancaster	W.J. Garnett	C	1
1857	Lancaster	<b>R. Gladstone</b>	C	0
1859	Lancaster	<b>S. Gregson</b>	L	1
1859	Lancaster	<b>W.J. Garnett</b>	C	1
1859	Lancaster	E.M. Fenwick	L	0
1859	Lancaster	<b>W.A.F. Saunders</b>	C	0
1865	Lancaster	E.M. Fenwick	L	1
1865	Lancaster	H.W. Schneider	L	1
1865	Lancaster	E. Lawrence	C	0
1847	Maldon	<b>D. Waddington</b>	C	1
1847	Maldon	Q. Dick	C	0
1847	Maldon	T.B. Lennard	L	1
1852	Maldon	<b>C. Du Cane</b>	C	1
1852	Maldon	<b>Q. Dick</b>	C	0
1852	Maldon	<b>T.B. Lennard</b>	L	0
1852	Maldon	<b>T.J. Miller</b>	C	1
1857	Maldon	G.M.W. Peacocke	C	0
1857	Maldon	<b>J.B. Moore</b>	C	1
1857	Maldon	T.S. Western	L	1
1859	Maldon	A.W.H. Meyrick	C	0
1859	Maldon	G.M.W. Peacocke	C	1
1859	Maldon	T.S. Western	L	1
1835	North Lincolnshire	Hon. C.A.W. Pelham (Lord Worsley)	L	1
1835	North Lincolnshire	<b>Sir W.A. Ingilby, Bt.</b>	L	0
1835	North Lincolnshire	<b>T.G. Corbett</b>	C	1
1841	North Lincolnshire	<b>Hon. C.H. Cust</b>	C	0
1841	North Lincolnshire	<b>Lord Worsley</b>	L	1
1841	North Lincolnshire	R.A. Christopher	C	1
1852	North Lincolnshire	J.B. Stanhope	C	1
1852	North Lincolnshire	R.A. Christopher (R.A.C.N. Hamilton)	C	1
1852	North Lincolnshire	Sir M.J. Cholmeley, Bt.	L	0
1857	Norwich	H.W. Schneider	L	1
1857	Norwich	Sir S. Bignold	C	0
1857	Norwich	Viscount Bury	L	1
1859	Norwich	<b>C.M. Lushington</b>	C	0
1859	Norwich	<b>H.W. Schneider</b>	L	1
1859	Norwich	<b>Sir S. Bignold</b>	C	0
1859	Norwich	<b>Viscount Bury</b>	L	1
1865	Norwich	<b>A. Goldsmid</b>	C	0
1865	Norwich	<b>E. Warner</b>	L	1
1865	Norwich	<b>R.E.C. Waters</b>	C	0
1865	Norwich	Sir W. Russell, Bt.	L	1
1868	Norwich	J.H. Tillett	L	0
1868	Norwich	Sir H.J. Stacey, Bt.	C	1

1868	Norwich	Sir W. Russell, Bt.	L	1
1857	Peterborough	G.H. Whalley	L	0
1857	Peterborough	<b>Hon. G.H. Fitzwilliam</b>	L	1
1857	Peterborough	T. Hankey	L	1
1859	Peterborough	G.H. Whalley	L	1
1859	Peterborough	J.H.L. Wingfield	C	0
1859	Peterborough	J.P. Wilde	L	0
1859	Peterborough	T. Hankey	L	1
1852	Preston	C.P. Grenfell	L	0
1852	Preston	<b>J. German</b>	L	0
1852	Preston	<b>R.T. Parker</b>	C	1
1852	Preston	Sir G. Strickland, Bt.	L	1
1857	Preston	C.P. Grenfell	L	1
1857	Preston	R.A. Cross	C	1
1857	Preston	<b>Sir G. Strickland, Bt.</b>	L	0
1859	Preston	C.P. Grenfell	L	1
1859	Preston	J.T. Clifton	C	0
1859	Preston	R.A. Cross	C	1
1832	Sandwich	<b>J. Maryat</b>	L	1
1832	Sandwich	S.G. Price	C	0
1832	Sandwich	Sir E.T. Troubridge, Bt.	L	1
1832	Sandwich	Sir E.W.C.R. Owen	C	0
1835	Sandwich	S.G. Price	C	1
1835	Sandwich	Sir E.T. Troubridge, Bt.	L	1
1835	Sandwich	<b>Sir E.W.C.R. Owen</b>	C	0
1837	Sandwich	<b>S.G. Price</b>	C	0
1837	Sandwich	<b>Sir B.W. Bridges, Bt.</b>	C	0
1837	Sandwich	<b>Sir E.T. Troubridge, Bt.</b>	L	1
1837	Sandwich	<b>Sir J.R. Carnac, Bt.</b>	L	1
1847	Sandwich	<b>C.W. Grenfell</b>	L	1
1847	Sandwich	<b>Lord Charles Clinton</b>	C	0
1847	Sandwich	Lord Clarence Paget	L	1
1857	Sandwich	E.H.K. Hugessen	L	1
1857	Sandwich	<b>J. Lang</b>	L	0
1857	Sandwich	<b>J. McGregor</b>	C	0
1857	Sandwich	Lord Clarence Paget	L	1
1859	Sandwich	E.H.K. Hugessen	L	1
1859	Sandwich	Lord Clarence Paget	L	1
1859	Sandwich	<b>Sir J. Fergusson, Bt.</b>	C	0
1859	Sandwich	<b>W.D. Lewis</b>	C	0
1865	Sandwich	<b>C. Capper</b>	C	0
1865	Sandwich	E.H.K. Hugessen	L	1
1865	Sandwich	<b>Lord Clarence Paget</b>	L	1
1868	Sandwich	E.H.K. Hugessen	L	1
1868	Sandwich	H. Worms	C	0

1868	Sandwich	H.A. Brassey	L	1
1852	Sheffield	G. Hadfield	L	1
1852	Sheffield	<b>J. Parker</b>	L	0
1852	Sheffield	J.A. Roebuck	L	1
1852	Sheffield	W. Overend	C	0
1857	Sheffield	G. Hadfield	L	1
1857	Sheffield	J.A. Roebuck	L	1
1857	Sheffield	W. Overend	C	0
1837	Southampton	<b>A.R. Dottin</b>	C	1
1837	Southampton	C.C. Martyn	C	0
1837	Southampton	<b>Lord Clarence Paget</b>	L	0
1837	Southampton	<b>Viscount Duncan</b>	L	1
1841	Southampton	C.C. Martyn	C	1
1841	Southampton	C.E. Mangles	L	0
1841	Southampton	E.J. Hutchins	L	0
1841	Southampton	Lord Bruce (Earl of Elgin)	C	1
1832	St Albans	H.G. Ward	L	1
1832	St Albans	<b>Sir F. Vincent, Bt.</b>	L	1
1832	St Albans	<b>W. Turner</b>	C	0
1835	St Albans	<b>H.G. Ward</b>	L	1
1835	St Albans	Hon. E.H. Grimston	C	1
1835	St Albans	<b>Hon. W.H. Beresford</b>	C	0
1837	St Albans	B.B. Cabbell	C	0
1837	St Albans	G.A. Muskett	L	1
1837	St Albans	Hon. E.H. Grimston	C	1
1832	Sudbury	<b>D.C. Wrangham</b>	C	0
1832	Sudbury	J. Bagshaw	L	0
1832	Sudbury	<b>M.A. Taylor</b>	L	1
1832	Sudbury	<b>Sir J.B. Walsh, Bt.</b>	C	1
1835	Sudbury	<b>B. Smith</b>	L	1
1835	Sudbury	<b>J. Bagshaw</b>	L	1
1835	Sudbury	<b>S.L. Stephens</b>	C	0
1835	Sudbury	Sir E. Barnes	C	0
1837	Sudbury	<b>Sir E. Barnes</b>	C	1
1837	Sudbury	<b>Sir J.J. Hamilton, Bt.</b>	C	1
1837	Sudbury	<b>T.E.M. Turton</b>	L	0
1837	Sudbury	<b>W.A. Smith</b>	L	0
1841	Sudbury	C. Taylor	C	0
1841	Sudbury	D. Jones	C	0
1841	Sudbury	D.O.D. Sombre	L	1
1841	Sudbury	F.M. Villiers	L	1
1857	Totnes	Earl of Gifford	L	1
1857	Totnes	<b>J. Gregory</b>	C	0
1857	Totnes	<b>J.T. Mackenzie</b>	L	0
1857	Totnes	T. Mills	L	1

1859	Totnes	<b>Earl of Gifford</b>	L	1
1859	Totnes	<b>J. Dunn</b>	C	0
1859	Totnes	<b>T. Mills</b>	L	1
1865	Totnes	A. Seymour	L	1
1865	Totnes	B.C.T. Pim	C	0
1865	Totnes	J. Pender	L	1
1865	Totnes	W.G. Dawkins	C	0
1832	Windsor	J. Ramsbottom	L	1
1832	Windsor	Sir J.E. de Beauvoir	L	0
1832	Windsor	<b>Sir S.J.B. Pechell, Bt.</b>	L	1
1835	Windsor	J. Ramsbottom	L	1
1835	Windsor	Sir J. Elley	C	1
1835	Windsor	Sir J.E. de Beauvoir	L	0

---

*Notes:* Candidates whose exit we exploit in our analyses are indicated in bold.

## B Comparisons of Our Data and Other Constituencies

We complement the comparisons between the constituencies included in our data and other English parliamentary constituencies in Figure B1 which shows distributions of the number of exiting candidates, the number of candidates, the number of elected representatives, the number of electors, and the Conservative vote share.

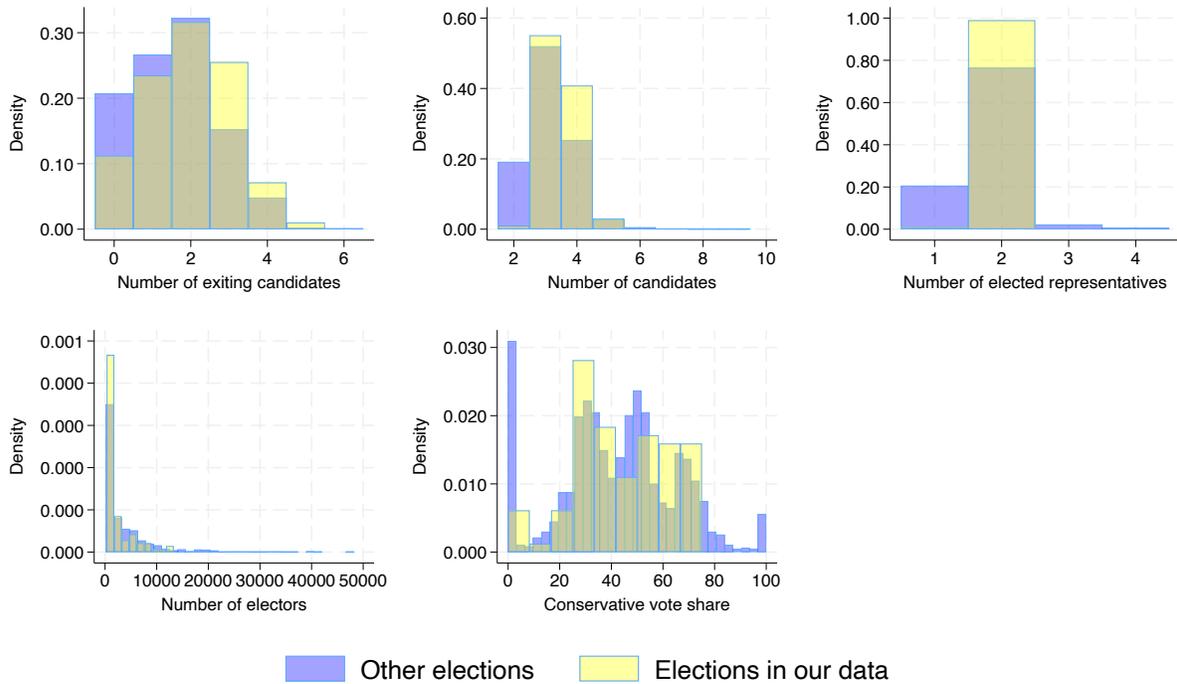
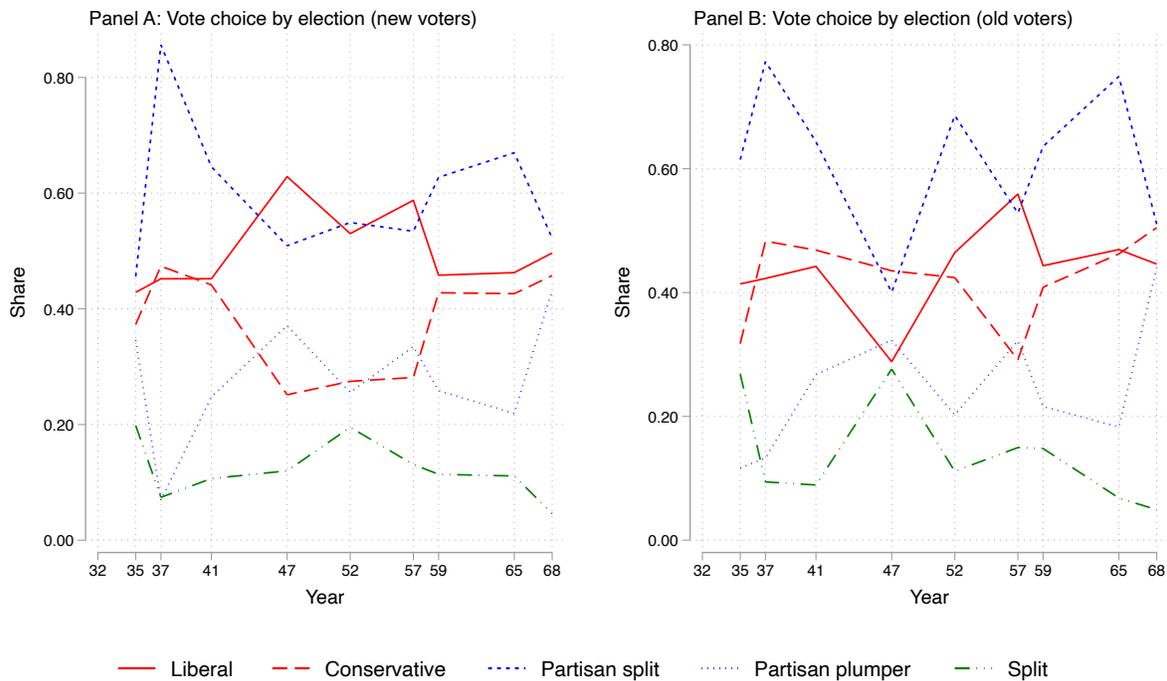


Figure B1. Distributions of constituency characteristics.

## C Voting Behavior of New and Old Voters

One advantage of the poll book data over aggregate data is that they allow assessing whether changes in the composition of the voting population could be behind the observed aggregate trends. To illustrate that this is unlikely, at least based on our data, to explain the decline in split voting and increase in partisan voting around 1860, we split our voters into two groups: “old voters” who voted in  $t - 1$  and  $t$  and “new voters” who voted in  $t$  but not in  $t - 1$ . We illustrate the voting behavior of these groups in Figure C1. While there are differences between these two types of voters, one could hardly argue that new voters would be driving the decline in split voting and increase in partisan voting.



**Figure C1.** Vote choices of new and old voters, 1835-1868.

*Notes:* The figure illustrates vote choices of new voters (Panel A) and old voters (Panel B) over the years 1832-1868.

## D Further Estimation Results

### D.1 Alternative Coding of Vote Choices

In our main analyses, we only consider changes between split, Conservative, and Liberal as vote changing. That is to say, for instance, switching from a Liberal plumper to Liberal split vote is not considered changing the vote.

We explore robustness of our main analyses to the alternative definition of the dependent variable in Table D1. In the first column, the estimate suggests that having voted for an exiting candidate induces changes in voting behavior also at this margin, although the effect appears to be slightly smaller than in our main analyses and statistically insignificant. When we control for past vote choices (Conservative or split vote—Liberal being the reference group) in column (2), the relationship vanishes. When we include controls that are aligned with our more detailed categorization (Conservative plumper, Conservative split, Liberal plumper, or Liberal split—split between Conservatives and Liberals being the reference group) in column (3), we obtain a qualitatively similar and statistically significant estimate as in our other analyses. However, the point estimate obtained when controlling for voter fixed effects is then negative and statistically significant, contrary to our main result.

**Table D1.** Effect of candidate exit on vote changing (detailed vote choices).

	(1)	(2)	(3)	(4)
Voted exiting	0.024 [0.041]	0.014 [0.042]	0.084* [0.043]	-0.016 [0.049]
Conservative (t-1)		-0.137* [0.070]		
Liberal (t-1)		-0.266*** [0.064]		
Conservative plumper (t-1)			-0.039 [0.110]	0.012 [0.084]
Conservative split (t-1)			-0.256*** [0.095]	-0.248*** [0.093]
Liberal plumper			0.081 [0.054]	-0.013 [0.090]
Liberal split			-0.399*** [0.067]	-0.222** [0.085]
<i>N</i>	48556	48556	48556	28926
<i>R</i> <sup>2</sup>	0.12	0.15	0.23	0.62
Mean dependent variable	0.49	0.49	0.49	0.48
Reference group mean	0.23	0.23	0.23	0.21
Voter FE				✓

*Notes:* The dependent variable is an indicator for changing vote choice (Conservative plumper, Conservative split, Liberal plumper, Liberal split, or split between a Conservative and a Liberal) between two consecutive elections. All specifications control for election year  $\times$  constituency fixed effects. The reference group is voters who voted for a rerunning candidate. Standard errors clustered at the constituency  $\times$  election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

## D.2 Additional Fixed Effects Results

In this subsection, we report additional fixed-effects results. First, Table D2 illustrates the heterogeneity in the effect of voting for an exiting candidate before and after 1865. While we do not see a differential effect of voting for an exiting candidate on vote changing (column 1), the decline in “exit” through party change in 1865 and 1868 is still present (column 2). Similar to the main analysis, we do not observe major over-time heterogeneity in “voice” through split voting (column 3).

Table D3 then shows the heterogeneity analyses controlling for voter fixed effects. Similar to the main analysis, the effects are slightly larger for voters of exiting losers (column 1).

Voters who cast a split vote to at least one exiting candidate become similarly more likely to change their vote (column 2). We see that vote switching is slightly more common when there is a change in the choice set than when there is not one (column 3). This heterogeneity mainly comes from situations in which the number of candidates changes from two Liberals and two Conservatives to two Liberals and one Conservative or two Conservatives and one Liberal (column 4), although we also see a positive (albeit statistically insignificant) effect of voting for an exiting candidate on vote switching in situations where the number of candidates available to the voters increases (column 5). There is still a positive effect in the sample that is the complement of the sample in which these decisive changes in candidate availability occur (column 6). Finally, the effects appear to be slightly larger if the share of old candidates is higher (column 7). In all, these analyses align well with the main analyses that do not control for voter fixed effects, even if the estimation sample is now more limited.

Finally, Table D4 shows the estimates for vote choices following candidate exit. We see a positive effect on split voting, no effect on Conservative voting (contrary to the main estimates without the voter fixed effects where we saw a positive and statistically significant effect), and negative effects on Liberal voting, or voting for an incumbent or an aristocratic candidate. We are not too concerned about this, as the main margin of theoretical interest to us is the switch between Liberal, Conservative, and split voting.

**Table D2.** The effect of candidate exit on voting behavior before and after 1865—controlling for voter fixed effects.

	Change vote	Exit through party change	Voice through split voting
	(1)	(2)	(3)
Voted exiting	0.116*** [0.032]	0.077** [0.035]	0.007 [0.016]
Voted exiting $\times$ 1[Year $\geq$ 1865]	-0.023 [0.058]	-0.147** [0.063]	0.011 [0.020]
Conservative plumper (t-1)	-0.348*** [0.075]		
Conservative split (t-1)	-0.354*** [0.085]	0.058 [0.067]	-0.026 [0.016]
Liberal plumper (t-1)	-0.172** [0.073]	0.212*** [0.076]	-0.040 [0.026]
Liberal split (t-1)	-0.245*** [0.079]	0.142 [0.096]	-0.029* [0.017]
<i>N</i>	28926	22719	22719
<i>R</i> <sup>2</sup>	0.63	0.68	0.52
Mean dependent variable	0.29	0.16	0.07
Reference group mean	0.08	0.10	0.11
Constituency $\times$ Election year FE	✓	✓	✓
Voter FE	✓	✓	✓

*Notes:* The dependent variable is an indicator for changing party choice (Conservative, Liberal, or split) between two consecutive elections in column (1), an indicator for exit through changing party choice (from Conservative to Liberal or vice versa) between two consecutive elections in column (2), and an indicator for voice through split voting (from Conservative or Liberal to split) in column (3). In columns (2) and (3), the estimation sample is composed of individuals who cast a Conservative or a Liberal vote in election  $t - 1$ . The reference group is voters who voted for re-runners before 1865. All regressions control for election year and constituency fixed effects. Standard errors clustered at the constituency  $\times$  election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

**Table D3.** Heterogeneous effects of candidate exit.

	Heterogeneity by candidate performance	Heterogeneity by previous vote choice	Heterogeneity by change in choice set	2 + 2 → 1 + 2 candidates	1 + 2 → 2 + 2 candidates	Complement of (4) and (5)	Heterogeneity by old candidate share
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Voted exiting	0.020 [0.025]	0.096 [0.076]	0.074 [0.048]	0.303*** [0.062]	0.098* [0.041]	0.028 [0.030]	0.105* [0.061]
Voted losing	-0.192*** [0.044]						
Voted exiting × Voted losing	0.250*** [0.072]						
Voted exiting × Conservative plumper (t-1)		-0.049 [0.123]					
Voted exiting × Conservative split (t-1)		0.035 [0.113]					
Voted exiting × Liberal plumper (t-1)		0.056 [0.096]					
Voted exiting × Liberal split (t-1)		0.016 [0.082]					
Voted exiting × Change in choice set			0.052 [0.063]				
Voted exiting × Share of old candidates							0.013 [0.116]
Conservative plumper (t-1)	-0.362*** [0.074]	-0.321*** [0.090]	-0.350*** [0.075]	-0.240 [0.148]	-0.299** [0.089]	-0.313*** [0.086]	-0.346*** [0.075]
Conservative split (t-1)	-0.364*** [0.073]	-0.379*** [0.114]	-0.353*** [0.084]	-0.300* [0.132]	-0.515** [0.141]	-0.489*** [0.107]	-0.355*** [0.083]
Liberal plumper (t-1)	-0.198*** [0.071]	-0.205** [0.094]	-0.173** [0.073]	0.041 [0.055]	-0.183*** [0.000]	-0.208** [0.094]	-0.172** [0.073]
Liberal split (t-1)	-0.240*** [0.075]	-0.257** [0.102]	-0.247*** [0.078]	-0.178* [0.071]	-0.449*** [0.008]	-0.183** [0.078]	-0.244*** [0.077]
<i>N</i>	28926	28926	28926	1133	144	13133	28926
<i>R</i> <sup>2</sup>	0.64	0.63	0.63	0.59	0.69	0.65	0.63
Mean dependent variable	0.29	0.29	0.29	0.26	0.11	0.34	0.29
Reference group mean	0.28	0.52	0.20	0.10	0.14	0.14	0.08
Constituency × Election year FE	✓	✓	✓	✓	✓	✓	✓
Voter FE	✓	✓	✓	✓	✓	✓	✓

*Notes:* The dependent variable is an indicator for switching vote choice between two consecutive elections. Change in candidate set is defined as any change in the number of candidates running for a party. Change in voting options is defined as any change in voters' ability to cast split, party split, or party plumper votes. The reference group is voters who voted for re-running winners in column (1), voters who cast a split vote to re-runners in column (2), voters who voted for re-running candidates in elections in which there was no change in the choice set in column (3), voters who voted for re-running candidates in columns (4)-(6), and voters who voted for re-running candidates and who face no old candidates in column (7). All regressions control for constituency × election year and voter fixed effects. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

**Table D4.** Candidate exit and subsequent vote choices.

	Split	Conservative	Liberal	Incumbent	Aristocrat
	(1)	(2)	(3)	(4)	(5)
Voted exiting	0.039*** [0.006]	0.009 [0.006]	-0.048*** [0.007]	-0.058*** [0.007]	-0.125*** [0.005]
Conservative plumper (t-1)	0.268*** [0.011]	-0.146*** [0.012]	-0.124*** [0.011]	-0.187*** [0.014]	0.103*** [0.010]
Conservative split (t-1)	0.252*** [0.010]	-0.292*** [0.010]	0.040*** [0.010]	0.122*** [0.012]	-0.045*** [0.008]
Liberal plumper (t-1)	0.289*** [0.011]	-0.009 [0.011]	-0.279*** [0.012]	0.005 [0.012]	-0.038*** [0.009]
Liberal split (t-1)	0.260*** [0.010]	-0.045*** [0.010]	-0.215*** [0.011]	-0.019* [0.011]	-0.027*** [0.009]
<i>N</i>	29264	29264	29264	29264	29264
<i>R</i> <sup>2</sup>	0.60	0.78	0.79	0.69	0.84
Mean dependent variable	0.13	0.40	0.47	0.47	0.47
Reference group mean	0.14	0.35	0.51	0.57	0.44

*Notes:* The dependent variable is an indicator for splitting a vote between Liberals and Conservatives in column (1), an indicator for casting a Conservative (split or plumper) vote in column (2), an indicator for casting a Liberal (split or plumper) vote in column (3), an indicator for voting for at least one incumbent candidate in column (4), and an indicator for voting for at least one aristocrat candidate in column (5). All regressions control for constituency  $\times$  election year and voter fixed effects. Standard errors clustered at the constituency  $\times$  election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

### D.3 Mechanisms Results for Split Voting and Partisan Sample

Table D5 shows that split voting responds only weakly to candidate exit on average. Where statistically detectable responses arise, they are closely associated with mechanical features of the electoral environment, such as changes in the size of the candidate set (e.g., transitions between four- and three-candidate contests) and the presence of familiar candidates on the ballot. Taken together, these patterns suggest that while voice exists as a potential margin of adjustment, it is institutionally constrained and quantitatively limited relative to vote switching. Candidate exit therefore appears to primarily trigger exit responses rather than systematic reallocation of support through split voting.

Restricting the sample to prior Conservative and Liberal voters yields a similar conclusion for vote switching. As shown in Table D6, candidate exit has little effect on partisan voters' propensity to change their vote when the structure of the choice set remains comparable across elections. In contrast, exit is associated with substantial and statistically significant increases in vote switching when it induces transitions between three- and four-candidate contests. This pattern indicates that partisan voters are generally tolerant of candidate turnover, but respond when exit disrupts the effective presence of their party on the ballot. Such behavior is consistent with an interpretation in which electoral attachment is mediated by party organization and institutional continuity rather than by individual candidates.

Finally, we examine whether partisan voters respond to candidate exit by reallocating support through split voting. Table D7 shows that candidate exit has little effect on split voting among prior party voters on average, and that split voting does not increase when exit mechanically alters the choice set. The only setting in which split voting responds to exit is when a large share of familiar candidates remains on the ballot. This finding suggests that voice through split voting operates only under conditions of high organizational and informational continuity, where voters can express dissatisfaction at relatively low cost. When candidate exit disrupts the structure of the ballot, partisan voters instead adjust primarily through vote switching rather than split voting.

**Table D5.** Heterogeneous effects of candidate exit on split voting.

	Full sample	2 + 2 → 1 + 2 candidates	1 + 2 → 2 + 2 candidates	Complement of (2) and (3)	Share of old candidates
	(1)	(2)	(3)	(4)	(5)
Voted exiting	0.013 [0.021]	0.046 [0.029]	0.011 [0.011]	0.018 [0.020]	-0.003 [0.017]
Voted exiting × Change in choice set	0.014 [0.029]				
Voted exiting × Share of old candidates					0.054 [0.037]
Conservative plumper (t-1)	-0.168*** [0.018]	-0.167*** [0.023]	-0.100*** [0.016]	-0.183*** [0.022]	-0.167*** [0.018]
Conservative split (t-1)	-0.204*** [0.025]	-0.167*** [0.029]	-0.098*** [0.023]	-0.238*** [0.035]	-0.203*** [0.025]
Liberal plumper (t-1)	-0.152*** [0.034]	-0.064 [0.047]	-0.078*** [0.020]	-0.182*** [0.043]	-0.152*** [0.034]
Liberal split (t-1)	-0.164*** [0.027]	-0.128*** [0.025]	-0.092*** [0.018]	-0.190*** [0.039]	-0.164*** [0.027]
<i>N</i>	48556	10145	7528	30883	48556
<i>R</i> <sup>2</sup>	0.20	0.24	0.07	0.19	0.20
Mean dependent variable	0.13	0.11	0.05	0.16	0.13
Reference group mean	0.11	0.15	0.04	0.04	0.01

*Notes:* The dependent variable is an indicator for casting a split vote. Change in candidate set is defined as any change in the number of candidates running for a party. Change in voting options is defined as any change in voters' ability to cast split, party split, or party plumper votes. The reference group is voters who voted for re-running winners in column (1), voters who cast a split vote to re-runners in column (2), voters who voted for re-running candidates in elections in which there was no change in the choice set in column (3), voters who voted for re-running candidates in columns (4)-(6), and voters who voted for re-running candidates and who face no old candidates in column (7). All regressions control for constituency × election year fixed effects. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

**Table D6.** Heterogeneous effects of candidate exit on vote changing.

	Full sample	2 + 2 → 1 + 2 candidates	1 + 2 → 2 + 2 candidates	Complement of (2) and (3)	Share of old candidates
	(1)	(2)	(3)	(4)	(5)
Voted exiting	-0.015 [0.056]	0.202** [0.073]	0.127** [0.041]	0.170*** [0.051]	0.127 [0.084]
Voted exiting × Change in choice set	0.233*** [0.073]				
Voted exiting × Share of old candidates					0.077 [0.142]
Conservative split (t-1)	0.018 [0.086]	0.075 [0.072]	-0.005 [0.033]	-0.139*** [0.051]	-0.004 [0.084]
Liberal plumper (t-1)	0.176*** [0.060]	0.072 [0.122]	0.150*** [0.039]	0.140* [0.078]	0.167*** [0.063]
Liberal split (t-1)	-0.029 [0.034]	-0.099 [0.161]	0.027 [0.019]	-0.045 [0.045]	-0.033 [0.037]
<i>N</i>	40392	9188	6423	24781	40392
<i>R</i> <sup>2</sup>	0.18	0.16	0.03	0.19	0.17
Mean dependent variable	0.22	0.21	0.10	0.26	0.22
Reference group mean	0.15	0.09	0.08	0.08	0.07

*Notes:* The dependent variable is an indicator for switching vote choice between two consecutive elections. Change in candidate set is defined as any change in the number of candidates running for a party. Change in voting options is defined as any change in voters' ability to cast split, party split, or party plumper votes. The reference group is voters who voted for re-running winners in column (1), voters who cast a split vote to re-runners in column (2), voters who voted for re-running candidates in elections in which there was no change in the choice set in column (3), voters who voted for re-running candidates in columns (4)-(6), and voters who voted for re-running candidates and who face no old candidates in column (7). Estimation sample is restricted to voters who cast a Liberal or Conservative vote in the previous election. All regressions control for constituency × election year fixed effects. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

**Table D7.** Heterogeneous effects of candidate exit on split voting: voters who were partisan in the previous election.

	Full sample	2 + 2 → 1 + 2 candidates	1 + 2 → 2 + 2 candidates	Complement of (2) and (3)	Share of old candidates
	(1)	(2)	(3)	(4)	(5)
Voted exiting	-0.015 [0.056]	0.202** [0.073]	0.127** [0.041]	0.170*** [0.051]	0.127 [0.084]
Voted exiting × Change in choice set	0.233*** [0.073]				
Voted exiting × Share of old candidates					0.077 [0.142]
Conservative split (t-1)	0.018 [0.086]	0.075 [0.072]	-0.005 [0.033]	-0.139*** [0.051]	-0.004 [0.084]
Liberal plumper (t-1)	0.176*** [0.060]	0.072 [0.122]	0.150*** [0.039]	0.140* [0.078]	0.167*** [0.063]
Liberal split (t-1)	-0.029 [0.034]	-0.099 [0.161]	0.027 [0.019]	-0.045 [0.045]	-0.033 [0.037]
<i>N</i>	40392	9188	6423	24781	40392
<i>R</i> <sup>2</sup>	0.18	0.16	0.03	0.19	0.17
Mean dependent variable	0.22	0.21	0.10	0.26	0.22
Reference group mean	0.15	0.09	0.08	0.08	0.07

*Notes:* The dependent variable is an indicator for casting a split vote. Change in candidate set is defined as any change in the number of candidates running for a party. Change in voting options is defined as any change in voters' ability to cast split, party split, or party plumper votes. The reference group is voters who voted for re-running winners in column (1), voters who cast a split vote to re-runners in column (2), voters who voted for re-running candidates in elections in which there was no change in the choice set in column (3), voters who voted for re-running candidates in columns (4)-(6), and voters who voted for re-running candidates and who face no old candidates in column (7). Estimation sample is restricted to voters who cast a Liberal or Conservative vote in the previous election. All regressions control for constituency × election year fixed effects. Standard errors clustered at the constituency × election year level are reported in brackets. \*, \*\* and \*\*\* denote statistical significance at 10%, 5% and 1%, respectively.

The **Aboa Centre for Economics (ACE)** is a joint initiative of the economics departments of the Turku School of Economics at the University of Turku and the School of Business and Economics at Åbo Akademi University. ACE was founded in 1998. The aim of the Centre is to coordinate research and education related to economics.

Contact information: Aboa Centre for Economics,  
Department of Economics, Rehtorinpellonkatu 3,  
FI-20500 Turku, Finland.

[www.ace-economics.fi](http://www.ace-economics.fi)

ISSN 1796-3133