Class, Social Mobility, and Voting: Evidence from Historical Voting Records[*]

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Abstract

We explore the connection between social class, social mobility, and voting behavior in nineteenth-century England. To avoid pitfalls associated with survey or aggregate data on voting behavior, we use administrative longitudinal records preceding secret ballot on voters' choices and occupation. These data reveal that the landed gentry, farm workers, non-skilled workers and white-collar workers voted, on average, more for the Conservatives, and petty bourgeoisie and skilled workers for the Liberals. The changes in voting behavior within individuals due to social mobility are immediate and mainly consistent with the same cleavage. Our interpretation is that voting was influenced by economic incentives.

1 Introduction

The choices of individuals are governed by the economic incentives and constraints that they face, but also by their identity (Akerlof and Kranton 2000; Shayo 2020). The decisions that voters make at the polling booth are by no means different. A prominent example of this is class-based voting (Evans 2000; Piketty 2020). That social class is a determinant of voting behavior is an important and established stylized fact in political science and political economy. For example, commenting on the immediate post-war period in the United Kingdom, Pulzer famously argued that "Class is the basis of British party politics; all else is embellishment and detail." (Pulzer 1967, p. 98). But why do people from the same class vote the same way?

The first explanation suggests that individuals are socialized into a set of stable attitudes and opinions (e.g., Butler and Stokes 1969; see also Bisin and Verdier 2000, 2001 for an economic approach to socialization).[1] By contrast, Przeworski and Sprague (1986), amongst others, view voting as an expression of class interest and the evidence of it as consistent with voters forming cross-class alliances. The notion that voters act according to shared class interests relates to the theory of economic voting that encompasses a wide range of models and, at its core, is the assertion that voters expected utility depends upon economic conditions which consequently determine their voting behavior. A straightforward notion is that of pocketbook voting which asserts that voters evaluate candidate promises based on their individual circumstances and their

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[1]This is in tally with arguments in social psychology: participation in different social-class contexts gives rise to culture-specific selves and patterns of thinking, feeling, and acting (Stephens, Markus, and Phillips 2014; Manstead 2018). That various social norms and culture persist is also well documented in the economics literature (Alesina, Giuliano, and Nunn 2013; Nunn 2009). In the context of social class and voting, Piketty (1995) explains why individual mobility experience and not only current income matters for political attitudes and how persistent differences in perceptions about social mobility can generate persistent differences in attitudes.

evaluations of how different prospective governments will affect them. This view underpins Downs' celebrated economic theory of democracy and extensions thereof (Downs 1957).[2]

Both mechanisms, socialization and material self-interest, yield similar cross-sectional correlations, and hence cross-sectional data cannot adjudicate between these mechanisms. Compelling as it might appear, the evidence for class voting is not conclusive. It comes either from descriptive analysis of survey data, showing correlations between social background and voting, or from aggregate data.[3] We bring in new data to study the relationship between class, social mobility, and voting behavior. In particular, we use unique voting records from a number of parliamentary constituencies in nineteenth-century England (see also Dewan, Meriläinen, and Tukiainen 2020). Prior to the introduction of the secret ballot in 1872, voting was public and recorded in poll books, sometimes alongside with other information, such as the voter's occupation. Poll book data are well-suited to exploring the effect of social background on voting and the mechanisms behind it in that they consist of individual voting records, matched to the individual's occupation, observed over a sequence of elections.

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[2]In their survey, Lewis-Beck and Stegmaier (2007) identified (by then) approximately four hundred books and articles published on economic voting. While this literature has established economic voting as another stylized fact, almost all of the existing evidence is correlational. For recent examples that offer causal evidence on economic voting, see Bagues and Esteve-Volart (2016) and Elinder, Jordahl, and Poutvaara (2015). Besides the scarcity of causal evidence, we also have no idea about how far back in history such voting behavior has existed.

[3]Inferences from aggregate data are subject to the well-understood ecological fallacy (Robinson 1950). For example, Gelman et al. (2008) show that the argument about the declining importance of income for vote choices in the US is an artifact of an ecological fallacy. Blue states are richer and vote Democrat. However, income is not an important determinant of vote choice for well-off Americans in the blue states, while being a key factor explaining why the rich vote Republican and the poor vote Democrat in red states. Moreover, measurement error in survey responses may correlate with unobserved individual-level characteristics (Atkenson 1999).

Analyzing these data we find that a union of the landed gentry, farm workers, non-skilled workers and white-collar workers voted, on average, more for the Conservatives. Petty bourgeoisie and skilled workers, on the other hand, were more likely to cast their votes for Liberals. This finding at such a micro-level is novel, although it corroborates earlier historical accounts. For example, Cornford (1998) points out that the Conservative Party was predominantly the country party representing the interests of the agricultural community as a whole, on the assumption that "the interest of the labourer, the tenant farmer, and the landlord was one." He argues that white-collar workers often had minimal contact with the working classes but a great deal with their social superiors who were conservatives thus potentially aligning them with the Tories. The Liberals who supported free trade were an attractive alternative for those members of the working classes and petty bourgeoisie who viewed the protectionism, alongside with high spending and high taxes, of the late eighteenth and early nineteenth centuries mainly as a device for promoting the interests of the landed gentry (Howe 1997).

What is more, our data cover a number of voters whose occupation changes between two elections. Social mobility measures at the individual level allow us to separate the effect of class that is due to patterns of socialization from that which arises due to material self-interest. Social background factors are reflected in persistent political preferences (Clifford and Heath 1993), and so socialization suggests that the immediate effect of social mobility on individual vote choice will be non-existent. If, by contrast, voting is determined by material self-interest, however, then a change in class should lead to a change in individual voting patterns. We show that changing economic status from one class-based voting coalition to another is indeed a strong predictor of vote choice. This indicates that the economic interests of social classes play a role in their voting decisions.

We also explore whether the effects depend on the direction of mobility. Using individual-level data we find clear evidence that the relationship between social mobility and voting depends on its direction. This is in line with the seminar work of Lipset and Bendix (1959) who used aggregate data from five industrial countries to show that upwardly mobile voters tended to conform to the patterns of their class of destination while downwardly mobile

ones tended to retain the patterns of their class of origin. They argued that these directional effects in their data were consistent with the claim that upwardly mobile voters acted according to their economic self-interest.

The United Kingdom is a quintessential example of a parliamentary democracy which makes it an important historical case. For example, we provide new evidence that is consistent with the view that improving economic conditions induced demand for programmatic policies, and thus, were one of the key reasons for moving away from the clientelistic system in the late 19th century (Stokes et al. 2013). While our findings shed new light on political behavior during the early stages of democratization in Great Britain, there may also be broader implications for modern countries at similar low levels of political and economic development and where parties are weak and vote buying is common. That changes in individuals' economic conditions can lead to changes in their voting behavior in such a context suggests that voters can react to programmatic policy platforms even in the absence of strong political parties. In particular, policies that alleviate poverty may result via economic voting in a self-enforcing system that weakens the support for clientelistic policies, and thus, helps breaking the vicious cycle of clientelism and poverty. Authors broadly agree that clientelism hurts development and democracy by hindering public goods provision, political competition, and political accountability (see Hicken 2011 and Bardhan and Mookherjee 2016 for a reviews). Fujiwara and Wantchekon (2013), for example, present evidence that programmatic politics that lead to welfare improvements can be a viable alternative to clientelistic forms of engagement in the developing world where party organization is thin on the ground.

The remainder of this paper is organized as follows. The next section describes the context of our study as well as the data that we use in more detail. We present our empirical analyses in the third section, and rule out vote buying and electoral intimidation as alternative channels in the fourth section. The fifth and final section concludes the study.

2 Institutional Context and Data

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

2.1 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. Whilst some constituencies were single-member districts, most were multi-member districts. In districts that elected more than one candidate, the voters were allowed to cast one vote per seat. In those cases, it was even possible to split a vote between two candidates from different parties.

From around 1850, constituency elections were contested by candidates who aligned with one of two major parties, the Conservatives and the Liberals. The Liberals brought together a loose coalition of mainly Whigs, Radicals and Peelites. By the year 1860, they formed a more cohesive parliamentary block.

2.2 Poll Book Data

We draw individual-level voting data from general elections in nine British constituencies. Data for Ashford (elections in 1852 and 1857), Guildford (six elections in 1835-1857), Sandwich (five in 1835-1859) and Sheffield (two elections in 1852 and 1857) are available in the UK Data Archive (for more detailed information, see Appendix A). Moreover, we have acquired poll books from five additional constituencies. These are Barnstaple (three elections in 1847-1857), Beverley (elections in 1857 and 1859), Cambridge (three elections in 1847-1857), Gloucester (two elections in 1857 and 1859) and Maldon (two elections in 1847 and 1852). Appendix A shows descriptive statistics on our data.

We demonstrate external validity of our study by comparing our Poll Book data with constituency level data on all English parliamentary constituencies in Appendix B. We show that the distribution in our sample is very similar to that of all English constituencies with

respect to geographic location, the size of the electorate, the shares of the various classes among the electorate, and the Conservative vote share.

Previously, poll book data have been used mainly in historical research (Drake 1971; Phillips 1992; Phillips and Wetherell 1995). Dewan, Meriläinen, and Tukiainen (2020) employ poll book data to analyze partisan alignment in the 1860s. They find that the working class started to align with the Liberals in the 1860s. We focus on a period that predates this change and the major institutional reforms of the era.[4]

Social Class With the exception of Ashford, these poll books include information on voters' occupation. We have merged the Ashford data to censuses and other registries to define voters' occupations. We use occupation information to classify the voters in middle and working classes following Best (1972) and Clapham (2009) as closely as possible. The former include lawyers, priests, innkeepers, publicans and traders, while common occupations among the latter are carpenter, shoe maker, baker, tailor, butcher and laborer. The division follows a divide between manual versus non-manual occupations, albeit a rough one. We divide the working class voters further into skilled and non-skilled workers and farm workers, and the middle class into petty bourgeoisie and white-collar workers following the five-class adaptation of Eriksson-Goldthorpe's classification (Eriksson and Goldthorpe 1992). Moreover, we include an additional class of landed gentry (gentlemen, esquires etc.), i.e., landowners who could live entirely from rental income.

Social Mobility Given that we are able to track individual voters over time, we can also examine social mobility using the poll book data. We omit Ashford from this analysis as we cannot measure social mobility accurately. Overall, we observe 671 voters whose class status changes between two general elections. Many of the class changes reflect upward social

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[4]The two key reforms of the 19th century, the First (1832) and Second (1867) Reform Act, occurred before and after our sample period. The first of these, introduced in 1832, increased representation in the industrialized cities, and took away seats from the so-called rotten boroughs with small voting populations. The Second Reform Act extended the franchise to even larger share of the male population.

mobility from working class to middle class ($N = 443$), but there is also a fair number of voters who are downwardly mobile ($N = 228$). Table 1 gives a more detailed picture of class-by-class changes in our data.[5]

The rate of social mobility that we observe in our data—about 6% of the individuals change their class when we use the Eriksson-Goldthorpe classification—is not at odds with the existing evidence of social mobility in the 19th century (Long 2013). It is therefore unlikely that a substantial share of the observed transitions would be due to reporting or coding errors. Even if such exist, they are likely to lead only to downward bias, if any. The main limitations are, in fact, that the information content of the poll books is somewhat sparse and that they are currently available electronically only for a very few districts.

Table 1. Transitions between classes.

| | | Previous class | | | | | |
| | | Working classes | | | Middle classes | | |
	Current class	Farm workers	Non-skilled workers	Skilled workers	Petty bourgeoisie	White-collar workers	Landed gentry
Working classes	Farm workers	608	29	24	21	4	8
	Non-skilled workers	19	1106	77	35	5	9
	Skilled workers	15	63	4550	114	25	14
Middle classes	Petty bourgeoisie	25	45	160	1785	32	17
	White-collar workers	6	12	40	31	1044	34
	Landed gentry	30	30	85	67	69	726

3   Empirical Analysis

This section presents our empirical analyses. We start by assessing the correlation between social class and vote choices, after which we investigate how social mobility is associated with changes in voting behavior.

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[5]W. M. Broomfield from Guildford, for instance, was a shoe maker in the election of 1835, making him a skilled worker in the working class. In 1837, he stated that he was a gentleman, making him part of the landed gentry, or the middle class. See also Appendix Table A1 that provides examples of occupational transitions.

3.1 Class-Based Voting

Specification To study how social class is associated with voting behavior, we regress the vote choice $Vote_{it}$—Liberal, Conservative or split vote (a vote split between Liberal and Conservative candidates), depending on the specification—on a dummy for belonging to a certain class. We also analyze the outcome of changing voting behavior between two elections to see if class is correlated with volatility in voting behavior. We consider any change between the three vote choices as vote changing. More formally, our baseline regression equation takes the form

$$Vote_{it} = \sum_j \beta_j Class_{j,it} + \lambda_t + \lambda_c + \varepsilon_{it}, \tag{1}$$

where $Vote_{it}$ is the vote choice of voter i at election t. $Class_{j,it}$ are different social classes depending on the specification. The estimates of interest are $\hat{\beta}_j$ which will tell us how a voter belonging to a certain class j voted, on average, relative to the reference group. We include year and constituency fixed effects (λ_t and λ_c) to control for time and location specific effects. We estimate two specifications. The first examines the average difference in voting between working class and middle class. However, because average differences may mask substantial within-class variation in how voters behave, the second specification splits the middle class into petty bourgeoisie, white-collar workers and landed gentry, and the working class to skilled workers, non-skilled workers and farm workers, and incorporates this classification in our regression analysis.

Estimation Results The results from Specification 1 in Figure 1 deliver some support for a relationship between class and voting behavior: working class Victorian voters are potentially more likely to cast liberal (or split) than conservative votes. However, the association between class and voting behavior is not strong—while the point estimates are statistically significant, they are not particularly large. We corroborate this remark by looking at the Alford index which is often used to measure the magnitude of class-based voting (Alford 1963). The measure is computed by subtracting the percentage of middle class voters who vote for the liberal candidates from the percentage of working class electors who vote for those candidates.

Our data yield an Alford index roughly equal to zero. In contrast, Alford found that the index averaged around 40 in 1952-1965 based on British opinion polls.

The results from Specification 2 reveal that the small regression coefficients are partially driven by heterogeneity in voting behavior within the two broad classes. For instance, farm workers are 12 percentage points less likely to vote Liberal and 10 percentage points more likely to vote Conservative than skilled workers (reference group), though included in the working class. A pattern emerges in the cross-section, showing a union of the landed gentry, farm workers, non-skilled workers and white-collar workers voting on average relatively more for the Conservatives while petty bourgeoisie and skilled workers for the Liberals. Appendix Table C3 shows that most of the correlations between class and vote choice persist even after controlling for the lagged dependent variable.

3.2   Does Class Interest Matter?

Specification   Our elector-level panel data provide a unique opportunity to analyze the relationship between social mobility and voting. To understand how changes in social class are associated with voting behavior, we next (i) restrict our attention to voters who are observed at least twice in the data, and (ii) regress the vote choice outcomes on indicators for moving upwards or downwards, and a dummy for being a working class voter. That is to say, we estimate

$$Vote_{it} = \sum_k \delta_{1k} Change_{k,it} + \sum_j \delta_{2j} Class_{j,it} + \lambda_t + \lambda_c + \eta_{it}. \tag{2}$$

Coefficient δ_{1k} tells us how those voters who moved to a certain class (captured by dummies $Change_{k,it}$) voted relative to the reference class. We include dummies for the classes of origin ($Class_{j,it}$), leaving one class out as the reference group.

Estimation Results   Each panel of Figure 2 reports estimation results for four different vote outcomes, using the same empirical specification. We see that those who change class status, indeed, vote differently. The fact that we do not find evidence of persistent class background effects suggests that the patterns in our data are driven by material self-interest rather than
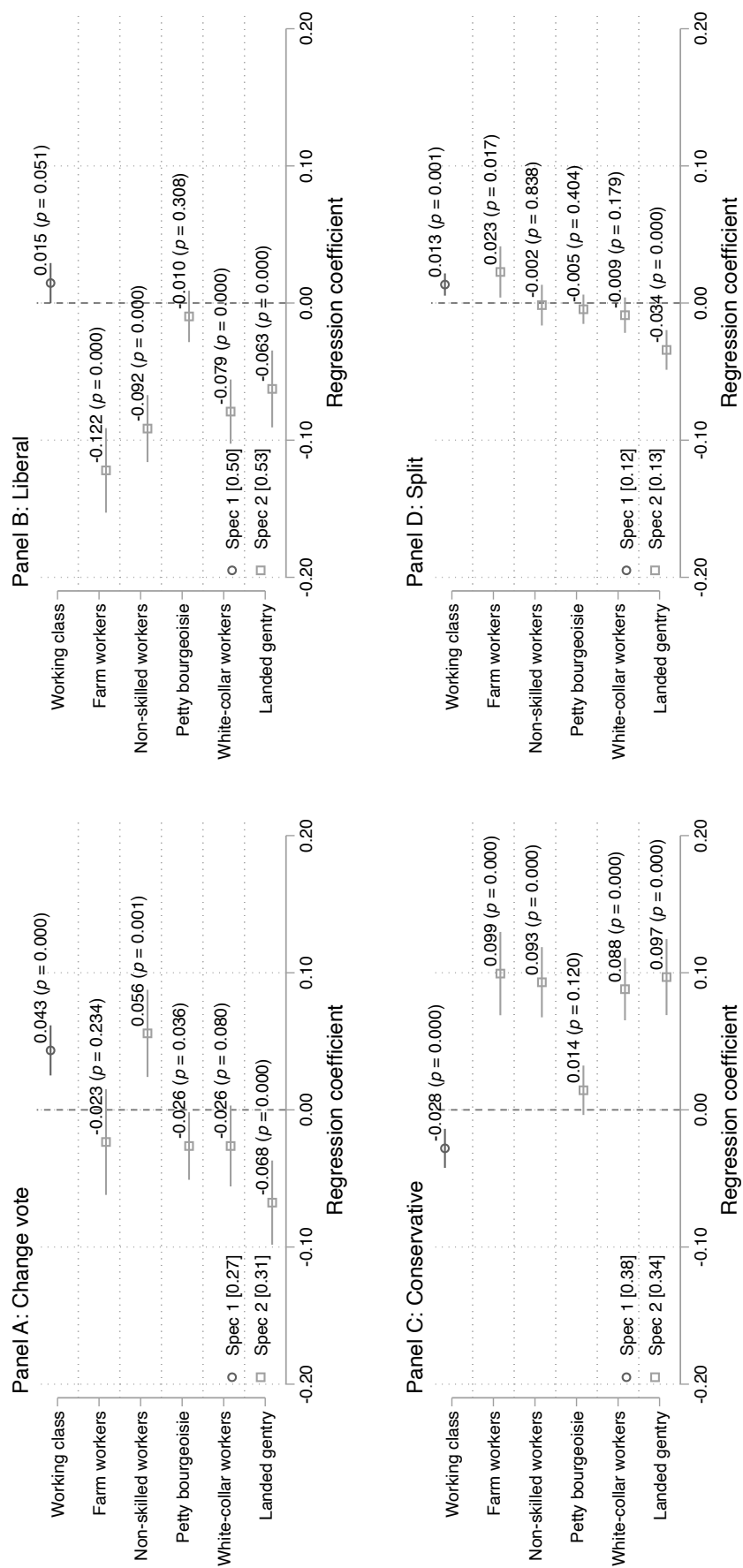
Panel A: Change vote

Working class — 0.043 (*p* = 0.000)
Farm workers — -0.023 (*p* = 0.234)
Non-skilled workers — 0.056 (*p* = 0.001)
Petty bourgeoisie — -0.026 (*p* = 0.036)
White-collar workers — -0.026 (*p* = 0.080)
Landed gentry — -0.068 (*p* = 0.000)

○ Spec 1 [0.27]
□ Spec 2 [0.31]

Regression coefficient

Panel B: Liberal

Working class — 0.015 (*p* = 0.051)
Farm workers — -0.122 (*p* = 0.000)
Non-skilled workers — -0.092 (*p* = 0.000)
Petty bourgeoisie — -0.010 (*p* = 0.308)
White-collar workers — -0.079 (*p* = 0.000)
Landed gentry — -0.063 (*p* = 0.000)

○ Spec 1 [0.50]
□ Spec 2 [0.53]

Regression coefficient

Panel C: Conservative

Working class — -0.028 (*p* = 0.000)
Farm workers — 0.099 (*p* = 0.000)
Non-skilled workers — 0.093 (*p* = 0.000)
Petty bourgeoisie — 0.014 (*p* = 0.120)
White-collar workers — 0.088 (*p* = 0.000)
Landed gentry — 0.097 (*p* = 0.000)

○ Spec 1 [0.38]
□ Spec 2 [0.34]

Regression coefficient

Panel D: Split

Working class — 0.013 (*p* = 0.001)
Farm workers — 0.023 (*p* = 0.017)
Non-skilled workers — -0.002 (*p* = 0.838)
Petty bourgeoisie — -0.005 (*p* = 0.404)
White-collar workers — -0.009 (*p* = 0.179)
Landed gentry — -0.034 (*p* = 0.000)

○ Spec 1 [0.12]
□ Spec 2 [0.13]

Regression coefficient

Figure 1. Class and voting behavior.

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Reference group means are shown in brackets. Reference groups are middle class in specification 1 and skilled workers in specification 2. Only data from general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

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socialization. In Panels A and B, we consider movements between middle and working classes. For instance, Panel A compares the votes of those who moved from working class to middle class with the choices of voters who always worked in working-class occupations. Perhaps somewhat counter-intuitively, moving upwards in the class hierarchy is associated with an increased tendency of voting for Liberal candidates, while moving downwards has no statistically significant effect. While the estimates can plausibly interpreted as causal effects, in the absence of more detailed information we are unable to distinguish the mechanism. One plausible interpretation is that moving up the occupational scale allows voters to express their ideological preference. However, and although we find evidence that the direction of mobility plays a role, the observed pattern may reflect that we have less downward mobile observations.

In Panels C and D, we group the social classes into Conservative (farm workers, non-skilled workers, white-collar workers, and landed gentry) and Liberal blocs (skilled workers and petite bourgeoisie); the Alford index using this grouping is about 11. Class changes between these blocs are associated with expected changes in voting behavior. For example, moving from a class in the Liberal bloc to a class in the Conservative bloc leads to a 5% higher propensity of casting a Conservative vote.

3.3 Additional Findings

Appendix C reports a number of robustness checks and other analyses. First, to minimize the potential reporting bias, we have also run our analyses excluding voters whose class changes multiple times. Doing so does not change our findings (see Appendix Figure C1).

Second, we split the working and middle classes in more detailed groups (following the six-class classification) to study social mobility and voting behavior in Appendix Table C2. We find a pattern that is largely consistent with the results reported here.

Third, note that the coefficients in the class change analyses capture both a selection component and the effect of the change in social class. The selection component is present if those who change class already vote differently than those who always stay in the origin class. This could be so if, as hypothesized by Alesina and La Ferrara (2005), expectations of future social status affect political preferences. To decompose these effects, we estimate these models
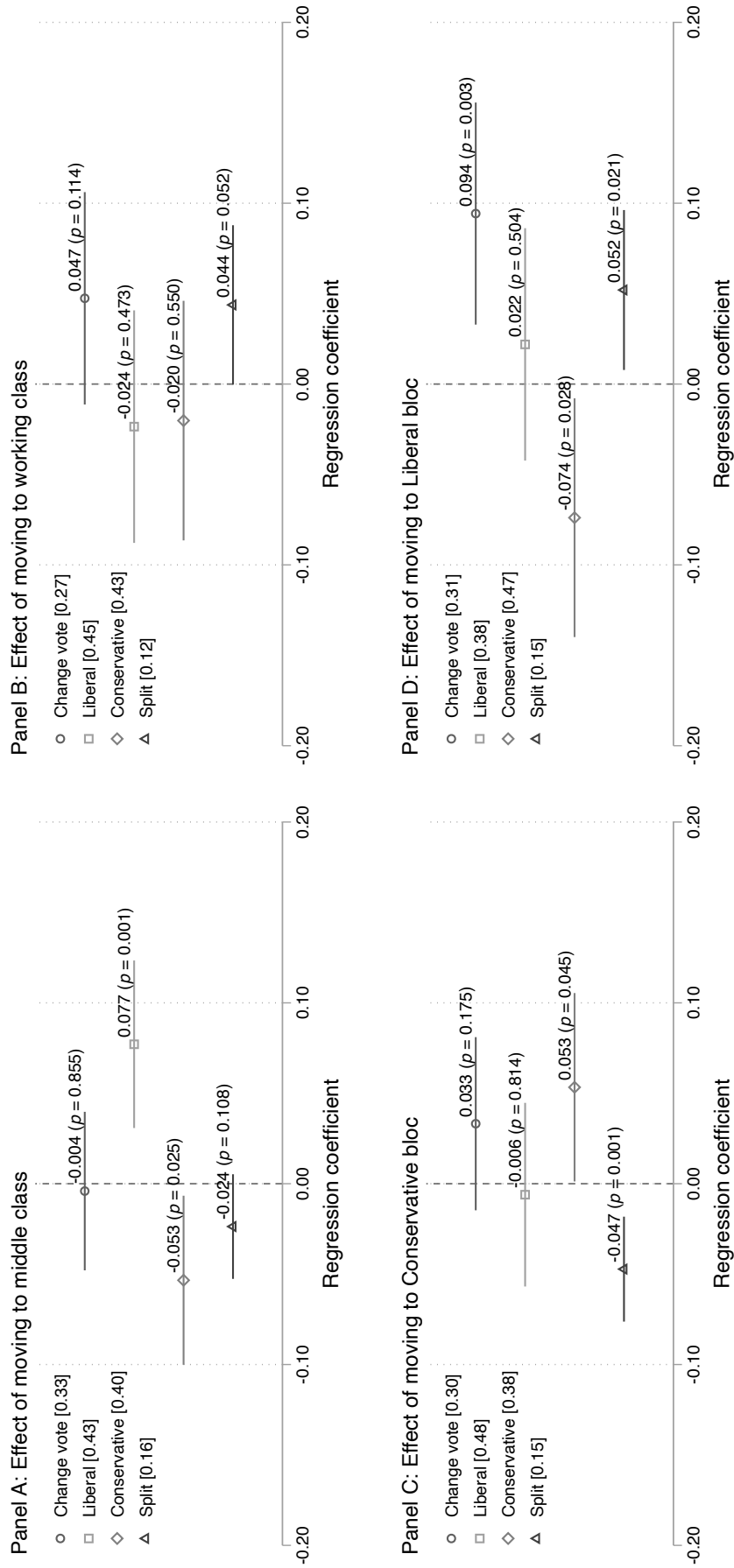
Figure 2. Social mobility and voting behavior.

Notes: Reference group means are shown in brackets. Reference groups are working class in Panel A, middle class in Panel B, Liberal bloc (skilled workers and petite bourgeoisie) in Panel C, and Conservative bloc (other classes) in Panel D. Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Only data from general elections are included. Estimates are conditional on voting.

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while controlling for the lagged outcome (Appendix Tables C3 and C4). The results are robust indicating that the effects are due to the changes in social class and not the selection effect.

Fourth and finally, we analyze whether voters only gradually adopt the views of their new class.[6] Appendix Figures C4-C9 illustrate that there is no clear evidence that social mobility would matter for voting behavior in the long run more than in the short run. Unfortunately, we observe only a somewhat limited number of socially mobile voters for more than two elections and thus, we only get imprecise estimates of dynamic effects. Be that as it may, the large immediate effect of social mobility on voting behavior implies that economic voting is at least part of the mechanism.

4   Alternative Mechanisms

We study a country during its early stages of political development. In such contexts, vote buying is a pertinent concern (Kam 2017; Aidt and Jensen 2017; Finan and Schechter 2012). If parties systematically buy votes from voters of certain social class, our results could reflect this. Even if there were no vote buying, electoral intimidation and voter coercion could explain part of what we observe (Baland and Robinson 2008; Mares and Zhu 2015). In this section, we discuss auxiliary evidence that suggests that neither vote buying nor voter intimidation is likely to influence the findings we have presented in this paper.

4.1   Vote Buying

To assess the role of vote buying, we have collected information on bribes paid to voters in Barnstaple, Beverley, Cambridge, Gloucester, and Maldon (see also Kam 2017). In these data, we detect evidence of bribery in about four percent of our 32,596 voter-election year

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[6]For example, Ali and Lin (2013), argue that social pressure is an important determinant of political behavior, especially in environments where such behavior is visible (as arguably in our case). Such pressure, along with possible gradual assimilation of the norms of the new class suggests that possible changes in the class voting behavior due to social mobility occur over time.

observations. Excluding voters who are exposed to bribery from the analysis does not change our conclusions.

Appendix Table D1 first shows that the relationship between social class and voting behavior is very similar to the one we show in the main text. Similarly, Appendix Figure D1 plots the point estimates for our social mobility analyses using this restricted sample. The results are weaker in terms of statistical significance but largely in line with our main results in terms of the sign and magnitude of the point estimates. Thus, we infer that is unlikely that our findings are driven by differential exposure of social classes to vote buying.

Another argument is that part of the bribery is likely to be associated with turnout buying instead of vote buying (Nichter 2008). Turnout buying should not confound our findings. We discuss this remark further in Appendix B.

4.2 Electoral Intimidation

Similarly, voter intimidation could systematically influence the voting decisions of individuals from certain social classes. To alleviate this concern, we rerun our analyses omitting three elections that had electoral violence.[7] Appendix Figure D2 first shows results on the correlation between social class and voting behavior. These results are largely in line with the results that we show in the main text. We report the regression results on social mobility and voting behavior in Appendix Figure D3 where the results in Panels A and B are in tally with our main results. The evidence in Panels C is slightly weaker in terms of statistical significance, but the general patterns again align with our main argument.

Lastly, a particular feature of our case is that some of the constituencies in the United Kingdom were subject to aristocratic domination. We highlight that neither Gash (1977) nor Hanham (1959) lists the constituencies in our sample as being such, however.

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[7]These elections are the 1857 and 1859 elections in Beverley, and the 1857 election in Sheffield (Wasserman and Jaggard 2006).

5 Concluding Remarks

We use unique micro-level data from poll books to explore the class-basis of voting and the effect of social mobility on voting behavior in nineteenth-century England. We find some evidence of voting along the working class and middle class divide, but more striking evidence of within-class heterogeneity. A union of the landed gentry, farm workers, non-skilled workers and white-collar workers voted, on average, more for the Conservatives. Petty bourgeoisie and skilled workers, on the other hand, were more likely to cast their votes for Liberal candidates. These findings provide novel support for the historical narrative that key policy debates in the era revolved around free trade versus protectionism (Mill 1844; Howe 1997).

Our analysis of social mobility and micro voting patterns provides support for class-based voting. Avoiding the pitfalls of survey or aggregate data, we have shown that voting patterns are consistent with the claim that class voting is driven by shared material interests. We cannot, of course, rule out that similar patterns of voting in the twentieth century were due to socialization. Neither can we claim that socialization would not have played some role in Victorian England. While we have argued that vote buying is unlikely behind our results, the results can be informative on political behavior more broadly in systems with weak parties, vote buying and emerging democratic systems.

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Class, Social Mobility, and Voting: Evidence from Historical Voting Records

Supplementary Information

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Contents

A Data

In this appendix, we provide further information on our data.

A.1 Data Sources

We draw data from general elections in nine British constituencies. Data for Ashford (elections in 1852 and 1857; Drake and Pearce 2001), Guildford (six elections in 1835-1857; Sykes 1977), Sandwich (five in 1835-1859; Andrews 2001) and Sheffield (two elections in 1852 and 1857; White and Arthur 2001) are available in the UK Data Archive. Moreover, we have acquired poll books from five additional constituencies. These are Barnstaple (three elections in 1847-1857), Beverley (elections in 1857 and 1859), Cambridge (three elections in 1847-1857), Gloucester (two elections in 1857 and 1859) and Maldon (two elections in 1847 and 1852).

A.2 Classifying Occupations

With the exception of Ashford, the poll books include information on voters' occupation. We have merged the Ashford data to censuses and other registries to define voters' occupations. For other available digitized poll books that did not contain occupation, the digitized census was not available. We use occupation information in the original data to classify the voters in working and middle classes following Best (1972) and Clapham (2009) as closely as possible. We divide the working class voters further into skilled and non-skilled workers and farm workers, and the middle class workers into petty bourgeoisie and white-collar workers following the five-class adaptation of Eriksson-Goldthorpe classification (Eriksson and Goldthorpe 1992). Moreover, we include an additional class of landed gentry (gentlemen, esquires etc.), i.e. landowners who could live entirely from rental income.

Another important aspect of our data is that some of the voters who we observe change occupation and social class. We present some examples of occupation changes by class transition in Table A1. For example, it was very common for the voters to declare being a gentleman (typically a member of the landed gentry) in one election, and something else in another. Whether these and other occupational changes truly reflect a change in social

status—or if the voters merely report their occupation inconsistently—cannot be addressed with the data that we have. Be it as it may, measurement error in class changes should bias our estimation results towards zero.

A.3   Summary Statistics

Table A2 reports summary statistics on our data. We observe individuals' vote choices (Liberal, Conservative, or split between the parties). For those voters that we observe multiple times, we also observe whether they change their vote between two elections. Note that we do not have data on voters who did not turn out to vote.

Table A1. Examples of occupational transitions by class transition.

Panel A: Upward mobility			
Current class/ previous class	Farm workers	Non-skilled workers	Skilled workers
Petty bourgeoisie	Cow keeper to dairy man; farmer to publican; gardener to florist	Brick layer to innkeeper; hoyman to factor	Baker to factor; smith to ironmonger; brewer to publican
White-collar workers	Gardener to policeman; horse trainer to veterinary surgeon; gardener to banker	Mariner to merchant; mariner to toll collector; porter to clerk	Cabinet maker to auctioneer; upholster to auctioneer; chandler to beadle
Landed gentry	Cow keeper to gentleman; farmer to gentleman; farmer to esquire	Labourer to gentleman; mariner to gentleman; waiter to gentleman	Builder to gentleman; painter to gentleman; maltster to gentleman
Panel B: Downward mobility			
Current class/ previous class	Petty bourgeoisie	White-collar workers	Landed gentry
Farm workers	Dairyman to farmer; fruiterer to gardener, greengrocer to gardener	Clerk to farmer; chemist to farmer	Gentleman to yeoman; gentleman to farmer
Non-skilled workers	Coal merchant to mariner; grocer to town crier; innkeeper to labourer	Clerk to porter; army lieutenant to hoyman	Gentleman to currier; gentleman to mariner; gentleman to servant
Skilled workers	Draper to tailor; victualler to boot maker; liquor store keeper to brewer	Auctioneer to cabinet maker; clerk to manufacturer; postmaster to printer	Gentleman to brewer; gentleman to cabinet maker; gentleman to builder

Table A2. Summary statistics.

	Middle class		Working class		Farm workers		Non-skilled workers		Skilled workers		Landed gentry		Petty bourgeoisie		White-collar workers	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Change in vote	0.27	0.44	0.32	0.47	0.30	0.46	0.38	0.49	0.31	0.46	0.25	0.43	0.27	0.45	0.28	0.45
Liberal	0.50	0.50	0.49	0.50	0.38	0.49	0.36	0.48	0.53	0.50	0.45	0.50	0.54	0.50	0.46	0.50
Conservative	0.38	0.49	0.38	0.48	0.46	0.50	0.49	0.50	0.34	0.47	0.45	0.50	0.34	0.47	0.41	0.49
Liberal (alt.)	0.56	0.47	0.56	0.46	0.46	0.46	0.43	0.46	0.60	0.46	0.50	0.47	0.60	0.46	0.52	0.47
Split	0.12	0.32	0.13	0.34	0.16	0.36	0.15	0.36	0.13	0.33	0.10	0.30	0.12	0.33	0.13	0.33
Observations	10961		15941		1596		2797		11548		2083		5636		3242	

B External Validity

How do the constituencies covered in our data compare to other constituencies in England? Figure B1 maps our constituencies and shows that they are scattered around England, although some are clustered in the south-eastern parts of the country.

The constituencies in our poll book data represent a wide range of constituencies in terms of class composition, as we illustrate in Figures B2 and B3. These figures show the distribution of the working class share of population across constituencies in the census of 1861.[1] For example, Barnstaple, Beverley, Maldon and Sheffield were typical constituencies in the sense that the proportion of working classes (of over 20 year old wage-earning men) was close to the median. Maldon, Barnstaple, Beverley, and Guildford were also close to the median constituency in terms of high-skilled working class population. This is important, as such members of the working classes were also more likely to be enfranchised. Most of the constituencies in our sample are fairly representative in terms of size of the electorate (Figure B4). Finally, the constituencies represent a broad spectrum of the country in terms of Conservative vote share (Figure B5) and voter turnout (Figure B6). [2]

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[1]The census data comes from Gatley et al. (2000) and they are publicly available at the UK Data Archive.

[2]The data on elections come from Eggers and Spirling (2014) and they are available online at `http://andy.egge.rs/data.html`.

Figure B1. Map of the constituencies in our sample.
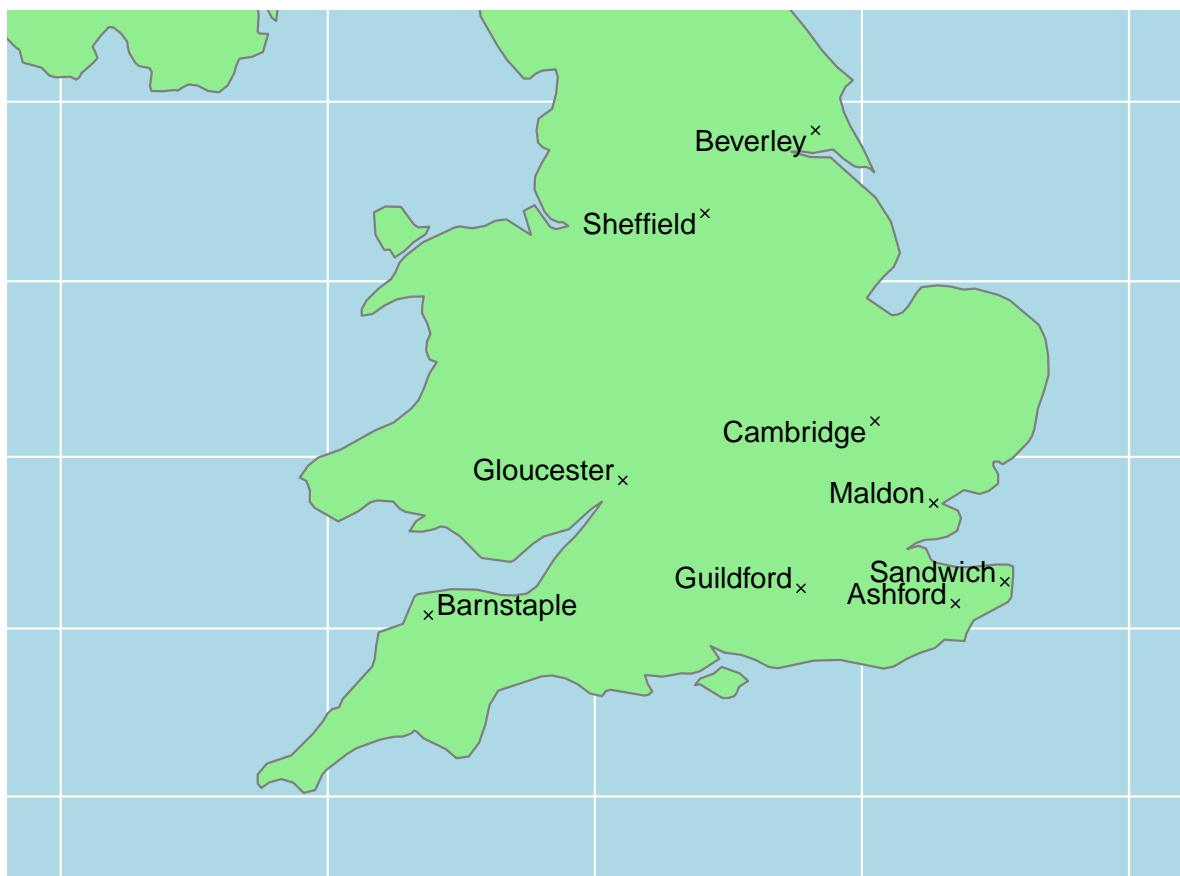
Figure B2. Working class share of male population
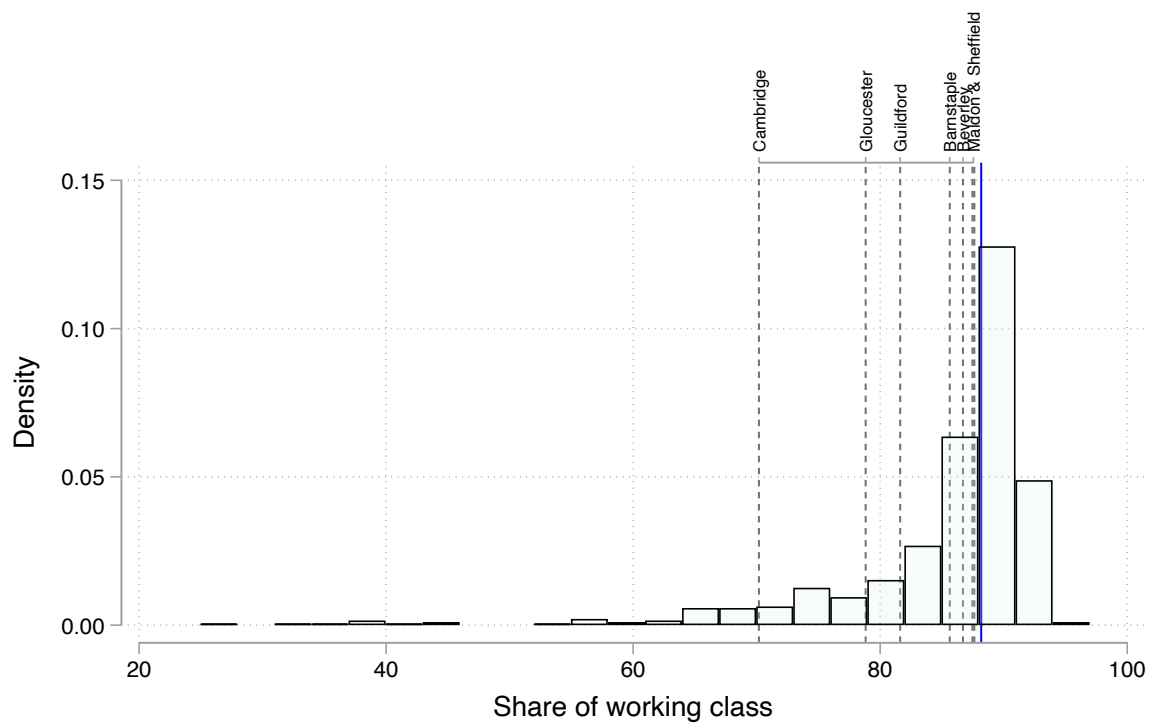
Notes: Solid line marks the median. The data come from 1861 census.

Figure B3. Working class share of male population

Panel A: High-skilled working class

Panel B: Low-skilled working class
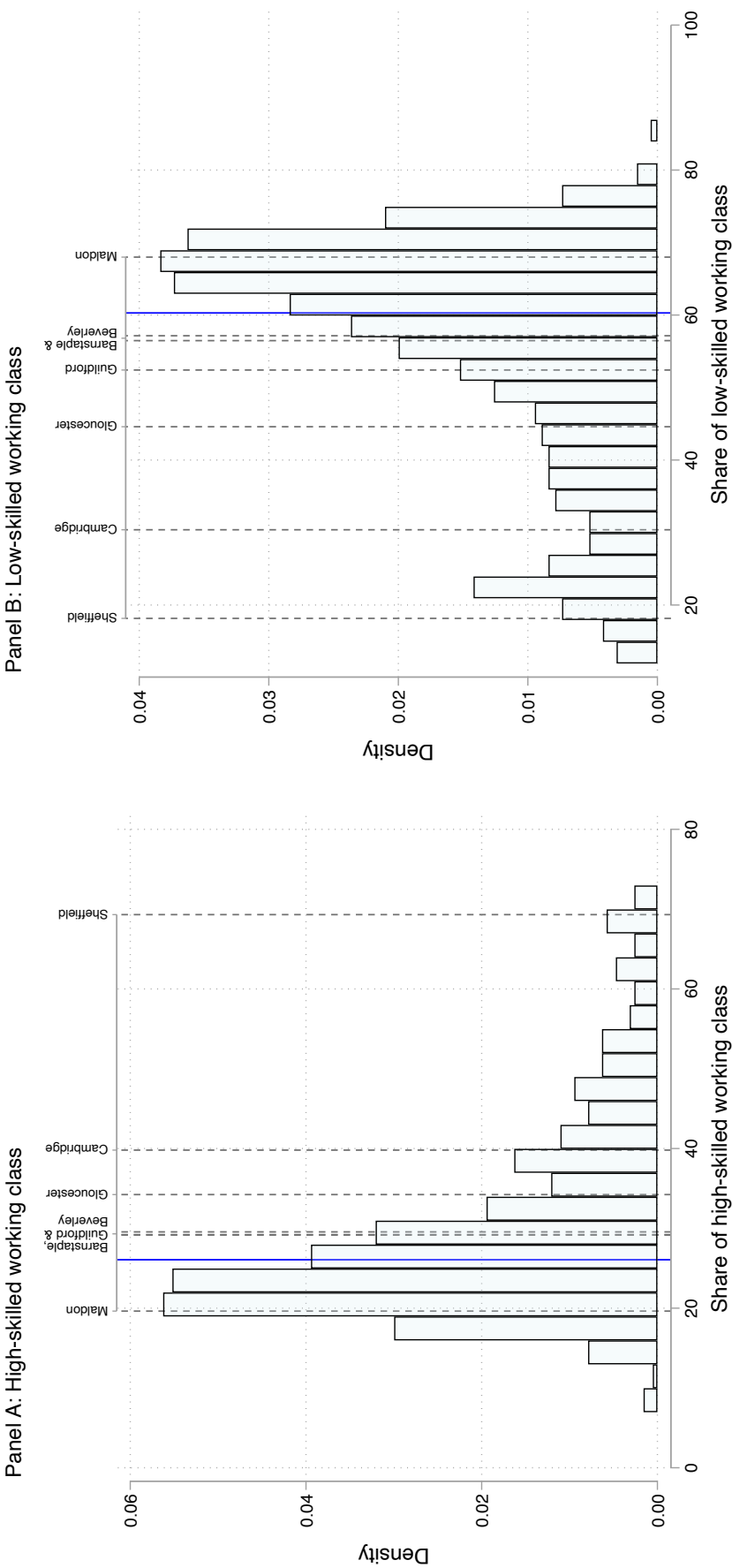
Notes: Solid line marks the median. The data come from 1861 census. High-skilled occupations include building and manufacturing, and low-skilled occupations cover agriculture, mining, laborers, domestic servants and transportation.

Figure B4. Distribution of the size of the electorate.
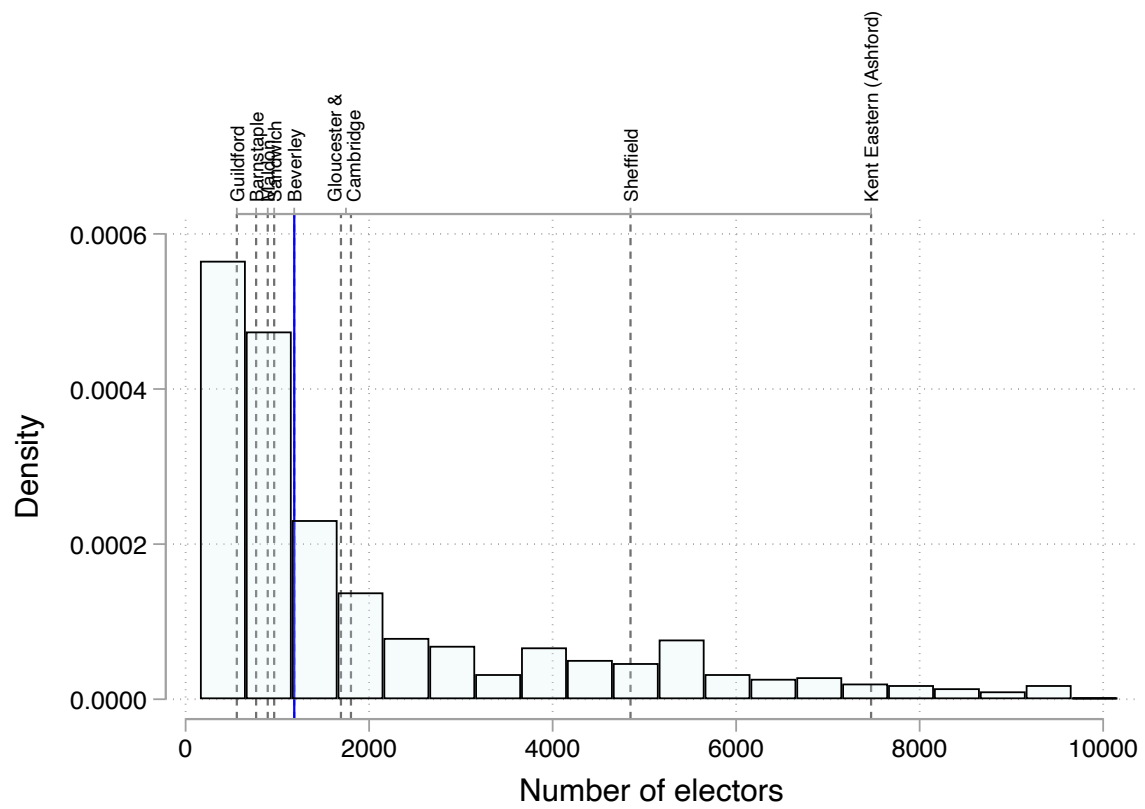
Notes: Solid line marks the median. Figure shows the distribution of constituency size within bins of 500 electors. We pool together all elections held in 1833-1863.

Figure B5. Distribution of Conservative vote share.
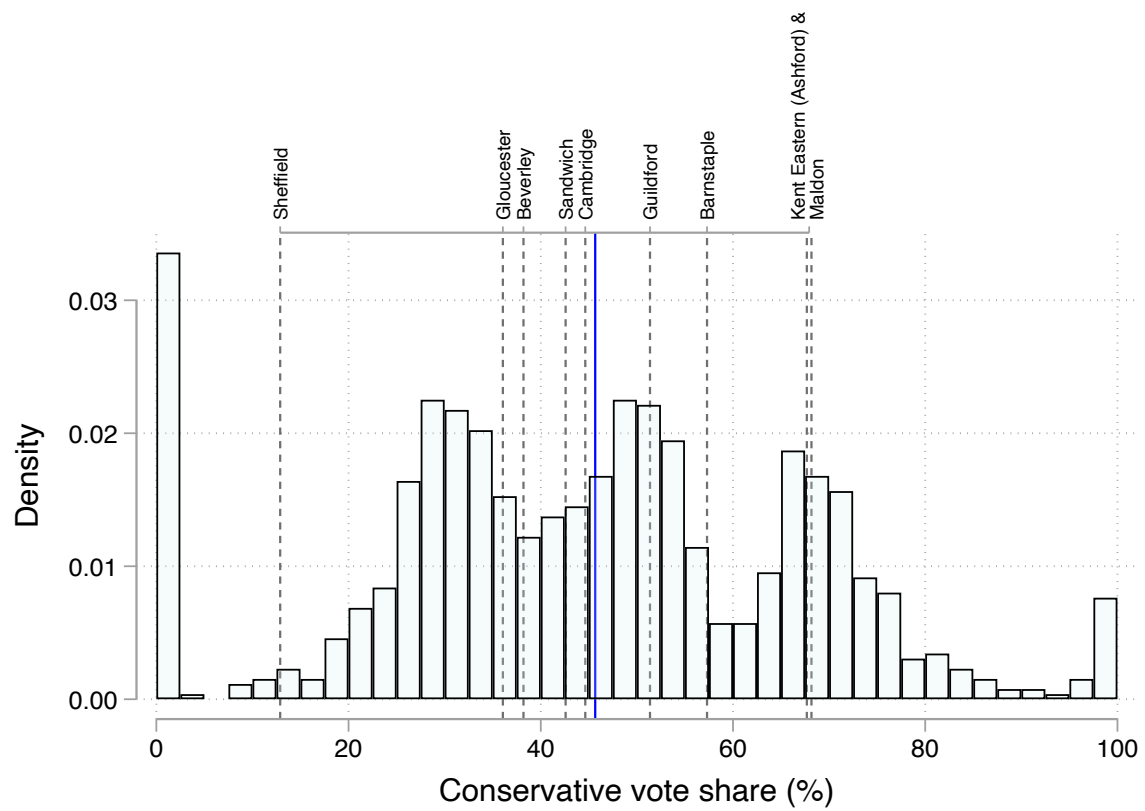
Notes: Solid line marks the median. Figure shows the distribution of Conservative vote share (%) within bins of 2.5%. We pool together all elections held in 1833-1863.

Figure B6. Distribution of voter turnout.

Notes: Solid line marks the median. Figure shows the distribution of voter turnout (%) within bins of 2.5%. We pool together all elections held in 1833-1863.

C   Robustness Checks

We present a number of robustness checks in this appendix.

C.1   Alternative Dependent Variable

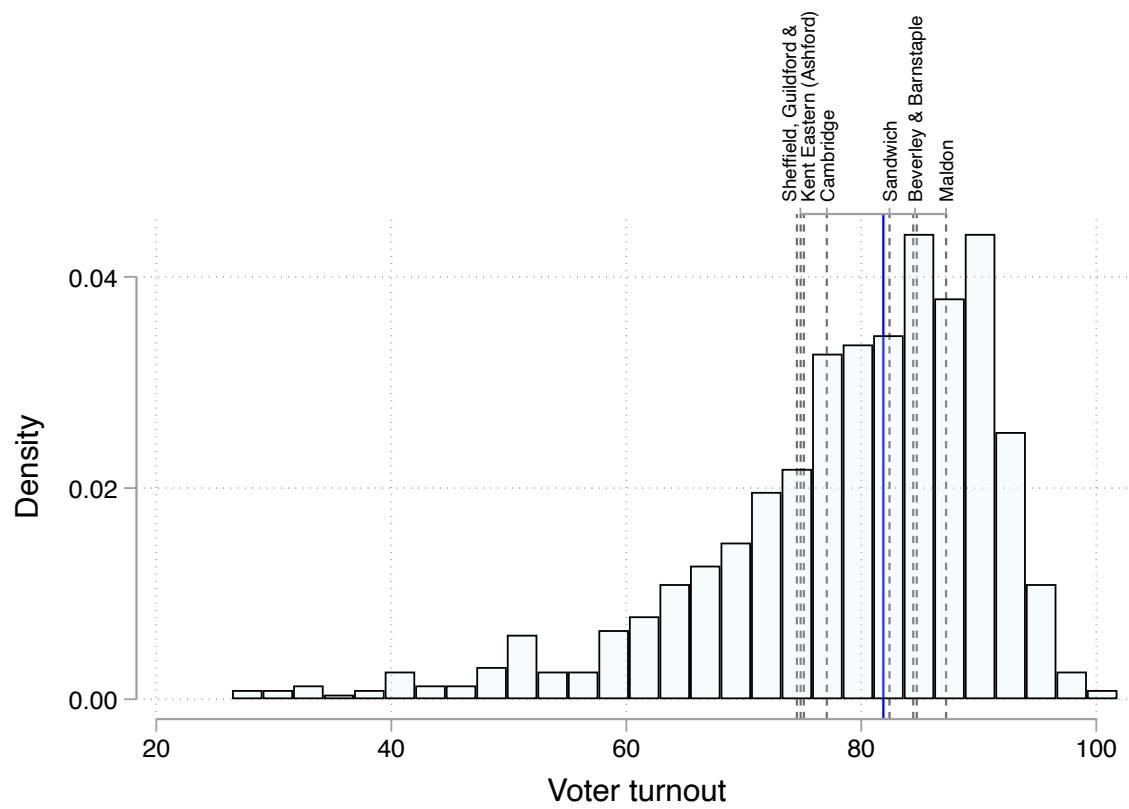We verify that our results are robust to an alternative coding of the dependent variable in Table C1. We assign the outcome variable the value 0 if a voter votes Conservative, 0.5 if he cast a split vote, and 1 if he voted Liberal. Both our class and social mobility results are robust to this definition of the outcome variable.

C.2   Social Mobility and Voting Behavior

We split the working and middle classes in more detailed groups in Table C2. For a clear interpretation of the coefficients, we divide our sample in two by the voters' initial (middle or working) class status to estimate the effects only relative to those who stay in their class of origin. We then run two separate regressions on these subsets of the data.[1] By omitting all who are constantly middle class from the upward mobility regressions, the coefficients of interest tell us if those who move upwards vote differently from those who stay in the working class. In Panel A, our estimation sample includes only those voters who were working class in the previous election they voted in. In Panel B, we conduct a similar exercise including voters who were middle class in the previous election they voted in. We find a pattern that is largely consistent with the union of the landed gentry, farm workers, non-skilled workers, and white-collar workers voting, on average, relatively more for the Conservatives, and petty bourgeoisie and skilled workers for the Liberals in a cross-section. However, one exception to this pattern are those who switch from working class to white-collar workers.

Our analysis also provides more precise projections. For example, we see that change from working class in general to the petty bourgeoisie predicts a 6.4 percentage point increase in the propensity to vote for the Liberals. This effect combines the three more detailed effects of

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[1]For estimations focusing on movements from one class to another, see Figures C2-C3.

moving from skilled, non-skilled or farm workers to petty bourgeoisie weighted by the number of respective transitions in the data. 53% of those voters who remained in the skilled working class voted for the Liberals (the reference group mean in column (2)). For the remaining farm workers and non-skilled workers the baselines are 48% and 45%, respectively. Thus, we can conjecture that switching from working class to petite bourgeoisie from either farmer or non-skilled worker makes that voter as likely to vote Liberal as if he had always belonged to that class.

C.3   Excluding Voters Whose Class Changes Multiple Times

Figure C1 reports regressions results using a sample that excludes voters whose (Eriksson-Goldthorpe) class changes multiple times during our sample period. This means omitting 354 voter-election observations. We estimate this specification to minimize the role of potential reporting bias. As it turns out, leaving out voters who change their class multiple times barely affects the results.

C.4   Controlling for Lagged Dependent Variable

We next check whether those voters who change class are already different in their voting behavior. This would be so if, as hypothesised by Alesina and La Ferrara (2005), expectations of future social status affects political preferences. We find little evidence for this effect. In Tables C3 and C4 we verify that the results are robust to controlling for the lagged dependent variable. Taken these robustness checks together, we may conclude that our findings in the main text ought not to be driven by class changers voting differently already before they changed class.

C.5   Detailed Class Changes

The social mobility results presented in the main text are interpreted as effects of moving up or down from any working or middle class, respectively, relative to the stable working or middle class voters. To complement these results, we explore an alternative specification where we conduct the estimations for each possible change. Figures C2 and C3 provide results that allow

interpreting the coefficients as how changes from one specific group to another are associated with voting behavior. The findings are in line with out main results.

C.6 Persistence of Effects

To understand whether the relationship between social mobility and voting behavior is persistent over time, we re-estimate our regressions using votes in $t+1$ as the dependent variables. Figures C4-C9 report these estimation results, and also show our benchmark results (t) for the sake of comparison. If anything, there is no clear evidence that social mobility—neither upward nor downward—effects on voting behavior would increase over time. The $t+1$ estimates are not systematically larger (in absolute terms) than the t estimates, and these estimates are not statistically significantly different from each other.

This test can inform us whether voters gradually adopt the views of their new class.[2] However, we do not find strong evidence that this is so. This is not surprising, as the number of class changes is limited in our data, and most voters are observed only once or twice.

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[2]For example, Ali and Lin (2013) argue that social pressure is an important determinant of political behavior, especially in environments where such behavior is visible (as arguably in our case as we will see). Such pressure, along with possible gradual assimilation of the norms of the new class suggests that possible changes in the class voting behavior due to social mobility occur over time.

Table C1. Regression results using alternative outcome variable.

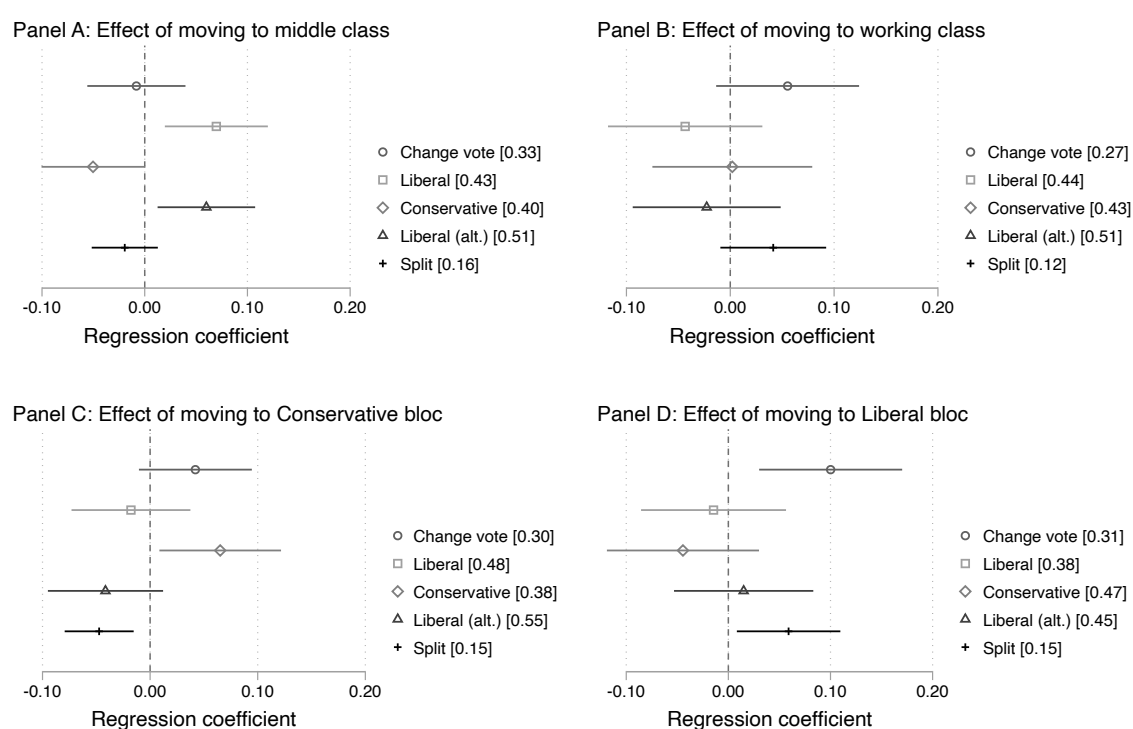|	(1)	(2)	(3)	(4)	(5)	(6)
Working class	0.021					
	[0.007]					
Farm workers		-0.111				
		[0.015]				
Landed gentry		-0.080				
		[0.014]				
Non-skilled workers		-0.092				
		[0.012]				
Petty bourgeoisie		-0.012				
		[0.009]				
White-collar workers		-0.084				
		[0.011]				
Change to middle class			0.065			
			[0.023]			
Change to working class				-0.002		
				[0.031]		
Change to Conservative bloc					-0.030	
					[0.025]	
Change to Liberal bloc						0.048
						[0.031]
N	26902	26902	6903	4061	6989	3975
R^2	0.06	0.07	0.06	0.03	0.03	0.04
Reference group mean	0.56	0.60	0.52	0.52	0.30	0.31

Notes: The dependent variable gets the value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects, and the lagged dependent variable. Robust standard errors clustered by voter are reported in brackets.

Table C2. Social mobility and voting behavior.

Panel A: Effect of moving to petty bourgeoisie, white-collar workers or landed gentry					
	Change in vote	Liberal	Conservative	Liberal (alt.)	Split
	(1)	(2)	(3)	(4)	(5)
Change to landed gentry	-0.016	0.042	0.063	-0.011	-0.105
	[0.038]	[0.041]	[0.042]	[0.040]	[0.016]
Change to white-collar workers	0.069	0.058	-0.108	0.083	0.050
	[0.057]	[0.057]	[0.056]	[0.052]	[0.044]
Change to petty bourgeoisie	0.030	0.064	-0.088	0.076	0.024
	[0.030]	[0.032]	[0.031]	[0.030]	[0.021]
Farm workers	-0.003	-0.053	0.060	-0.056	-0.007
	[0.020]	[0.023]	[0.023]	[0.022]	[0.015]
Non-skilled workers	0.074	-0.077	0.060	-0.068	0.017
	[0.016]	[0.018]	[0.019]	[0.017]	[0.012]
N	10736	10736	10736	10736	10736
R^2	0.06	0.07	0.02	0.04	0.12
Reference group mean	0.31	0.53	0.34	0.60	0.13

Panel B: Effect of moving to farm worker, skilled or non-skilled workers					
	Change in vote	Liberal	Conservative	Liberal (alt.)	Split
	(6)	(7)	(8)	(9)	(10)
Change to farm workers	-0.113	-0.037	0.102	-0.070	-0.065
	[0.077]	[0.095]	[0.096]	[0.093]	[0.047]
Change to non-skilled workers	0.132	-0.022	-0.022	-0.000	0.045
	[0.063]	[0.067]	[0.071]	[0.065]	[0.046]
Change to skilled workers	0.039	0.031	-0.077	0.054	0.046
	[0.038]	[0.042]	[0.043]	[0.040]	[0.029]
Landed gentry	-0.032	0.006	0.025	-0.010	-0.031
	[0.020]	[0.027]	[0.027]	[0.026]	[0.014]
Petty bourgeoisie	0.002	0.070	-0.062	0.066	-0.008
	[0.017]	[0.022]	[0.022]	[0.021]	[0.013]
N	4061	4061	4061	4061	4061
R^2	0.06	0.05	0.03	0.03	0.10
Reference group mean	0.28	0.46	0.41	0.52	0.13

Notes: Reference groups are skilled workers (Panel A), and white-collar workers (Panel B). Change in vote is equal to one if a voter switches his vote between Conservative or Liberal plumper, or Split between two elections, and zero if he votes consistently. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Panel A (Panel B) includes only voters who were working class (middle class) the previous time they voted. Regressions control for year and constituency fixed effects. Robust standard errors clustered by voter are reported in brackets.

Figure C1. Regression results excluding voters who change class multiple times.

Panel A: Effect of moving to middle class

○ Change vote [0.33]
□ Liberal [0.43]
◇ Conservative [0.40]
△ Liberal (alt.) [0.51]
+ Split [0.16]

Regression coefficient

Panel B: Effect of moving to working class

○ Change vote [0.27]
□ Liberal [0.44]
◇ Conservative [0.43]
△ Liberal (alt.) [0.51]
+ Split [0.12]

Regression coefficient

Panel C: Effect of moving to Conservative bloc

○ Change vote [0.30]
□ Liberal [0.48]
◇ Conservative [0.38]
△ Liberal (alt.) [0.55]
+ Split [0.15]

Regression coefficient

Panel D: Effect of moving to Liberal bloc

○ Change vote [0.31]
□ Liberal [0.38]
◇ Conservative [0.47]
△ Liberal (alt.) [0.45]
+ Split [0.15]

Regression coefficient

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Figure C2. Upward mobility from working classes and voting behavior.
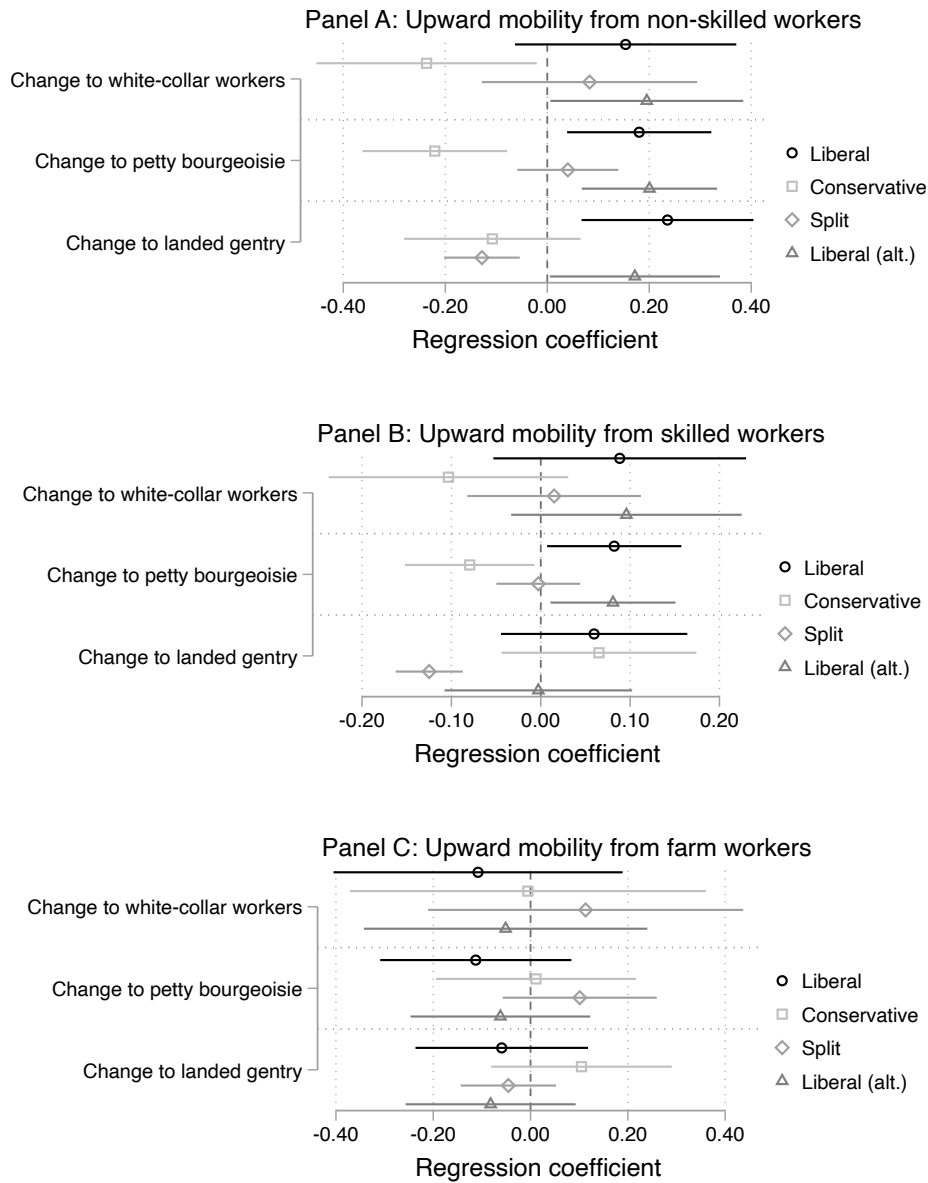
Panel A: Upward mobility from non-skilled workers

Panel B: Upward mobility from skilled workers
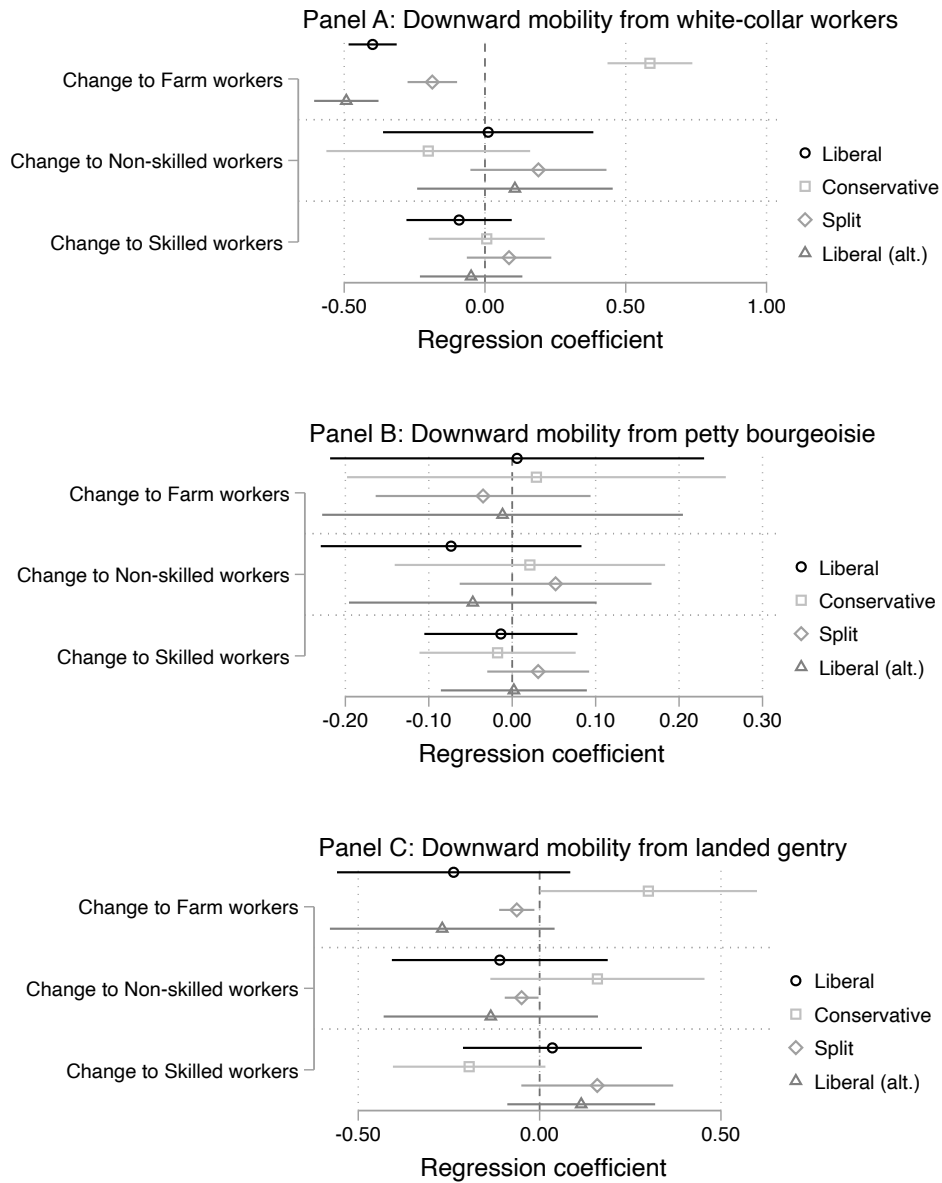
Panel C: Upward mobility from farm workers

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Figure C3. Downward mobility from middle classes and voting behavior.

Panel A: Downward mobility from white-collar workers

Panel B: Downward mobility from petty bourgeoisie
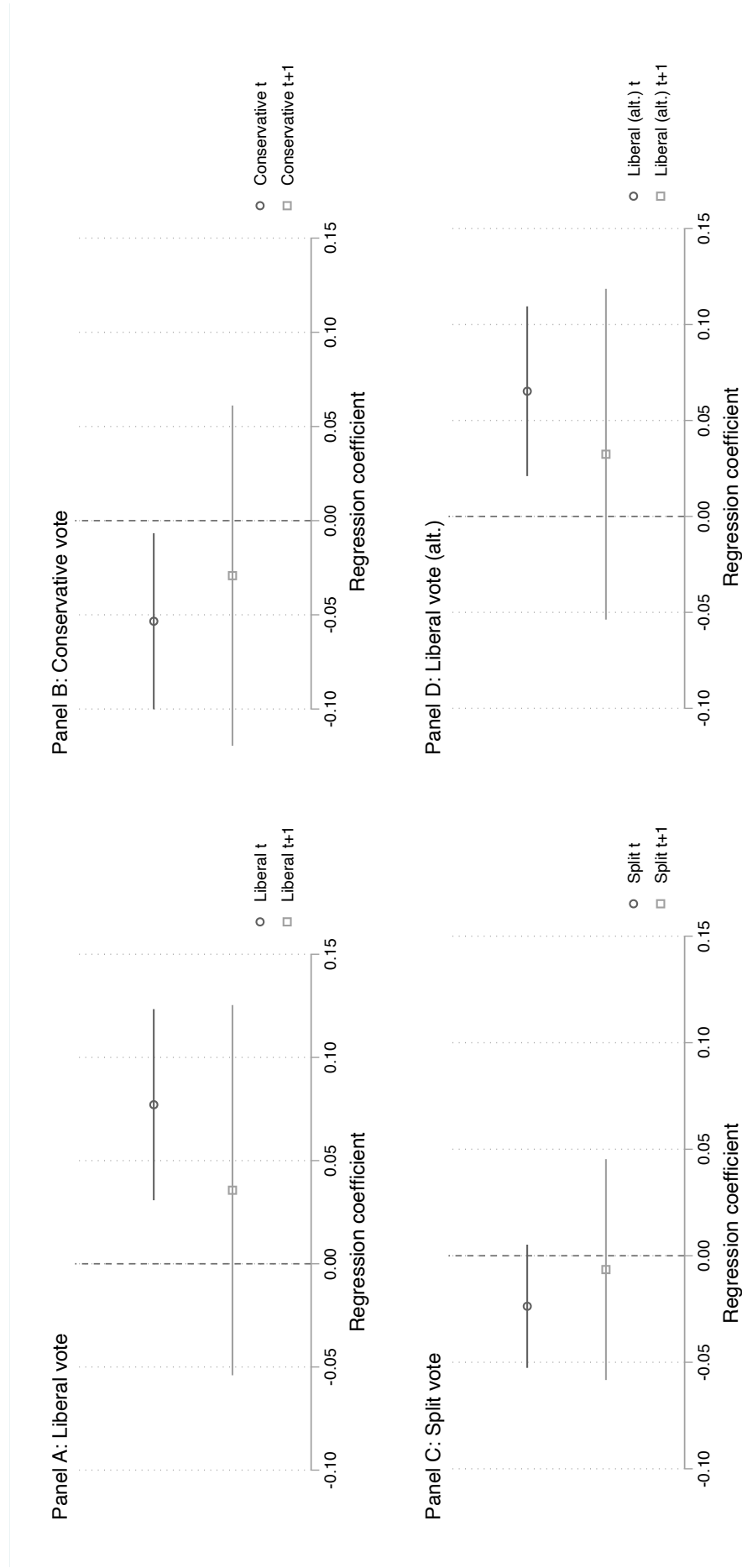
Panel C: Downward mobility from landed gentry

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Figure C4. Mobility from working to middle class and voting behavior.

Panel A: Liberal vote

Panel B: Conservative vote

Panel C: Split vote

Panel D: Liberal vote (alt.)

○ Liberal t
□ Liberal t+1

○ Conservative t
□ Conservative t+1

○ Split t
□ Split t+1

○ Liberal (alt.) t
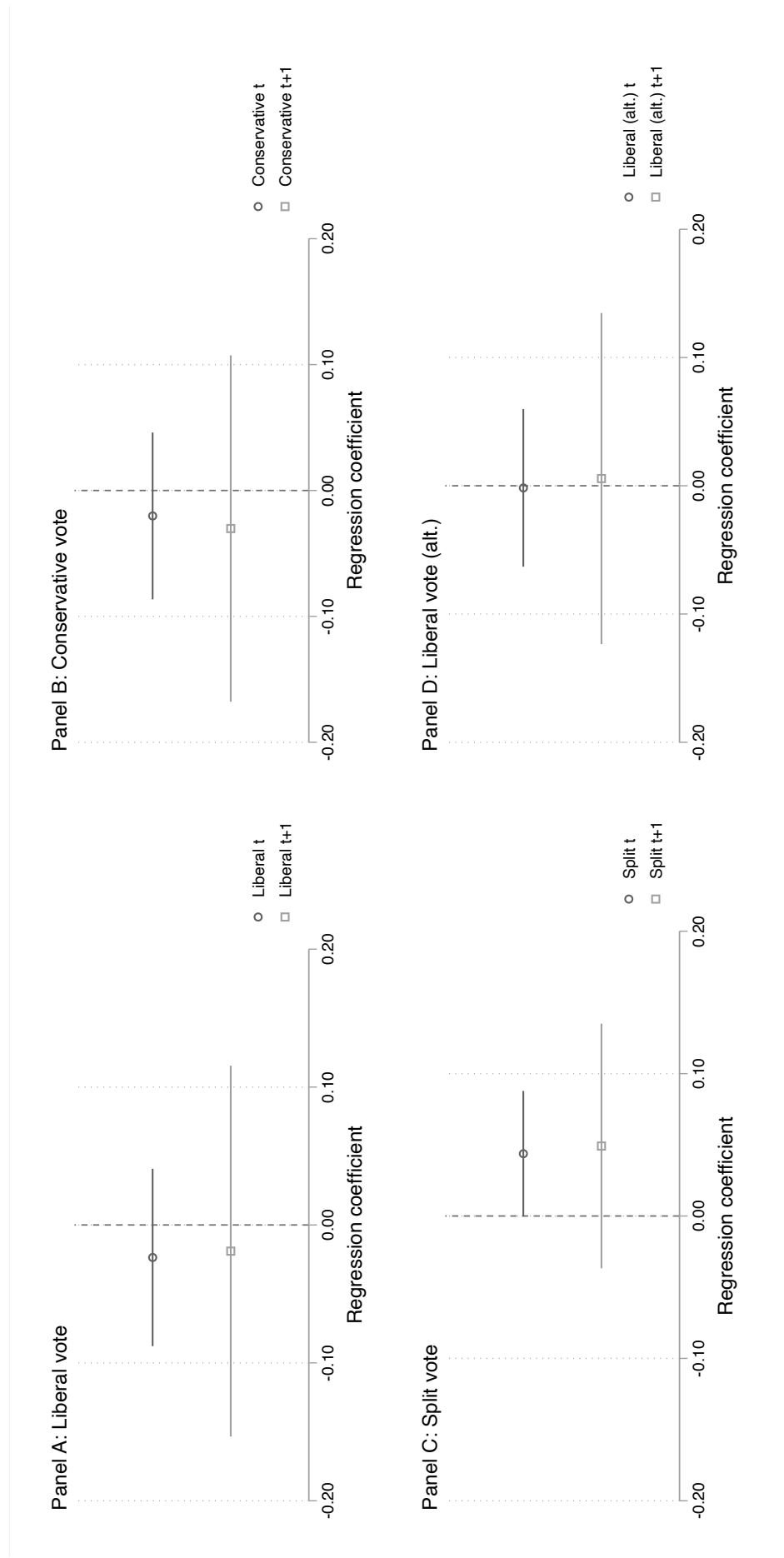□ Liberal (alt.) t+1

Regression coefficient

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

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Figure C5. Mobility from middle to working class and voting behavior.

Panel A: Liberal vote

Panel B: Conservative vote

Panel C: Split vote
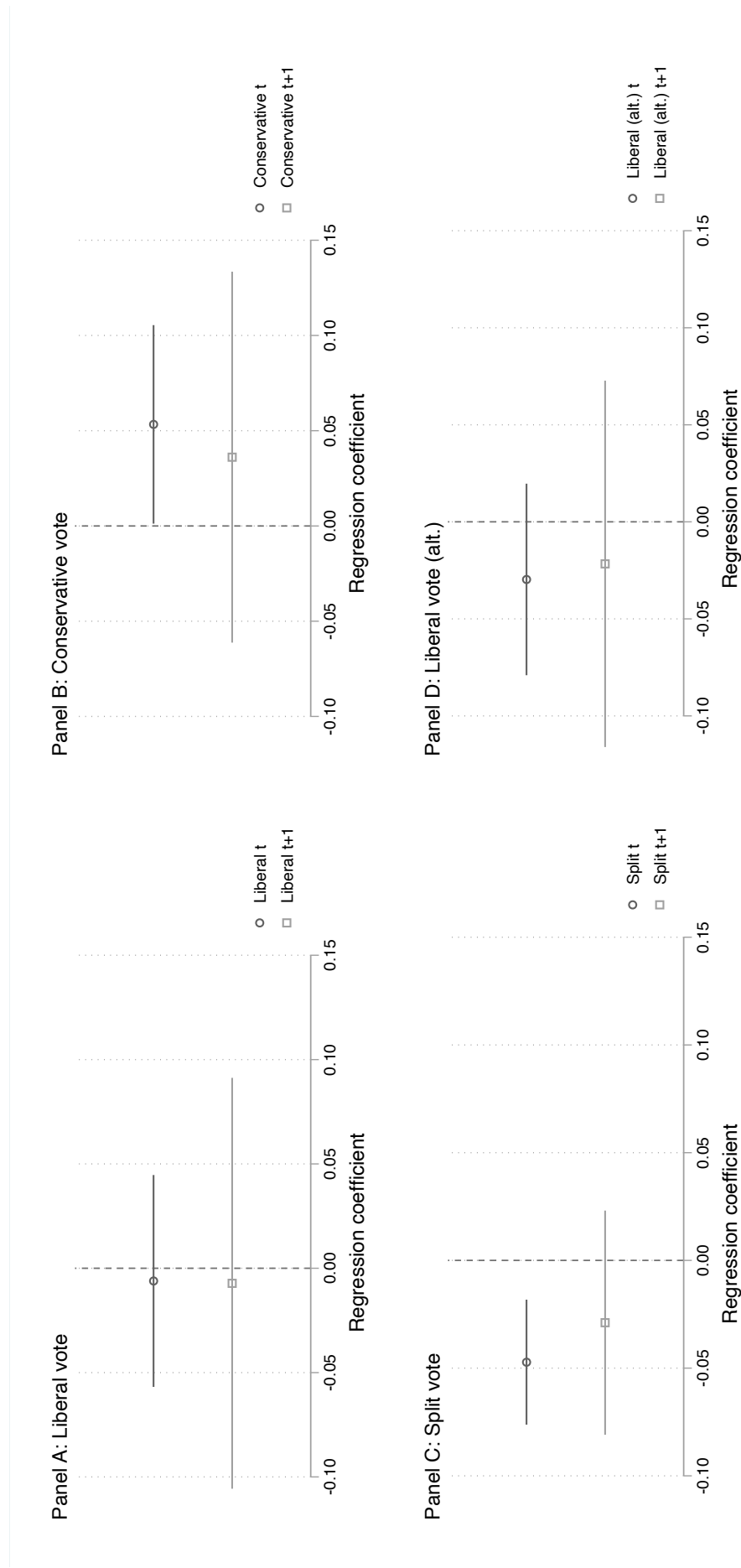
Panel D: Liberal vote (alt.)

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Figure C6. Mobility from Liberal to Conservative bloc and voting behavior.

Panel A: Liberal vote

Panel B: Conservative vote

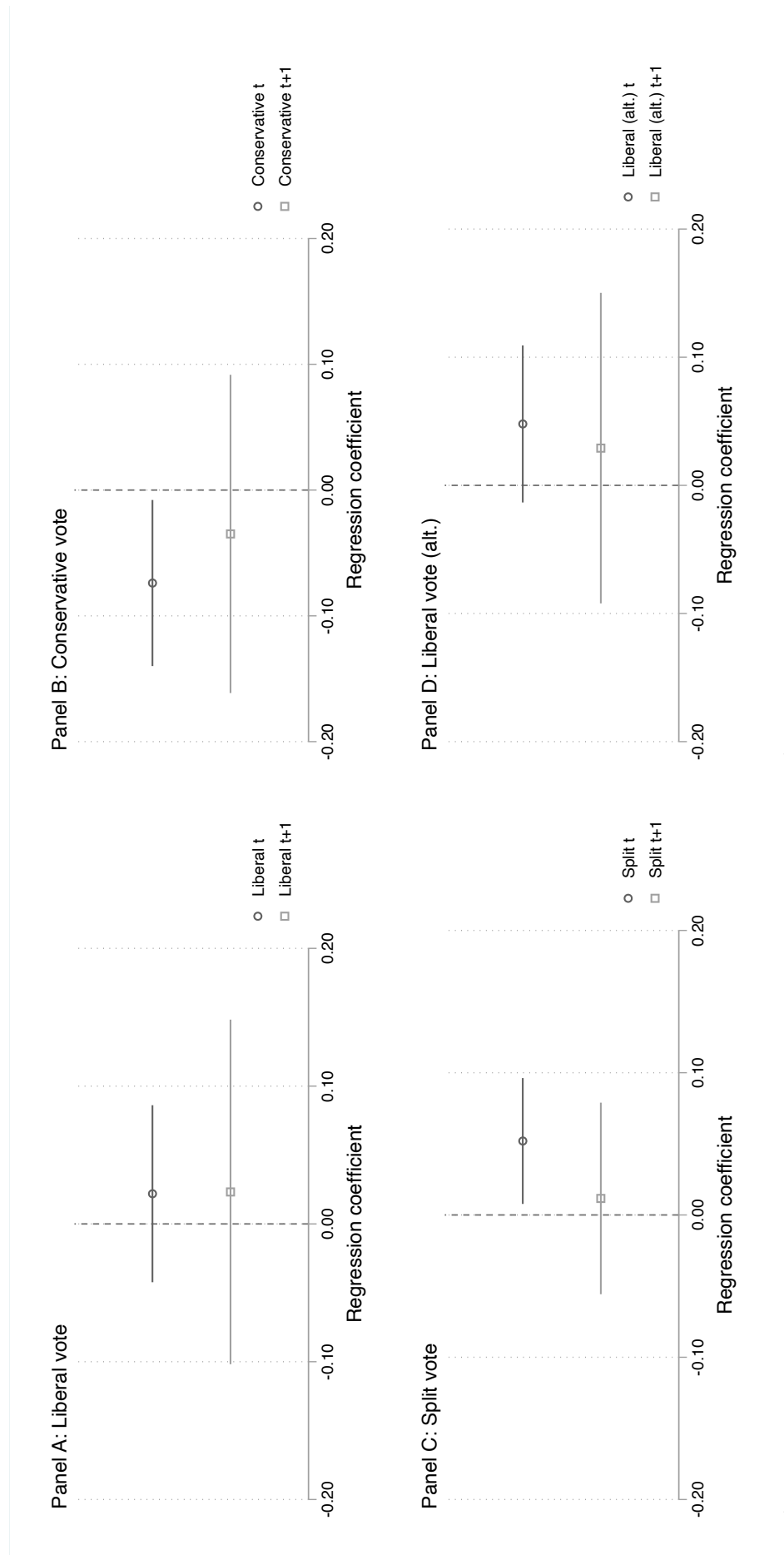Panel C: Split vote

Panel D: Liberal vote (alt.)

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Figure C7. Mobility from Conservative to Liberal bloc and voting behavior.

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

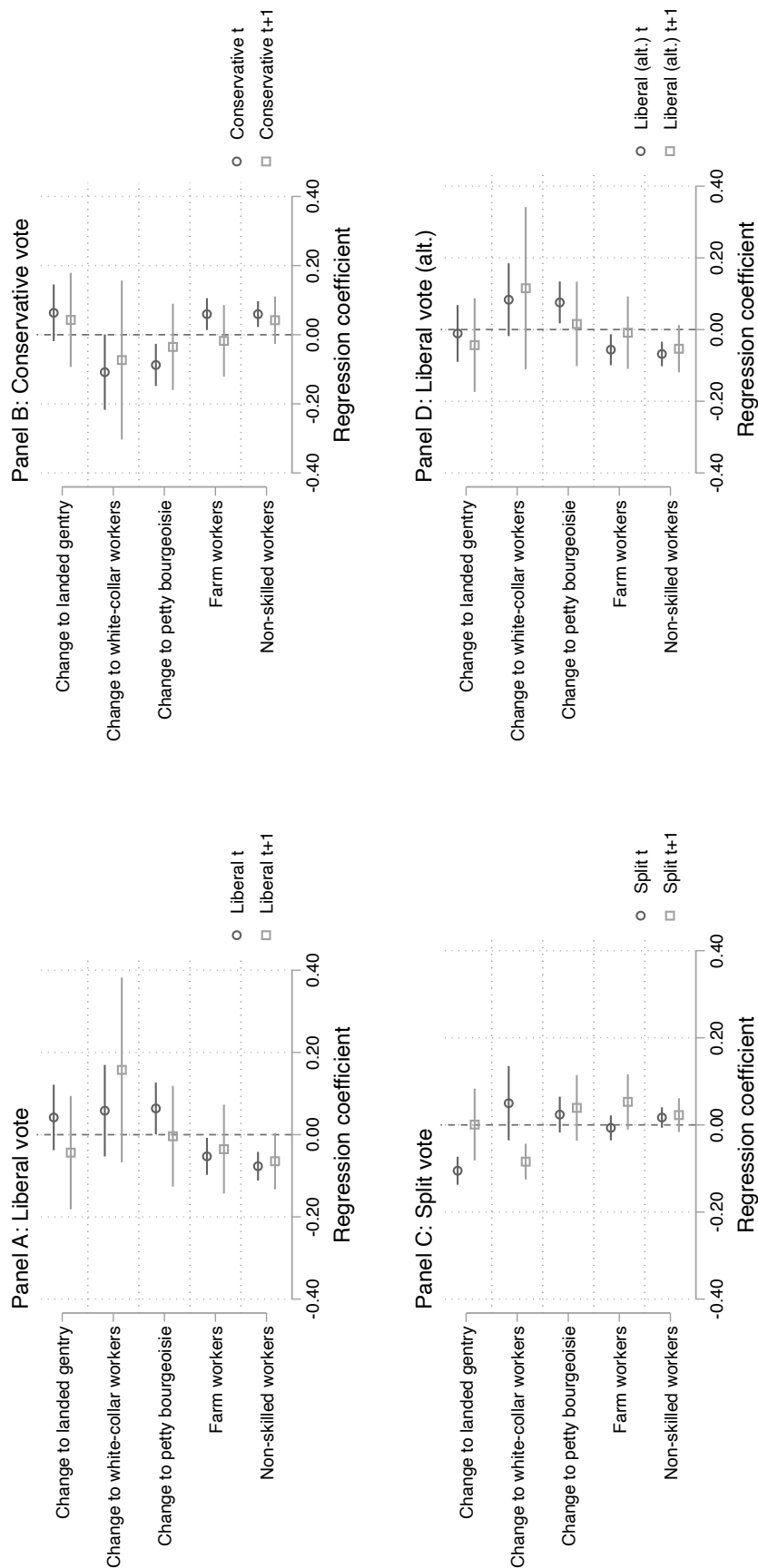**Figure C8.** Upward mobility and voting behavior.

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only data from general elections and voters who were working class the previous time they voted are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Figure C9. Downward mobility and voting behavior.

Panel A: Liberal vote

Panel B: Conservative vote

Panel C: Split vote
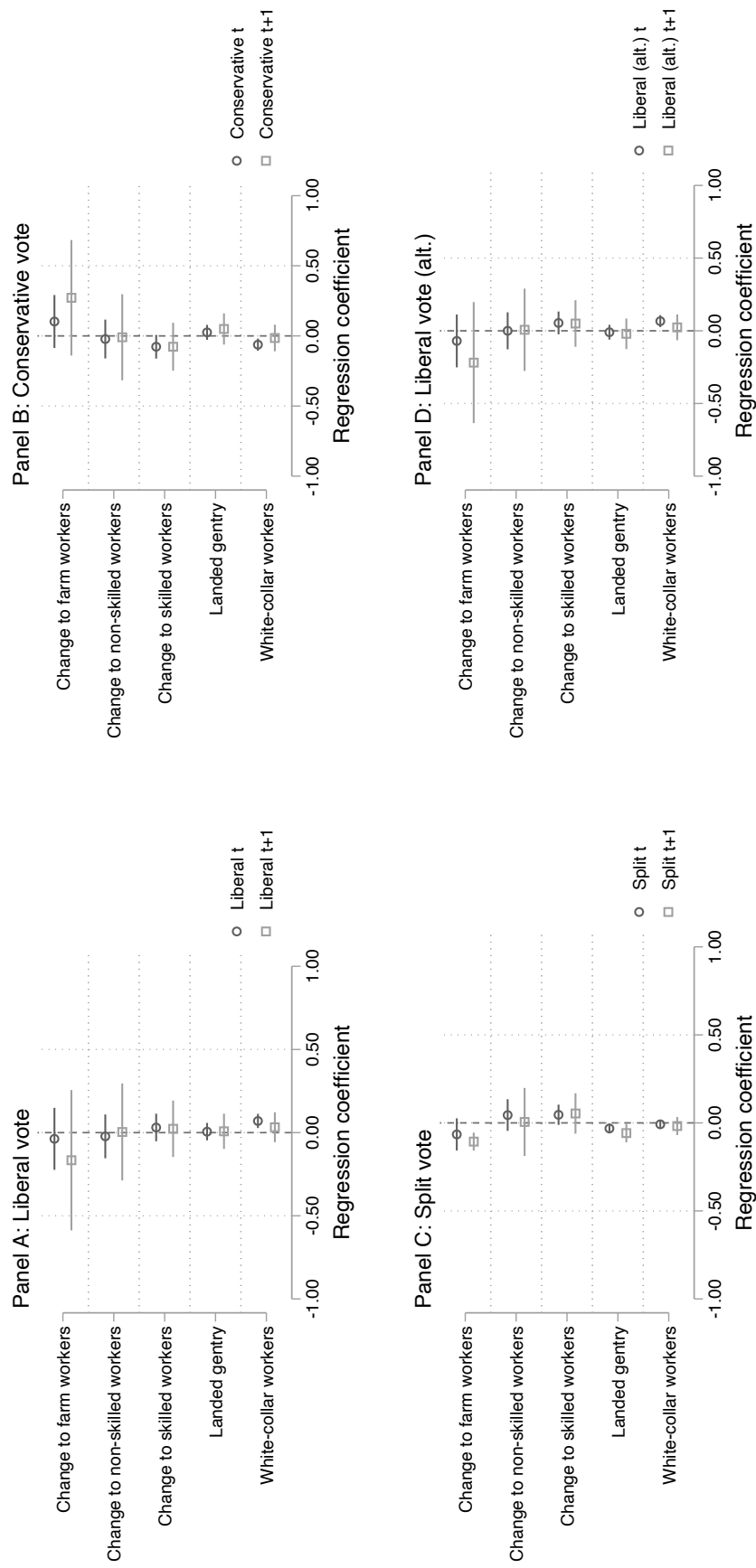
Panel D: Liberal vote (alt.)

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only data from general elections and voters who were middle class the previous time they voted are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

Table C3. Class voting, robustness to controlling for lagged dependent variable.

	Liberal		Conservative		Split	
	(1)	(2)	(3)	(4)	(5)	(6)
Working class	0.000		-0.012		0.025	
	[0.007]		[0.008]		[0.006]	
Farm workers		-0.003		0.042		-0.027
		[0.015]		[0.016]		[0.014]
Non-skilled workers		-0.042		0.034		0.004
		[0.012]		[0.013]		[0.012]
Landed gentry		-0.007		0.042		-0.057
		[0.013]		[0.013]		[0.010]
Petty bourgeoisie		-0.001		0.008		-0.018
		[0.010]		[0.010]		[0.009]
White-collar workers		-0.020		0.029		-0.014
		[0.012]		[0.012]		[0.010]
N	11006	11006	11006	11006	11006	11006
R^2	0.42	0.42	0.37	0.37	0.14	0.15

Notes: Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects, and the lagged dependent variable. Robust standard errors clustered by voter are reported in brackets.

Table C4. Social mobility and voting behavior, robustness to controlling for lagged dependent variable.

	Liberal						Conservative						Split					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Change to middle class	0.046 [0.020]						-0.022 [0.020]						-0.024 [0.015]					
Change to working class		-0.019 [0.025]						-0.024 [0.028]						0.044 [0.022]				
Change to conservative bloc			0.012 [0.022]						0.035 [0.022]						-0.047 [0.015]			
Change to liberal bloc				0.013 [0.027]						-0.064 [0.030]						0.052 [0.023]		
Change to landed gentry					0.056 [0.034]						0.049 [0.032]						-0.105 [0.016]	
Change to white-collar workers					0.033 [0.055]						-0.083 [0.051]						0.050 [0.044]	
Change to petty bourgeoisie					0.030 [0.025]						-0.054 [0.026]						0.024 [0.021]	
Change to farm workers						0.028 [0.073]						0.040 [0.073]						-0.067 [0.047]
Change to non-skilled workers						-0.066 [0.055]						0.020 [0.061]						0.046 [0.046]
Change to skilled workers						-0.000 [0.030]						-0.047 [0.035]						0.047 [0.029]
Working class																		
Farm workers					0.003 [0.015]						0.004 [0.017]						-0.007 [0.015]	
Non-skilled workers					-0.035 [0.012]						0.018 [0.014]						0.017 [0.012]	
Landed gentry						0.003 [0.016]						0.028 [0.018]						-0.031 [0.014]
Petty bourgeoisie						0.016 [0.013]						-0.010 [0.015]						-0.006 [0.013]
N	6903	4061	6989	3975	10736	4061	6903	4061	6989	3975	10736	4061	6903	4061	6989	3975	10736	4061
R^2	0.39	0.48	0.41	0.43	0.42	0.48	0.34	0.43	0.37	0.36	0.37	0.43	0.13	0.10	0.12	0.13	0.12	0.10

Notes: Only general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects, and the lagged dependent variable. Robust standard errors clustered by voter are reported in brackets.

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D Alternative Mechanisms

Our findings could also be explained, at least to some extent, by a connection between social class and vote buying or voter coercion. In this appendix, we provide evidence suggesting that this is not the case.

D.1 Vote Buying

One concern is that the relationship between class and voting could be driven by vote buying. If vote buying happened along class lines, it could be that changes in social class would lead to changes in the propensity to be bribed. If this was the case, our findings would not reflect different economic interests of classes. However, we believe that this is less likely. The main cleavage where we find a connection between class and voting is not entirely based on income. Nevertheless, we conduct additional robustness analyses to back up our argument.

We have collected information on bribes paid to voters from reports of Royal Commission inspections in Barnstaple, Beverley, Cambridge, Gloucester, and Maldon (see also Kam 2017). We drop out all voters who have been exposed to bribery at any point during our sample period, and rerun our analyses using data from these constituencies. This means omitting about four percent of 32,596 voter-election year observations in the static analyses, or about four percent of such observations (out of 13,775) in the class change analyses. Table D1 first shows that the relationship between social class and voting behavior is very similar to the one we show in the main text. Second, Figure D1 plots the point estimates for our social mobility analyses using this restricted sample. While the results are weaker in terms of statistical significance, especially Panels C and D exhibit patterns that tally with our main argument.

An additional remark is that part of bribes were used to buy turnout instead of buying votes. If the voters who were bribed to vote voted the way they wanted—perhaps driven by their social class—such bribery would not matter for our results. We do not have any exact information on turnout buying. However, if we make the assumption that voters who (i) were bribed and (ii) always voted consistently were bribed to turn out and vote, we see indications of turnout buying for about half of the voters who were bribed. Anecdotal evidence suggests that turnout buying

was fairly common. Consider, for example, the following testimony of James Clay (Liberal MP for Hull, 1847-53) to Commissioners investigating bribery at Hull:[1]

> Q: Did you understand that mainly these parties, unless employed as runners would not vote at all?
>
> A: Would not vote at all; but that there was a very large number of them who, although they would abstain from voting, would not be tempted by any sum to vote against the party they belonged to.
>
> Q: You think they are divided into a number of classes, and that there would be a class of persons who would expect to be employed on their own side, and unless so employed, would not vote at all?
>
> A: Just so.
>
> Q: Also another class, who would vote according as they were employed?
>
> A: Another class, who, if not employed by us would take their employment from the other side and vote for them; and probably a third class; but I must do the freemen of Hull the justice to say, as it was represented to me, I had reason to believe that that class was exceedingly small who would take the usual payment as runners from one side, and be bought off by ready money to vote for the other. I have reason to believe that there has been such a class, but that it is a very small one. It was always said: "The promises of the runners may be depended upon, and there are a great many, who although they will not vote for you unless paid, will not take an infinitely larger sum of money to vote against you."

D.2 Voter Intimidation and Coercion

Even if there was no vote buying, electoral intimidation and voter coercion could explain part of what we observe (Baland and Robinson 2008; Mares and Zhu 2015). To alleviate this concern,

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[1]Source: Report of the Commissioners Appointed under Her Majesty's Royal Sign Manual to Inquire into the Existence of Corrupt Practices in the Borough of Kingston-Upon-Hull; Together with the Minutes of Evidence. 1853, p. 1809 #70453.

we rerun our analyses omitting three elections that had electoral violence. These elections are the 1857 and 1859 elections in Beverley, and the 1857 election in Sheffield (Wasserman and Jaggard 2006). Figure D2 first shows results on the correlation between social class and voting behavior. These results are largely in line with the results that we show in the main text. We report the regression results on social mobility and voting behavior in Figure D3 where the results in Panels A and B are in tally with our main results. The evidence in Panels C and is slightly weaker in terms of statistical significance, but the general patterns align with our main argument.
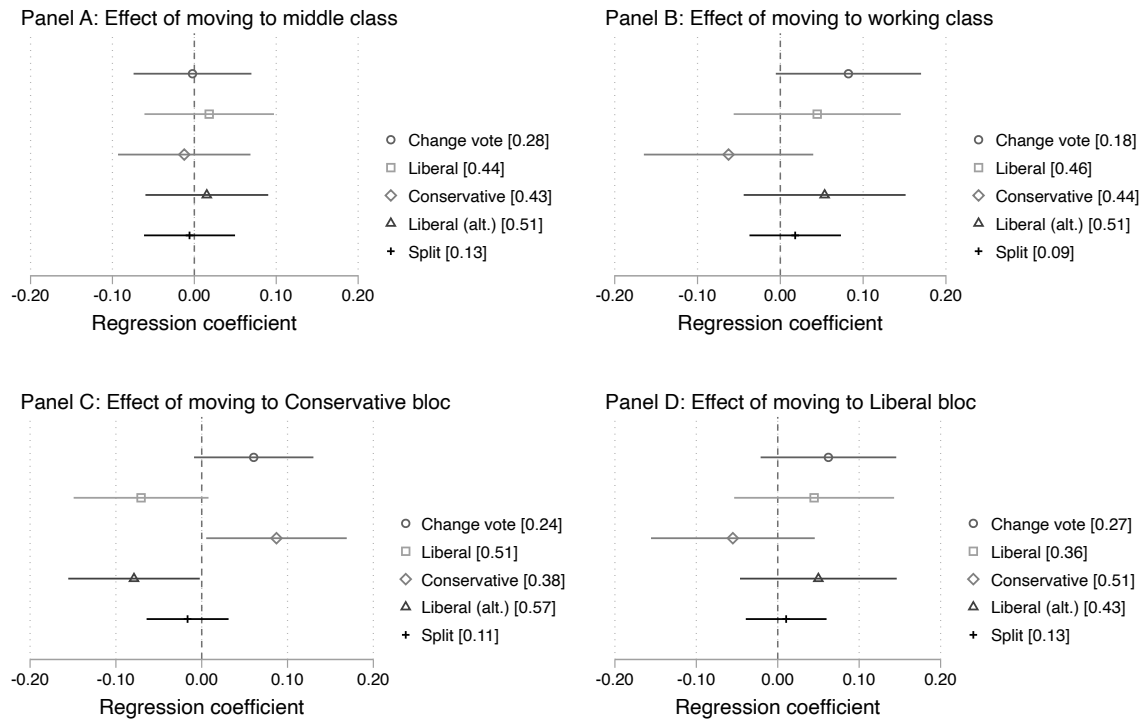
Finally, note that Gash (1977) and Hanham (1959) list seats controlled by patrons in the periods 1832-1850 and 1868-1880, respectively. None of the constituencies in our sample is listed in these sources, and hence there is no evidence of a dominant influence in these constituencies that might exert pressure on voters to vote against their interests.

Table D1. Class voting, robustness to removing bribed voters.

	Panel A: Two-class classification				
	Change in vote	Liberal	Conservative	Liberal (alt.)	Split
	(1)	(2)	(3)	(4)	(5)
Working class	0.072	0.011	-0.032	0.021	0.021
	[0.016]	[0.016]	[0.016]	[0.016]	[0.007]
N	11546	27499	27499	27499	27499
R^2	0.10	0.06	0.04	0.05	0.09
Reference group mean	0.19	0.46	0.45	0.51	0.09
	Panel B: Eriksson-Goldthorpe five-class classification				
	Change in vote	Liberal	Conservative	Liberal (alt.)	Split
	(6)	(7)	(8)	(9)	(10)
Farm workers	-0.079	-0.114	0.138	-0.126	-0.024
	[0.035]	[0.029]	[0.030]	[0.028]	[0.015]
Non-skilled workers	0.044	-0.070	0.083	-0.077	-0.013
	[0.027]	[0.021]	[0.022]	[0.021]	[0.012]
Petty bourgeoisie	-0.058	-0.012	0.019	-0.016	-0.007
	[0.021]	[0.021]	[0.021]	[0.020]	[0.010]
White-collar workers	-0.084	-0.047	0.097	-0.072	-0.049
	[0.025]	[0.028]	[0.028]	[0.027]	[0.011]
Landed gentry	-0.078	-0.095	0.138	-0.116	-0.043
	[0.031]	[0.031]	[0.031]	[0.030]	[0.014]
N	11546	27499	27499	27499	27499
R^2	0.11	0.07	0.05	0.05	0.09
Reference group mean	0.26	0.50	0.40	0.55	0.10

Notes: Only general elections in Barnstaple, Beverley, Cambridge, Gloucester, and Maldon are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects, and the lagged dependent variable. Robust standard errors clustered by voter are reported in brackets.

Figure D1. Social mobility and voting, robustness to removing bribed voters.

Panel A: Effect of moving to middle class

○ Change vote [0.28]
□ Liberal [0.44]
◇ Conservative [0.43]
△ Liberal (alt.) [0.51]
+ Split [0.13]

Regression coefficient

Panel B: Effect of moving to working class

○ Change vote [0.18]
□ Liberal [0.46]
◇ Conservative [0.44]
△ Liberal (alt.) [0.51]
+ Split [0.09]

Regression coefficient

Panel C: Effect of moving to Conservative bloc

○ Change vote [0.24]
□ Liberal [0.51]
◇ Conservative [0.38]
△ Liberal (alt.) [0.57]
+ Split [0.11]

Regression coefficient

Panel D: Effect of moving to Liberal bloc

○ Change vote [0.27]
□ Liberal [0.36]
◇ Conservative [0.51]
△ Liberal (alt.) [0.43]
+ Split [0.13]

Regression coefficient

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Liberal (alt.) gets value 1 for Liberal votes, 0.5 for Split votes, and 0 for Conservative votes. Only general elections in Barnstaple, Beverley, Cambridge, Gloucester, and Maldon are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.
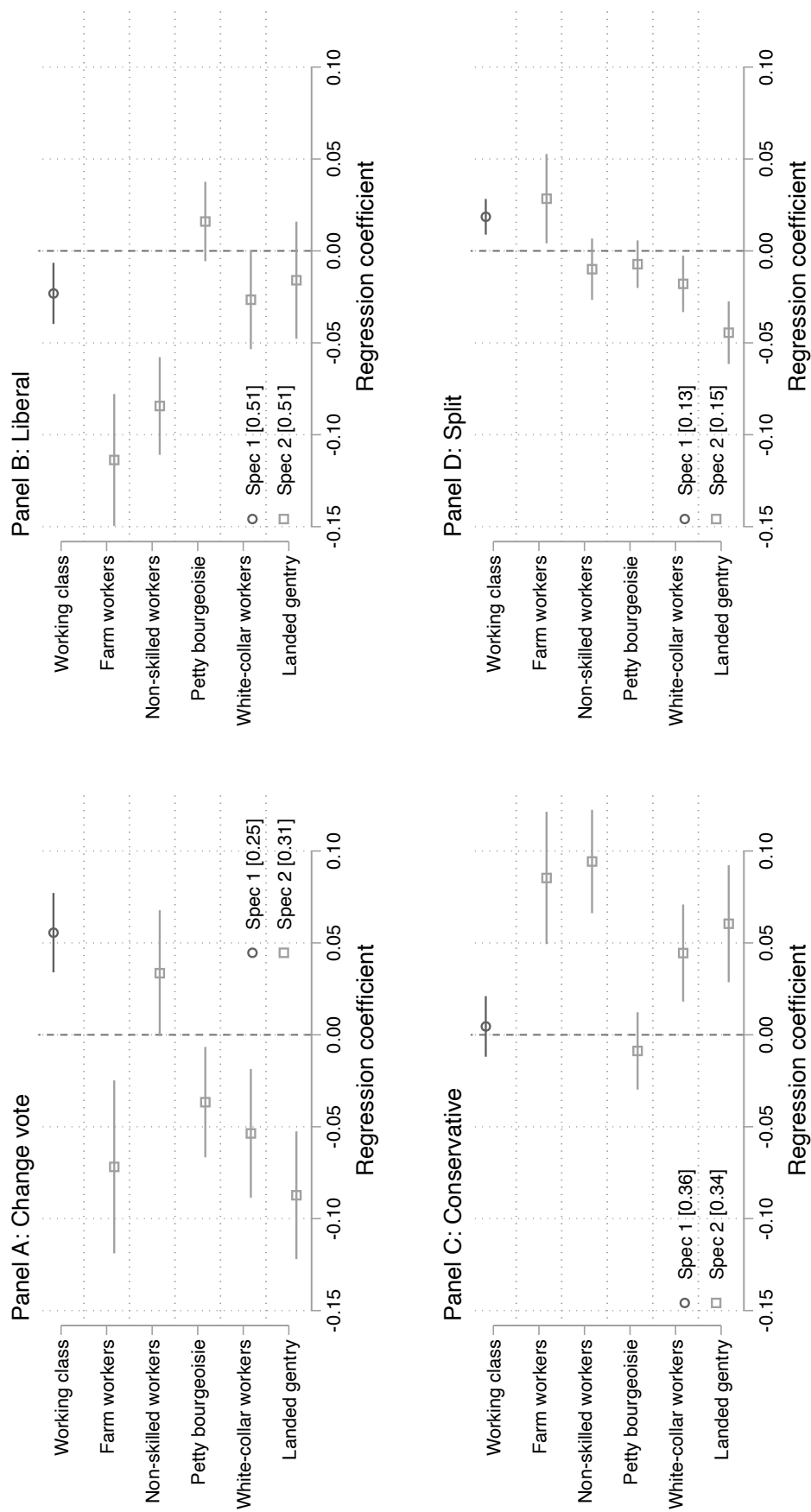
Figure D2. Class and voting behavior, elections with electoral violence omitted.

Notes: Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Reference group means are shown in brackets. Reference group is middle class in specification 1, and skilled workers in specification 2. Only data from general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.
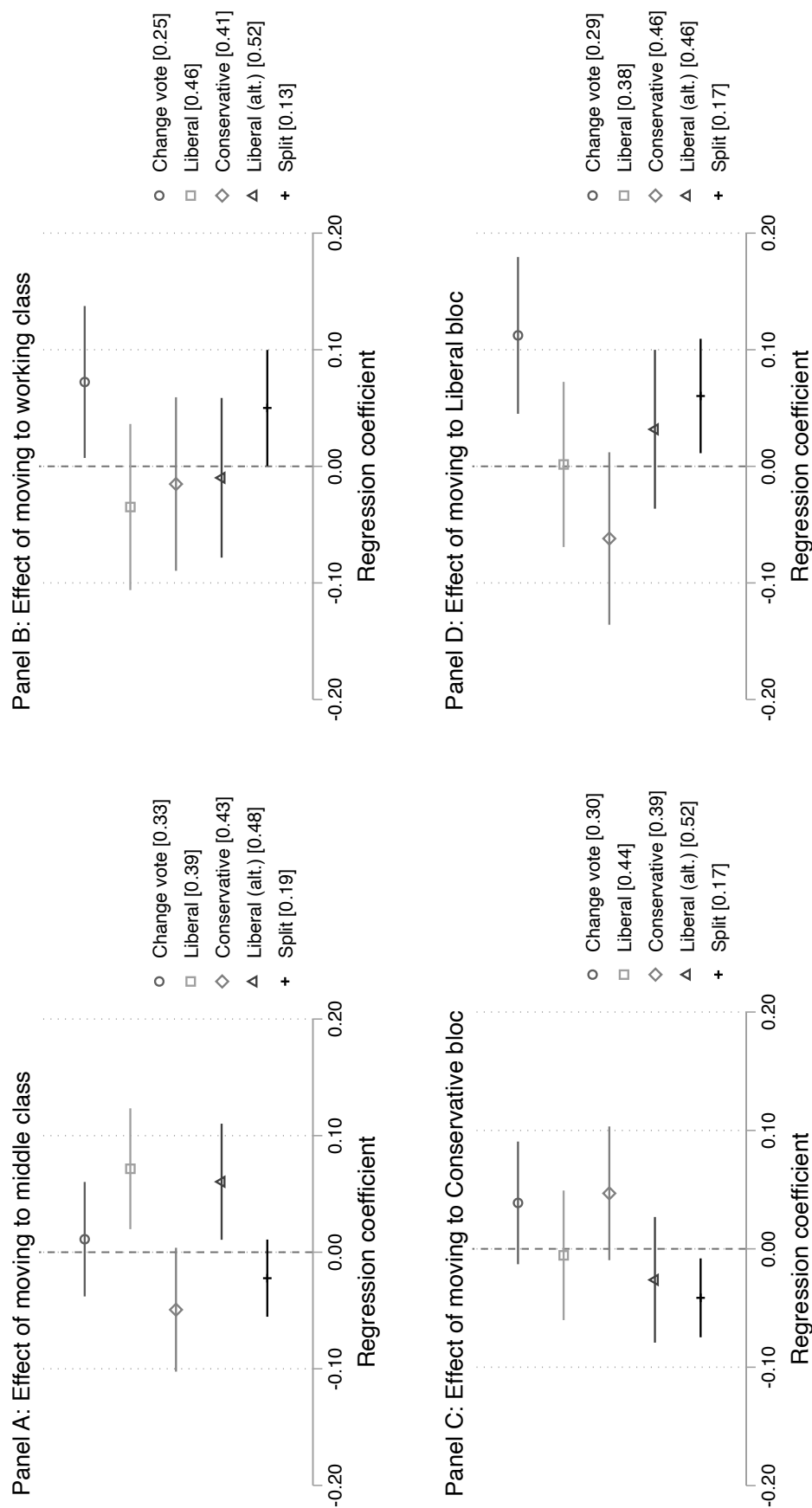
Figure D3. Social mobility and voting behavior, elections with electoral violence omitted.

Notes: Reference group means are shown in brackets. Reference groups are working class in Panel A, middle class in Panel B, Liberal bloc (skilled workers and petite bourgeoisie) in Panel C, and Conservative bloc (other classes) in Panel D. Figure shows point estimates and their 95% confidence intervals constructed using standard errors clustered at the voter level. Only data from general elections are included. Estimates are conditional on voting. Regressions control for year and constituency fixed effects.

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