Online Appendices

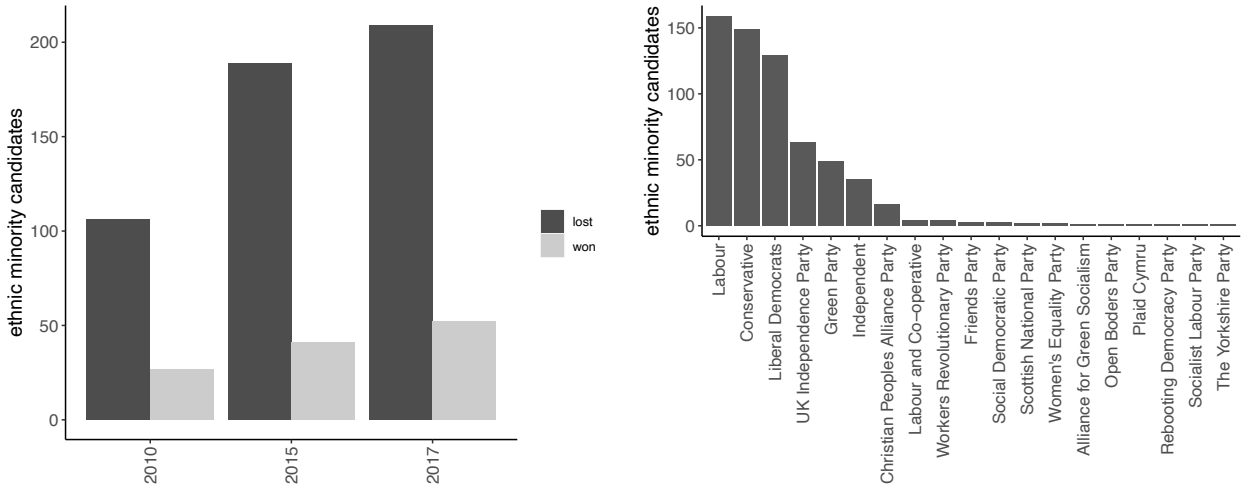
A Data collection of candidates' ethnic minority background

There is no single source of candidate data, either from The Electoral Commission or from political parties. Therefore, we rely on a range of sources that classify candidates into two broad ethnic categories: White or Asian, Black and minority ethnic (BAME). Such a classification follows UK Census ethnic group categories. Every person except those in the "White" ethnic group are considered ethnic minorities. The sources we rely on include Pippa Norris's 2010 British General Election Constituency Results, which contains the ethnicity of candidates running with the biggest three political parties: Conservative, Labour and Liberal Democrat. Based on data from the 2015 general election (which is the next closest election for which we have data on every candidate) we know that 76% of ethnic minority candidates stand in elections with one of these three parties. For the 2015 and 2017 general elections we rely on Pippa Norris's 2015 British General Election Constituency Results and van Heerde-Hudson and Campbell (2015), respectively, which collected the ethnicity of every candidate standing in these elections with an established party (Conservative, Labour, Liberal Democrat, UKIP, Green Party, Scottish National Party, and Plaid Cymru) and on independent candidates if they are one of the top two finishers in a constituency.

We build on these existing candidate ethnicity classifications by identifying a candidate's country of origin and their parents and grandparents countries of origin. We do so to confirm and complement existing classifications. To identify a candidate's countries of origin, we rely on various sources including crowdsourced information by the Democracy Club, which collects candidates social media accounts (Facebook, Twitter, LinkedIn), campaign websites and their pictures. We also cull information from party websites, regional and local newspapers, and especially from ethnic newspapers (e.g., Asian Voice), which usually include a list of co-ethnic candidates in an election special issue. We classify a candidate's origin as ethnic minority only when the candidate self-identifies as minority on their social media profile, personal website, their party's website, or if more than one information

source confirms the candidate's origin. We do not include national and ethno-linguistic minorities (e.g, Welsh), as these communities are not classified as minorities in the data we are relying on.

Figure A.1a illustrates the *total* number of losing and winning ethnic minority candidates by election year, independently of whether they contest against a white or an ethnic minority candidate. Figure A.1b presents the *total* number of ethnic minority candidates across our three elections by party, suggesting that candidates are fairly split across the three biggest parties.



(a) Number of ethnic minority candidates contesting a seat in Parliament

(b) Number of ethnic minority candidates by political party

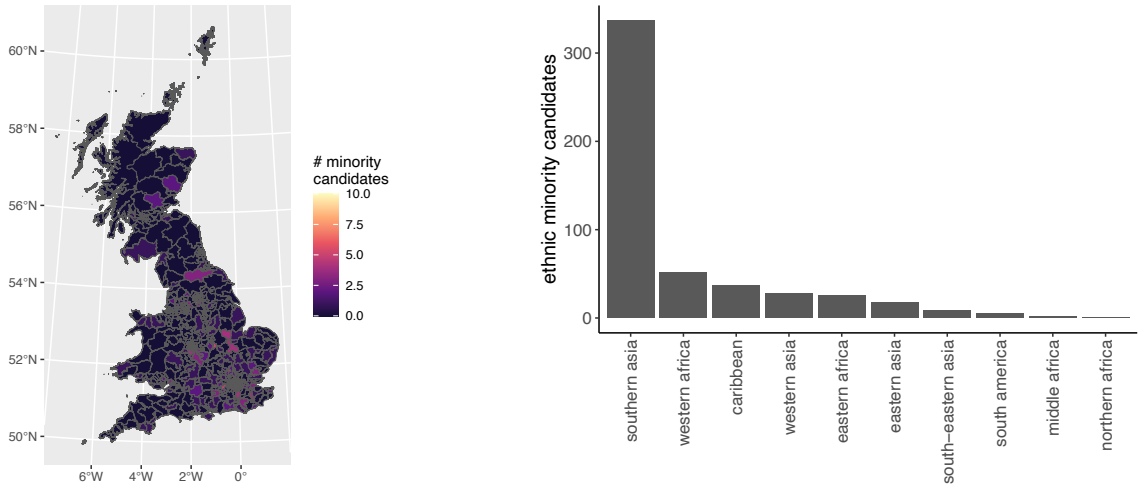
Figure A.1: Description of ethnic minority candidates by election and political party

On the other hand, Figure A.2a shows that ethnic minority candidacies are fairly spread across Great Britain. Lastly, Figure A.2b illustrates the number of ethnic minority candidates standing in the 2010–2017 elections by their sub-region of origin. About 40% of these candidates are first-generation immigrants to the UK.

B Validity of the RD design and robustness checks

B.1 Continuity of predetermined variables

We test the continuity assumption for predetermined variables with local linear regression within an MSE-optimal bandwidth (using the `rdrobust` package in R) (Figure B.1a). In this case, 3 of a total of 34 variables show statistically significant discontinuities (one more variable than the



(a) Total number of ethnic minority candidates by parliamentary constituency

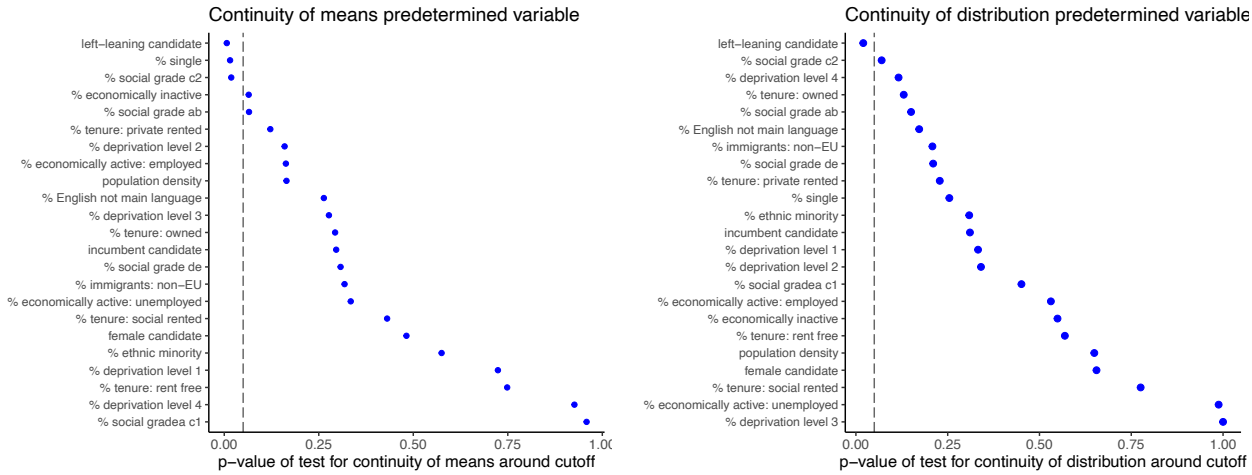
(b) Total number of ethnic minority candidates by sub-region of origin

Figure A.2: Geographical coverage of ethnic minority candidacies and their sub-region of origin

average number of false rejections; which is 2). However, some of the variables we include are not independent of each other; in particular some variables (such as the proportions of immigrant arrivals in different decades) are linear combinations of an underlying variable. To account for this dependence, we test the continuity assumption with a permutation test for continuity in the distribution of observations around the cutoff (which is a stronger requirement than continuity of means) as described in Canay and Kamat (2018) and as implemented by the `RATest` R package. Here we find that only 1 of the 34 predetermined variables are discontinuous at the cutoff (Figure B.1b). Such distributions of p-values are consistent with the uniform distribution that we would expect for balance checks in a randomized experiment. This indicates that there were no systematic discontinuities at the threshold where minorities become MPs, and that therefore the continuity assumption of the potential outcome functions is likely to hold.

B.2 Density of the running variable

Following Cattaneo, Jansson and Ma (2020), we test (using the `rddensity` R package) the continuity assumption of the density functions of the running variable with local polynomial density estimators. Figure B.2 reveals no evidence of sorting around the cutoff. Even though there is a jump in the



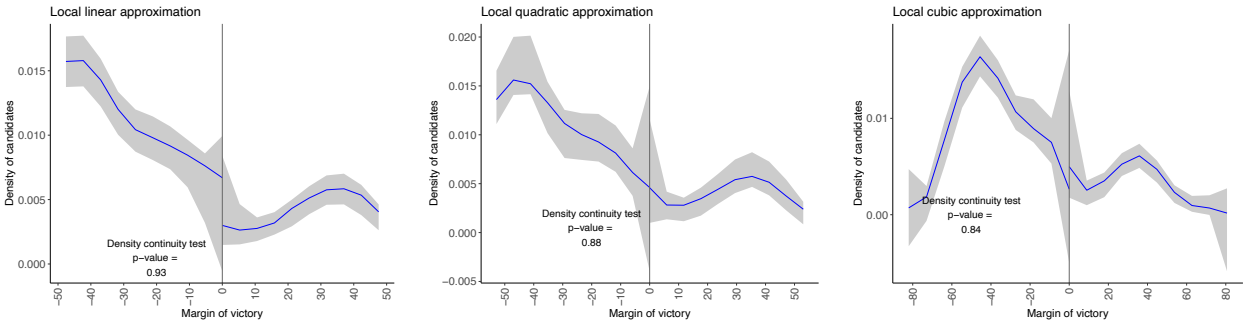
(a) Continuity of means using local linear regression

(b) Continuity of distribution using asymptotic permutation test

Notes: Tests for continuity of candidate and constituency predetermined background characteristics in (a) using a local linear regression with a symmetric MSE-optimal bandwidth and in (b) using an asymptotic permutation test comparing the distribution of observation near the cutoff. The vertical line indicates a threshold for the p-values of 0.05.

Figure B.1: Continuity of predetermined variables around the victory threshold

density functions for losing and winning candidates at the cutoff (when we use local linear or cubic approximations), the confidence intervals of these functions completely overlap and the p-value of the continuity test indicates that we cannot reject the null of continuity of the density functions. The results of this test indicate no manipulation of the election results.

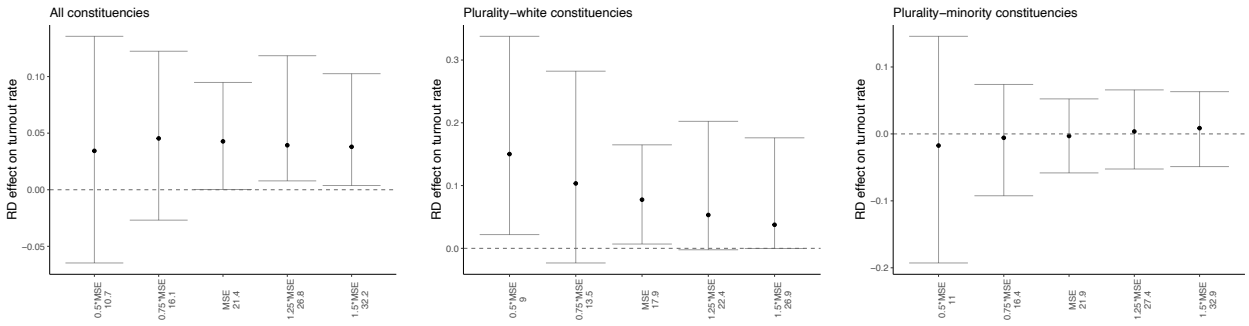


Notes: Tests for manipulation of the election results by assessing continuity of the candidate density functions at the cutoff with local polynomial density estimators and robust bias-corrected inference.

Figure B.2: Continuity in the density of candidates around the cutoff

B.3 Sensitivity to the choice of bandwidth

In Figure B.3 we test for sensitivity of the results to the choice of bandwidth, using the MSE-optimal bandwidth, half, three fourths, five fourths and one and a half times their size. The results are broadly consistent with the findings obtained with the MSE-optimal bandwidth.



Notes: Tests for sensitivity to the choice of bandwidth. MSE stands for mean squared error optimal bandwidth. The values next to the 'MSE' labels indicate the bandwidth size.

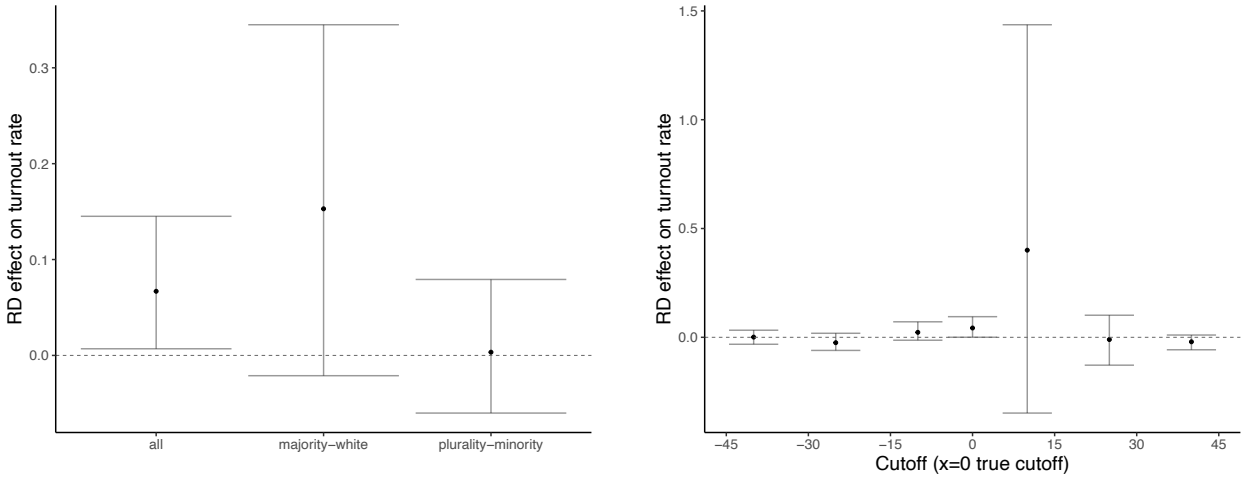
Figure B.3: Sensitivity to the choice of bandwidth

B.4 Sensitivity to the order of polynomials and discontinuities away from the victory threshold

In our main estimation method we compute the RD estimates by fitting local-linear polynomials to avoid noisy estimates with poor coverage of confidence intervals (Gelman and Imbens 2019). We show nevertheless, in Figure B.4a, that the results are robust to fitting quadratic polynomials, although the RD estimate on the majority-white sample is only statistically significant at the 10% level. In Figure B.4b we test for discontinuities at points other than the threshold where minorities win political office. We do not find evidence of statistically significant discontinuities away from the treatment threshold.

B.5 Main RD results

Table B.1 presents the effect estimates and all other relevant statistics for model specifications with and without covariates, while Table B.2 includes the covariates' estimated coefficients for models



(a) Sensitivity to polynomial choice (b) Placebo cutoffs

Notes: (a) Tests for sensitivity to the choice of polynomial order by estimating RD effects with quadratic polynomials, and (b) for discontinuities away from the margin of victory cutoff with placebo cutoffs that incrementally decrease or increase by 15 percentage points away from the cutoff.

Figure B.4: Sensitivity to polynomial choice and placebo cutoffs

that include controls. We note, however, that we perform covariate adjustment merely to improve precision, and that there is no causal interpretation of the covariate regression coefficients.

B.6 Differential registration sensitivity analysis

The main outcome of interest is constituency-level turnout at general election *t+1*. Turnout is defined by the Electoral Commission as the ratio between the number of valid votes counted and the electorate (i.e. the number of people who are registered to vote in a constituency). If the victory of an ethnic minority candidate at election t affects the electorate size at *t+1* as well as voter turnout (the outcome of interest), a comparison of turnout rates among registered voters between constituencies barely won and barely lost by an ethnic minority candidate at t could lead to mistaken inferences (Nyhan, Skovron and Titiunik 2017). This can happen, for example, if ethnic minority eligible voters in constituencies barely represented by ethnic minority MPs have incentives to register to vote in election *t+1*, or if ethnic minority eligible voters internally migrate to constituencies barely represented by ethnic minority MPs. In this case, the RD effect on the turnout of ethnic minority voters at election *t+1* would be underestimated. On the other hand, if white

Table B.1: Ethnic minority representation effects on turnout

RD estimate	se	p value	95% CI	mean control	MSE opt bw	eff. N	N	cov	sample const
0.034	0.026	0.256	$[-0.026, 0.097]$	0.673	21.502	106	465	no	all
0.043	0.020	0.049	$[0.000, 0.095]$	0.673	21.441	106	465	yes	all
0.085	0.037	0.036	$[0.006, 0.180]$	0.653	23.089	62	258	no	majority-white
0.077	0.036	0.033	$[0.007, 0.165]$	0.640	17.945	44	258	yes	majority-white
0.003	0.034	0.993	$[-0.080, 0.081]$	0.695	20.712	49	207	no	plurality-minority
-0.003	0.023	0.917	$[-0.058, 0.052]$	0.696	21.923	51	207	yes	plurality-minority

Notes: The dependent variable is the constituency-level turnout rate in the general election *t+1*. *RD estimate* is computed with local-linear regression within a symmetric MSE-optimal bandwidth. *se* is the conventional standard error, *p-value* and *95% CI* are robust bias-corrected. *mean control* indicates the average turnout rate in *t+1* in constituencies where ethnic minorities barely lose in *t*. *MSE opt bw* is the MSE-optimal bandwidth of minority vote-share winning margin around the victory threshold, *eff. N* is the sample size within the MSE-optimal bandwidth and *N* is the sample size. *cov* is a vector of controls including a dummy for candidate's incumbency, candidate's party dummies, constituency share of ethnic minority population, poor, highly educated, and population density. In *sample const*, *all* includes all constituencies where ethnic minority candidates run for Parliament in *t*, *majority white* includes constituencies with an ethnic-minority population share smaller than 20% (the median value in our sample) and *plurality minority* with a share of at least 20%. Turnout data is from the Electoral Commission, ethnic background of candidates is constructed by the authors, and constituency characteristics from 2001 and 2011 UK Decennial Census.

eligible voters have incentives to opt out from the register in constituencies barely represented by ethnic minority MPs, or to migrate away from such constituencies, then the RD effect on the turnout of white voters would be overestimated. It is also possible that the election of an ethnic minority candidate would incentivize overall voters to register, in which case the RD effect on turnout at election *t+1* would be underestimated. In this section, we present different tests showing that our comparison of turnout rates among registered voters between constituencies barely won and barely lost by an ethnic minority candidate at t does not suffer from post-treatment bias.

First, in Table B.3 we present the RD effects on the number of people registered to vote at general election *t+1* using the MSE-optimal bandwidth and in Table B.4 using the bandwidth from the main turnout analysis. We note that within countries constituencies have approximately the same population size, but size differs across countries. The median constituency in Wales and Scotland is two thirds the size of the median constituency in England. Therefore, we expect that within countries constituencies would have approximately the same voting-eligible population size. In turn, a difference in the number of people registered to vote between ethnic minority barely won and lost

Table B.2: Ethnic minority representation effects on turnout

	Outcome: Constituency-level turnout rate		
	All	Majority white	Plurality minority
	(1)	(2)	(3)
$\mathbf{I}(\text{VictoryMargin}_t > 0)$	0.043	0.077	-0.003
	[0, 0.095]	[0.007, 0.165]	[−0.058, 0.052]
% ethnic min	0	-0.002	-0.001
	[−0.001, 0.001]	[−0.004, 0]	[−0.002, 0.001]
% econ grade >=C	0.354	0.65	0.068
	[−0.183, 0.89]	[0.299, 1.001]	[−0.809, 0.946]
% low deprivation	-1.159	-0.495	-1.044
	[−1.791, −0.527]	[−1.551, 0.56]	[−1.871, −0.216]
pop density	0	-0.001	0
	[0, 0.001]	[−0.003, 0]	[0, 0.001]
incumbent	-0.003	-0.004	0.017
	[−0.027, 0.02]	[−0.032, 0.023]	[−0.013, 0.047]
Labour	-0.03	-0.019	0
	[−0.054, −0.006]	[−0.052, 0.015]	[−0.029, 0.029]
Mean control	0.673	0.64	0.696
R^2	0.35	0.74	0.37
Num. eff. obs.	106	44	51
Num. obs.	465	258	207
MSE-opt. bandwidth	21.44	17.94	21.92

Notes: The dependent variable is the turnout rate in general election *t+1*. Average treatment effect at cutoff estimated with local linear regression with triangular kernel and MSE-optimal bandwidth. In brackets robust bias-corrected 95% CI for the RD coefficient and conventional heteroskedasticity-consistent 95% CI for the covariate coefficients.

constituencies, would not reflect a difference between their voting-eligible populations, but may reflect a difference in country representation across the victory cutoff. In fact, all of the constituencies from Wales and Scotland, except for one, which are within the MSE-optimal bandwidth (from the main turnout analysis), are on the left-side of the victory cutoff. Notwithstanding these possible population differential, the estimates in Table B.3 and Table B.4 suggest that the number of people registered to vote at election *t+1* does not respond to the victory of an ethnic minority candidate at election t: the magnitude of the coefficients indicate that the electorate size is only 4–5% larger in constituencies barely represented by an ethnic minority MP, relative to constituencies barely

represented by a white MP, and this difference is not statistically significant.

Secondly, we implement the sensitivity analysis developed by Nyhan, Skovron and Titiunik (2017). Using the turnout-to-registration rates in the treatment and control groups from our main analysis, of 0.72 and 0.67 in all constituencies and 0.72 and 0.64 in majority-white constituencies, respectively (computed with the RD coefficients and mean control values in columns 2 and 4 of Table 2), we compute the ratio of registration between the treatment and control groups that would produce the observed difference in turnout-to-registration rates under identical turnout-to-population rates (this is k^* in the authors exposition). Values close to 1 indicate high sensitivity to differential registration. The estimated values of this ratio, of 0.93 and 0.89 for all and majority-white constituencies, respectively, indicate that the positive observed effect for turnout-to-registration rates is robust. These values mean that eligible voters in constituencies barely represented by an ethnic minority MP would have to register at a lower rate than eligible voters in constituencies barely represented by a white MP to explain the result if the true effect on turnout-to-population rates was zero. This is implausible as it contradicts our theoretical expectation that the election of an ethnic minority candidate mobilizes voters to politically engage.

Moreover, we compute the guessed treatment-control difference in true turnout rates. Specifically, we assume that the registration rate in constituencies barely represented by an ethnic minority MP is 84%, which is the rate of registration in the overall Great Britain population estimated by the Electoral Commission in 2015. We further assume that the election of an ethnic minority candidate would not increase the registration rate in barely minority MP represented constituencies by more than 10 percentage points, relative to barely white MP represented constituencies. Based on these two assumptions and the turnout-to-registration rates in the treatment and control groups from our main analysis, we compute the guessed treatment-control difference in true turnout rates. We find that this difference in true turnout rates is positive just like the observed difference, suggesting that the observed difference in turnout-to-registration rates is robust to a plausible scenario of differential registration rates. Reassuringly, the results of these tests suggest that our comparison of turnout rates among registered voters between constituencies barely won and barely lost by an ethnic minority candidate at t does not suffer from post-treatment bias.

Table B.3: Ethnic Minority Representation Effects on Electorate Size

RD estimate	se	p value	95% CI	mean control	MSE opt bw	eff. N	N	cov	sample const
4082.154	2848.628	0.216	[−2473.809, 10920.684]	71146.690	32.158	183	465	no	all
2942.729	3161.413	0.389	[−4017.496, 10329.239]	72003.193	24.978	131	465	yes	all
5307.874	4496.819	0.320	[−5224.086, 16003.695]	74619.952	22.739	61	258	no	majority-white
4100.763	3166.078	0.356	[−4037.65, 11233.855]	75201.515	14.569	30	258	yes	majority-white
5247.410	4205.128	0.336	[−5126.3, 15030.219]	69681.837	24.697	61	207	no	plurality-minority
2879.689	3644.730	0.546	[−5938.89, 11222.57]	69314.642	30.193	77	207	yes	plurality-minority

Notes: The dependent variable is the number of registered voters in a constituency in general election *t+1*. *RD estimate* is computed with local-linear regression within a symmetric MSE-optimal bandwidth. *se* is the conventional standard error, *p-value* and *95% CI* are robust bias-corrected. *mean control* indicates the average number of registered voters at *t+1* in constituencies where ethnic minorities barely lose in *t*. *MSE opt bw* is the MSE-optimal bandwidth of minority vote-share winning margin around the victory threshold, *eff. N* is the sample size within the MSE-optimal bandwidth and *N* is the sample size. *cov* is a vector of controls including a dummy for candidate's incumbency, candidate's party dummies, constituency share of ethnic minority population, poor, and population density. In *sample const*, *all* includes all constituencies where ethnic minority candidates run for Parliament in *t*, *majority white* includes constituencies with an ethnic-minority population share smaller than 20% (the median value in our sample) and *plurality minority* with a share of at least 20%. Electorate size data is from the Electoral Commission, ethnic background of candidates is constructed by the authors, and constituency characteristics from 2001 and 2011 UK Decennial Census.

Table B.4: Ethnic Minority Representation Effects on Electorate Size

RD estimate	se	p value	95% CI	mean control	opt bw	eff. N	N	cov	sample const
3463.606	3484.455	0.962	[−11058.127, 11613.326]	71856.139	21.500	106	465	no	all
2484.609	3393.858	0.943	[−11778.599, 10943.665]	71856.139	21.500	106	465	yes	all
5295.874	4469.048	0.414	[−6902.238, 16752.841]	74612.159	23.000	62	258	no	majority-white
3726.257	3307.298	0.383	[−3663.774, 9545.644]	75182.227	18.000	45	258	yes	majority-white
4769.397	4704.698	0.917	[−15498.934, 17249.016]	69100.220	21.000	49	207	no	plurality-minority
2996.389	4434.643	0.828	[−14750.677, 18432.722]	69290.443	22.000	52	207	yes	plurality-minority

Notes: The dependent variable is the number of registered voters in a constituency in general election *t+1*. *RD estimate* is computed with local-linear regression within a symmetric MSE-optimal bandwidth. *se* is the conventional standard error, *p-value* and *95% CI* are robust bias-corrected. *mean control* indicates the average number of registered voters at *t+1* in constituencies where ethnic minorities barely lose in *t*. *opt bw* is the bandwidth of minority vote-share winning margin around the victory threshold used in the main turnout analysis, *eff. N* is the sample size within the MSE-optimal bandwidth and *N* is the sample size. *cov* is a vector of controls including a dummy for candidate's incumbency, candidate's party dummies, constituency share of ethnic minority population, poor, and population density. In *sample const*, *all* includes all constituencies where ethnic minority candidates run for Parliament in *t*, *majority white* includes constituencies with an ethnic-minority population share smaller than 20% (the median value in our sample) and *plurality minority* with a share of at least 20%. Electorate size data is from the Electoral Commission, ethnic background of candidates is constructed by the authors, and constituency characteristics from 2001 and 2011 UK Decennial Census.

B.7 Sensitivity to the definition of majority-white/plurality-minority constituencies

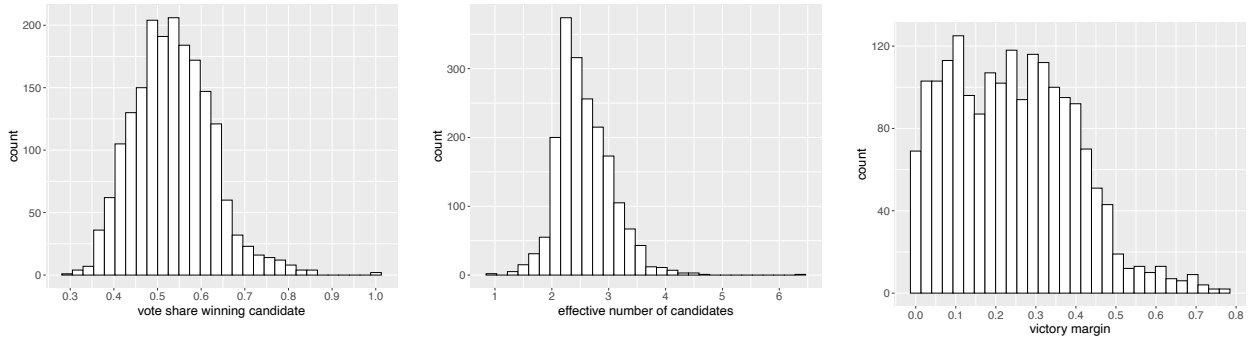
In the main analysis we define constituencies as plurality-minority if the ethnic minority group represents at least 20% of the constituency population, and otherwise as majority-white. We use such a 20% threshold as this is the constituency ethnic minority population median value in our sample. In this section, we first describe the UK general elections electoral system. Secondly, we present our main result varying the definition of a majority-white/plurality-minority constituency.

B.7.1 Overview of UK general elections

Candidates for each constituency are chosen by political parties or stand as independents. Since the 2010 election, the number of constituencies has been 650. British, Irish and Commonwealth citizens are eligible to vote. Each constituency elects one MP by the first-past-the-post electoral system. With such single-member plurality voting, voters cast their vote for a candidate of their choice, and the candidate who receives the most votes wins even if the top candidate gets less than 50%, which can happen when there are more than two effective candidates. Indeed, at the 2015, 2017 and 2019 Great Britain general elections (elections from which we draw our outcome variables), a substantive share of elections, 37%, were won by a candidate with less than 50% of the votes (Figure B.5a presents the winning vote share distribution). In fact, more than 93% of the elections had more than 2 effective candidates (see Figure B.5b with the distribution in effective number of candidates). Moreover, the average (and median) election was won with a winning margin of 24 percentage points (Figure B.5c shows the distribution in winning margin), suggesting that a group representing 20% of the population can play an important role in determining the result of an election, considering that members of the group adhere to voting as a bloc.

B.7.2 Sensitivity analysis

We present our main result on turnout with alternative definitions of majority-white/plurality-minority constituencies. In particular, in Figure B.6, we show that the results are robust to varying the ethnic minority population threshold from 20% to 80%, in increments of 5%. In Figure B.6a, a



(a) Vote share of winning candidate

(b) Effective number of candidates

(c) Margin of victory

Figure B.5: Description of 2015, 2017, 2019 Great Britain general elections

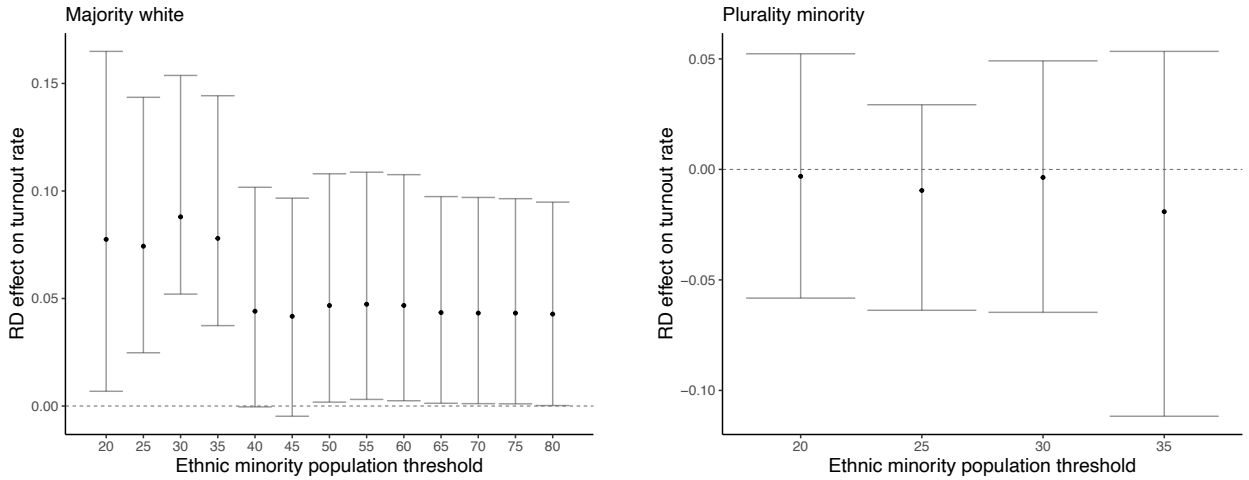
threshold of 35 indicates that a constituency is defined as majority-white if the share in the white ethnic group is larger than 75% of the constituency population. In Figure B.6b a threshold of 35 indicates that a constituency is defined as plurality-minority if the share in the minority ethnic group is at least 35% of the constituency population. Of note that we are not able to estimate the RD effects on turnout with the plurality-minority sample for definitions using ethnic minority population thresholds larger than 35, as there would be no observations close to the ethnic minority victory cutoff.

Moreover, we show in Table B.5 that the results are also robust to a second alternative definition of majority-white/plurality-minority constituencies. Specifically, to classifying as majority-white, constituencies sampled by The British Election Study with only white respondents, and as plurality-minority constituencies sampled with only BAME respondents.

B.8 Including the 2005 general election

Our main analysis starts in 2010 because it was not until this election that ethnic minority candidates started to participate and win seats at higher rates, as a result of public commitments from the three biggest parties setting internal targets to increase minority representation (Sobolewska 2013). In this section, we show that our main results are robust to including the 2005 general election.

We include this analysis as a robustness check as opposed to as part of our main analysis because, in this case, the outcome variable is an estimate of turnout as opposed to actual turnout, introducing noise to our estimates. Specifically, because between the 2005 and 2010 general elections



(a) Majority white sample

(b) Plurality minority sample

Notes: Tests for sensitivity to the ethnic minority population threshold defining a majority-white or plurality-minority constituency. Points are RD estimates, computed with covariate-adjusted local linear regression with a symmetric MSE-optimal bandwidth, and lines robust bias-corrected 95% CI.

Figure B.6: Sensitivity to the definition of majority-white/plurality-minority constituencies

Table B.5: Ethnic minority representation effects on turnout

RD estimate	se	p value	95% CI	mean control	MSE opt bw	eff. N	N	cov	sample const
0.034	0.026	0.256	$[-0.026, 0.097]$	0.673	21.502	106	465	no	all
0.043	0.020	0.049	$[0.000, 0.095]$	0.673	21.441	106	465	yes	all
0.055	0.032	0.110	$[-0.014, 0.135]$	0.642	15.833	40	230	no	majority-white
0.077	0.021	0.000	$[0.042, 0.136]$	0.640	13.399	36	230	yes	majority-white
0.004	0.045	0.995	$[-0.105, 0.105]$	0.683	25.941	63	235	no	plurality-minority
0.024	0.048	0.675	$[-0.085, 0.131]$	0.683	26.693	65	235	yes	plurality-minority

Notes: The dependent variable is the constituency-level turnout rate in the general election *t+1*. *RD estimate* is computed with local-linear regression within a symmetric MSE-optimal bandwidth. *se* is the conventional standard error, *p-value* and *95% CI* are robust bias-corrected. *mean control* indicates the average turnout rate in *t+1* in constituencies where ethnic minorities barely lose in *t*. *MSE opt bw* is the MSE-optimal bandwidth of minority vote-share winning margin around the victory threshold, *eff. N* is the sample size within the MSE-optimal bandwidth and *N* is the sample size. *cov* is a vector of controls including a dummy for candidate's incumbency, candidate's party dummies, constituency share of ethnic minority population, poor, highly educated, and population density. In *sample const*, *all* includes all constituencies where ethnic minority candidates run for Parliament in *t*, *majority white* includes constituencies with only white respondents in The British Election Study and *plurality minority* with BAME respondents. Turnout data is from the Electoral Commission, ethnic background of candidates is constructed by the authors, and constituency characteristics from 2001 and 2011 UK Decennial Census.

the constituency boundaries changed dramatically, we estimate turnout in 2010 under the 2005 constituency boundaries. To do so, we project the 2010 electoral results onto the 2005 constituency boundaries following the dasymetric interpolation method in Goplerud (2016). We note that the vector of covariates employed in this analysis is a subset of the vector utilized in the main analysis, as two variables (deprivation and economic grade) are not available for the Scottish census before the 2005 election.

Table B.6: Ethnic minority representation effects on turnout

	Outcome: Constituency-level turnout rate					
	All		Majority white		Plurality minority	
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathbf{I}(\text{VictoryMargin}_t > 0) = 1$	0.035	0.052	0.065	0.073	0.001	0.006
	[−0.022, 0.101]	[0.001, 0.117]	[−0.021, 0.169]	[0.01, 0.152]	[−0.085, 0.079]	[−0.058, 0.064]
% ethnic min		-0.001		-0.001		-0.002
		[-0.002,0]		[-0.003,0]		[-0.003,0]
pop density		0.001		-0.001		0.001
		[0,0.001]		[-0.002,0.001]		[0,0.001]
Labour		-0.031		-0.031		-0.012
		[-0.06,-0.002]		[-0.057,-0.006]		[-0.048,0.024]
incumbent		-0.005		-0.004		0.018
		[-0.032,0.022]		[-0.032,0.024]		[-0.013,0.049]
Mean control	0.669	0.666	0.661	0.656	0.693	0.693
R^2	0.07	0.22	0.11	0.37	0.06	0.29
Num. eff. obs.	101	87	84	68	47	53
Num. obs.	554	554	312	312	242	242
MSE-opt. bandwidth	19.02	17.39	25.63	22.78	18.45	19.61
Controls	N	Y	N	Y	N	Y

Notes: The dependent variable is the turnout rate in general election *t+1*. Average treatment effect at cutoff estimated with local linear regression with triangular kernel and MSE-optimal bandwidth. In brackets robust bias-corrected 95% CI for the RD coefficient and conventional heteroskedasticity-consistent 95% CI for the covariate coefficients.

Table B.6 presents the main results on turnout including the 2005 general election. The estimates are broadly consistent with those presented in the main Table 2: the electoral participation of voters in constituencies barely represented by an ethnic minority MP is 5 pp. higher than the participation of voters in constituencies barely represented by a white MP (column 2). Such an effect in political engagement is larger (7 pp.) in majority-white constituencies (column 4), and close to zero (0.6

pp.) in plurality-minority constituencies (column 6). Moreover, the difference between these two coefficients (columns 4 and 6) is statistically significant (the Z-statistic of the is 2.03, implying a two-sided p-value of .09), suggesting that the electoral engagement response stems from white voters.

C Evidence from The British Election Study

We use survey data from The British Election Study 2015, 2017, and 2019 cross-sectional datasets (Fieldhouse et al. (2019*a*), Fieldhouse et al. (2019*b*), and Fieldhouse et al. (2022), respectively) to provide supporting evidence that the turnout response we observe in majority-white constituencies is consistent with the response of white voters, and the response we observe in plurality-minority constituencies consistent with the response of ethnic minority voters. We analyze this survey data at the individual level since it is not representative of constituencies, and cluster the standard errors by constituency-election year to account for the dependence of respondents' self-reported turnout within a constituency and election year. In this case, we control for predetermined characteristics of respondents' (age, gender, turnout in the previous election), constituencies (share of the population that is employed and low income), and candidates (incumbency and political party). Since the data includes observations in only a subset of the constituencies represented in our main analysis (in Table 2), we center on assessing the effect sign over the point estimates.

Table C.1 presents the RD estimates of the effect of a minority political victory in general election t on the self-reported turnout of white and BAME respondents in election $t+1$. Columns 1, 4 present the covariate-unadjusted RD estimates for all white and BAME respondents, respectively. We refer to this sample as the *Full* sample in Table C.1. Columns 2, 5 present the covariate-unadjusted RD estimates for the sample of white and BAME respondents, respectively, who answered all survey questions that we use to compute respondents' predetermined covariates. We refer to this sample as the *Complete* sample. We include this specification to maintain the sample fixed between specifications that do not and do control for predetermined covariates. Lastly, Columns 3, 6 show covariate-adjusted RD estimates for the *Complete* sample of white and BAME respondents.

Across model specifications (and samples) the response of white (BAME) voters to an ethnic

minority representative in their constituency is broadly consistent with the response we observe in majority-white (plurality-minority) constituencies. First, focusing on the covariate-adjusted RD estimate (Column 3), we find that the turnout rate of white voters residing in constituencies represented by an ethnic minority MP is higher (26 pp.) than the turnout of white voters in identical constituencies represented by a white MP. This estimated effect is statistically significant (p-value $<$ 0.01). Secondly, ethnic minority voters residing in constituencies represented by an ethnic minority MP are as politically engaged with the election as their counterparts in constituencies represented by a white MP. The RD estimate is not statistically significant, and, in fact, the turnout rate of ethnic minority voters is somewhat smaller than the rate of white voters. For example, the covariate-adjusted RD estimate (in Column 6) is -0.06 (ranging from -0.6 to 0.3 per the 95% CI), suggesting that the turnout rate of ethnic minority voters in constituencies represented by an ethnic minority MP is 6 pp. lower relative to the turnout of their counterparts in constituencies not represented by an ethnic minority MP.

In sum, consistent with the constituency-level results, we find a positive and statistically significant effect on the turnout of white voters, no significant effect on the turnout of ethnic minority voters, and a substantial difference between the effect on the turnout of white and ethnic minority voters, although in this particular case, this difference is not statistically significant (the Z-statistic is 1.61, implying a two-sided p-value of 0.11).

D Evidence of white backlash

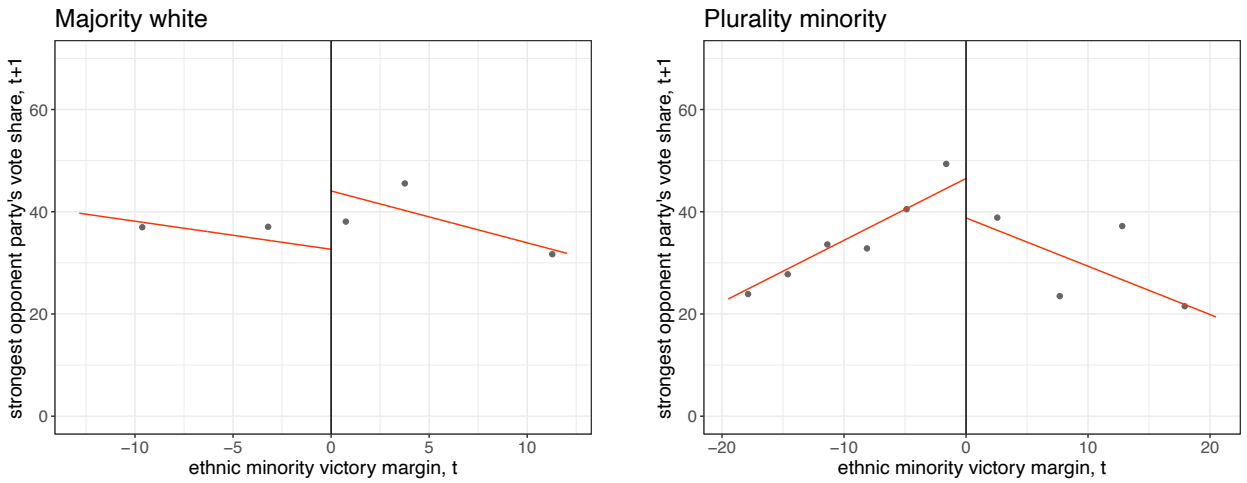
To further present evidence of white backlash, in this section we explore constituency-level vote choice for the party of the minority incumbent and the party of her/his strongest white opponent in the previous election.[9] Finding that voters in ethnic minority-represented-majority-white constituencies turnout to vote at higher rates for the party of the incumbent's strongest opponent, than voters in white-represented-majority-white constituencies would be suggestive of efforts to restore a white-dominant equilibrium. We find supporting evidence of such a dynamic in Figure D.1 (and

[9]We focus on parties rather than candidates, because parties' candidate choice in *t+1* is post-treatment.

Table D.1 rows 7–9), albeit very limited evidence, given the small number of elections contested between ethnic minority and white candidates.

Figure D.1 shows vote shares at *t+1* as a function of the margin between the ethnic minority candidate and her/his strongest white competitor at *t*. To the right of the victory threshold (vertical line) in the two plots, an ethnic minority candidate won the seat in election *t*; to the left a white candidate won the seat. The orange lines show the average vote share (in *t+1*) for the party of the incumbent's strongest opponent at election *t*, separately for majority-white (Figure D.1a) and plurality-minority constituencies (Figure D.1b). The jump in the vote share at the threshold measures the ethnic minority victory effect.

Figure D.1: Effects on vote share of strongest opponent's



(a) (b)

Notes: Lines show local linear regression without covariate adjustment, points show averaged equally spaced mimicking-variance bins. Table D.1 rows 8, 9 present the estimated coefficients.

First, in majority-white constituencies (Figure D.1a) the minority victory effect on the vote share for the party of the incumbent's strongest opponent is 10.6 pp (not significant): the average vote share for the party of the strongest minority opponent to narrowly white incumbents is 31%, while the average vote share for the party of the strongest white opponent to narrowly minority incumbents is 41.6%. In contrast, in plurality-minority constituencies (Figure D.1b), the minority victory effect is negative (-7 pp., not significant); narrowly majority-represented constituencies vote at a rate of 47% for the party of the strongest minority opponent, while narrowly minority-

represented constituencies vote at a rate of 40% for the party of the strongest white opponent.

While the minority victory effects on the opponent's vote share in each of these two groups of constituencies is not statistically significant, the difference between the two effects is statistically significant (the Z-statistic is 1.87, implying a two-sided p-value of 0.06), suggesting that white voters respond to minority representation by strengthening their support for parties advancing white candidacies, and that to a lesser extent, minority voters respond to white representation with increased support for parties advancing minority candidacies. Importantly, evidence from post-election surveys is consistent, albeit not statistically significant, with this interpretation; a minority victory increases white voters choice, and decreases BAME voters choice, for the party of the strongest white opponent to the minority winner in the previous election (Table D.2, rows 7–9).

Table D.1 presents point estimates, estimates of their inference and other relevant statistics for the minority victory (at t) RD effect on vote shares (for the party of the incumbent (rows 4–6), the party of her/his strongest opponent in the previous (rows 7–9) election), incumbent's probability of winning (rows 10–12), and effective number of parties (rows 13–15) at *t+1*.

D.1 Evidence of white backlash from The British Election Study

In Table D.2 we use post-election survey data to provide supporting evidence of minority victory effects at t on vote choice at *t+1*. Specifically, we aim to assess whether the party choice responses we observe in majority-white constituencies are consistent with the responses from white voters, and whether the party choice responses we observe in plurality-minority constituencies are consistent with the responses of BAME voters. The estimates presented in Table D.2 suggest that, indeed, the behavior we observe in majority-white (plurality-minority) constituencies is consistent with the behavior of white (ethnic minority) voters.

E Characterizing in-sample constituencies

Table E.1 compares descriptive statistics between in-sample constituencies and all constituencies. The comparison of the average in-sample constituency against the average constituency suggests that constituencies where ethnic minority candidates stand for Parliament against a white candidate

are different in various dimensions: they have a larger ethnic minority and immigrant population, a larger share of their population does not speak English as a main language, and they are more urban (or with a higher population density).

Table C.1: Ethnic Minority Representation Effects on Turnout

	Outcome: Self-reported turnout					
	White respondents			BAME respondents		
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathbf{I}(\text{VictoryMargin}_t > 0) = 1$	0.42	0.561	0.264	0.051	0.142	-0.059
	[0.289, 0.587]	[0.471, 0.716]	[0.17, 0.391]	[−0.12, 0.252]	[−0.483, 0.789]	[−0.602, 0.305]
age			0.001			0
			[-0.005,0.008]			[-0.008,0.008]
single			0.032			-0.255
			[-0.146,0.211]			[-0.603,0.093]
employed			-0.123			-0.314
			[-0.444,0.198]			[-0.558,-0.07]
house owner			-0.007			-0.248
			[-0.171,0.157]			[-0.57,0.073]
low income			-0.109			-0.447
			[-0.408,0.189]			[-0.749,-0.144]
male			0.043			0.139
			[-0.204,0.291]			[-0.088,0.365]
voted past election			0.45			0.55
			[0.147,0.753]			[0.264,0.835]
Labour			-0.044			0.056
			[-0.347,0.259]			[-0.459,0.571]
incumbent			-0.096			0.211
			[-0.285,0.093]			[-0.066,0.489]
Mean DV control	0.623	0.48	0.493	0.632	0.762	0.73
R^2	0.07	0.1	0.31	0	0.03	0.55
Num. eff. obs.	150	101	102	177	70	66
Num. obs	1683	1173	1173	485	287	287
Num. clusters	229	218	218	154	127	127
MSE-optimal bandwidth	8.92	9.5	9.9	28.71	20.07	17.94
Controls	No	No	Yes	No	No	Yes
Sample	Full	Complete	Complete	Full	Complete	Complete

Notes: The dependent variable is self-reported turnout in general election *t+1*. Average treatment effect at cutoff estimated with local linear regression with triangular kernel and MSE-optimal bandwidth. In brackets robust bias-corrected 95% CI. Standard errors are clustered by constituency-election. *Num. eff. obs.* is the sample size within the MSE-optimal bandwidth, *Num. obs* the sample size, and Num. clusters the number of constituency-election years in the sample. *MSE-optimal bandwidth* is the MSE-optimal bandwidth of vote-share winning margin around the victory threshold. *Controls* include respondents' age, gender, and turnout in the previous election), a constituency's share of the population that is employed and low income, and a candidate's incumbency and political party. *Sample* indicates the sample used in the analysis: *Full* stands for the full sample of respondents and *Complete* for a complete cases sample with no missing values for respondent's predetermined variables.

Table D.1: Ethnic Minority Representation Effects on Vote Shares, Incumbent's Probability of Winning and Effective Number of Parties

RD estimate	se	p value	95% CI	mean control	MSE opt bw	eff. N	N	outcome	sample const
0.034	0.026	0.256	$[-0.026, 0.097]$	0.673	21.502	106	465	turnout	all
0.085	0.037	0.036	$[0.006, 0.180]$	0.653	23.089	62	258	turnout	majority-white
0.003	0.034	0.993	$[-0.080, 0.081]$	0.695	20.712	49	207	turnout	plurality-minority
9.476	4.517	0.050	$[0.016, 21.376]$	39.529	24.289	126	465	vs incumbent	all
6.221	6.530	0.380	$[-8.707, 22.822]$	42.216	20.537	53	258	vs incumbent	majority-white
12.843	8.418	0.172	$[-6.213, 34.869]$	35.314	22.017	52	207	vs incumbent	plurality-minority
-0.931	4.690	0.897	$[-10.153, 11.588]$	40.921	17.094	74	410	vs opponent	all
10.640	7.747	0.201	$[-6.515, 30.925]$	31.017	13.231	23	225	vs opponent	majority-white
-7.249	5.653	0.301	$[-20.880, 6.459]$	47.581	21.063	49	185	vs opponent	plurality-minority
0.131	0.201	0.563	$[-0.343, 0.630]$	0.594	28.078	148	465	prob. victory	all
-0.054	0.404	0.887	$[-1.034, 0.894]$	0.739	22.805	61	258	prob. victory	majority-white
0.308	0.330	0.378	$[-0.444, 1.170]$	0.363	21.774	51	207	prob. victory	plurality-minority
-0.226	0.144	0.155	$[-0.587, 0.093]$	2.667	24.798	129	465	eff. num. parties	all
-0.453	0.315	0.210	$[-1.242, 0.273]$	2.804	16.045	36	258	eff. num. parties	majority-white
-0.107	0.156	0.569	$[-0.475, 0.261]$	2.571	31.617	84	207	eff. num. parties	plurality-minority

Notes: The dependent variable *turnout* is the constituency-level turnout rate at *t+1*, *vs incumbent* the vote share for the incumbent's party, *vs opponent* the vote share for the incumbent's strongest opponent (at *t*), *prob. victory* the incumbent's probability of winning, and *eff. num. parties* the effective number of parties. *RD estimate* is computed with local-linear regression within a symmetric MSE-optimal bandwidth. *se* is the conventional standard error, *p-value* and *95% CI* are robust bias-corrected. *mean control* indicates the average outcome at *t+1* in constituencies where ethnic minorities barely lost at *t*. *MSE opt bw* is the MSE-optimal bandwidth of minority vote-share winning margin around the victory threshold, *eff. N* is the sample size within the MSE-optimal bandwidth, *N* is the sample size. In *sample const*, *all* includes all constituencies, *majority-white* constituencies with an ethnic minority population share smaller than 20%, and *plurality-minority* constituencies with an ethnic minority population share greater than 20%. Election results data are from the Electoral Commission. The ethnic background of candidates is constructed by the authors.

Table D.2: Ethnic Minority Representation Effects on Vote Choice: Evidence from Survey Data

RD estimate	se	p value	95% CI	mean control	MSE opt bw	eff. N	N	Num. clusters	outcome	sample
0.350	0.003	0.000	[0.349, 0.377]	0.550	6.934	154	2209	231	turnout	all
0.379	0.064	0.000	[0.264, 0.535]	0.649	10.208	167	1683	229	turnout	white
0.056	0.094	0.536	[−0.158, 0.304]	0.622	30.342	202	485	154	turnout	minority
0.080	0.095	0.381	[−0.123, 0.321]	0.269	17.049	279	1587	231	voted incumbent	all
-0.115	0.116	0.508	[−0.376, 0.186]	0.429	19.628	292	1251	222	voted incumbent	white
0.398	0.268	0.207	[−0.237, 1.094]	0.035	25.104	87	315	130	voted incumbent	minority
0.032	0.054	0.807	[−0.106, 0.136]	0.494	28.378	552	1449	210	voted opponent	all
0.110	0.102	0.407	[−0.144, 0.354]	0.465	20.267	301	1143	203	voted opponent	white
-0.298	0.246	0.334	[−0.892, 0.303]	0.542	22.423	68	285	116	voted opponent	minority

Notes: The dependent variable *turnout* indicates whether a respondent turnout to vote in election *t+1*, *voted incumbent* whether they voted for the incumbent's party, and *voted opponent* for the party of the incumbent's strongest opponent (at *t*). *RD estimate* is computed with local-linear regression within a symmetric MSE-optimal bandwidth. *se* is the conventional standard error, *p-value* and *95% CI* are robust bias-corrected. *mean control* indicates the average outcome at *t+1* in constituencies where ethnic minorities barely lost at *t*. *MSE opt bw* is the MSE-optimal bandwidth of minority vote-share winning margin around the victory threshold, *eff. N* is the sample size within the MSE-optimal bandwidth, *N* is the sample size, and *Num. clusters* the number of constituency-elections. In *sample*, *all* includes all respondents, *white* respondents who self-identified as white, and *BAME* who self-identified as Black, Asian and minority ethnic. Survey data is from the British Election Study 2015, 2017, 2019, election results 2010, 2015, 2017 from the Electoral Commission. The ethnic background of candidates is constructed by the authors.

Table E.1: Selection of Constituencies into the Sample

	All constituencies		Sample constituencies	
variable	mean	sd	mean	sd
share ethnic minority	11.962	14.933	22.865	20.246
share non-dominant religion	0.076	0.118	0.155	0.176
population density	20.224	25.641	33.285	32.787
share single	30.947	12.571	35.628	11.674
share deprivation level 1	0.326	0.018	0.330	0.020
share deprivation level 2	0.195	0.040	0.198	0.043
share deprivation level 3	0.053	0.022	0.058	0.024
share deprivation level 4	0.005	0.003	0.006	0.004
share social grade ab	0.221	0.082	0.230	0.092
share social grade c1	0.307	0.033	0.311	0.033
share social grade c2	0.215	0.046	0.197	0.048
share social grade de	0.257	0.076	0.262	0.084
share level 1 qualifications	14.289	3.680	13.275	3.220
share level 2 qualifications	15.290	2.174	14.408	2.663
share level 3 qualifications	12.075	2.450	11.850	2.419
share level 4+ qualifications	26.749	8.315	28.530	9.794
share economically active: employed	61.517	5.489	61.096	6.274
share economically active: unemployed	4.402	1.438	4.803	1.531
share tenure: rent free	1.329	0.433	1.348	0.407
share tenure: owned	64.400	11.396	59.574	13.984
share tenure: private rented	15.871	6.462	18.576	7.608
share tenure: social rented	17.734	7.592	19.659	8.722
share English not main language	8.282	9.216	14.404	12.470
share immigrants: non-EU	7.854	8.608	13.830	11.457
N constituency-election	1896		465	

Notes: Shows descriptive statistics for all constituencies, and constituencies in our sample. Our sample includes constituencies where ethnic minority candidates contend a seat for Parliament against a white candidate. The unit of observation is a constituency-election year.

References for Online Appendices

Canay, Ivan A and Vishal Kamat. 2018. "Approximate permutation tests and induced order statistics in the regression discontinuity design." *The Review of Economic Studies* 85(3):1577–1608.

Cattaneo, Matias D, Michael Jansson and Xinwei Ma. 2020. "Simple local polynomial density estimators." *Journal of the American Statistical Association* 115(531):1449–1455.

Fieldhouse, E., J. Green, G. Evans, C. Prosser, R. de Geus, J. Bailey, H. Schmitt, C. van der Eijk and J. Mellon. 2022. "British Election Study, 2019: Post-Election Random Probability Survey.". **URL:** *https://www.britishelectionstudy.com/data-objects/cross-sectional-data/*

Fieldhouse, E., J. Green, G. Evans, H. Schmitt, C. van der Eijk, J. Mellon and C. Prosser. 2019*a*. "British Election Study, 2015: Face-to-Face Post-Election Survey.". **URL:** *https://www.britishelectionstudy.com/data-objects/cross-sectional-data/*

Fieldhouse, E., J. Green, G. Evans, H. Schmitt, C. van der Eijk, J. Mellon and C. Prosser. 2019*b*. "British Election Study, 2017: Face-to-Face Post-Election Survey.". **URL:** *https://www.britishelectionstudy.com/data-objects/cross-sectional-data/*

Gelman, Andrew and Guido Imbens. 2019. "Why high-order polynomials should not be used in regression discontinuity designs." *Journal of Business & Economic Statistics* 37(3):447–456.

Goplerud, Max. 2016. "Crossing the Boundaries: An Implementation of Two Methods for Projecting Data across Boundary Changes." *Political Analysis* 24(1):121–129.

Nyhan, Brendan, Christopher Skovron and Rocío Titiunik. 2017. "Differential registration bias in voter file data: A sensitivity analysis approach." *American Journal of Political Science* 61(3):744–760.

Sobolewska, Maria. 2013. "Party strategies and the descriptive representation of ethnic minorities: The 2010 British general election." *West European Politics* 36(3):615–633.

van Heerde-Hudson, Jennifer and Rosie Campbell. 2015. "Parliamentary Candidates UK Dataset.". Leverhulme Trust (RPG-2013-175). **URL:** *http://www.parliamentarycandidates.org/*