Online Appendix

"From Low-Cost Flights to the Ballot Box: How Eastern European Migration Shaped Far-Right Voting in London"

By Elena Pupaza and Joachim Wehner

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A UKIP and BNP campaigns

B Airlines and destinations

C Bus stops and their distance from ward centroids

D Data and variables

E Alternative instrumental variables

F Estimates of EU8+2 voter registration rates

G Supplementary results

A UKIP and BNP campaigns

UKIP 2012 campaign – relevant points:

- Create more jobs for Londoners by saying 'No' to open-door immigration
- Fight EU red tape strangling London businesses
- Priority for Londoners whatever their ethnic origin for jobs and housing, over migrants and asylum seekers

BNP 2012 campaign – relevant points:

- British people must be housed first
- No amnesty for illegal immigrants
- British jobs for British workers

B Airlines and destinations

WizzAir was one of the first airlines to capitalize on the Eastern enlargement of the EU. The company was established in 2003 and had its first flight on May 19, 2004 (only two weeks after enlargement) from Katowice, Poland to London Luton. The company soon expanded to operate regular flights between London and various Central and Eastern European countries, flying to a mix of primary, secondary and regional airports. The variety in destination airports makes the company attractive for migrants who also want to reduce commuting time in their home countries. WizzAir's main competitor in Central and Eastern Europe is Ryanair. Founded in November 1984, Ryanair moved its main London base to Stansted in 1991.

The flight networks of WizzAir and Ryanair contrast with that of EasyJet, another low-cost airline, which adopted a different strategy. This is visible in Figure B.1 when comparing panels (a) and (b) with panel (c). Unlike its two competitors, EasyJet expanded less aggressively into Central and Eastern European countries, where it tends to fly only to the capital cities. Moreover, and importantly in the context of our paper, EasyJet's largest base of operation is London's Gatwick airport.

While these maps show flight routes in 2020, they reflect historical patterns. Dobruszkes (2009) highlights the role of WizzAir and Ryanair in expanding west-east routes in direct response to the Eastern enlargement of the EU, in contrast to EasyJet's continued focus on Western Europe. His study reports route networks for these and other airlines as of 2008. To assess trends across London's airports more specifically, we obtained historical flight and passenger data from the UK's Civil Aviation Authority for the period 2000 to 2015. Our analysis is presented in Figures B.4, B.2, and B.3. The data show how quickly after accession EU8+2 passenger traffic through London's airports expanded, and how Gatwick was overtaken by Stansted and Luton in terms of the number of EU8+2 flight destinations and passenger volumes. Low-cost flights to and from the region quickly became concentrated in the two airports located to the north of London.

(a) (b)

(c)

Figure B.1: (a) WizzAir flights from Luton Airport (b) Ryanair flights from Stanstead Airport (c) EasyJet flights from Gatwick Airport. Source: openflights.org; data downloaded on October 8, 2020.

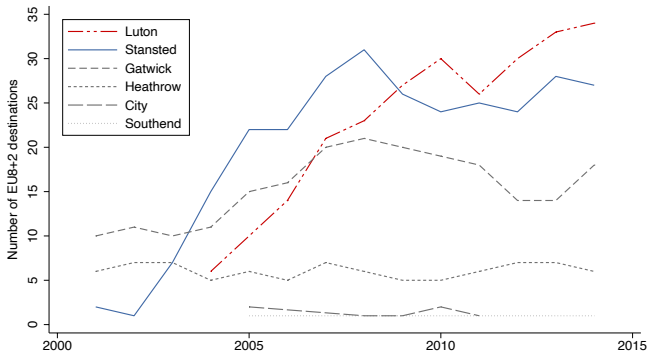

Figure B.2: Number of EU8+2 destinations by London airport, 2001-2014. Source: Own calculations based on annual data from the Civil Aviation Authority (2020), Table 12.1, downloaded on December 28, 2020.

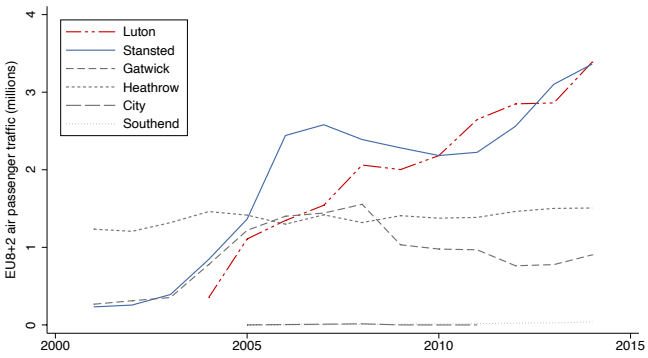

Figure B.3: Passenger traffic to/from EU8+2 countries by London airport, 2001-2014. Source: Own calculations based on annual data from the Civil Aviation Authority (2020), Table 12.1, downloaded on December 28, 2020.

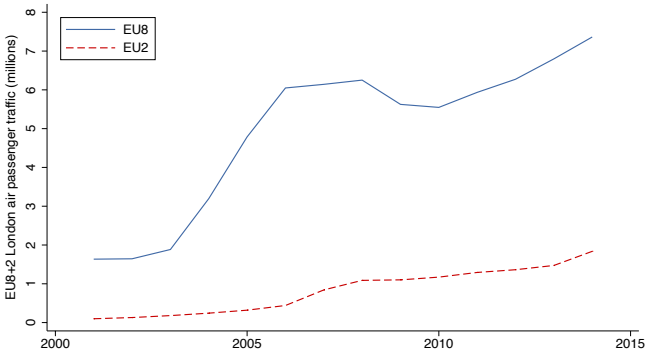

Figure B.4: Total number of passengers to/from London and EU8/EU2 countries, 2001-2014. Source: Own calculations based on annual data from the Civil Aviation Authority (2020), Table 12.1, downloaded on December 28, 2020.

C Bus stops and their distance from ward centroids

To identify the pre-existing bus route infrastructure to Luton and Stansted airports, we first consulted travel guides from around the period of EU enlargement or earlier. These consistently identified two main bus routes: Green Lines bus number 757 from Victoria to Luton Airport, and the National Express Airbus A6 to from Victoria Coach Station to Stansted Airport. Both routes have a history that predates the period we examine. Just prior to the 2004 enlargement of the EU, the 757 departed from central London towards the airport about 30 times on weekdays, and the A6 about 40 times (Lonely Planet 2004). Both providers dominated their respective routes. For example, according to data in Luton Borough Council's 2006 Provisional Bus Strategy the 757 accounted for about two thirds of busses connecting the airport to central London. Both the 757 and the A6 followed a similar route into and out of London, with some shared stops and others in close proximity. The smaller rival operators to these dominant services, too, tended to follow these routes.

Next, we confirmed the stops on these routes, where travellers to or from the airport were able to board, at the time of EU enlargement in 2004. Although there is substantial continuity in stops used over the years, there were also some changes, and we wanted to be certain to capture the pre-existing ones only. In July and September 2020, we submitted requests under the UK's Freedom of Information Act to Transport for London (TfL), which is responsible for the approval of coach stops. In response, TfL confirmed when it first approved the existing stops to operate under a London Service Permit, a regulatory regime for any bus, coach, or tours service outside of the TfL network. Prior to this, such services operated under London Local Service licences, a separate regulatory regime. Stops with the earliest approval date were likely also approved at an earlier date, but TfL does not hold any earlier information. TfL sent us a full listing of existing bus stops in both directions and the dates of their approval under the current regulatory regime. We coded only those in one direction, since the corresponding stops in the other direction are typically in very close proximity, often on the opposite side of the road.

According to TfL, the following existing 757 stops for travel from Luton and towards Victoria were approved to operate under a London Service Permit from 1 August 2002

(bus stop codes in brackets): Brent Cross (BP4663), Childs Hill (9358), Lord's Cricket Ground (4804), Baker Street Station (4789), Baker Street (1588), Oxford Street (179), Marble Arch (29908), Hyde Park Corner (36857), and Victoria (BP4469). For the A6, the following existing stops for travel from Luton and towards Victoria Coach Station were approved under a London Service Permit from 24 May 2004: Golders Green Bus Station (RO802), Finchley Road (BP4403), St Johns Wood Wellington Road (4804), and Baker Street Station (4879). The Finchley Road bus stop is for travel in the opposite direction, but we use it as a proxy as the corresponding one in the direction of central London has a more recent approval date, suggesting some minor adjustment in its location over the years. We also added Victoria Coach Station as the terminus for the A6, as indicated in various travel guides we consulted.

Next, we used this information to determine the distance of wards to each of these transport nodes. We first obtained the locations of TfL's more than 19,000 bus stops from the London Datastore (https://data.london.gov.uk) and identified the above A6 and 757 stops. In a few instances TfL's listing did not include the bus stop, which was the case when it did not serve any TfL buses. In these cases, we searched the TfL website (https://tfl.gov.uk) for the location of these stops and used the closest TfL stop or tube station for which we had information on its precise location. Our listing of TfL tube station locations is also from the London Datastore. We then calculated the distance between each ward centroid and each A6 and 757 bus stop. These operations were carried out with QGIS version 3.4. This provided the data for our instrument, which for each ward gives the distance (in kilometres) between its centroid and the closest A6 or 757 bus stop approved in 2004 or earlier.

D Data and variables

We started with data from the Office for National Statistics (ONS) Open Geography Data Portal (Office for National Statistics 2019) to match lower layer super output areas (LSOA) used in the census and electoral wards/divisions used for election outcomes. Two documents provided by the ONS assisted with the task: "WD10_LAD10_EW_LU", containing the new 9 character ward codes and the old 6 character ward codes; and "WD11_CMWD11_LAD11_EW_LU", containing the lookup between the census merged wards (E36) to electoral wards (E05). We then added information on electoral outcomes, on population counts by country of birth, and other ward-specific data.

Next, we checked for electoral border changes. Table D.1 shows that most electoral changes took place before the 2004 election or after the 2012 one. The only electoral changes in the period investigated in this paper are targeted at the City of London. We exclude the City of London from the analysis. This does not impact the results significantly, as "the City" is a business centre and has a negligible number of residents. The 2001 Census counted between 1061 and 3003 residents in the remaining wards and the 2011 Census between 1434 and 2782 residents.

Table D.2 presents the timeline of key events and helps to clarify several aspects of our data. First, we do not use the 2000 elections because ward and borough data were not collected. The unit of analysis for which the 2000 election results are available (London Assembly constituency) is too large to conduct any meaningful analysis. Instead, we use the 2004 results. Second, as the timeline suggests, the 2004 elections took place one month after the EU's enlargement in that year. We assume this is a short enough period to make it unlikely for new EU migrants to arrive in London and leave an impression on the local population, in a way that substantially affects their electoral behavior. The Civil Aviation Authority reports approximately 100,000 more travellers on all routes (back and forth) between London airports and EU8 destinations in May 2004 (263,322 travellers) compared to the same month in the previous year (160,859 travellers). See also Figure D.1 for a monthly breakdown of relevant air travel in 2004. Finally, we use the 2012 election results because they are temporally closest to the 2011 Census. Therefore, this election is the one for which we have the most accurate data related to the number of

new EU residents.

Table D.1: Electoral changes orders since 2001

File ref	SI Number	SI Title	District Code	District/UA Name	Year
W327	N/A	City of London (Ward Elections) Act 2002	00AA	City of London	2007
W327B	N/A	City of London Act	00AA	City of London	2013
W52	780/2000	The London Borough of Barking and Dagenham Order 2000	00AB	Barking and Dagenham	2002
W42	333/2000	The London Borough of Barnet Order 2000	00AC	Barnet	2002
W48	312/2000	The London Borough of Bexley Order 2000	00AD	Bexley	2002
W483	481/2017	The London Borough of Bexley Order 2017	00AD	Bexley	2018
W72	1846/2000	The London Borough of Brent Order 2000	00AE	Brent	2002
W71	1764/2000	The London Borough of Bromley Order 2000	00AF	Bromley	2002
W70	1765/2000	The London Borough of Camden Order 2000	00AG	Camden	2002
W55	781/2000	The London Borough of Croydon Order 2000	00AH	Croydon	2002
W506	1125/2017	The London Borough of Croydon Order 2017	00AH	Croydon	2018
W26	334/2000	The London Borough of Ealing Order 1999	00AJ	Ealing	2002
W73	1845/2000	The London Borough of Enfield Order 2000	00AK	Enfield	2002
W77	1977/2000	The London Borough of Greenwich Order	00AL	Greenwich	2002
W56	782/2000	The London Borough of Hackney Order 2000	00AM	Hackney	2002
W391	2795/2013	The Hackney Order 2013	00AM	Hackney	2014
W74	1844/2000	The London Borough of Hammersmith and Fulham Order 2000	00AN	Hammersmith and Fulham	2002
W57	783/2000	The London Borough of Haringey Order 2000	00AP	Haringey	2002
W27	316/2000	The London Borough of Harrow Order 1999	00AQ	Harrow	2002
W49	313/2000	The London Borough of Havering Order 2000	00AR	Havering	2002
W69	1766/2000	The London Borough of Hillingdon Order 2000	00AS	Hillingdon	2002
W28	317/2000	The London Borough of Hounslow Order 1999	00AT	Hounslow	2002
W58	784/2000	The London Borough of Islington Order 2000	00AU	Islington	2002
W59	785/2000	The Royal Borough of Kensington and Chelsea Order 2000	00AW	Kensington and Chelsea	2002
W401	25/2014	The Kensington and Chelsea Order 2014	00AW	Kensington and Chelsea	2014
W68	1767/2000	The Royal Borough of Kingston upon Thames Order 2000	00AX	Kingston upon Thames	2002
W29	319/2000	The London Borough of Lambeth Order 1999	00AY	Lambeth	2002
W61	1236/2000	The London Borough of Lewisham Order 2000	00AZ	Lewisham	2002
W30	318/2000	The London Borough of Merton Order 1999	00BA	Merton	2002
W67	1768/2000	The London Borough of Newham Order 2000	00BB	Newham	2002
W31	335/2000	The London Borough of Redbridge Order 1999	00BC	Redbridge	2002
W484	609/2017	The London Borough of Redbridge Order 2017	00BC	Redbridge	2018
W50	314/2000	The London Borough of Richmond upon Thames Order 2000	00BD	Richmond upon Thames	2002
W60	786/2000	The London Borough of Southwark Order 2000	00BE	Southwark	2002
W474	1202/2016	The London Borough of Southwark Order 2016	00BE	Southwark	2018
W75	1847/2000	The London Borough of Sutton Order 2000	00BF	Sutton	2002
W54	787/2000	The London Borough of Tower Hamlets Order 2000	00BG	Tower Hamlets	2002
W390	1786/2013	The Tower Hamlets Order 2013	00BG	Tower Hamlets	2014
W32	336/2000	The London Borough of Waltham Forest Order 1999	00BH	Waltham Forest	2002
W51	315/2000	The London Borough of Wandsworth Order 2000	00BJ	Wandsworth	2002
W53	788/2000	The City of Westminster Order 2000	00BK	Westminster	2002
P325	5008/2013	The City of Westminster Order 2013	00BK	City of Westminster	2014

Source: Data in the current format was provided by the ONS in private correspondence. It is also available online on The Local Government Boundary Commission for England website: https://www.lgbce.org.uk/resources/database-of-local-government-orders/greater-london.

May 4, 2000	London elections
April 29, 2001	**Census**
May 1, 2004	**EU enlargement (EU8 join)**
June 10, 2004	**London elections** and EU Parliament election
January 1, 2007	**EU enlargement (EU2 join)**
May 1, 2008	London elections
March 27, 2011	**Census**
May 3, 2012	**London elections**

Table D.2: Timeline of key events

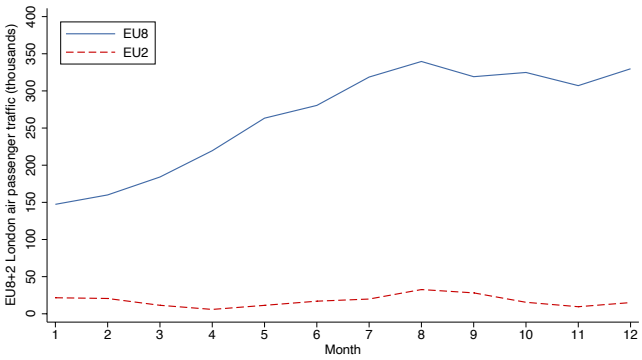

Figure D.1: Monthly total number of passengers to/from London and EU8/EU2 countries, 2004. The EU8 countries joined the EU in month 5 (May). Source: Own calculations based on monthly data from the Civil Aviation Authority (2020), Table 12.1, downloaded on February 6, 2021.

Data used to calculate the share of votes cast for UKIP and the BNP were obtained from the London Datastore (Greater London Authority 2004; 2012). We focus on the London Member election and calculate the percentage point change in votes for party $p \in \{BNP, UKIP\}$ in each ward $w \in \{1 : 620\}$ according to the formula:

$$\Delta Votes_{p,w} = \frac{Member_{p,w,2012}}{Member_{TotalValidVotes,w,2012}} \times 100 - \frac{Member_{p,w,2004}}{Member_{TotalValidVotes,w,2004}} \times 100 \quad \text{(D.1)}$$

The 2004 elections for London coincided with the European Parliament elections. This affects the patterns we observe in our data on electoral outcomes. Far-right parties are known to fare better in second-order elections such as these. Holding EU elections on the same day would have prompted individuals to vote in higher numbers for these parties in the London elections, too, thus increasing their levels of support in 2004. The data depicted in the maps below confirm that support largely declined in 2012, relative to 2004. However, since the coincidence of EU and London elections in 2004 affects all of London, it does not distort our ward-level analysis of the link between EU8+2 migration and support for these parties.

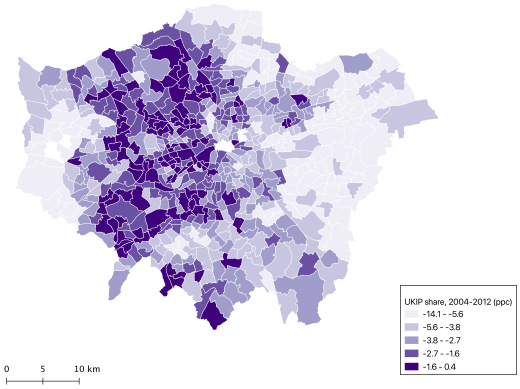

Figure D.2: Percentage point change in votes for **UKIP**, 2004-12 by ward

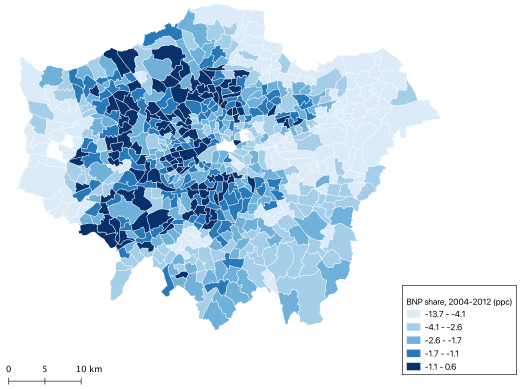

Figure D.3: Percentage point change in votes for the **BNP**, 2004-12 by ward

To construct the percentage point change in new EU residents and in all other foreign-born residents, we use commissioned data from the Office for National Statistics: Census 2001 Commissioned Table C1397 and Census 2011 Commissioned Table CT0226 (https://data.london.gov.uk/census/tools/country-of-birth-ward-tool/, last accessed November 19, 2020).

$$\Delta Residents_{c,w} = \frac{Residents_{c,w,2011}}{Residents_{Total,w,2011}} \times 100 - \frac{Residents_{c,w,2001}}{Residents_{Total,w,2001}} \times 100 \qquad \text{(D.2)}$$

For the main independent variable, the percentage point change in new EU residents, subscript c in equation D.2 refers to residents born in Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia or Slovenia who resided in ward w at the date of the census. Our calculation of the percentage point change in all other foreign-born residents involves subtracting the number of residents born in an EU8+2 country from the total number of non-UK born residents.

The remaining control variables are obtained from two sources available on the London Datastore website. We obtain information on the unemployed, retired, and economically inactive students for each ward released by the Census Information Scheme (2011) and data on household income and median house prices released by the Greater London Authority (2013). The former data are already released in percentage changes, so no transformations are needed for the variables *ΔUnemployed residents (pc)*, *ΔRetired residents (pc)* and *ΔStudent residents (pc)*. The median house price data (in pound sterling) come from the Land Registry, which publishes full postcode price paid data on their website. The

median household income (also in pounds) was calculated by the Greater London Authority and released for 2001/02, 2007/08, and 2012/13. We then construct the variable *ΔMedian household income (£000s)* by subtracting the median income in 2001/02 from that in 2012/13 and re-scaling to thousands of pounds. Table D.3 below shows the summary statistics for all variables.

Table D.3: Descriptive statistics

	Min	Mean	Max	Std.Dev.	Obs
BNP votes 2004	13	130.09	480	94.33	620
BNP votes 2004 (pct.)	0.69	5.17	24.97	4.01	620
BNP votes 2012	7	58.89	251	41.37	620
BNP votes 2012 (pct.)	0.21	2.36	14.95	2.02	620
Absolute change BNP votes	-272	-71.20	14	57.75	620
Δ BNP votes (pp)	-13.70	-2.81	0.55	2.26	620
UKIP votes 2004	27	221.15	790	136.06	620
UKIP votes 2004 (pct.)	2.44	8.50	23.14	4.62	620
UKIP votes 2012	22	123.50	491	75.31	620
UKIP votes 2012 (pct.)	0.88	4.72	15.69	2.79	620
Absolute change UKIP votes	-367	-97.64	7	72.75	620
Δ UKIP votes (pp)	-14.09	-3.78	0.35	2.52	620
Votes 2004	978	2651.05	5042	650.69	620
Turnout 2004	33.38	36.93	41.49	2.51	620
Votes 2012	1263	2740.03	4693	618.77	620
Turnout 2012	19.30	34.15	51.72	5.34	620
Δ Turnout	-18.83	-2.78	18.34	5.58	620
UK-born residents in 2001	3504	8374.77	15178	1941.89	620
UK-born residents in 2011	3383	8288.62	14942	2031.53	620
Absolute change native population	-3284	-86.15	3231	700.65	620
EU2 residents in 2001	0	9.73	65	8.74	620
EU8 residents in 2001	0	59.11	431	51.89	620
New EU residents 2001 (pct.)	0.00	0.59	3.38	0.44	620
EU2 residents in 2011	3	115.91	857	136.59	620
EU8 residents in 2011	13	402.99	2265	341.71	620
New EU residents 2011 (pct.)	0.31	3.80	15.79	2.85	620
Δ New EU residents (pp)	-0.06	3.20	15.28	2.71	620
All other foreign-born residents 2001 (pct.)	3.99	26.34	57.60	12.23	620
All other foreign-born residents 2011 (pct.)	4.69	32.21	63.74	12.45	620
Δ All other foreign-born residents (pp)	-1.88	5.87	18.69	3.69	620
Δ Unemployed residents (pc)	-0.42	0.43	1.62	0.32	620
Δ Retired residents (pc)	-0.41	-0.01	0.68	0.12	620
Δ Student residents (pc)	-0.49	0.43	2.84	0.38	620
Median household income 2001/02 (£000s)	17.01	27.31	46.11	5.03	620
Median household income 2012/13 (£000s)	25.09	39.27	88.33	7.40	620
Δ Median household income (£000s)	5.61	11.95	42.22	2.89	620
Median house price in 2001 (£000s)	73.50	173.03	730.00	70.07	620
Distance from closest A6/757 bus stop (km)	0.28	10.65	29.72	6.29	620
Distance from closest train station (km)	0.37	10.96	25.61	6.16	620
2001 initial shares	0.00	0.16	1.05	0.13	620
Shift-share, 2001 initial shares	0.00	450.39	2763.76	355.64	620
1991 initial shares	0.01	0.16	1.65	0.18	620
Shift-share, 1991 initial shares	15.17	450.78	4174.61	501.21	620

E Alternative instrumental variables

Before creating various alternative instruments, we first had to adjust the 1991 census data. In generating estimates of the initial distribution of the population from the EU8+2 countries across wards in London in 1991, we faced two obstacles. First, six of these ten countries did not exist until 1991 or later and hence the populations born in them and residing in London were not directly captured in the 1991 UK census. The affected countries are Estonia, Latvia, and Lithuania (which were part of the USSR until their independence in 1991); Slovenia (which was part of Yugoslavia until its independence in 1991); and the Czech Republic and Slovakia (which became independent states in 1993 following the dissolution of Czechoslovakia). Second, the ward structure at the time of the 1991 census is different from the 2004 ward structure that underpins our empirical analysis. To use the 1991 census data thus required a process for imputing the 1991 distribution of the population from the later EU8+2 countries using 2004 ward boundaries.

We started by compiling 1991 total population estimates for the EU8+2 countries, which we obtained from the World Bank. The World Bank data draw on United Nations population estimates, national census data, as well as data from various regional and other statistical agencies. We cross-checked these estimates against those of the United Nations Population Division's "World Population Prospects: 2019 Revision" data and found differences to be small. We also obtained total population estimates for the USSR (from the 1989 census) and Yugoslavia (from the 1991 census) as reported on Wikipedia. For the USSR, the 1989 census is the last undertaken before the union's dissolution and provides the closest available estimate.

Next, we used this information to construct weights for the population from later EU8+2 countries who in the 1991 UK census report their country of birth as USSR, Yugoslavia, or Czechoslovakia. This entailed dividing the World Bank 1991 population estimates for Estonia, Latvia, Lithuania, Slovenia, the Czech Republic, and Slovakia by the relevant total population of the entity of which they were part before the end of the Cold War. For example, we divided the World Bank's estimate of the 1991 population of Slovenia (1999429) by the total population in the 1991 Yugoslav census (23229846) to estimate the share of the Slovenian population in the total population of Yugoslavia at the time,

about 0.0861. We repeated this for the three Baltic countries using the 1989 Soviet census, while for Czechoslovakia we derived the denominator by summing the World Bank's 1991 population estimates for the Czech Republic and Slovakia.

At the end of this process, we thus had a set of weights that we could use to back out estimates of the population from the later EU8+2 countries in London at the time of the 1991 UK census. We obtained the number of people recorded in the 1991 census as born in the USSR, Yugoslavia, Czechoslovakia, as well as Bulgaria, Hungary, Poland, and Romania. For the latter four, we made no adjustments. For the former three, we backed out estimates for the relevant EU8+2 country using the weights described above. For instance, to obtain an estimate of the Slovenian population in a given ward in London in 1991, we multiplied the census count for those giving Yugoslavia as their country of birth in that ward by 0.0861, and equivalent for the five other countries. This left us with 1991 population estimates across all wards in London of those born in all entities later included in the new EU accession countries. The steps involved in this calculation are summarized in Table E.1.

It is important to acknowledge our underpinning assumptions. Lacking any other information, we assumed that emigration from the USSR, Yugoslavia and Czechoslovakia was uniformly distributed. Hence, we assumed that Slovenians were as likely to leave Yugoslavia for the UK as were Serbs or Croats, for example; or that someone from the territory of Estonia was as likely to emigrate to the UK as someone in, say, Irkutsk. This may or may not hold in individual circumstances, but it is a reasonable approach given that we lack systematic data on the composition of those emigrating to the UK from the different regions of these countries.

Our final step in making the 1991 data usable for our study was their conversion into 2004 ward boundaries. We could not commission the 1991 data in 2004 ward boundaries from the Office for National Statistics. Thus, we carried out a spatial join using the 1991 and 2004 ward shapefiles, to refit the 1991 data to the 2004 boundaries. We did so with the "proportional sum" operation that assumes individuals are uniformly distributed in any given ward, so that the proportion of the 1991 ward that falls into a 2004 ward can

be used to attribute individuals to the new ward. Without other information about the distribution of these immigrants within wards, this was the most neutral assumption. This operation was carried out with QGIS version 3.4.

Table E.1: Estimating EU8+2 ward populations from the 1991 UK census

Country	1991 population	Our weight is constructed by dividing the 1991 population by the population of:	Our 1991 estimate is the product of the weight and the ward count for the relevant COB category
Bulgaria	8632367	Bulgaria	1 x COB Bulgaria
Czech Republic	10308578	Czechoslovakia	0.660304 x COB Czechoslovakia
Estonia	1561314	USSR	0.005445 x COB USSR
Hungary	10373400	Hungary	1 x COB Hungary
Lithuania	3704134	USSR	0.012919 x COB USSR
Latvia	2650581	USSR	0.009244 x COB USSR
Poland	38246193	Poland	1 x COB Poland
Romania	23001155	Romania	1 x COB Romania
Slovak Republic	5303294	Czechoslovakia	0.339696 x COB Czechoslovakia
Slovenia	1999429	Yugoslavia	0.086072 x COB Yugoslavia
USSR (1989)	286730819		
Yugoslavia (1991)	23229846		
Czechoslovakia (1991)	15611872		

Sources: The country of birth (COB) categories for the 1991 UK census were defined by the Office of Population Censuses and Surveys (Annex A of "1991 Census: Definitions Great Britain"). EU8+2 population estimates for 1991 are from the World Bank DataBank (series SP.POP.TOTL downloaded on April 1, 2020); the USSR census total is from https://en.wikipedia.org/wiki/Soviet_Census_(1989) and the total for Yugoslavia from https://en.wikipedia.org/wiki/Demographics_of_the_Socialist_Federal_Republic_of_Yugoslavia.

We then used these data to construct two alternative instruments that are commonly used in the migration literature. First, we calculate initial shares:

$$z_{2w,t} = \frac{\sum_{c \in EU8+2} Migrants_{c,w,t}}{\sum_{c \in EU8+2} TotalMigrants_{c,t}} \tag{E.1}$$

Here, $z_{2w,t}$ represents the initial share of all new EU migrant residents in ward w at time t, which can be either 1991 or 2001. It is calculated as the sum of the number of migrants from each of the ten Eastern enlargement countries c that joined the EU in 2004 or 2007 and who resided in a given ward w, divided by the total number of migrants from these countries across all wards at that time.

Next, we construct an alternative variable that is a version of the widely used shift-share instrument:

$$z_{3w,t} = \sum_{c \in EU8+2} Share_{c,w,t} \times Shift_{c,2011-2001} \tag{E.2}$$

The variable $z_{3w,t}$ distributes the London-wide inflow of migrants from an EU8+2 country (the "shift") using weights depending on an initial spatial distribution of immigrants from that country (the "share"). For either 1991 or 2001, $Share_{c,w,t}$ is the initial share in ward w of immigrants across all wards in our dataset who were born in country $c \in \{EU8 + 2\}$. $Shift_{c,2011-2001}$ is the total flow of migrants from country c into all wards between 2001 and 2011.[1]

One concern related to shift-share instruments in the context of our study is that using pre-accession census data of Central and Eastern European residents may only be partly related to subsequent migration flows. This is because these data may more accurately capture specific sub-categories of these migrants, such as highly skilled workers, students, or older immigrants (Becker and Fetzer 2016). Furthermore, the methodological debate about shift-share instruments highlights the importance of the exogeneity of the initial shares (Goldsmith-Pinkham, Sorkin and Swift 2020; Jaeger, Ruist and Stuhler 2018). In our case, this is more plausible in 1991. However, the data for that year suffer from other inaccuracies due to the transformations required to make them usable for our study.

We further considered instruments based on proximity to alternative transport links, especially train stations. This is calculated in the same fashion as our bus stop instrument, focusing on three train stations with direct connections to the two airports: King's Cross/St Pancras for Luton; and Tottenham Hale and Liverpool Street for Stansted. However, this instrument is less convincing, because these stations provide valuable travel links to other destinations and hence a wider group of migrants. For instance, St Pancras

[1]As we examine the impact of changes in the share of EU8+2 migrants, we also compiled an alternative version where we scale the instrument by 2001 ward population. The results are very similar, although the scaled versions of our shift-share instruments are slightly weaker in the first-stage regressions. We report results with the non-scaled versions.

provides direct train links to Paris and Brussels and adjacent King's Cross offers a direct underground link to Heathrow Airport. Also, as we discuss in the paper, trains are more expensive than busses, which make them less appealing to those seeking the most affordable journey to the airport. Overall, this makes the exclusion restriction less plausible.

The first-stage results presented in Table E.2 show a strong and positive relationship between the train station, initial share, or shift-share instruments, and the increase in the share of migrants from new EU countries. The instruments using 1991 data are weaker than the alternatives, but close to the conventional cut-off as indicated by the F-statistics. The second-stage estimates presented in Table E.3 are much larger than their OLS baselines. The coefficients with the transport instrument are similar to those with the other instruments for both UKIP and the BNP.

In Table E.4, we present second-stage estimates for a selection of multiple instruments. We combine the bus stop instrument with the initial share instrument described in Equation E.1. For comparison, the first two columns show the 2SLS results presented in the main analysis, columns three and four combine the transport instrument with the 1991 shares of migrant residents from new EU countries and columns five and six use the 2001 distribution of migrants as the "initial" share of EU8+2 residents. The results are almost identical.

Table E.2: First-stage regressions

	(1)	(2)	(3)	(4)	(5)	(6)
Distance from closest A6/757 bus stop (km)	-0.20***					
	(-5.50)					
Distance from closest train station (km)		-0.16***				
		(-4.93)				
Shift-share, 1991 initial shares (000s)			0.86**			
			(3.19)			
1991 initial shares				1.99**		
				(2.79)		
Shift-share, 2001 initial shares (000s)					1.81***	
					(4.54)	
2001 initial shares						4.44***
						(4.19)
Δ All other foreign-born residents (pp)	-0.07	-0.08	-0.07	-0.07	-0.06	-0.06
	(-1.67)	(-1.81)	(-1.72)	(-1.63)	(-1.51)	(-1.44)
Δ Unemployed residents (pc)	0.92*	0.83*	0.52	0.50	0.81*	0.72
	(2.23)	(1.99)	(1.31)	(1.25)	(2.09)	(1.85)
Δ Retired residents (pc)	-1.64	-1.59	-1.68*	-1.68*	-1.52	-1.59
	(-1.87)	(-1.84)	(-2.01)	(-1.99)	(-1.85)	(-1.92)
Δ Student residents (pc)	-0.08	-0.12	0.00	-0.01	0.02	0.00
	(-0.35)	(-0.53)	(0.01)	(-0.04)	(0.07)	(0.01)
Δ Median household income (£000s)	-0.10	-0.09	-0.15*	-0.13	-0.09	-0.11
	(-1.33)	(-1.21)	(-2.24)	(-1.88)	(-1.27)	(-1.45)
Median house price in 2001 (£000s)	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***	-0.01***
	(-4.52)	(-4.41)	(-4.12)	(-3.94)	(-4.15)	(-4.11)
Observations	620	620	620	620	620	620
Borough Fixed Effects	✓	✓	✓	✓	✓	✓
F-test on excluded instrument	30.2	24.29	10.2	7.77	20.65	17.53
R^2	0.61	0.60	0.60	0.59	0.61	0.60

Notes: Linear models with borough fixed effects and robust standard errors. The outcome is the percentage point change (Δ) in residents from new EU member states between 2001 and 2011. In this table, for presentational purposes, we report the coefficient for our shift-share instruments in units of thousands. The instrument using distance to the closest train station only accounts for trainstations with direct connections to the two airports (King's Cross / St Pancrass for Luton; and Tottenham Hale and Liverpool Street for Stansted). Further details are in the notes of Table 1. t statistics between parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table E.3: Comparison between different instruments

	OLS	Transport instrument		1991 instrument		2001 instrument	
		Bus	Train	Shift-share	Initial shares	Shift-share	Initial shares
	Outcome: Δ UKIP votes (pp)						
Δ New EU residents (pp)	0.01	0.69***	0.67**	0.53*	0.71*	0.70***	0.74**
	(0.28)	(3.54)	(3.13)	(2.15)	(2.13)	(3.30)	(3.05)
	Outcome: Δ BNP votes (pp)						
Δ New EU residents (pp)	0.05	0.63***	0.57**	0.58**	0.62*	0.62***	0.59**
	(1.50)	(3.68)	(2.97)	(2.61)	(2.27)	(3.33)	(3.07)
Observations	620	620	620	620	620	620	620
Borough fixed effects	✓	✓	✓	✓	✓	✓	✓
First-stage controls	✓	✓	✓	✓	✓	✓	✓

Notes: OLS or 2SLS estimates with t-statistics based on robust standard errors. The dependent variable for the first panel is the percentage point change (Δ pp) in votes cast for the UK Independence Party between 2004 and 2012. The outcome variable for the second panel is the percentage point change in votes cast for the British National Party between 2004 and 2012. The first column shows OLS estimates and the remaining six columns report 2SLS estimates. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table E.4: Second-stage estimates with single vs. multiple instruments

	Transport		Transport & '91 shares		Transport & '01 shares	
	UKIP	BNP	UKIP	BNP	UKIP	BNP
Δ New EU residents (pp)	0.69***	0.63***	0.69***	0.63***	0.72***	0.61***
	(3.54)	(3.68)	(3.78)	(3.93)	(4.06)	(4.05)
Δ All other foreign-born residents (pp)	-0.09*	-0.07	-0.08*	-0.07	-0.08*	-0.07
	(-2.09)	(-1.79)	(-2.08)	(-1.81)	(-2.04)	(-1.87)
Δ Unemployed residents (pc)	-1.45***	-1.40***	-1.46***	-1.40***	-1.46***	-1.40***
	(-3.52)	(-3.83)	(-3.51)	(-3.84)	(-3.46)	(-3.84)
Δ Retired residents (pc)	4.59***	3.15***	4.60***	3.14***	4.64***	3.11***
	(5.41)	(3.93)	(5.46)	(3.99)	(5.35)	(3.96)
Δ Student residents (pc)	-0.57	-0.87***	-0.57	-0.87***	-0.57	-0.87***
	(-1.77)	(-3.29)	(-1.76)	(-3.29)	(-1.75)	(-3.31)
Δ Median household income (£000s)	0.16*	0.06	0.16*	0.06	0.17*	0.06
	(2.27)	(0.90)	(2.21)	(0.88)	(2.25)	(0.87)
Median house price in 2001 (£000s)	0.01***	0.01***	0.01***	0.01***	0.01***	0.01***
	(4.08)	(4.56)	(4.10)	(4.59)	(4.19)	(4.69)
Observations	620	620	620	620	620	620
Borough Fixed Effects	✓	✓	✓	✓	✓	✓
Cragg-Donald F-statistic	31.33	31.33	18.08	18.08	24.46	24.46

Notes: All models reflect the 2SLS results, showing impact on the percentage point change (Δ pp) in votes cast for the UK Independence Party and the British National Party between 2004 and 2012. Columns 1 and 2 estimate Equation 3. The remaining columns instrument the percentage point change in new EU migrants between 2001 and 2011 across London wards using both the proximity to a A6 or 757 bus stop and the initial shares of new EU migrants in 1991 (Columns 3 and 4) and 2001 (Columns 5 and 6). Further details are in the notes of Table 1. t statistics between parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

F Estimates of EU8+2 voter registration rates

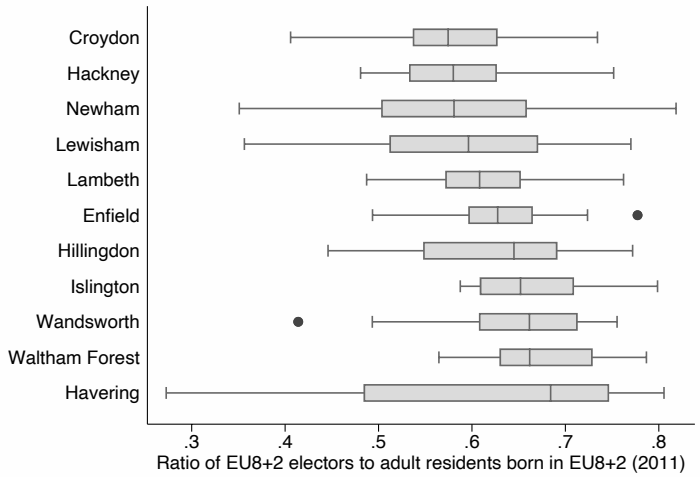

Figure F.1: Estimated EU8+2 voter registration rates across wards in selected boroughs (2011)

Between November 2018 and May 2019, we contacted the electoral services managers of London's 32 boroughs and requested information on the number of electors by nationality in each ward. Eleven boroughs included in Figure F.1 were able to supply this information for 2011. The figure summarizes the ward-level distributions of EU8+2 nationals on the electoral registers of these boroughs, relative to the number of residents aged 18 or older and born in an EU8+2 country (from Census 2011 Commissioned Table CT0796 compiled by the Office for National Statistics). We omit the Harold Wood ward in Havering, where our estimate is 133% (201 electors against 151 residents). Several factors introduce inaccuracies. First, the census and registry data refer to different dates. Second, the census data used here refer to country of birth instead of nationality. Third, the electoral registers may not capture recent arrivals or departures. Finally, there is a margin of error in census counts.

G Supplementary results

Table G.1: Number of votes cast for UKIP and BNP

	OLS		2SLS		Reduced Form	
	UKIP	BNP	UKIP	BNP	UKIP	BNP
Δ New EU residents (pp)	2.73**	3.07***	27.66***	19.32***		
	(2.95)	(3.66)	(4.23)	(4.42)		
Δ All other foreign-born residents (pp)	-1.46	-1.39*	0.59	-0.05	-1.34	-1.40*
	(-1.90)	(-1.99)	(0.43)	(-0.05)	(-1.81)	(-2.07)
Δ Unemployed residents (pc)	-45.24***	-38.41***	-54.74***	-44.60***	-29.31**	-26.84***
	(-4.64)	(-4.84)	(-4.06)	(-4.52)	(-3.07)	(-3.47)
Δ Retired residents (pc)	101.50***	60.42***	145.93***	89.37***	100.44***	57.60***
	(6.21)	(4.59)	(5.17)	(4.27)	(6.26)	(4.40)
Δ Student residents (pc)	-3.63	-16.51**	-2.96	-16.07*	-5.15	-17.61**
	(-0.52)	(-2.93)	(-0.33)	(-2.42)	(-0.75)	(-3.06)
Δ Median household income (£000s)	0.40	-1.40	3.83	0.84	1.04	-1.11
	(0.40)	(-1.71)	(1.69)	(0.54)	(1.11)	(-1.29)
Median house price in 2001 (£000s)	0.11*	0.13**	0.29***	0.24***	0.01	0.05
	(2.28)	(3.24)	(3.46)	(4.07)	(0.24)	(1.20)
Distance from closest A6/757 bus stop (km)					-5.56***	-3.88***
					(-5.78)	(-5.56)
Observations	620	620	620	620	620	620
Borough Fixed Effects	✓	✓	✓	✓	✓	✓

Notes: The change in absolute number of votes cast for the UK Independence Party (columns 1, 3 and 5) and the British National Party (columns 2, 4 and 6) between 2004 and 2012. Further details are in the notes of Table 1. t statistics between parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table G.2: Main regressions with 2008 elections

	OLS		First Stage	Placebo 1st Stage	2SLS		Reduced Form	
	UKIP	BNP	Δ New EU	Δ All other foreign-born	UKIP	BNP	UKIP	BNP
Δ New EU residents (pp)	0.45***	-0.19***		-0.92***	1.56***	-0.49***		
	(7.46)	(-3.37)		(-7.09)	(6.97)	(-3.51)		
Δ All other foreign-born residents (pp)	0.15***	-0.13***	-0.23***		0.42***	-0.20***	0.06*	-0.09***
	(4.53)	(-4.25)	(-6.61)		(5.57)	(-4.94)	(2.11)	(-3.95)
Δ Unemployed residents (pc)	-3.42***	0.02	0.66	2.33*	-3.31***	-0.02	-2.27***	-0.34
	(-5.77)	(0.03)	(1.51)	(2.53)	(-4.24)	(-0.03)	(-3.81)	(-0.71)
Δ Retired residents (pc)	6.36***	-1.29	-0.19	0.42	6.76***	-1.40	6.46***	-1.30
	(5.29)	(-1.81)	(-0.20)	(0.22)	(3.89)	(-1.78)	(6.14)	(-1.91)
Δ Student residents (pc)	-2.43***	0.16	0.43	2.72***	-2.97***	0.31	-2.30***	0.10
	(-4.55)	(0.62)	(1.83)	(4.57)	(-4.85)	(1.04)	(-4.34)	(0.38)
Δ Median household income (£000s)	0.08	-0.12	-0.20	-0.51**	0.40*	-0.21*	0.08	-0.10
	(0.74)	(-1.58)	(-1.85)	(-2.60)	(2.23)	(-2.25)	(0.86)	(-1.71)
Median house price in 2001 (£000s)	0.01**	-0.00	-0.00**	0.00	0.01**	-0.00	0.00	0.00
	(2.86)	(-0.74)	(-2.82)	(0.72)	(2.98)	(-0.99)	(0.60)	(0.47)
Distance from closest A6/757 bus stop (km)			-0.20***	-0.07			-0.32***	0.10***
			(-7.40)	(-1.19)			(-8.64)	(3.36)
Observations	621	621	621	621	621	621	621	621
Borough Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓
F-test on excluded instrument			54.82	1.42				
R^2	0.78	0.73	0.77	0.78	0.63	0.70	0.79	0.72

Notes: The estimated percentage point change in residents from new EU member states between 2001 and 2008 and the percentage point change (Δ pp) in votes cast for the UK Independence Party and the British National Party between 2004 and 2008. Δ Median household income refers to the percentage point change between 2001/2002 - 2007/2008, while the other Δ pc variables refer to the estimated (based on the assumption of linearity) percentage change in unemployment, inactive student population and retired population between 2001 and 2008. t statistics between parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table G.3: Building the main model

	No controls		Baseline control		Fixed effects		Demographic controls		Economic controls		EU8+2 initial share	
	UKIP	BNP	UKIP	BNP	UKIP	BNP	UKIP	BNP	UKIP	BNP	UKIP	BNP
Δ New EU residents (pp)	7.54*	6.28*	1.18***	1.08***	0.88***	0.85***	0.78***	0.75***	0.69***	0.63***	0.63*	0.61**
	(2.23)	(2.21)	(7.18)	(7.08)	(3.68)	(3.99)	(3.68)	(3.97)	(3.54)	(3.68)	(2.57)	(2.82)
Median house price in 2001 (£000s)			0.04***	0.03***	0.02***	0.02***	0.02***	0.02***	0.01***	0.01***	0.01**	0.01***
			(11.98)	(10.37)	(6.12)	(5.58)	(5.86)	(5.17)	(4.08)	(4.56)	(3.18)	(3.69)
Δ All other foreign-born residents (pp)							-0.11**	-0.09*	-0.09*	-0.07	-0.09*	-0.07
							(-2.67)	(-2.26)	(-2.09)	(-1.79)	(-2.17)	(-1.80)
Δ Retired residents (pc)							3.86***	2.74**	4.59***	3.15***	4.49***	3.12***
							(4.24)	(3.21)	(5.41)	(3.93)	(5.25)	(3.79)
Δ Student residents (pc)							-1.02**	-1.20***	-0.57	-0.87***	-0.56	-0.87***
							(-3.10)	(-4.35)	(-1.77)	(-3.29)	(-1.80)	(-3.31)
Δ Unemployed residents (pc)									-1.45***	-1.40***	-1.37**	-1.38***
									(-3.52)	(-3.83)	(-3.24)	(-3.60)
Δ Median household income (£000s)									0.16*	0.06	0.16*	0.06
									(2.27)	(0.90)	(2.28)	(0.88)
New EU residents 2001 (pct.)											0.27	0.08
											(0.61)	(0.21)
Observations	620	620	620	620	620	620	620	620	620	620	620	620
Borough fixed effects	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
F-test on excluded instrument	5.35	5.35	84.69	84.69	27.65	27.65	27.8	27.8	30.2	30.2	17.56	17.56

Notes: All coefficients estimate the 2SLS results from Equation 3. Further details are in the notes of Table 1. t statistics between parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table G.4: Turnout

	OLS	First Stage	2SLS	Reduced Form
Δ New EU residents (pp)	-0.76***		0.39	
	(-8.90)		(0.94)	
Δ All other foreign-born residents (pp)	-0.53***	-0.07	-0.43***	-0.46***
	(-7.91)	(-1.72)	(-5.14)	(-6.13)
Δ Unemployed residents (pc)	0.68	0.95*	0.20	0.58
	(0.94)	(2.31)	(0.24)	(0.72)
Δ Retired residents (pc)	3.70*	-1.63	5.73**	5.09**
	(2.58)	(-1.85)	(2.73)	(2.98)
Δ Student residents (pc)	-2.13***	-0.07	-2.10***	-2.13***
	(-4.21)	(-0.30)	(-3.88)	(-4.06)
Δ Median household income (£000s)	0.39*	-0.10	0.55**	0.51**
	(2.41)	(-1.34)	(2.68)	(2.67)
Median house price in 2001 (£000s)	0.00	-0.01***	0.01*	0.01
	(0.92)	(-4.48)	(2.04)	(1.59)
Distance from closest A6/757 bus stop (km)		-0.20***		-0.08
		(-5.47)		(-0.99)
Observations	624	624	624	624
Borough Fixed Effects	✓	✓	✓	✓
F-test on excluded instrument		29.97		

Notes: We measure the impact migration from new EU member states had on the percentage point change (Δ pp) in turnout between 2004 and 2012. Further details are in the notes of Table 1. t statistics between parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$