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A Spatial Examination of Populism and Absenteeism in the UK in the Context of the 2016 EU Referendum

by

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1. Preface

I would like to thank my supervisor, Dr Luke Temple, for his excellent and in-depth feedback and advice across all stages of the writing process, without which this dissertation surely would not be of the quality at which it currently stands.

2. Abstract

Further knowledge regarding populism would prove beneficial in understanding voting trends in the UK, particularly considering its recent global proliferation and an upward trend in occurrences of national referendums. In the UK, populism is often conflated with anti-immigration, anti-elite, and anti-European values. Considering the notably increased turnout of the UK's EU referendum in comparison to other national votes, examining populism, absenteeism, and the drivers of both in a spatiotemporal context reveals insights that may contrast to existing narratives. Considering the milieu of different communities in different locations, comparing this to how voting varies through space, and by applying spatial and statistical analyses, it is revealed that increased levels of deprivation is strongly linked to the political successes of populism and decreases in turnout; more so even than rate-of-change of immigration, of which higher levels are found to negatively affect turnout. This research suggests that it is when populists, such as the UK Independence Party, target local issues that they resonate most; but some members of the electorate, particularly in areas most deprived, remain disengaged even to this emotionally charged rhetoric. This study also identifies UKIP's success as a short-term cultural one, rather than a sustained political one. Other conclusions regarding the relationship of deprivation, immigration, and absenteeism are also considered, leading to identification of further avenues of research including how the visibility of inequality affects non-voting.

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4. Introduction

On 23rd June 2016, the UK electorate voted in the United Kingdom European Union membership referendum, hereby referred to as 'Brexit' (a portmanteau of 'British' and 'Exit') or the 'EU referendum', with 51.9% of voters deciding the country should leave the European Union (EU) (*Fig. 1*). Turnout was markedly higher for this vote than in previous national votes (*Fig. 2)* at 72.2%, illustrating the marked saliency of EU membership to the British electorate.

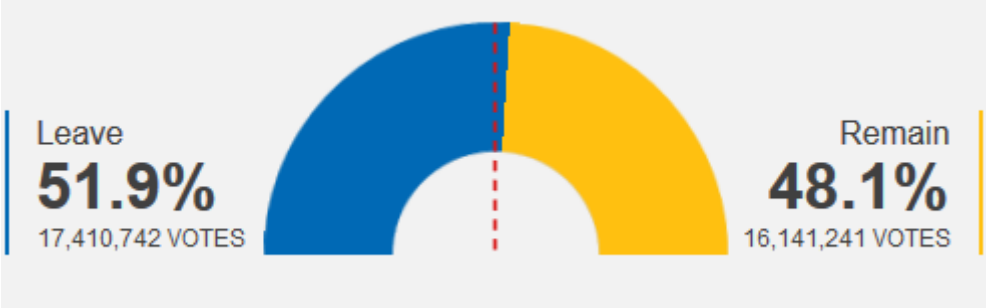


Figure 1 - EU referendum results (BBC, 2016)

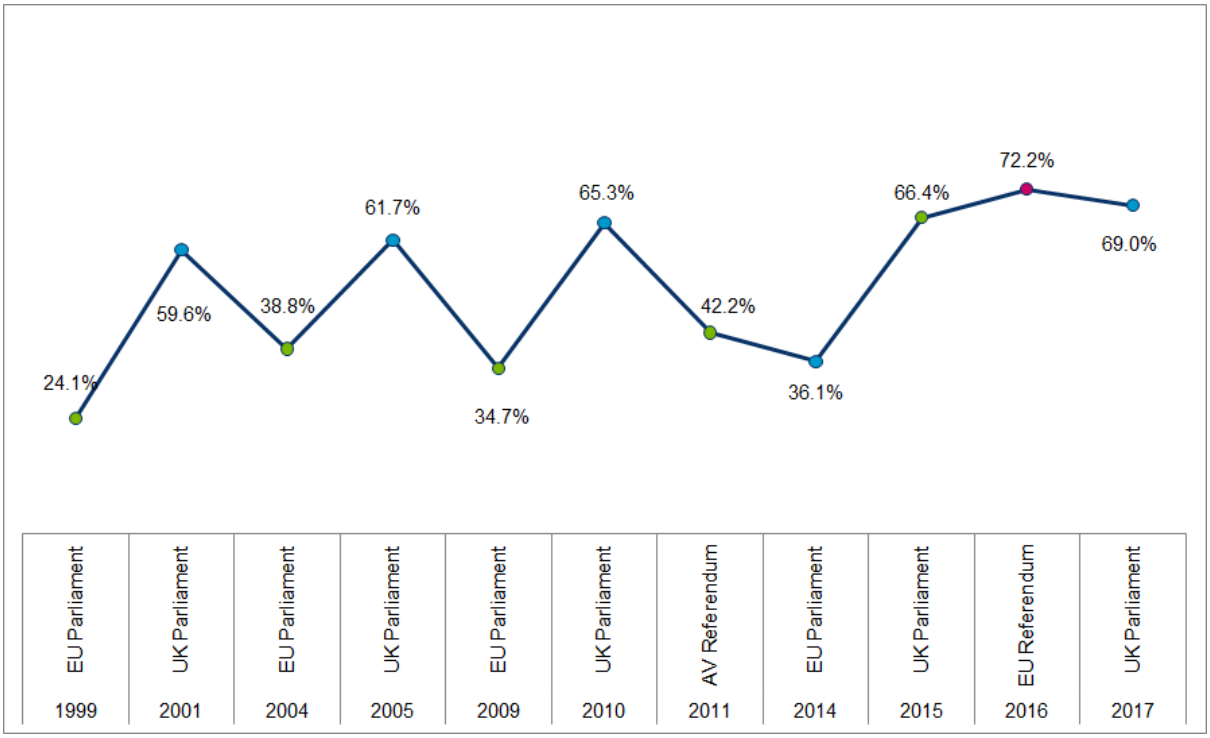


Figure 2 - UK national poll turnout history (Electoral Commission, 2018)

The subject of divisive and emotive political campaigns, Leave based their arguments on themes of immigration, loss of sovereignty (to the EU), and detachment from a

liberal, political elite. This strong message contrasted to that of Remain (Berry, 2016; Crines, 2016), which instead focused on the benefits of remaining in the EU as preservation of economic stability, access to the single market, and free movement of people and ideas (Crines, 2016). The divisiveness of the campaign is reflected in the outcome of the vote (*Fig. 3*), with over 60% of areas having less than a 10% majority, and less than a 2% national majority.

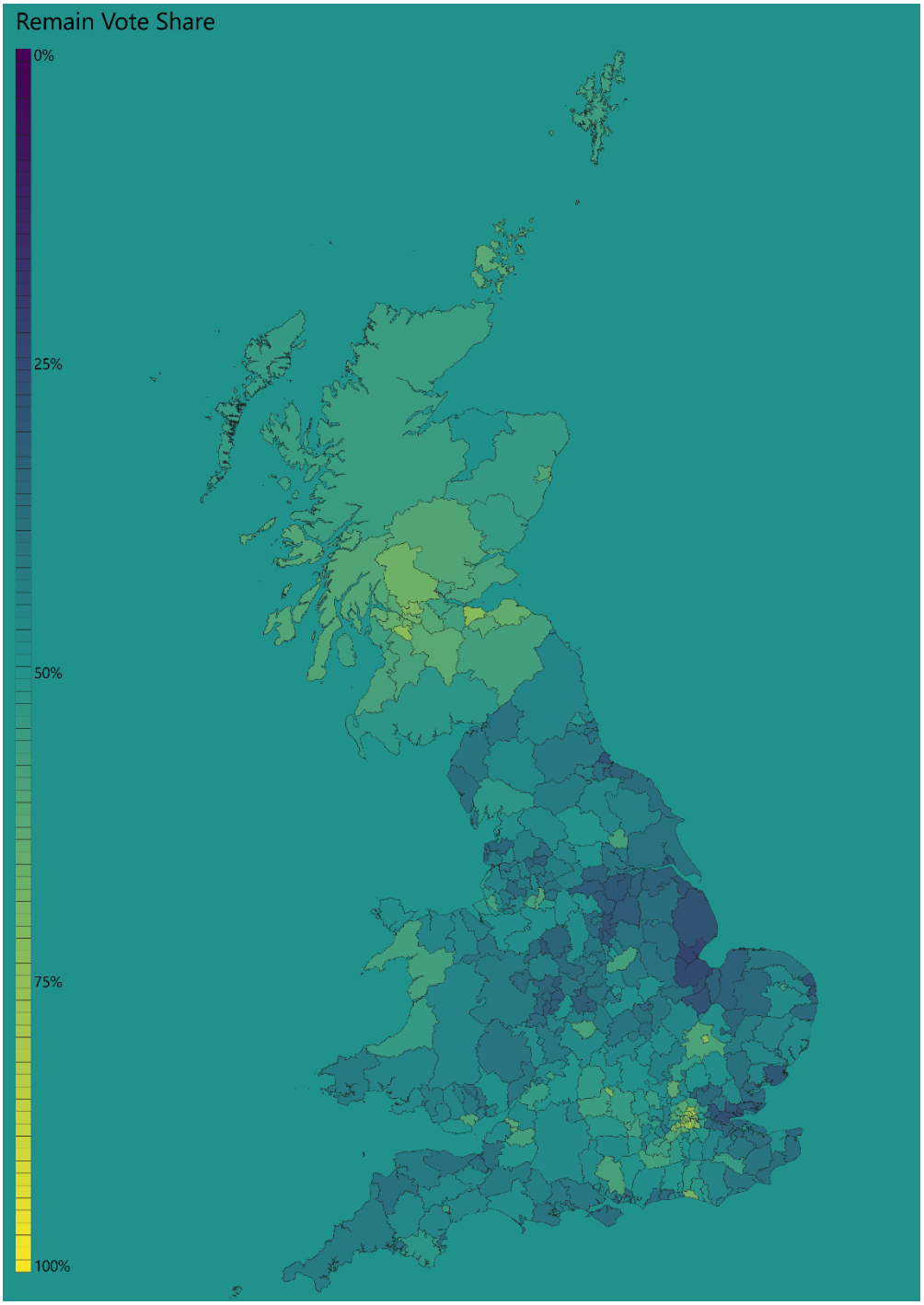


Figure 3 - Results of EU referendum. Data: (Electoral Commission, 2016)

There have been many attempts to explain why the UK voted to leave the EU, described as an educational divide (Tammes, 2017), a class divide (Ford & Goodwin, 2017), and a generational divide (Hobolt, 2016). Across all these themes, the role of populism is noted, a phenomenon that has become increasingly visible in the UK. Whilst the significance of populism in the result of the EU referendum is recognised, it is rarely fully understood. If Britain's most prominent populist institution at the time of the referendum, the UK Independence Party (UKIP), are notably attributable to the UK's withdrawal, why is their support geographically unequal? What are the factors that make them successful in some areas but not in others? Considering these questions alongside the considerable increase of turnout for this referendum prompts additional enquiries about the nature of their relationship and the role of non-voters in securing electoral success. Are those disengaged with politics, those forgotten about by mainstream political parties, as important as rhetoric would have one believe?

Whilst existing narratives suggest that a vote to Leave the EU was a protest against political elites and immigration by those worst off, a quantitative examination of these factors in the context of non-voters and populism is yet to confirm these suggestions. Considering the proliferation and recent success of populists worldwide, such as Donald Trump's election as President of the USA, or Rodrigo Duterte's election as President of the Philippines, a study on the nature of how populism finds political success is as relevant now as it ever could be, and may challenge these narratives in unexpected ways. This study attempts to do just that, examining the relationship between populism, absenteeism, immigration, and deprivation in the context of Brexit.

5. Literature Review

Beyond impact assessments, discussion on Brexit has focused on the 'why?'. The division of the result has been compared to economic and social divides amongst voters, a divide made greater by years of austerity (Powell, 2017, p. 225). This divide is often linked to globalisation, a concept the EU symbolises to many of its citizens as an economically neoliberal institution, and those who have not felt its benefit (Hobolt, 2016). This divide led to the identification of a type of Leave voter described as 'left behind', their vote to leave the EU representative of a backlash against the global-oriented, political elites that had given no thought to the many smaller, working class communities around the UK. Attitudes of mistrust towards politicians are nothing new in the UK (Fielding, 2013), and as of a 2017 survey politicians "remain the least trusted profession in Britain" (Ipsos MORI, 2017a), and consistently have ranked amongst the bottom professions respondents would believe to tell the truth (Ipsos MORI, 2017b). Reasons for this in recent memory include a perception of a privately educated elite, embodied most by the Blair/Cameron/Clegg period in the House of Commons, having no possible way of understanding or relating to the concerns of 'everyday' working class people (Manning & Holmes, 2013). Issues such as the 2009 MPs' expenses scandal had only amplified these feelings of mistrust (Vivyan, et al., 2012). The feeling that national and local identities are at risk from immigration has also been highlighted amongst Leave voters, particularly in areas of stagnating economic growth, accompanied by feelings that mainstream politicians tend to lie about or ignore these concerns (Manning & Holmes, 2013).

Whilst there is an understandable focus on these driving economic and social factors of Brexit, an issue less explored is how political alienation and apathy are linked to these attitudes. For many who do not vote, their absenteeism is presented as a symptom of feelings of mistrust, alienation, frustration, and resentment towards politics and those associated with it (Manning & Holmes, 2013), feelings that offer an opportunity for populist arguments to resonate with these individuals. This occurs

alongside a history of a near constant Eurosceptic wing in the Conservative party (and immediately post World War II, also in the Labour party) (Forster, 2002), meaning the EU referendum has "occasioned the need to reassess the ranges and guises of populism, especially when populist agendas are voiced in part from within the political Establishment of a democratic state" (Freeden, 2017, p. 1). The success of UKIP is also reflective of a growing populist voice in the UK, shown in the result of the 2014 European Parliamentary elections in which they were the largest party. This success parallels with a unanimity that populism had a large role to play in the outcome of the EU referendum, through stoking resentment for "metropolitan-cosmopolitan liberal elites (out of touch Europhiles), the European elite (Brussels bureaucrats strangling British liberty), and migrants, enabled by Europe's free movement rules and consuming scarce resources" (Clarke & Newman, 2017, p. 107), problems to which populists framed as leaving the EU to be the obvious and only solution. To fully develop an understanding of these topics, discussion below initially focuses on what constitutes populism and how one recognises it, before demonstrating populism using Brexit as an example. The role of non-voters is then considered, before analysing the benefits of viewing this in a spatial context.

5.1. Populism

Literature on populism centres around how it is not a substantive ideology with few concrete traits. These traits include how it takes politics 'to the people', rejecting the idea of a 'political ruling class', and how it characterises the 'corrupt political elite' as being either out of touch or actively rejecting the concerns of 'the people'. Given the centrality of 'the people' to populists, discussion on what actually constitutes 'the people' is also present: "we can identify at least three conceptions of 'the people' – a political one (the people as sovereign), a cultural one (the people as a nation) and an economic one (the people as a class)" (Kriesi, 2014, p. 362). Populism uses 'the people' as "not so much a question of 'feel the weight of the argument' as 'feel the weight of

the persons who take this position'" (Ware, 2002, p. 106). This is an imagined version of 'the people' in the same way populists use nostalgia to remember a great 'heartland', an "imagined past" (Kenny, 2017) that is "felt rather than reasoned" (Taggart, 2004, p. 274), whereas in reality society is not made of one 'people', but rather many peoples of a great variety and diversity of beliefs. Populism also tends to define 'the people' as being a native/domestic group under threat from an 'other', be that socially/economically/politically domestic or foreign. The ultimate result of this othering is a society split into "two homogenous and antagonistic groups" (Mudde, 2004, p. 543); 'us versus them'. Whilst this drive for segregation is representative of a consensus regarding some aspects of populism, there is contention surrounding other facets, resulting in difficulty in creating a holistic definition. In order to fully recognise modern populism, deeper exploration is required.

The role of a leader is an important consideration when recognising populism, some scholars identifying a charismatic, 'everyman' leader to be a necessity for populist groups to substitute weak and unsubstantive policy (Pappas, 2012, p. 2; Woods, 2014), whilst others consider a leader to be less significant, merely "facilitating, rather than defining, populism" (Mudde, 2004, p. 545). At the very least, a charismatic, personable, knowledgeable, or relatable politician can certainly persuade individuals, including non-voters, to be less cynical and increase their chance of voting (Manning & Holmes, 2013). Successful populist leaders often employ populism as "a style of politics" (Agnew & Shin, 2017, p. 917; Pappas, 2012, p. 1); "a discursive frame" (Aslanidis, 2015, p. 98) involving simple and direct language, analyses and solutions to problems (Gifford, 2006, p. 855), including the use of emotive soundbites such as Leave's "take back control" (Haughton, 2018). This phrase proves emblematic of a favoured technique of populists: - ambiguous soundbite politics [1]. Rather than their unsubstantive nature being a weakness, these phrases use their obscurity as an advantage; if asked '*whom* are we taking back control *from*?', responses will vary

[1] A perpetual demonstration of which can be found by examining Donald Trump's Twitter account (Liu, 2016).

according to what each individual perceives to be their greatest threat, their own greatest 'other', thus guaranteeing an impact. Commentary also includes how 'populist' can be a label applied to anything one should wish to discredit, a tool of propaganda, in an attempt to undermine any opposing arguments (D'Eramo, 2015, p. 26; Aslanidis, 2015, p. 94; Jonathan & Maiguashca, 2017).

Despite numerous recognisable attributes, populism is generally considered as falling short of being a fully developed political philosophy, instead it is rather a "thin-centred ideology, allowing it to be easily combined with other ideologies" (Mudde, 2004, p. 544), meaning it "can be treated as a tool that can be employed by any political actor" (Bale, et al., 2011, p. 115). Responses to this allegation of 'thin-centredness' include how populism is "simply too ideologically scrawny even to be thin" (Freeden, 2017, p. 3), referencing that other thin-centred ideologies (such as feminism, as argued by Freeden) have a core that can be built upon, whilst populism consists of only a core of "systematically relying on other ideological positions to fill it in" (p. 3). Commonality between these arguments confirms that populism is certainly not a 'full' ideology, thus granting flexibility and adaptability. This manifests into a politically strategic advantage, enabling populism to merge with pre-existing arguments from other ideologies, thereby also adding legitimacy. This can be seen with UKIP's focus issue of EU membership being presented alongside generally conservative, nationalist (Gusterson, 2017), right wing policies, not entirely dissimilar from the ideology of some Conservative party members, a fact emphasised by defections across UKIP and the Conservative party in the House of Commons (Wikipedia, 2018). Indeed the ideological gap between UKIP and the Conservative is already small, which can be tempting for voters to cross if 'their' party is suspected of softening its stance (Webb & Bale, 2014, p. 962). The success of UKIP's hard-line stance on Europe, as well as other facets of populism relating to Brexit, is elaborated upon below.

5.2. Populism and Brexit

5.2.1. Euroscepticism

Historically there has been a level of Euroscepticism from both sides of the House of Commons after WWII, but the dominant Eurosceptic voices came from the Conservative party during/after Britain's application to join the European Community (Forster, 2002). This Eurosceptic wing became "increasingly opposed during the second wave of European integration in the 1980s and 1990s" (Gifford, 2006, p. 852), and this vocal faction was accompanied by 1980s tabloid coverage of European affairs becoming "more bombastic, injected [with] a greater sense of urgency… presenting treaty reforms as existential threats to British sovereignty and identity, less deferential to politicians and 'elites', and deeply critical of 'foreign' machinations" (Daddow, 2012, p. 1232). Other studies have identified the construction of a Eurosceptic narrative that defines Europe as the post-imperial 'other' (Freeden, 2017), and that "this narrative expresses suspicion and/or antagonism not so much towards the EU manifestation of European integration as to the ideal of integration itself" (Daddow, 2012, p. 1220). These factors subsequently normalised Euroscepticism in the UK to a more significant level than in other EU member states (Gherghina & Groh, 2016), and is one reason anti-*European* populism has flourished in the UK.

5.2.2. Immigration

Other populist factors in the build-up to Brexit include fuelling a mistrust of politicians and elites, a mistrust with elements based in hollow claims from government. One area that highlights this issue particularly well is immigration, one of the chief concerns of voters (Ipsos MORI, 2015). Prior to the 2010 general election, David Cameron is quoted as saying:

> "In the last decade, net immigration in some years has been 200,000, implying a 2 million increase over a decade, which I think is too much. We would like to see net immigration in the tens of thousands rather than the hundreds of thousands. I don't think that's unrealistic. That's the sort of figure it was in the 1990s and I think we should see that again." (Prince, 2010)

Whereas since 2010, when the Conservative-Liberal Democrat coalition formed government, immigration has been around 300,000 per year (ONS, 2016), despite Cameron's rhetoric. Because immigration is a key concern for voters, it is also a key concern for populists, explaining one of the primary arguments from Leave campaigns:

> "The message was that immigration was straining infrastructure and public services… in England alone there is an estimated shortfall of more than 10,000 primary school places (Helm, 2016)… there is a common perception that the NHS is crumbling and unable to cope with the pressure of a growing and aging population… the shortage of affordable housing is acute." (Gietel-Basten, 2016)

This atmosphere of fear and anger creates fertile ground for populists to gain traction, as revealed in a study by Goodwin and Milazzo (2016). By statistically analysing demographic change for areas in the UK, alongside responses to socio-demographic survey questions, the study finds that the results for the EU referendum were much more sensitive to the local rate-of-change of immigration rather than absolute numbers, an important consideration for this dissertation.

5.2.3. Those 'Left Behind'

A further contribution to the Leave majority is from those 'left behind' economically from globalisation. Real wages have declined for many areas in the UK, and the 'left behind' can best be understood as those who face significant difficulty in making ends meet. Research indicates that stagnating wages (Neville, 2016), as well as areas which are globally poorer (Bell, 2016), are significantly correlated with anti-EU values. Populists appear to have successfully appealed to this group of people, where economic opportunities may have stagnated or disappeared:

> "Research has shown that Leave voters were twice as likely to believe that their area has been excluded from recent national economic successes and also twice as likely to blame politicians for that fact (Wright & Case, 2016). For them, the forecast always appears gloomy." (Watson, 2017, p. 18)

This represents a certain alienation and detachment from mainstream politics, equally representing detachment from the costs of leaving the EU. If people in these areas feel they have missed out, and therefore have less to lose, their vote for Brexit could be interpreted as a working-class backlash to a political class making abstract decisions of no material benefit to local communities. By presenting an 'alternative politics', populist parties have had considerable success in engaging with members of the electorate who feel that none of the mainstream political parties represent or respond to their concerns (Ford & Goodwin, 2017). This highlights a further demographic receptive to populists: those who traditionally do not vote.

5.3. Non-voting

Research on the motivations for voting more generally refer to a very large amount of variables (Smets & van Ham, 2013), but with a focus on generational differences, value change, and contextual differences. A study by Blais and Rubenson (2013) claims that with all other factors excluded, certain generations have a significantly different likelihood to vote, expanded upon by incorporating an examination of values between generations. Postboomers (those born after 1960) were found to be "less inclined to think that one should vote" (Ibid., p. 108), even after accounting for life-cycle effects, due to "differences in political interest and attention to politics". Other argue that contextual differences, such as less competitive elections (Franklin, et al., 2004), are the predominant factor between turnout differences for votes, lowering turnout based on rational choice: a more competitive election increases turnout because of the higher probability of casting the decisive vote (Downs, 1957). Other contextual factors include campaign expenditure and type of voting system (Geys, 2006). Both of these arguments have support within the literature, so the change in non-voting can, at least in part, be considered due to generational differences including changes in values, and the habitual process of how one votes that forms as an individual is enfranchised for the first time (Blais, et al., 2004; Wass, 2007, p. 658).

These generational experiences are representative of a shared temporal experience, or 'milieu', of a population, and this milieu is central to how populists gain influence. If these shared experiences are influenced by time, then surely they are also influenced by space. Local factors, such as the varying economic and social realities of different communities, are surely dynamics in the creation of shared experience, and this reflects in how people vote – described as neighbourhood effects (Macallister, et al., 2001). For example, research reveals that "working class people are more likely to be disengaged, although possibly due to lack of time or money rather than apathy or cynicism for mainstream politics" (Manning & Holmes, 2013, p. 481), supported by research that those with fewer resources are less likely to civically engage (Pattie, et al., 2003).

Because the working class, by definition, are more likely to be 'left behind' *and* are more likely to not vote, a large population is identified that are likely receptive to populists. These factors, just as are generational differences, are facets of shared milieus, highly interrelated and influenced by generalised discontent that populists tap into (van der Bles, et al., 2018), offering hope (Kemmers, et al., 2016) by claiming to represent the values that nobody else in politics will. This discontent is specifically more than apathy, it is rather active disengagement due to feelings of alienation, frustration, and resentfulness to the existing political class (Manning & Holmes, 2013). It is vital to note that these feelings are not anti-political, but anti-establishment; more 'pro-doing-politics-differently' (Flinders, 2015), further reinforcing how populist parties find success by "offering a different brand of democratic politics" (p. 252). This 'different brand', although labelled as democratic, is often less so, and includes playing on a desire 'to just get on with it', realised through stronger leadership (albeit of a leader they trust, often a populist or 'one of us') over stronger participation (Mudde, 2004); simplification of politics via simplification of language, concepts, and processes (Arditi, 2005); and in "its most extreme interpretation, rejecting all limitations on expression of popular will, such as protection of minority rights and independence of key institutions" (University of Copenhagen, 2009). Referendums are a favoured tool of populists as they "enable these parties to bypass legislatures and to see their pet topics endowed with a legitimacy that then becomes almost impossible to oppose" (Ibid., p. 13). This implies that the EU referendum itself is a success of this populist brand of politics, taking a "highly complex issue with far-reaching international ramifications" to voters that may have relatively low levels of knowledge (Wilner-Reid, 2018, p. 2). The nature by which the referendum was announced is also significant for populism and indicative of its growing influence: a populist campaign promise made by a relatively centrist prime minister addressing fears of a far-right party stealing support (Morphet, 2017, p. 10) - proof that populists can influence a national agenda in the current era of politics. Considering that absenteeism was significantly lower for the EU referendum than in other recent national votes, focused spatial examination on the

drivers of populism - of variations in milieu - may offer insights into why populists bring out the vote from communities in some areas more than others.

5.4. Spatializing Populism

One study that conducts a quantitative, spatial examination of populism in the role of the outcome of Italian national elections was undertaken by Agnew and Shin (2017), which inspects generational differences across space in Italy. The study recognises that geographical variance alters the definition of different generations because of similar variances in local histories, thereby integrating both a spatial and temporal element to the shared experience of communities. The study initially examines the nature of populism in a non-spatial manner, concluding it to be a 'style' of politics that the increase of which "parallels and intersects" (Ibid., p. 921) the rise of absenteeism, indicative of an increasingly unenthused and alienated electorate. It then examines the role of formative generational experiences in the likelihood of different age groups voting and the importance of this in the outcomes of elections and referendums, citing:

> "[With regards to Brexit] Voters aged eighteen to twenty-four had a turnout of 36 percent, whereas those over sixty-four had a turnout of 83 percent. Given the overall tendency of the younger age group to have voted to remain and the older group to have voted to leave, who voted and who did not was a critical factor in determining the outcome." (Ibid., p. 921)

After establishing the importance of generational differences, spatial analysis is utilised to examine these differences, alongside vote distribution, in a spatial context. Spatial autocorrelation is undertaken to inspect hotspots of voter change and the popularity of different political parties in different regions of Italy, which varies geographically because of different spatial demographics. These differences exist because of "changes

that impact unevenly on both people and places" (Stimson, 2014, p. 13), changes which "are mediated politically through local socioeconomic conditions, cultural traditions, and long-standing relationships to parties and the overall political system" (Agnew & Shin, 2017, p. 922). The results of this analysis reveal a significant north/south divide in voter turnout in Italy, considering both overall turnout and turnout clusters. The study also directly infers that non-voters are the ones most available to populists, and that the definition of 'the people' varies by place (Ibid., p. 930). This suggests that a way in which populists might find success with disengaged voters is by empowering them and making them feel 'of the people', and successfully altering their milieu. However, this varies by space due to contextual issues, and variances in existing milieus of populations including variance of neighbourhood effects, presenting further opportunities for spatial research.

Whilst political science literature does cover populism, non-voting, immigration, and deprivation in various combinations, Agnew and Shin's study shows how deeper insight can be developed by examining these factors using spatial analysis. The study proves valuable in laying a framework for spatially analysing vote change, and its methodology is a useful start for further research that aims to examine other countries and votes in a spatial context. The emotiveness of the Leave campaign means the EU referendum presents an ideal opportunity for research in this area, even more so when considering the increase in turnout compared to previous national votes. By analysing the role of populism in Brexit and integrating deprivation, immigration, and non-voting through space, valuable observations on patterns of absenteeism and how populist groups engage with non-voters may become apparent.

6. Research Questions

To examine non-voting trends in the EU referendum, areas' voting statistics can be compared with those from the 2015 general election, offering a temporal element alongside a spatial one. Looking at how turnout change varies in different areas allows for investigation of when and where populism is successful in getting non-voters to participate. From this, a deeper understanding of populism, non-voting, and how they relate should develop. A significant reason the 2015 general election is useful for comparison is that it was the most recent general election before the EU referendum, and the election for which David Cameron made the campaign promise of a referendum on the result of a Conservative victory. This launched the Remain and Leave campaigns for the Brexit vote, and the substantial propagation of populism alongside it. The nature of how the referendum came about, due to the threat of UKIP (Ahluwalia & Miller, 2016; Webb & Bale, 2014), frames it as a populist vote, and a time-period during which populist sentiment gained significant influence. A comparison of non-voters between the two votes is an ideal measure of how effective populism is at engaging with non-voters because of its prominence in this period, and also because of the fairly short time frame, eliminating as much variance from extraneous variables as possible. This overall approach of spatial comparison between the two votes has led to the development of the following research aim:

To examine the phenomenon of populism

and absenteeism in the UK in a spatial context.

The first challenge when formulating how to complete this aim is determining how one measures 'the phenomenon populism'. At the time of the 2015 general election and the EU referendum, the most prominent populist group in the UK was UKIP, a distinctly right-wing, nationalist, single-issue party that gained success "by fusing its

original message of withdrawal from the EU with strident opposition to immigration" (Ford & Goodwin, 2017, p. 22). One can assume that areas with higher a rate-of-change of immigration would be more responsive to populist arguments; with changes in immigration becoming more visible, it can be more easily blamed for stagnant quality of life. By measuring areas of a high rate-of-change of immigration and comparing non-voting figures for the same areas between the 2015 election and the EU referendum, one indicator of the effectiveness of populist discourse should become apparent. Another key consideration for assessing the drivers of populism is those 'left behind'. Indices of Multiple Deprivation[2] (IMDs) are used as a measure of this on the assumption that those most deprived are most disassociated with privileged elites. IMDs are also used as it is anticipated that higher numbers of those disengaged and 'left behind' are in more deprived areas, following research that those with fewer resources are less likely to engage with civic life (Pattie, et al., 2003). By measuring IMD scores for areas alongside the election/referendum results, an additional indicator into the 'phenomenon of populism' should be revealed. Because of UKIP's prominence during this period, data on their vote share will also be examined alongside non-voting, immigration, and deprivation, in the hope it will generate a more complete understanding of any findings.

With variables identified, the research aim can be further broken down into questions that are more concise. The following four questions, when answered, should generate a greater understanding of the relationship between populism and non-voting:

1. How does absenteeism present itself spatially in the UK in the context of the 2015 general election and the EU referendum?
2. How are these absenteeism patterns associated with rate-of-change of immigration?
3. How are these absenteeism patterns associated with deprivation?

[2] IMDs consider income, employment, education/skills, health, crime, barriers to housing, and environmental factors of deprivation.

4. How are these patterns of absenteeism, rate-of-change of immigration, and deprivation associated with populism?

Using rate-of-change of immigration, deprivation, and voting figures as variables has a number of benefits, as data is readily available and highly quantifiable, particularly when compared to how one might quantify attitudes towards conventional political parties without primary data collection (outside of election results). Rate-of-change of immigration is used rather than absolute figures as the literature identifies this to be the factor people are more sensitive to (Hopkins, 2010; Goodwin & Milazzo, 2016).

Examination of any patterns that arise from this analysis will help develop an understanding of how successfully populism engages with those who usually do not vote. This research also offers an opportunity to examine any other trends that may become apparent between the spatial relationships between voting, rate-of-change of immigration, and deprivation.

7. Methodology

7.1. Overview

The research methodology used in attempting to answer the above questions consists of a quantitative, desk-based approach. Statistical analysis is undertaken alongside thorough, conceptual background research, and with this contextual knowledge and careful selection of variables, useful insights can be discerned. Benefits to this approach include the high generalisability of results due to the large sample sizes involved, and a generally improved level of reliability due to the nature of statistical methods. This is a proven methodology for research in this area, as identified by the quantitative nature of many studies in the literature review (Franklin, et al., 2004; Blais, et al., 2004; Wass, 2007; Blais & Rubenson, 2013; Goodwin & Milazzo, 2016; Hobolt, 2016; Agnew & Shin, 2017), but is an approach not without drawbacks. Because quantitative research is essentially measuring "an amount of something", it can be inclined to miss the how and why (Berg, 2001, p. 154; Western, 2014). However, with careful analysis of results and contextual considerations, and caution when formulating conclusions, using quantitative methods does offer a real opportunity to answer questions, and to raise new ones.

Only secondary datasets were gathered for this study, from official data repositories including the Electoral Commission and the Office of National Statistics (ONS). This guarantees a certain level of accuracy and validity to the data used, and offers a number of benefits over collecting primary data, including enormous time and financial savings, and access to datasets of a size far greater than those one could easily create via primary methods. Additional manipulation of data is required, however, as secondary data is rarely specific to the needs of the research. Secondary data analysis is also dependent on the most recent data available, which may not always be relevant at the time research is actually undertaken; thankfully this is not a concern for this study. *Fig. 4* shows a diagrammatic overview of the research processes undertaken in this research.

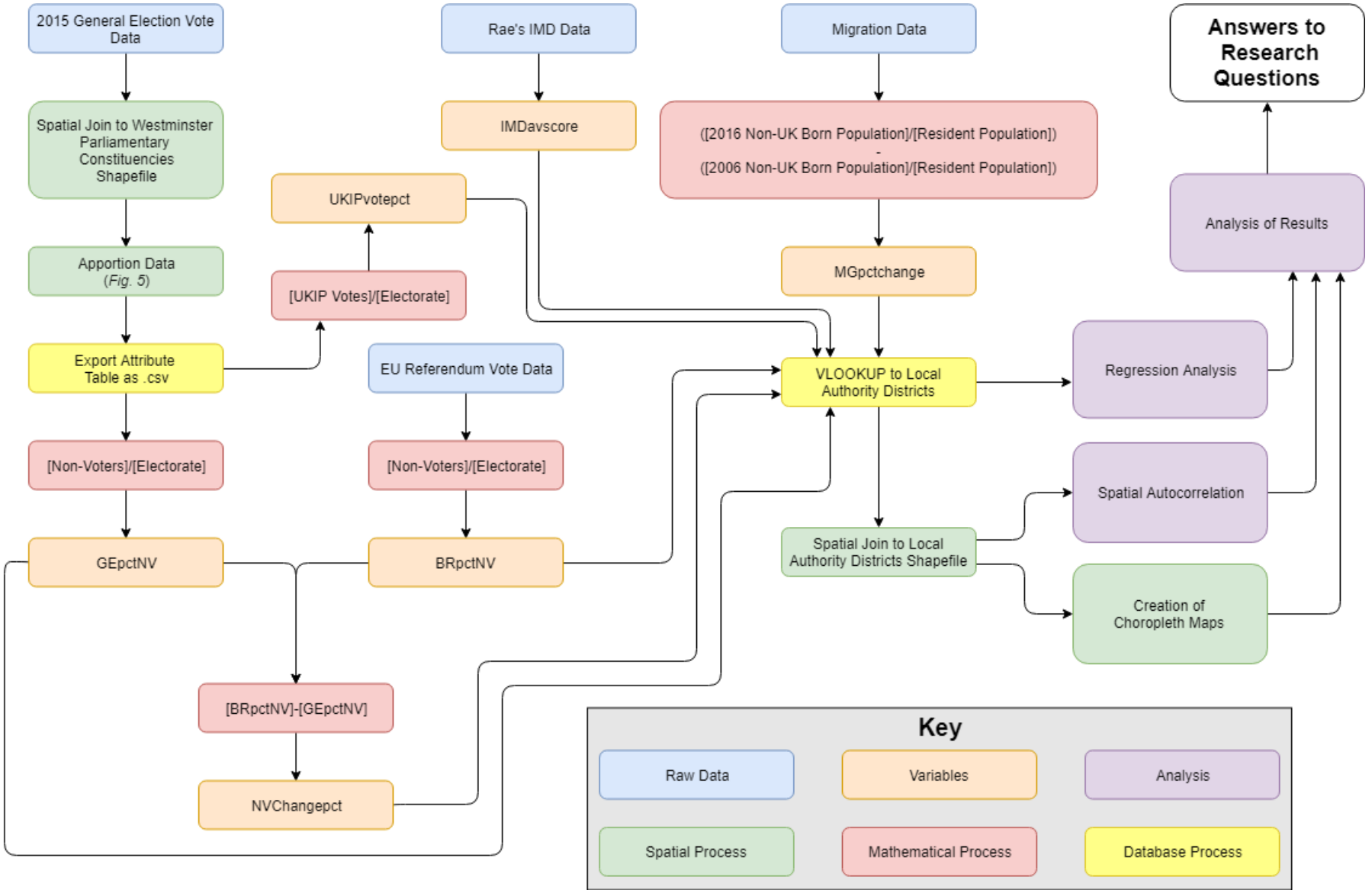


Figure 4 - Methodology framework

7.2. Raw Data

To effectively answer the research questions posed in section 6, a number of datasets were obtained:

Data	Source	Notes
EU referendum results	www.electoralcommission.org.uk	Local Authority District Level
2015 general election results	www.data.parliament.uk	Westminster Parliamentary Constituency Level
Indices of Multiple Deprivation	www.gov.uk	Ranking of LSOAs (excludes Scotland and Wales)
Migration Data	www.ons.gov.uk	Non-UK Born Populations for 2006-2016
Administrative boundaries shapefiles	www.geoportal.statistics.gov.uk	Shapefile

Table 1 - Data sources

Indices of Multiple Deprivation (IMD) data is available from the government's website at LSOA (Lower Super Output Area) level. However, to save apportioning this data to Local Authority District (LAD) level, an already prepared dataset provided by Dr Alasdair Rae was used[3], estimating IMDs by LAD. This data is only available for England; while IMD data does exist for Scotland and Wales, the scores are calculated independently and via different methods, and so should not be included with the English IMDs used here. England is used instead of Scotland or Wales because of its significantly larger population. A period of 10 years was used for non-UK born populations, as this is a useful period for observing change and experience forming; two years after the 2004 enlargement of the EU, using 2006 as a start allows figures to settle, and is also a time when concerns regarding immigration were rising rapidly (Duffy & Frere-Smith, 2014), in part due to this enlargement.

[3] www.statsmapsnpix.com/2016/06/what-can-explain-brexit.html

An important consideration when analysing this data is the fact that it is entirely area level data, and so it does not necessarily represent individuals within these areas – only the trends observed within an area. Whilst a facet of shared experience may be similar to an entire area, it may not apply equally to individuals within that area. For example, the experience of more deprived citizens in less deprived LADs might not be represented by that LAD's area level statistics. This is an issue of scale and a consideration for all spatial research, and claims based on data in this study must be careful to avoid this logical fallacy.

7.3. Spatial and Database Processes

Data regarding the 2015 general election results is only available at Westminster Parliamentary Constituency area level, and so required conversion to LAD area level. The ONS provides a lookup table allowing for conversion of areas, and through 'VLOOKUP', 'AVERAGEIF', and 'identification of duplicates' functions in Excel, an estimate of vote data for each LAD was created. However, because of overlapping/shared boundaries between area levels, use of this lookup table resulted in 47 missing locations (over ⅛ of LADs), a gap too large to ignore for analysis considering the wide distribution of these missing areas (*appendix a*), especially when undertaking spatial autocorrelation. Hence, an alternative method of estimating data for LADs was required. The most appropriate method of achieving this is by spatially 'apportioning' the data, the specific method being simple area weighting (see *Fig. 5*). Once obtained, the data was extensively cleaned before being joined using 'VLOOKUPs'.

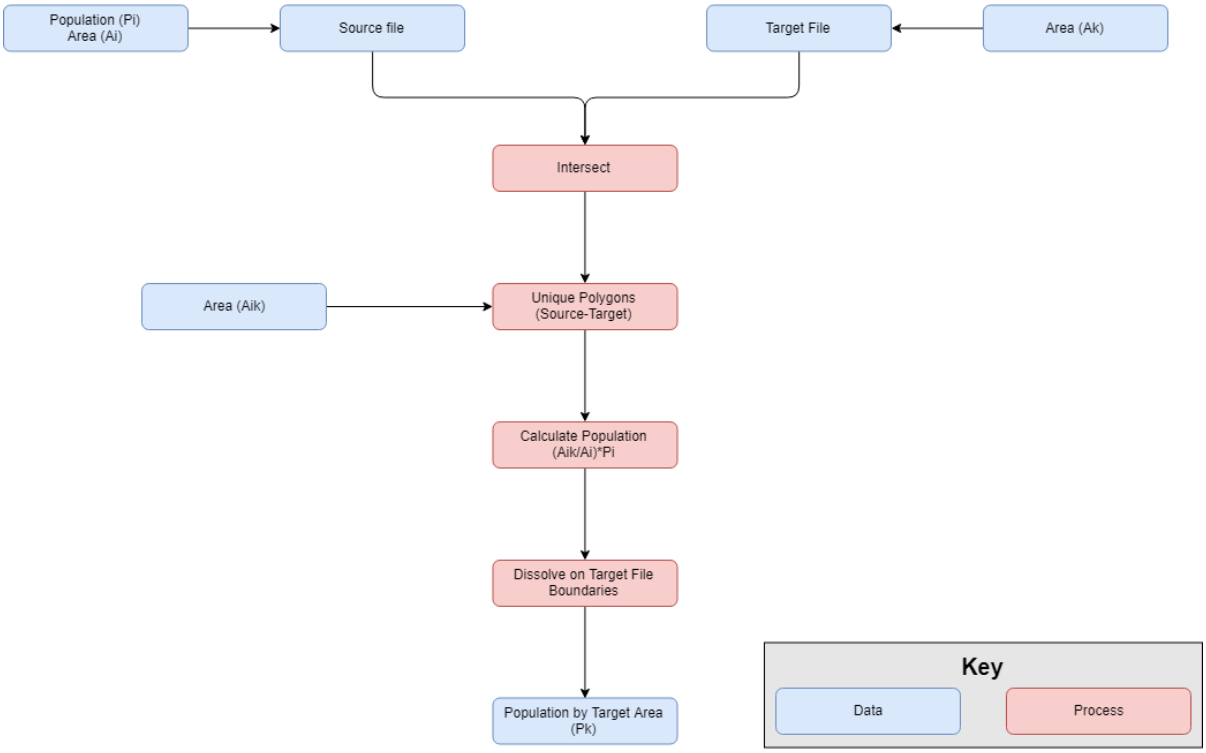


Figure 5 - Apportioning framework: model for simple area weighting (ESRI, 2012)

7.4. Mathematical Processes and Variables

Once the data was cleaned and collated, values were generated that would be the basis for analysis. Where possible, percentages are used to maintain a scale as consistent as possible across variables. To obtain a non-voting percentage for the EU referendum and the 2015 general election, the number of non-voters was divided by the total electorate for each area for each vote. For IMDs, the average score for each area was used. For change of non-UK born citizens, the non-UK born percentage for each area for 2006 was subtracted from the non-UK born percentage for each area for 2016, resulting in a change in percentage of non-UK born citizens for each LAD. For UKIP vote percentage, their vote count was divided by total votes cast for each area in the 2015 general election. An additional variable was also created, change in non-voters, created by subtracting the non-voting percentage from the 2015 general election from the non-voting percentage from the EU referendum. To facilitate interpretation of figures and accompanying commentary, 'non-vote' is often

interchanged with 'absenteeism'. These figures were then organised into one table in Excel and saved as a .csv file, before being imported into RStudio for bivariate and multivariate regression analysis, and joined to shapefiles in ArcGIS for local spatial autocorrelation analysis.

7.5. Analysis

7.5.1. Linear Regression

The linear, bivariate regression undertaken as part of this research involved modelling a line of best fit on a scatterplot of two variables, producing a number of useful values including a coefficient estimate, a significance value (p-value), and a coefficient of determinations (R-square value). These statistics identify the relationship between variables and the strength of their relationship, resulting in a greater understanding of the data and helping to answer research questions.

Multivariate regression is also undertaken, to identify the relationship and strength of multiple variables at once on a dependent variable. The resulting statistics of this analysis also helps to answer research questions in a similar manner to bivariate regression.

Statistical checks are performed to ensure validity, including production of histograms of residuals, plots of residual values versus fitted values, Cook's distance, and residual values versus leverage. Specifically, these checks are testing for homo/heteroscedasticity, autocorrelation, outliers, and leverage points. These checks can be seen in appendix 11.3.

All regression analysis done as part of this research was computed in RStudio.

7.5.2. Spatial Autocorrelation

Spatial autocorrelation analysis identifies areas where a statistically significant value influences the value of neighbouring areas (Cliff & Ord, 1973, p. 1), presented as "numerical measurements of some basic properties of geographic phenomena - the extent and nature of their relations with phenomena at other locations" (Odland, 1988, p. 15), thereby testing Tobler's First Law of Geography, "everything is related to everything else, but near things are more related than distant things" (Tobler, 1970, p. 236). Both the rook's (areas that share vertexes and vertices) and the queen's (areas that share vertices only) cases of contiguity (Sawada, 2009) method of 'conceptualization of spatial relationships' were used in data analysis, but for all measures the results were identical, as is to be expected when using irregular polygons. However, in this scenario the queen's case is generally recommended as it deals with potential inaccuracies in polygon files better (Anselin, 2018). The resulting z-score of this analysis provides insight as to whether variables are positively, negatively, or not spatially correlated (Goodchild, 1986, p. 16). A p-value is also generated, assessing the significance of the result. These are displayed as either 'low-low', 'low-high', 'high-low', or 'high-high' clusters/outliers to aid interpretation. Local Moran's I/Anselin's Local Indicators of Spatial Association (LISA) (Anselin, 1995) cluster analysis is the specific measure used in this research, a form of cluster analysis used, in this instance, to test how spatial autocorrelation varies locally over the entire country, identifying areas that are similar to its neighbours, or outlier areas that are significantly different to its neighbours.

All spatial autocorrelation analysis done as part of this research was computed in ArcGIS. The resulting shapefiles from the LISA analysis were imported and formatted in QGIS.

7.5.3. Map Production

Several maps are produced to offer contextual information and insights into the data. These maps are relatively simple shapefiles, formatted as choropleth maps in QGIS. Decisions regarding use of colour and scale were made on a case-by-case basis, but generally follow principles of displaying patterns in the data as informatively as possible, whilst still maximising ease of interpretation. For maps that show diverging data, the background colour is the same as the '0' value of the variable being displayed, in order to highlight stronger values. The particular colour scheme used in these cases is the same as in maps produced by Bob Taylor (2016).

8. Analysis

This section presents and discusses the results of the statistical analysis undertaken as part of this research. Presented in four subsections representing the four research questions, the spatial patterns of absenteeism are discussed before relating these patterns to immigration, deprivation, and populism. The results are then summarised in one final section, alongside a discussion of avenues for further research.

8.1. Spatial Patterns of Absenteeism

Examination of *Figs. 6* and *7*, which use identical colour schemes to facilitate comparison, reveals that because of the generally lighters shades in *Fig. 7*, turnout was generally higher across the entire country for the EU referendum than for the general election. The increased vote count for the referendum shows the saliency of the issue to many voters; only referendums of particular importance tend to attract a higher turnout than elections (Leduc, 2002), but this increased turnout may also represent the effectiveness of populist campaigns between 2015 and 2016.

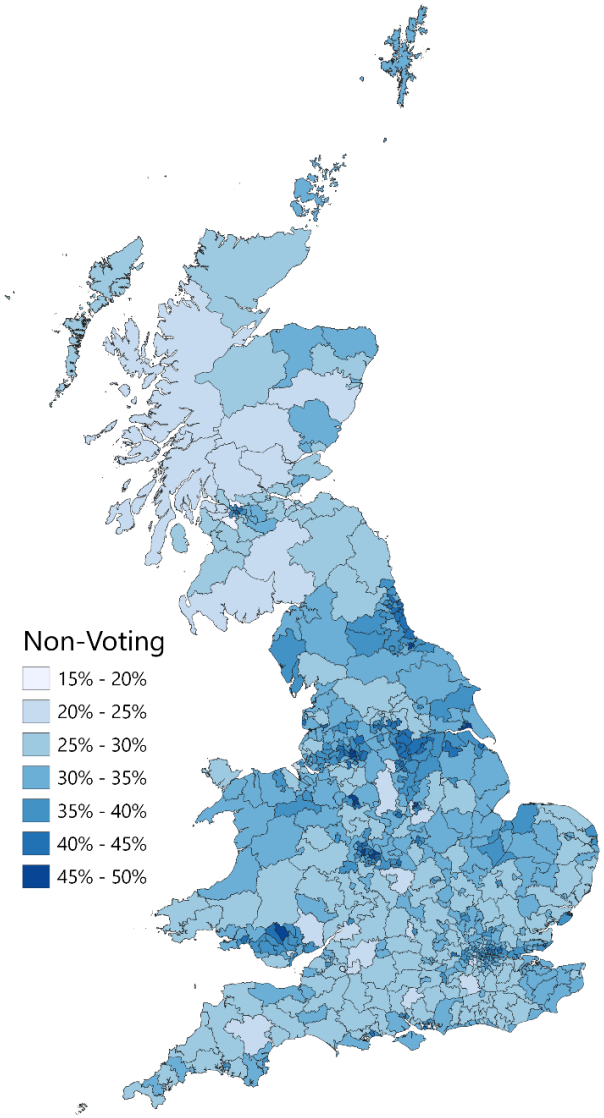


Figure 6 - Map showing non-vote % for 2015 general election. Data: (data.parliament website, 2018)

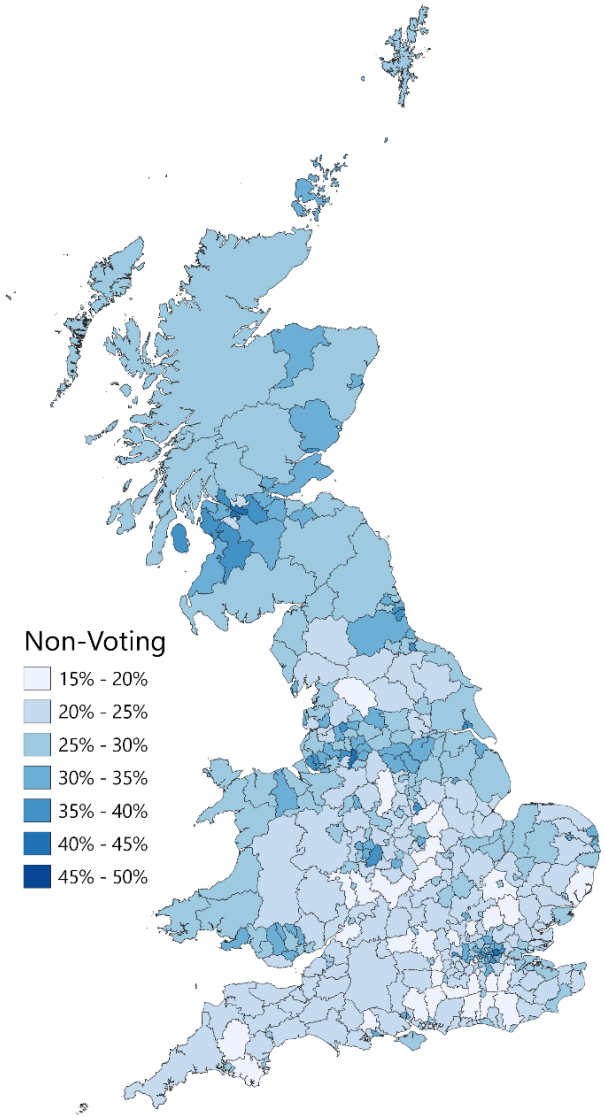


Figure 7 - Map showing non-vote % for EU referendum. Data: (Electoral Commission, 2016)

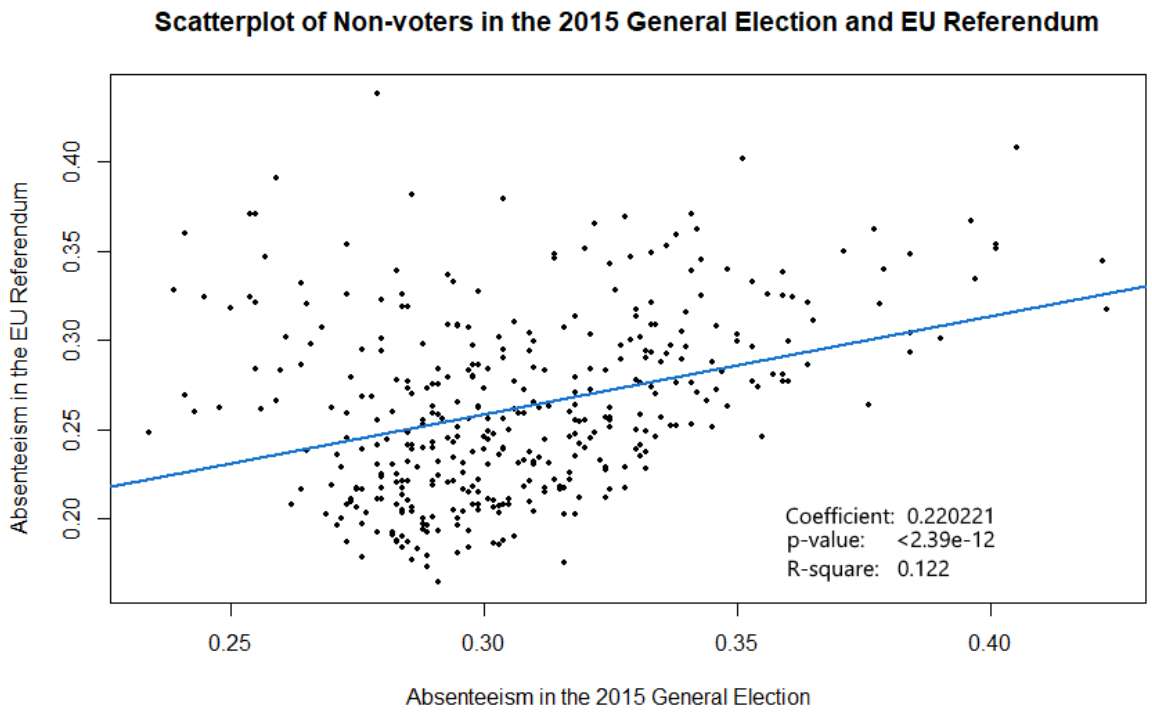


Figure 8 - Linear regression model of non-voters in the 2015 general election and the EU referendum

Bivariate regression (*Fig. 8*) supports these findings, showing that absenteeism for the 2015 general election and the EU referendum for each area are significantly positively correlated (p-value: <0.00; coefficient: 0.22), meaning that an area with greater absenteeism in 2015 could also expect greater absenteeism for the EU referendum. The scale of each axis reveals that although turnout increased overall, areas with fewer voters in the election still generally had fewer voters in the referendum.

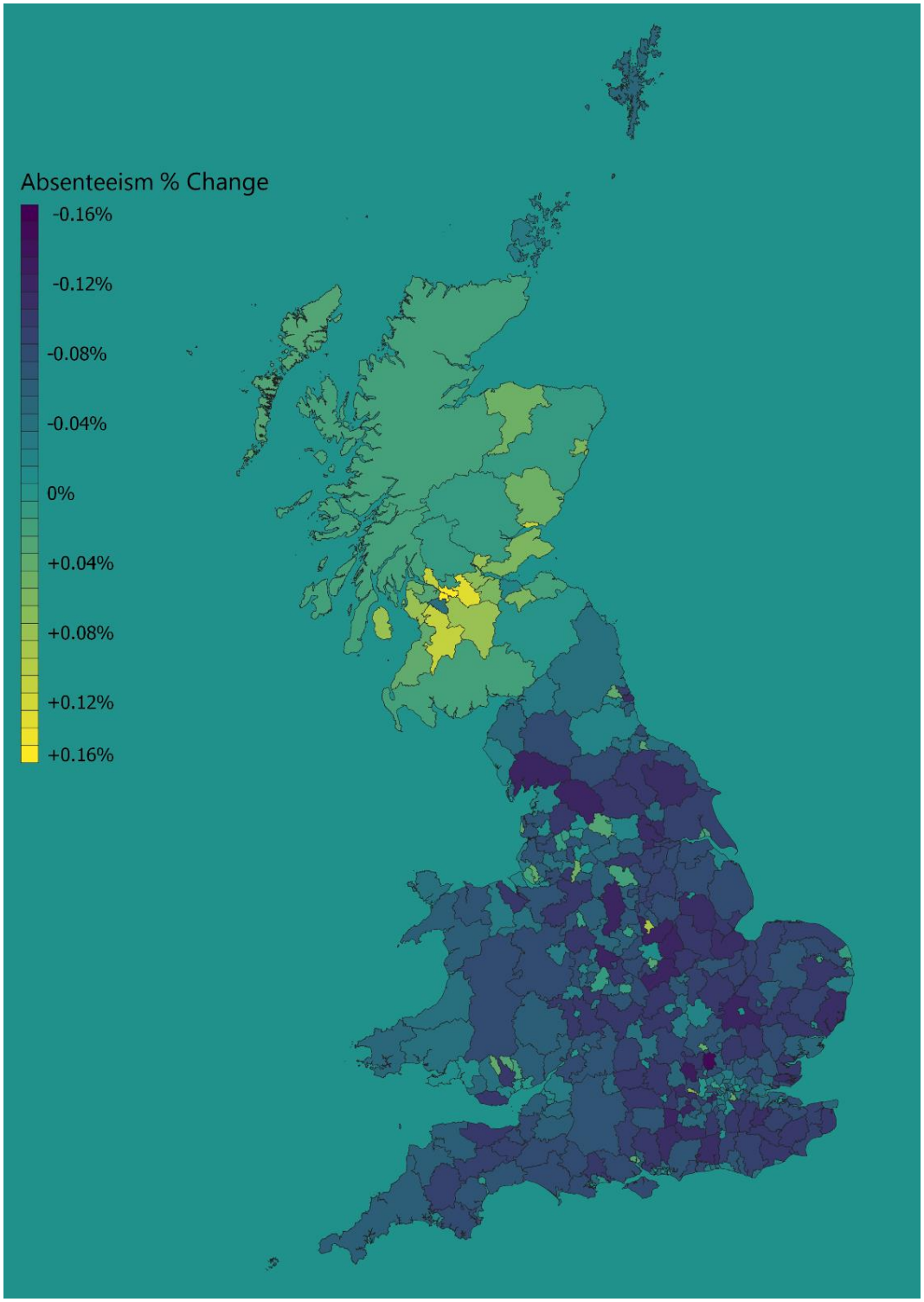


Figure 9 - Map showing absenteeism change between 2015 general election and EU referendum (Blue = more voters in EU ref. than general election). Data: (ONS, 2018)

When visualising non-vote change (*Fig. 9*), this pattern is reinforced yet again, but an England-Wales/Scottish divide regarding absenteeism change is also highlighted. This suggests different milieus in Scotland than for the rest of Britain, strengthened by the clusters seen with spatial autocorrelation (*Figs. 10* and *11*).

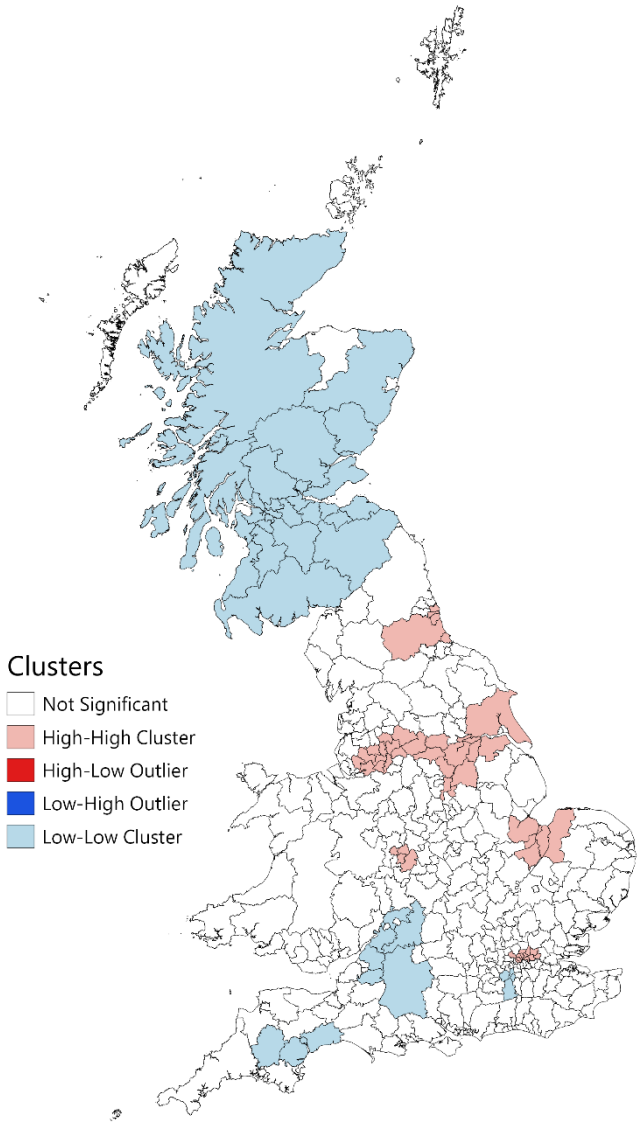


Figure 10 - Cluster analysis of absenteeism in the 2015 general election. Data: (data.parliament website, 2018)

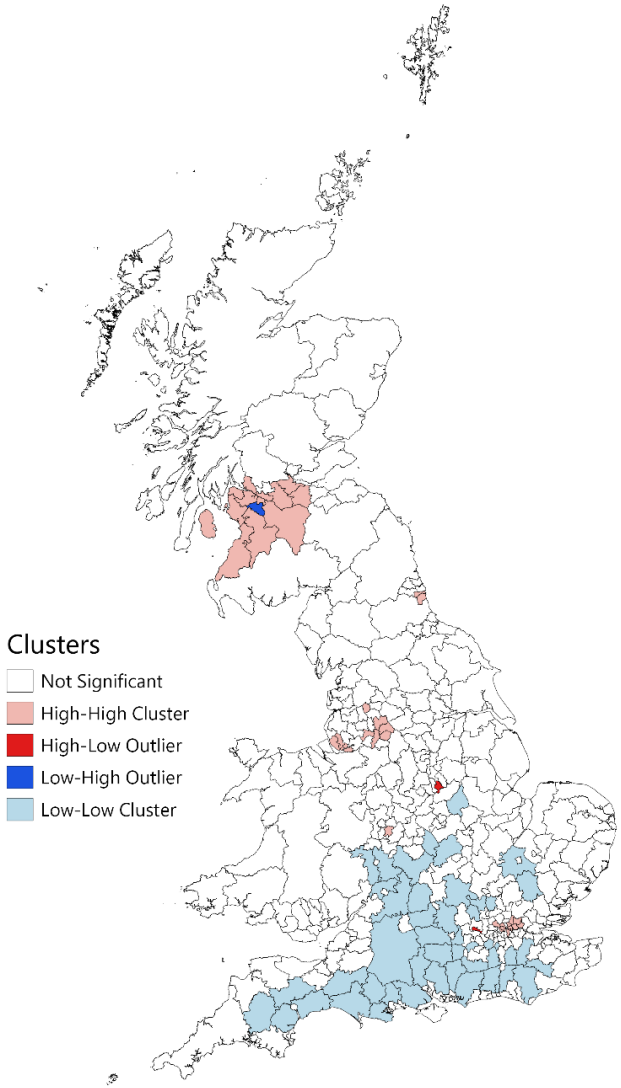


Figure 11 - Cluster analysis of absenteeism in the EU referendum. Data: (Electoral Commission, 2016)

Fig. 10 shows the entirety of Scotland to be a low-low cluster for absenteeism in the 2015 general election, meaning that LADs in Scotand had higher turnout, and this influenced higher turnout in neighbouring LADs. There is also a high-high cluster ranging from Manchester, across England, to the Humber, meaning the reduced turnout in these areas influenced a lower turnout in neighbouring areas, and suggesting another shared experience across this area in the UK, areas that historically have tended to vote Labour. *Fig. 11* shows that for the Brexit vote, there is a significant low-low cluster across the south of England, indicating the higher turnout in these areas influenced a higher turnout in neighbouring areas, a pattern that correlates with higher Remain areas and lower deprivation (more on this in section 8.3). Glasgow is also shown to be an outlier in this case, as an area of higher turnout surrounded by areas of lower turnout, suggesting a significantly different experience, perhaps related to an urban/suburban/rural division (Rae, 2017).

Spatial autocorrelation (*Fig. 12*) shows clusters for non-vote change, indicating areas with shared experience between the two votes resulted in similar variations of turnout. Outliers include Sheffield and Nottingham, where fewer people voted in the EU referendum than in the 2015 general election when compared to neighbouring areas (and the first indication that deprivation is an important consideration – these areas are significantly more deprived than their neighbouring areas), and Caerphilly where non-voting decreased compared to neighbouring areas. The main takeaway from *Fig. 12*, however, is that yet again Scotland (aside from Glasgow) is a high-high cluster for absenteeism change, meaning the increased rates of absenteeism in these areas influenced the increased rates of absenteeism in neighbouring areas. This supports the suggestion of a shared Scottish experience between 2015 and 2016[4], and that these shared milieus can result in differential voting turnout. A definitive explanation as to why this is and why it differs for England and Wales requires further investigation, but

[4] Also supported by the low UKIP vote compared to the rest of the UK, seen in *Figs. 21* and *22*.

one contributing factor may be due to 'referendum fatigue', the memory of the 2014 Scottish Independence Referendum fresh in the minds of many Scottish voters.

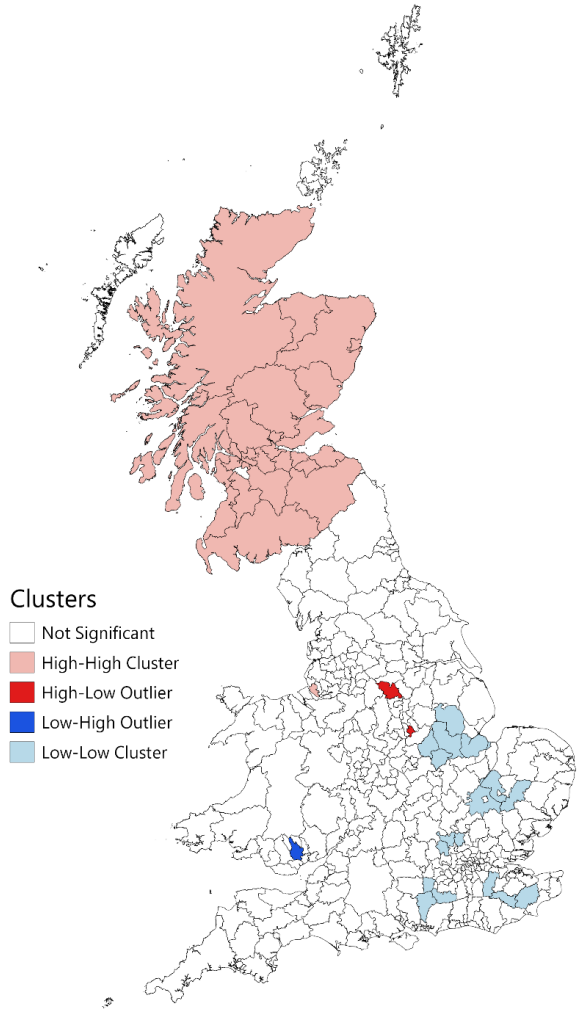


Figure 12 - Cluster analysis of non-voting change from the 2015 general election to the EU referendum. Data: (Electoral Commission, 2016; data.parliament website, 2018)

The result to remain part of the UK (BBC, 2014b), to maintain the status-quo, perhaps altered perceptions that change was less likely through a referendum, reducing turnout. This would represent a contextual difference surrounding the vote, but does not exclude value differences between Scottish citizens and those in the rest of Britain. Political fatigue is also unequal throughout different strata of society, whereby some demographics are less responsive to increased opportunities for direct democracy than others (Kern & Hooghe, 2018), which may also have had an effect on the make-up of the result. This is reflected locally, as areas that had lower turnout in the election were still likely to have lower turnout for the referendum, but less low.

8.2. Absenteeism and Immigration

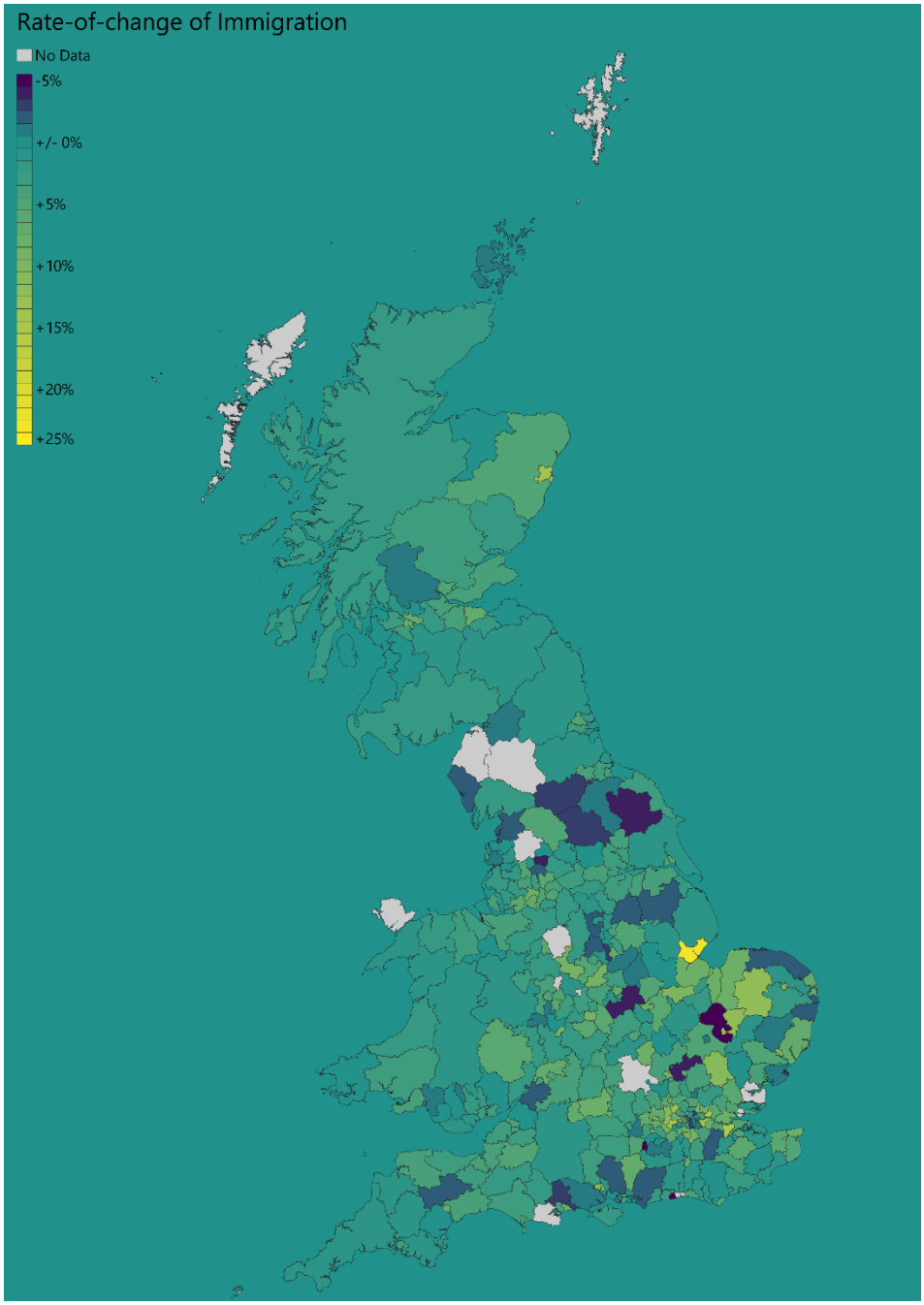


Figure 13 – Map showing non-UK born population change 2006 – 2016. Data: (ONS, 2018)

Fig. 13 reveals that rate-of-change of immigration is varied across the county, but the bright yellow of Boston (+23.07%) shows just how much of an outlier this area is. In 2006, Boston had a non-UK born population of 4,000, or 6.78% of the area's total population. In 2016, this increased to a non-UK born population of 20,000, or 29.85% of the area's total population, making this the area with the highest rate-of-change of

immigration in the UK. A difference of just under 1 in 15 migrants to nearly 1 in 3 is surely noticeable for long-term residents of Boston, and may be a contributing factor to Boston having the highest vote Leave percentage at 75.6%, implying the high immigration figure increased sensitivity to arguments concerning immigration. This is supported in the literature, where Goodwin and Milazzo found that "had Boston experienced only average rates of demographic change, then support for Brexit would have been nearly 15 points lower" (2016, p. 455). This also indicates the success of UKIP's conflation of the EU with immigration, UKIP having a significant presence in the area, with a 33.8% share of the vote in the 2015 general election. Comparing this to areas in which rate-of-change of immigration decreased the most, such as Rushmoor (-4.91%), East Cambridgeshire (-4.87%), and Worthing (-4.68%), these areas still had majority Leave outcomes. This reinforces that rate-of-change of immigration is not the sole cause of a higher Leave vote, but a higher rate-of-change does increase sensitivity to the vote Leave arguments, and that rate-of-change of immigration, when positive, is a driver of populism.

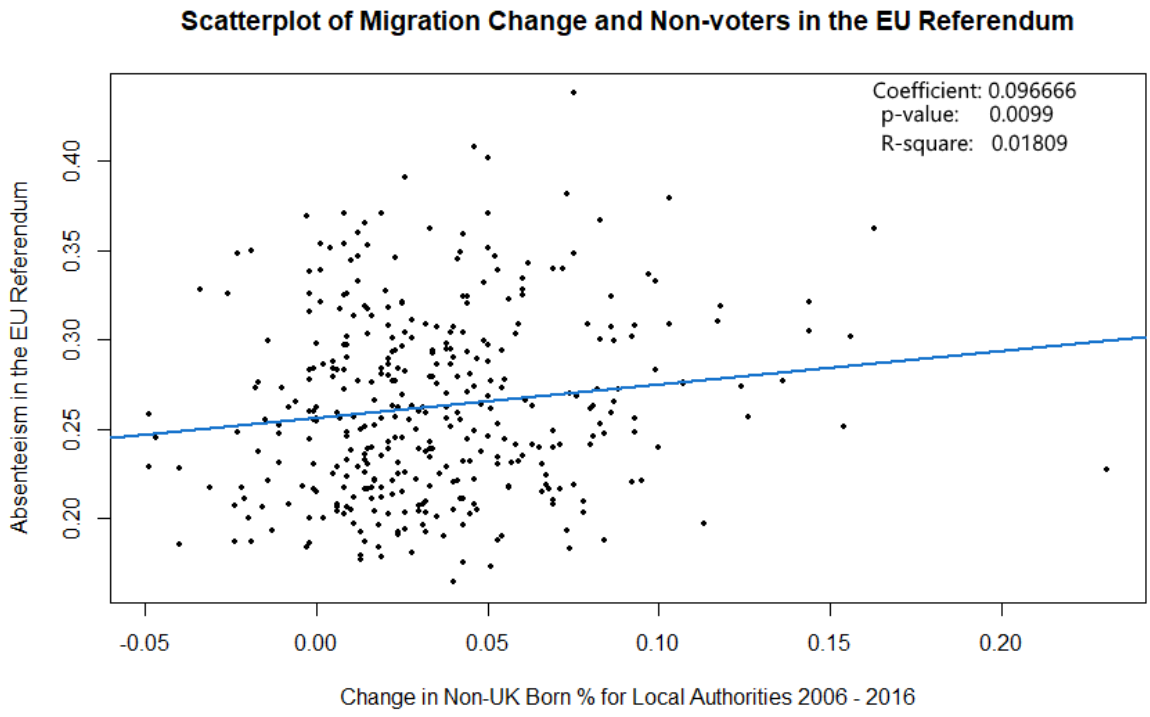


Figure 14 - Linear regression model of non-UK born populations and non-voters in the EU referendum

Bivariate regression (*Fig. 14*) shows a significant positive correlation (p-value: 0.01; coefficient: 0.97) between rate-of-change of immigration and absenteeism in the Brexit vote. It reveals that areas with a higher rate-of-change of immigration actually had a lower turnout, contrary to the existing narrative that populists persuaded non-voters to engage on the basis of immigration. This contrasts to migration change and absenteeism in the 2015 general election, which was shown to be non-significant (see *Fig. 15*).

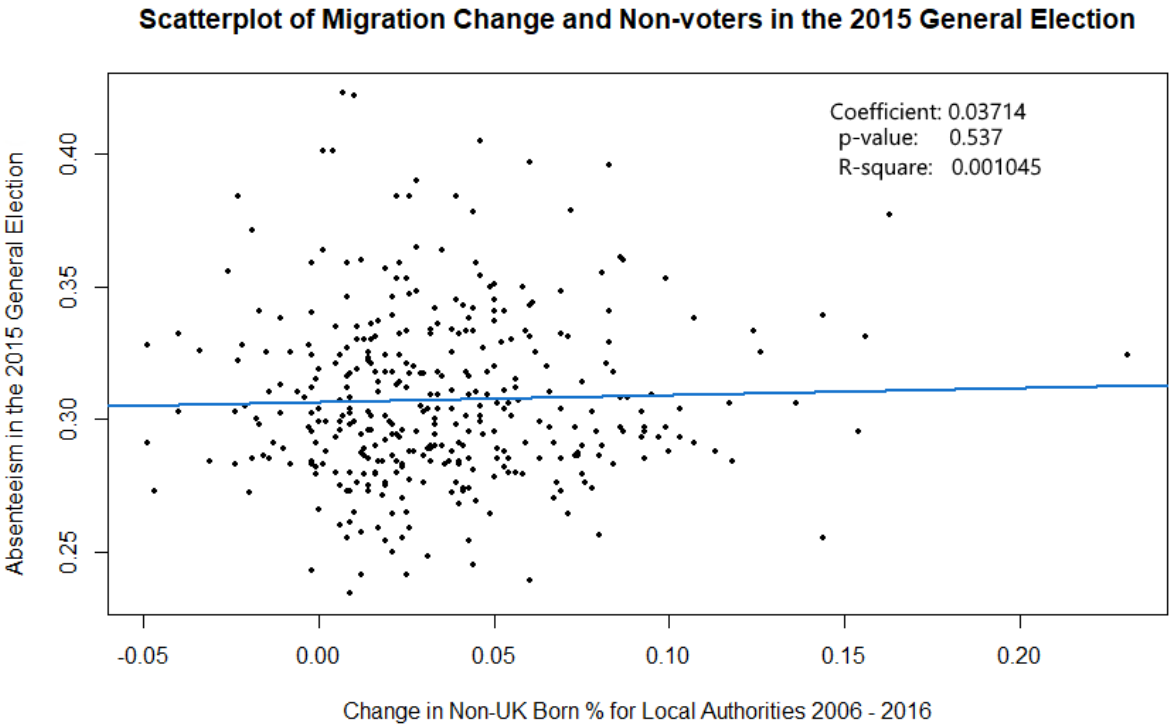


Figure 15 - Linear regression model of non-UK born populations and non-voters in the 2015 general election

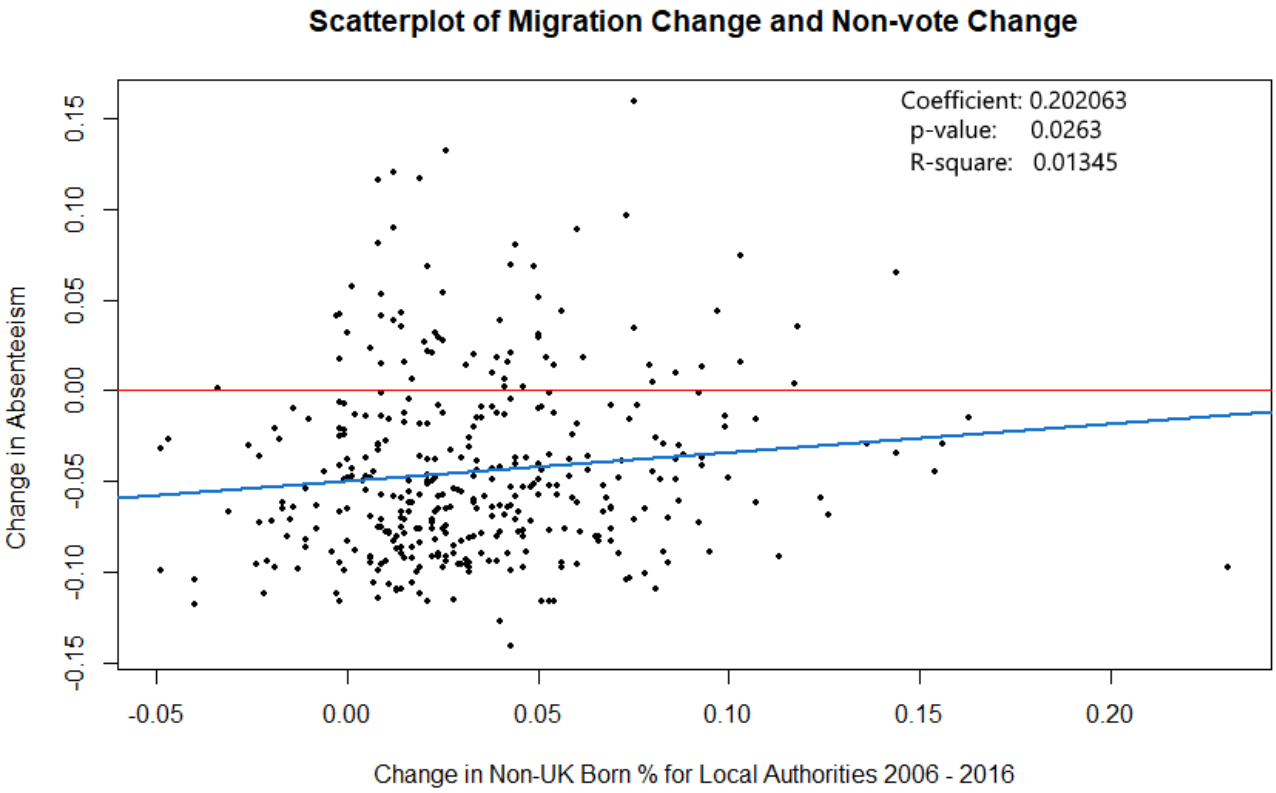


Figure 16 - Linear regression model of non-UK born populations and non-vote change

Bivariate regression (*Fig. 16*) also shows a significant positive correlation (p-value: 0.03; coefficient: 0.2) between rate-of-change of immigration and non-vote change, meaning that if an area had a significant influx of migrants, then more people were likely to stop voting between the 2015 general election and the EU referendum. It is important to recognise the y-intercept being a negative value however, meaning that for the majority of areas (points below the red line), non-voting did not actually decrease.

Immigration is one of the major concerns of UKIP and populists generally, and statistically this is shown to have had an impact on non-voters - at least for the EU referendum, given that rate-of-change of immigration had no significant relationship with non-voters in the 2015 general election. Interestingly, however, the data shows that as rate-of-change of immigration increases for an area, absenteeism also tends to increase for the Brexit vote, suggesting that a greater number of migrants increased political apathy. Whilst this would normally support claims that non-voters disengage

because of misrepresentation by mainstream political parties and their unwillingness to tackle immigration, this argument makes little sense for the EU referendum if considering the referendum to be a populist vote representing, in part, a response to immigration. Indeed, there is a significant amount of variance in the linear model, and the result is less significant than others observed during analysis, so this claim is less concrete than others. Similar patterns are observed, however, when examining non-vote change and rate-of-change of immigration, where models show that as rate-of-change of immigration increases, more people were likely to stop voting. Finding an explanation as to why this is proves difficult, and so presents an opportunity for further research. Whilst populists do place a great deal of significance on immigration, the data suggests it is not an important consideration when attempting to get non-voters to engage. The data does find, however, that deprivation is a significant factor.

8.3. Absenteeism and Deprivation

Fig. 17 highlights one factor of the north/south divide in England, showing pockets of highly deprived areas in the north of England, London, and the east coast, whilst much of the south of the country is less deprived. This correlates with the low-low clusters of non-voting in the EU referendum (*Fig. 11)*, and comparison to *Fig. 3* shows that these areas are ones in which Remain did better than elsewhere. There appears to be no correlation between this cluster and voting clusters (*Fig. 23)* however, suggesting that less deprived areas are more likely to vote Remain, and these areas just happen to be in the south of England.

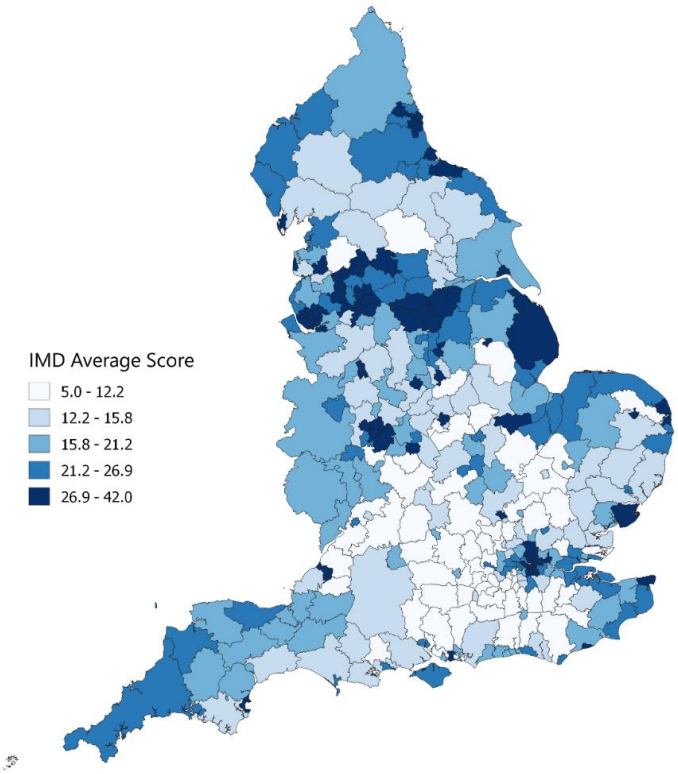


Figure 17 - Apportioned IMD scores for England. Data: (Rae, 2016)

Bivariate regression (*Fig. 18*) reveals a significant positive correlation (p-value: <0.00; coefficient: 148.66) between deprivation and non-voters in the 2015 general election, indicating that as deprivation increases, absenteeism also tends to increase. This supports claims in the literature (Pattie, et al., 2003) that those with fewer resources are less likely to be politically engaged.

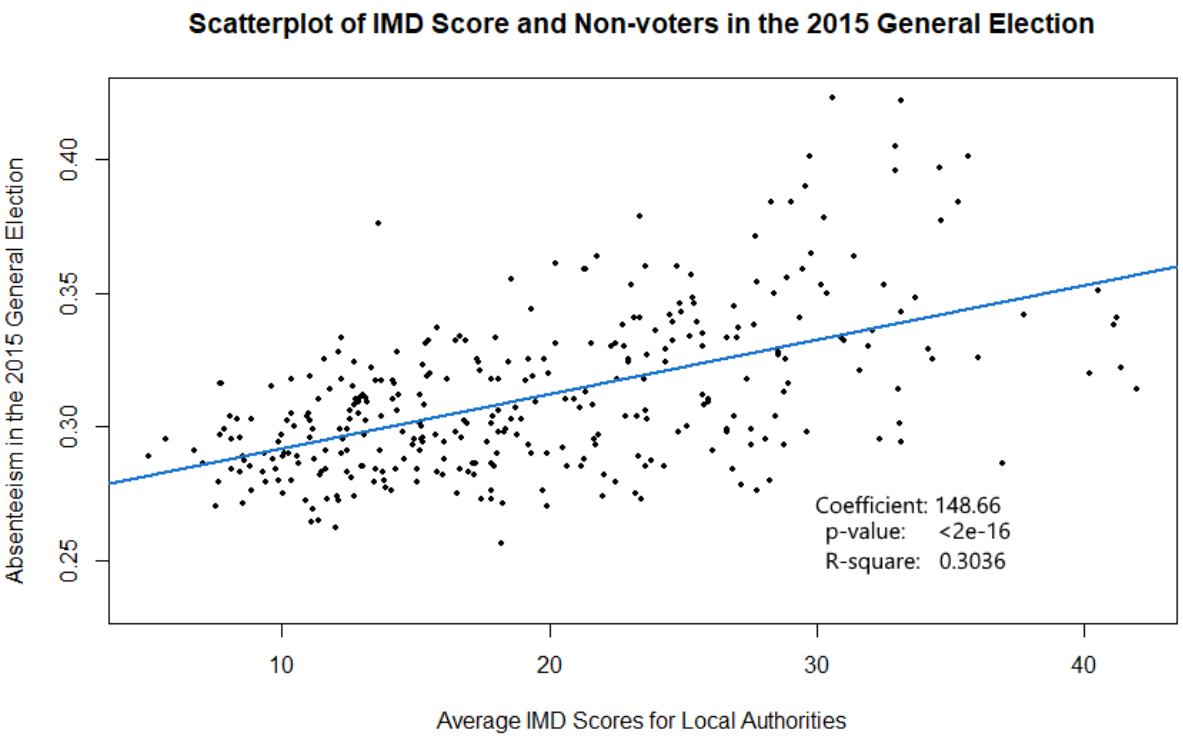


Figure 18 - Linear regression model of IMD scores and non-voters in the 2015 general election

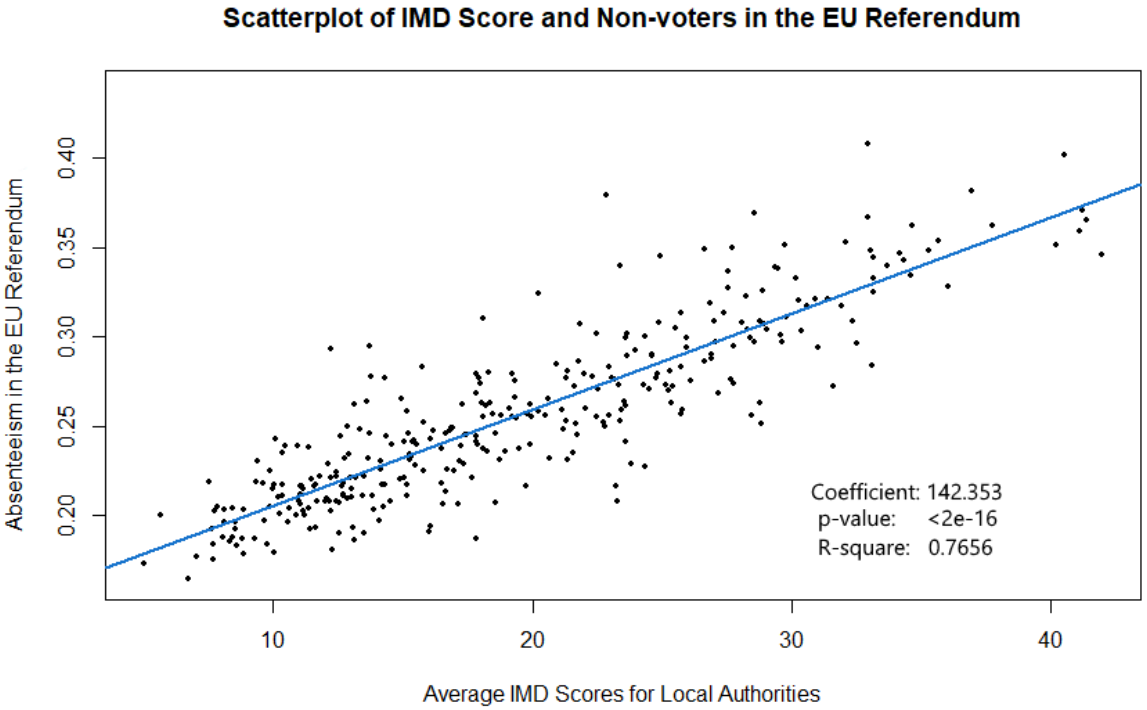


Figure 19 - Linear regression model of IMD scores and non-voters in the EU referendum

The bivariate regression shown in in *Fig. 19* reveals a significant positive correlation (p-value: <0.00; coefficient:142.35) between deprivation and non-voters in the EU referendum, similar to the correlation seen in *Fig. 18*, that as deprivation increases, absenteeism also tends to increase. This has a notable R-square result of 0.77, meaning that over 75% of the variance in this model is explained by deprivation. The steepness of the regression line shows that deprivation is an even stronger factor for why people did not vote in the referendum than in the 2015 general election.

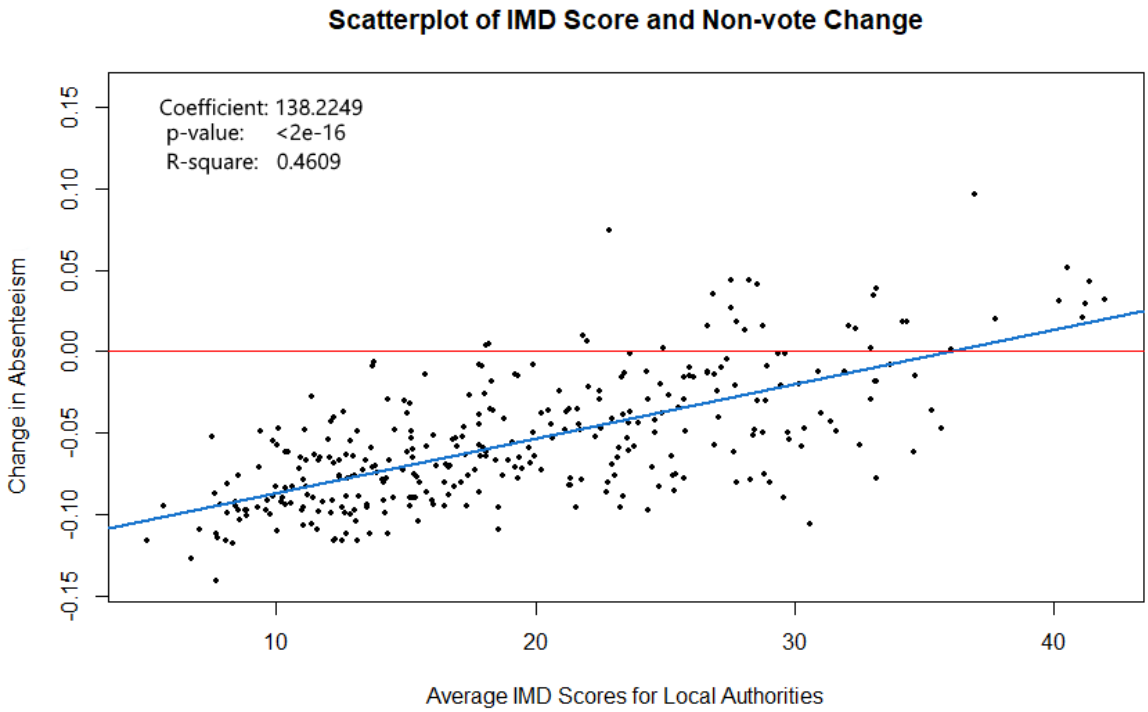


Figure 20 - Linear regression model of non-vote change and deprivation

Bivariate regression (*Fig. 20*) also shows a significant positive correlation (p-value: <0.00; coefficient:138.23) between deprivation and non-vote change, suggesting that more deprived areas lost more voters between the election and referendum than less deprived areas. However, the y-intercept is a negative value, so as with *Fig. 16*, only areas that are above the red line are areas where turnout actually decreased. This means that a more accurate summary of the findings of this model would be that less deprived areas had greater decreases in absenteeism than more deprived areas, a subtle but important distinction. The areas in which absenteeism increased in real

terms are all in the bottom half of most deprived areas, challenging the notion that the vote was a backlash by those left-behind, and showing that populations in areas *most* deprived are apathetic to all politics, even populist politics. However, without finer resolution analysis, this is difficult to ascertain, as it could well be that it is the most deprived populations within these least deprived areas that are the greatest source of increased turnout. *Fig. 20* also suggests that if those areas more deprived were more likely to vote Leave, a referendum with 100% turnout would result in an even stronger Leave majority, as according to this model, those most deprived areas were most underrepresented in the EU referendum.

For both the 2015 general election and the EU referendum, higher deprivation indicates greater rates of absenteeism *and* greater turnout decline. As with migration however, the low y-intercept of the models, alongside *Fig. 9,* show that absenteeism increasing in real terms was fairly rare, but the areas in which it did were those most deprived. This supports claims that those with fewer resources are less likely to be politically engaged, and highlights a contradiction within the 'left behind' argument; more deprived areas did generally have increased turnout, but a smaller increase than less deprived areas. Areas most deprived actually had an overall decrease in turnout, suggesting a near-permanent state of political apathy within the most deprived cohorts of the electorate, whereby disengagement is so strong even populists have little sway. The following section examines how more deprived areas are still generally more receptive to populists, however, despite this observation.

8.4. Absenteeism and Populism

Fig. 21 shows that the UKIP vote in the 2015 general election was fairly uniform across England and Wales, but significantly lower in Scotland. There are some localised areas of a higher vote, however, indicative of the localised, targeted campaigns that UKIP run (Cutts, et al., 2017). Cluster analysis (*Fig. 22*) reveals that UKIP's successful areas correlate, to an extent, with clusters of a high Leave vote (*Fig. 23*), and also with areas that are generally more deprived (*Fig. 17*). This suggests a key facet of a milieu that would increases sensitivity to populism is deprivation.

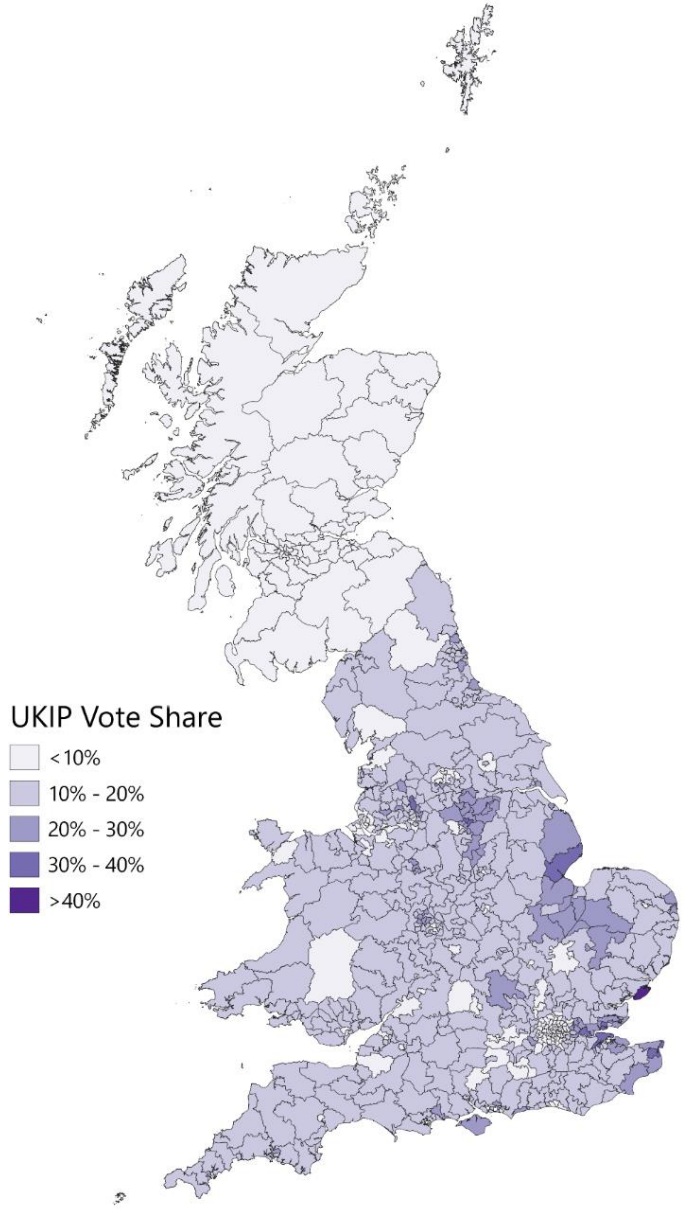


Figure 21 - Map showing UKIP vote share in 2015 general election. Data: (data.parliament website, 2018)

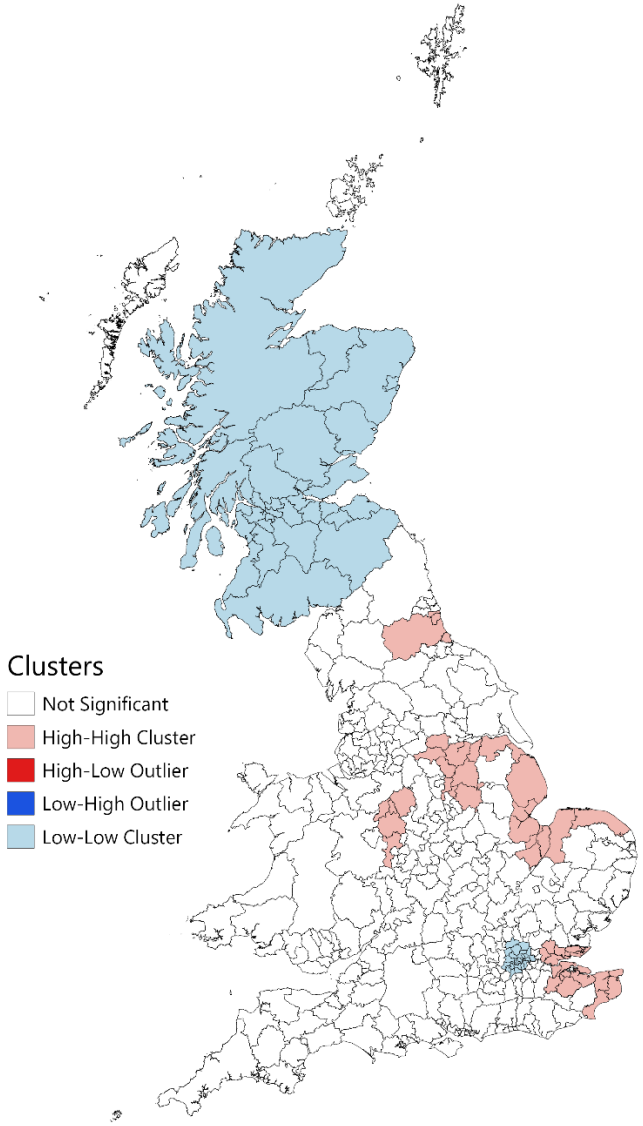


Figure 22 - Cluster analysis of UKIP vote % in 2015 general election. Data: (Electoral Commission, 2016)

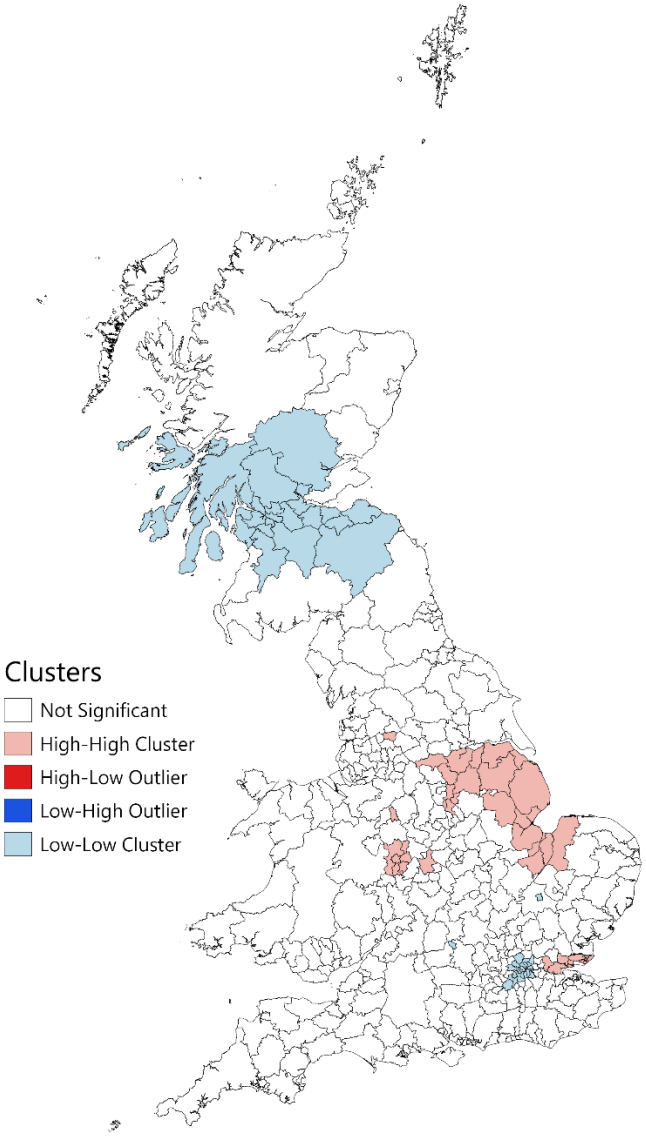


Figure 23 - Cluster analysis of Leave vote %. Data: (Electoral Commission, 2016)

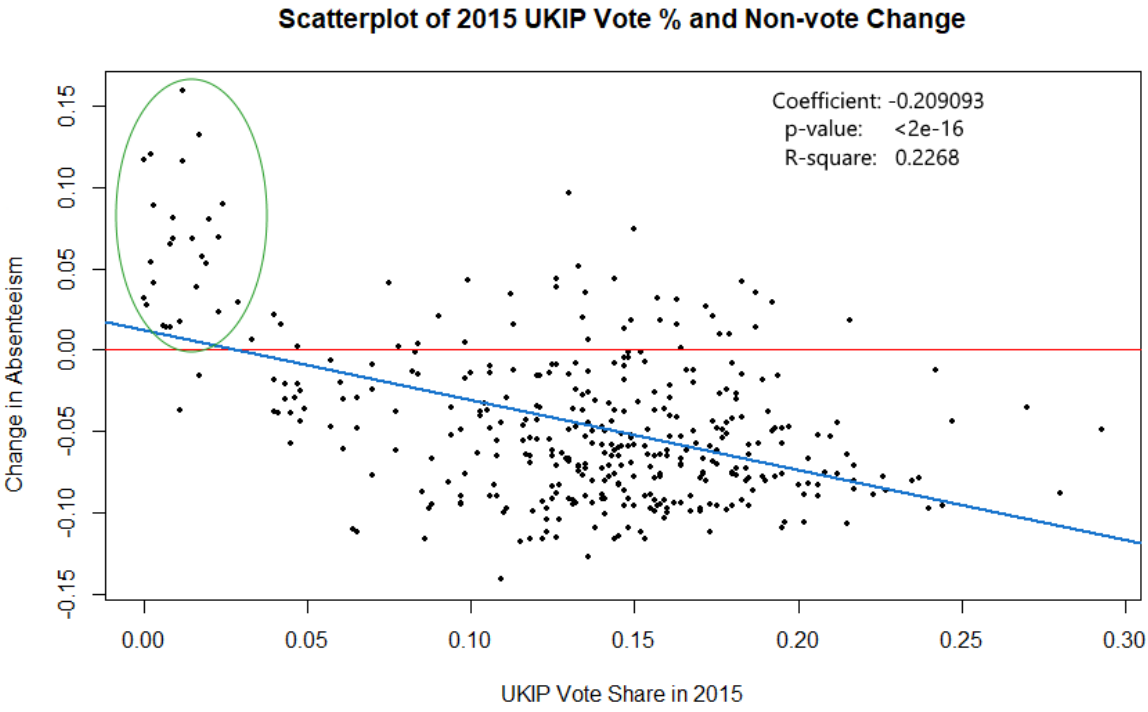


Figure 24 - Linear regression model of 2015 UKIP vote share and non-vote change

Bivariate regression (*Fig. 24*) shows a significant negative correlation (p-value: <0.00; coefficient: -0.21) between absenteeism change and UKIP vote share. This means that areas in which UKIP received a greater amount of votes are areas in which turnout increased for the EU referendum, suggesting higher levels of UKIP support led to an increase in democratic engagement. This supports the claim that non-voters are receptive to populist arguments, and perhaps that populists presenting as a 'different brand of politics' works well for those disengaged. The cluster of points circled in green shows a group of locations where UKIP support was low, but also where fewer people voted in the EU referendum than in the 2015 general election: Scotland. *Fig. 25* reveals that the relationship between UKIP vote share and non-vote change remains even when excluding Scotland from computation, thereby reinforcing these findings.

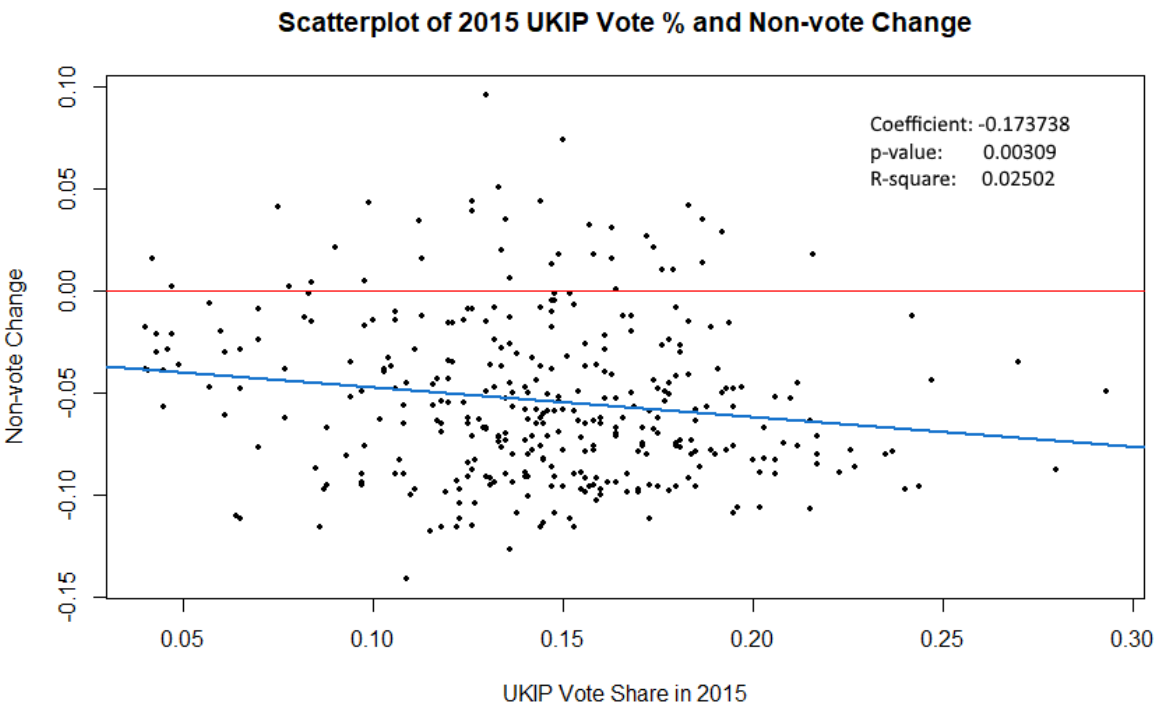


Figure 25 - Linear regression model of 2015 UKIP vote share and non-vote change (Scotland excluded from computation)

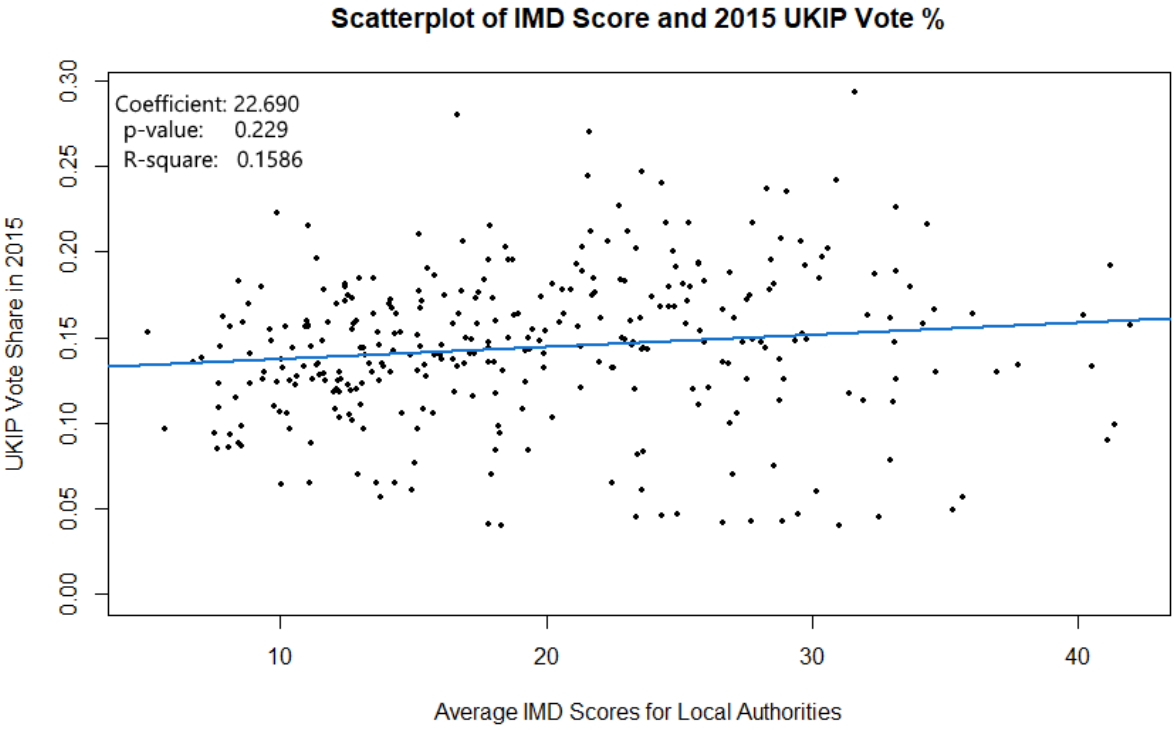


Figure 26 - Linear regression model of 2015 UKIP vote share and deprivation

Bivariate regression (*Fig. 26*) (p-value: 0.23; coefficient: 22.69) demonstrates that generally, more deprived areas were more likely to vote for UKIP in the 2015 general election, in contrast to rate-of-change of immigration where there was no significant correlation (*Fig. 27*), also supporting the claim that greater deprivation increases sensitivity to populism.

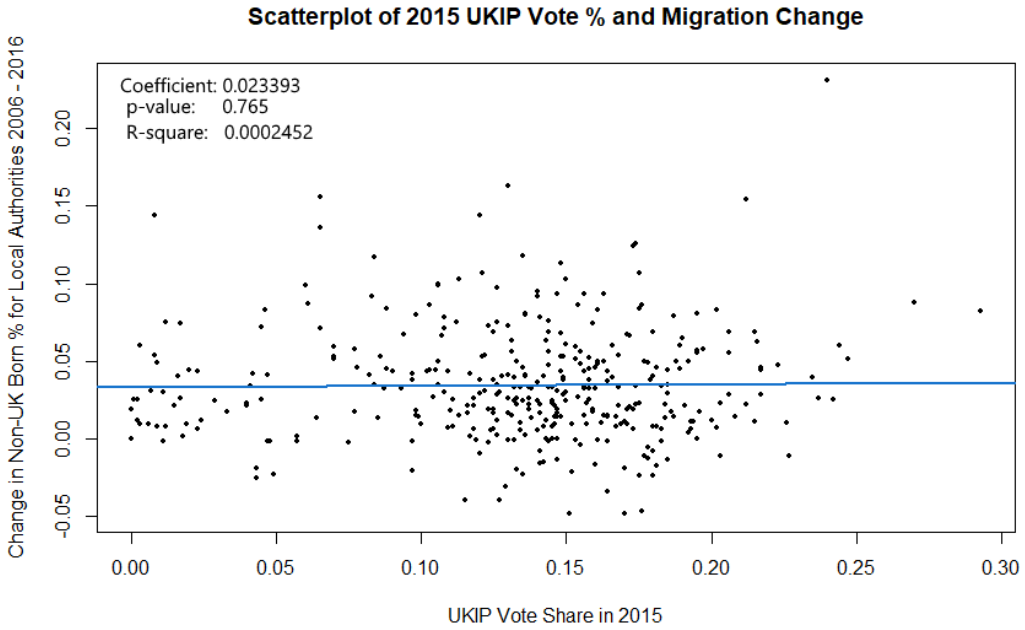


Figure 27 - Linear regression model of UKIP vote % and rate-of-change of immigration

The relationship between areas with a higher UKIP vote having a higher turnout in the EU referendum implies that issues UKIP campaigned on (EU membership, immigration, rejection of elites) were also very significant issues for non-voters, and that Leave campaigns successfully portrayed the referendum as being about these issues, supporting suggestions the referendum was a populist vote. This also indicates a participatory side-effect of a strong UKIP presence, whereby simply by having more local exposure, the issues UKIP present mobilise non-voters to a greater extent. By framing the concerns of people in deprived areas as issues caused by EU membership and immigration, and by promising change based on Leave winning the referendum, UKIP appears to have resonated with individuals in these areas in a way the main political parties did not (Ford & Goodwin, 2017; Goodwin & Milazzo, 2016).

8.5. Summary of Findings

With the aid of multivariate regression summary tables (*Table 1* and *2*), an overall summary of the findings of analysis is presented below.

DV	IVs	Estimate	Std. Error	t-value	p-value	R-square	F-statistic
General Election Non-Voters						0.3274	50.3
	Intercept	0.2631574	0.0055831	47.135	<2e-16 ***		
	IMD Score	0.0020288	0.0001735	11.693	<2e-16 ***		
	Immigration Change	-0.0389295	0.0365645	-1.065	0.2879		
	UKIP Vote %	0.0682206	0.0316835	2.153	0.321 *		
Brexit Non-Voters						0.7974	406.7
	Intercept	0.1731751	0.0051426	33.674	<2e-16 ***		
	IMD Score	0.0054625	0.0001598	34.180	<2e-16 ***		
	Immigration Change	0.0853747	0.0336798	2.535	0.0117 *		
	UKIP Vote %	-0.1841310	0.0291839	-6.309	9.66e-10 ***		
Non-Vote Change						0.5536	128.1
	Intercept	-0.0899707	0.0060839	-14.788	< 2e-16 ***		
	IMD Score	0.0034318	0.0001891	18.151	< 2e-16 ***		
	Immigration Change	0.1234826	0.0398443	3.099	0.00212 **		
	UKIP Vote %	-0.2519959	0.0345254	-7.299	2.45e-12***		
310 Degrees of Freedom					Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1		

Table 2 - Table of multivariate regression summaries for England only

DV	IVs	Estimate	Std. Error	t-value	p-value	R-square	F-statistic
General Election Non-Voters						0.1521	32.64
	Intercept	0.276391	0.004279	64.591	<2e-16 ***		
	Immigration Change	0.022837	0.042015	0.544	0.587		
	UKIP Vote %	0.226444	0.028125	8.051	1.18e-14 ***		
Brexit Non-Voters						0.7249	14.23
	Intercept	0.285342	0.007153	39.890	<2e-16 ***		
	Immigration Change	0.192177	0.070235	2.736	0.00652 **		
	UKIP Vote %	-0.217252	0.47015	-4.621	5.31e-06 ***		
Non-Vote Change						0.2502	60.72
	Intercept	0.008947	0.006249	1.422	0.15602		
	Immigration Change	0.168284	0.061797	2.723	0.00678 **		
	UKIP Vote %	-0.443448	0.041367	-10.720	<2e-16 ***		
364 Degrees of Freedom					Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1		

Table 3 – Table of multivariate regression summaries, excluding IMDs (thereby including Scotland and Wales into computation)

Multivariate regression (*Tables 2* and *3*) indicates support for the findings of bivariate regression, that rate-of-change of immigration was an important factor for many areas in the EU referendum and for non-vote change, but not for the 2015 general election. However, rate-of-change of immigration played an overall less significant and less impactful role than deprivation for the EU referendum, the 2015 general election, and non-vote change. The large R-square values relating to the Brexit vote are of particular note, showing that in both cases over 70% of the results are explained by the variables included in this model. *Table 3* excludes IMDs in order to include Scotland and Wales into computation. Looking at significant results only, the results are largely the same, strengthening these conclusions.

Considering the lesser significance of migration compared to deprivation, one wonders why UKIP has such a strong reliance on its anti-immigration message, when surely a *populist* party would pursue policies of mass appeal: according to this data, deprivation. Of course, immigration *is* consistently one of the biggest concerns of the British electorate, but the case of Boston underscores UKIP's strategy of intensely focusing on local areas (Usherwood, 2016). Boston highlights this as the area with the highest rate-of-change of immigration in the UK, the area of the highest Leave vote percentage, and also as an area where UKIP placed considerable focus on winning elections. The sharp decrease of UKIP's vote share in Boston – 33.8% in the 2015 general election compared to 4.8% in the 2017 general election – suggests that beyond the collapse of the party (Goodwin & Heath, 2017), the issues UKIP represent, the drivers of populism, are felt beyond party allegiances. These feelings were, for a moment, captured remarkably well by UKIP, and this was mobilised in the referendum on EU membership. This local pattern is seen in other areas in which UKIP were successful in 2015: Clacton, the only constituency where UKIP won a seat, had a Leave percentage of 69.5%, but in the 2017 general election UKIP lost 36.8% of the vote share. For South Thanet, the second-best area for UKIP, and where Nigel Farage stood for election, the Leave percentage was 63.8%, and in the 2017 general election, and UKIP lost 26.4% of the vote share (which is also reflected in UKIP's support nationwide,

where in 2017 they had a 1.8% share of the vote compared to 12.6% in 2015). The rate-of-change of immigration for these areas was considerable for Thanet (+8%), but an actual reduction for Tendring[5] (-0.02%), yet deprivation *was* high for both areas. This supports the claim that UKIP's local focus is successful because they resonate with populations on local issues, be those issues of immigration *or* deprivation, where a higher value of either can be seen to increase sensitivity to populism. Despite this, UKIP won only one seat in the 2015 general election, which they promptly lost in the 2017 general election, unable to make gains in a first-past-the-post system (Goodwin, 2015; Cutts, et al., 2017).

Altogether this suggest that the success of UKIP was not a political phenomenon, but a cultural one; a bandwagon effect whereby voters were not permanently ideologically swayed, but were frustrated enough with the current state of affairs to lash out against the existing arrangement. When looking for the means of which to lash out, UKIP, having related to the experience of these frustrated voters, very successfully framed a vote to Leave the EU as a pre-packaged, low-effort way of doing so, mobilising members of the electorate. Instead of outright political success, this is a cultural success with a side effect of political success. This cultural explanation is reflected in UKIP's lack of success in Scotland, whereby UKIP did not resonate with the different experience of the Scottish electorate. This difference is unexplained by migration according to data, and likely not deprivation[6], leaving some other factor of shared experience that differed to that in England and Wales. This lack of cultural traction, the specifics of which would require further research to fully understand, may be another factor for why Remain won in Scotland. Despite UKIP's subsequent decline, there are still ramifications of the party's success felt to the present day: in an attempt to draw back underappreciated voters (Webb & Bale, 2014) to the Conservative party, Theresa May has utilised populist rhetoric herself, publicly criticising a 'liberal elite' and 'citizens

[5] Tendring is the Local Authority District in which Clacton lies.
[6] Scottish deprivation has wide variance as with England, but no obvious correlation to any variables in this study (Trimble, 2018).

of nowhere' (Goodwin & Heath, 2017, p. 247). This suggests that populism may have, to an extent, successfully infiltrated mainstream politics. Labour also did better in 2017, attracting an entirely different kind of voter, succeeding in areas with more younger and more diverse individuals (Jennings & Stoker, 2018) – at the expense of Greens and Liberal Democrats (Goodwin & Heath, 2017), and adopting a more classical, grass-roots, 'positive' form of populism, despite negative connotations with applying such a label (Jonathan & Maiguashca, 2017). Indeed, all three main political parties have adopted a more local focus in response to UKIP (Wills, 2015).

The analysis in this study has provided insights into the spatial nature of populism and absenteeism in the UK, but has also raised new questions. As mentioned above, further investigation into immigration and absenteeism is required to fully understand this relationship, alongside the reasons why some deprived areas engage with populism and others disengage from politics entirely. Further questions arise when considering whom it is in the least deprived areas that are reducing non-voting figures; perhaps it is those most deprived in these affluent areas that are most exposed to inequality and more likely to have felt 'left-behind' that mobilised to a greater extent than populations in more deprived areas. This study is unable to answer this question because of issues of scale, and so further research at a finer spatial resolution should prove fruitful. Further improvements could be gained by using a more specific indicator of being 'left behind' beyond deprivation, for example, survey data that better captures attitudes of mistrust towards elites than just deprivation. Further improvements would also be obtained by increasing the scope of the study, increasing the number of variables analysed and increasing the timespan of votes analysed – but for a study of this size, this would reduce depth, and so this provides an opportunity for further research of a greater magnitude. To fully appreciate and investigate the role of shared experience through space, in-depth qualitative research would also prove very beneficial in understanding why individuals vote the way they do, and if there were any potential commonality between those reasons, much validity would be lent to this study.

To summarise the findings of section 8:

- Absenteeism decreased between the 2015 general election and the EU referendum in England and Wales, indicating a success of populism, and contrary to Scotland.
- Clusters indicate a shared experience, as highlighted by possible referendum fatigue in Scotland, and correlations of UKIP/Leave votes with deprivation.
- Areas with fewer votes in the election had fewer votes in the referendum, but less few.
- A higher rate-of-change of immigration increased sensitivity to populism, but reduced turnout.
- Immigration is not as statistically important as deprivation with regards to non-voting.
- More deprived areas had lower turnout.
- Less deprived areas experienced greater democratic engagement from non-voters between the election and the referendum.
- Only the most deprived areas had a reduced turnout, suggesting some deprived populations are firmly politically apathetic/disengaged, even to populists.
- Despite this, greater deprivation still increases sensitivity to populists, so greater deprivation tends to lead to either increased populist voting, or increased political disengagement.

9. Conclusion

If the EU referendum was indeed a populist vote, then surely it had a populist result. Data reveals that sensitivity to the drivers of populism was greater for the EU referendum than for the 2015 general election, a period of intense media coverage of Brexit and populists. Given existing narratives, it was anticipated that as rate-of-change of immigration increased, populists would be more successful, translating into higher turnout and more votes for UKIP and Leave. Whilst data does reveals an increased sensitivity to populism, shown most clearly with Boston, a higher rate-of-change of immigration actually resulted in lower turnout for the referendum, as well as increasing absenteeism between the 2015 general election and the EU referendum. This increase of absenteeism is perplexing, and surely is an opportunity for further research on the relationship between absenteeism and immigration.

Prevailing narratives would also suggest that greater deprivation results in fewer people voting, an assumption confirmed by analysis in this study. Areas of greater levels of deprivation had a lower turnout for both votes, and there are smaller increases in turnout between the two votes in more deprived areas. An interesting finding from analysis in this area is that in some of the most deprived areas, turnout actually *de*creased. Ergo, one can tentatively assume that those in areas most deprived are dissatisfied with politics, and express this dissatisfaction either by disengaging entirely or by voting for populists. The reason as to why some areas do one or the other is convoluted, as shown by the number of points above and below the red line in the most deprived half of *Fig. 19*. This raises an important question - if these people have the same experience of deprivation and/or rate-of-change of immigration, then surely there is a further, unknown explanation as to why they do or do not vote. This ultimately shows that to fully develop an understanding of the milieus of populations and how that influences voting patterns, one must consider more factors than simply migration or deprivation. It would be prudent to incorporate a substantial amount of

individual level experience, and again this is proves to be an avenue for further research.

A further suggestion from turnout decreasing in most deprived areas is that if indeed less deprived areas were more likely to vote Remain, then (based solely on deprivation) populations that would typically vote Remain (less deprived) had greater voting representation in the referendum than populations that would typically vote Leave (more deprived). Were there to be perfect representation in the referendum, there may have been an even stronger Leave majority. Whilst entertaining hypotheticals, an additional observation on the nature of the Scottish vote is how Scottish areas were more likely to vote remain but had lower representation. Therefore, if Scottish turnout increased for the referendum to the same level as in England and Wales, perhaps this would result in an overall Remain victory[7].

Comparing deprivation, immigration, and absenteeism to populism reinforces these conclusions, and closer examination of UKIP vote share reveals a narrow local focus in areas where drivers of populism are strong, such as areas of high deprivation and high rate-of-change of immigration. This shows a key indicator of when populism is successful: shared experience, a communal milieu, shared in space. This is also shown when observing how Scotland exhibits contrary voting patterns to the rest of Britain, and an explanation as to why this is proves elusive within the context of the variables examined. Whilst there are likely some variables that would explain this phenomenon, it does lend itself to the shared experience explanation, based on the varied histories and culture between the spaces of England and Scotland. The specifics of this difference and how it relates to voting does require further investigation. Yet this difference does correlate with UKIP's lack of success in Scotland and post-referendum decline across the entire country, indicative of UKIP's success as a cultural phenomenon rather than a bona fide political one. UKIP's cultural impact did not

[7] Although certainly a stretch, I find it a provoking thought that it could be Alex Salmond and the SNP's ambitions of an independent Scotland, and the subsequent possible referendum fatigue, that resulted in the entire UK leaving the EU.

resonate with Scottish individuals at all, and only briefly translated into success in the UK before the implosion of the party. This cultural explanation is additionally seen in the subsequent adoption of populist techniques by the mainstream political parties of the UK, showing how populism, and its drivers, sustained beyond the referendum where UKIP did not.

Because of the importance of milieus in the political effectiveness of populism, spatial variances are an important consideration when addressing the concerns of communities. Experience and history varies with space, and with it the chief concerns and political expressions of populations. Fully understanding populism and its drivers, as with any political phenomenon, is surely not an easy undertaking, but by examining their relationship, one most certainly comes to realise that: "*geography matters*" (Johnston & Pattie, 2009, p. 1878).

10. Bibliography

Agnew, J. & Shin, M., 2017. Spatializing Populism: Taking Politics to the Peoiple in Italy. *Annals of the American Association of Geographers,* 107(4), pp. 915-933.
Ahluwalia, P. & Miller, T., 2016. Brexit: the way of dealing with populism. *Social Identities,* 22(5), pp. 453-454.
Anselin, L., 1995. Local Indicatiors of Spatial Association - LISA. *Geographical Analysis,* 27(2), pp. 93-115.
Anselin, L., 2018. *Contiguity-Based Spatial Weights.* [Online]
Available at: https://geodacenter.github.io/workbook/4a_contig_weights/lab4a.html
[Accessed 03 08 2018].
Arditi, B., 2005. Populism as an Internal Peripherary of Democratic Politics. In: F. Panizza, ed. *Populism and the Mirror of Democracy.* London: Verso, pp. 72-98.
Aslanidis, P., 2015. Is Populism an Ideology? A Regutation and a New Perspective. *Political Studies,* 64(1S), pp. 88-104.
Bale, T., Stijn, K. & Taggart, P., 2011. Thrown around with abandon? Popular understandings of populsm as conveyed by the print media: a UK case study. *Acta Politica,* 46(2), pp. 111-131.
BBC, 2014a. *UK European election results.* [Online]
Available at: https://www.bbc.co.uk/news/events/vote2014/eu-uk-results
[Accessed 04 08 2018].
BBC, 2014b. *Scotland Decides.* [Online]
Available at: https://www.bbc.co.uk/news/events/scotland-decides/results
[Accessed 30 07 2018].
BBC, 2016. *EU Referendum Results.* [Online]
Available at: https://www.bbc.co.uk/news/politics/eu_referendum/results
[Accessed 24 08 2018].
BBC, 2018. *Boris Johnson's resignation letter and May's reply in full.* [Online]
Available at: https://www.bbc.co.uk/news/uk-politics-44772804
[Accessed 24 07 2018].
Bell, T., 2016. *The referendum, living standards and inequality.* [Online]
Available at: https://www.resolutionfoundation.org/media/blog/the-referendum-living-standards-and-inequality/
[Accessed 24 07 2018].
Berg, B., 2001. *Qualitative Research Methods For the Social Sciences.* 4th ed. Needham Heights, USA: Allyn & Bacon.
Berry, M., 2016. Understanding the role of the mass media in the EU Referendum. In: D. Jackson, E. Thorsen & D. Wring, eds. *EU Referendum Analysis 2016: Media, Voters and the Campaign.* Poole: Bournemouth University, p. 14.
Blais, A., Gidengil, E., Nevitte, N. & Nadeau, R., 2004. Where does turnout decline come from?. *European Journal of Political Research,* Volume 43, pp. 221-236.
Blais, A. & Rubenson, D., 2013. The Source of Turnout Decline: New Values or New Contexts?. *Comparative Political Studies,* 46(1), pp. 95-117.
Clarke, J. & Newman, J., 2017. 'People in this country have had enough of experts': Brexit and the paradoxes of populism. *Critical Policy Studies,* 11(1), pp. 101-116.
Cliff, A. & Ord, J., 1973. *Spatial Autocorrelation.* London: Pion.
Crines, A., 2016. The rhetoric of the EU Referendum campaign. In: D. Jackson, E. Thorsen & D. Wring, eds. *EU Referendum Analysis 2016: Media, Voters and the Campaign.* Poole: Bournemouth University, p. 61.
Cutts, D., Goodwin, M. & Milazzo, C., 2017. Defeat of the People's Army? The 2015 British general election and the UK Independence Party (UKIP). *Electoral Studies,* Volume 48, pp. 70-83.

Daddow, O., 2012. The UK media and 'Eurpoe': from permissive consensus to destructive dissent. *International Affairs,* 88(6), pp. 1219-1236.
data.parliament website, 2018. *General Election 2015 Results.* [Online]
Available at: http://www.data.parliament.uk/dataset/general-election-2015
[Accessed 12 08 2018].
Davies, W., 2018. *Boris Johnson, Donald Trump and the Rise of Radical Incompetence.* [Online]
Available at: https://www.nytimes.com/2018/07/13/opinion/brexit-conservatives-boris-trump.html
[Accessed 24 07 2018].
D'Eramo, M., 2015. Populism and the New Oligarchy. *New Left Review,* Volume 82, pp. 5-28.
Downs, A., 1957. *An economic theory of democracy.* New York, USA: Harper.
Duffy, B. & Frere-Smith, T., 2014. *Perceptions and Reality: Public Attitudes to Immigration.* [Online]
Available at: https://www.ipsos.com/sites/default/files/publication/1970-01/sri-perceptions-and-reality-immigration-report-2013.pdf
[Accessed 21 08 2018].
Electoral Commission, 2016. *EU referendum reults.* [Online]
Available at: https://www.electoralcommission.org.uk/find-information-by-subject/elections-and-referendums/past-elections-and-referendums/eu-referendum/electorate-and-count-information
[Accessed 08 12 2018].
Electoral Commission, 2018. *Electoral Data.* [Online]
Available at: https://www.electoralcommission.org.uk/our-work/our-research/electoral-data
[Accessed 24 08 2018].
ESRI, 2012. *Apportioning population between areas.* [Online]
Available at: https://www.arcgis.com/home/item.html?id=7f299b57007c40e9a1a3ad3f0c4dfe37
[Accessed 17 07 2018].
Fielding, S., 2013. *The long history of Britain's distrust of MPs.* [Online]
Available at: https://www.theguardian.com/commentisfree/2013/jan/01/british-public-distrust-mps
[Accessed 03 08 2018].
Flinders, M., 2015. The General Rejection? Politicla Disengagement, Disaffected Democrats and 'Doing Politics' Differentley. *Parliamentary Affairs,* 68(suppl1), pp. 241-254.
Ford, R. & Goodwin, M., 2017. Britain After Brexit, A Nation Divided. *Journal of Democracy,* 28(1), pp. 17-30.
Forster, A., 2002. *Eurosceptisim in Contemporary British Politics.* London: Routledge.
Fox, J., Moroçanu, L. & Szilassy, E., 2012. The Racialization of the New european Migration to the UK. *Sociology,* 46(4), pp. 680-695.
Franklin, M., Kyons, P. & Marsh, M., 2004. Generational Basis of Turnout Decline in Established Democracies. *Acta Politica,* 39(2), pp. 115-151.
Freeden, M., 2017. After the Brexit referendum: revisitng populism as an ideology. *Journal of Political Ideaologies,* 22(1), pp. 1-11.
Geys, B., 2006. Explaining voter turnout: A review of aggregate-level research. *Electoral Studies,* 25(4), pp. 637-663.
Gherghina, S. & Groh, A., 2016. A poor sales pitch? The European citizens' initiative and attitudes toward the EU in Germany and the UK. *European Politics and Society,* 17(3), pp. 373-387.
Gietel-Basten, S., 2016. Why Brexit? The Toxic Mix of immigratoin and Austerity. *Population and Development Review,* 42(4), pp. 673-680.
Gifford, C., 2006. The rise of post-imperial populism: The case of right-wing Euroscepticism in Britain. *European Journal of Political Research,* 45(5), pp. 851-869.
Goodchild, M., 1986. *Spatial Autocorrelation.* Norwich, UK: Geo Books.
Goodwin, M., 2015. Ukip, the 2015 General Election and Britain's EU Referendum. *Political Insight,* 6(3), pp. 12-15.
Goodwin, M. & Heath, O., 2017. The 2017 General Election, Brexit and the Return to Two-Party Politics: An Aggregate-Level Analysis of the Result. *The Political Quarterly,* 88(3), pp. 345-348.

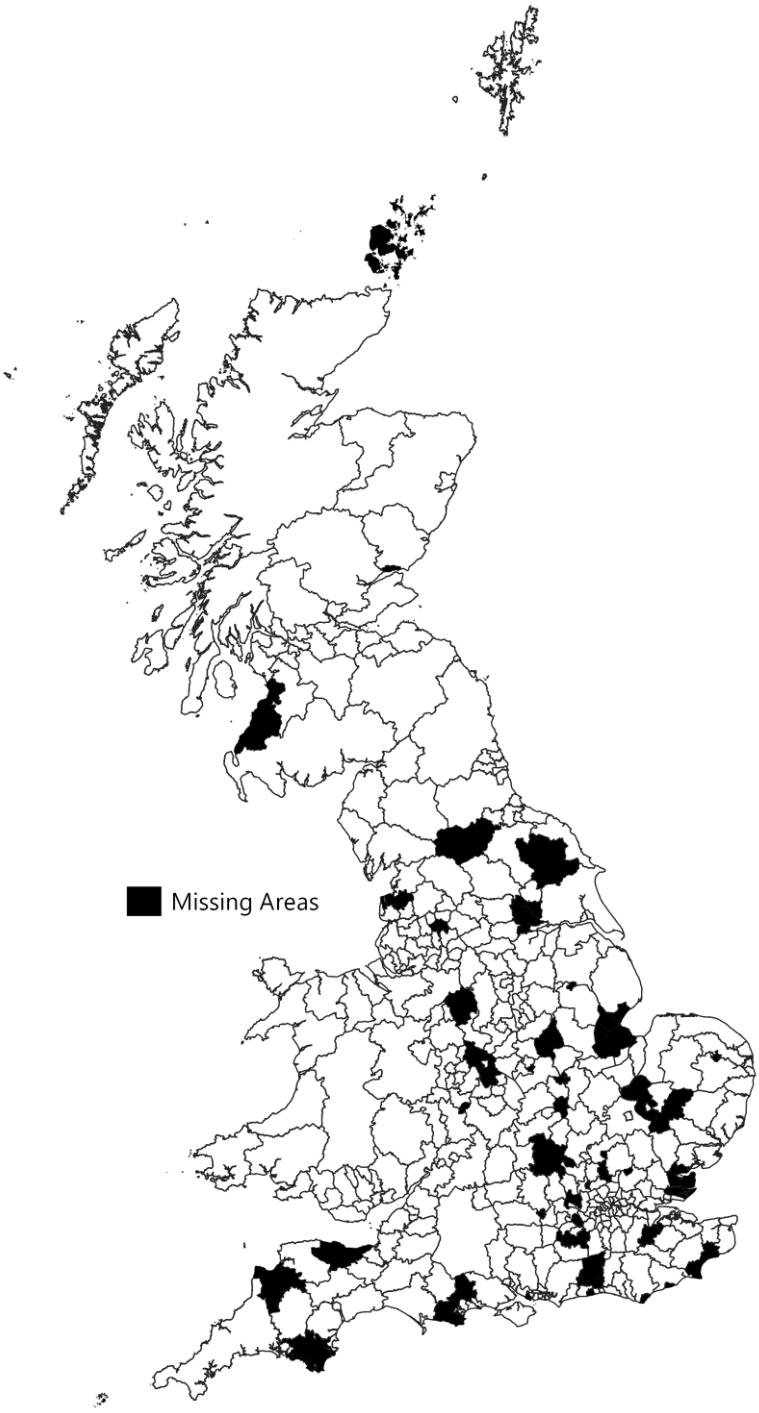
Goodwin, M. & Milazzo, C., 2016. Taking back control? Investigating the role of immigration in the 2016 vote for Brexit. *The British Journal of Politics and International Relations,* 19(3), pp. 450-464.
Gusterson, H., 2017. From Brexit to Trump: Anthropology and the rise of nationalist populism. *American Ethnologist,* 44(2), pp. 209-214.
Haughton, T., 2018. *It's the slogan, stupid: The Brexit Referendum.* [Online]
Available at: https://www.birmingham.ac.uk/research/perspective/eu-ref-haughton.aspx
[Accessed 21 08 2018].
Hobolt, S., 2016. The Brexit vote: a divided nation, a divided continent. *Journal of European Public Policy,* 23(9), pp. 1350-1277.
Hopkins, D., 2010. Politicized places: Explaining where and when immigrants provoke local opposition. *American Political Science Review,* 22(3), pp. 256-273.
Ipsos MORI, 2015. *Importance Of Key Issues to voting.* [Online]
Available at: https://www.ipsos.com/ipsos-mori/en-uk/importance-key-issues-voting
[Accessed 09 08 2018].
Ipsos MORI, 2017a. *Politicians remain the least trusted profession in Britain.* [Online]
Available at: https://www.ipsos.com/ipsos-mori/en-uk/politicians-remain-least-trusted-profession-britain
[Accessed 04 08 2018].
Ipsos MORI, 2017b. *Trust in Professions: Long-term trends.* [Online]
Available at: https://www.ipsos.com/ipsos-mori/en-uk/trust-professions-long-term-trends
[Accessed 04 08 2018].
Jennings, W. & Stoker, G., 2018. Tilting Towards the Cosmopolitan Axis? Political Change in England and the 2017 General Election. *The Political Quarterly,* 88(3), pp. 359-369.
Johnston, R. & Pattie, C., 2009. Geography: They Key to Recent British Elections. *Geography Compass,* 3(5), pp. 1865-1880.
Jonathan, D. & Maiguashca, B., 2017. Corbyn's Labour and the populism question. *Renewal: a Hournal of Labour Politics,* 25(3/4), pp. 56-65.
Kemmers, R., van der Waal, J. & Aupers, S., 2016. Becoming politically discontented: Anti-establishment careers of dutch nonvoters and PVV voters. *Current Sociology,* 64(5), pp. 757-774.
Kenny, M., 2017. Back to the populist future?: understanding nostalgia in contemporary ideological discourse.. *Journal of Political Ideologies,* 22(3), pp. 256-273.
Kern, A. & Hooghe, M., 2018. The effect of direct democracy on the social stratification of political participation: Inequality in democractic fatigue?. *Comparative European Politics,* 16(4), pp. 724-744.
Kriesi, H., 2014. The Populist Challenge. *West European Politics,* 37(2), pp. 361-378.
Leduc, L., 2002. Opinion change and voting behavour in referendums. *European Journal of Political Research,* Volume 41, pp. 711-732.
Liu, C., 2016. *Reviewing the Rhetoric of Donald Trump's Twitter of the 2016 Presidential Election..* [Online]
Available at: http://hj.divaportal.org/smash/get/diva2:1117157/FULLTEXT01.pdf
[Accessed 21 04 2018].
Macallister, I. et al., 2001. Class Dealignment and the Neighbourhood Effect: Miller Revisited. *British Journal of Political Science,* 31(1), pp. 41-59.
Manning, N. & Holmes, M., 2013. 'He's snooty 'im': exploring 'white working class' political disengagement. *Citizenship Studies,* 17(3-4), pp. 479-490.
Morphet, J., 2017. *Beyond Brexit? How to assess the UK's future.* Bristol, UK: Policy Press.
Mudde, C., 2004. The Populist Zeitgeist. *Government and Opposition,* 39(4), pp. 542-63.
Neville, S., 2016. *UK areas with stagnant wages are most anti-EU.* [Online]
Available at: https://www.ft.com/content/fe5c6b4e-32f8-11e6-bda0-04585c31b153
[Accessed 24 07 2018].
Oborne, P., 2007. *The Triumph of the Political Class.* 2008 Edition ed. London: Simon & Schuster.
Odland, J., 1988. *Spatial Autocorrelation.* London: Sage.

ONS, 2016. *Population of the UK by country of birth and nationality: 2016.* [Online]
Available at:
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/ukpopulationbycountryofbirthandnationality/2016
[Accessed 24 07 2018].
ONS, 2018. *Population of the UK by country of birth and nationality Statistical bulletins.* [Online]
Available at:
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/ukpopulationbycountryofbirthandnationality/previousReleases
[Accessed 12 08 2018].
Pappas, T., 2012. *Populism emergent: A framework for analysing its contexts, mechanics, and outcomes,* Florence, Italy: EUI Working Papers No. RSCAS 2012/01.
Pattie, C., Seyd, P. & Whiteley, P., 2003. Civic Attitudes and Engagement in Modern Britain. *Parliamentary Affairs,* 56(4), pp. 616-633.
Powell, K., 2017. Brexit positions: neoliberlaism, austerity and immigration - the (im)possibilities? of political revolution. *Dialectical Anthropology,* 41(3), pp. 225-240.
Prince, R., 2010. *David Cameron: net immigration will be capped at tens of thousands.* [Online]
Available at: https://www.telegraph.co.uk/news/politics/6961675/David-Cameron-net-immigration-will-be-capped-at-tens-of-thousands.html
[Accessed 24 07 2018].
Rae, A., 2016. *What can explain Brexit?.* [Online]
Available at: http://www.statsmapsnpix.com/2016/06/what-can-explain-brexit.html
[Accessed 12 08 2018].
Rae, A., 2017. *A Land Cover Atlas Of The United Kingdom.* [Online]
Available at:
https://figshare.com/articles/A_Land_Cover_Atlas_of_the_United_Kingdom_Document_/5266495
[Accessed 21 08 2018].
Sawada, M., 2009. *Global Spatial Autocorrelation Indices.* [Online]
Available at: http://www.lpc.uottawa.ca/publications/moransi/moran.htm
[Accessed 02 05 2018].
Shipman, T., 2017. *All Out War, The Full Story of Brexit.* 2nd ed. London: William Collins.
Smets, K. & van Ham, C., 2013. The embarrassment of riches? A meta-analysis of individual-level research on voter turnout. *Electoral Studies,* 32(2), pp. 344-359.
Stimson, R., 2014. A spatially integrated approach to social science research. In: R. Stimson, ed. *Spatially Integrated Social Science.* Cheltenham, UK: Edward Elgar Publishing, pp. 13-25.
Taggart, P., 2004. Populism and representive politics in contemporary Europe.. *Journal of Political Ideologies,* 9(3), pp. 269-288.
Tammes, P., 2017. Investigating Differences In Brexit-vote Among Local authorities in the UK: An Ecological Study on Migration- and Economy-related Issues. *Sociologicla Research Online,* 22(3), pp. 143-164.
Taylor, B., 2016. *Brexit - a story in maps.* [Online]
Available at: https://medium.com/@jakeybob/brexit-maps-d70caab7315e
[Accessed 09 08 2018].
Tobler, W., 1970. A Computer Movie Simulating Urban Growth in the Detroit Region. *Economic Geography,* 46(1), pp. 234-240.
Trimble, J., 2018. *Scottish Index of Multiple Deprivation (SIMD) 2016.* [Online]
Available at: https://jamestrimble.github.io/imdmaps/simd2016/
[Accessed 21 08 2018].
University of Copenhagen, 2009. *Populism – a threat or a challenge for the democratic system?.* [Online]
Available at:
https://politicalscience.ku.dk/international_students/present_international_students/taking_exams/past

papers/Populism__a_threat_or_a_challenge_for_the_democratic_system.pdf
[Accessed 03 08 2018].
Usherwood, S., 2016. Did Ukip win the referendum?. *Political Insight,* 7(2), pp. 27-29.
van der Bles, A., Postmes, T., LeKander-Kanis, B. & Otjes, S., 2018. The Consequences of Collective Discontent: A New Measure of Zeitgeist Predicts Voting for Extreme Parties. *Political Psychology,* 39(2), pp. 381-398.
Vivyan, N., Wagner, M. & Tarlov, J., 2012. Representative misconduct, voter perceptions and accountability: Evidence from the 2009 House of Commons expenses scandal. *Electoral Studies,* 31(4), pp. 750-763.
Ware, A., 2002. The United States: Populism as political strategy. In: M. a. Y.Surel, ed. *Democracies and the Populist Challenge.* London: Palgrave.
Wass, H., 2007. The effects of age, generation and period on turnout in Finland 1975-2003. *Electoral Studies,* Volume 26, pp. 648-659.
Watson, M., 2017. Brexit, the left behind and the let down: the political abstraction of 'the economy' and the UK's EU referendum. *British Politics,* Volume 13, pp. 17-30.
Webb, P. & Bale, T., 2014. Why Do Tories Defect to UKIP? Conservative Party Members and the Temptations of the Populist Radical Right. *Political Studies,* 62(4), pp. 961-970.
Western, M., 2014. Using quantitative data in the social sciences. In: R. Stimson, ed. *Spatially Integrated Social Science.* Cheltenham, UK: Edward Elgar Publishing, pp. 150-176.
Wikipedia, 2018. *List of British politicians who have crossed the floor.* [Online]
Available at: https://en.wikipedia.org/wiki/List_of_British_politicians_who_have_crossed_the_floor
[Accessed 03 08 2018].
Wills, J., 2015. Populism, localism, and the geography of democracy. *Geoforum,* Volume 62, pp. 188-189.
Wilner-Reid, M., 2018. The Rise of Referendums: A Death Sentence for Multilateralism?. *Italian Journal of International Affairs,* 53(2), pp. 1-20.
Woods, D., 2014. The Many Faces of Populsm: Diverse but not Disparate.. *Research in Political Sociology,* Volume 22, pp. 1-25.
Wright, D. & Case, R., 2016. *Leave voters felt ignored and left behind as post-Brexit poll reveals extent of economic division across UK.* [Online]
Available at: https://www.jrf.org.uk/press/leave-voters-felt-ignored-and-left-behind-post-brexit-poll-reveals-extent-economic-division
[Accessed 24 07 2018].

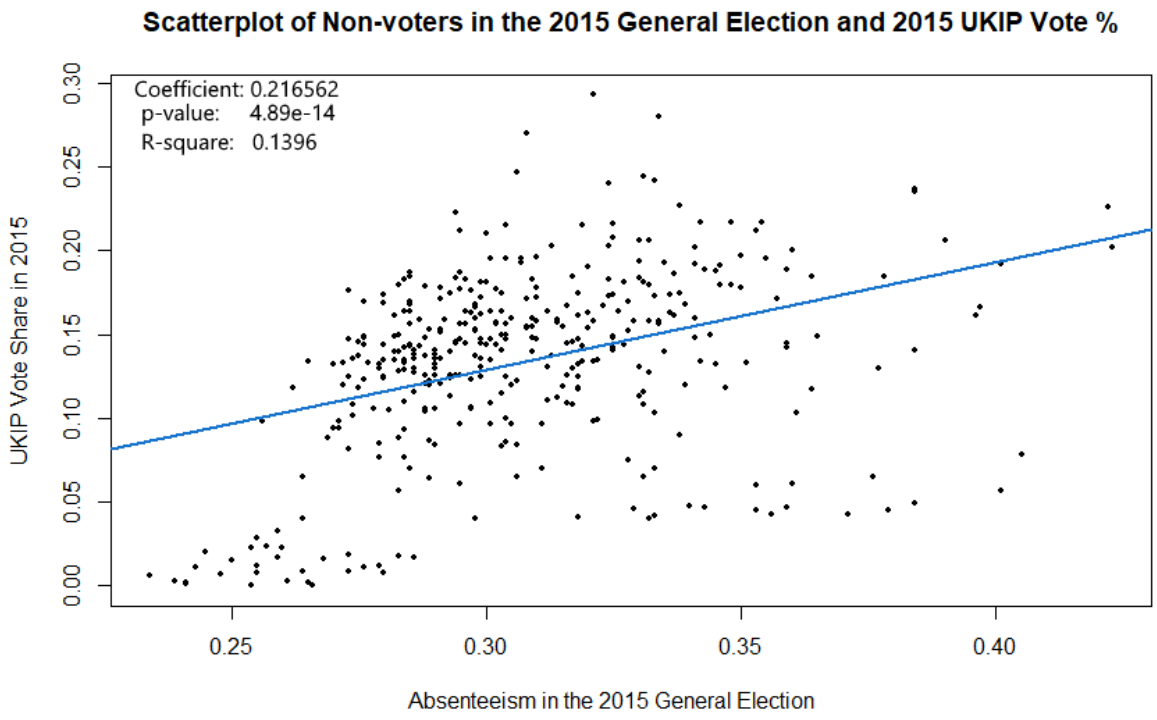
11. Appendices

11.1. Maps

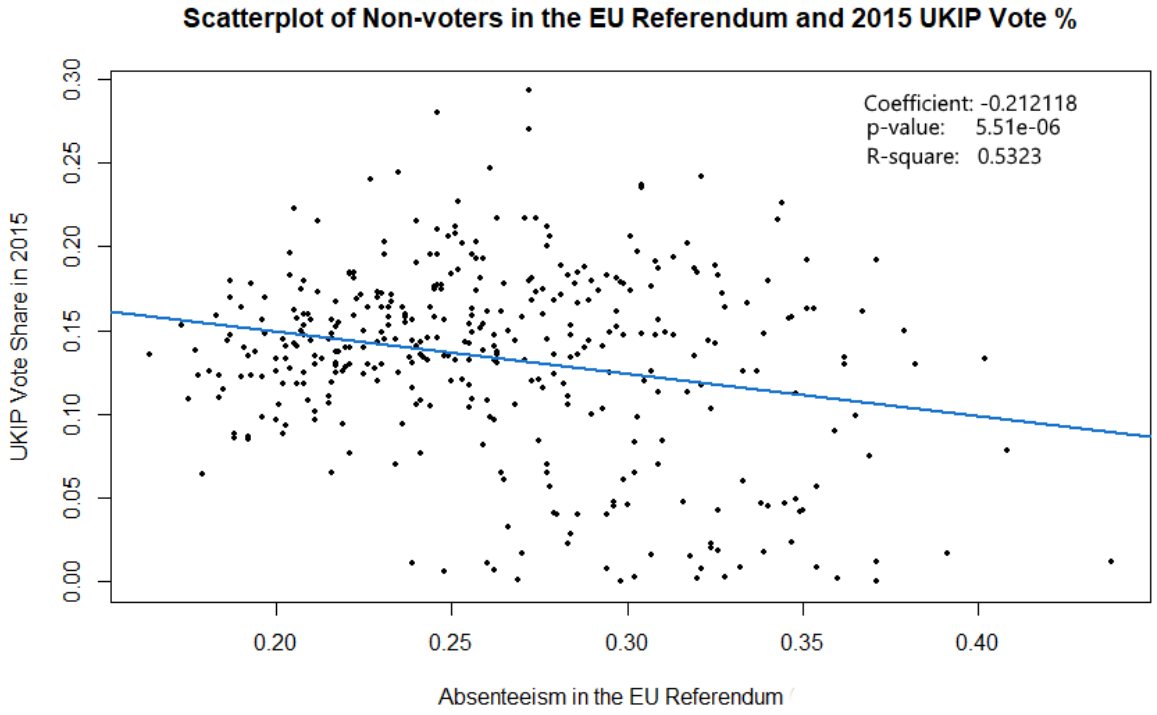


Appendix a - Missing areas from lookup table

11.2. Regression

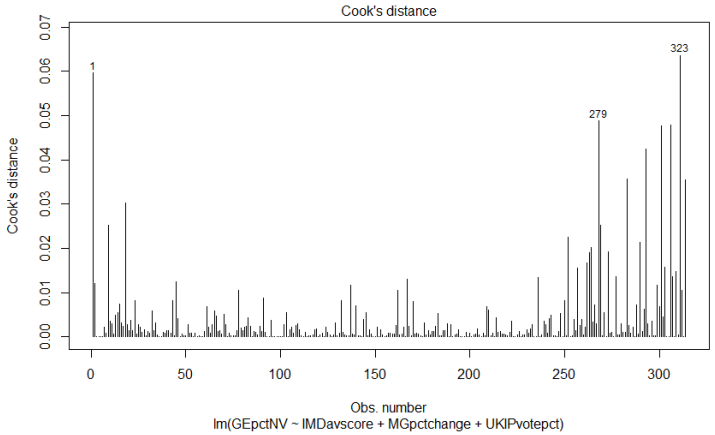


Appendix b - Linear regression model of UKIP vote % and non-voters in the 2015 general election

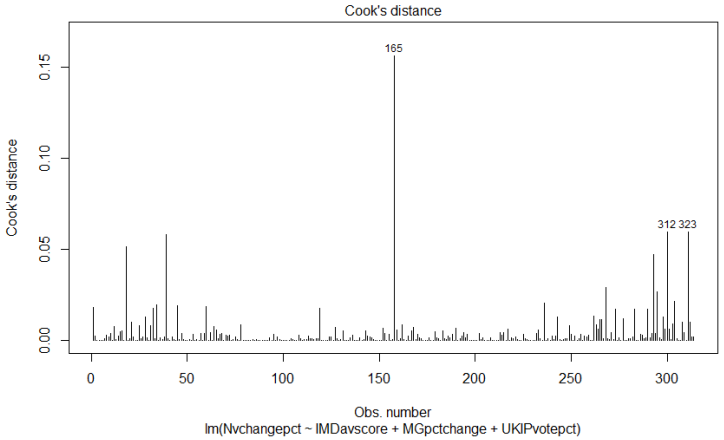


Appendix c - Linear regression model of UKIP vote % and non-voters in the EU referendum

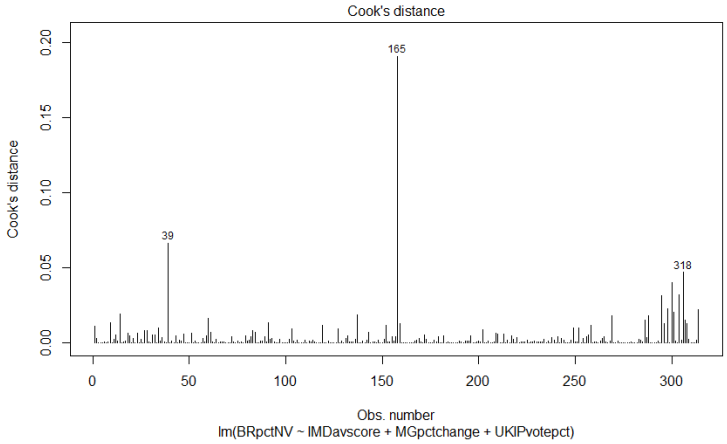
11.3. Statistical Checks



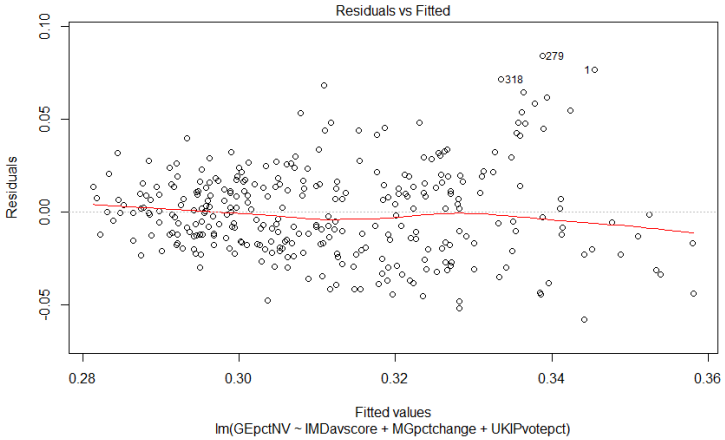
Appendix d - Cook's distance for multivariate regression, non-voting in 2015 general election



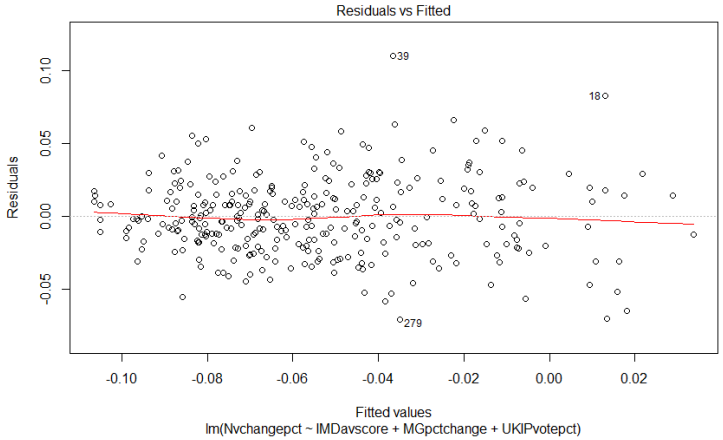
Appendix f - Cook's distance for multivariate regression, non-voting change



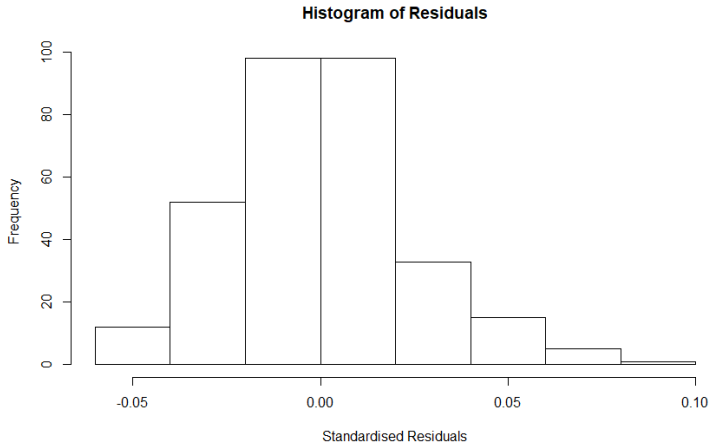
Appendix e - Cook's distance for multivariate regression, non-voting in EU referendum



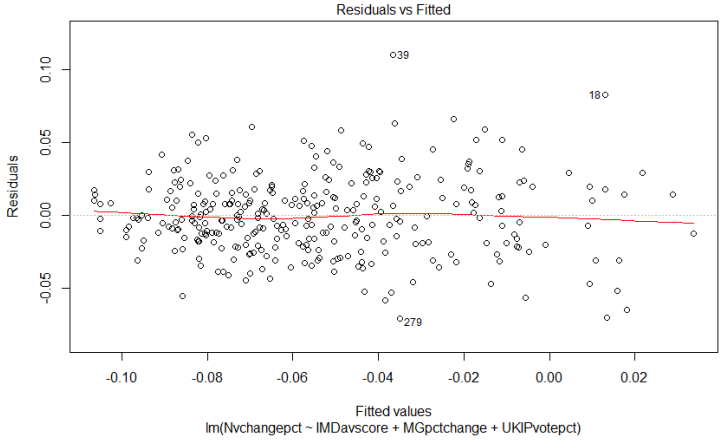
Appendix g - Residuals vs fitted values for multivariate regression, non-voting in 2015 general election



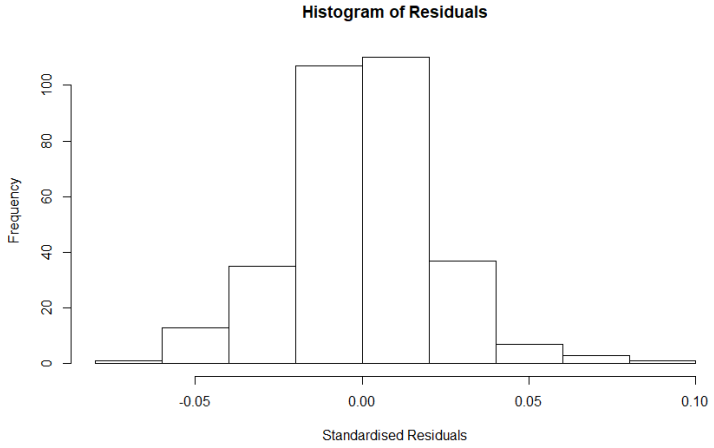
Appendix h - Residuals vs fitted values for multivariate regression, non-voting in EU referendum



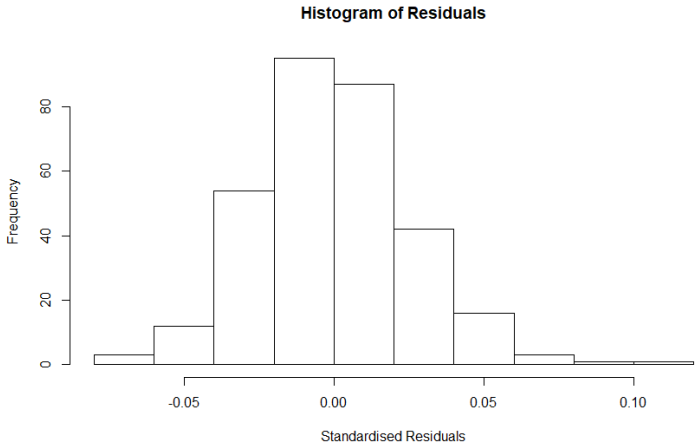
Appendix j - Histogram of residuals for multivariate regression, non-voting in 2015 general election



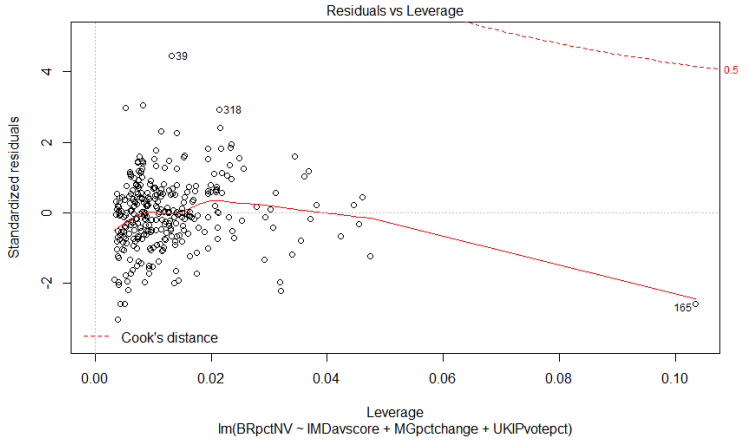
Appendix i - Residuals vs fitted values for multivariate regression, non-voting change



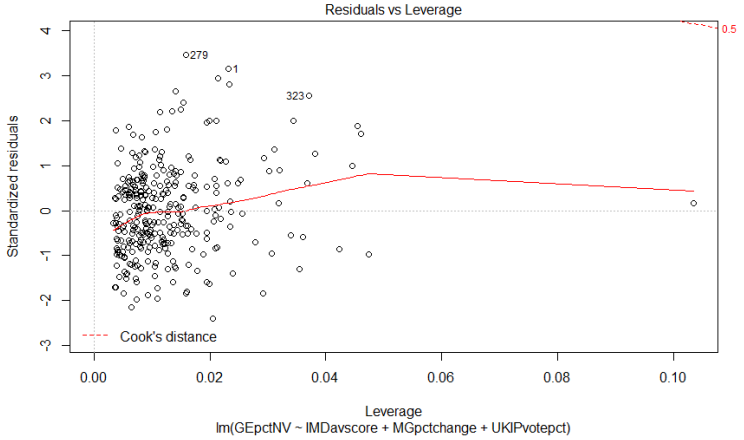
Appendix k – Histogram of residuals for multivariate regression, non-voting in EU referendum



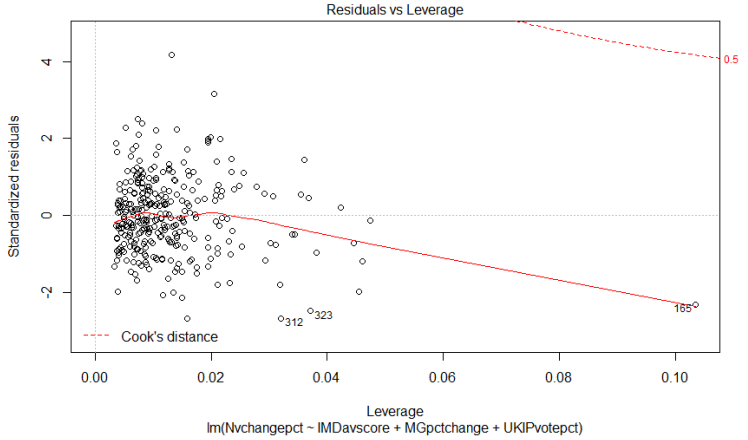
Appendix l - Histogram of residuals for multivariate regression, non-voting change



Appendix n – Residuals vs leverage for multivariate regression, non-voting in EU referendum



Appendix m - Residuals vs leverage for multivariate regression, non-voting in 2015 general election



Appendix o - Residuals vs leverage for multivariate regression, non-voting change